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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 20-F

(Mark One)

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
for the fiscal year ended December 31, 2016

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
For the transition period from \_\_\_\_\_ to \_\_\_\_\_

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
Date of event requiring this shell company report

Commission file number: 001-37891

**AC IMMUNE SA**  
(Exact name of Registrant as specified in its charter)

**Switzerland**  
(Jurisdiction of incorporation)

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(Address of principal executive offices)

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Copies to:

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**(212) 450-4000**

**Securities registered or to be registered pursuant to Section 12(b) of the Act:**

Title of each class  
Common Shares, nominal value CHF 0.02 per share

Name of each exchange on which registered  
The NASDAQ Global Market

**Securities registered or to be registered pursuant to Section 12(g) of the Act:**

None

**Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:**

None

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Indicate the number of outstanding shares of each of the issuer's classes of capital stock or common stock as of the close of the period covered by the annual report.

Common shares: 56,773,392

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes  No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

US GAAP

International Financial Reporting Standards as  
issued by the International Accounting Standards  
Board

Other

If "Other" has been checked in response to the previous question indicate by check mark which financial statement item the registrant has elected to follow.

Item 17  Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

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AC IMMUNE SA

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## PRESENTATION OF FINANCIAL AND OTHER INFORMATION

Unless otherwise indicated or the context otherwise requires, all references in this annual report on Form 20-F (the “Annual Report”) to “AC Immune” or the “Company,” “we,” “our,” “ours,” “us” or similar terms refer to AC Immune SA. The Company owns various trademark registrations and applications, and unregistered trademarks, including Morphomer™, SupraAntigen™ and its corporate logo. All other trademarks, trade names and service marks of other companies appearing in this Annual Report are the property of their respective owners. Solely for convenience, the trademarks and trade names in this Annual Report may be referred to without the © and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. The Company does not intend to use or display other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of the Company by, any other companies.

### Financial Statements

Our financial statements are presented in Swiss Francs and in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB. None of the financial statements were prepared in accordance with generally accepted accounting principles in the United States. The terms “dollar,” “USD” or “\$” refer to U.S. dollars and the term “Swiss Franc” and “CHF” refer to the legal currency of Switzerland, unless otherwise indicated. Unless otherwise indicated, certain Swiss Franc amounts and certain U.S. dollar amounts have been translated into U.S. dollars and Swiss Francs, respectively, at a rate of USD 1.0160 to CHF 1.00, the official exchange rate quoted as of December 31, 2016 by the U.S. Federal Reserve Bank. Such Swiss Franc and U.S. dollar amounts are not necessarily indicative of the amounts of U.S. dollars and Swiss Francs, respectively, that could actually have been purchased upon exchange of the other currency at the dates indicated or any other date, and such translated amounts have been provided solely for the convenience of the reader. We have made rounding adjustments to some of the figures included in this Annual Report. Accordingly, any numerical discrepancies in any table between totals and sums of the amounts listed are due to rounding.

### FORWARD-LOOKING STATEMENTS

This Annual Report contains statements that constitute forward-looking statements. All statements other than statements of historical facts contained in this Annual Report, including statements regarding our future results of operations and financial position, business strategy, product candidates, product pipeline, ongoing and planned clinical studies, including those of our collaboration partners, regulatory approvals, research and development costs, timing and likelihood of success, as well as plans and objectives of management for future operations are forward-looking statements. Many of the forward-looking statements contained in this Annual Report can be identified by the use of forward-looking words such as “anticipate,” “believe,” “could,” “expect,” “should,” “plan,” “intend,” “estimate,” “will” and “potential,” among others.

Forward-looking statements appear in a number of places in this Annual Report and include, but are not limited to, statements regarding our intent, belief or current expectations. Forward-looking statements are based on our management’s beliefs and assumptions and on information currently available to our management. Such statements are subject to risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to of various factors, including, but not limited to, those identified under “Item 3. Key Information – D. Risk Factors” in this Annual Report. These risks and uncertainties include factors relating to:

- The success of our and our collaboration partners’ clinical studies, and our and their ability to obtain regulatory approval and to commercialize crenezumab, our anti-tau antibody candidate, ACI-24 for Alzheimer’s disease, or AD and ACI-35;
  - The ability of our competitors to discover, develop or commercialize competing products before or more successfully than we do;
  - Our Morphomer proprietary technology platform and its success in building additional product candidates for our pipeline;
  - The identification of serious adverse, undesirable or unacceptable side effects related to our product candidates;
-

- Our ability to maintain our current strategic relationships with our collaboration partners;
- Failure to protect our, and not infringe on third parties', intellectual property rights throughout the world;
- Our ability to raise capital when needed in order to continue our product development programs or commercialization efforts;
- The Food and Drug Administration's and applicable foreign regulatory authorities' acceptance of data from studies we conduct outside the United States in the future;
- Our foreign private issuer status, the loss of which would require us to comply with the Exchange Act's domestic reporting regime and cause us to incur significant legal, accounting and other expenses;
- Our incorporation in Switzerland, the laws of which govern our corporate affairs and may differ from those applicable to companies incorporated in the United States; and
- Our failure to maintain an effective system of internal control over financial reporting, given the material weakness identified in connection with the audit of our financial statements as of and for the year ended December 31, 2014. This material weakness continued to exist as of December 31, 2016; and
- The other risk factors discussed under "Item 3. Key Information – D. Risk Factors."

These forward-looking statements speak only as of the date of this Annual Report and are subject to a number of risks, uncertainties and assumptions described under the sections in this Annual Report entitled "Item 3. Key Information—D. Risk Factors" and "Item 5. Operating and Financial Review and Prospects" and elsewhere in this Annual Report. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified and some of which are beyond our control, you should not rely on these forward-looking statements as predictions of future events. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

#### **ENFORCEMENT OF JUDGMENTS**

We are organized under the laws of Switzerland and our registered office and domicile is located in Ecublens, Switzerland. Moreover, a number of our directors and executive officers are not residents of the United States, and all or a substantial portion of the assets of such persons are located outside the United States. As a result, it may not be possible for investors to effect service of process within the United States upon us or upon such persons or to enforce against them judgments obtained in U.S. courts, including judgments in actions predicated upon the civil liability provisions of the federal securities laws of the United States. We have been advised by our Swiss counsel that there is doubt as to the enforceability in Switzerland of original actions, or in actions for enforcement of judgments of U.S. courts, of civil liabilities to the extent solely predicated upon the federal and state securities laws of the United States. Original actions against persons in Switzerland based solely upon the U.S. federal or state securities laws are governed, among other things, by the principles set forth in the Swiss Federal Act on Private International Law. This statute provides that the application of provisions of non-Swiss law by the courts in Switzerland shall be precluded if the result would be incompatible with Swiss public policy. Also, mandatory provisions of Swiss law may be applicable regardless of any other law that would otherwise apply. Switzerland and the United States do not have a treaty providing for reciprocal recognition of and enforcement of judgments in civil and commercial matters. The recognition and enforcement of a judgment of the courts of the United States in Switzerland is governed by the principles set forth in the Swiss Federal Act on Private International Law. This statute provides in principle that a judgment rendered by a non-Swiss court may be enforced in Switzerland only if:

- the non-Swiss court had jurisdiction pursuant to the Swiss Federal Act on Private International Law;
- the judgment of such non-Swiss court has become final and non-appealable;
- the judgment does not contravene Swiss public policy;
- the court procedures and the service of documents leading to the judgment were in accordance with the due process of law; and

- no proceeding involving the same position and the same subject matter was first brought in Switzerland, or adjudicated in Switzerland, or was earlier adjudicated in a third state and this decision is recognizable in Switzerland.

## PART I

### ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

#### A. Directors and senior management

Not applicable.

#### B. Advisers

Not applicable.

#### C. Auditors

Not applicable.

### ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

#### A. Offer statistics

Not applicable.

#### B. Method and expected timetable

Not applicable.

### ITEM 3. KEY INFORMATION

#### A. Selected Financial Data

The following tables summarize our financial data as of the dates and for the periods indicated. The financial data for the years ended December 31, 2016, 2015, and 2014 has been derived from our audited financial statements, which have been prepared in accordance with International Financial Reporting Standards, or IFRS, as issued by the International Accounting Standards Board, or IASB, and audited in accordance with the standards of the U.S. Public Company Accounting Oversight Board, and included elsewhere in this Annual Report.

Our historical results are not necessarily indicative of the results that may be expected in the future. The following summary financial data should be read in conjunction with “Item 5. Operating and Financial Review and Prospects” and our financial statements included elsewhere in this Annual Report.

We maintain our books and records and our audited financial statements in Swiss Francs (CHF).

(in CHF '000 except for share and per share data)	For the Years Ended December 31,		
	2016	2015	2014
<b>Income Statement Data:</b>			
Revenue	23,214	39,090	30,269
Research and development expenses	(25,774)	(17,049)	(16,116)
General and administrative expenses	(7,896)	(3,417)	(3,436)
Operating income/(loss)	(10,456)	18,624	10,717
Finance result—net	3,360	1,646	27
Net income/(loss) before tax	(7,096)	20,270	10,744
Income taxes	—	—	—
Net income/(loss) for the period	(7,096)	20,270	10,744

(in CHF '000 except for share and per share data)	For the Years Ended December 31,		
	2016	2015	2014
Earnings per share in CHF (basic)(1)(2)	(0.14)	0.47	0.25
Earnings per share in CHF (fully diluted)(2)	(0.14)	0.44	0.24
Weighted-average number of shares used to compute earnings per share basic	50,096,859	43,412,250	42,684,750
Weighted-average number of shares used to compute earnings per share fully diluted	50,096,859	46,043,198	45,552,500

(1) For the periods prior to the closing of our initial public offering on September 23, 2016, earnings per share includes preferred shares outstanding. These preferred shares were converted on a one-for-one basis upon closing of our initial public offering on September 23, 2016. Amounts for fiscal years 2015 and 2014 have also been adjusted for the 250-for-1 stock split effective October 23, 2015.

(2) Earnings per share calculations do not give effect to the Series E Private Placement Extension or the CS AG Share Issuance.

	As of December 31,		
	2016	2015	2014
	(in CHF '000)		
Cash and cash equivalents	152,210	76,522	3,306
Total assets	156,100	79,931	30,296
Accumulated deficit	(46,921)	(40,381)	(60,455)
Total equity	142,380	71,043	23,467
Total equity and liabilities	156,100	79,931	30,296
Share capital	1,135	928	854

### Exchange Rate Information

The following table sets forth, for the periods indicated, the high, low, average and period-end exchange rates for the purchase of U.S. dollars expressed in CHF per U.S. dollar. The average rate is calculated by using the average of the U.S. Federal Reserve Bank's reported exchange rates on each day during a monthly period and on the last day of each month during an annual period. On March 10, 2017, the exchange rate as reported by the U.S. Federal Reserve Bank was CHF 1.0104 to \$1.00. In this Annual Report, translations from CHF to U.S. dollars were made at the rate of CHF 1.0160 to \$1.00, the official exchange rate quoted as of December 31, 2016 by the U.S. Federal Reserve Bank.

(CHF per U.S. dollar)	Period-end	Average for Period	Low	High
	<b>Years Ended December 31:</b>			
2012	0.9155	0.9337	0.8949	0.9957
2013	0.8904	0.9269	0.8856	0.9814
2014	0.9934	0.9147	0.8712	0.9934
2015	1.0017	0.9628	0.8488	1.0305
2016	1.0160	0.9848	0.9536	1.0334
<b>Months Ended:</b>				
September 30, 2016	0.9694	0.9732	0.9655	0.9804
October 31, 2016	0.9890	0.9876	0.9740	0.9951
November 30, 2016	1.0187	0.9963	0.9682	1.0187
December 31, 2016	1.0160	1.0194	1.0065	1.0334
January 31, 2017	0.9888	1.0075	0.9888	1.0266
February 28, 2017	1.0022	1.0010	0.9894	1.0083
March 2017 (through March 10, 2017)	1.0104	1.0117	1.0072	1.0146



**B. Capitalization and indebtedness**

Not applicable.

**C. Reasons for the offer and use of proceeds**

Not applicable.

**D. Risk factors**

*You should carefully consider the risks and uncertainties described below and the other information in this Annual Report before making an investment in our common shares. Our business, financial condition or results of operations could be materially and adversely affected if any of these risks occurs, and as a result, the market price of our common shares could decline and you could lose all or part of your investment. This Annual Reports also contains forward-looking statements that involve risks and uncertainties. See "Forward-Looking Statements." Our actual results could differ materially and adversely from those anticipated in these forward-looking statements as a result of certain factors.*

**Risks Related to Our Business**

*We depend heavily on the success of crenezumab, and, to a lesser extent, our anti-tau antibody candidate, ACI-24 for AD and ACI-35, all of which are in clinical development. If our clinical studies are unsuccessful, we or our collaboration partner do not obtain regulatory approval or we are unable to commercialize crenezumab, our anti-tau antibody candidate, ACI-24 for AD and ACI-35, or we experience significant delays in doing so, our business, financial condition and results of operations will be materially adversely affected.*

We currently have no products approved for sale and have invested a significant portion of our efforts and financial resources in the development of crenezumab, our anti-tau antibody candidate, ACI-24 for AD and ACI-35, all of which are in clinical development. Our ability to generate product revenues, which we do not expect will occur for at least the next several years, if ever, will depend heavily on successful clinical development, obtaining regulatory approval and eventual commercialization of these product candidates. We currently generate no revenues from sales of any drugs, and we may never be able to develop or commercialize a marketable drug. The success of our current and future product candidates will depend on several factors, including the following:

- completing clinical studies that demonstrate the efficacy and safety of our product candidates;
- receiving marketing approvals from applicable regulatory authorities;
- establishing commercial manufacturing capabilities;
- launching commercial sales, marketing and distribution operations;
- acceptance of our product candidates by patients, the medical community and third-party payors;
- a continued acceptable safety profile following approval;
- competing effectively with other therapies; and
- qualifying for, obtaining, maintaining, enforcing and defending our intellectual property rights and claims and not infringing on third parties' intellectual property rights.

If we or our collaboration partner do not achieve one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize our current or future product candidates, which would materially adversely affect our business, financial condition and results of operations.

*Results of early clinical studies may not be predictive of future study results.*

Positive or timely results from preclinical or early stage studies do not ensure positive or timely results in late stage clinical studies or product approval by the U.S. Food and Drug Administration, or the FDA, the European

Medicines Agency, or the EMA, or comparable foreign regulatory authorities. Products that show positive preclinical or early clinical results may not show sufficient safety or efficacy in later stage clinical studies and therefore may fail to obtain regulatory approvals. For example, our collaboration partner Genentech may fail to achieve success in Phase 3 clinical studies of crenezumab. In addition, preclinical and clinical data are often susceptible to varying interpretations and analyses. Many companies that believed their product candidates performed satisfactorily in preclinical and clinical studies have nonetheless failed to obtain marketing approval for the product candidates. The FDA, the EMA and comparable foreign regulatory authorities have substantial discretion in the approval process and in determining when or whether regulatory approval will be obtained for any of our product candidates. Even if we believe the data collected from clinical studies of our product candidates are promising, such data may not be sufficient to support approval by the FDA, the EMA or any other regulatory authority.

In some instances, there can be significant variability in safety and/or efficacy results between different studies of the same product candidate due to numerous factors, including changes in study procedures set forth in protocols, differences in the size and type of the patient populations, adherence to the dosing regimen and other study protocols and the rate of dropout among clinical study participants. In the case of our late stage clinical product candidates, results may differ in general on the basis of the larger number of clinical study sites and additional countries and languages involved in Phase 3 clinical studies.

Clinical studies are, or will be, based on patient reported outcomes, some of which are or will be captured daily by study participants with electronic diaries. We have no assurance and cannot rely on past experience that the high frequency of questioning is not influencing the measured outcome. In addition, low compliance with daily reporting requirements may impact the studies' validity or statistical power. We cannot assure you that any Phase 2, Phase 3 or other clinical studies that either we or our collaboration partners may conduct will demonstrate consistent or adequate efficacy and safety to obtain regulatory approval to market our product candidates.

If we or our collaboration partners are required to conduct additional clinical studies or other testing of any of our current or future product candidates that we or our collaboration partners develop beyond the studies and testing that we or our collaboration partners contemplate, if we or our collaboration partners are unable to successfully complete clinical studies of our product candidates or other testing, if the results of these studies or tests are unfavorable or are only modestly favorable or if there are safety concerns associated with our current or future product candidates, we may:

- be delayed in obtaining marketing approval for our product candidates;
- not obtain marketing approval;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or significant safety warnings, including boxed warnings;
- be subject to additional post-marketing testing or other requirements; or
- remove the product from the market after obtaining marketing approval.

Our product development costs will also increase if we experience delays in testing or marketing approvals and we may be required to obtain additional funds to complete clinical studies. We cannot assure you that our clinical studies will begin as planned or be completed on schedule, if at all, or that we will not need to restructure our studies after they have begun. Significant clinical study delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do or shorten any periods during which we have the exclusive right to commercialize our product candidates, which may harm our business and results of operations. In addition, some of the factors that cause, or lead to, clinical study delays may ultimately lead to the denial of regulatory approval of our product candidates.

***Additional competitors could enter the market with generic versions of our products, which may result in a material decline in sales of affected products.***

Under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, a pharmaceutical manufacturer may file an abbreviated new drug application, or ANDA, seeking approval of a generic copy of an approved innovator product. Under the Hatch-Waxman Act, a manufacturer may also submit a new drug application, or NDA, under section 505(b)(2) that references the FDA's prior approval of the innovator product. A 505(b)(2) NDA product may be for a new or improved version of the original innovator product. Hatch-Waxman also provides for certain periods of regulatory exclusivity, which preclude FDA approval (or in some circumstances, FDA filing and reviewing) of an ANDA or 505(b)(2) NDA. These include, subject to certain exceptions, the period during which an FDA-approved drug is subject to orphan drug exclusivity. In addition to the benefits of regulatory exclusivity, an innovator NDA holder may have patents claiming the active ingredient, product formulation or an approved use of the drug, which would be listed with the product in the FDA publication, "Approved Drug Products with Therapeutic Equivalence Evaluations," known as the "Orange Book." If there are patents listed in the Orange Book, a generic or 505(b)(2) applicant that seeks to market its product before expiration of the patents must include in the ANDA what is known as a "Paragraph IV certification," challenging the validity or enforceability of, or claiming non-infringement of, the listed patent or patents. Notice of the certification must be given to the innovator, too, and if within 45 days of receiving notice the innovator sues to protect its patents, approval of the ANDA is stayed for 30 months, or as lengthened or shortened by the court.

Accordingly, if crenezumab, ACI-24, ACI-35 and our anti-tau antibody candidate are approved, competitors could file ANDAs for generic versions of crenezumab, ACI-24 and ACI-35, or 505(b)(2) NDAs that reference crenezumab, ACI-24, ACI-35 or our anti-tau antibody candidate, respectively. If there are patents listed for crenezumab, ACI-24 and ACI-35 in the Orange Book, those ANDAs and 505(b)(2) NDAs would be required to include a certification as to each listed patent indicating whether the ANDA applicant does or does not intend to challenge the patent. We cannot predict whether any patents issuing from our pending patent applications will be eligible for listing in the Orange Book, how any generic competitor would address such patents, whether we would sue on any such patents, or the outcome of any such suit.

We may not be successful in securing or maintaining proprietary patent protection for products and technologies we develop or license. Moreover, if any patents that are granted and listed in the Orange Book are successfully challenged by way of a Paragraph IV certification and subsequent litigation, the affected product could immediately face generic competition and its sales would likely decline rapidly and materially. Should sales decline, we may have to write off a portion or all of the intangible assets associated with the affected product and our results of operations and cash flows could be materially and adversely affected.

***One of our collaboration partners is evaluating a product candidate in the same indication as our lead product candidate crenezumab.***

Our collaboration partner Genentech is a subsidiary of Roche, which is evaluating gantenerumab, a product candidate for the same indication as our lead product candidate crenezumab, and Roche's collaboration partner MorphoSys AG announced in March 2017 that Roche plans to initiate a phase 3 program for gantenerumab in patients with prodromal to mild AD. Our collaboration agreement with Genentech for crenezumab provides Genentech with control over, and responsibility for, the clinical development process, including obtaining regulatory and marketing approvals, manufacturing costs and sales and marketing costs. In addition, the collaboration agreement provides that Genentech may terminate the agreement at any time by providing three months' notice to us. As a result, Roche may choose to devote more time and resources to advancing gantenerumab instead of crenezumab, which could render crenezumab non-competitive and limit or make it more difficult for us to achieve or maintain profitability with crenezumab. Should this occur, our business, financial condition and results of operations could be materially impacted.

***The successful commercialization of our product candidates will depend in part on the extent to which governmental authorities and health insurers establish adequate coverage and reimbursement levels and pricing policies.***

The successful commercialization of our product candidates will depend, in part, on the extent to which coverage and reimbursement for our products will be available from government and health administration authorities, private health insurers and other third-party payors. To manage healthcare costs, many governments and

third-party payors increasingly scrutinize the pricing of new technologies and require greater levels of evidence of favorable clinical outcomes and cost-effectiveness before extending coverage. In light of such challenges to prices and increasing levels of evidence of the benefits and clinical outcomes of new technologies, we cannot be sure that coverage will be available for any of our current or future product candidates that we commercialize and, if available, that the reimbursement rates will be adequate. If we are unable to obtain adequate levels of coverage and reimbursement for our product candidates, their marketability will be negatively and materially impacted.

Third party payors may deny coverage and reimbursement status altogether of a given drug product, or cover the product but may also establish prices at levels that are too low to enable us to realize an appropriate return on our investment in product development. Because the rules and regulations regarding coverage and reimbursement change frequently, in some cases at short notice, even when there is favorable coverage and reimbursement, future changes may occur that adversely impact the favorable status. Further, the net reimbursement for drug products may be subject to additional reductions if there are changes to laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States.

The unavailability or inadequacy of third-party coverage and reimbursement could have a material adverse effect on the market acceptance of our product candidates and the future revenues we may expect to receive from those products. In addition, we are unable to predict what additional legislation or regulation relating to the healthcare industry or third-party coverage and reimbursement may be enacted in the future, or what effect such legislation or regulation would have on our business.

***Our products may not gain market acceptance, in which case we may not be able to generate product revenues, which will materially adversely affect our business, financial condition and results of operations.***

Even if the FDA, the EMA or other regulatory authority approves the marketing of any product candidates that we develop, physicians, healthcare providers, patients or the medical community may not accept or use them. Efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources and may not be successful. If any of our current or future product candidates does not achieve an adequate level of acceptance, we may not generate significant product revenues or any profits from operations. The degree of market acceptance of our product candidates that are approved for commercial sale will depend on a variety of factors, including:

- how clinicians and potential patients perceive our novel products;
- the timing of market introduction;
- the number and clinical profile of competing products;
- our ability to provide acceptable evidence of safety and efficacy;
- the prevalence and severity of any side effects;
- relative convenience and ease of administration;
- cost-effectiveness;
- patient diagnostics and screening infrastructure in each market;
- marketing and distribution support;
- availability of coverage, reimbursement and adequate payment from health maintenance organizations and other third-party payors, both public and private; and
- other potential advantages over alternative treatment methods.

If our product candidates fail to gain market acceptance, this will have a material adverse impact on our ability to generate revenues to provide a satisfactory, or any, return on our investments. Even if some products achieve market acceptance, the market may prove not to be large enough to allow us to generate significant revenues.

In addition, the potential market opportunity of our product candidates is difficult to precisely estimate. Our estimates of the potential market opportunity are predicated on several key assumptions such as industry knowledge and publications, third-party research reports and other surveys. These assumptions involve the exercise of significant judgment on the part of our management, are inherently uncertain and the reasonableness of these assumptions could not have been assessed by an independent source in every detail. If any of the assumptions proves to be inaccurate, then the actual market for our product candidates could be smaller than our estimates of the potential market opportunity. If the actual market for our product candidates is smaller than we expect, or if any approved products fail to achieve an adequate level of acceptance by physicians, health care payors and patients, our product revenue may be limited and it may be more difficult for us to achieve or maintain profitability.

***We depend on enrollment of patients in our clinical studies for our product candidates. If we are unable to enroll patients in our clinical studies, our research and development efforts could be materially adversely affected.***

Successful and timely completion of clinical studies will require that we enroll a sufficient number of patient candidates. Studies may be subject to delays as a result of patient enrollment taking longer than anticipated or patient withdrawal. Patient enrollment depends on many factors, including the size and nature of the patient population, eligibility criteria for the study, the proximity of patients to clinical sites, the design of the clinical protocol, the availability of competing clinical studies, the availability of new drugs approved for the indication the clinical study is investigating, and clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies. In the Phase 3 clinical studies of crenezumab, our collaboration partner Genentech will seek to enroll patients in the early stages of AD and it may be unable to successfully identify an adequate number of eligible patients.

The specific target population of patients and therapeutic time windows may make it difficult for us to enroll enough patients to complete our clinical studies in a timely and cost-effective manner. Delays in the completion of any clinical study of our product candidates will increase our costs, slow down our product candidate development and approval process and delay or potentially jeopardize our ability to commence product sales and generate revenue. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical studies may also ultimately lead to the denial of regulatory approval of our product candidates.

***If serious adverse, undesirable or unacceptable side effects are identified during the development of our product candidates or following approval, if any, we may need to abandon our development of such product candidates, the commercial profile of any approved label may be limited, or we may be subject to other significant negative consequences following marketing approval, if any.***

If our product candidates are associated with serious adverse, undesirable or unacceptable side effects, we may need to abandon their development or limit development to certain uses or sub-populations in which such side effects are less prevalent, less severe or more acceptable from a risk-benefit perspective. Many compounds that initially showed promise in preclinical or early stage testing have later been found to cause side effects that restricted their use and prevented further development of the compound for larger indications.

Genentech has not disclosed detailed information about serious adverse events associated with crenezumab either publicly or to us. However, at the 2014 Alzheimer's Association International Conference, it was reported that in the combined Phase 2 study populations, serious adverse events occurred at similar rates in patients treated with crenezumab (16.5%) and in patients given a placebo (11.9%). In addition, adverse events identified in the clinical studies of crenezumab initiated to date have included inflammation of the throat and nasal passages, urinary tract infections and upper respiratory infections. At the 2016 Clinical Trials on Alzheimer's Disease (CTAD) meeting it was reported that in a Phase 1b study to evaluate higher doses of crenezumab, no investigator-assessed drug-related serious adverse events occurred. [Serious adverse events occurring in three patients of the blinded study](#) include malignant melanoma, an accidental overdose, pneumonia and subdural hematoma and atypical chest pain. In addition, five serious adverse events were observed in three patients during clinical studies of ACI-35, although we believe that these serious adverse events were not related to the treatment. Acute pyelonephritis, or kidney infection, and dizziness were observed in one patient and sick sinus syndrome was reported for a second patient, and these were labeled as possibly related due to the close timing proximity with the last administration of ACI-35. In the third patient, urosepsis, or blood poisoning, and pyelonephritis were described and classified as unlikely related to the drug. A relationship between these serious adverse effects and ACI-35 cannot be ruled out, however. Nine non-drug related serious adverse effects were observed during clinical studies of ACI-24. They were prolongation of

hospitalization after planned hip replacement or removal of colon polyp, fall, acute chest pain, death due to Alzheimer's disease or myocardial infarction (heart attack), colonic cancer, wound infections, pneumonia and pancreatitis related to gallstones.

Occurrence of serious procedure- or treatment-related side effects could impede clinical study enrollment and receipt of marketing approval from the FDA, the EMA and comparable foreign regulatory authorities. Adverse events could also adversely affect physician or patient acceptance of our product candidates.

Additionally if one or more of our product candidates receives marketing approval, and we or others later identify undesirable side effects caused by such products, a number of potentially significant negative consequences could result, including:

- regulatory authorities may withdraw approvals of such product and require us to take any approved products off the market;
- regulatory authorities may require the addition of labeling statements, specific warnings, a contraindication or field alerts to physicians and pharmacies;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- we may be required to change the way the product is administered, conduct additional studies or change the labeling of the product;
- we may be subject to limitations in how we promote the product;
- sales of the product may decrease significantly;
- we could be sued and held liable for harm caused to patients; and
- our reputation and physician or patient acceptance of our products may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects.

***We operate in highly competitive and rapidly changing industries, which may result in others discovering, developing or commercializing competing products before or more successfully than we do.***

The biopharmaceutical and pharmaceutical industries are highly competitive and subject to significant and rapid technological change. Our success is highly dependent on our ability to discover, develop and obtain marketing approval for new and innovative products on a cost-effective basis and to market them successfully. In doing so, we face and will continue to face intense competition from a variety of businesses, including large, fully integrated pharmaceutical companies, specialty pharmaceutical companies and biopharmaceutical companies, academic institutions, government agencies and other private and public research institutions in Europe, the United States and other jurisdictions. Many of our potential competitors, alone or with their strategic partners, have substantially greater financial, technical and human resources than we do and significantly greater experience in the discovery and development of product candidates, obtaining FDA and other regulatory approvals of treatments and the commercialization of those treatments. Mergers and acquisitions in the biotechnology and pharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market.

We believe that our key competitor product candidates are (i) aducanumab (Biogen) and gantenerumab (Roche) for crenezumab; (ii) CAD-106 (Novartis) and ABvac 40 (Araclon Biotech) for ACI-24; and (iii) AADVAC1 (Axon Neurosciences) for ACI-35, as described under "Business—Competition."

The highly competitive nature of and rapid technological changes in the biotechnology and pharmaceutical industries could render our product candidates or our technology obsolete or non-competitive. Our competitors may, among other things:

- develop and commercialize products that are safer, more effective, less expensive, or more convenient or easier to administer;
- obtain quicker regulatory approval;
- establish superior intellectual property and proprietary positions;
- have access to more manufacturing capacity;
- implement more effective approaches to sales and marketing; or
- form more advantageous strategic alliances.

Should any of these occur, our business, financial condition and results of operations could be materially adversely affected.

***We may not be successful in our efforts to use and expand our Morphomer proprietary technology platform to build additional product candidates for our pipeline.***

A key element of our strategy is to use and expand our Morphomer proprietary technology platform to create unique drug therapies for conformational diseases, such as AD, and progress these product candidates through clinical development. Although our research and development efforts to date have resulted in a pipeline of product candidates, we may not be able to develop product candidates that are safe and effective. Even if we are successful in continuing to build our pipelines, the potential product candidates that we identify may not be suitable for clinical development, including as a result of being shown to have harmful side effects or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance. If we do not continue to successfully develop and begin to commercialize product candidates, we will face difficulty in obtaining product revenues in future periods, which could result in significant harm to our financial position and adversely affect the price of our common shares.

***Our business is subject to economic, political, regulatory and other risks associated with international operations.***

Our business is subject to risks associated with conducting business internationally. We and a number of our suppliers and collaborative and clinical study relationships are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- economic weakness, including inflation, or political instability in particular non-U.S. economies and markets;
- differing regulatory requirements for drug approvals in non-U.S. countries;
- potentially reduced protection for intellectual property rights;
- difficulties in compliance with non-U.S. laws and regulations;
- changes in non-U.S. regulations and customs, tariffs and trade barriers;
- changes in non-U.S. currency exchange rates and currency controls;
- changes in a specific country's or region's political or economic environment;
- trade protection measures, import or export licensing requirements or other restrictive actions by U.S. or non-U.S. governments;

- negative consequences from changes in tax laws;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- difficulties associated with staffing and managing international operations, including differing labor relations;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism, or natural disasters including earthquakes, typhoons, floods and fires.

***We have no history of commercializing pharmaceutical products, which may make it difficult to evaluate the prospects for our future viability.***

We began our operations in 2003. Our operations to date have been limited to financing and staffing our company, developing our technology and developing crenezumab and our other product candidates. We have not yet demonstrated an ability to successfully complete a large-scale, pivotal clinical study, obtain marketing approval, manufacture a commercial scale product or conduct sales and marketing activities necessary for successful product commercialization. Consequently, predictions about our future success or viability may not be as accurate as they could be if we had a history of successfully developing and commercializing pharmaceutical products.

***Business interruptions could delay us in the process of developing our product candidates.***

Loss of our laboratory facilities through fire or other causes could have an adverse effect on our ability to continue to conduct our business. We currently have insurance coverage to compensate us for such business interruptions; however, such coverage may prove insufficient to fully compensate us for the damage to our business resulting from any significant property or casualty loss to our facilities.

***Our future growth and ability to compete depends on retaining our key personnel and recruiting additional qualified personnel.***

Our success depends upon the continued contributions of our key management, scientific and technical personnel, many of whom have substantial experience with or been instrumental for us and our projects. Members of our key management include Dr. Andrea Pfeifer, our Chief Executive Officer; Dr. Andreas Muhs, our Chief Scientific Officer; Dr. Wolfgang Barth, our Director of Development; Joerg Homstein, our Chief Financial Officer (who is expected to join our team on April 1, 2017); and Jean-Fabien Monin, our Chief Administrative Officer.

The loss of our key managers and senior scientists could delay our research and development activities. Laws and regulations on executive compensation, including legislation in our home country, Switzerland, may restrict our ability to attract, motivate and retain the required level of qualified personnel. In Switzerland, new legislation affecting public companies has been passed that, among other things, (i) imposes an annual binding shareholders' "say on pay" vote with respect to the compensation of executive management, including executive officers and the board of directors; (ii) prohibits severance, advances, transaction premiums and similar payments to executive officers and directors; and (iii) requires companies to specify various compensation-related matters in their articles of association, thus requiring them to be approved by a shareholders' vote. In addition, the competition for qualified personnel in the biopharmaceutical and pharmaceutical field is intense, and our future success depends upon our ability to attract, retain and motivate highly-skilled scientific, technical and managerial employees. We face competition for personnel from other companies, universities, public and private research institutions and other organizations. If our recruitment and retention efforts are unsuccessful in the future, it may be difficult for us to implement business strategy, which could have a material adverse effect on our business.



***We expect to expand our development, and regulatory capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.***

We expect to experience growth in the number of our employees and the scope of our operations. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

***We may become exposed to costly and damaging liability claims, either when testing our product candidates in the clinic or at the commercial stage; and our product liability insurance may not cover all damages from such claims.***

We are exposed to potential product liability and professional indemnity risks that are inherent in the research, development, manufacturing, marketing and use of pharmaceutical products. Currently we have no products that have been approved for commercial sale; however, our current and future use of product candidates in clinical studies, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers, pharmaceutical companies or others selling such products. Any claims against us, regardless of their merit, could be difficult and costly to defend and could materially adversely affect the market for our product candidates or any prospects for commercialization of our product candidates.

Although the clinical study process is designed to identify and assess potential side effects, it is always possible that a drug, even after regulatory approval, may exhibit unforeseen side effects. If any of our product candidates were to cause adverse side effects during clinical studies or after approval of the product candidate, we may be exposed to substantial liabilities. Physicians and patients may not comply with any warnings that identify known potential adverse effects and patients who should not use our product candidates.

We purchase liability insurance in connection with the clinical studies that we undertake in amounts that we consider to be consistent with industry norms. It is possible that our liabilities could exceed our insurance coverage. We intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for any of our product candidates. However, we may not be able to maintain insurance coverage at a reasonable cost or obtain insurance coverage that will be adequate to satisfy any liability that may arise. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Should any of the events described above occur, this could have a material adverse effect on our business, financial condition and results of operations.

***We may seek to obtain orphan drug designation for certain of our product candidates. Orphan drug designation may not ensure that we will enjoy market exclusivity in a particular market, and if we fail to obtain or maintain orphan drug exclusivity for such product candidates, we may be subject to earlier competition and our potential revenue will be reduced.***

Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is intended to treat a rare disease or condition, defined as a patient population of fewer than 200,000 in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States. In the European Union, the EMA's Committee for Orphan Medicinal Products, or COMP, grants orphan drug designation to promote the development of products that are intended for the diagnosis, prevention, or treatment of a life-threatening or chronically debilitating condition affecting not more than five in 10,000 persons in the European Union. Additionally, designation is granted for products intended for the diagnosis, prevention, or treatment of a life-threatening, seriously debilitating or serious and chronic condition when, without incentives, it is unlikely that sales of the drug in the European Union would be sufficient to justify the necessary investment in developing the drug or biological

product or where there is no satisfactory method of diagnosis, prevention, or treatment, or, if such a method exists, the medicine must be of significant benefit to those affected by the condition.

In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical study costs, tax advantages and user-fee waivers. In addition, if a product receives the first FDA approval for the indication for which it has orphan designation, the product is entitled to orphan drug exclusivity, which means the FDA may not approve any other application to market the same drug for the same indication for a period of seven years, except in limited circumstances, such as a showing of clinical superiority over the product with orphan exclusivity or where the manufacturer is unable to assure sufficient product quantity. In the European Union, orphan drug designation entitles a party to financial incentives such as reduction of fees or fee waivers and ten years of market exclusivity following drug or biological product approval. This period may be reduced to six years if the orphan drug designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity.

We may not be able to obtain orphan drug designation for any of our product candidates, and even if we do, we may not be the first to obtain marketing approval for any particular orphan indication due to the uncertainties associated with developing pharmaceutical products. Further, even if we obtain orphan drug designation for a product, that exclusivity may not effectively protect the product from competition because different drugs with different active moieties can be approved for the same condition. Orphan drug designation neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process.

***Due to our limited resources and access to capital, we must prioritize development of certain product candidates.***

Because we have limited resources and access to capital to fund our operations, we must decide which product candidates to pursue and the amount of resources to allocate to each. As such, we are currently primarily focused on the development of ACI-24 and ACI-35 for the treatment of AD. Our decisions concerning the allocation of research, collaboration, management and financial resources toward particular compounds, product candidates or therapeutic areas may not lead to the development of viable commercial products and may divert resources away from better opportunities. Similarly, our potential decisions to delay, terminate or collaborate with third parties in respect of certain product development programs may also prove not to be optimal and could cause us to miss valuable opportunities. If we make incorrect determinations regarding the market potential of our product candidates or misread trends in the biopharmaceutical industry, in particular for neurological disorders, our business, financial condition and results of operations could be materially adversely affected.

***Our research and development activities could be affected or delayed as a result of possible restrictions on animal testing.***

Certain laws and regulations require us to test our product candidates on animals before initiating clinical studies in humans. Animal testing activities have been the subject of controversy and adverse publicity. Animal rights groups and other organizations and individuals have attempted to stop animal testing activities by pressing for legislation and regulation in these areas and by disrupting these activities through protests and other means. To the extent the activities of these groups are successful, our research and development activities may be interrupted, delayed or become more expensive.

***Our information technology systems could face serious disruptions that could adversely affect our business.***

Our information technology and other internal infrastructure systems, including corporate firewalls, servers, leased lines and connection to the internet, face the risk of systemic failure that could disrupt our operations. A significant disruption in the availability of our information technology and other internal infrastructure systems could cause interruptions in our collaborations with our partners and delays in our research and development work. The loss of product development or clinical study data could result in delays in our regulatory approval efforts and significantly increase our costs. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability and our development programs and the development of our product candidates could be delayed.

***We have never commercialized a product candidate before and may lack the necessary expertise, personnel and resources to successfully commercialize our products on our own or together with suitable partners.***

We have never commercialized a product candidate, and we currently have no sales force, marketing or distribution capabilities. To achieve commercial success for our product candidates, we will have to develop our own sales, marketing and supply organization or outsource these activities to a third party.

Factors that may affect our ability to commercialize our product candidates on our own include recruiting and retaining adequate numbers of effective sales and marketing personnel, obtaining access to or persuading adequate numbers of physicians to prescribe our drug candidates and other unforeseen costs associated with creating an independent sales and marketing organization. Developing a sales and marketing organization requires significant investment, is time-consuming and could delay the launch of our product candidates. We may not be able to build an effective sales and marketing organization. If we are unable to build our own distribution and marketing capabilities or to find suitable partners for the commercialization of our product candidates, we may not generate revenues from them or be able to reach or sustain profitability.

#### **Risks Related to Our Relationships with Third Parties**

***If we fail to maintain our current strategic relationships with Genentech, Janssen, Piramal and other of our current or future strategic partners, our business, commercialization prospects and financial condition may be materially adversely affected.***

We have two partnerships with Genentech. In 2006, we granted Genentech an exclusive, worldwide license for crenezumab. In 2012, we entered into a second partnership to commercialize our anti-tau antibodies for use as immunotherapies. We partner with Janssen Pharmaceuticals, Inc. (Janssen) to develop and commercialize therapeutic anti-tau vaccines for the treatment of AD and potentially other tauopathies. We also have a diagnostic partnership with Piramal Imaging for a compound from our Morphomer chemical library that binds pathogenic tau for use as a positron emission tomography, or PET, tracer. Genentech has the right to terminate its agreements with us at any time and for any reason upon providing us with a certain notice period. After a specified amount of time, Janssen and Piramal will also each have the right to terminate their agreements with us for any reason upon providing us with a certain notice period. If Genentech, Janssen, Piramal or other of our current or future strategic partners terminates its agreement with us at any time, it could delay or prevent development of our product candidates and materially harm our business, financial condition, commercialization prospects and results of operations.

Good relationships with Genentech, Janssen, Piramal and other of our current or future strategic partners are important for our business prospects. If our relationships with Genentech, Janssen, Piramal or other of our current or future strategic partners were to deteriorate substantially or Genentech, Janssen, Piramal or other of our current or future strategic partners were to challenge our use of their intellectual property or our calculations of the payments we owe under our agreements, our business, financial condition, commercialization prospects and results of operations could be materially adversely affected.

Lastly, our collaboration agreement with Genentech for crenezumab provides Genentech with control over, and responsibility for, the clinical development process, including obtaining regulatory and marketing approvals, manufacturing costs and sales and marketing costs. Our other existing collaboration agreements provide our collaboration partners with similar control over the clinical development process and future collaboration agreements may also relinquish development control to our partners. Genentech or our other current or future collaboration partners may separately pursue competing products, therapeutic approaches or technologies to develop treatments for the diseases targeted by us or our collaborative efforts. Even if our partners continue their contributions to the collaborative agreements to which we are a party, they may nevertheless determine not to actively pursue the development or commercialization of any resulting products. Our partners may also fail to perform their obligations under the collaboration agreements or may be slow in performing their obligations. Any of these circumstances could result in a material adverse impact on our business, financial condition, commercialization prospectus or results of operations.

***We may seek to form additional strategic alliances in the future with respect to our product candidates, and if we do not realize the benefits of such alliances, our business, financial condition, commercialization prospects and results of operations may be materially adversely affected.***

Our product development programs and the potential commercialization of our product candidates will require substantial additional cash to fund expenses and may require expertise, such as sales and marketing expertise, which we do not currently possess. Therefore, in addition to our relationships with Genentech, Janssen and Piramal, we may decide to enter into strategic alliances, or create joint ventures or collaborations with pharmaceutical or biopharmaceutical companies for the further development and potential commercialization of those and other of our product candidates.

We face significant competition in seeking appropriate collaborators. Collaborations are complex and time-consuming to negotiate and document. Any delays in entering into new strategic partnership agreements related to our product candidates could delay the development and commercialization of our product candidates and reduce their competitiveness even if they reach the market. We may also be restricted under existing and future collaboration agreements from entering into strategic partnerships or collaboration agreements on certain terms with other potential collaborators. We may not be able to negotiate collaborations on acceptable terms, or at all, for any of our existing or future product candidates and programs because the potential partner may consider that our research and development pipeline is insufficiently developed to justify a collaborative effort, or that our product candidates and programs do not have the requisite potential to demonstrate safety and efficacy in the target population. If we are unsuccessful in establishing and maintaining a collaboration with respect to a particular product candidate, we may have to curtail the development of that product candidate, reduce the scope of or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of our sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense for which we have not budgeted. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we will not be able to bring our product candidates to market and generate product revenue. Even if we are successful in establishing a new strategic partnership or entering into a collaboration agreement, we cannot be certain that, following such a strategic transaction or license, we will be able to progress the development and commercialization of the applicable product candidates as envisaged, or that we will achieve the revenues that would justify such transaction, and we could be subject to the following risks, each of which may materially harm our business, commercialization prospects and financial condition:

- we may not be able to control the amount and timing of resources that the collaboration partner devotes to the product development program;
- the collaboration partner may experience financial difficulties;
- we may be required to grant or otherwise relinquish important rights such as marketing, distribution and intellectual property rights;
- a collaboration partner could move forward with a competing product developed either independently or in collaboration with third parties, including our competitors; or
- business combinations or significant changes in a collaboration partner's business strategy may adversely affect our willingness to complete our obligations under any arrangement.

***We rely on third parties to conduct our nonclinical and clinical studies and perform other tasks for us. If these third parties do not successfully carry out their contractual duties, meet expected deadlines, or comply with regulatory requirements, we may not be able to obtain regulatory approval for or commercialize our product candidates and our business could be substantially harmed.***

We have relied upon and plan to continue to rely upon third-party clinical research organizations, or CROs, to monitor and manage data for our ongoing nonclinical and clinical programs, including the clinical studies of our product candidates. We rely on these parties for execution of our nonclinical and clinical studies and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards and our reliance on the CROs

does not relieve us of our regulatory responsibilities. We and our CROs and other vendors are required to comply with current good manufacturing practices, or cGMP, current good clinical practice, or cGCP, and Good Laboratory Practice, or GLP, which are regulations and guidelines enforced by the FDA, the Competent Authorities of the Member States of the European Union and comparable foreign regulatory authorities for all of our product candidates in nonclinical and clinical development. Regulatory authorities enforce these regulations through periodic inspections of study sponsors, principal investigators, study sites and other contractors. If we or any of our CROs or vendors fail to comply with applicable regulations, the data generated in our nonclinical and clinical studies may be deemed unreliable and the EMA, FDA, other regulatory authorities may require us to perform additional nonclinical and clinical studies before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that all of our clinical studies comply with cGCP regulations. In addition, our clinical studies must be conducted with products produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical studies, which would delay the regulatory approval process.

If any of our relationships with these third-party CROs terminates, we may not be able to enter into arrangements with alternative CROs or do so on commercially reasonable terms. In addition, our CROs are not our employees, and except for remedies available to us under our agreements with such CROs, we cannot control whether or not they devote sufficient time and resources to our on-going nonclinical and clinical programs. If CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our protocols, regulatory requirements, or for other reasons, our clinical studies may be extended, delayed, or terminated and we may not be able to obtain regulatory approval for or successfully commercialize our product candidates. CROs may also generate higher costs than anticipated. As a result, our results of operations and the commercial prospects for our product candidates would be harmed, our costs could increase, and our ability to generate revenue could be delayed.

Switching or adding additional CROs involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we carefully manage our relationships with our CROs, there can be no assurance that we will not encounter similar challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition and prospects.

***We currently rely on third-party suppliers and other third parties for production of our product candidates and our dependence on these third parties may impair the advancement of our research and development programs and the development of our product candidates.***

We currently rely on and expect to continue to rely on third parties, for the manufacturing and supply of chemical compounds for the clinical studies of our current and future product candidates. For the foreseeable future, we expect to continue to rely on such third parties for the manufacture of any of our product candidates on a clinical or commercial scale, if any of our product candidates receives regulatory approval. Reliance on third-party providers may expose us to different risks than if we were to manufacture product candidates ourselves. The facilities used by our contract manufacturers to manufacture our product candidates must be approved by the FDA or other regulatory authorities pursuant to inspections that will be conducted after we submit our NDA or comparable marketing application to the FDA or other regulatory authority. We do not have control over a supplier's or manufacturer's compliance with these laws, regulations and applicable cGMP standards and other laws and regulations, such as those related to environmental health and safety matters. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. In addition, we have no control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our product candidates, if approved. Any failure to achieve and maintain compliance with these laws, regulations and standards could subject us to the risk that we may have to suspend the manufacturing of our product candidates or that obtained approvals could be revoked, which would adversely affect our business and reputation.

Third-party providers may breach agreements they have with us because of factors beyond our control. Contract manufacturers often encounter difficulties involving production yields, quality control and quality assurance, as well as shortages of qualified personnel. They may also terminate or refuse to renew their agreements because of their own financial difficulties or business priorities, potentially at a time that is costly or otherwise inconvenient for us. If we were unable to find adequate replacement or another acceptable solution in time, our clinical studies could be delayed or our commercial activities could be harmed.

In addition, the fact that we are dependent on our suppliers and other third parties for the manufacture, storage and distribution of our product candidates means that we are subject to the risk that our product candidates and, if approved, commercial products may have manufacturing defects that we have limited ability to prevent or control. The sale of products containing such defects could result in recalls or regulatory enforcement action that could adversely affect our business, financial condition and results of operations.

Growth in the costs and expenses of components or raw materials may also adversely influence our business, financial condition and results of operations. Supply sources could be interrupted from time to time and, if interrupted, we cannot be certain that supplies could be resumed (whether in part or in whole) within a reasonable timeframe and at an acceptable cost or at all. Our current and anticipated future dependence upon others for the manufacturing of our current and future product candidates may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

*Our collaboration arrangements with our strategic partners may make us an attractive target for potential acquisitions under certain circumstances.*

Under certain circumstances, due to the structure of our collaboration arrangements with our strategic partners, our strategic partners may prefer to acquire us rather than paying the milestone payments or royalties under the collaboration arrangements, which may bring additional uncertainties to our business development and prospects. For example, under our collaboration arrangements with Genentech and Janssen, we may become entitled to substantial milestone payments and royalties. As a result, rather than paying the milestone payments or royalties, Genentech or Janssen, or one of their affiliates including Roche or Johnson & Johnson, may choose to acquire us.

#### **Risks Related to Intellectual Property**

*We may not have sufficient patent terms to effectively protect our products and business.*

Patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Although various extensions or adjustments may be available, such as adjustments based on certain delays caused by the United States Patent and Trademark Office, or the USPTO, the life of a patent, and the protection it affords, is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned, co-owned and licensed patent portfolios may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours or otherwise provide us with a competitive advantage. Even if patents covering our product candidates are obtained and unchallenged, once the patent life has expired for a product, we may be open to competition from generic medications.

While patent term extensions under the Hatch-Waxman Act, in the United States and under supplementary protection certificates in Europe may be available to extend the patent exclusivity term for our products, we cannot provide any assurances that any such patent term extension will be obtained and, if so, for how long. The Hatch-Waxman Act permits a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved drug, a method for using it or a method for manufacturing it may be extended. However, we may not be granted any extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or the term of any such extension is less than we request, such result could have a material adverse effect on our business.

***We or our licensing or collaboration partners may become subject to intellectual property-related litigation or other proceedings to protect or enforce our patents or the patents of our licensors or collaborators, any of which could be expensive, time consuming, and unsuccessful, and may ultimately result in our loss of ownership of intellectual property.***

Competitors may infringe our patents or the patents of our licensors or collaborators. To counter such infringement, we may be required to file claims against those competitors, which can be expensive and time-consuming. If we or one of our licensing or collaboration partners were to initiate legal proceedings against a third party to enforce a patent covering one of our product candidates, the defendant could counterclaim that the patent covering our product candidate is invalid or unenforceable, or that we infringe the defendant's patents. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, obviousness-type double patenting, lack of written description, or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. In addition, third parties may raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post grant review, *inter partes* review, interference and derivation proceedings as well as equivalent proceedings in foreign jurisdictions. The outcome following legal assertions of invalidity and unenforceability is unpredictable. Such proceedings or patent litigations could result in the revocation or cancellation of or amendment to our patents in such a way that they no longer cover our product candidates or otherwise provide any competitive advantage. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which the patent examiner and we or our licensing or collaboration partners were unaware during prosecution. A court may also refuse to stop a third party from using the technology in question on the grounds that our patents do not cover that technology. An adverse result in any proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly, which could have a material adverse effect on our business and financial condition.

Interference proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our licensors or collaborators. An unfavorable outcome could require us or our licensing or collaboration partners to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be materially harmed if the prevailing party does not offer us or our licensing or collaboration partners a license on commercially reasonable terms or at all. If we or our licensing or collaboration partners are unsuccessful in any interference proceedings, we may lose our ownership of intellectual property or our patents may be narrowed or invalidated. There can be no assurance as to the outcome of the interference and opposition proceedings, and any of the foregoing could result in a material adverse effect on our business, financial condition, results of operations or prospects.

Our defense of litigation, interference proceedings or other intellectual property-related proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees from their normal responsibilities. Such litigation or proceedings could substantially increase our operating losses and could substantially reduce the funds necessary to continue our clinical studies, continue our research programs, license necessary technology from third parties, or enter into development partnerships that would help us bring our product candidates to market. We may not be able to prevent, alone or with our licensing or collaboration partners, misappropriation of our intellectual property rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions, decisions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common shares.

***If we or our licensing or collaboration partners are unable to obtain and maintain effective patent rights for our technologies, product candidates or any future product candidates, or if the scope of the patent rights obtained is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to successfully commercialize our products and technology may be adversely affected.***

We rely upon a combination of patents, trade secret protection, and confidentiality agreements to protect the intellectual property related to our technologies and product candidates. Our success depends in large part on our and our licensing or collaboration partners' ability to obtain and maintain patent and other intellectual property protection in the United States and in other countries with respect to our proprietary technologies and product candidates. In particular, Genentech or our other licensing or collaboration partners may be dependent on a license with a third party for the development and commercialization of crenezumab or our other product candidates. If such license is terminated, Genentech or such other licensing or collaboration partners may be required to cease development and commercialization of crenezumab or our other product candidates, any of which could have a material adverse effect on our business, financial condition, results of operations or prospects.

We have sought to protect our proprietary position by filing patent applications in the United States and abroad related to any of our novel technologies and products that are important to our business. This process is expensive, time consuming, and complex, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost, in a timely manner or in all jurisdictions. It is also possible that we will fail to identify patentable aspects of our or our licensing or collaboration partners' research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license to or from third parties. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain and involves complex legal and factual questions for which legal principles remain unsolved. As a result, the inventorship, issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. The pending or future patent applications that we own, co-own or in-license may fail to issue, fail to result in issued patents with claims that cover our product candidates in the United States or in other foreign countries, or fail to effectively prevent others from commercializing competitive technologies and product candidates. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents or narrow the scope of our patent protection.

We may not be aware of all third-party intellectual property rights potentially relating to our technologies or product candidates. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions remain confidential for a period of time after filing, and some remain so until issued. Therefore, we cannot be certain that we were the first to file any patent application related to our product candidates or technologies, or whether we were the first to make the inventions claimed in our owned or co-owned patents or pending patent applications, nor can we know whether those from whom we license patents were the first to make the inventions claimed or were the first to file.

There is no assurance that all potentially relevant prior art relating to our patents and patent applications has been found, which can invalidate a patent or prevent a patent from issuing from a pending patent application. Even if patents do successfully issue, and even if such patents cover our product candidates, third parties may challenge their validity, enforceability, or scope, which may result in such patents being narrowed, found unenforceable or invalidated, which could allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third party patent rights. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property, provide exclusivity for our product candidates, prevent others from designing around our claims or provide us with a competitive advantage. Any of these outcomes could impair our ability to prevent competition from third parties, which may have a material adverse effect on our business.

***We may be subject to claims challenging the inventorship of our patents and other intellectual property.***

We may be subject to claims that former employees, collaborators or other third parties have an interest in our patents or other intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes



arise from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these and other claims challenging inventorship or our ownership of our patents or other intellectual property. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or the right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

***Patent policy and rule changes could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, thereby impairing our ability to protect our technologies and products.***

Changes in either the patent laws or interpretation of the patent laws in the United States could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming the other requirements for patentability are met, in the United States prior to March 15, 2013, the first to make the claimed invention is entitled to the patent, while outside the United States, the first to file a patent application is entitled to the patent. After March 15, 2013, under the Leahy-Smith America Invents Act, or the Leahy-Smith Act, enacted on September 16, 2011, the United States has moved to a first-to-file system. Under a first-to-file system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to the patent on an invention regardless of whether a third party was the first to invent the invention. The Leahy-Smith Act also includes a number of significant changes that affect the way patent applications will be prosecuted and may also affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by the USPTO administered post grant proceedings, including reexamination proceedings, *inter partes* review, post-grant review and derivation proceedings. The effects of these changes on the operation of our business are currently unclear as, among other reasons, the USPTO must still implement various regulations and courts must interpret these changes. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents, once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our existing patent portfolio and our ability to protect and enforce our intellectual property in the future.

***If we are unable to maintain effective proprietary rights for our technologies, product candidates or any future product candidates, we may not be able to compete effectively in our markets.***

In addition to the protection afforded by patents, we rely on trade secret protection and confidentiality agreements to protect proprietary know-how that is not patentable or that we elect not to patent, processes for which patents are difficult to enforce and any other elements of our product candidate discovery and development processes that involve proprietary know-how, information or technology that is not covered by patents. However, trade secrets can be difficult to protect and some courts inside and outside the United States are less willing or unwilling to protect trade secrets. Because we rely on our advisors, employees and third-party contractors and consultants to research and develop and to manufacture our product candidates, we must, at times, share our intellectual property with them. We seek to protect our intellectual property and other proprietary technology in part by entering into confidentiality agreements and, if applicable, material transfer agreements, consulting agreements or other similar agreements with our advisors, employees, contractors, consultants, licensing and collaboration partners, and other third parties. These agreements typically limit the rights of these third parties to use or disclose our confidential information, including our intellectual property and trade secrets. These agreements also typically restrict the ability of third parties to publish data potentially relating to our intellectual property, although our agreements may contain certain limited publication rights. For example, any academic institution that we may collaborate with in the future may expect to be granted rights to publish data arising out of such collaboration, provided that we may have the right to be notified in advance and given the opportunity to delay publication for a limited time period in order for us to secure patent protection of intellectual property rights arising from the

collaboration, in addition to the opportunity to remove confidential or trade secret information from any such publication. In the future, we may also conduct joint research and development programs that may require us to share intellectual property under the terms of our research and development or similar agreements. However, we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or other confidential information or proprietary technology and processes or that such agreements will not be breached or that our trade secrets or other confidential information will not otherwise be disclosed. Despite the contractual provisions employed when working with these advisors, employees and third party contractors and consultants, the need to share intellectual property and other confidential information increases the risk that such confidential information becomes known by our competitors, is inadvertently incorporated into the product development of others or is disclosed or used in violation of these agreements.

We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. Despite our efforts to protect our intellectual property, our competitors may discover our trade secrets through breach of our agreements with third parties, where we may not have adequate remedies for any breach, independent development or publication of information by any of our licensing or collaboration partners. Additionally, if the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating such trade secrets. Misappropriation or unauthorized disclosure of our trade secrets could impair our competitive position and may have a material adverse effect on our business. Moreover, if any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent such competitor or other third party from using that technology or information to compete with us. A competitor's or other third party's discovery of our intellectual property would impair our competitive position and have a material adverse effect on our business.

Further, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent material disclosure of the intellectual property related to our technologies to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, financial condition and results of operations.

***Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.***

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on a patent and patent application are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent and patent application. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. We employ reputable law firms and other professionals to help us comply with these requirements and we are also dependent on our licensors or collaboration partners to take the necessary action to comply with these requirements with respect to certain of our intellectual property. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

***The patent protection and patent prosecution for some of our product candidates is dependent on third parties.***

While we normally seek to obtain the right to control prosecution, maintenance and enforcement of the patents relating to our product candidates, there may be times when the filing and prosecution activities for patents relating to our product candidates are controlled by our licensors or collaboration partners. If any of our current or future licensing or collaboration partners fail to prosecute, maintain and enforce such patents and patent applications in a manner consistent with the best interests of our business, including by payment of all applicable fees for patents covering our product candidates, we could lose our rights to the intellectual property or our exclusivity with respect

to those rights, our ability to develop and commercialize those product candidates may be adversely affected and we may not be able to prevent competitors from making, using, and selling competing products. In addition, even where we have the right to control patent prosecution of patents and patent applications we have licensed to and from third parties, we may still be adversely affected or prejudiced by actions or inactions of our licensees, our licensors and their counsel that took place prior to the date upon which we assumed control over patent prosecution.

***If we fail to comply with the obligations in our intellectual property agreements, including those under which we license intellectual property and other rights to or from third parties, or otherwise experience disruptions to our business relationships with our licensees, our licensors and partners, we could lose intellectual property rights that are important to our business.***

We are a party to a number of intellectual property license and co-ownership agreements that are important to our business and expect to enter into additional such agreements in the future. Under certain circumstances, the royalties payable to us under these agreements are subject to certain reductions, which may have a materially adverse effect on our business, financial condition, results of operations and prospects. In addition, our existing agreements impose, and we expect that future agreements will impose, various diligence, commercialization, milestone payment, royalty and other obligations on us. If we fail to comply with our obligations under these agreements, or we are subject to a bankruptcy, we may be required to make certain payments to the licensor, we may lose the exclusivity of our license, or the licensor may have the right to terminate the license, in which event we would not be able to develop or market products covered by the license.

Licensing of intellectual property is of critical importance to our business and involves complex legal, business, and scientific issues. Disputes may arise regarding intellectual property subject to a licensing or co-ownership agreement, including:

- the scope of rights granted under the agreement and other interpretation-related issues;
- the extent to which our technology and processes infringe or otherwise violate intellectual property of the licensor, the licensee or partner that is not subject to the agreement;
- the sublicensing of patent and other rights;
- the diligence, development and commercialization obligations under the agreement and what activities satisfy those obligations;
- the ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors or collaboration partners and us; and
- the priority of invention of patented technology.

If disputes over intellectual property and other rights that we have licensed or co-own prevent or impair our ability to maintain our current licensing or exclusivity arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates.

In addition, certain provisions in the agreements under which we currently license intellectual property or technology to and from third parties may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, increase what we believe to be our financial or other obligations under the relevant agreement, or decrease the third party's financial or other obligations under the relevant agreement, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

***We may not be successful in obtaining or maintaining necessary rights to our product candidates through acquisitions and in-licenses.***

Our programs may in the future require the use of proprietary rights held by third parties, the growth of our business will likely depend in part on our ability to acquire, in-license, maintain or use these proprietary rights. In addition, our product candidates may require specific formulations to work effectively and efficiently and the rights to these formulations may be held by others. We may be unable to acquire or in-license any compositions, methods of use, processes, or other third-party intellectual property rights from third parties that we identify as necessary for

our product candidates. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, cash resources, and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

For example, we sometimes collaborate with U.S. and foreign academic institutions to accelerate our preclinical research or development under written agreements with these institutions. Typically, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to other parties, potentially blocking our ability to pursue our applicable product candidate or program.

If we are unable to successfully obtain a license to third-party intellectual property rights necessary for the development of a product candidate or program, we may have to abandon development of that product candidate or program and our business and financial condition could suffer.

***Third-party claims of intellectual property infringement may expose us to substantial liability or prevent or delay our development and commercialization efforts.***

Our commercial success depends on our ability and the ability of our licensees or collaborators to develop, manufacture, market and sell our product candidates and use our proprietary technology without infringing, misappropriating, or otherwise violating the proprietary rights and intellectual property of third parties. The biotechnology and pharmaceutical industries are characterized by extensive and complex litigation regarding patents and other intellectual property rights. We may in the future become party to, or be threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our product candidates and technology, including patent infringement lawsuits, interferences, oppositions, reexamination proceedings, *inter partes* review, derivation proceedings and post grant review before the USPTO and corresponding foreign patent offices.

Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing product candidates. For example, we are aware of third party patents that may be construed to cover one or more of our product candidates. If these patents are asserted against us or our licensing or collaboration partners and either we or our licensing or collaboration partners are found to infringe any of these patents, and are unsuccessful in demonstrating that such patents are invalid or unenforceable, then we and our licensing or collaboration partners could be required to pay substantial monetary damages or cease further development or commercialization of one or more of our product candidates. There may also be other third-party patents or patent applications with claims to materials, formulations, methods of manufacture, or methods of treatment related to the use or manufacture of our product candidates and technology. Although we generally conduct a freedom to operate search and review with respect to our product candidates, we cannot guarantee that our search and review is complete and thorough, nor can we be sure that we have identified each and every patent and pending application in the United States and abroad that is relevant or necessary to the commercialization of our product candidates or use of our technology. Because patent applications can take many years to issue, there may be currently pending patent applications that may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents.

Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of merit. Even if we believe such claims are without merit, a court of competent jurisdiction could hold that these third party patents are valid, enforceable and infringed, which could materially and adversely affect our ability to commercialize our product candidates or technologies covered by the asserted third party patents. If we are found to infringe a third party's valid and enforceable intellectual property rights, we could be required to obtain a license from such third party to continue developing, manufacturing and marketing our product candidates and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors

and other third parties access to the same technologies licensed to us and it could require us to make substantial payments to the licensor.

Parties making claims against us may also obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize one or more of our product candidates. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure. Any of the foregoing could have a material and adverse effect on our business, financial conditions, results of operations and prospects.

In addition, claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business, financial condition, results of operations and prospects. There could also be public announcements of the results of hearings, motions, decisions, or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our common shares.

Some of our competitors may have substantially greater resources and more mature and developed intellectual property portfolios than we do and may be able to sustain the costs of complex intellectual property litigation to a greater degree and for longer periods of time than we could. In addition, patent holding companies that focus solely on extracting royalties and settlements by enforcing patent rights may target us. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may be subject to claims of infringement of the patent rights of third parties. The uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

***We may be subject to claims that our employees, consultants, or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.***

We employ and utilize the services of individuals who were previously employed or provided services to universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants, and independent contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants, or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any of our employee's, consultant's or independent contractor's former employer or other third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could adversely impact our business. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees.

In addition, while it is our policy to require our employees, consultants and independent contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property.

***We may not be able to protect our intellectual property rights throughout the world.***

Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as the laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing

products made using our inventions in and into the United States or other jurisdictions. In the ordinary course of prosecution and maintenance activities, we determine whether to seek patent protection outside the U.S. and in which countries. This also applies to patents we have acquired or in-licensed from third parties. In some cases, we, or our predecessors in interest or licensors of patents within our portfolio, have sought patent protection in a limited number of countries for patents covering our product candidates. Competitors may use our technologies in jurisdictions where we have not obtained or are unable to adequately enforce patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing, which would have a material adverse effect on our business and financial positions.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement, misappropriation or other violations of our intellectual property and proprietary rights. Proceedings to enforce our patent rights in foreign jurisdictions, whether or not successful, could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

#### **Risks Related to Our Financial Condition and Capital Requirements**

*We are a clinical-stage company and have a history of operating losses. We anticipate that we will continue to incur losses for the foreseeable future.*

We are a clinical-stage biopharmaceutical company. Since 2003, while we have received upfront and milestone payments from our collaboration partners and certain other revenue, we have also incurred significant operating losses. For example, we incurred net losses (defined as net loss attributable to owners of the company) of CHF 7.1 million for the year ended December 31, 2016. In addition, we had accumulated losses of CHF 47.0 million as of December 31, 2016.

Our losses have resulted principally from research and development expenses and from general business and administrative expenses. We expect to continue to incur significant operating losses in the future as we continue our research and development efforts for our current and future product candidates and seek to obtain regulatory approval and commercialization of such product candidates.

To date, we have financed our operations through proceeds from our initial public offering (“IPO”) in September 2016, private placements of preferred securities, and upfront and milestone payments from our collaboration partners and certain other revenue. We have no products approved for commercialization and have never generated any revenues from product sales. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. It may be several years, if ever, before we or our collaboration partners complete pivotal clinical studies and have a product candidate approved for commercialization and we begin to generate revenue or royalties from product sales.

*While we have generated revenues from upfront and milestone payments related to our collaboration agreements, we have never generated any revenue from product sales and may never be profitable.*

While we have generated revenue from upfront and milestone payments related to our collaboration agreements, we have no products approved for commercialization and have never generated any revenue from product sales. Our ability to generate revenue and achieve profitability depends on our ability to successfully complete the development of, and obtain the marketing approvals necessary to commercialize, one or more of our product candidates. We do not anticipate generating revenue from product sales unless and until we or our collaboration partners obtain regulatory approval for, and commercialize, our product candidates. Our ability to generate future revenue from product sales depends heavily on our success in many areas, including but not limited to:

- completing research and clinical development of our product candidates, including us or our collaboration partners, as the case may be, successfully completing a Phase 3 clinical study of crenezumab, a Phase 1/2a clinical study of ACI-24 for AD, a Phase 1 clinical study of ACI-24 in Down syndrome, a Phase 1b clinical study of ACI-35 and a Phase 1 clinical study of our anti-tau antibody candidate;
- obtaining marketing approvals for our product candidates, including crenezumab, ACI-24 for AD or ACI-35 or our anti-tau antibody candidate, for which we complete clinical studies;
- developing a sustainable and scalable manufacturing process for any approved product candidates and maintaining supply and manufacturing relationships with third parties that can conduct the process and provide adequate (in amount and quality) products to support clinical development and the market demand for our product candidates, if approved;
- launching and commercializing product candidates for which we obtain marketing approval, either directly or with a collaborator or distributor;
- obtaining market acceptance of our product candidates as viable treatment options;
- addressing any competing technological and market developments;
- identifying, assessing, acquiring and/or developing new product candidates;
- negotiating favorable terms in any collaboration, licensing, or other similar arrangements into which we may enter;
- maintaining, protecting, and expanding our portfolio of intellectual property rights, including patents, trade secrets and know-how; and
- attracting, hiring and retaining qualified personnel.

Even if one or more of the product candidates that we develop is approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate. Because of the numerous risks and uncertainties with pharmaceutical product development, we are unable to accurately predict the timing or amount of increased expenses or when, or if, we will be able to achieve profitability. Our expenses could increase beyond expectations if we are required by the FDA, the EMA, or other regulatory agencies, domestic or foreign, to change our manufacturing processes, or to perform clinical, nonclinical, or other types of studies in addition to those that we currently anticipate. In cases where we are successful in obtaining regulatory approvals to market one or more of our product candidates, our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to obtain coverage and reimbursement at any price, and whether we own the commercial rights for that territory. If the number of our addressable patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect, or the treatment population is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales of such products, even if approved. Accordingly, we may not be profitable in the future from the sale of any approved products.

We may be unable to develop and commercialize any of our current or future product candidates and, even if we do, may not achieve profitability in the future. Even if we do achieve profitability in the future, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to be profitable in the future would decrease the value of our company and could impair our ability to raise capital, expand our business or continue our operations. A decline in the value of our company could cause you to lose all or part of your investment.

***We expect that we will need substantial additional funding before we can expect to become profitable from sales of our products. If we are unable to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.***

We are currently advancing our product candidates through clinical development, either together with a collaboration partner (crenezumab, ACI-35 and our anti-tau antibody candidate) or independently (ACI-24 for AD and Down syndrome). We expect our research and development expenses to continue to increase in connection with

our ongoing activities, particularly as we and/or our collaboration partners continue our ongoing studies and initiate new studies of crenezumab, ACI-24 for AD, ACI-35 and our anti-tau antibody candidate and initiate preclinical and clinical development of our other product candidates. As of December 31, 2016, we had cash and cash equivalents of CHF 152.2 million. We currently believe that our existing capital resources, not including potential milestone payments, will be sufficient to meet our projected operating requirements for at least through the fourth quarter of fiscal year 2018. We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our capital resources sooner than we currently expect. Our future funding requirements will depend on many factors, including but not limited to:

- the scope, rate of progress, results and cost of our pre-clinical and clinical studies and other related activities;
- the cost of manufacturing clinical supplies and establishing commercial supplies of our existing product candidates and any other products we may develop;
- the cost, timing, and outcomes of regulatory approvals;
- the cost and timing of establishing sales, marketing and distribution capabilities;
- the terms and timing of any collaborative, licensing, and other arrangements that currently exist or that we may establish in the future, including any required milestone and royalty payments thereunder;
- the emergence of competing technologies or other adverse market developments; and
- the potential cost and timing of managing and protecting our portfolio of intellectual property.

We expect that we will require additional capital to commercialize our product candidates. If we receive regulatory approval for our current and future product candidates, and if we have not already licensed such product candidate to a collaboration partner and choose to commercialize such product candidate independently, we expect to incur significant commercialization expenses related to product manufacturing, sales, marketing and distribution, depending on where we choose to commercialize. We also expect to incur additional costs associated with operating as a public company as a result of our IPO. Additional funds may not be available on a timely basis, on favorable terms, or at all, and such funds, if raised, may not be sufficient to enable us to continue to implement our long-term business strategy. If we are not able to raise capital when needed, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

***Raising additional capital may cause dilution to our shareholders, restrict our operations or require us to relinquish rights to our intellectual property or future revenue streams.***

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings, grants and license and development agreements in connection with collaborations. We do not have any committed external source of funds. In the event we need to seek additional funds, we may raise additional capital through the sale of equity, convertible debt or other securities. In such an event, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a holder of our common shares. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or proposing dividends to our shareholders.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to grant or otherwise relinquish valuable rights to our intellectual property or future revenue streams. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

***Our ability to use tax loss carryforwards in Switzerland may be limited.***

As of December 31, 2016, we reported tax loss carryforwards from financial years 2010 until 2016 for purposes of Swiss corporate income tax in the aggregate amount of CHF 36.7 million that could be available to offset future taxable income. If not used, these tax losses will expire seven years after the year in which they were incurred. Due



to our limited income, there is a high risk that the tax loss carryforwards will expire partly or entirely and cannot be used to offset future taxable income thereafter for Swiss corporate income tax purposes.

***Exchange rate fluctuations or abandonment of the euro currency may materially affect our results of operations and financial condition.***

Under our existing agreements, we receive and make a significant amount of payments in USD, Swiss Francs and Euro. As a result, changes and fluctuations in currency exchange rates between the Swiss Franc and other currencies, especially the USD and euro could have a materially adverse effect on our operating results. Since our reporting currency is the Swiss Franc, financial line items are converted into Swiss Francs at the applicable exchange rates. We also expect that in the future, a significant portion of our revenues and expenses will be denominated in Swiss Franc, USD and Euro. Therefore, unfavorable developments in the value of the Swiss Franc as compared to the Euro or any other currency could have a material adverse effect on our business, financial condition and results of operations.

**Risks Related to the Regulatory Environment**

***We cannot give any assurance that any of our product candidates will receive regulatory approval, which is necessary before they can be commercialized.***

Our future success is dependent on our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize one or more product candidates. We currently have one product candidate that has completed Phase 2 clinical studies. Enrollment in Phase 3 clinical studies of crenezumab initiated by our collaboration partner Genentech started in the first quarter of 2016. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA, EMA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates.

We cannot be certain that any of our product candidates will be successful in clinical studies or receive regulatory approval. Applications for our product candidates could fail to receive regulatory approval for many reasons, including but not limited to the following:

- the FDA, EMA or comparable foreign regulatory authorities may disagree with the design or implementation of our clinical studies;
- the population studied in the clinical program may not be sufficiently broad or representative to assure safety in the full population for which we seek approval;
- the FDA, EMA or comparable foreign regulatory authorities may disagree with our interpretation of data from nonclinical or clinical studies;
- the data collected from clinical studies of our product candidates may not be sufficient to support the submission of an NDA or other submission or to obtain regulatory approval in the United States or elsewhere;
- we may be unable to demonstrate to the FDA, EMA or comparable foreign regulatory authorities that a product candidate's risk-benefit ratio for its proposed indication is acceptable;
- the FDA, EMA or other regulatory authorities may fail to approve the manufacturing processes, test procedures and specifications, or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA, EMA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

We generally plan to seek regulatory approval to commercialize our product candidates in the United States, the European Union and in additional foreign countries where we have commercial rights. To obtain regulatory approval in other countries, we must comply with numerous and varying regulatory requirements of such other countries regarding safety, efficacy, chemistry, manufacturing and controls, clinical studies, commercial sales, pricing, and distribution of our product candidates. Even if we are successful in obtaining approval in one

jurisdiction, we cannot ensure that we will obtain approval in any other jurisdictions. Failure to obtain marketing authorization for our product candidates will result in our being unable to market and sell such products, which would materially adversely affect our business, financial conditional and results of operation. If we fail to obtain approval in any jurisdiction, the geographic market for our product candidates could be limited. Similarly, regulatory agencies may not approve the labeling claims that are necessary or desirable for the successful commercialization of our product candidates.

***Clinical drug development involves a lengthy and expensive process with uncertain timelines and uncertain outcomes. If clinical studies of our product candidates are prolonged or delayed, we may be unable to obtain required regulatory approvals, and therefore be unable to commercialize our product candidates on a timely basis or at all.***

To obtain the requisite regulatory approvals to market and sell any of our product candidates, we must demonstrate through extensive preclinical and clinical studies that our products are safe and effective in humans. Clinical testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical study process. The results of preclinical and early clinical studies of our product candidates may not be predictive of the results of later-stage clinical studies. For example, the positive results generated to date in clinical studies for our product candidates do not ensure that later clinical studies will demonstrate similar results. Product candidates in later stages of clinical studies may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and initial clinical studies. A number of companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical studies due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier studies. Our future clinical study results may not be successful.

Clinical studies must be conducted in accordance with FDA, EMA and comparable foreign regulatory authorities' legal requirements, regulations or guidelines, and are subject to oversight by these governmental agencies and Institutional Review Boards, or IRBs, at the medical institutions where the clinical studies are conducted. In addition, clinical studies must be conducted with supplies of our product candidates produced under cGMP and other requirements. We depend on medical institutions and CROs, to conduct our clinical studies in compliance with cGCP standards. To the extent the CROs fail to enroll participants for our clinical studies, fail to conduct the study to cGCP standards or are delayed for a significant time in the execution of studies, including achieving full enrollment, we may be affected by increased costs, program delays or both, which may harm our business.

To date, neither we nor our collaboration partners have completed all clinical studies required for the approval of any of our product candidates. Crenezumab has completed Phase 2 clinical testing and is currently in a Phase 3 clinical study, ACI-24 for AD is in a combined Phase 1/2a clinical study, ACI-24 for Down syndrome is in a Phase 1 clinical study, ACI-35 is in Phase 1b clinical studies, our anti-tau antibody candidate in a Phase 1 clinical study and our tau-PET imaging program has started clinical development. The development of our other product candidates is less advanced and studies have not yet started.

The completion of clinical studies for our clinical product candidates may be delayed, suspended or terminated as a result of many factors, including but not limited to:

- the delay or refusal of regulators or IRBs to authorize us to commence a clinical study at a prospective study site or changes in regulatory requirements, policies and guidelines;
- delays or failure to reach agreement on acceptable terms with prospective CROs and clinical study sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and study sites;
- delays in patient enrollment and variability in the number and types of patients available for clinical studies;
- the inability to enroll a sufficient number of patients in studies to ensure adequate statistical power to detect statistically significant treatment effects;

- negative or inconclusive results, which may require us to conduct additional preclinical or clinical studies or to abandon projects that we expected to be promising;
- safety or tolerability concerns, which could cause us to suspend or terminate a study if we find that the participants are being exposed to unacceptable health risks;
- regulators or IRBs requiring that we or our investigators suspend or terminate clinical research for various reasons, including noncompliance with regulatory requirements or safety concerns, among others;
- lower than anticipated retention rates of patients and volunteers in clinical studies;
- our CROs or clinical study sites failing to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all, deviating from the protocol or dropping out of a study;
- delays relating to adding new clinical study sites;
- difficulty in maintaining contact with patients after treatment, resulting in incomplete data;
- delays in establishing the appropriate dosage levels;
- the quality or stability of the product candidate falling below acceptable standards;
- the inability to produce or obtain sufficient quantities of the product candidate to complete clinical studies; and
- exceeding budgeted costs due to difficulty in accurately predicting costs associated with clinical studies.

Any delays in completing our clinical studies will increase our costs, slow our product candidate development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition and prospects significantly. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical studies may also ultimately lead to the denial of regulatory approval of our product candidates.

***Even if we obtain and maintain approval for our drug candidates from one jurisdiction, we may never obtain approval for our drug candidates in other jurisdictions, which would limit our market opportunities and adversely affect our business.***

Sales of our approved drugs will be subject to U.S. and non-U.S. regulatory requirements governing clinical studies and regulatory approval, and we plan to seek regulatory approval to commercialize our drug candidates in the United States, the European Economic Area, and other countries. Clinical studies conducted in one country may not be accepted by regulatory authorities in other countries and regulatory approval in one country does not ensure approval in any other country, while a failure or delay in obtaining regulatory approval in one country may have a negative effect on the regulatory approval process in others. For example, approval in the United States by the FDA does not ensure approval by the regulatory authorities in other countries or jurisdictions, and similarly approval by a non-U.S. regulatory authority, such as the EMA, does not ensure approval by regulatory authorities in other countries, including by the FDA. However, the failure to obtain approval in one jurisdiction may have a negative impact on our ability to obtain approval elsewhere. Approval processes and regulatory requirements vary among countries and can involve additional drug testing and validation and additional administrative review periods. Even if a drug is approved, the FDA or EMA, as the case may be, may limit the indications for which the drug may be marketed, require extensive warnings on the drug labeling or require expensive and time-consuming clinical studies or reporting as conditions of approval. In many countries outside the United States, a drug candidate must be approved for reimbursement before it can be approved for sale in that country. In some cases, the price that we intend to charge for a drug is also subject to approval. Regulatory authorities in other countries also have their own requirements for approval of drug candidates with which we must comply prior to marketing in those countries. Obtaining non-U.S. regulatory approvals and compliance with such non-U.S. regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our current and any future drugs, in certain countries. If we fail to comply with regulatory requirements in international markets or to

obtain and maintain required approvals, or if regulatory approvals in international markets are delayed, our target market will be reduced and our ability to realize the full market potential of our drug candidates will be unrealized.

***Even if our product candidates obtain regulatory approval, we will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.***

If marketing authorization is obtained for any of our product candidates, the product will remain subject to continual regulatory review and therefore authorization could be subsequently withdrawn or restricted. Any regulatory approvals that we receive for our product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical studies and surveillance to monitor the safety and efficacy of the product candidate. In addition, if the FDA or a comparable foreign regulatory authority approves any of our product candidates, we will be subject to ongoing regulatory obligations and oversight by regulatory authorities, including with respect to the manufacturing processes, labeling, packing, distribution, adverse event reporting, storage, advertising and marketing restrictions, and recordkeeping and, potentially, other post-marketing obligations, all of which may result in significant expense and limit our ability to commercialize such products. These requirements include submissions of safety and other post-marketing information and reports, registration, as well as continued compliance with cGMPs and cGCPs for any clinical studies that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- fines, warning letters or holds on clinical studies;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions or the imposition of civil or criminal penalties.

If any of these events occurs, our ability to sell such product may be impaired, and we may incur substantial additional expense to comply with regulatory requirements, which could materially adversely affect our business, financial condition and results of operations. The FDA's policies may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects and ability to achieve or sustain profitability.

***We have conducted and may in the future conduct clinical studies for our drug candidates outside the United States, and the FDA and applicable foreign regulatory authorities may not accept data from such studies.***

We have conducted and may in the future choose to conduct one or more of our clinical studies outside the United States, including in Germany, Austria, Denmark, Sweden and Finland. The acceptance of study data from clinical studies conducted outside the United States or another jurisdiction by the FDA or applicable foreign regulatory authority may be subject to certain conditions. In cases where data from foreign clinical studies are intended to serve as the basis for marketing approval in the United States, the FDA will not approve the application on the basis of foreign data alone unless the following are true: the data are applicable to the United States population and United States medical practice; the studies were performed by clinical investigators of recognized competence; and the data are considered valid without the need for an on-site inspection by the FDA or, if the FDA considers such an inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means. Additionally, the FDA's clinical study requirements, including sufficient size of patient

populations and statistical powering, must be met. Many foreign regulatory bodies have similar requirements. In addition, such foreign studies would be subject to the applicable local laws of the foreign jurisdictions where the studies are conducted. There can be no assurance that the FDA or any applicable foreign regulatory authority will accept data from studies conducted outside of the United States or the applicable jurisdiction. If the FDA or any applicable foreign regulatory authority does not accept such data, it would result in the need for additional studies, which would be costly and time-consuming and delay aspects of our business plan, and which may result in our drugs or drug candidates not receiving approval or clearance for commercialization in the applicable jurisdiction.

***Enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our product candidates and may affect the prices we may set.***

In the United States and the European Union, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system. These changes could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any products for which we obtain marketing approval.

In the United States, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, or the Medicare Modernization Act, changed the way Medicare covers and pays for pharmaceutical products. The legislation expanded Medicare coverage for drug purchases by the elderly and introduced a new reimbursement methodology based on average sale prices for physician-administered drugs. In addition, this legislation provided authority for limiting the number of drugs that will be covered in any therapeutic class. Cost-reduction initiatives and other provisions of this legislation could decrease the coverage and price that we receive for any approved products. While the Medicare Modernization Act applies only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from the Medicare Modernization Act may result in a similar reduction in payments from private payors.

More recently, in March 2010, former President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Health Care Reform Law, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for health care and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms. The Health Care Reform Law, among other things, increased rebates a manufacturer must pay to the Medicaid program, addressed a new methodology by which rebates owed by manufacturers under the Medicaid Drug Rebate Program are calculated for drugs that are inhaled, infused, instilled, implanted or injected, established a new Medicare Part D coverage gap discount program, in which manufacturers must provide 50% point-of-sale discounts on products covered under Part D and implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models. Further, the new law imposed a significant annual fee on companies that manufacture or import branded prescription drug products. Substantial new provisions affecting compliance were enacted, which may affect our business practices with health care practitioners.

In 2017, we may face uncertainties because there likely will be U.S. federal legislative and administrative efforts to repeal, substantially modify or invalidate some or all of the provisions of the Health Care Reform Law. In January 2017, Congress voted to adopt a budget resolution for fiscal year 2017, or the Budget Resolution, that authorizes the implementation of legislation that would repeal portions of the Health Care Reform Law. Further, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under Health Care Reform Law to waive, defer, grant exemptions from, or delay the implementation of any provision of Health Care Reform Law that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Congress also could consider subsequent legislation to replace elements of the Health Care Reform Law that are repealed. There is no assurance that the Health Care Reform Law, as currently enacted or as amended in the future, will not adversely affect our business and financial results, and we cannot predict how future federal or state legislative or administrative changes relating to healthcare reform will affect our business.

Moreover, other legislative changes have also been proposed and adopted in the United States since the Health Care Reform Law was enacted. On August 2, 2011, the Budget Control Act of 2011, among other things, created

measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions to Medicare payments to providers of 2% per fiscal year, which went into effect on April 1, 2013. On January 2, 2013, former President Obama signed into law the American Taxpayer Relief Act of 2012, or the ATRA, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other health care funding, which could have a material adverse effect on our customers and accordingly, our financial operations.

In the European Union, proposed new clinical study regulations will centralize clinical study approval, which eliminates redundancy, but in some cases this may extend timelines for clinical study approvals due to potentially longer wait times. Proposals to require specific consents for use of data in research, among other measures, may increase the costs and timelines for our product development efforts. Austerity measures in certain European nations may also affect the prices we are able to seek if our products are approved, as discussed below.

Both in the United States and in the European Union, legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We do not know whether additional legislative changes will be enacted, or whether the regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be.

***We could be subject to liabilities under environmental, health and safety laws or regulations, or fines, penalties or other sanctions, if we fail to comply with such laws or regulations or otherwise incur costs that could have a material adverse effect on the success of our business.***

We are subject to numerous environmental, health and safety laws, regulations, and permitting requirements, including those governing laboratory procedures, decontamination activities and the handling, transportation, use, remediation, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials and produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials or wastes either at our sites or at third party disposal sites. In the event of such contamination or injury, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties. Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials or other work-related injuries, this insurance may not provide adequate coverage against potential liabilities.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws, regulations or permitting requirements. Such laws, regulations and requirements are becoming increasingly more stringent and may impair our research, development or production efforts. Failure to comply with these laws, regulations and permitting requirements also may result in substantial fines, penalties or other sanctions.

***Our relationships with customers and payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which, if violated, could expose us to criminal sanctions, civil penalties, exclusion from government healthcare programs, contractual damages, reputational harm and diminished profits and future earnings.***

Healthcare providers, physicians and others play a primary role in the recommendation and prescription of any products for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations, primarily in the United States, that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our products for which we obtain marketing approval. Restrictions under applicable healthcare laws and regulations, include the following:

- the U.S. healthcare anti-kickback statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind,

to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under U.S. government healthcare programs such as Medicare and Medicaid;

- the U.S. False Claims Act imposes criminal and civil penalties, including civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the U.S. government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government;
- the U.S. Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;
- the transparency requirements under the Health Care Reform Law require manufacturers of drugs, devices, biologics and medical supplies to report to the U.S. Department of Health and Human Services information related to payments and other transfers of value made by such manufacturers to physicians and teaching hospitals, and ownership and investment interests held by physicians or their immediate family members; and
- analogous laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available under the U.S. federal Anti-Kickback Statute, it is possible that some of our future business activities could be subject to challenge under one or more of such laws. In addition, recent health care reform legislation has strengthened these laws. For example, the Health Care Reform Law, among other things, amends the intent requirement of the federal anti-kickback and criminal healthcare fraud statutes. A person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. Moreover, the Health Care Reform Law provides that the government may assert that a claim including items or services resulting from a violation of the federal anti-kickback statute constitutes a false or fraudulent claim for purposes of the False Claims Act.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, exclusion from U.S. government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we expect to do business with are found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

***Risks from the improper conduct of employees, agents, contractors, or collaborators could adversely affect our reputation and our business, prospects, operating results, and financial condition.***

We cannot ensure that our compliance controls, policies, and procedures will in every instance protect us from acts committed by our employees, agents, contractors, or collaborators that would violate the laws or regulations of the jurisdictions in which we operate, including, without limitation, healthcare, employment, foreign corrupt practices, environmental, competition, and patient privacy and other privacy laws and regulations. Such improper

actions could subject us to civil or criminal investigations, and monetary and injunctive penalties, and could adversely impact our operating results, ability to conduct business, and reputation.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA or EMA regulations, to provide accurate information to the FDA or the EMA or intentional failures to report financial information or data accurately or to disclose unauthorized activities to us. Employee misconduct could also involve the improper use of information obtained in the course of clinical studies, which could result in regulatory sanctions and serious harm to our reputation. In October 2015, we adopted a code of conduct, but it is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

***Our business activities may be subject to the Foreign Corrupt Practices Act, or FCPA, and similar anti-bribery and anti-corruption laws.***

Our business activities may be subject to the FCPA and similar anti-bribery or anti-corruption laws, regulations or rules of other countries in which we operate, including the U.K. Bribery Act. The FCPA generally prohibits offering, promising, giving, or authorizing others to give anything of value, either directly or indirectly, to a non-U.S. government official in order to influence official action, or otherwise obtain or retain business. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. Our business is heavily regulated and therefore involves significant interaction with public officials, including officials of non-U.S. governments. Additionally, in many other countries, the health care providers who prescribe pharmaceuticals are employed by their government, and the purchasers of pharmaceuticals are government entities; therefore, our dealings with these prescribers and purchasers are subject to regulation under the FCPA. Recently the Securities and Exchange Commission, or SEC, and Department of Justice have increased their FCPA enforcement activities with respect to pharmaceutical companies. There is no certainty that all of our employees, agents, contractors, or collaborators, or those of our affiliates, will comply with all applicable laws and regulations, particularly given the high level of complexity of these laws. Violations of these laws and regulations could result in fines, criminal sanctions against us, our officers, or our employees, the closing down of our facilities, requirements to obtain export licenses, cessation of business activities in sanctioned countries, implementation of compliance programs, and prohibitions on the conduct of our business. Any such violations could include prohibitions on our ability to offer our products in one or more countries and could materially damage our reputation, our brand, our international expansion efforts, our ability to attract and retain employees, and our business, prospects, operating results, and financial condition.

#### **Risks Related to Our Common Shares**

***The price of our common shares may be volatile and may fluctuate due to factors beyond our control.***

The share prices of publicly traded emerging biopharmaceutical and drug discovery and development companies have been highly volatile and are likely to remain highly volatile in the future. The market price of our common shares may fluctuate significantly due to a variety of factors, including:

- positive or negative results of testing and clinical studies by us, strategic partners, or competitors;
- delays in entering into strategic relationships with respect to development and/or commercialization of our product candidates or entry into strategic relationships on terms that are not deemed to be favorable to us;
- technological innovations or commercial product introductions by us or competitors;
- changes in government regulations;
- developments concerning proprietary rights, including patents and litigation matters;



- public concern relating to the commercial value or safety of any of our product candidates;
- financing or other corporate transactions;
- publication of research reports or comments by securities or industry analysts;
- general market conditions in the pharmaceutical industry or in the economy as a whole; or
- other events and factors beyond our control.

In addition, the stock market in general has recently experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of individual companies. Broad market and industry factors may materially affect the market price of companies' stock, including ours, regardless of actual operating performance.

***Certain of our existing shareholders exercise significant control over us, and your interests may conflict with the interests of our existing shareholders.***

Certain principal shareholders as well as our executive officers and directors together beneficially own approximately 62.5% of our common shares. Depending on the level of attendance at our general meetings of shareholders, these shareholders may be in a position to determine the outcome of decisions taken at any such general meeting. To the extent that the interests of these shareholders may differ from the interests of the company's other shareholders, the latter may be disadvantaged by any action that these shareholders may seek to pursue. Among other consequences, this concentration of ownership may have the effect of delaying or preventing a change in control and might therefore negatively affect the market price of our common shares.

***Future sales, or the possibility of future sales, of a substantial number of our common shares could adversely affect the price of our common shares.***

Future sales of a substantial number of our common shares, or the perception that such sales will occur, could cause a decline in the market price of our common shares. If certain of our shareholders sell substantial amounts of common shares in the public market, or the market perceives that such sales may occur, the market price of our common shares and our ability to raise capital through an issue of equity securities in the future could be adversely affected. We also entered into a registration rights agreement in connection with the Series E Private Placement with certain investors in the Series E Private Placement pursuant to which we agreed under certain circumstances to file a registration statement to register the resale of the common shares held by certain of our existing shareholders, as well as to cooperate in certain public offerings of such common shares. In addition, we have adopted a new omnibus equity incentive plan under which we have the discretion to grant a broad range of equity-based awards to eligible participants. These shares were registered pursuant to the registration statement on Form S-8 that we filed with SEC and, therefore, can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates. If a large number of our common shares or securities convertible into our common shares are sold in the public market after they become eligible for sale, the sales could reduce the trading price of our common shares and impede our ability to raise future capital.

***We have broad discretion in the use of our cash and cash equivalents and may not use them effectively.***

Our management will have broad discretion in the application of our cash and cash equivalents and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common shares. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common shares to decline and delay the development of our product candidates. Pending their use, we may invest our cash and cash equivalents in a manner that does not produce income or that loses value.

***We do not expect to pay dividends in the foreseeable future.***

We have not paid any dividends since our incorporation. Even if future operations lead to significant levels of distributable profits, we currently intend that any earnings will be reinvested in our business and that dividends will not be paid until we have an established revenue stream to support continuing dividends. The proposal to pay future dividends to shareholders will in addition effectively be at the discretion of our board of directors after taking into

account various factors including our business prospects, cash requirements, financial performance and new product development. In addition, payment of future dividends is subject to certain limitation pursuant to Swiss law or by our articles of association. Accordingly, investors cannot rely on dividend income from our common shares and any returns on an investment in our common shares will likely depend entirely upon any future appreciation in the price of our common shares.

***We are a Swiss corporation. The rights of our shareholders may be different from the rights of shareholders in companies governed by the laws of U.S. jurisdictions.***

We are a Swiss corporation. Our corporate affairs are governed by our articles of association and by the laws governing companies, including listed companies, incorporated in Switzerland. The rights of our shareholders and the responsibilities of members of our board of directors may be different from the rights and obligations of shareholders and directors of companies governed by the laws of U.S. jurisdictions. In the performance of its duties, our board of directors is required by Swiss law to consider the interests of our company, our shareholders, our employees and other stakeholders, in all cases with due observation of the principles of reasonableness and fairness. It is possible that some of these parties will have interests that are different from, or in addition to, your interests as a shareholder. Swiss corporate law limits the ability of our shareholders to challenge resolutions made or other actions taken by our board of directors in court. Our shareholders generally are not permitted to file a suit to reverse a decision or an action taken by our board of directors but are instead only permitted to seek damages for breaches of fiduciary duty. As a matter of Swiss law, shareholder claims against a member of our board of directors for breach of fiduciary duty would have to be brought in Lausanne, Switzerland, or where the relevant member of our board of directors is domiciled. In addition, under Swiss law, any claims by our shareholders against us must be brought exclusively in Lausanne, Switzerland.

***Our common shares are issued under the laws of Switzerland, which may not protect investors in a similar fashion afforded by incorporation in a U.S. state.***

We are organized under the laws of Switzerland. There can be no assurance that Swiss law will not change in the future or that it will serve to protect investors in a similar fashion afforded under corporate law principles in the U.S., which could adversely affect the rights of investors.

***Our status as a Swiss corporation may limit our flexibility with respect to certain aspects of capital management and may cause us to be unable to make distributions without subjecting our shareholders to Swiss withholding tax.***

Swiss law allows our shareholders to authorize share capital that can be issued by the board of directors without additional shareholder approval. This authorization is limited to 50% of the existing registered share capital and must be renewed by the shareholders every two years. Additionally, subject to specified exceptions, Swiss law grants pre-emptive subscription rights to existing shareholders to subscribe to any new issuance of shares. Swiss law also does not provide as much flexibility in the various terms that can attach to different classes of shares as the laws of some other jurisdictions. Swiss law also reserves for approval by shareholders certain corporate actions over which a board of directors would have authority in some other jurisdictions. For example, dividends must be approved by shareholders. These Swiss law requirements relating to our capital management may limit our flexibility, and situations may arise where greater flexibility would have provided substantial benefits to our shareholders.

Under Swiss law, a Swiss corporation may pay dividends only if the corporation has sufficient distributable profits from previous fiscal years, or if the corporation has distributable reserves, each as evidenced by its audited statutory balance sheet. Freely distributable reserves are generally booked either as “free reserves” or as “capital contributions” (*apports de capital*, contributions received from shareholders) in the “reserve from capital contributions.” Distributions may be made out of issued share capital—the aggregate nominal value of a company’s issued shares—only by way of a capital reduction. As of December 31, 2016, the Company has CHF 179.2 million of qualifying capital contributions and CHF 1,135,468 of registered share capital (consisting of 56,773,392 common shares each with a nominal value of CHF 0.02 and no preferred shares) on its audited statutory balance sheet.

We expect the aggregate of these amounts (less the lowest legally possible issued share capital and legal reserve of together CHF 150,000) to represent the amount available for future dividends or capital reductions on a Swiss withholding tax-free basis. We will not be able to pay dividends or make other distributions to shareholders on a

Swiss withholding tax-free basis in excess of that amount unless the Company increases its share capital or its reserves from capital contributions. We would also be able to pay dividends out of distributable profits or freely distributable reserves but such dividends would be subject to Swiss withholding taxes. There can be no assurance that we will have sufficient distributable profits, free reserves, reserves from capital contributions or registered share capital to pay a dividend or effect a capital reduction, that our shareholders will approve dividends or capital reductions proposed by us, or that we will be able to meet the other legal requirements for dividend payments or distributions as a result of capital reductions.

Generally, Swiss withholding tax of 35% is due on dividends and similar distributions to our shareholders, regardless of the place of residency of the shareholder, unless the distribution is made to shareholders out of (i) a reduction of nominal value or (ii) assuming certain conditions are met, qualifying capital contributions accumulated on or after January 1, 1997. A U.S. holder that qualifies for benefits under the Convention between the United States of America and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income, which we refer to as the "U.S.-Swiss Treaty," may apply for a refund of the tax withheld in excess of the 15% treaty rate (or in excess of the 5% reduced treaty rate for qualifying corporate shareholders with at least 10% participation in our voting stock, or for a full refund in the case of qualified pension funds). There can be no assurance that we will have sufficient qualifying capital contributions to pay dividends free from Swiss withholding tax, or that Swiss withholding rules will not be changed in the future. In addition, we cannot provide assurance that the current Swiss law with respect to distributions out of qualifying capital contributions will not be changed or that a change in Swiss law will not adversely affect us or our shareholders, in particular as a result of distributions out of qualifying capital contributions becoming subject to additional corporate law or other restrictions. There are currently motions pending in the Swiss Parliament that purport to limit the distribution of qualifying capital contributions. In addition, over the long term, the amount of par value available to us for nominal value reductions or qualifying capital contributions available to us to pay out as distributions is limited. If we are unable to make a distribution through a reduction in nominal value or out of qualifying capital contributions, we may not be able to make distributions without subjecting our shareholders to Swiss withholding taxes.

Under present Swiss tax laws, repurchases of shares for the purposes of cancellation are treated as a partial liquidation subject to 35% Swiss withholding tax on the difference between the repurchase price and the nominal value except, since January 1, 2011, to the extent attributable to qualifying capital contributions (*apports de capital*) if any, and to the extent that, the repurchase of shares is out of retained earnings or other taxable reserves. No partial liquidation treatment applies and no withholding tax is triggered if the shares are not repurchased for cancellation but held by the Company as treasury shares. However, should Company not resell such treasury shares within six years, the withholding tax becomes due at the end of the six year period.

***U.S. shareholders may not be able to obtain judgments or enforce civil liabilities against us or our executive officers or members of our board of directors.***

We are organized under the laws of Switzerland and our registered office and domicile is located in Ecublens, near Lausanne, Switzerland. Moreover, a number of our directors and executive officers and a number of directors of each of our subsidiaries are not residents of the United States, and all or a substantial portion of the assets of such persons are located outside the United States. As a result, it may not be possible for investors to effect service of process within the United States upon us or upon such persons or to enforce against them judgments obtained in U.S. courts, including judgments in actions predicated upon the civil liability provisions of the federal securities laws of the United States. We have been advised by our Swiss counsel that there is doubt as to the enforceability in Switzerland of original actions, or in actions for enforcement of judgments of U.S. courts, of civil liabilities to the extent solely predicated upon the federal and state securities laws of the United States. Original actions against persons in Switzerland based solely upon the U.S. federal or state securities laws are governed, among other things, by the principles set forth in the Swiss Federal Act on Private International Law. This statute provides that the application of provisions of non-Swiss law by the courts in Switzerland shall be precluded if the result is incompatible with Swiss public policy. Also, certain mandatory provisions of Swiss law may be applicable regardless of any other law that would otherwise apply.

Switzerland and the United States do not have a treaty providing for reciprocal recognition and enforcement of judgments in civil and commercial matters. The recognition and enforcement of a judgment of the courts of the United States in Switzerland is governed by the principles set forth in the Swiss Federal Act on Private International Law. This statute provides in principle that a judgment rendered by a non-Swiss court may be enforced in Switzerland only if:

- the non-Swiss court had jurisdiction pursuant to the Swiss Federal Act on Private International Law;
- the judgment of such non-Swiss court has become final and non-appealable;
- the judgment does not contravene Swiss public policy;
- the court procedures and the service of documents leading to the judgment were in accordance with the due process of law; and
- no proceeding involving the same position and the same subject matter was first brought in Switzerland, or adjudicated in Switzerland, or was earlier adjudicated in a third state and this decision is recognizable in Switzerland.

***Our status as a Swiss corporation means that our shareholders enjoy certain rights that may limit our flexibility to raise capital, issue dividends and otherwise manage ongoing capital needs.***

Swiss law reserves for approval by shareholders certain corporate actions over which a board of directors would have authority in some other jurisdictions. For example, the payment of dividends and cancellation of treasury shares must be approved by shareholders. Swiss law also requires that our shareholders themselves resolve to, or authorize our board of directors to, increase our share capital. While our shareholders may authorize share capital that can be issued by our board of directors without additional shareholder approval, Swiss law limits this authorization to 50% of the issued share capital at the time of the authorization. The authorization, furthermore, has a limited duration of up to two years and must be renewed by the shareholders from time to time thereafter in order to be available for raising capital. Additionally, subject to specified exceptions, including exceptions explicitly described in our articles of association, Swiss law grants pre-emptive subscription rights to existing shareholders to subscribe for new issuances of shares. Swiss law also does not provide as much flexibility in the various rights and regulations that can attach to different categories of shares as do the laws of some other jurisdictions. These Swiss law requirements relating to our capital management may limit our flexibility, and situations may arise where greater flexibility would have provided benefits to our shareholders.

***Swiss law restricts our ability to pay dividends.***

The proposal to pay future dividends to shareholders will effectively be at the discretion of our board of directors and subject to approval by, in their discretion, our shareholders after taking into account various factors including our business prospects, cash requirements, financial performance and new product development. In addition, payment of future dividends is subject to certain limitation pursuant to Swiss law or by our articles of association. Accordingly, investors cannot rely on dividend income from our common shares and any returns on an investment in our common shares will likely depend entirely upon any future appreciation in the price of our common shares. Dividends paid on our common shares are subject to Swiss federal withholding tax, except if paid out of reserves from capital contributions (*apports de capital*). See “Item 10. Additional Information- E. Taxation—Swiss Tax Considerations” for a summary of certain Swiss tax consequences regarding dividends distributed to holders of our common shares.

***We are a foreign private issuer and, as a result, we are not be subject to U.S. proxy rules and are subject to Exchange Act reporting obligations that, to some extent, are more lenient and less frequent than those of a U.S. domestic public company.***

We are reporting under the Exchange Act as a non-U.S. company with foreign private issuer status. Because we qualify as a foreign private issuer under the Exchange Act and although we are subject to Swiss laws and regulations with regard to such matters and intend to furnish quarterly financial information to the SEC, we are exempt from certain provisions of the Exchange Act that are applicable to U.S. domestic public companies, including (i) the sections of the Exchange Act regulating the solicitation of proxies, consents or authorizations in respect of a security registered under the Exchange Act; (ii) the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and (iii) the rules under the Exchange Act requiring the filing with the SEC of quarterly reports on Form 10-Q containing unaudited financial and other specified information, or current reports on Form 8-K, upon the occurrence of specified significant events. In addition, foreign private issuers are not required to file their annual report on Form 20-F until four months after the end of each financial year, while U.S. domestic issuers that are accelerated filers are

required to file their annual report on Form 10-K within 75 days after the end of each fiscal year. Foreign private issuers are also exempt from the Regulation Fair Disclosure, aimed at preventing issuers from making selective disclosures of material information. As a result of the above, you may not have the same protections afforded to shareholders of companies that are not foreign private issuers.

***As a foreign private issuer and as permitted by the listing requirements of NASDAQ, we rely on certain home country governance practices rather than the corporate governance requirements of NASDAQ.***

We are a foreign private issuer. As a result, in accordance with NASDAQ Listing Rule 5615(a)(3), we comply with home country governance requirements and certain exemptions thereunder rather than complying with certain of the corporate governance requirements of NASDAQ. Swiss law does not require that a majority of our board of directors consist of independent directors. Our board of directors therefore may include fewer independent directors than would be required if we were subject to NASDAQ Listing Rule 5605(b)(1). In addition, we are not be subject to NASDAQ Listing Rule 5605(b)(2), which requires that independent directors must regularly have scheduled meetings at which only independent directors are present.

Although Swiss law also requires that we adopt a compensation committee, we follow home country requirements with respect to such committee and our compensation, nomination and governance committee is tasked with certain director nomination and governance responsibilities as described under "Item 6. Directors, Senior Management and Employees." As a result, our practice varies from the requirements of NASDAQ Listing Rule 5605(d), which sets forth certain requirements as to the responsibilities, composition and independence of compensation committees, and from the independent director oversight of director nominations requirements of NASDAQ Listing Rule 5605(e).

Furthermore, in accordance with Swiss law and generally accepted business practices, our articles of association do not provide quorum requirements generally applicable to general meetings of shareholders. Our practice thus varies from the requirement of NASDAQ Listing Rule 5620(c), which requires an issuer to provide in its bylaws for a generally applicable quorum, and that such quorum may not be less than one-third of the outstanding voting stock. Our articles of association provide for an independent proxy holder elected by our shareholders, who may represent our shareholders at a general meeting of shareholders, and we must provide shareholders with an agenda and other relevant documents for the general meeting of shareholders. However, Swiss law does not have a regulatory regime for the solicitation of proxies and company solicitation of proxies is prohibited for public companies in Switzerland, thus our practice varies from the requirement of NASDAQ Listing Rule 5620(b), which sets forth certain requirements regarding the solicitation of proxies. In addition, we have opted out of shareholder approval requirements for the issuance of securities in connection with certain events such as the acquisition of stock or assets of another company, the establishment of or amendments to equity-based compensation plans for employees, a change of control of us and certain private placements. To this extent, our practice varies from the requirements of NASDAQ Listing Rule 5635, which generally requires an issuer to obtain shareholder approval for the issuance of securities in connection with such events.

For an overview of our corporate governance principles, see "Item 16G. Corporate governance". As a result of the above, you may not have the same protections afforded to shareholders of companies that are not foreign private issuers.

***We may lose our foreign private issuer status, which would then require us to comply with the Exchange Act's domestic reporting regime and cause us to incur significant legal, accounting and other expenses.***

We are a foreign private issuer and therefore we are not required to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. domestic issuers. We may no longer be a foreign private issuer as of June 30, 2017 (or the end of our second fiscal quarter in any subsequent fiscal year), which would require us to comply with all of the periodic disclosure and current reporting requirements of the Exchange Act applicable to U.S. domestic issuers as of January 1, 2018 (or the first day of the fiscal year immediately succeeding the end of such second quarter). In order to maintain our current status as a foreign private issuer, either (a) a majority of our common shares must be either directly or indirectly owned of record by non-residents of the United States or (b)(i) a majority of our executive officers or directors may not be United States citizens or residents, (ii) more than 50 percent of our assets cannot be located in the United States and (iii) our business must be administered principally outside the United States. If we lost this status, we would be required to comply with the Exchange Act reporting and other requirements applicable to U.S. domestic issuers, which are more

detailed and extensive than the requirements for foreign private issuers. We may also be required to make changes in our corporate governance practices in accordance with various SEC and stock exchange rules. The regulatory and compliance costs to us under U.S. securities laws if we are required to comply with the reporting requirements applicable to a U.S. domestic issuer may be significantly higher than the cost we would incur as a foreign private issuer. As a result, we expect that a loss of foreign private issuer status would increase our legal and financial compliance costs and would make some activities highly time consuming and costly. We also expect that if we were required to comply with the rules and regulations applicable to U.S. domestic issuers, it would make it more difficult and expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These rules and regulations could also make it more difficult for us to attract and retain qualified members of our board of directors.

***We are an “emerging growth company,” and we cannot be certain if the reduced reporting requirements applicable to “emerging growth companies” will make our common shares less attractive to investors.***

We are an “emerging growth company,” as defined in the Jumpstart our Business Startups Act of 2012, or the JOBS Act. For as long as we continue to be an “emerging growth company,” we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not “emerging growth companies,” including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. We could be an “emerging growth company” until the end of our fiscal year 2021, although circumstances could cause us to lose that status earlier, including if the market value of our common shares held by non-affiliates exceeds \$700 million as of any June 30 (the end of our second fiscal quarter) before the end of our fiscal year 2021, in which case we would no longer be an “emerging growth company” as of the following December 31 (our fiscal year end). We cannot predict if investors will find our common shares less attractive because we may rely on these exemptions. If some investors find our common shares less attractive as a result, there may be a less active trading market for our common shares and the price of our common shares may be more volatile.

***As a result of being a public company we incur additional costs and we may not manage to comply with our internal control procedures and corporate governance structures.***

As a public company, we incur additional legal, insurance, accounting and other expenses that we did not incur as a private company. For example, as a public company, we needed to adopt additional internal controls and disclosure controls and procedures and bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligation under the securities laws. However, if our efforts to comply with evolving laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us. This could have a material adverse impact on our business, financial condition and results of operations.

***In connection with the audit of our financial statements as at and for the year ended December 31, 2014, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. This material weakness continued to exist as of December 31, 2016. If we fail to maintain an effective system of internal control over financial reporting, we may be unable to accurately report our financial results or prevent fraud, and investor confidence in our company and the market price of our shares may be adversely affected.***

Prior to our IPO, we were a private company with limited accounting personnel and other resources with which to address our internal control over financial reporting. Further, our reporting obligations as a public company will continue to place a significant strain on our management, operational and financial resources and systems for the foreseeable future. In connection with our preparation and the audit of our financial statements as of and for the year ended December 31, 2014, we and our independent registered public accounting firm identified a material weakness as defined under the Exchange Act and by the U.S. Public Company Accounting Oversight Board, or PCAOB, in our internal control over financial reporting, and this material weakness was not remediated as of December 31, 2016. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company’s annual financial statements will not be prevented or detected on a timely basis. The material weakness identified relates specifically to the accounting for and disclosure of non-routine and complex accounting transactions and the related internal controls and processes supporting these areas. In light of the material weakness that was identified, we believe it is possible that, had we performed a formal assessment of our internal control over financial reporting or had our independent registered public accounting firm performed an audit of our internal control over financial reporting in accordance with PCAOB standards, additional control deficiencies may have been identified.

As a result of reporting obligations under U.S. securities laws and the Sarbanes-Oxley Act of 2002, Section 404 of the Sarbanes-Oxley Act will require that we include a report from management on the effectiveness of our internal control over financial reporting in our annual report on Form 20-F beginning with our annual report for the fiscal year ending December 31, 2017. If we fail to remediate the material weakness identified above, our management may conclude that our internal control over financial reporting is not effective. This conclusion could adversely impact the market price of our shares due to a loss of investor confidence in the reliability of our reporting processes.

We are taking measures and plan to continue to take measures to remediate this material weakness. However, the implementation of these measures may not fully address this material weakness in our internal control over financial reporting, and therefore we would not be able to conclude that it has been fully remedied. Our failure to correct this material weakness or our failure to discover and address any other control deficiencies could result in inaccuracies in our financial statements and could also impair our ability to comply with applicable financial reporting requirements and make related regulatory filings on a timely basis. As a result, our business, financial condition, results of operations and prospects, as well as the trading price of our shares, may be materially and adversely affected.

***If in the future we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, shareholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common shares.***

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. As discussed above, in connection with the audit of our financial statements as and for the year ended December 31, 2014, we identified a material weakness in our internal control over financial reporting, which was not remediated as at December 31, 2016. In addition, any testing by us conducted in connection with Section 404 of the Sarbanes-Oxley Act of 2002, or any subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Inferior internal controls could also subject us to regulatory scrutiny and sanctions, impair our ability to raise revenue and cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our common shares.

We are required to disclose changes made in our internal controls and procedures and our management will be required to assess the effectiveness of these controls annually. However, for as long as we are an “emerging growth company” under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404. We could be an “emerging growth company” until the end of our fiscal year 2021. An independent assessment of the effectiveness of our internal controls could detect problems that our management’s assessment might not. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation.

***If securities or industry analysts do not publish research, or publish inaccurate or unfavorable research, about our business, the price of our common shares and our trading volume could decline.***

The trading market for our common shares will depend in part on the research and reports that securities or industry analysts publish about us or our business. If no or too few securities or industry analysts cover our company, the trading price for our common shares would likely be negatively affected. In addition, if one or more of the analysts who cover us downgrade our common shares or publish inaccurate or unfavorable research about our business, the price of our common shares would likely decline. If one or more of these analysts cease coverage of our company or fail to publish reports on us regularly, demand for our common shares could decrease, which might cause the price of our common shares and trading volume to decline.

***An increase in our tax rate could occur, which could adversely affect our financial results***

The Swiss Federal government has recently proposed changes to align Swiss corporate taxation with international recommendations but voters in Switzerland voted against such proposals in a national referendum on February 12, 2017. As a result, uncertainty will continue about the future level of Swiss corporate income taxes that may apply to us until revised proposals are put forward and gain acceptance.

For further discussion, see “Item 10. Additional Information—E. Taxation.”

***Although we believe that we were not a “passive foreign investment company,” or PFIC, for U.S. federal income tax purposes in 2016, and we do not expect to be a PFIC in the immediately foreseeable future, if we were a PFIC U.S. shareholders may be subject to adverse U.S. federal income tax consequences.***

Under the Internal Revenue Code of 1986, as amended, or the Code, we will be a PFIC for any taxable year in which, after the application of certain look-through rules with respect to subsidiaries, either (i) 75% or more of our gross income consists of passive income or (ii) 50% or more of the average quarterly value of our assets consists of assets that produce, or are held for the production of, passive income. Passive income generally includes dividends, interest, certain non-active rents and royalties, and capital gains. Based on our business plan and certain estimates and projections, including as to the relative values of our assets, we do not believe that we were a PFIC for our 2016 taxable year and do not expect to be a PFIC in the immediately foreseeable future. However, there can be no assurance that the IRS will agree with our conclusion. In addition, whether we will be a PFIC in 2017 or any future years is uncertain because, among other things, (i) we currently own, a substantial amount of passive assets, including cash, and (ii) the valuation of our assets that generate non-passive income for PFIC purposes, including our intangible assets, is uncertain and may vary substantially over time. Accordingly, there can be no assurance that we will not be a PFIC for any taxable year.

If we are a PFIC for any taxable year during which a U.S. investor holds common shares, we generally would continue to be treated as a PFIC with respect to that U.S. investor for all succeeding years during which the U.S. investor holds common shares, even if we ceased to meet the threshold requirements for PFIC status. Such a U.S.

investor may be subject to adverse U.S. federal income tax consequences, including (i) the treatment of all or a portion of any gain on disposition as ordinary income, (ii) the application of a deferred interest charge on such gain and the receipt of certain dividends and (iii) compliance with certain reporting requirements. We do not intend to provide the information that would enable investors to take a qualified electing fund election that could mitigate the adverse U.S. federal income tax consequences should we be classified as a PFIC.

For further discussion, see “Item 10. Additional Information—Section E. Taxation.”

#### ITEM 4. INFORMATION ON THE COMPANY

##### A. History and development of the Company

We are a Swiss stock corporation (*société anonyme*) organized under the laws of Switzerland. We were formed as a Swiss limited liability company (*société à responsabilité limitée*) on February 13, 2003 with our registered office and domicile in Basel, Switzerland. We converted to a Swiss stock corporation (*société anonyme*) under the laws of Switzerland on August 25, 2003. Our domicile and registered office is in Ecublens, near Lausanne, Canton of Vaud, Switzerland. Our ordinary shares were admitted to trading on NASDAQ Global Market on September 23, 2016. Our shares are traded under the symbol ACIU.

Our registered and principal executive offices are located at EPFL Innovation Park, Building B, 1015 Lausanne, Switzerland, our general telephone number is (41) 21 345 91 21 and our internet address is [www.acimmune.com](http://www.acimmune.com). Our website and the information contained on or accessible through our website are not part of this document.

##### B. Business overview

We are a clinical stage biopharmaceutical company leveraging our two proprietary technology platforms to discover, design and develop novel, proprietary medicines for prevention, diagnosis and treatment of neurodegenerative diseases associated with protein misfolding. Misfolded proteins are generally recognized as the leading cause of neurodegenerative diseases, such as Alzheimer’s disease, or AD, and Parkinson’s disease, or PD, with common mechanisms and drug targets, such as Abeta, tau and alpha-synuclein. We believe that our large and diverse pipeline of seven therapeutic candidates and three diagnostic candidates has the potential to drive a paradigm shift in the treatment of a broad spectrum of neurodegenerative and other diseases related to protein misfolding.

Our lead product candidate is crenezumab, a humanized, monoclonal, conformation-specific anti-Abeta antibody that we developed using our SupraAntigen platform. Crenezumab commenced Phase 3 clinical studies in the first quarter of 2016. Genentech, Inc., a wholly owned subsidiary of Roche, Genentech, is advancing crenezumab under a collaboration agreement with us for the treatment of AD, a progressive neurodegenerative disease that affected an estimated 9.0 million people in the United States, the United Kingdom, Western Europe, Japan, China and India in 2013. Under this collaboration agreement, Genentech is responsible for the clinical development of crenezumab, including the costs associated with seeking and obtaining regulatory and marketing approvals, manufacturing costs and sales and marketing costs. We believe our collaboration with Genentech validates our technology and crenezumab’s potential to become a best-in-class disease-modifying treatment for AD. We are eligible to receive up to \$340 million in total payments from Genentech, as well as sales royalties. Crenezumab has received Fast Track designation from the U.S. Food and Drug Administration, or FDA. The Fast Track program is intended to expedite or facilitate the process for reviewing new drugs that are designed to treat a serious or life-threatening condition and demonstrate the potential to address unmet medical needs, as further described under “—Government Regulation and Our Regulatory Department—Product Approval Process.” In 2012, crenezumab was independently selected by the National Institute of Health, or NIH, the Banner Alzheimer’s Institute and Genentech for use in the first-ever AD prevention study, which serves as the cornerstone of the global Alzheimer’s Prevention Initiative.

If approved, crenezumab has the potential to treat the underlying cause of the disease and intervene at an earlier stage of AD progression, prior to irreversible neuronal damage. We believe that crenezumab is ideally positioned to be at the forefront of disease-modifying and preventive medicine. We believe the key advantages of crenezumab include:

- **Unique mechanism of action:**
  - Recognizes and binds to multiple forms of misfolded Abeta, a protein commonly associated with AD.



- Helps to protect against neurotoxicity due to high affinity for the multiple forms of misfolded Abeta, with high affinity for oligomers (the form hypothesized to mediate neurotoxicity)
- Promotes disaggregation of existing Abeta aggregates and disrupts their assembly to prevent amyloid plaque formation, which is associated with AD.
- Clears misfolded Abeta from the brain while limiting inflammation.
- **Signal of activity in milder AD patients in Phase 2 studies:**
  - ABBY cognition study: although the study did not meet its co-primary endpoints, which were assessments under the ADAS-cog and CDR-Sum of boxes, the sample size was not expected to have adequate power to detect a modest but clinically significant difference between active medication and placebo at the 5% significance level (as is commonly the case in Phase 2 studies in AD). Instead, consistent trends across different endpoints and dose dependency are considered indicators of a response in this learning phase of development, with confirmation then sought in Phase 3. The results showed trends favoring crenezumab in the milder patient population. Notably, in an exploratory analysis, the high-dose crenezumab arm showed a non-significant slowing of cognition in the overall and mildly demented populations, which was statistically significant ( $p=0.036$ ) with a 35% slowing of the rate of cognitive decline measured by the ADAS-cog Scale over 73 weeks in patients with the non-pre-specified milder cognitive impairment (Mini-Mental State Examination score, or MMSE, of 22-26). The MMSE is a widely used test of overall cognitive function, which assesses memory, orientation and ability to perform simple tasks. Scores range from 0 (worst) to 30 (best) with a score of 0-11 indicating severe dementia, a score of 12-19 indicating moderate dementia and a score of 20-26 indicating mild dementia. Statistical significance is an indicator of the likelihood of an observed effect being due to the study drug rather than due to chance. The “p” value is the probability of an event occurring by chance alone. When the p value is less than 5% (0.05) the results are considered to be statistically significant.
  - BLAZE biomarker study: the high-dose crenezumab arm showed a consistent trend of reduced Abeta accumulation in the brain over time and a significant increase in cerebrospinal fluid, or CSF, which suggests that Abeta is being removed from the brain when patients are treated with crenezumab.
- **Favorable safety profile allowing for potentially higher dosing:**
  - Unique mechanism of action linked to the reduced ability to cause inflammation-related vasogenic edema, an accumulation of fluid in the brain that can lead to headaches, loss of coordination and disorientation.
  - Phase 2 clinical data showed a very low incidence of vasogenic edema.
  - A Phase 1 study is ongoing to study crenezumab at higher doses to potentially increase the efficacy signal. The results of an interim analysis of the first two cohorts of this study are supportive of the design and dose of the Phase 3 clinical study.

Two of our other clinical product candidates, ACI-24 and ACI-35, are being developed using our SupraAntigen platform and target AD through active immunization, where the immune system is stimulated to make its own antibodies against pathological proteins:

- ACI-24 is our wholly-owned anti-Abeta vaccine candidate that is T-cell independent, meaning it can generate an antibody response against Abeta in the absence of Abeta specific T-cells. This product candidate is currently in a Phase 1/2a clinical study to evaluate safety, tolerability, immunogenicity and biomarker endpoints in patients with mild to moderate AD in Europe. The analysis of the immune response data as well as further treatment in cohort 4 is ongoing. An interim analysis of the first three doses (cohort 1-3) revealed positive safety and tolerability. The study was not powered to examine efficacy but a trend towards reduction in accumulation in brain amyloid measured by PET imaging was observed in cohort 3. A similar pattern of reduction of clinical decline assessed by the CDR-SB was observed in cohort 3 compared to placebo at week 52 although this did not reach statistical significance. While the highest dose group is

still ongoing the Phase 2 clinical design is scheduled to be completed in the second half of fiscal year 2017. ACI-24 is also being studied in a Phase 1 clinical study in people with Down syndrome, a population which is at high risk for developing AD-like symptoms and we expect to present data from this study in 2018. A protocol amendment for the Phase 1b study of ACI-24 was submitted to the FDA in September 2015 and the clinical study has started in December 2015.

- We are developing the anti-tau vaccine ACI-35 under a collaboration agreement with Janssen, which we entered into in December 2014. A Phase 1b clinical study to evaluate the safety, tolerability and immunogenicity of ACI-35 in patients with mild to moderate AD is ongoing in Finland and the United Kingdom. The study includes 5 cohorts with escalating doses and different dosing schedules. To date, safety and tolerability is considered satisfactory as assessed by the Data Safety Monitoring Board. An interim analysis showed a dose-dependent and target-specific antibody response to pTau. Further results, which we expect to have completed in the second half of fiscal 2017, will be the basis for the program's future development. Janssen is expected to assume responsibility for the clinical development of phase 2 and beyond, as well as the regulatory approval, manufacturing and commercialization of ACI-35.

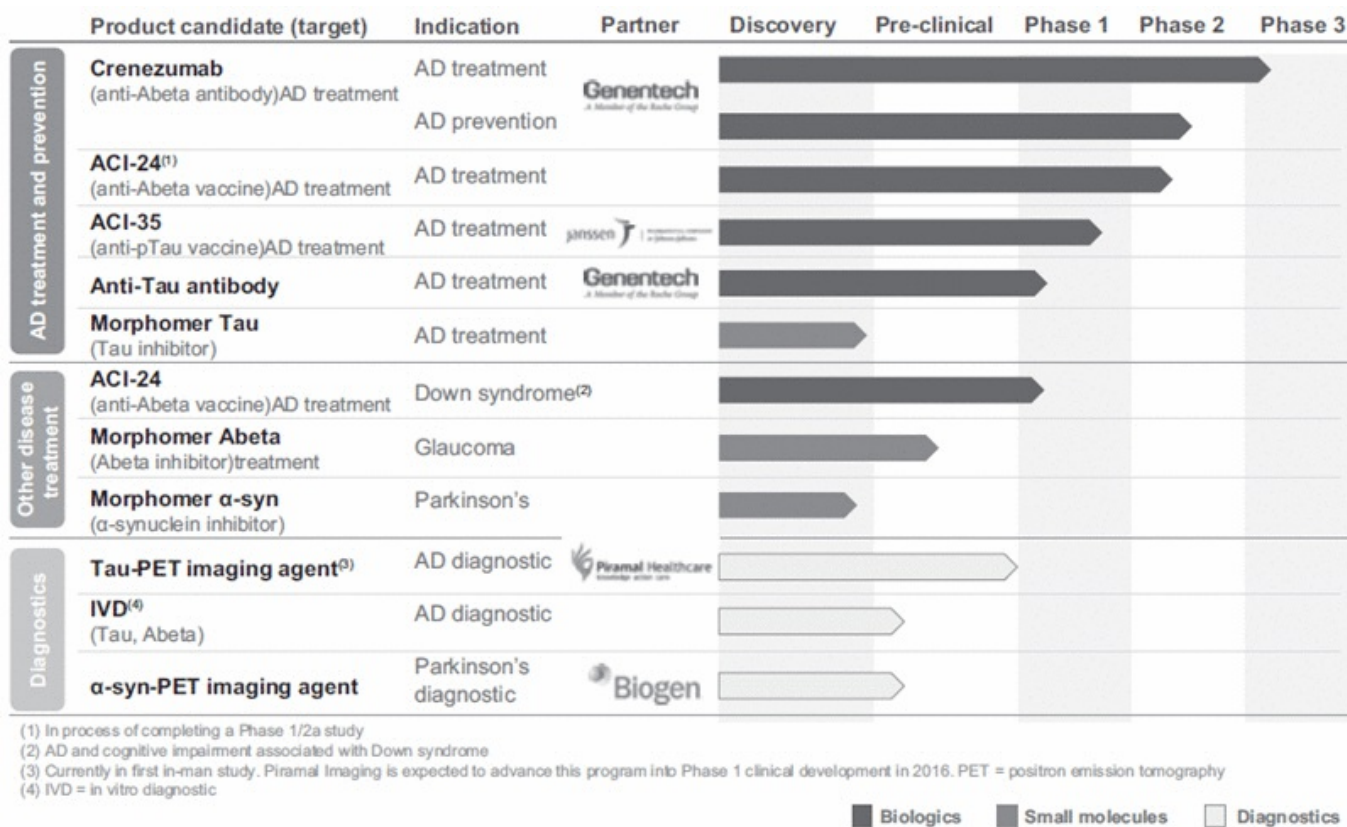
Additionally, our passive anti-tau monoclonal antibody candidate is being developed under a collaboration agreement with Genentech, which we entered into in the second quarter of fiscal year 2012. The anti-tau antibody candidate is a humanized monoclonal antibody that is believed to bind specifically to tau. A Phase 1 clinical study conducted by Genentech will evaluate the safety, tolerability and pharmacokinetics in patients with mild to moderate Alzheimer's disease and healthy volunteers. The Phase 1 clinical study commenced in the second quarter of 2016, with results expected in the first half of 2017.

Clinical evidence suggests that early detection of neurodegenerative diseases is critical to enhancing the effectiveness of both symptomatic and disease-modifying therapies. As such, we are using our Morphomer platform to develop complementary diagnostic product candidates such as positron emission tomography, or PET, ligands which are tracers that can directly measure misfolded tau and alpha-synuclein in the brain, to enable early and reliable disease diagnoses:

- We commenced a Phase 1 clinical study of our tau PET imaging agent in the fourth quarter of fiscal year 2016 under a collaboration agreement with Piramal Imaging.
- We are also developing PET imaging diagnostics for diseases resulting from the misfolding of alpha-synuclein proteins, such as PD.
- In April 2016, we entered into a non-exclusive collaboration with Biogen to develop PET imaging diagnostics for neurodegenerative diseases resulting from the misfolding of alpha-synuclein proteins and TDP-43, which is a protein that has been recently linked to neurodegeneration in diseases including AD, PD and amyotrophic lateral sclerosis (commonly known as ALS or Lou Gehrig's disease). We expect to commence a Phase 1 clinical study of our alpha-synuclein PET imaging agent in 2017.

We use our two unique proprietary platform technologies, SupraAntigen (conformation-specific biologics) and Morphomer (conformation-specific small molecules), to discover, design and develop medicines and diagnostics to target misfolded proteins. These platforms are our engines for generating novel molecules that are designed to bind to their targets with high affinity and conformational specificity, meaning they are enabled to differentiate between misfolded proteins and normally-folded proteins. All of our product candidates and our development programs have been derived from our proprietary platforms. Neurodegenerative diseases, such as AD and PD as well as other neuro-orphan diseases, such as progressive supranuclear palsy, amyotrophic lateral sclerosis, or ALS, and Huntington's disease, are all associated with pathologies that involve misfolded proteins. Research has shown that misfolded proteins are unable to carry out their normal functions and aggregate to form certain types of deposits such as Abeta plaques or tau tangles that damage brain tissue. Our SupraAntigen and Morphomer platforms seek to produce conformationally specific molecules in order to prevent or disrupt the formation of misfolded proteins. We believe that our proprietary platforms also have the potential to generate additional molecules for indications that relate to protein misfolding outside of neurodegenerative diseases.

The diagram below summarizes the status of our research and development programs.



Neurodegenerative diseases and other diseases associated with protein misfolding are prevalent, but there is currently an absence of reliable, early-stage diagnosis and disease-modifying treatments for these diseases. The growth in the number of people with neurodegenerative diseases has been significant as evidenced by the prevalence of people affected by AD and PD, two of the most common neurodegenerative diseases.

- AD is the most common form of dementia, which affects an estimated worldwide patient population of 47 million in 2015, and is expected to grow to 75 million by 2030 and 132 million by 2050, according to the World Alzheimer Report 2015. The estimated aggregate cost of prevention and treatments in the United States was \$172 billion in 2010 and is estimated by Alzheimer's Disease International, or ADI, to grow to \$408 billion in 2030 and \$1,078 billion in 2050. ADI estimated that the cost of prevention and treatments in the United States could be reduced from over a trillion dollars to \$631 billion in 2050 if the onset of AD could be delayed by five years in the patient population. In addition, at autopsy, AD has been reported in 80% of people with Down syndrome over age 40 and 100% over age 60. Down syndrome affects approximately one in 1,000 live births worldwide.

AD is typically diagnosed by neurologists and psychiatrists through a series of cognitive and functioning tests once symptoms are clinically present, resulting in diagnosis at later stages of the disease after irreversible loss of neurons has already occurred. Currently approved AD treatments include medications that only treat the symptoms of the disease. The clinical benefit derived from these symptomatic treatments is typically incomplete. Only between 40 and 70 percent of patients with AD benefit from taking symptomatic treatments and the symptoms improve for 6 to 12 months in most cases.

Therapeutic development for AD is increasingly focused on treating early stages of the disease to delay or prevent progression and to preserve the maximum amount of cognitive function before irreversible neuronal damage occurs. Most clinical studies now target mild stages of the disease, increasing the need for accurate diagnosis that is independent of potentially subjective and otherwise sub-optimal cognitive metrics. Diagnostics therefore have a crucial role in selecting more uniform and stage-specific clinical study subjects, tracking patient progress and results, managing patients receiving treatment and ultimately diagnosing the disease at its earliest stage for immediate treatment.

- PD, the second most common neurodegenerative disease worldwide, affects an estimated 7 to 10 million people. In PD, the use of symptomatic treatments, such as levodopa, is associated with the loss of control of motor functions in approximately 50% of patients who have taken the drug for 5 years or longer.

There remains a significant unmet medical need for reliable and accurate diagnostics to enable early diagnosis and disease-modifying treatments that slow the progress of neurodegenerative diseases.

We have assembled an outstanding management team with relevant scientific, clinical and regulatory expertise. Our scientific founders, Dr. Jean-Marie Lehn, Dr. Claude Nicolau, Dr. Roscoe Brady and Dr. Fred van Leuven, are regarded as pioneers in their respective scientific domains, including in the study of AD. Our co-founder and Chief Executive Officer, Dr. Andrea Pfeifer, a pharmacologist with a Ph.D. in cancer research and former National Institute of Health researcher, has a 30 year track record in product innovation and implementation and was formerly head of Nestlé Global Research and the co-founder of Nestlé Venture Fund. Our Chief Scientific Officer, Dr. Andreas Muhs, has more than 20 years of experience in various aspects of discovery research and drug development, including working on multiple drug development programs.

## **Our Strategy**

Our goal is to become a global leader in the treatment of neurodegenerative diseases by developing therapies and complementary diagnostics that target neurodegenerative diseases with significant unmet medical need using our proprietary SupraAntigen and Morphomer technology platforms. Key elements of our strategy are to:

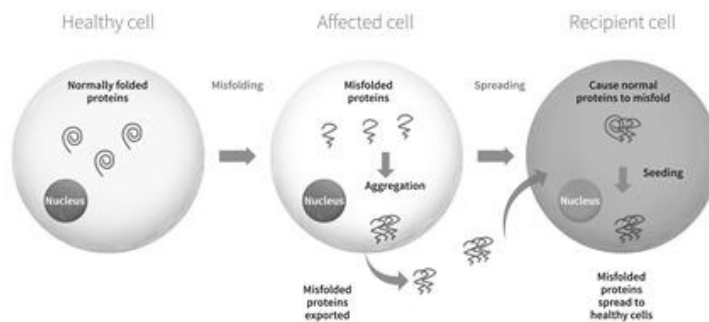
- **Advance our product candidates, in partnership or alone, through clinical development to regulatory approval and potential commercialization.**
  - **Crenezumab.** Our collaboration partner, Genentech, will advance crenezumab through Phase 3 clinical studies and seek regulatory approval. We believe that crenezumab's efficacy, coupled with its safety profile, has the potential to become a best-in-class disease-modifying treatment for AD.
  - **ACI-24.** We will continue to advance ACI-24, both through completion of an ongoing Phase 1/2a clinical study to evaluate the safety, tolerability, immunogenicity and biomarker endpoints in people with mild to moderate AD and, if the Phase 1/2a results are favorable, through a Phase 2/3 clinical study in people with AD. Our Phase 1 clinical study of ACI-24 in people with Down syndrome is intended to assess safety and started in December 2015. We own the global rights to ACI-24 and we intend to continue to develop ACI-24 in-house as a therapeutic candidate.
  - **ACI-35.** The ongoing Phase 1b clinical study in collaboration with Janssen includes different doses and dosing schedules. Further results, which we expect to have completed in the second half of fiscal year 2017 will be the basis for the program's future development.
  - **Our Anti-tau antibody candidate.** Our collaboration partner, Genentech, is advancing an anti-tau antibody candidate through a Phase 1 clinical study.
  - **Diagnostic candidates.** In addition to the above product candidates, we will continue to develop our complementary diagnostic product candidates and to advance these through clinical development, either independently or with collaboration partners.
- **Expand into other neurodegenerative and neuro-orphan diseases.** We intend to leverage our proprietary technology platforms to develop product candidates that share the same disease targets as misfolded Abeta, tau and alpha-synuclein proteins, which are the key features in the pathology of many neurodegenerative diseases. We plan to pursue selected neuro-orphan indications, such as progressive supranuclear palsy, or PSP, and Huntington's disease, as well as tau-related orphan diseases, such as frontotemporal dementia and corticobasal degeneration. Pursuing neuro-orphan indications may enable us to obtain a streamlined regulatory approval pathway and favorable reimbursement treatment of any approved product.
- **Accelerate the advancement of our diagnostic portfolio.** We are also developing a complementary diagnostic portfolio. We currently have three diagnostics candidates in our pipeline that we developed

using our Morphomer platform that targets Abeta, tau and alpha synuclein. Our tau PET imaging agent is currently undergoing First-in-Man studies and we intend to work with our partner, Piramal Imaging, to advance this product candidate through the clinical development process. We are also developing PET imaging diagnostics for diseases resulting from the misfolding of alpha-synuclein proteins.

- Leverage the duality of our therapeutic and diagnostic approaches to become the leader in personalized treatment of neurodegenerative diseases. Personalized medicine involves the development of diagnostics, therapies and treatment procedures best suited for an individual patient, taking into consideration the stage of the disease, as well as genetic and environmental factors. The biggest limitation in neurodegenerative disease management is the lack of appropriate biomarkers and reliable diagnostics for early disease detection and the absence of approved disease-modifying therapies. We believe that the future treatment paradigm for neurodegenerative diseases will likely involve early disease diagnosis and combination therapy, leveraging both symptomatic and disease-modifying treatments, with different disease-modifying treatments used at various points in the progression of the disease. We believe that our multi-pronged approach to neurodegenerative disease diagnosis and treatment may result in the generation of individualized treatment options for patients and improve clinical outcomes.
- **Strategically collaborate or selectively partner for the development and commercialization of product candidates.** Historically, we have relied on collaboration agreements with leading pharmaceutical companies to leverage their scientific, development, manufacturing and commercialization expertise and other resources in order to accelerate the development of our product candidates. To date, we have entered into collaboration agreements with leading global pharmaceutical companies, including two collaborations with Genentech and one with Janssen, a Johnson & Johnson company. We believe that these partnerships validate our core strategy of discovering safe and efficacious therapies using our proprietary platforms and advancing them through the various stages of regulatory approval. In the future, for any approved products targeting large markets, we may selectively partner with leading companies that we believe can contribute manufacturing and marketing expertise, geographic reach and other resources and know-how that can enhance the value of these approved products.

### Our Approach to Treating Diseases Related to Protein Misfolding

Protein folding and unfolding are important ways of regulating the protein's biological activity and cellular location. Misfolding of proteins occurs due to a breakdown of cellular quality control systems, and is a common feature of many neurodegenerative diseases. Research has shown that misfolded proteins are not only unable to carry out their normal functions, but also aggregate to form deposits in the brain that eventually lead to neuronal damage and cell death. The progression of neurodegenerative diseases, such as AD and PD, is linked to the misfolded conformations of proteins, such as Abeta, tau and alpha-synuclein.



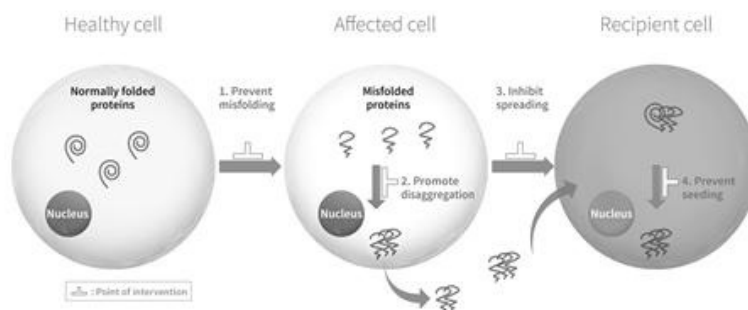
The diagram above shows how, in today's understanding, misfolded proteins play a key role in the pathology of neurodegenerative diseases. Typically, protein misfolding occurs during cellular stress, which can be triggered by many different causes, including oxidation and a lack of growth factors. A cascade of molecular events begins with the misfolding of single proteins within a cell that then continue to aggregate to ultimately form plaques and tangles. These misfolded proteins are then exported and spread to healthy cells nearby, causing normal proteins to misfold in a process known as seeding. This process eventually leads to cell death in various areas of the brain and is linked to a decline in cognitive function.

### Challenges in targeting misfolded proteins

The central challenge in targeting misfolded proteins for therapeutic effect is a product's ability to differentiate, or conformationally select, between a misfolded protein and a normally-folded protein. This ability to conformationally select for the misfolded protein prevents the therapeutic candidate from interfering with the function of the normally-folded protein, thereby reducing the risk of side effects.

### Benefits of our approach

The key aspect of both our SupraAntigen and Morphomer technology platforms is conformational specificity, which we believe is central to the development of effective therapeutics for neurodegenerative diseases. Our SupraAntigen platform targets misfolded proteins through antigens displayed on the surface of liposomes which mimic the targeted pathological form of the protein. In a complementary approach, our Morphomer platform uses small molecular weight compounds to target the aggregation and seeding process, which prevents the misfolded proteins from aggregating inside the cell and the formation of new misfolded proteins in healthy neighboring cells through a seeding mechanism. Small molecules derived from our Morphomer platform, which we refer to as Morphomers, also promote disaggregation of already formed pathological protein aggregates.



The diagram above shows how we believe our therapies aim to intervene in the key pathology steps involved in neurodegenerative diseases: (1) prevent misfolding; (2) promote disaggregation; (3) inhibit spreading; and (4) prevent seeding in healthy cells.

### Current Treatment Paradigm for Neurodegenerative Disease

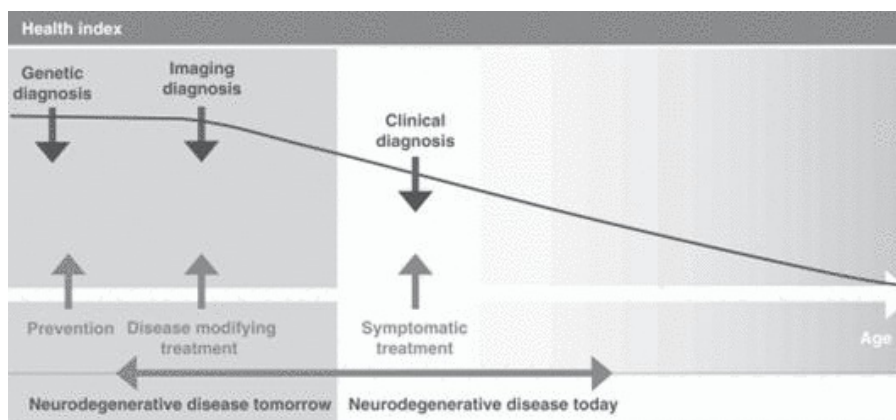
Current diagnostic and treatment paradigms for neurodegenerative diseases are suboptimal. Diagnosis typically takes the form of observation of cognitive, functional and behavioral impairment and other symptoms of the diseases, which are generally only apparent after irreversible neuronal damage has already occurred. These symptoms are treated with medicines capable of providing cognitive benefit and functional improvement but fail to affect the progression of the disease. For AD, there are currently four approved therapies, all of which only provide modest efficacy in treating the symptoms of AD, while having significant side effect risks, and fail to address the progression of the disease. Despite these shortcomings, marketed therapies, such as Eisai and Pfizer's Aricept, have achieved peak annual global sales of approximately \$4 billion prior to loss of exclusivity. Similarly, in the treatment of PD, the current standard of care is intended only to alleviate physical symptoms. In both AD and PD, there are no approved disease-modifying treatments that slow or stop the course of disease progression.

Modifying the progression of the disease requires targeting the underlying biological processes that drive disease progression. Unfortunately, these processes evolve over the course of many years prior to manifestation of symptoms and a high percentage of neurons may be lost prior to clinical manifestation. Many of the failed clinical studies for disease-modifying treatments targeted patients with moderate stages of the disease, when irreversible neuronal damage and death had already occurred. This had led to the conclusion that early intervention is necessary to slow the disease progression and that disease-modifying therapies should be studied in patients with milder stages of the disease. As a result of this, in recent years, there has been a movement towards early intervention in clinical development. Early intervention, however, requires accurate disease detection prior to physical manifestation of symptoms, using new and sophisticated technologies that are superior to the subjective rating scales currently used

to assess patients. Thus, new diagnostic technologies are critical to the clinical development process of disease-modifying therapies and ultimately better disease management of patients with neurodegenerative diseases.

### **Opportunity for AC Immune in Neurodegenerative Diseases**

We intend to change the way that neurodegenerative diseases are treated by combining reliable diagnostic tools that facilitate intervening at earlier stages of the disease with therapies that treat the underlying disease process, as shown in the diagram below.



We believe that our lead product candidate, crenezumab, is ideally positioned to be at the forefront of disease-modifying and preventative medicine due to its demonstrated efficacy in milder AD subjects and favorable safety profile. Unlike the current standard of care, crenezumab seeks to modify the course of AD by intervening at an earlier stage of the disease progression prior to irreversible neuronal damage. Beyond AD, we believe that we can leverage our proprietary platforms to generate additional molecules that treat the causes of other neurodegenerative and neuro-orphan diseases, such as PSP, ALS and Huntington’s disease. We believe that the future treatment paradigm for neurodegenerative diseases will involve different disease-modifying treatments used at various points in the progression of the disease. One such combination may be passive immunization targeting Abeta, such as crenezumab together with anti-tau antibodies or immunotherapies and small molecules targeting Abeta or tau.

We believe that we are a leader in discovering new PET imaging agents to improve the timing and accuracy of diagnoses in neurodegenerative diseases. We have three diagnostic candidates in our pipeline that were developed through our Morphomer platform and that target Abeta, tau and alpha-synuclein. We believe our tau-PET imaging program has received external validation through our partnership with Piramal Imaging, a leader in imaging agents. We are also developing an Abeta and tau *in vitro* diagnostic agent for AD and an alpha-synuclein PET imaging agent for PD. We believe that our diagnostic product candidate pipeline will complement our disease-modifying treatment product candidate pipeline, with the ultimate goal of reshaping the clinical course and treatment of neurodegenerative diseases.

### **Our Proprietary Technology Platforms**

Our research and development program is based on our two unique proprietary technology platforms: our SupraAntigen platform, which is our biological and immunological platform, and our Morphomer platform, which is our small molecule, chemical platform. These platforms are designed to generate antibodies and small molecules, respectively, which selectively bind to misfolded proteins which are common in a broad range of neurodegenerative diseases.

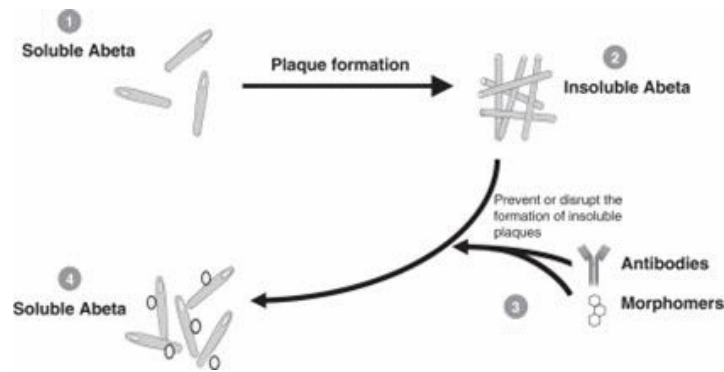
Our SupraAntigen platform generates humanized monoclonal antibodies and vaccines for use as passive and active immunotherapies that are highly specific for pathological, or misfolded, forms of Abeta and tau typically found in AD and certain other neurodegenerative diseases. In addition to the high target specificity, the generated antibodies clear the misfolded proteins from the brain without generating inflammation. This characteristic was

clinically confirmed in the Phase 2 clinical studies of crenezumab, where a favorable safety profile was demonstrated. Similarly, ACI-35 and ACI-24 have been well tolerated in their respective Phase 1b and 1/2a clinical studies. Our diagnostic portfolio is also an important part of our strategy, as PET and molecular diagnostics should enable earlier diagnosis of neurodegeneration than current approaches that are based on clinical symptoms, a result that we believe will result in better clinical outcomes.

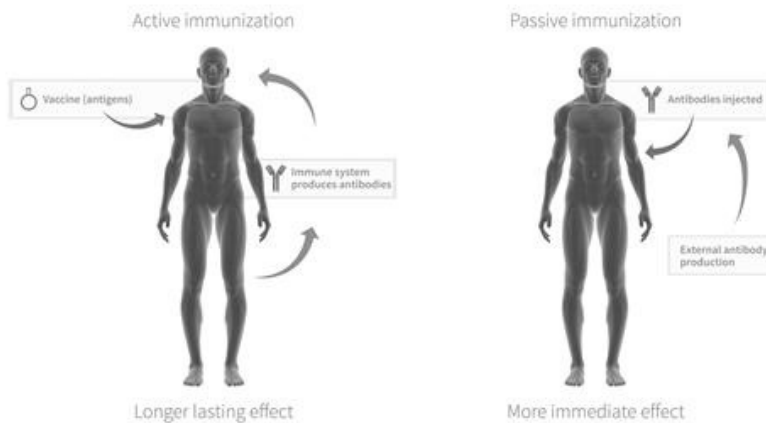
Research has shown that misfolded proteins are not only unable to carry out their normal functions but that they also aggregate to form deposits commonly known as plaques and tangles that damage neuronal tissue and lead to cell death. Our SupraAntigen and Morphomer platforms seek to produce conformationally specific molecules, which are molecules that are able to differentiate between misfolded proteins and normally-folded proteins, and target misfolded proteins with minimal side effects on normally-folded proteins. We believe that our platforms can also generate compounds in indications related to protein misfolding outside of neurodegenerative disease, such as in glaucoma where aggregated Abeta peptides and tau proteins have been shown to cause damage to the optic nerve.

Our platforms address two key issues in the development of drugs against diseases of protein misfolding:

- The body does not make antibodies against misfolded proteins because, although pathogenic, they are still recognized as “self-proteins” and do not trigger an immune response.
- The difference between a normal protein and a pathological protein is only related to a conformational change in protein structure making drug specificity difficult to achieve.



The diagram above shows the process by which conformationally-specific molecules break down the aggregation of misfolded proteins. We expect that antibodies and Morphomers should prevent or disrupt the formation of insoluble plaques and stabilize soluble non-pathological proteins.

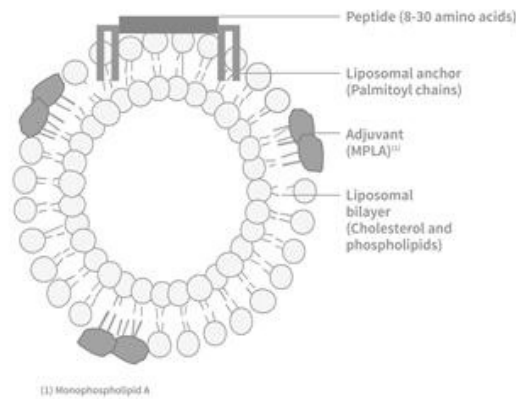




The SupraAntigen platform was created by our scientific founders Dr. Claude Nicolau in collaboration with Dr. Fred Van Leuven. This technology generates conformation-sensitive antibodies and is used by us to create product candidates for both passive and active immunization. Passive immunization involves the application of therapeutic antibodies, whereas active immunization stimulates the human body to make its own antibodies against pathological proteins, as shown in the diagram above.

#### ***SupraAntigen Platform: Active Immunization***

Our product approach is based on the ability of antigens attached to liposomes to elicit the immune system to produce antibodies against self-proteins. The liposome is constructed of cholesterol, phospholipids and monophospholipid-A as an adjuvant. The liposome can accommodate antigens, or peptides, of different lengths that are chemically modified with palmitic acids to “anchor” them in the liposomal membrane. The interaction between the charged liposome surface and the peptides force the peptide into the pathological conformation that mimics the targeted misfolded proteins. The diagram below shows the vaccine construct which is used as a basis for ACI-24 and ACI-35 vaccine candidates. ACI-24 and ACI-35 are vaccine candidates developed using our SupraAntigen platform for active immunization.

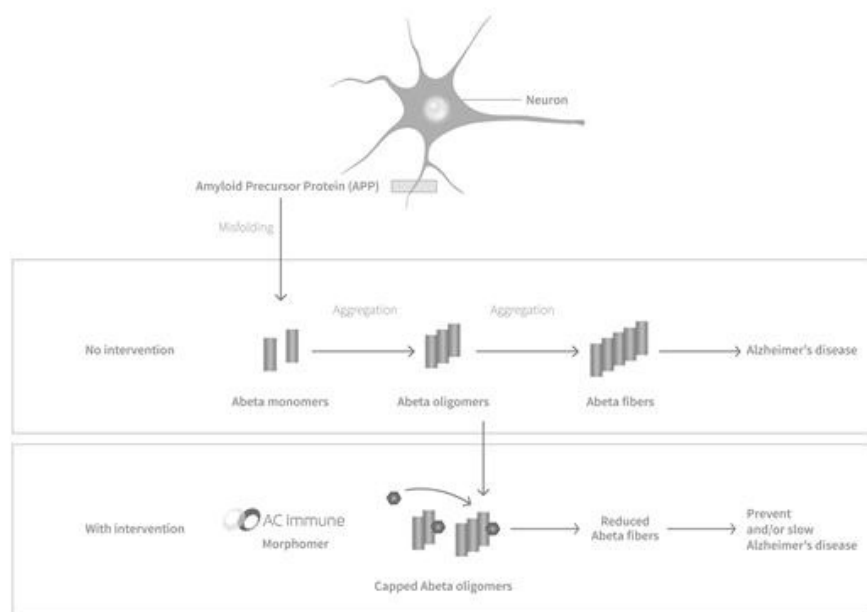


#### ***SupraAntigen Platform: Passive Immunization***

Our SupraAntigen platform can also be used to develop passive immunization product candidates. The antibodies are created by injecting the SupraAntigen constructs in mice and by selecting the antibodies for their ability to break up aggregated fibers. The antibodies eliminate protein aggregates such as plaques and tangles by changing the equilibrium from the insoluble pathological to the soluble fibers which are depleted by the antibodies. Both crenezumab and the anti-tau antibodies were derived from this platform.

#### ***Morphomer Platform***

Our Morphomer platform represents a highly promising technology to identify and develop therapeutic small molecules for the treatment of diseases resulting from misfolded proteins. This proprietary platform enables us to generate small molecules that bind to their target and break up neurotoxic protein aggregates. As of March 31, 2016, the Morphomer library consisted of more than 2,400 compounds. Our key platform assets have been validated for selective binding to Abeta, tau and alpha-synuclein through *in vitro* efficacy studies and have a validated mechanism of action through reproducible *in vivo* efficacy for Abeta, tau and alpha-synuclein.



The figure above shows a Morphomer blocking amyloid growth. Only one end of aggregated amyloid fibers grows, and these molecules are designed to inhibit that growing end as shown in the above diagram.

Most molecules involved in neurodegenerative diseases follow the same overall disease development and aggregation process, including Abeta in AD, alpha-synuclein in PD and huntingtin in Huntington's disease.

The key advantages of our Morphomer platform include:

- High specificity for the targeted misfolded protein;
- One Morphomer can inhibit multiple protein units in oligomers and fibers; and
- Early inhibition of aggregation and seeding.

Our Morphomer platform was developed through a collaboration of our scientific founders Dr. Jean-Marie Lehn, a recipient of the Nobel Prize in chemistry, and Dr. Claude Nicolau, a former Harvard University professor, and our board member Dr. Detlev Riesner.

## Our AD Programs

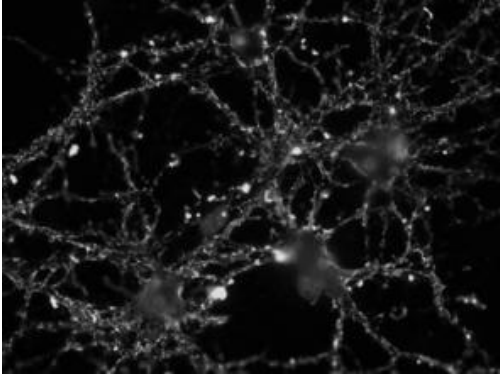
### *Crenezumab*

Crenezumab is a humanized, conformation-specific monoclonal antibody that targets the misfolded version of Abeta and has a broad binding profile. Crenezumab was developed using our proprietary SupraAntigen platform. In 2006, we licensed crenezumab to Genentech and a company with a long history of developing and commercializing innovative biologics.

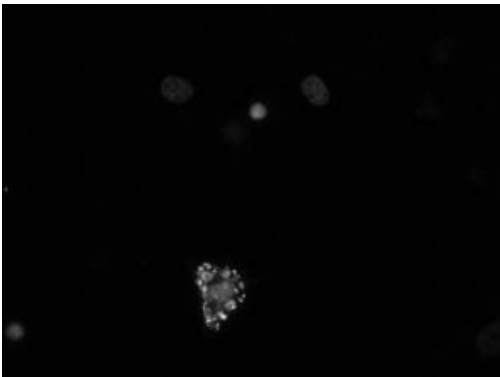
Abeta is produced by the breakdown of a larger protein called amyloid precursor protein, or APP. The Abeta fragment containing 42 amino acids, or Abeta<sub>1-42</sub>, is believed to be associated with the highest toxicity of the Abeta fragments. Misfolded Abeta subunits combine to form oligomers and fibrils that are found in amyloid plaques. Data resulting from preclinical and clinical studies show that crenezumab binds with high affinity to amino acids 12-24 of Abeta<sub>1-42</sub>, as well as multiple forms of Abeta, including monomers, oligomers, and fibrils, which reduces Abeta<sub>1-42</sub> induced cytotoxicity. Furthermore, these data indicate that crenezumab enhances the uptake of neurotoxic Abeta oligomers by microglial cells, the resident immune cells of the brain, which normally respond to neuronal damage and remove the damaged cells for subsequent disposal and clearance from the brain.

A challenge with agents acting to remove Abeta is the potential to induce inflammation leading to vasogenic edema, which is accumulation of fluid in the brain that can lead to headaches, loss of coordination and disorientation. The fluid can be seen clearly on MRI scans and is referred to as Amyloid Related Imaging Abnormality-Edema, or ARIA-E. Crenezumab is engineered on an IgG4 backbone, which was selected because IgG4 antibodies are associated with a greatly reduced risk of causing inflammation. As a result, crenezumab's IgG4 structure activates microglial cells to clear Abeta without producing inflammation and associated vasogenic edema, as demonstrated in the Phase 2 clinical studies. In contrast, ARIA-E and other inflammation-related side effects have been observed in other antibodies with an IgG1 backbone.

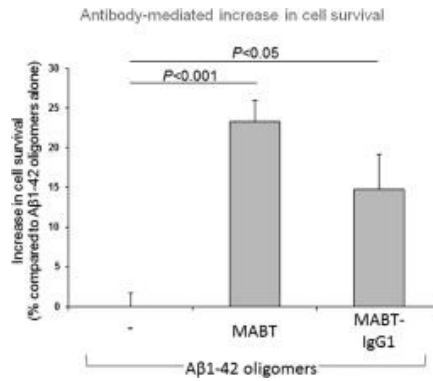
**Abeta1-42 oligomers Reduces Abeta 1-42 oligomer toxicity**



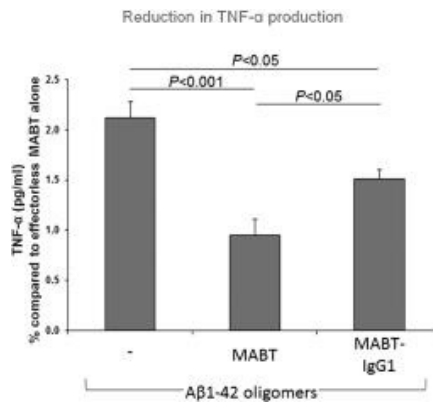
**Abeta 1-42 oligomers + MABT**



MABT is equivalent to crenezumab, mMABT is the parental murine version of crenezumab



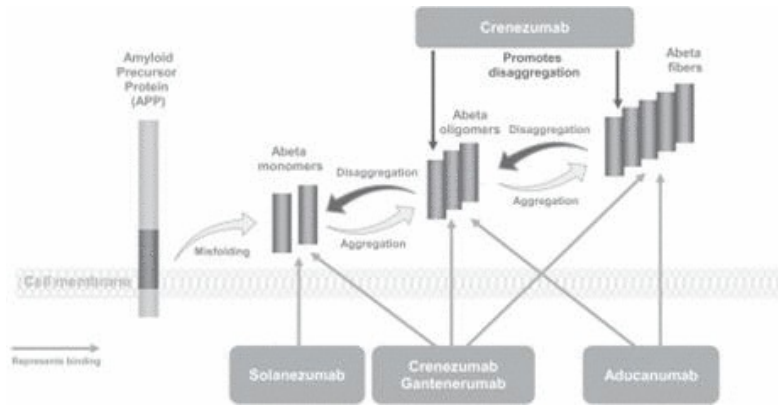
### Reduces microglia inflammatory activation



The figure above shows that crenezumab promotes Abeta oligomer engulfment by microglia without inflammatory activation.

We believe crenezumab may have the following important competitive advantages relative to other drugs targeting Abeta in development:

- Unique mechanism of action:
- Crenezumab recognizes and binds to multiple forms of Abeta, including monomeric, oligomeric and fibrillar Abeta that are found in amyloid plaques. In contrast, certain other antibodies in development such as solanezumab and aducanumab have only been shown in studies to recognize a subset of Abeta forms.
- Due to its binding to the multiple forms of Abeta, with high specificity to oligomers, crenezumab also protects against oligomer-induced neurotoxicity.
- Linked to its unique epitope, crenezumab has been shown to promote disaggregation of existing Abeta aggregates and disrupt their assembly to prevent amyloid plaque formation.
- Crenezumab has been designed with an IgG4 backbone to reduce effector function on microglia and to clear Abeta from the brain while limiting inflammation.



- Signal of activity in milder AD patients (MMSE 22-26):
- In the proof-of-concept Phase 2 studies of crenezumab, a positive trend in cognition was observed with a greater effect on cognition in patients with a milder stage of AD (MMSE 22-26).
- In the ABBY cognition study there was a statistically significant 35% reduction in the rate of cognitive decline in the non-pre-specified milder AD patient population (MMSE 22-26) for the high-dose arm.
- In the BLAZE biomarker study, the high-dose arm showed a consistent trend of reduced Abeta accumulation in the brain over time, as shown in two independent exploratory analyses of florbetapir-PET data. In addition, it has been shown that crenezumab has the ability to enhance the removal of these proteins from the brain as evidenced by a significant increase in CSF Abeta, confirming target engagement by crenezumab.
- Favorable safety profile allowing for potentially higher dosing:
- Phase 2 data from ABBY and BLAZE studies suggested that there were no imbalances in overall rate of Adverse Events, or AEs, and overall rate of AEs was not dose-related, with only one case of asymptomatic ARIA-E (0.4% in ABBY, 0.3% on active pooled) in crenezumab patients. AEs also included inflammation of the throat and nasal passages, urinary tract infections and upper respiratory infections. However, no patients in the studies experienced serious adverse events that we believe were related to the administration of crenezumab.
- Crenezumab is a member of the IgG4 isotype subclass of antibodies. This isotype was selected because IgG4 antibodies are associated with a greatly reduced ability to cause inflammation. By contrast, all other antibody products currently in development that target Abeta are of the IgG1 isotype subclass, which is associated with a higher incidence of inflammation-related ARIA-E. Dose limiting toxicities are a major risk for failure of competing antibody products. Potential safety at high doses is a key product feature of crenezumab.
- Due to its favorable safety profile, there is an ongoing Phase 1 study in which crenezumab is being studied at higher doses to potentially increase its efficacy signal.

The table below sets forth the relative incidence of ARIA-E of crenezumab and other competitive product candidates.

Antibody	Stage	Binding profile	Epitope	Isotype	ARIA-E (safety)
Crenezumab (GNE/Roche/AC Immune)	Phase 3	<ul style="list-style-type: none"> <li>■ Monomers +</li> <li>■ Oligomers +++</li> <li>■ Fibrils ++</li> </ul>	Conformational epitope, within aa 12-24	IgG4*	< 0.3% in Ph2
Gantenerumab (Roche)	Phase 3	<ul style="list-style-type: none"> <li>■ Oligomers ++</li> <li>■ Fibrils +++</li> </ul>	aa 3-11 and 19-26	IgG1**	~10% in Ph1 MAD
Aducanumab (Biogen)	Phase 3	<ul style="list-style-type: none"> <li>■ Oligomers +++</li> <li>■ Fibrils +++</li> </ul>	Conformational epitope aa 3-6	IgG1**	41% <sup>(1)</sup> and 37% <sup>(2)</sup> in Ph1b
Bapineuzumab (Elan/Pfizer/J&J)	Terminated after Phase 3	<ul style="list-style-type: none"> <li>■ Monomers ++</li> <li>■ Oligomers +++</li> <li>■ Fibrils +++</li> </ul>	N terminal aa 1-5	IgG1**	~10% in Ph3

(1) 10 mg/kg dose cohort

(2) 6 mg/kg dose cohort

Reduced effector function

\*\* Full effector function

### Phase 2 Studies

#### Phase 2 Study Design Overview

Crenezumab has been studied in two Phase 2 clinical studies, the ABBY proof-of-concept study and the BLAZE biomarker study. These two studies enrolled a total of 522 patients. The purpose of these studies was to investigate whether crenezumab could delay cognitive and functional decline and reduce the accumulation of brain amyloid in patients with mild to moderate AD. The sample size of the studies was not expected to have adequate power to detect a modest but clinically significant difference between active medication and placebo at the 5% significance level (as is commonly the case in Phase 2 studies in AD). Instead, consistent trends across different endpoints and dose dependency are considered indicators of a response in this learning phase of development, with confirmation then sought in Phase 3. Both studies had two active arms: a low dose arm receiving 300mg subcutaneous injection, which is an injection administered beneath the skin, every two weeks and a higher dose arm receiving 15mg/kg intravenously every four weeks. The primary analysis was conducted at 73 weeks, after 68 weeks of treatment. Safety and tolerability measures included repeated MRI scans to assess for the development of Amyloid Related Imaging Abnormalities, both vasogenic edema and hemorrhages.

#### ABBY Study Design

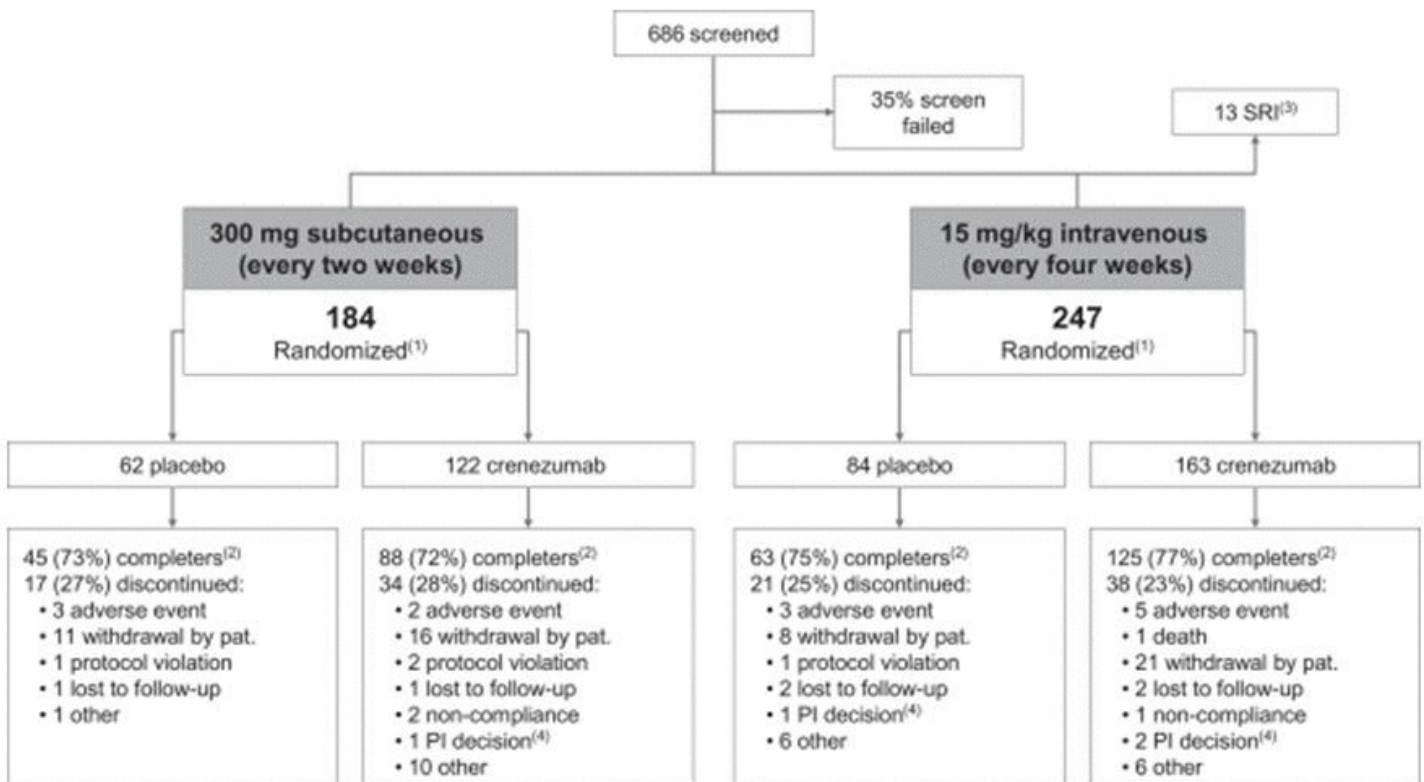
The ABBY study was a randomized, double-blind, parallel group, placebo-controlled study to evaluate the safety and efficacy of crenezumab in patients with mild to moderate AD, with an MMSE score at screening of 18-26 points. 444 patients were enrolled into the study including 13 patients who were included in a safety run-in cohort to support the use of the 15 mg/kg intravenous dose, which had not been tested in Phase 1. Since these patients received active medication after the second infusion and were then no longer blinded, they were included in the safety, but not the primary efficacy, analysis. The remaining 431 patients were randomized separately to receive crenezumab, either subcutaneously at a dose of 300 mg every two weeks (low dose) or intravenously at a dose of 15 mg/kg once every 4 weeks (high-dose), with a 2:1 active:placebo ratio in each dose group. In the subcutaneous injection dose arm, 122 patients received crenezumab and 62 patients received placebo. In the intravenous dose arm, 163 patients received crenezumab and 84 patients received placebo.

Co-primary endpoints were cognition assessed using the Alzheimer Disease Assessment Scale-Cognitive Subscale, or ADAS-cog 12 scale, and global function assessed by the Clinical Dementia Rating-Sum of Boxes (CDR-Sum of boxes). Secondary endpoints such as the MMSE score and Digit Symbol Substitution Test, or DSST, were also included in the study. ADAS-cog is a widely used scale in clinical studies that measures a patient’s performance on tests of memory and other areas of cognition, especially orientation, praxis and language. Scores range from 0 (best) to 70 (worst). The ADAS-cog 12 score includes an additional item of delayed recall, leading to a highest possible score of 80 points. On average, the score of patients with mild to moderate AD increases by 5 to 8 points per year.

The CDR-Sum of boxes is an assessment of “global” (overall) function of the patient in daily life. The patient’s performance in the six domains of memory, orientation, judgment and problem solving, community affairs, home and hobbies and personal care are assessed through interviews with the patient and caregiver. Each domain is scored from 0 (best) to 3 (worst) based on the level of impairment. The scores for the six domains are then summed up and the resulting score or “sum of boxes” ranges from 0 to 18, with a higher score indicating greater impairment.

The DSST is a classic paper and pencil test used to assess a patient’s processing speed in the so-called digit symbol substitution test during which the patient is asked to insert a symbol in place of a digit according to a scheme as quickly as possible over a set period of time. The DSST measures the number of correct symbols the patient inserts within the allowed time, i.e. 90 or 120 seconds. A higher score demonstrates better performance.

### ABBY Study Disposition



**Subcutaneous and intravenous cohorts were randomized independently and at different time points in a 2:1 (active:placebo) ratio**

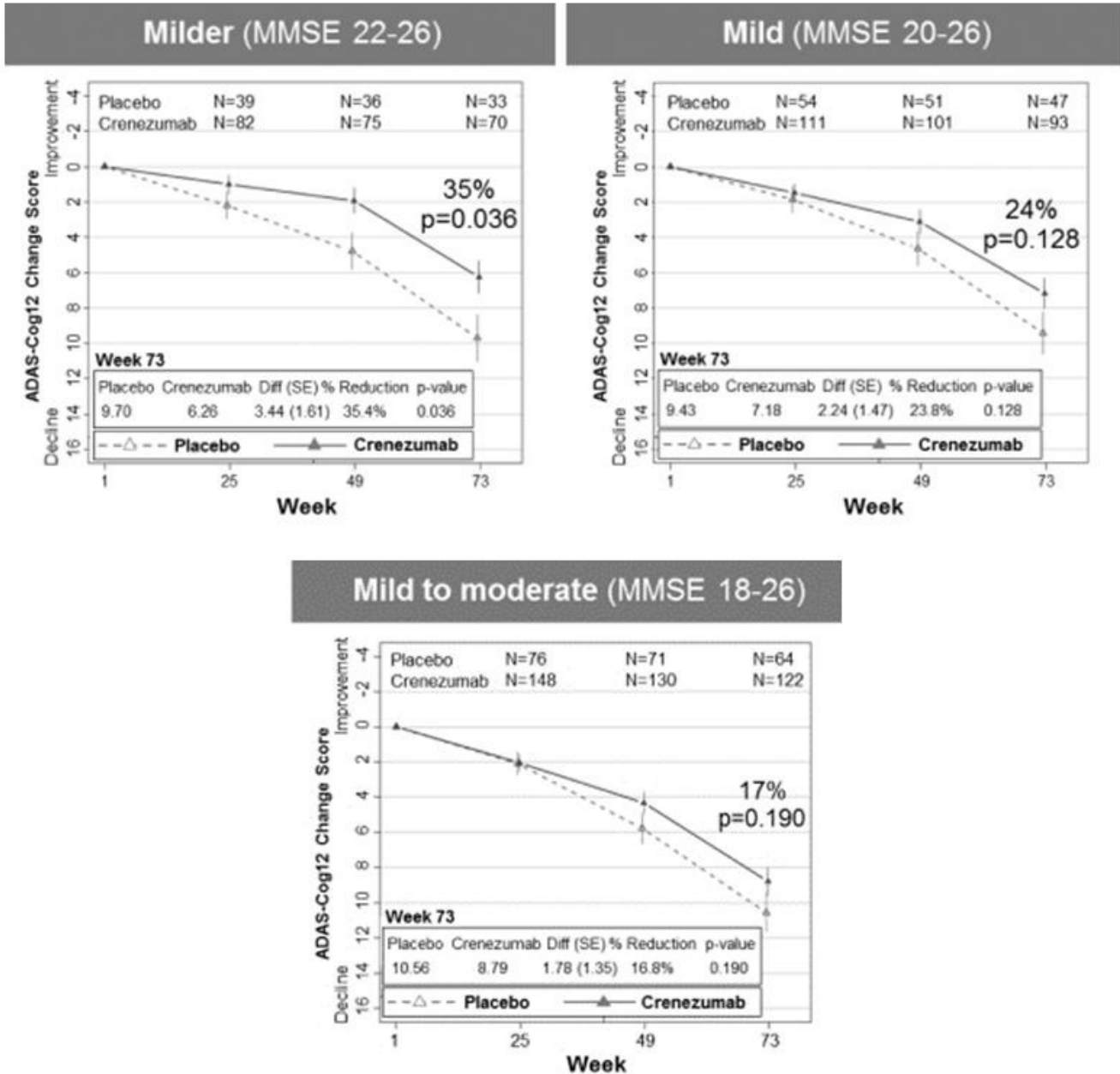
- (1) Safety population.
- (2) Includes patients that rolled over to open-label long term safety study.
- (3) Safety run-in cohort, not included in primary efficacy analysis.
- (4) A PI decision is a decision made by the principal investigator and is not related to safety.

### ABBY Study Results

In the ABBY study, a positive trend in cognition was observed with a greater effect on cognition in patients with a milder stage of AD (MMSE 22-26), although the study did not meet its co-primary endpoints in mild-to-moderate AD (MMSE 18-26) patients. There was no significant change in cognition in patients who received low-dose subcutaneous crenezumab. Results of an exploratory analysis of the high-dose intravenous arm demonstrated that patients with the mildest cognitive impairment at screening (MMSE 22-26) showed a statistically significant

35% slowing of the rate of cognitive decline over 73 weeks. The effect became greater over time, as shown by the increasing separation of the crenezumab (solid line) and placebo (dashed line) curves in the diagram below. The milder group was not pre-specified, meaning the group of milder AD patients was not identified before commencing the Phase 2 clinical studies.

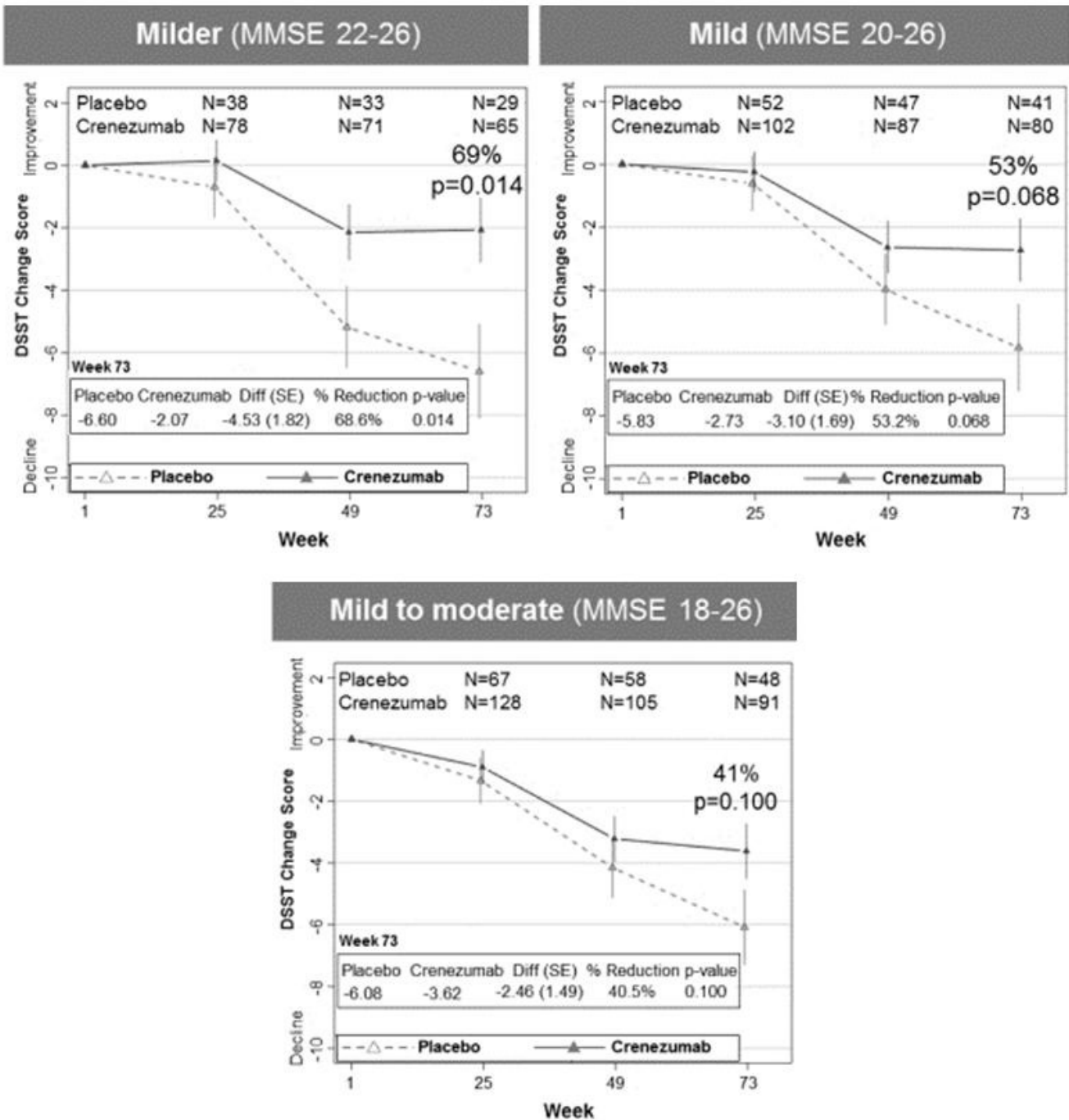
**ABBY High Dose Arm: Change in ADAS-Cog 12**



An exploratory subanalysis in a non-pre-specified subgroup of patients with milder symptoms (MMSE 22-26) showed a 35.4% reduction in cognitive decline. The sample size of the study was not expected to have adequate power to detect a modest but clinically significant difference between active medication and placebo at the 5% significance level (as is commonly the case in Phase 2 studies in AD). Instead, consistent trends across different endpoints and dose dependency are considered indicators of a response in this learning phase of development, with confirmation then sought in Phase 3. In the pre-specified subgroup analysis in patients with mild AD (MMSE 20-26), treatment with high-dose intravenous crenezumab led to a 23.8% reduction in cognitive decline. In patients with mild-to-moderate AD (MMSE 18-26) treated with high-dose intravenous crenezumab, there was a 16.8% reduction in cognitive decline. Effect sizes and p-values for exploratory analyses were not adjusted for multiplicity.

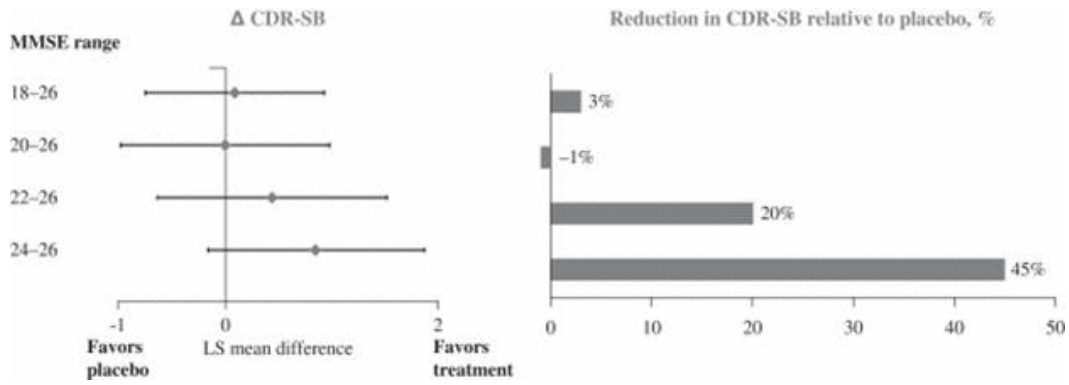


ABBY High Dose Arm: Change in DSST

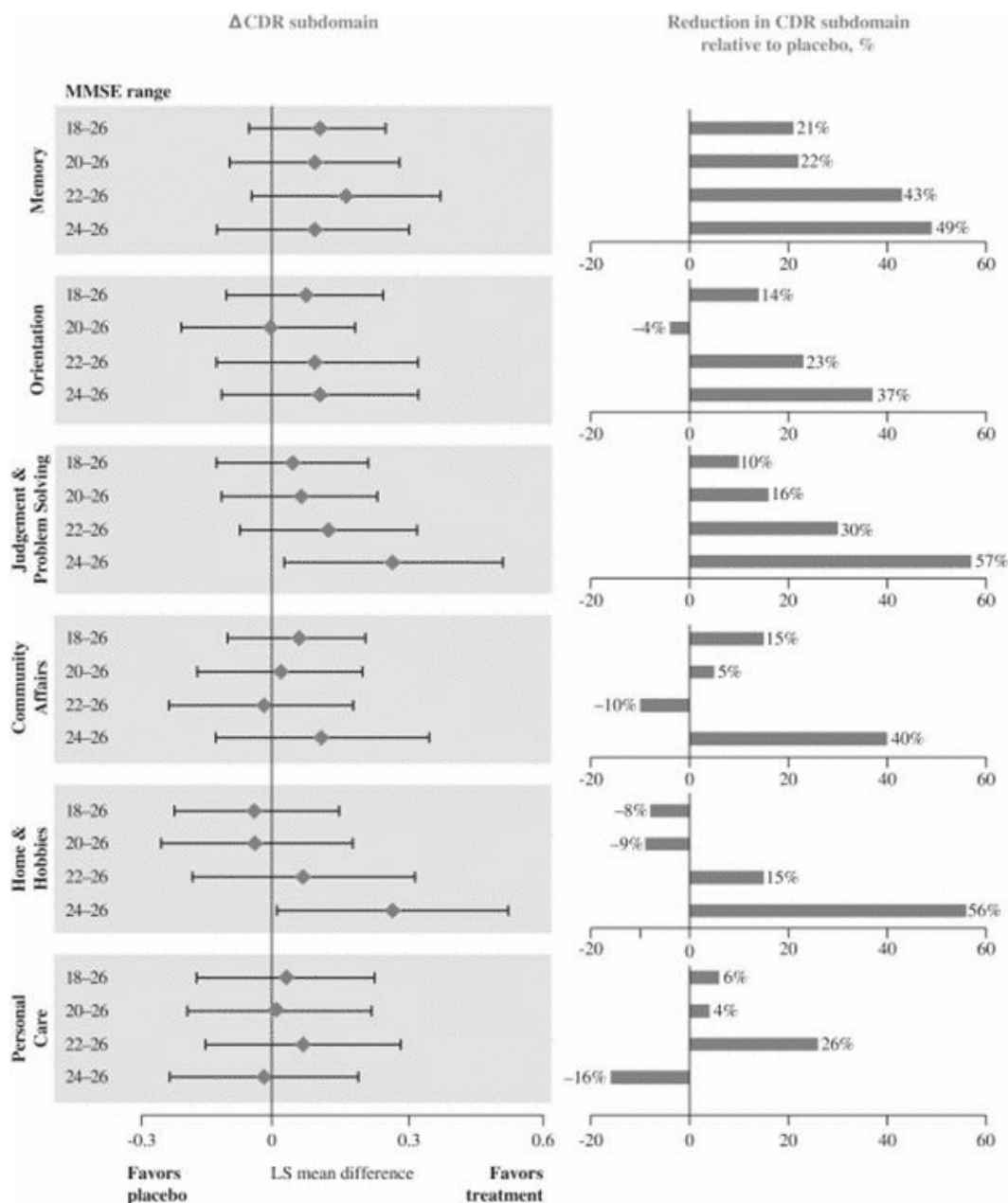


The ABBY high-dose arm result for DSST was significant in the milder patient sub-group (MMSE 22-26). The mild and milder patients that were given crenezumab intravenously showed no further cognitive deterioration between 12 and 18 months.

In the ABBY study, patients in the high-dose crenezumab arm showed less decline on the measure of global function, CDR-Sum of boxes, as compared to placebo. In mild-to-moderate AD (MMSE 18-26), a non-significant 3.1% reduction in global functional decline was observed. In the pre-specified subgroup analysis in patients with mild AD (MMSE 20-26), treatment with high-dose intravenous crenezumab did not show reduction in global functional decline (1.0% reduction; p=0.96). An exploratory analysis in two cohorts of patients with milder symptoms showed a 19.6% (MMSE 22-26) and 45% (MMSE 24-26) reduction in global functional decline.



Greater relative reductions were observed in the crenezumab arm compared with placebo in the CDR subdomains Memory, Orientation, Judgment & Problem Solving and Home & Hobbies in progressively milder patients. Treatment effects were less consistent in progressively milder patients for the CDR subdomains Community Affairs and Personal Care.



Δ CDR subdomains=difference in change from baseline to Week 73 in CDR subdomain scores between treatment and control groups. Diamonds represent LS mean change from baseline at Week 73, error bars 95% present CI. Positive values indicate less decline in crenezumab group.

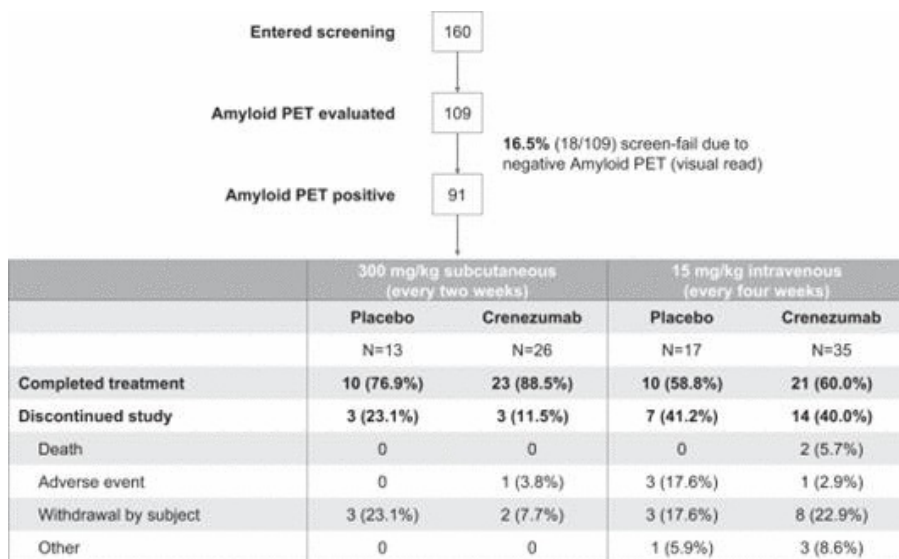
Although the overall results were not statistically significant, it should be noted that the sample size of the study was not expected to have adequate power to detect a modest but clinically significant difference between active medication and placebo at the 5% significance level (as is commonly the case in Phase 2 studies in AD). Instead, consistent trends across different endpoints and timepoints and dose dependency are considered indicators of a

response in this learning phase of development, with confirmation then sought in Phase 3. Trends favoring crenezumab were not observed in the activities of daily living scale (ADCS-ADL) although the study was significantly underpowered for this type of assessment.

### BLAZE Study Design

The BLAZE study was a randomized, double-blind, parallel-group, placebo-controlled study to evaluate the effects of crenezumab on brain amyloid burden as assessed by amyloid PET imaging and other biomarker endpoints in patients with mild to moderate AD. The primary endpoint was to measure the change in brain amyloid load using florbetapir-PET. The terms brain amyloid burden and brain amyloid load refer to the total amount of amyloid deposited in the brain. Each of these typically increases over time in an AD patient. Other endpoints included changes from baseline in other biomarkers (CSF, volumetric MRI), cognition (ADAS-cog12), global function (CDR-Sum of boxes), and activities of daily living (ADCS-ADL). Enrollment required florbetapir-PET positive scans, or patients who were amyloid positive. Ninety-one patients were included in the study.

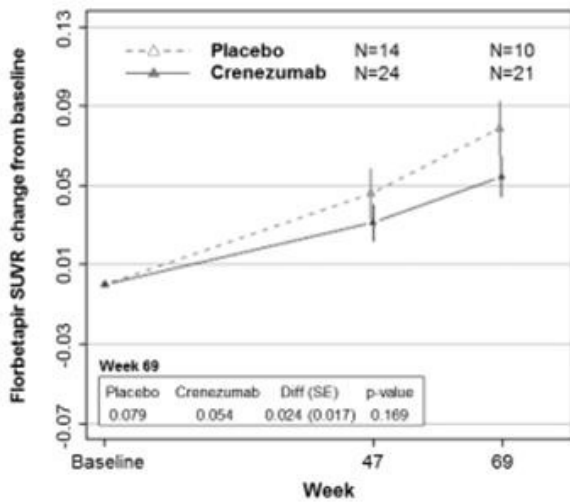
### BLAZE Study Disposition



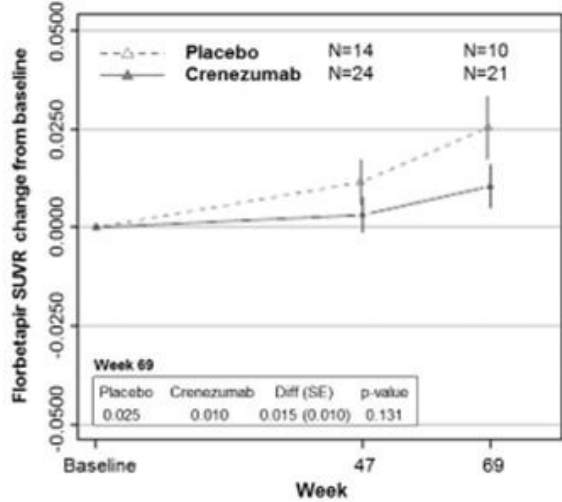
### BLAZE Study Results

The primary end point of change in brain amyloid load by florbetapir-PET was not met, but the study was not powered to detect statistically significant results. When assessing the amyloid load, the amount of amyloid in a region of the brain is determined by comparing the amount of an amyloid tracer to that found in a region with little or no amyloid, such as the cerebellum or the white matter, usually in the cortex. Recent studies have shown that the variability from scan to scan in the same patient over time is much higher when using the cerebellum than with the white matter, making the white matter a more powerful point of comparison for use in longitudinal studies. The higher variability of the cerebellum may be due to difficulties in exact positioning between scans and higher background levels. Taking this into account, the exploratory analyses of the BLAZE amyloid PET results using white matter reference region were conducted independently by two laboratories, the Banner Alzheimer’s Institute and MNI Laboratories. The analyses produced analogous results where a trend in the reduction of Abeta accumulation was observed in the high-dose arm.

**Banner Alzheimer's Institute analysis:  
cortical white matter reference region**



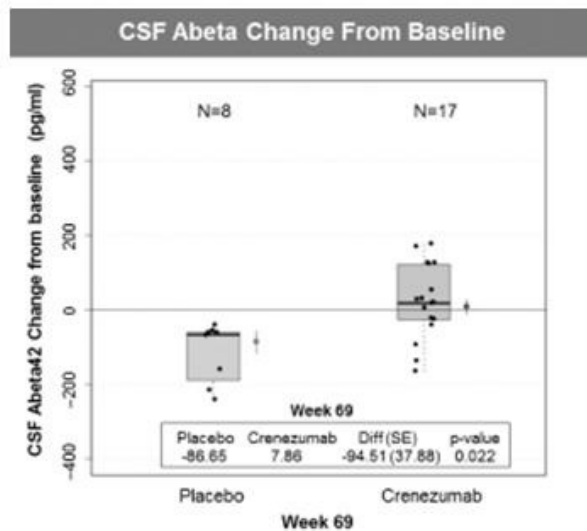
**MNI Laboratories analysis:  
sub-cortical white matter reference region**



The BLAZE biomarker study high-dose intravenous cohort showed a consistent trend of reduced Abeta accumulation in the brain over time shown by two independent exploratory analyses of florbetapir-PET data. Using white matter rather than cerebellum as the key reference region in the brain is generally considered a more robust method of showing treatment effects of AD therapies.

In the BLAZE study, patients also showed a statistically significant increase in CSF Abeta<sub>1-42</sub>, which we believe confirms target engagement by crenezumab. Similar results were observed in the ABBY study where CSF was assessed in 49 patients. These results suggest that Abeta is being eliminated from the brain when treated with crenezumab.

**BLAZE High Dose Arm: Crenezumab Increases CSF Total Abeta Relative to Placebo**

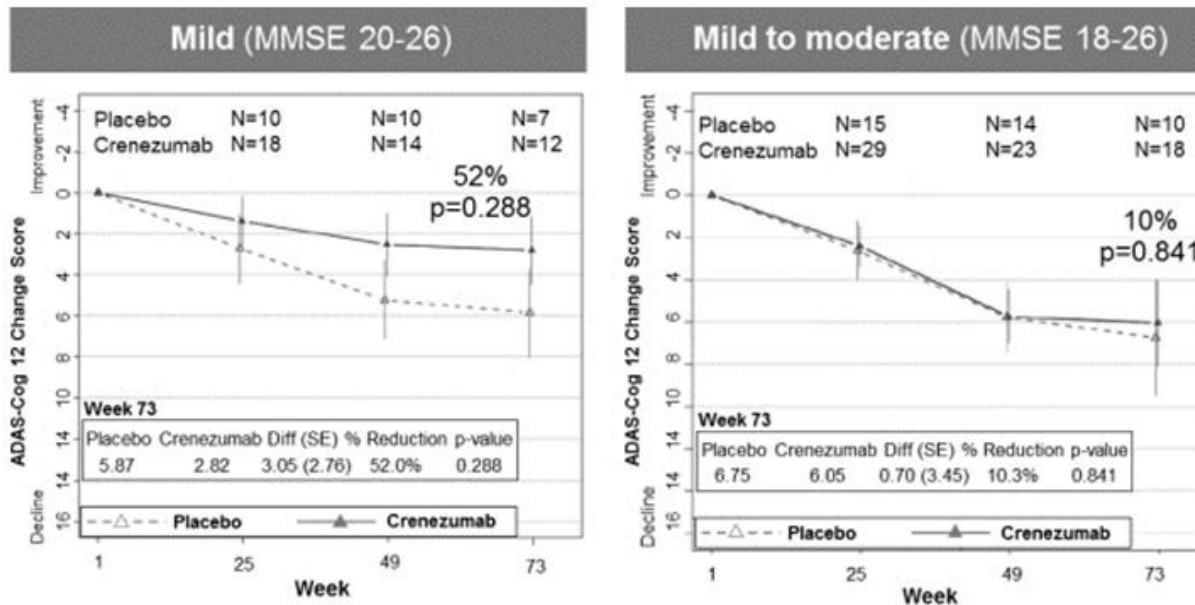


*BLAZE Study Results: Effects on Cognition and Global Function*

A similar and consistent pattern of response was observed in the BLAZE study with slowing of loss of cognition compared to placebo observed at the high-dose intravenous crenezumab arm, and having the most effect in patients with more mild MMSE scores. There was no significant cognitive change in patients who received low-dose subcutaneous crenezumab. Importantly, the sample size of the study was not expected to have adequate power to

detect a modest but clinically significant difference between active medication and placebo at the 5% significance level (as is commonly the case in Phase 2 studies in AD). BLAZE study results suggest that Abeta is being eliminated from the brain as patients showed a statistically significant increase in CSF Abeta<sub>1-42</sub>, which confirms target engagement by crenezumab.

**BLAZE High Dose Arm: Change in ADAS-Cog 12**



The BLAZE high-dose arm showed increasing separation over time of the curves of decline on ADAS-Cog 12 for placebo (dashed line) and intravenous crenezumab (solid line) in the mild subgroup of patients (MMSE 20-26). In a post-hoc analysis of a group of patients with mild AD (MMSE 20-26) treated with high-dose intravenous crenezumab, there was a 52.0% reduction in cognitive decline (p=0.29). In patients with mild-to-moderate AD (MMSE 18-26) treated with high-dose intravenous crenezumab, there was a 10.3% reduction in cognitive decline (p=0.84). Importantly, the sample size of the study was not expected to have adequate power to detect a modest but clinically significant difference between active medication and placebo at the 5% significance level (as is commonly the case in Phase 2 studies in AD). Effect sizes and p-values were not adjusted for multiplicity.

In the BLAZE study, patients in the high-dose crenezumab arm showed less cognitive decline on the measure of global function, CDR-Sum of boxes, as compared to placebo. In mild-to-moderate AD (MMSE 18-26), a 7.4% reduction in global functional decline (p=0.84) was observed. In a post-hoc analysis in patients with mild AD (MMSE 20-26), treatment with high-dose intravenous crenezumab resulted in a 41.5% reduction in global functional decline (p=0.44). Although the results were not statistically significant, the sample size of the study was not expected to have adequate power to detect a modest but clinically significant difference between active medication and placebo at the 5% significance level (as is commonly the case in Phase 2 studies in AD).

*Safety Data from ABBY and BLAZE Studies*

Crenezumab demonstrated favorable safety and tolerability in Phase 2 clinical studies even at high doses. Crenezumab’s safety profile is especially reflected in a low incidence of ARIA-E (0.3%) in Phase 2 clinical studies. ARIA-E was observed in only one patient who received high-dose intravenous crenezumab in the ABBY study. No case of ARIA-E was reported in the placebo arm or the BLAZE study. Favorable pharmacokinetic properties coupled with a favorable safety and tolerability profile enables crenezumab to penetrate the brain more readily at therapeutically relevant doses. Since dose limiting toxicities are a potential reason for the failure of other antibodies to demonstrate efficacy, crenezumab’s potential safety at high doses is a key distinguishing product feature.

There was no imbalance in the overall rate of AEs. AEs were observed in 91.3% of patients treated with crenezumab versus 90.3% of patients who received placebo. AEs were generally mild-to-moderate and transient. AEs did not appear to be related to crenezumab exposure. Five deaths occurred during ABBY and BLAZE, all in

patients who received crenezumab during the randomized placebo-controlled period (1.4% of the crenezumab-treated population). The overall rate of deaths is consistent with the background rate of death in the elderly AD population. There was no consistent pattern for the cause of death and none were considered by the investigators to be related to crenezumab. It was reported that 3.2% of crenezumab-treated patients developed pneumonia versus 0.6% in placebo-treated patients in ABBY and BLAZE, but the rate of pneumonia cases in crenezumab-treated patients is consistent with the expected rate in the elderly population (2.5%–4.4%) and no drug-related mechanism for pneumonia was identified.

Genentech has not disclosed detailed information about serious adverse events associated with crenezumab either publicly or to us. However, at the 2014 Alzheimer's Association International Conference, it was reported that in the combined Phase 2 study populations, serious adverse events occurred at similar rates in patients treated with crenezumab (16.5%) and in patients given a placebo (11.9%).

#### ***Ongoing Phase 1 Study***

To explore safety at higher doses, crenezumab is currently being tested in a Phase 1b dose escalation clinical study (NCT02353598) conducted in the United States. This randomized, placebo-controlled, double-blind, four parallel-arm study will evaluate the safety and tolerability of at least two doses of intravenous crenezumab in up to 72 patients with mild to moderate AD (MMSE 18-28) between the ages of 50 to 90. An optional open-label extension stage will be offered to patients after completion of the double-blind stage of the study. This study is expected to be completed in May 2017. At the 2016 CTAD meeting, Genentech presented the results of the first two cohorts in 52 patients with mild-to-moderate Alzheimer's disease. No dose-limiting toxicities were observed at 30, 45 and 60mg/kg doses of crenezumab. No events of Amyloid Related Imaging Abnormality-Edema (ARIA-E) were observed in the Phase 1b study and only few patients (6 of 52) showed asymptomatic Amyloid Related Imaging Abnormality-Hemorrhage (ARIA-H). The pharmacokinetic profile of crenezumab is dose proportional up to the 60mg/kg dose and is consistent with historical data. The serum concentrations at this dose are four times higher than in the 15mg/kg dose used in the Phase 2 trials. These safety and pharmacokinetic data of the Phase 1b dose escalation study support the continued treatment of patients with crenezumab at the higher dose of 60mg/kg.

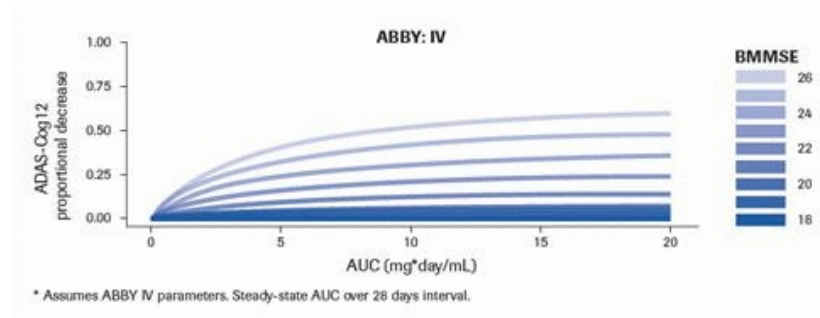
#### ***Phase 2 AD Prevention Study***

In 2012, crenezumab was independently selected from among twenty five product candidates for use in the first-ever AD prevention study. The study, a \$100 million collaboration between the NIH, Banner Alzheimer's Institute and Genentech, is the cornerstone of the global Alzheimer's Prevention Initiative. Crenezumab is being administered pre-symptomatically to 300 members of an extended Colombian family, of which 200 members carry a mutation that causes early-onset AD. Family members usually develop symptoms before the age of 45. The five-year study has cognitive endpoints. An interim analysis is expected in 2017, but the data and results of that analysis may not be made public given patient sensitivity.

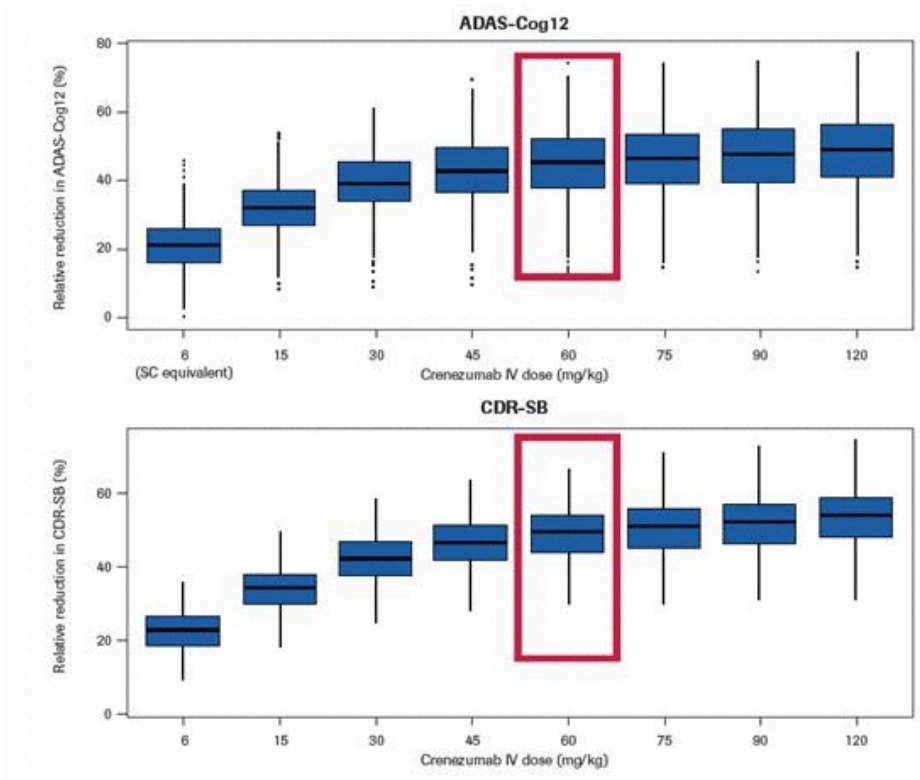
#### ***Ongoing Phase 3 Studies (CREAD 1 and 2)***

Genentech entered Phase 3 clinical development of crenezumab in the first quarter of 2016. The CREAD Study is ongoing. This randomized, double-blind, placebo-controlled, parallel group Phase 3 study will enroll about 750 participants with prodromal or mild AD at the age of 50-85 years. A high dose of crenezumab (60mg/kg) is administered intravenously once every 4 weeks for 100 weeks. Primary outcome measure is change from baseline to week 105 in Clinical Dementia Rating - Sum of Boxes (CDR-SB) score. An exposure-response model to evaluate the best dose of crenezumab for the treatment of Alzheimer's disease was established and predicts an improved outcome of the CREAD Phase 3 study by using the higher dose of 60mg/kg relative to the Phase 2 trials. Final data collection date for primary outcome measures is expected by August 2020, with study completion by July 2021.

On February 28, 2017, AC Immune announced that its partner Genentech, member of the Roche Group, had decided to start a second Phase 3 clinical trial of crenezumab.



Exposure-response model results: correlation between crenezumab exposure (AUC at steady state) and treatment effect reaching asymptote at projected exposure of 60mg/kg



Exposure-response model results: clinical trial simulations of Phase 3 study design predict 41% relative reduction on ADAS-Cog12 and 44% on CDR-SB in the milder AD population (MMSE 22-26)

### ACI-24

ACI-24 is a vaccine candidate that is in a combined Phase 1/2a clinical study for AD. ACI-24 was developed utilizing our SupraAntigen platform, and is designed to stimulate a patient's immune system to produce antibodies that specifically target the misfolded Abeta conformer to prevent plaque accumulation and to enhance plaque clearance. Pre-clinical data demonstrated significant activity in plaque reduction and memory restoration. ACI-24 has a favorable safety profile, characterized by a lack of observed local inflammation and a mechanism of action independent of inflammatory T-cells.

### Phase 1/2a Study

To be considered a Phase 1/2a study, a study or part of it must include as a primary goal the assessment of efficacy in a patient population, assessed using either clinical endpoints or biomarkers. This is in contrast to a Phase 1 study where the primary goal typically includes safety and pharmacokinetic or pharmacodynamic measures.



The ACI-24 study is an adaptive design study where, after completion of a first step assessment of safety and immunogenicity at different doses, the study may be expanded to assess the efficacy at the best dose in a Phase 2a-type design.

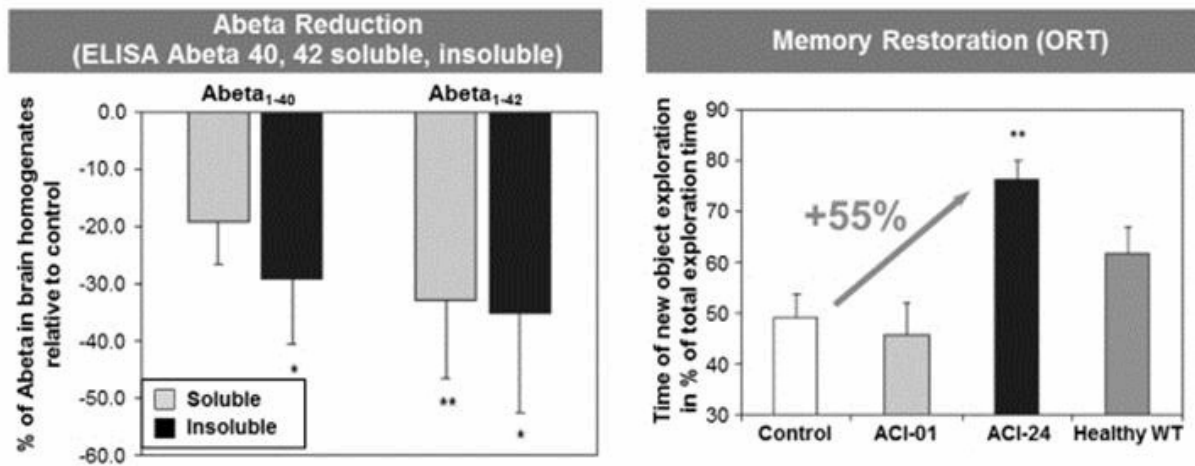
The Phase 1 part of the combined Phase 1/2a study is currently ongoing. The efficacy, tolerability and immunogenicity of ACI-24 are being tested in mild to moderate AD patients with four different doses. It is a randomized, placebo controlled, double blind study. The different doses are tested via an ascending dose design in four consecutive cohorts with 12 patients each (9 on active, 3 on placebo treatment). ACI-24 is administered by subcutaneous injection with multiple injections per cohort. Each dose cohort is followed by a two-year treatment-free safety follow-up period.

Analysis of the immune response data as well as further treatment in cohort 4 is ongoing. An interim analysis of the first three doses (cohort 1-3) revealed positive safety and tolerability. The study was not powered to examine efficacy but a trend towards reduction in accumulation in brain amyloid measured by PET imaging was observed in cohort 3. A similar pattern of reduction of clinical decline assessed by the CDR-SB was observed in cohort 3 compared to placebo at week 52 although this did not reach statistical significance. While the highest dose group is still ongoing the Phase 2 clinical design is scheduled to be completed in the second half of 2017.

ACI-24 is also being studied in a Phase 1 clinical study in people with Down syndrome, a population which is at high risk for developing AD-like symptoms. The clinical study started in December 2015 and we expect to present data from this study in 2018.

### Pre-clinical Study

Pre-clinical results showed that ACI-24 induced a rapid and significant anti-Abeta antibody response in a T-cell independent manner, which is linked to a more favorable safety profile. The antibody response following treatment with ACI-24 reduced the Abeta brain burden and restored the memory capacity in double-transgenic AD mice. Anti-Abeta antibodies induced by ACI-24 preferentially bind to both pathologically aggregated Abeta species such as oligomers and fibrils. Relative to other anti-Abeta vaccines currently or previously in clinical development ACI-24 has shown differentiation in pre-clinical studies on the basis of mechanism of action, safety and efficacy.



As shown in the diagram above, immunization of an AD mouse model with ACI-24 led to a significant decrease of insoluble, plaque-related (black bars) and soluble (grey bars) oligomeric Abeta<sub>1-40</sub> and Abeta<sub>1-42</sub>. This target engagement was accompanied by the significant improvement of cognitive memory capacity in the novel object recognition test, or ORT. In contrast, immunization with ACI-01, the vaccine candidate which did not present the antigen in its pathological conformation, did not result in any restoration of memory.

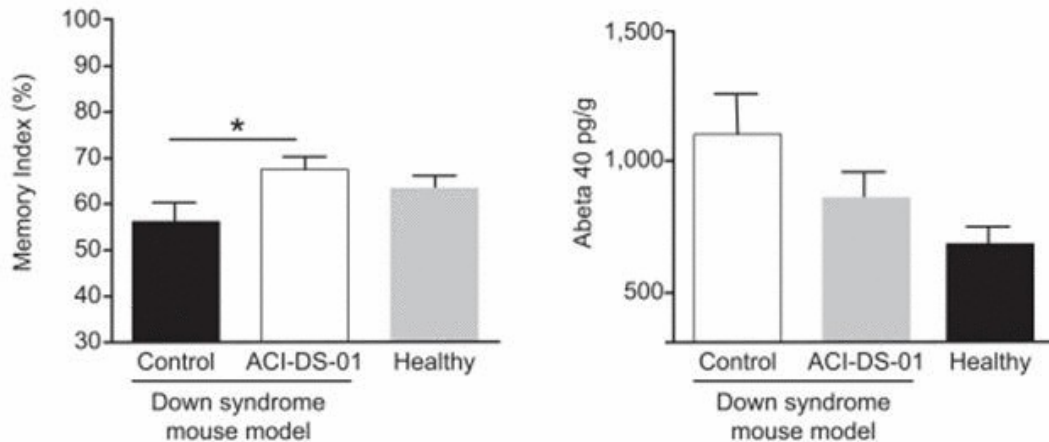
### ACI-24 in Down Syndrome

Individuals with Down syndrome have an extra copy of chromosome 21 where the gene for APP resides. These individuals have a rate of AD that is three to five times that of the general population and develop the disease at a

much younger age. At autopsy, AD has been reported in 80% of people with Down syndrome over age 40 and 100% over age 60.

ACI-24 is a vaccine candidate against the pathological form of Abeta in plaques of AD patients. It contains a palmitic-acid Abeta peptide corresponding to amino acids 1-15 of the Abeta molecule anchored in liposomes and adopts the conformation of the pathological Abeta conformers found in plaques. ACI-24 has a novel mode of action whereby antibody production is induced through direct B-cell (antibody producing cell) activation that is independent of T-helper cells.

An Investigational New Drug (IND) to study the disease-modifying properties of ACI-24 for the prevention of cognitive decline with Down syndrome was filed and cleared by the FDA. ACI-24 commenced the Phase 1 clinical study for Down syndrome at the end of 2015. The study is supported by a substantial NIH grant and other grants from the LuMind Research Down Syndrome Foundation.



The diagram above, based on work published by AC Immune in collaboration with Dr. Mobley of University of California, San Diego in March 2016, shows in a Down syndrome mouse model (Ts65Dn) a 20% significant improvement of the memory (left) and a 27% reduction of Abeta in the brain following vaccination with ACI-DS-01, the mouse equivalent of ACI-24 (right).

### **ACI-35**

ACI-35 is a vaccine candidate directed against another key component of the pathology of AD: phosphorylated tau proteins, or p-tau, found in tau tangles. ACI-35 is designed to stimulate a patient's immune system to produce antibodies against the misfolded and phosphorylated pathogenic conformers of tau protein that aggregate to create the neurofibrillary tangles that characterize AD. ACI-35 is the first vaccine candidate against phosphorylated pathological tau in clinical studies, and is currently in Phase 1b clinical testing in patients with mild to moderate AD. In 2014, we entered into a partnership with Janssen Pharmaceuticals, a subsidiary of Johnson & Johnson, for the research, clinical development, manufacture and commercialization of ACI-35.

The dendrites and axons, or nerve endings, of the neurons contain an elaborate series of thin tubes, or microtubules, which serve to support them and transport nutrients down to the nerve endings. Tau proteins are a key component of these microtubules, and, hence, are known as microtubule associated proteins.

In AD, tau protein is misfolded, becomes hyperphosphorylated and aggregates into neurotoxic oligomers that ultimately form neurofibrillary tangles within neurons. The degree of tau pathology correlates strongly with the degree of cognitive loss in AD. Approaches to reducing the level of abnormal tau proteins and slowing their build-up in the brain are considered important targets for new AD therapies.

We developed ACI-35 using our SupraAntigen technology. In pre-clinical testing, the vaccine candidate induced an antibody response that was highly specific to misfolded and phosphorylated tau. This antibody response resulted in a reduction of phosphorylated misfolded tau and an improvement in cognitive clinical parameters.

## Phase 1b Study

### Phase 1b Study Design

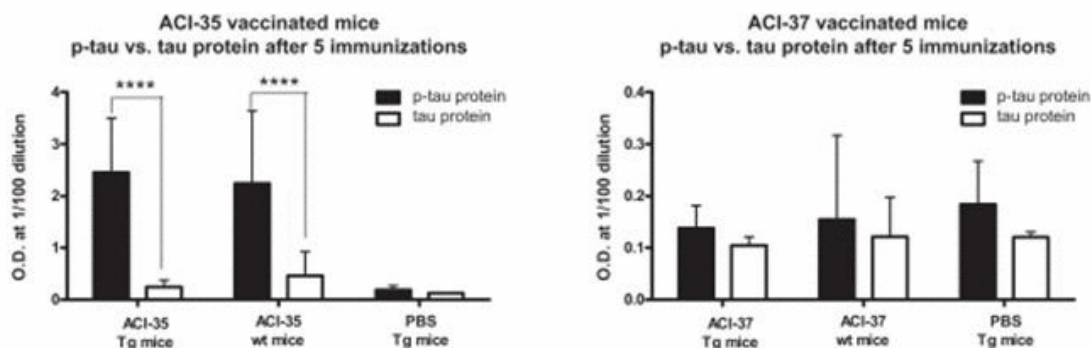
Safety, tolerability and immunogenicity of ACI-35 are being tested in an ongoing Phase 1b study in mild to moderate AD patients. It is a randomized, placebo controlled double blind study, where ACI-35 is administered via subcutaneous injection. Different doses and dosing schedules are being investigated in an ascending dose design. Multiple injections of ACI-35 are administered per cohort for active or placebo treatment in a three-to-one ratio. To date, ACI-35 has been generally safe and well tolerated.

### Pre-clinical Study

In research and pre-clinical studies, ACI-35 demonstrated:

- A high and specific anti-p-tau IgG antibody response in wild-type mice, tau transgenic mice and primates (cynomolgus and rhesus monkeys);
- The induction of highly specific antibodies that are able to recognize p-tau over non-phosphorylated tau peptide and yield a 30-100 fold higher titer for p-tau over non-phosphorylated tau;
- A favorable safety profile by showing that multiple doses in mice and monkeys induced strong antibody responses that were well tolerated and not associated with organ toxicity. The main adverse events were local reactions observed at the injection site and were consistent with a normal granulomatous inflammatory reaction after subcutaneous injection of a foreign body;
- No observable toxicity at the highest dose used in cynomolgus monkeys or mice; and
- No cross-reactivity to any human tissue with the antibodies induced in monkeys by ACI-35 immunization.

ACI-35 generated antibodies that are phosphor-specific for the full-length p-tau protein.



The left graph shows that the ACI-35 vaccination raised highly-specific antibodies against phosphorylated tau protein in both transgenic and wild type mice. On the other hand, the right graph shows that a classical vaccine, composed of a p-tau peptide adsorbed to aluminum phosphate, raised antibody responses that do not discriminate between phosphorylated tau and non-phosphorylated tau protein in both wild type and tau transgenic mice.

### Our Anti-Tau Antibody Candidate

Our anti-tau monoclonal antibody program generated humanized monoclonal antibodies for use as passive immunotherapies that are highly specific for pathological forms of tau found in AD brains and other tauopathies. Results from studies conducted in pre-clinical development demonstrate a significant reduction in pathological tau with reduced effector function, meaning decreased ability to affect the function of tau, as well as improvement of long-term spatial memory. A lead development candidate has been selected, and Genentech, our collaboration partner for the anti-tau antibody program commenced a Phase 1 clinical study in Q2 2016. The Phase 1 clinical study tests the safety, tolerability and pharmacokinetics of various dosing regimens of the anti-tau antibody in patients with mild to moderate AD as well as in healthy volunteers.

## Pre-clinical and Discovery Stage Therapeutic Programs

Using our SupraAntigen and Morphomer platforms, we have generated additional discovery and pre-clinical stage molecules targeting neurodegenerative diseases, and diagnostics targeting both Abeta and tau. We currently have four therapeutic product candidates and two diagnostic product candidates in various stages of pre-clinical development. A number of our therapeutic product candidates in pre-clinical development are focused on indications outside of AD and evidence our expansion strategy. Based on the data we have received to date, we believe that our technology platforms can be applied to misfolded proteins across a broad range of indications. The table below lists our three pre-clinical Morphomer product candidates and the lead indication being pursued:

Product Candidate	Target	Lead Indication	Partner	Platform
Morphomer tau	tau	AD	N/A	Morphomer
Morphomer abeta	Abeta	Glaucoma	N/A	Morphomer
Morphomer alpha-synuclein	alpha-synuclein	PD	N/A	Morphomer

**Anti-tau Morphomers:** Anti-tau Morphomers are small molecule compounds designed to inhibit tau aggregation with the aim of interacting with the beta sheet conformation present in misfolded aggregated tau protein. Our anti-tau Morphomers show a significant inhibition of full length tau aggregation, size-reduction and solubilization of full length tau aggregates and intracellular target engagement by reduction of cellular, aggregated and phosphorylated tau. Importantly, research data show that our compounds reduce cytotoxicity induced by tau. These data were further confirmed by the reduction of misfolded tau in the brain and memory improvement in a tau disease mouse model.

**Morphomer abeta:** Our Morphomer abeta product candidate is a small molecule that inhibits and disrupts Abeta propagation and aggregation, and is currently being evaluated for the treatment of glaucoma, where its anti-Abeta properties represent a novel mechanism of action for that disease. In pre-clinical testing, Morphomer abeta demonstrated a strong ability to protect the eyes of rats exposed to increased ocular pressure and chronic ocular hypertension which are clinical features of glaucoma.

**Morphomer alpha-synuclein:** Our Morphomer alpha-synuclein product candidate is a small molecule that reduces the cytotoxicity of alpha-synuclein aggregates by a decrease in their beta sheet content. In pre-clinical studies, Morphomer alpha-synuclein significantly reduced *in vivo* the formation of alpha-synuclein pathological structures accompanied by improvement of a neuronal marker relevant to PD. Ongoing activities are focused on increasing potency and pharmacokinetic properties and preparing compounds for pre-clinical development activities. In a mouse model of tauopathies, our lead compounds show improvement of learning and memory deficit and reduce brain atrophy.

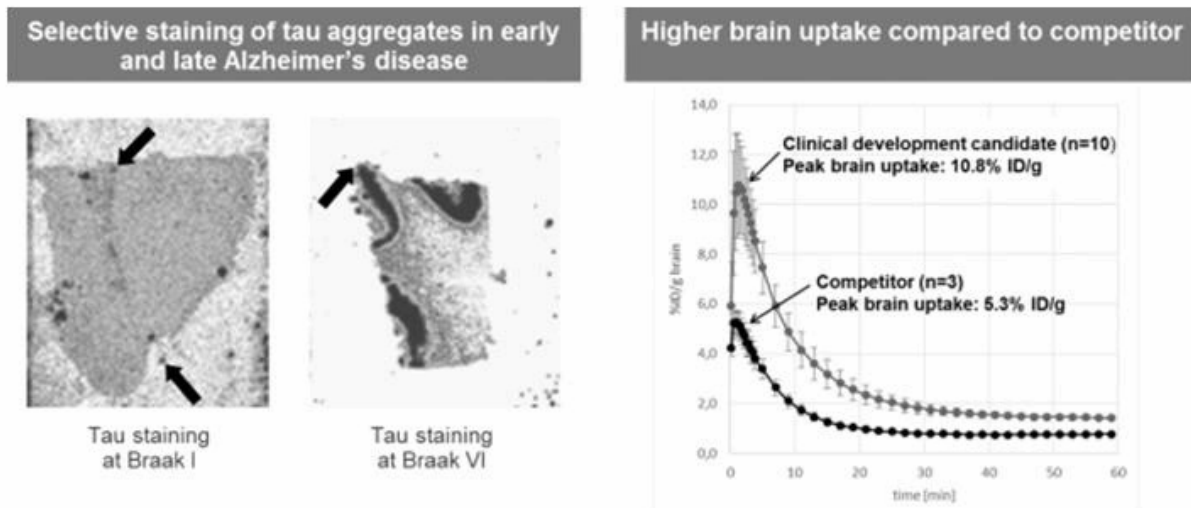
## Diagnostics

Scientists increasingly believe that early detection of neurodegenerative diseases is critical to enhancing the effectiveness of both symptomatic and disease-modifying therapies. As a result, therapeutic development for AD increasingly focuses on treating early stage disease to delay or prevent progression and to preserve the maximum amount of cognitive function before it is irreversibly lost. Most clinical studies now target mild stages of the disease increasing the need for accurate diagnosis that is independent of potentially subjective cognitive metrics. At least one study estimates that as many as one-third of patients in previous AD studies did not in fact have AD. Accurate and early diagnosis of AD is thus a substantial unmet market need, and diagnostic products will have a key role in generating a new treatment paradigm, including by selecting more uniform and stage-specific clinical study subjects, tracking patient progress and results, managing patients receiving treatment, and ultimately diagnosing disease at its earliest stage for immediate treatment.

We are developing two diagnostic product candidates using our Morphomer technology platform. These product candidates are PET ligands, that are tracers that can be used to target tau and alpha-synuclein aggregates. In May 2014, we established a collaboration agreement for our tau-PET imaging program with Piramal Imaging. Piramal Imaging commenced a Phase 1 clinical study of the program in the fourth quarter of fiscal year 2016.

Our PET tracers are designed to bind specifically to tau tangles and have demonstrated their ability to cross the blood-brain barrier. The severity of cognitive impairment in AD patients is correlated with the presence of tau

protein tangles, leading us to believe that an imaging agent for tau is equally important. Our tau-PET tracers are more selective for tau than Abeta when compared to current published tau-PET agents in development and can be readily radiolabelled. While PET imaging has improved the diagnosis of AD by targeting Abeta, tau imaging will further enhance the diagnosis of early AD. To date, there are no approved tau tracers.



The diagrams above show that our lead tau-PET imaging compound has high selectivity and can identify tau aggregates as early as stage one of the six stages of the Braak scale, which is the pre-symptomatic stage (as indicated with arrows in the far left diagram), and have a favorable uptake in the brain (right diagram).

AD diagnostics are a major market opportunity that will be driven by the growth in the aging population and the testing and availability of disease-modifying drugs. We believe a best-in-class tau tracer has the potential to achieve a substantial market share in this large and growing market.

Alongside our AD diagnostics activities, we have a program targeting PET imaging agents for alpha-synuclein, an important protein involved in PD, and which progressively accumulates in structures in the PD brain. Scientists believe that the misfolding of alpha-synuclein is central to the neurodegenerative process of PD, as well as a number of other disorders, collectively called synucleinopathies, such as Lewy Body Dementia and Multiple System Atrophy, making it a priority target for drug development. We have identified molecules from our Morphomer library that stain selectively alpha-synuclein pathological structures in human PD brain sections. Ongoing work to optimize the potency, selectivity and pharmacokinetics of these tracers is being funded by the Michael J. Fox Foundation for Parkinson's Research and Biogen under the non-exclusive research and development agreement signed in April 2016.

Currently there are no imaging products in the market that target alpha-synuclein. This provides us with a unique opportunity to become the market leader in alpha-synuclein PET imaging. We believe the ability to image alpha-synuclein deposits in the brain will enable:

- The diagnosis of PD at much earlier premotor stages than is now possible, thereby enabling early therapeutic intervention and corresponding better patient outcomes;
- The use of alpha-synuclein as a surrogate marker in clinical studies of novel therapeutic regimens designed to slow or halt progression of PD; and
- The diagnosis of sub-populations of PD and other synucleinopathies.

These applications of alpha-synuclein PET imaging agents have the potential to fundamentally change the approach of treating PD and other similar diseases.

The PD market size is estimated to grow from \$3.6 billion in 2012 to approximately \$5.3 billion in 2022.

## License Agreements and Collaborations

Our SupraAntigen and Morphomer platforms have generated large numbers of clinical assets that address diseases related to protein misfolding, such as AD, PD and Down syndrome. Select key assets in the product pipeline have been licensed for upfront payments, milestones and royalties to help offset the cost of our research and internal product development. Discussions with other companies are ongoing. We have signed a number of licensing agreements with leading pharmaceutical companies to assist and accelerate the development of our product pipeline, including:

- A worldwide licensing agreement with Genentech signed in November 2006 (and amended in May 2015) for crenezumab for AD, under which we may become eligible to receive payments totaling up to approximately \$340 million, excluding royalties.
- A worldwide licensing agreement with Genentech signed in June 2012 for anti-tau antibodies for AD, under which we may become eligible to receive payments potentially greater than \$400 million, excluding royalties.
- A worldwide licensing agreement with Janssen signed in December 2014 for therapeutic anti-tau vaccines for AD, and potentially other tauopathies, under which we may become eligible to receive payments totaling up to CHF 500 million, excluding royalties.
- A worldwide licensing agreement with Piramal Imaging signed in May 2014 for small molecule tau ligands for use as PET tracers under which we may become eligible to receive payments totaling up to €157 million, excluding royalties.

In April 2016, we entered into a non-exclusive research and development agreement with Biogen International GmbH, or Biogen to collaborate in the research and early clinical development of our alpha-synuclein PET Tracer program for Parkinson's disease and other synucleinopathies, and a second program for the identification, research and development of novel PET ligands against TDP-43, a protein recently linked to neurodegeneration in diseases such as amyotrophic lateral sclerosis.

### **Genentech**

We have two partnership agreements with Genentech, a company with a reputation for scientific excellence and a history of bringing innovative protein therapeutics to market.

#### *Crenezumab Collaboration Agreement of 2006*

We signed our first agreement with Genentech in November 2006 and amended the agreement in May 2015. This is an exclusive, worldwide licensing agreement for crenezumab, our humanized monoclonal antibody targeting misfolded Abeta. The agreement provides for a second therapeutic product based on the same intellectual property and anti-Abeta antibody compound, as well as an anti-Abeta diagnostic product. Genentech commenced Phase 3 clinical studies for crenezumab in the first quarter of 2016.

Under the agreement with Genentech, we may become eligible to receive payments totaling up to approximately \$340 million, excluding royalties. The agreement includes upfront and milestone payments. In addition, we will receive royalties on sales. The structure of the collaboration agreement is as follows:

- An upfront payment
- *Clinical milestone payments* are payable upon commencement of each of Phase 1 and Phase 2 of clinical developments, and upon the earlier of Genentech's decision to authorize Phase 3 or the commencement of Phase 3 of clinical developments. In addition, for a second indication, clinical milestone payments would be payable upon commencement of Phase 2 of clinical developments and upon the earlier of Genentech's decision to authorize Phase 3 or the commencement of Phase 3 of clinical developments.
- *Regulatory milestone payments* upon making regulatory filings in the U.S. and Europe, respectively, and milestone payments upon obtaining marketing approval in each of the U.S. and Europe. In addition, for a second indication, additional regulatory and approval milestones would be payable.

- *Royalties* on sales with different royalty rates applicable in the U.S. and Europe. Royalty levels are tied to annual sales volumes. We will receive royalties on sales of crenezumab with the percentage rates ranging from net high single digits to the mid-teens.

To date, we have received total payments of \$65 million which comprise upfront and clinical milestone payments. We received a \$25 million upfront payment at the time of signing of the collaboration agreement and have since then obtained three milestone payments totaling \$40 million, including the Phase 3 milestone payment we received in July 2015.

Under the terms of the agreement, Genentech bears all the costs of developing crenezumab through the clinical phases. In addition, Genentech is responsible for the costs associated with seeking and obtaining regulatory and marketing approvals, manufacturing costs, sales and marketing costs. Intellectual property costs related to any crenezumab-related intellectual property filed solely by us and any costs associated with filing, maintaining and protecting intellectual property filed jointly we share with Genentech. The agreement will terminate by its terms on the date on which all obligations between the parties with respect to the payment of milestones or royalties for licensed products have passed or expired. However, Genentech may terminate the agreement at any time by providing three months' notice to us.

#### *Anti-tau Antibody Collaboration Agreement of 2012*

In June 2012, we entered into a second partnership with Genentech to commercialize our anti-tau antibodies for use as immunotherapeutics. The value of this exclusive, worldwide alliance is potentially greater than CHF 400 million and includes upfront and milestone payments. In addition to milestones, we will be eligible to receive royalties on sales at percentage rates ranging from the mid-single digits to high single digits. The agreement also provides for collaboration on two additional indications built on the same anti-tau antibody program, as well as a potential anti-tau diagnostic product.

To date, we have received payments totaling CHF 45 million, including a CHF 14 million milestone payment recognized in the second quarter of 2016 and received in July 2016, associated with the recent announcement of the commencement of the Phase 1 clinical study of the lead anti-tau antibody candidate and a CHF 14 million milestone payment received in 2015 in connection with the ED-GO decision.

The structure of the collaboration agreement is as follows:

- An upfront payment
- *Preclinical and clinical milestone payments* upon selection of a lead candidate, commencement of each of Phase 1, 2 and 3 of clinical development. In addition, for a second indication, clinical milestone payments would be payable upon commencement of each of Phase 2 and 3 of clinical development.
- *Regulatory milestones payments* upon making regulatory filings for marketing approvals in the U.S., Europe, and Japan, respectively. In addition, for a second indication, similar regulatory milestones would be payable.
- *Commercialization milestones* payable upon making a first commercial sale in each of the U.S., Europe and Japan. For a second indication, commercialization milestones exist for each of the U.S., Europe and Japan which are triggered by the first commercial sale for the second indication in each of those jurisdictions.
- *Royalties* on sales with royalty rates differing based on the source of the intellectual property underlying the commercial product.

Under the terms of the agreement, Genentech bears all the costs of developing the anti-tau antibody compound through the clinical phases. In addition, Genentech is responsible for the costs associated with seeking and obtaining regulatory and marketing approvals, manufacturing costs, sales and marketing costs. Intellectual property costs related to any anti-tau antibody-related intellectual property filed solely by us and any costs associated with filing, maintaining and protecting intellectual property filed jointly we share with Genentech. The agreement will terminate by its terms on the date on which all obligations between the parties with respect to the payment of milestones or

royalties for licensed products have passed or expired. However, Genentech may terminate the agreement at any time by providing three months' notice to us.

### ***Janssen Pharmaceuticals***

In December of 2014, we entered into a partnership with Janssen Pharmaceuticals to develop and commercialize therapeutic anti-tau vaccines for the treatment of AD and potentially other tauopathies. The partnership includes a worldwide exclusive license and research collaboration. We and Janssen will co-develop the lead therapeutic vaccine candidate, ACI-35, through Phase 1b completion. From Phase 2 and onward, Janssen is expected to assume responsibility for the clinical development, manufacturing and commercialization of ACI-35. ACI-35 is an active therapeutic vaccine candidate stimulating the patient's immune system to produce a polyclonal antibody response against phosphorylated tau protein. The agreement also allows for the collaboration to be expanded to include a second indication based on the same anti-tau vaccine program and intellectual property related to this program.

To date, we have received an upfront payment of CHF 25.9 million, a research contribution of CHF 1.5 million and a CHF 4.9 million clinical milestone payment. We are eligible to receive development, regulatory and commercialization milestone payments potentially totaling up to CHF 500 million for AD and a potential second indication outside of AD. Additionally, we will receive royalties on sales at a percentage rate ranging from the low double digits to mid-teens. We have entered into a three-year joint research collaboration to further characterize and develop novel vaccine therapies for the treatment of tauopathies.

The structure of the collaboration agreement is as follows:

- An upfront payment
- *Clinical milestone payments* upon completion of Phase 1b, commencement of each of Phase 2 and 3 of clinical development. For a second cohort, a milestone payment is payable to us upon commencement of Phase 2 clinical studies. In addition, for a second indication, clinical milestone payments would be payable upon commencement of Phase 3 clinical studies.
- *Regulatory milestone payments* upon making regulatory filings in the U.S., Europe, and Japan, respectively. In addition, for a second indication, similar regulatory milestones would be payable. Also, for a second indication, additional regulatory milestone payments are payable by Janssen to us upon receipt of each of the regulatory approvals in the U.S., Europe and Japan.
- *Commercialization milestones* payable upon making a first commercial sale in each of the U.S., Europe and Japan, and upon achieving certain commercial milestones.
- *Royalties* on sales with royalty rates differing based on the level of annual sales.

The agreement will terminate by its terms on the date on which all royalty obligations have been paid thereunder. However, under the terms of the agreement, Janssen may terminate the agreement at any time after completion of the Phase 1b clinical study by providing 90 days' notice to us.

### ***Piramal Imaging***

In May 2014, we entered into our first diagnostic partnership with Piramal Imaging, one of the world leaders in imaging products. The agreement with Piramal is for a compound from the Morphomer chemical library that binds to pathogenic tau for use as a PET tracer.

The exclusive, worldwide licensing agreement with Piramal Imaging includes upfront and milestone payments totaling up to €157 million, plus royalties on sales at percentage rates ranging from mid-single digits to low teens.

The structure of the collaboration agreement is as follows:

- An upfront payment



- *Clinical milestone payments* upon the commencement of the Phase 1 study in PSP, commencement of Phase 2 and 3 for generation of data intended to support a regulatory submission in the US or EU. We would be entitled to further clinical milestone payments for the commencement of Phase 2 and 3 for a second indication
- *Regulatory approval and marketing approval milestones* upon filing and approval in each of the U.S. and Europe
- *Sales milestones* tied to specific net sales amounts

The agreement will terminate by its terms on the date of expiration of the last-to-expire royalty term, where each royalty term under the agreement expires on a product-by-product basis and country-by-country basis on the later of (i) ten years after the first commercial sale of the relevant product in such country or (ii) the date on which the patent covering the sale of such product in such country is no longer valid or enforceable. However, Piramal Imaging may terminate the agreement at any time after the first eighteen months from the effective date of this agreement by providing three months' notice to us.

#### ***Alpha-synuclein and TDP-43 PET Imaging Tracers – Collaboration with Biogen***

In April 2016, we entered into a non-exclusive research and development agreement with Biogen International GmbH, or Biogen. Under the agreement, we and Biogen have agreed to collaborate in the research and early clinical development of our alpha-synuclein PET Tracer program for Parkinson's disease and other synucleinopathies, and a second program for the identification, research and development of novel PET ligands against TDP-43, a protein recently linked to neurodegeneration in diseases such as amyotrophic lateral sclerosis. In addition, we have agreed to share the costs of the collaboration with Biogen, with Biogen primarily funding the majority of research costs, subject to a cap, which includes an upfront technology access fee and funding towards research and development personnel and activities. We will own all intellectual property rights to any invention relating to alpha-synuclein or TDP-43 PET tracers.

Unless earlier terminated, the agreement will expire upon the later of three years or the completion of the collaboration, but in no event later than four years, unless we and Biogen mutually agree to extend the term of the agreement. Biogen may terminate the agreement for any reason upon thirty days' written notice to us. Following the expiration of the agreement, we may be required to negotiate and enter into a supply agreement with Biogen pursuant to which we would supply Biogen with PET tracers created under the collaboration for Biogen's continued development activities. Under certain circumstances, including prior to the expiration of the collaboration agreement, we may also be required to grant Biogen a license or other rights to develop and commercialize such PET tracers outside of the collaboration.

#### ***National Institutes of Health/Banner Alzheimer's Institute***

In 2013, the NIH and Banner Alzheimer's Institute selected crenezumab for the first ever AD prevention study before onset of symptoms in highest-risk individuals. This landmark study is being performed on a family clan in Colombia with Paisa mutation leading to Abeta accumulation and early onset AD. The \$100 million multi-year study is being funded with grants from the NIH, Banner Alzheimer's Institute and our partner, Genentech.

#### ***Michael J. Fox Foundation for Parkinson's Research***

In 2015, we were awarded an important grant from the Michael J. Fox Foundation for Parkinson's Research (MJFF). The grant is funding the development of a diagnostic imaging agent capable of detecting PD at an early stage. The project focuses on alpha-synuclein PET tracers. We have identified molecules from our Morphomer library that stain selectively alpha-synuclein pathological structures in human PD brain sections. We are optimizing the potency, selectivity and pharmacokinetics of these tracers and expect to select a lead candidate.

#### ***Nestlé Institute of Health Sciences SA***

In September 2015, we entered into a research collaboration agreement with the Nestlé Institute of Health Sciences SA, or NIHS, a fundamental research institute of the global nutrition, health and wellness company Nestlé, to develop a novel, minimally invasive tau diagnostic assay for the early diagnosis of AD. Under the terms of the agreement, we will provide expertise in the biology and pathology of tau as well as commit our laboratory

capabilities to support the collaborative research program. NINDS will apply its proprietary multiplexed antibody technology platform to the research program with the goal of identifying and validating a highly sensitive diagnostic assay for the detection of tau in human cerebrospinal fluid and blood plasma.

## Competition

The biopharmaceuticals industry is highly competitive across all therapeutic fields. In the field of neurodegenerative diseases, there are many public and private companies or institutions that are actively engaged in the discovery and development of therapeutic and diagnostic products. Some of these products may have a similar target to our product candidates or address similar markets. The industry is still in its infancy in terms of defining the pathology of neurodegenerative diseases. As disease understanding progresses, the number of novel product candidates may well increase and broaden the therapeutic and diagnostic options in our product markets.

Currently, there are no approved disease-modifying products for AD or any other neurodegenerative disease. Current approved therapies seek to treat the symptoms of AD, such as cognitive decline, but do not slow or stop the progression of the disease. In addition, commonly, there is off-label prescription of antidepressant and antipsychotic agents for more advanced AD patients who may suffer from agitation, aggressive behaviors, psychosis and depression. No new drugs have been approved for the treatment of AD since 2003.

We expect there to be several classes of disease-modifying agents that will enter the AD market. One such class is monoclonal antibodies that target Abeta plaques, the same target as for our candidate product crenezumab. Another target for monoclonal antibodies is pathological tau protein. Therapeutic vaccines are a second class of disease-modifying therapies, and include our candidate products ACI-24, that targets Abeta plaque, and ACI-35, that targets aggregated tau protein.

The availability of novel diagnostic agents to visualize the disease development in AD patients is critical for successful clinical development of disease-modifying products in AD. At the forefront of this new diagnostic effort are PET agents for in-life imaging of disease, and in particular, tau-targeting PET agents which we believe will allow precise assessment of disease AD patients.

- **Crenezumab:** If crenezumab is approved, it would compete with other monoclonal antibody products that target Abeta plaques and act as disease-modifying agents. Currently, no product has been approved that is a disease-modifying agent targeting Abeta plaques; however, two such product candidates are in clinical development. These are gantenerumab and aducanumab, each of which is in Phase 3 clinical study and which are being advanced by Roche and Biogen, respectively. Roche's collaboration partner MorphoSys also announced in March 2017 that Roche plans to initiate Phase 3 program for gantenerumab in patients with prodromal to mild AD. Biogen has a second product candidate known as BAN2401, which is currently in Phase 2 clinical study. Aducanumab received Fast Track designation from the FDA in 2016 as did crenezumab in 2008.
- **ACI-24 in AD:** ACI-24, if approved, would compete with other approved anti-Abeta-targeting therapeutic vaccines. Several potential competing product candidates have not continued through the regulatory approval process, including ACC-001 (Janssen / Pfizer) and AN-1792 (Elan / Janssen), both of which were discontinued after completing Phase 2 studies. Other potential competing product candidates for ACI-24 include ABvac 40 (Araclon Bioscience) which has completed a Phase 1 study and CAD-106 (Novartis International AG), which has completed a Phase 2 study.
- **ACI-24 in Down syndrome:** ACI-24 is the first disease-modifying vaccine candidate addressing AD in Down syndrome, with a potential preventive and therapeutic application. While there are symptomatic treatments of Down syndrome in clinical development, to our knowledge there are no other disease-modifying treatments for AD in Down syndrome.
- **ACI-35:** ACI-35, if approved, would compete with other approved tau-targeting therapeutic vaccines. This includes AADVAC1, being advanced by Axon Neuroscience. It is an anti-tau vaccine product candidate and is currently in a Phase 2 clinical trial to examine safety and efficacy in patients with mild AD.
- **Anti-tau Antibodies:** The anti-tau monoclonal antibody BMS-986168 (Bristol-Myers Squibb Company) is currently in Phase 1 clinical development in the orphan indication PSP, a tau protein-based

neurodegenerative disease. In the fourth quarter of fiscal year 2016 ABBV-812E (Abbvie) entered into Phase 2 clinical studies in PSP and in early stage AD.

- **Anti-tau Morphomers:** A potential competitor to our anti-tau Morphomers is LMTX (also known as TRx0237). LMTX is a methylene blue derivative that is being advanced by TauRx Therapeutics and is intended to target tau protein aggregation. LMTX entered Phase 3 clinical study in September 2012. In the third quarter of fiscal year 2016 it was announced that LMTX failed to slow cognitive or functional decline in mild to moderate AD.
- **Diagnostics:** Currently, there are no approved tau PET imaging products. However, should our tau PET imaging agent be approved, it would compete with other approved tau-PET agents. These include (i) Flortaucipir (previously known as F-AV-1451 or T807), which is being advanced by Eli Lilly and is currently in Phase 3 clinical studies, (ii) THK-5351, is being advanced by GE Healthcare under license from the Tohoku University School of Medicine and is currently in Phase 1 studies, (iii) PBB3, a product candidate in Phase 1 studies and being advanced by the National Institute of Radiological Services, (iv) Roche is evaluating internal tau PET imaging ligands in Phase 1 clinical studies in AD patients, (v) Genentech is developing F-GTP1 in Phase 1 studies and (vi) Merck is evaluating F-MK-6240 in Phase 1 clinical trials.

Many of our competitors have significantly greater financial, technical and human resources than we have available. Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Our commercial opportunity and our success will be based in part on our ability to identify, develop and manage a portfolio of product candidates that are safer and more effective than competing products. However, this opportunity could be eroded or even eliminated if our competitors develop and/or market products that are novel and have superior safety and efficacy profiles, that may be brought to the market more rapidly due to greater available resources, or that are less costly than our current or future product candidates.

### **Commercialization Strategy**

Our strategy to date has been to focus on identifying partnerships for our early stage product candidates as both a way to secure non-dilutive capital to fund our other research and development programs but also as a way to accelerate the development of these partnered products by leveraging our partners' extensive knowledge in clinical studies, drug development, manufacturing and commercialization.

With greater financial resources at our disposal but also given the significant knowledge acquired by our scientists and scientific leadership, we intend to retain selected promising product candidates in-house for a longer period of time and fund their development from our own resources. This will allow us to generate greater value from these product candidates, allowing us to demand more significant terms from a prospective partner. For example, our current plan is to retain full control of our two Abeta vaccine programs focused on AD and Down syndrome, meaning that we would fund the planned Phase 2 and Phase 2/3 studies, respectively, from our financial resources. In the field of diagnostics, the parallel development of therapeutic compounds and companion diagnostics is of growing importance to the pharmaceutical industry. The development timeframe of a PET diagnostic agent is significantly shorter than for a therapeutic product providing the prospect for potential diagnostic product revenues to be realized quicker than potential therapeutic product revenues. Our Morphomer platform is particularly well suited to generate molecules for use in the development of companion diagnostics.

Given our current stage of product development, we currently do not have a commercialization infrastructure. If any of our diagnostic product candidates is granted marketing approval, we intend to focus our initial commercial efforts in the United States and select European markets, which we believe represent the largest market opportunities for us. In those markets, we expect our commercial operations to include our own specialty sales force that will target neurologists and gerontologists, both in hospitals and in private practice. In other markets, we expect to seek partnerships that would maximize our products' commercial potential.

### **Intellectual Property**

We strive to protect the proprietary technology that we believe is important to our business, including seeking and maintaining U.S. and foreign patents intended to cover our products and compositions, their methods of use and

processes for their manufacture, as well as our proprietary technology platforms, diagnostic candidates, and any other inventions that are commercially important to the development of our business. We also rely on trade secrets and know-how to protect aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success will significantly depend on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business, defend and enforce patents, preserve the confidentiality of our trade secrets and operate our business without infringing any patents and other intellectual property or proprietary rights of third parties. See the section titled “Risk Factors—Risks Related to Intellectual Property” for additional information.

As of February 1, 2017 we owned or co-owned approximately 23 issued U.S. patents and 198 issued patents in other jurisdictions, as well as 19 pending U.S. patent applications and 282 pending foreign patent applications. As of February 1, 2017 we licensed approximately 13 issued U.S. patents and 13 pending U.S. patent applications, as well as 131 issued patents in other jurisdictions and 222 pending foreign patent applications.

The patent portfolios for our three most advanced product candidates as of February 1, 2017 are summarized below.

#### ***Crenezumab***

Our patent portfolio relating to crenezumab includes patents and patent applications with claims directed to composition of matter (including claims directed to the crenezumab antibody or a fragment thereof, a polynucleotide encoding the crenezumab antibody or a fragment thereof, a cell line used to produce the crenezumab antibody as well as pharmaceutical compositions comprising the crenezumab antibody), claims directed to treating certain indications using the crenezumab antibody including AD, claims directed to a method of manufacturing the crenezumab antibody, and claims directed to diagnostic and prognostic uses of the crenezumab antibody.

Our patent portfolio relating to crenezumab includes patents and patent applications that we own or co-own in four different patent families. As of February 1, 2017, we owned or co-owned approximately 24 patents (not including the patents in the individual countries where the issued European patent was validated) and 38 patent applications in 34 countries in our main patent family directed to the crenezumab antibody and methods of using the crenezumab antibody to treat certain indications, including AD. This patent portfolio includes three issued U.S. patents and one pending U.S. patent application, which, if the appropriate maintenance or other governmental fees are paid, are expected to expire in 2027, excluding any additional term for patent term adjustments or patent term extensions. This patent portfolio also includes a PCT patent application which was filed on July 13, 2007. If the appropriate maintenance, renewal, annuity, or other governmental fees are paid, national stage applications issuing from this PCT patent application, are expected to expire in 2027, excluding any additional term for patent term adjustments or patent term extensions, as applicable.

#### ***ACI-24***

Our patent portfolio for ACI-24 includes composition of matter claims (including claims directed to the ACI-24 antigenic construct) claims directed to treating certain indications using ACI-24 including AD, and claims directed to using ACI-24 to induce an immune response.

Our patent portfolio for ACI-24 consists of approximately 24 issued patents and 10 pending patent applications in 30 countries. With respect to the U.S., we own two issued U.S. patents.

The patents in this patent portfolio claim the benefit of a PCT application with a filing date of December 8, 2006. The issued patents in this patent portfolio, if the appropriate maintenance, renewal, annuity or other governmental fees are paid, are expected to expire in 2026, excluding any additional term for patent term adjustments or patent term extensions.

#### ***ACI-35***

Our patent portfolio for ACI-35 includes composition of matter claims (including claims directed to the ACI-35 antigenic peptide and a pharmaceutical composition comprising such an antigenic peptide), claims directed to

treating certain indications using ACI-35 including AD, and claims directed to using ACI-35 to induce an immune response.

Our patent portfolio for ACI-35 consists of approximately 16 issued patents and 14 pending patent applications in 27 countries. With respect to the U.S., we own one issued U.S. patent.

The patents in this patent portfolio claim the benefit of a PCT application with a filing date of April 1, 2010. The issued patents in this patent portfolio, if the appropriate maintenance, renewal, annuity or other governmental fees are paid, are expected to expire in 2030, excluding any additional term for patent term adjustments or patent term extensions.

## **Manufacturing and Supply**

### ***Background***

The manufacturing and supply of the clinical study materials are currently done in collaboration with our collaboration partners ( e.g. , Genentech in the case of crenezumab and anti-tau antibodies and Piramal Imaging in the case of tau PET imaging) or contract manufacturing organizations ( e.g. , for ACI-35 and ACI-24) for the supply of raw materials, drug substances and drug products.

We have an established standard operating procedure to properly select the contract manufacturing organization to which the manufacturing tasks will be assigned. In the assessment, we consider the availability of the technical skills necessary to support the project, the business and commercial aspects related to the collaboration and the compliance of our providers with local and international regulations.

### ***Collaboration Partners and Contract Manufacturing Organizations***

Genentech, a leading biotech company with extensive experience in developing, producing and distributing products worldwide from pre-clinical to commercial stages of development, manufactures and supplies clinical study materials for crenezumab and anti-tau antibodies. Tau-PET imaging compounds are produced in collaboration with Piramal, a well-established Indian company with a strong chemical background supported by an India based contract manufacturing organization.

ACI-24 and ACI-35 APIs (active pharmaceutical ingredients) are produced by Bachem AG, which is an experienced company specialized in manufacturing synthetic peptides and based in Switzerland. Drug products for the advancement of ACI-24 are manufactured by Polymun GmbH, a company based in Austria with significant experience in developing and producing Liposomal formulations, while drug products for the advancement of ACI-35 are produced by Evonik Canada Inc., a company based in Canada with a strong and long experience in the field of liposomal formulation and production.

### ***Compliance with Governing Rules and Quality Requirements***

The facilities used by our collaboration partners and contract manufacturing organizations to manufacture our product candidates are systematically audited by local authorities and occasionally inspected by competent authorities where the clinical studies are ongoing. The facilities where the commercial productions are performed must be approved by the FDA or other relevant regulatory authorities pursuant to inspections that are conducted after we submit our NDA or comparable marketing applications. We perform periodic quality audits of the manufacturing facilities and contract manufacturing organizations to monitor their compliance with the regional laws, regulations and applicable cGMP standards and other laws and regulations, such as those related to environmental health and safety matters. The scope of our audits also involves monitoring the ability of our providers to maintain adequate quality controls and quality assurance systems including personnel qualification.

After manufacturing, our products are submitted to extensive characterization and quality control testing plans performed by using properly developed analytical methods that are qualified or validated; this ensures the accuracy of the results generated and provides evidence of the quality of our products. In addition, our products are submitted to detailed and standardized stability programs aimed at demonstrating the stability during the storage period; this, while it guarantees the safety of the products, supports the definition of a suitable supply chain that may encompass the distribution of the products in different continents.

### ***Contractual framework***

We have established, with each contract manufacturing organization supplying drug substances or drug products, quality agreements and master service agreements. Quality agreements define the quality standards required to develop, produce and supply the product. Quality agreements also define the responsibilities related to the collaboration with regards to the quality related aspects. Master service agreements define the framework under which the quality agreements operate. Any failure to achieve and maintain compliance with the laws, regulations and standards, suspension of the manufacturing of our product candidates or revoke of cGMP permissions which would adversely affect our business and reputation are defined in the master service agreements and quality agreements. The risk that any third-party providers may breach the agreements they have with us because of factors beyond our control and the possibility they may also terminate or refuse to renew their agreements because of their own financial difficulties or business priorities, potentially at a time that is costly or otherwise inconvenient for us is managed by us with constant investments toward maintaining reserve stocks and in-depth process know-how. The latter is supported by continuous in-house process development and production activities of small-scale/research grade materials that may offer the chance to rapidly identify alternative contract manufacturers to which the manufacturing process could be transferred providing continuity for the clinical study.

### ***Interaction with collaboration partners and contract manufacturing organizations***

Finally, our partnership with contract manufacturing organizations is managed through an efficient project management platform in which teams are formed with the representatives of each key function from both parties. Meetings occur either by telephone conferences aimed at updating short term actions or face-to-face when mid-long term development plans are discussed.

### **Government Regulation and Our Regulatory Department**

Our regulatory department has a strong culture of regulatory compliance, operating under three guiding principles, to:

- Provide constructive regulatory input for development products.
- Ensure smooth regulatory approvals by anticipating hurdles.
- Build confidence with regulators by continuous communication.

The quality assurance group is included within the regulatory department with the mission to:

- Create and maintain a corporate quality management system.
- Ensure GCP, GMP, GLP and GDP compliance.

A science driven approach is the cornerstone of our interactions and this has helped us to build and maintain a high level of trust with regulators. Besides informal conversations with the authorities, our regulatory department has conducted several pre-IND meetings with the FDA (ACI-24 for AD and Down syndrome, and tau-PET Imaging) and six Scientific Advice meetings, which are the European equivalent of pre-IND meetings (with German BfArM, Swedish Medical Products Agency; Medicine & Healthcare Products Regulatory Agency (UK), Finnish Medicines Agency, and the European Medicines Agency). Since 2008, our regulatory department has filed a total of six clinical study applications in the EU (Germany, Austria, Denmark, Sweden, UK and two in Finland) and one IND in the US. Given the seriousness of AD and public pressure for new therapeutics, we consider regulatory agencies to be important stakeholders in our clinical studies. We are committed to working closely with world regulatory authorities to adhere to and achieve the highest levels of safety in the most timely and efficient manner. The transparency we have achieved and our goal of a close working relationship with the regulatory agencies, in particular the FDA, are intended to facilitate expeditious execution through the regulatory approval process.

Our regulatory department contains a quality assurance (QA) group. As every quality issue ultimately requires regulatory involvement and input, this approach is intended to lead to rapid resolution of issues and ensure full compliance to satisfy both the reviewers and the inspectors at the government health authorities. Our regulatory department is charged with keeping our entire organization directly or indirectly involved in the clinical study application process in a state of “inspection readiness.” To that end, we ensure that the Trial Master Files are

complete and regularly updated. Our regulatory department is also tasked with generating our annual quality plan. The personnel tasked with QA have issued a set of approximately 30 standard operating procedures and continuously train the relevant staff. Our QA personnel conduct regular audits, including in-person audits of the contract manufacturers, contract research organizations and laboratories conducting primary end-point analysis. In addition, we have recently added a corporate documentation specialist to ensure good documentation practice.

### ***Product Approval Process***

The clinical studies, manufacturing, labeling, storage, distribution, record keeping, advertising, promotion, import, export and marketing, among other things, of our product candidates are subject to extensive regulation by governmental authorities in the United States and other countries. The U.S. Food and Drug Administration, or FDA, under the Federal Food, Drug, and Cosmetic Act, or FDCA, regulates pharmaceutical products in the United States. The steps required before a drug may be approved for marketing in the United States generally include:

- the completion of pre-clinical laboratory tests and animal tests conducted under Good Laboratory Practice, or GLP, regulations;
- the submission to the FDA of an Investigational New Drug, or IND, application for human clinical testing, which must become effective before human clinical studies commence;
- obtaining a positive opinion from the Ethics Committee (Europe) / Institutional Review Board (United States) to commence study on human subjects;
- the performance of adequate and well-controlled human clinical studies to establish the safety and efficacy of the product candidate for each proposed indication and conducted in accordance with current Good Clinical Practice, or cGCP, requirements;
- pre-New Drug Application (NDA) submission meeting with FDA (highly recommended);
- the submission to the FDA of a NDA;
- the FDA's acceptance of the NDA;
- satisfactory completion of an FDA Pre-Approval Inspection (PAI) of the manufacturing facilities at which the product is made to assess compliance with current Good Manufacturing Practice, or cGMP, requirements;
- the FDA's review and approval of an NDA prior to any commercial marketing or sale of the drug in the United States; and
- having a parallel scientific advice from the European Medicines Agency or Health-Technology-Assessment body where the payors are involved at the outset (Phase 2), which is intended to facilitate the design of clinical studies to primarily target populations with a high chance of obtaining reimbursement and accelerate the process of time-to-reimbursement.

The FDA has various programs, including fast track, priority review, accelerated approval, and breakthrough therapy designation, that are intended to increase agency interactions, expedite or facilitate the process for reviewing drug candidates, and/or provide for initial approval on the basis of surrogate endpoints. We believe that one or more of our product candidates may qualify for some of these expedited development and review programs. Even if a drug candidate qualifies for one or more of these programs, the FDA may later decide that the drug candidate no longer meets the conditions for qualification.

The Fast Track program is intended to expedite or facilitate the process for reviewing new drugs that meet certain criteria. Specifically, new drugs are eligible for Fast Track designation if they are designed to treat a serious or life-threatening condition and demonstrate the potential to address unmet medical needs for the condition. Fast Track designation applies to the combination of the product and the specific indication for which it is being studied. The sponsor of a new drug may request the FDA to designate the drug as a Fast Track product at any time during the clinical development of the product. AD, for example, meets both pre-requisites—it is life-threatening and

constitutes an unmet medical need. Unique to a Fast Track product, the FDA may consider for review sections of the marketing application on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the application, the FDA agrees to accept sections of the application and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the application.

Any product submitted to the FDA for marketing, including under a Fast Track program, may be eligible for other types of FDA programs intended to expedite development and review, such as priority review and accelerated approval. Any product is eligible for priority review if it has the potential to provide safe and effective therapy where no satisfactory alternative therapy exists or a significant improvement in the treatment, diagnosis or prevention of a disease compared to marketed products. The FDA will attempt to direct additional resources to the evaluation of an application for a new drug designated for priority review in an effort to facilitate the review. Additionally, a product may be eligible for accelerated approval. Drug candidates studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval, which means that they may be approved on the basis of adequate and well-controlled clinical studies establishing that the product has an effect on a surrogate endpoint that is reasonably likely to predict a clinical benefit, or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. As a condition of approval, the FDA may require that a sponsor of a drug receiving accelerated approval perform adequate and well-controlled post-marketing clinical studies. Failure to conduct required post-approval trials, or the inability to confirm a clinical benefit during post-marketing trials, may allow the FDA to withdraw the drug from the market on an expedited basis. In addition, the FDA currently requires as a condition for accelerated approval pre-approval of promotional materials, which could adversely impact the timing of the commercial launch of the product. Fast Track designation, priority review and accelerated approval do not change the standards for approval but may expedite the development or approval process.

The Food and Drug Administration Safety and Innovation Act of 2012 also amended the FDCA to require FDA to expedite the development and review of a breakthrough therapy. A drug can be designated as a breakthrough therapy if it is intended to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that it may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints. A sponsor may request that a drug be designated as a breakthrough therapy at any time during the clinical development of the product. If so designated, FDA shall act to expedite the development and review of the product's marketing application, including by meeting with the sponsor throughout the product's development, providing timely advice to the sponsor to ensure that the development program to gather nonclinical and clinical data is as efficient as practicable, involving senior managers and experienced review staff in a cross-disciplinary review, assigning a cross-disciplinary project lead for the FDA review team to facilitate an efficient review of the development program and to serve as a scientific liaison between the review team and the sponsor, and taking steps to ensure that the design of the clinical trials is as efficient as practicable.

The testing and approval process requires substantial time, effort and financial resources, and the receipt and timing of any approval is uncertain. Given this paradigm, AD has been given a Life Threatening Disease status by the FDA and therefore AD therapies are eligible for the expanded access program for investigational drugs and other pathways like Breakthrough Therapy, Accelerated Approval and Priority Review. Also, a single well-designed, well-conducted pivotal clinical study could be sufficient to trigger market approval pending a successful PAI.

Pre-clinical studies include laboratory evaluations of the product candidate, as well as animal studies to assess the potential safety and efficacy of the product candidate. The results of the pre-clinical studies, together with manufacturing information and analytical data, are submitted to the FDA as part of the IND, which must become effective before clinical studies may be commenced. The IND will become effective automatically 30 days after receipt by the FDA, unless the FDA raises concerns or questions about the conduct of the studies as outlined in the IND prior to that time. In this case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical studies can proceed.

Clinical studies involve the administration of the product candidates to healthy volunteers or patients with the disease to be treated under the supervision of a qualified principal investigator. Clinical studies are conducted under protocols detailing, among other things, the objectives of the study, the parameters to be used in monitoring safety, and the efficacy criteria to be evaluated. A protocol for each clinical study and any subsequent protocol amendments must be submitted to the FDA as part of the IND. Further, each clinical study must be reviewed and approved by an independent institutional review board, or IRB, either centrally or individually at each institution at which the



clinical study will be conducted. The IRB will consider, among other things, ethical factors, the safety of human subjects and the possible liability of the institution. There are also requirements governing the reporting of ongoing clinical studies and clinical study results to public registries. The FDA, the IRB or the clinical study sponsor may suspend or terminate clinical studies at any time on various grounds, including a finding that the subjects or patients are being exposed to an unacceptable health risk. Additionally, some clinical studies are overseen by an independent group of qualified experts organized by the clinical study sponsor, known as a data safety monitoring board or committee. This group provides authorization for whether or not a study may move forward at designated check points based on access to certain data from the study. We may also suspend or terminate a clinical study based on evolving business objectives and/or competitive climate.

Clinical studies are typically conducted in three sequential phases prior to approval, but the phases may overlap. These phases generally include the following:

Phase 1. Phase 1 clinical studies represent the initial introduction of a product candidate into human subjects, frequently healthy volunteers. In Phase 1, the product candidate is usually tested for safety, including adverse effects, dosage tolerance, absorption, distribution, metabolism, excretion and pharmacodynamics.

Phase 2. Phase 2 clinical studies usually involve studies in a limited patient population to (1) evaluate the efficacy of the product candidate for specific indications, (2) determine dosage tolerance and optimal dosage and (3) identify possible adverse effects and safety risks.

Phase 3. If a product candidate is found to be potentially effective and to have an acceptable safety profile in Phase 2 studies, the clinical study program will be expanded to Phase 3 clinical studies to further demonstrate clinical efficacy, optimal dosage and safety within an expanded patient population at geographically dispersed clinical study sites.

Phase 4 clinical studies are conducted after approval to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit in the case of drugs approved under accelerated approval regulations, or when otherwise requested by the FDA in the form of post-market requirements or commitments. Failure to promptly conduct any required Phase 4 clinical studies could result in withdrawal of approval.

The results of pre-clinical studies and clinical studies, including negative or ambiguous results as well as positive findings, together with detailed information on the manufacture, composition and quality of the product, are submitted to the FDA in the form of an NDA requesting approval to market the product. The NDA must be accompanied by a significant user fee payment. The FDA has substantial discretion in the approval process and may refuse to accept any application or decide that the data is insufficient for approval and require additional pre-clinical, clinical or other studies.

We estimate that it generally takes 10 to 15 years, or possibly longer, to discover, develop and bring to market a new pharmaceutical product in the United States. Several years may be needed to complete each phase, including discovery, preclinical, Phase 1, 2 or 3, or marketing authorization.

In addition, under the Pediatric Research Equity Act, or PREA, an NDA or supplement to an NDA must contain data to assess the safety and effectiveness of the drug for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. Recently, the Food and Drug Administration Safety and Innovation Act, or FDASIA, which was signed into law on July 9, 2012, amended the FDCA. FDASIA requires that a sponsor who is planning to submit a marketing application for a drug or biological product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan, within sixty days of an end-of-phase 2 meeting or as may be agreed between the sponsor and FDA. The initial Pediatric Study Plan must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any request for a deferral of pediatric assessments or a full or partial waiver of the requirement to provide data from pediatric studies along with supporting information. FDA and the sponsor must reach agreement on the Pediatric Study Plan. A sponsor can submit amendments to an agreed-upon initial Pediatric Study Plan at any time if changes to the pediatric plan need to be considered based on data collected from nonclinical studies, early phase clinical trials, and/or other clinical development programs.

The cost of preparing and submitting an NDA is substantial. Under federal law, NDAs are subject to substantial application user fees and the sponsor of an approved NDA is also subject to annual product and establishment user fees. Under the Prescription Drug User Fee Act, or PDUFA, as amended, each NDA must be accompanied by a user fee. The FDA adjusts the PDUFA user fees on an annual basis. According to the FDA's fee schedule, effective through September 30, 2017, the user fee for each NDA application requiring clinical data is \$2,038,100. PDUFA also imposes an annual product fee for drugs (\$97,750), and an annual establishment fee (\$512,200) on facilities used to manufacture prescription drugs. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on NDAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

Once the NDA submission has been submitted, the FDA has 60 days after submission of the NDA to conduct an initial review to determine whether it is sufficient to accept for filing. Under the Prescription Drug User Fee Act, or PDUFA, the FDA sets a goal date by which it plans to complete its review. This is typically 12 months from the date of submission of the NDA application. The review process is often extended by FDA requests for additional information or clarification. Before approving an NDA, the FDA will inspect the facilities at which the product is manufactured and will not approve the product unless the manufacturing facility complies with cGMPs and may also inspect clinical study sites for integrity of data supporting safety and efficacy. The FDA may also convene an advisory committee of external experts to provide input on certain review issues relating to risk, benefit and interpretation of clinical study data. The FDA is not bound by the recommendations of an advisory committee, but generally follows such recommendations in making its decisions. The FDA may delay approval of an NDA if applicable regulatory criteria are not satisfied and/or the FDA requires additional testing or information. The FDA may require post-marketing testing and surveillance to monitor safety or efficacy of a product.

After the FDA evaluates the NDA and conducts inspections of manufacturing facilities where the drug product and/or its API will be produced, it may issue an approval letter or a Complete Response Letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications. A Complete Response Letter indicates that the review cycle of the application is complete and the application is not ready for approval. A Complete Response Letter may require additional clinical data and/or an additional pivotal Phase 3 clinical study(ies), and/or other significant, expensive and time-consuming requirements related to clinical studies, pre-clinical studies or manufacturing. Even if such additional information is submitted, the FDA may ultimately decide that the NDA does not satisfy the criteria for approval. The FDA could also approve the NDA with a Risk Evaluation and Mitigation Strategy, or REMS, plan to mitigate risks, which could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. The FDA also may condition approval on, among other things, changes to proposed labeling, development of adequate controls and specifications, or a commitment to conduct one or more post-market studies or clinical studies. Such post-market testing may include Phase 4 clinical studies and surveillance to further assess and monitor the product's safety and effectiveness after commercialization.

#### ***Special Protocol Assessment***

The FDA and an IND sponsor may agree in writing on the design and size of clinical studies intended to form the primary basis of a claim of effectiveness in an NDA. This process is known as a special protocol assessment, or SPA. Upon a specific request for a SPA by an IND sponsor, the FDA will evaluate the protocol. If a SPA agreement is reached, however, it is not a guarantee of product approval by the FDA or approval of any permissible claims about the product. The FDA retains significant latitude and discretion in interpreting the terms of the SPA agreement and the data and results from any study that is the subject of the SPA agreement. In particular, the SPA agreement is not binding on the FDA if previously unrecognized public health concerns later come to light, other new scientific concerns regarding product safety or efficacy arise, the IND sponsor fails to comply with the protocol agreed upon, or the relevant data, assumptions, or information provided by the IND sponsor when requesting a SPA agreement change, are found to be false statements or misstatements, or are found to omit relevant facts. A SPA agreement may not be changed by the sponsor or the FDA after the study begins except with the written agreement of the sponsor and the FDA, or if the FDA determines that a substantial scientific issue essential to determining the safety or effectiveness of the drug was identified after the testing began.

### ***Orphan Drug Designation***

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug or biological product intended to treat a rare disease or condition, which is a disease or condition that affects fewer than 200,000 individuals in the US, or if it affects more than 200,000 individuals in the US there is no reasonable expectation that the cost of developing and making a drug product available in the US for this type of disease or condition will be recovered from sales of the product. Orphan product designation must be requested before submitting an NDA. After the FDA grants orphan product designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan product designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug or biological product for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan exclusivity. The designation of such drug also entitles a party to financial incentives such as opportunities for grant funding towards clinical study costs, tax advantages and user-fee waivers. Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity. Orphan product exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval of the same drug or biological product as defined by the FDA or if our drug candidate is determined to be contained within the competitor's product for the same indication or disease. If a drug product designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan product exclusivity. Orphan drug status in the European Union has similar but not identical benefits in that jurisdiction.

### ***Disclosure of Clinical Trial Information***

Sponsors of clinical trials (other than Phase 1 trials) of FDA-regulated products, including drugs, are required to register and disclose certain clinical trial information. Information related to the product, comparator, patient population, phase of investigation, trial sites and investigators and other aspects of the clinical trial is made public as part of the registration. Sponsors are also obligated to disclose the results of their clinical trials after completion. Disclosure of the results of certain trials may be delayed until the new product or new indication being studied has been approved. However, there are evolving rules and increasing requirements for publication of trial-related information, and it is possible that data and other information from trials involving drugs that never garner approval could in the future be required to be disclosed. In addition, publication policies of major medical journals mandate certain registration and disclosures as a pre-condition for potential publication, even when this is not presently mandated as a matter of law. Competitors may use this publicly available information to gain knowledge regarding the progress of development programs.

### ***Post-Approval Requirements***

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state agencies, and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical studies to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical studies;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability.

#### ***Patent Term Restoration and Marketing Exclusivity***

Depending upon the timing, duration, and specifics of FDA approval of the use of our drug candidates, some of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, referred to as the Hatch-Waxman Act. The Hatch-Waxman Act permits a patent term to be extended up to five years as compensation for patent term effectively lost due to the FDA's pre-market approval requirements. However, patent term restoration cannot extend the remaining term of a patent beyond a total of 14 years from the product's approval date. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA, plus the time between the submission date of an NDA and the approval of that application, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Only one patent applicable to an approved drug is eligible for the extension. Extensions are not granted as a matter of right and the extension must be applied for prior to expiration of the patent and within a 60 day period from the date the product is first approved for commercial marketing. The U.S. Patent and Trademark Office, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. Where a product contains multiple active ingredients, if any one active ingredient has not been previously approved, it can form the basis of an extension of patent term provided the patent claims that ingredient or the combination.

In the future, we may apply for patent term restoration for some of our presently owned patents to add patent life beyond their current expiration date, depending on the expected length of clinical studies and other factors involved in the submission of the relevant NDA; however, there can be no assurance that any such extension will be granted to us.

The Biologics Price Competition and Innovation Act of 2009 provides up to twelve years of non-patent data exclusivity within the United States to the first applicant to gain approval of a BLA for a new biologic product that has not previously been approved by the FDA, which we refer to as a reference product. This twelve-year data exclusivity may prohibit the FDA from approving a biosimilar or interchangeable product of such reference product until twelve years after the licensure of such reference product. In addition, the FDA will not accept a biosimilar or interchangeable product application for review until four years after the date of first licensure of such reference product. Moreover, pediatric exclusivity, if granted, may add six months of exclusivity if the reference product has been studied with respect to a pediatric indication in accordance with certain regulatory requirements. A reference product may also be granted seven years of orphan-drug exclusivity for the treatment of a rare disease or condition

under section 527(a) of FDCA, which would run in parallel with the twelve years of data exclusivity of the reference product, if applicable.

### ***Non-U.S. Regulation***

In order to market any product outside of the United States, we would need to comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety and efficacy and governing, among other things, clinical studies, marketing authorization, commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we would need to obtain the necessary approvals by the comparable foreign regulatory authorities before we can commence clinical studies or marketing of the product in foreign countries and jurisdictions. Although many of the issues discussed above with respect to the United States apply similarly in the context of the European Union, the approval process varies between countries and jurisdictions and can involve additional product testing and additional administrative review periods, as described in greater detail below. The time required to obtain approval in other countries and jurisdictions might differ from and be longer than that required to obtain FDA approval. Regulatory approval in one country or jurisdiction does not ensure regulatory approval in another, but a failure or delay in obtaining regulatory approval in one country or jurisdiction may negatively impact the regulatory process in others.

### ***European Union Drug Review Approval***

In the European Economic Area, or EEA (which is comprised of the 28 Member States of the European Union plus Norway, Iceland and Liechtenstein), medicinal products can only be commercialized after obtaining a Marketing Authorization, or MA. There are two types of marketing authorizations: the Community MA, which is issued by the European Commission through the Centralized Procedure based on the opinion of the Committee for Medicinal Products for Human Use, or CHMP, a body of the EMA, and which is valid throughout the entire territory of the EEA; and the National MA, which is issued by the competent authorities of the Member States of the EEA and only authorizes marketing in that Member State's national territory and not the EEA as a whole.

The Centralized Procedure is compulsory for human medicines for the treatment of human immunodeficiency virus (HIV) or acquired immune deficiency syndrome (AIDS), cancer, diabetes, neurodegenerative diseases, auto-immune and other immune dysfunctions, and viral diseases; for veterinary medicines for use as growth or yield enhancers; for medicines derived from biotechnology processes, such as genetic engineering; for advanced-therapy medicines, such as gene-therapy, somatic cell-therapy or tissue-engineered medicines; and for officially designated 'orphan medicines' (medicines used for rare human diseases). The Centralized Procedure is optional for products containing a new active substance not yet authorized in the EEA, or for products that constitute a significant therapeutic, scientific or technical innovation or for products which are in the interest of public health in the European Union. The National MA is for products not falling within the mandatory scope of the Centralized Procedure. Where a product has already been authorized for marketing in a Member State of the EEA, this National MA can be recognized in another Member State through the Mutual Recognition Procedure. If the product has not received a National MA in any Member State at the time of application, it can be approved simultaneously in various Member States through the Decentralized Procedure. Under the Decentralized Procedure an identical dossier is submitted to the competent authorities of each of the Member States in which the MA is sought, one of which is selected by the applicant as the Reference Member State, or RMS. If the RMS proposes to authorize the product, and the other Member States do not raise objections, the product is granted a national MA in all the Member States where the authorization was sought. Before granting the MA, the EMA or the competent authorities of the Member States of the EEA make an assessment of the risk-benefit balance of the product on the basis of scientific criteria concerning its quality, safety and efficacy.

### ***Regulation in the European Union***

Product development, the regulatory approval process, and safety monitoring of medicinal products and their manufacturers in the European Union proceed in much the same manner as they do in the United States. Therefore, many of the issues discussed above apply similarly in the context of the European Union. In addition, drugs are subject to the extensive price and reimbursement regulations of the various European Union Member States.

### ***Clinical Studies***

As is the case in the United States, the various phases of pre-clinical and clinical research in the European Union are subject to significant regulatory controls. The Clinical Trials Directive 2001/20/EC, as amended (and which will be replaced from May 2016 or later by Regulation (EU) No 536/2014) provides a system for the approval of clinical studies in the European Union via implementation through national legislation of the Member States. Under this system, approval must be obtained from the competent national authorities of the European Union Member States in which the clinical trial is to be conducted. Furthermore, a clinical trial may only be started after a competent ethics committee has issued a favorable opinion on the clinical trial application, which must be supported by an investigational medicinal product dossier with supporting information prescribed by the Clinical Trials Directive and corresponding national laws of the Member States and further detailed in applicable guidance documents. A clinical trial may only be undertaken if provision has been made for insurance or indemnity to cover the liability of the investigator or sponsor. In certain countries, the sponsor of a clinical trial has a strict (faultless) liability for any (direct or indirect) damage suffered by trial subjects. The sponsor of a clinical trial, or its legal representative, must be based in the European Economic Area. European regulators and ethics committees also require the submission of adverse event reports during a study and a copy of the final study report.

### ***Marketing Approval***

Marketing approvals under the European Union regulatory system may be obtained through a centralized or decentralized procedure. The centralized procedure results in the grant of a single marketing authorization that is valid for all (currently 28) European Union Member States and three EFTA members (Norway, Iceland, Liechtenstein).

Pursuant to Regulation (EC) No. 726/2004, as amended, the centralized procedure is mandatory for drugs developed by means of specified biotechnological processes, advanced therapy medicinal products, drugs for human use containing a new active substance for which the therapeutic indication is the treatment of specified diseases, including but not limited to acquired immune deficiency syndrome, neurodegenerative disorders, auto-immune diseases and other immune dysfunctions, as well as drugs designated as orphan drugs. The CHMP also has the discretion to permit other products to use the centralized procedure if it considers them sufficiently innovative or they contain a new active substance.

In the marketing authorization application, or MAA, the applicant has to properly and sufficiently demonstrate the quality, safety and efficacy of the drug. Under the centralized approval procedure, the CHMP, possibly in conjunction with other committees, is responsible for drawing up the opinion of the EMA on any matter concerning the admissibility of the files submitted in accordance with the centralized procedure, such as an opinion on the granting, variation, suspension or revocation of a marketing authorization, and pharmacovigilance.

The CHMP and other committees are also responsible for providing guidelines and have published numerous guidelines that may apply to our product candidates. These guidelines provide additional guidance on the factors that the EMA will consider in relation to the development and evaluation of drug products and may include, among other things, the pre-clinical studies required in specific cases; and the manufacturing and control information that should be submitted in a MAA; and post-approval measures required to monitor patients and evaluate the long term efficacy and potential adverse reactions. Although these guidelines are not legally binding, we believe that our compliance with them is likely necessary to gain approval for any of our product candidates.

The maximum timeframe for the evaluation of an MAA by the CHMP under the centralized procedure is 210 days after receipt of a valid application. This period will be suspended until such time as the supplementary information requested by the CHMP, has been provided by the applicant. Likewise, this time-limit will be suspended for the time allowed for the applicant to prepare oral or written explanations. When an application is submitted for a marketing authorization in respect of a drug which is of major interest from the point of view of public health and in particular from the viewpoint of therapeutic innovation, the applicant may request an accelerated assessment procedure. If the CHMP accepts such request, the time-limit of 210 days will be reduced to 150 days but it is possible that the CHMP can revert to the standard time-limit for the centralized procedure if it considers that it is no longer appropriate to conduct an accelerated assessment.

If the CHMP concludes that the quality, safety and efficacy of the product are sufficiently proven, it adopts a positive opinion. This is sent to the European Commission which drafts a decision. After consulting with the

Member States, the European Commission adopts a decision and grants a marketing authorization, which is valid for the whole of the European Economic Area, or EEA. The marketing authorization may be subject to certain conditions, which may include, without limitation, the performance of post-authorization safety and/or efficacy studies.

European Union legislation also provides for a system of regulatory data and market exclusivity. According to Article 14(1) of Regulation (EC) No. 726/2004, as amended, and Article 10(1) of Directive 2001/83/EC, as amended, upon receiving marketing authorization, new chemical entities approved on the basis of a complete independent data package benefit from eight years of data exclusivity and an additional two years of market exclusivity. Data exclusivity prevents regulatory authorities in the European Union from referencing the innovator's data to assess a generic (abbreviated) application. During the additional two-year period of market exclusivity, a generic marketing authorization can be submitted, and the innovator's data may be referenced, but no generic medicinal product can be marketed until the expiration of the market exclusivity. The overall ten-year period will be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder, or MAH, obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to their authorization, are held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity and the innovator is able to gain the period of data exclusivity, another company nevertheless could also market another version of the drug if such company obtained marketing authorization based on an MAA with a complete independent data package of pharmaceutical test, pre-clinical tests and clinical studies. However, products designated as orphan medicinal products enjoy, upon receiving marketing authorization, a period of 10 years of orphan market exclusivity. See also “—Orphan Drug Regulation” below. Depending upon the timing and duration of the EU marketing authorization process, products may be eligible for up to five years' supplementary protection certification, or SPC, pursuant to Regulation (EC) No. 469/2009. Such SPCs extend the rights under the basic patent for the drug.

Additional rules apply to medicinal products for pediatric use under Regulation (EC) No. 1901/2006. Potential incentives include a six-month extension of any supplementary protection certificate granted pursuant to Regulation (EC) No. 469/2009, but not in cases in which the relevant product is designated as orphan medicinal products pursuant to Regulation (EC) No. 141/2000, as amended. Instead, medicinal products designated as orphan medicinal product may enjoy an extension of the ten-year market exclusivity period granted under Regulation (EC) No. 141/2000 to twelve years subject to the conditions applicable to orphan drugs.

### ***Orphan Drug Regulation***

In the European Union, Regulation (EC) No. 141/2000, as amended, states that a drug will be designated as an orphan drug if its sponsor can establish:

- that it is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition affecting not more than five in ten thousand persons in the Community when the application is made, or that it is intended for the diagnosis, prevention or treatment of a life-threatening, seriously debilitating or serious and chronic condition in the European Union and that without incentives it is unlikely that the marketing of the drug in the European Union would generate sufficient return to justify the necessary investment; and
- that there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized in the European Union or, if such method exists, that the drug will be of significant benefit to those affected by that condition.

Regulation (EC) No. 847/2000 sets out further provisions for implementation of the criteria for designation of a drug as an orphan drug. An application for the designation of a drug as an orphan drug must be submitted at any stage of development of the drug before filing of a marketing authorization application.

If a European Union-wide community marketing authorization in respect of an orphan drug is granted or if all the European Union Member States have granted marketing authorizations in accordance with the procedures for mutual recognition, the European Union and the Member States will not, for a period of 10 years, accept another application for a marketing authorization, or grant a marketing authorization or accept an application to extend an existing marketing authorization, for the same therapeutic indication, in respect of a similar drug. This period may however be reduced to six years if, at the end of the fifth year, it is established, with respect to the drug concerned,

that the criteria for orphan drug designation are no longer met, in other words, when it is shown on the basis of available evidence that the product is sufficiently profitable not to justify maintenance of market exclusivity. Notwithstanding the foregoing, a marketing authorization may be granted, for the same therapeutic indication, to a similar drug if:

- the holder of the marketing authorization for the original orphan drug has given its consent to the second applicant;
- the holder of the marketing authorization for the original orphan drug is unable to supply sufficient quantities of the drug; or
- the second applicant can establish in the application that the second drug, although similar to the orphan drug already authorized, is safer, more effective or otherwise clinically superior.

Other incentives available to orphan drugs in the European Union include financial incentives such as a reduction of fees or fee waivers and protocol assistance. Orphan drug designation does not shorten the duration of the regulatory review and approval process.

#### ***Manufacturing and Manufacturers' License***

Pursuant to Directive 2003/94/EC, as transposed into the national laws of the Member States, the manufacturing of investigational medicinal products and approved drugs is subject to a separate manufacturer's license and must be conducted in strict compliance with cGMP requirements, which mandate the methods, facilities, and controls used in manufacturing, processing, and packing of drugs to assure their safety and identity. Manufacturers must have at least one qualified person permanently and continuously at their disposal. The qualified person is ultimately responsible for certifying that each batch of finished product released onto the market has been manufactured in accordance with cGMP and the specifications set out in the marketing authorization or investigational medicinal product dossier. cGMP requirements are enforced through mandatory registration of facilities and inspections of those facilities. Failure to comply with these requirements could interrupt supply and result in delays, unanticipated costs and lost revenues, and subject the applicant to potential legal or regulatory action, including but not limited to warning letters, suspension of manufacturing, seizure of product, injunctive action or possible civil and criminal penalties.

#### ***Wholesale Distribution and License***

Pursuant to Directive 2001/83/EC, the wholesale distribution of medicinal products is subject to the possession of an authorization to engage in activity as a wholesaler in medicinal products. Possession of a manufacturing authorization includes authorization to distribute by wholesale the medicinal products covered by that authorization. The distribution of medicinal products must comply with the principles and guidelines of good distribution practices, or GDP.

#### ***Advertising***

In the European Union, the promotion of prescription medicines is subject to intense regulation and control, including EU and national legislation as well as self-regulatory codes (industry codes). Advertising legislation inter alia includes a prohibition on direct-to-consumer advertising. All prescription medicines advertising must be consistent with the product's approved summary of products characteristics, and must be factual, accurate, balanced and not misleading. Advertising of prescription medicines pre-approval or off-label is not allowed. Some jurisdictions require that all promotional materials for prescription medicines be subjected to either prior internal or regulatory review and approval.

#### ***Other Regulatory Requirements***

A marketing authorization holder, or MAH, for a medicinal product is legally obliged to fulfill a number of obligations by virtue of its status as an MAH. The MAH can delegate the performance of related tasks to third parties, such as distributors or marketing partners, provided that this delegation is appropriately documented and the MAH maintains legal responsibility and liability.



*The obligations of an MAH include:*

- *Manufacturing and batch release*—MAHs should guarantee that all manufacturing operations comply with relevant laws and regulations, applicable good manufacturing practices, with the product specifications and manufacturing conditions set out in the marketing authorization and that each batch of product is subject to appropriate release formalities.
- *Availability and continuous supply*—Pursuant to Directive 2001/83/EC, as transposed into the national laws of the Member States, the MAH for a medicinal product and the distributors of the said medicinal product actually placed on the market in a Member State shall, within the limits of their responsibilities, ensure appropriate and continued supplies of that medical product to pharmacies and persons authorized to supply medicinal products so that the needs of patients in the Member State in question are covered.
- *Pharmacovigilance*—MAHs are obliged to establish and maintain a pharmacovigilance system, including a qualified person responsible for oversight, submit safety reports to the regulators and comply with the good pharmacovigilance practice guidelines adopted by the EMA.
- *Advertising and promotion*—MAHs remain responsible for all advertising and promotion of its products, including promotional activities by other companies or individuals on their behalf and in some cases must conduct internal or regulatory pre-approval of promotional materials. Regulation in this area also covers interactions with healthcare practitioners and/or patient groups, and in some jurisdictions legal or self-regulatory obligations to disclose such interactions exist.
- *Medical affairs/scientific service*—MAHs are required to disseminate scientific and medical information on its medicinal products to healthcare professionals, regulators and patients. Legal representation and distributor issues. MAHs are responsible for regulatory actions or inactions of their distributors and agents.
- *Preparation, filing and maintenance of the application and subsequent marketing authorization*— MAHs must maintain appropriate records, comply with the marketing authorization's terms and conditions, fulfill reporting obligations to regulators, submit renewal applications and pay all appropriate fees to the authorities. We may hold any future marketing authorizations granted for our product candidates in our own name, or appoint an affiliate or a collaboration partner to hold marketing authorizations on our behalf. Any failure by an MAH to comply with these obligations may result in regulatory action against an MAH and ultimately threaten our ability to commercialize our products.

#### *Price and Reimbursement*

In the European Union, the pricing and reimbursement mechanisms by private and public health insurers vary largely by country and even within countries. The public systems reimbursement for standard drugs is determined by guidelines established by the legislator or responsible national authority. The approach taken varies by Member State. Some jurisdictions operate positive and negative list systems under which products may only be marketed once a reimbursement price has been agreed. Other Member States allow companies to fix their own prices for medicines, but monitor and control company profits and may limit or restrict reimbursement. The downward pressure on healthcare costs in general, particularly prescription drugs, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products and some of EU countries require the completion of studies that compare the cost-effectiveness of a particular product candidate to currently available therapies in order to obtain reimbursement or pricing approval. Special pricing and reimbursement rules may apply to orphan drugs. Inclusion of orphan drugs in reimbursement systems tend to focus on the medical usefulness, need, quality and economic benefits to patients and the healthcare system as for any drug. Acceptance of any medicinal product for reimbursement may come with cost, use and often volume restrictions, which again can vary by country. In addition, results based rules of reimbursement may apply.

#### *Other Healthcare Laws*

In addition to FDA restrictions on marketing of pharmaceutical products, federal and state healthcare laws restrict certain business practices in the biopharmaceutical industry. These laws include, but are not limited to, anti-kickback, false claims, data privacy and security, and transparency statutes and regulations.

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration, directly or indirectly, to induce, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any good, facility, item or service reimbursable under Medicare, Medicaid or other federal healthcare programs. The term “remuneration” has been broadly interpreted to include anything of value, including for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payment, ownership interests and providing anything at less than its fair market value. The Anti-Kickback Statute has been interpreted to apply to arrangements between pharmaceutical manufacturers on one hand and prescribers, purchasers and formulary managers on the other. Although there are a number of statutory exceptions and regulatory safe harbors protecting certain common activities from prosecution, the exceptions and safe harbors are drawn narrowly, and our practices may not in all cases meet all of the criteria for a statutory exception or safe harbor protection. Practices that involve remuneration that may be alleged to be intended to induce prescribing, purchases or recommendations may be subject to scrutiny if they do not qualify for an exception or safe harbor. Failure to meet all of the requirements of a particular applicable statutory exception or regulatory safe harbor does not make the conduct per se illegal under the Anti-Kickback Statute. Instead, the legality of the arrangement will be evaluated on a case-by-case basis based on a cumulative review of all of its facts and circumstances. Several courts have interpreted the statute’s intent requirement to mean that if any one purpose of an arrangement involving remuneration is to induce referrals of federal healthcare covered business, the statute has been violated. The Patient Protection and Affordable Care Act as amended by the Health Care and Education Reconciliation Act, or collectively, PPACA, amended the intent requirement under the Anti-Kickback Statute and criminal healthcare fraud statutes (discussed below) such that a person or entity no longer needs to have actual knowledge of the statute or the specific intent to violate it in order to have committed a violation. In addition, PPACA provides that the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the civil False Claims Act (discussed below). Further, the civil monetary penalties statute imposes penalties against any person or entity that, among other things, is determined to have presented or caused to be presented a claim to a federal health program that the person knows or should know is for an item or service that was not provided as claimed or is false or fraudulent.

The federal false claims laws prohibit, among other things, any person or entity from knowingly presenting, or causing to be presented, a false or fraudulent claim for payment or approval to the federal government or knowingly making, using or causing to be made or used a false record or statement material to a false or fraudulent claim to the federal government. As a result of a modification made by the Fraud Enforcement and Recovery Act of 2009, a claim includes “any request or demand” for money or property presented to the U.S. government. Recently, several pharmaceutical and other healthcare companies have been prosecuted under these laws for, among other things, allegedly providing free product to customers with the expectation that the customers would bill federal programs for the product. Other companies have been prosecuted for causing false claims to be submitted because of the companies’ marketing of the product for unapproved, and thus non-covered, uses. The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, created new federal criminal statutes that prohibit knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors and knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement in connection with the delivery of, or payment for, healthcare benefits, items or services.

In addition, we may be subject to data privacy and security regulation by both the federal government and the states in which we conduct our business. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA’s privacy and security standards directly applicable to business associates— independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorney’s fees and costs associated with pursuing federal civil actions. In addition, state laws govern the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and may not have the same effect, thus complicating compliance efforts.

Additionally, the PPACA also included the federal Physician Payments Sunshine Act, which requires that certain manufacturers of drugs, devices, biologicals and medical supplies for which payment is available under

Medicare, Medicaid or the Children's Health Insurance Program (with certain exceptions) to report information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members.

Also, many states have similar healthcare statutes or regulations that apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Certain states require the posting of information relating to clinical studies, pharmaceutical companies to implement a comprehensive compliance program that includes a limit on expenditures for, or payments to, individual medical or health professionals and track and report gifts and other payments made to physicians and other healthcare providers. If our operations are found to be in violation of any of the health regulatory laws described above or any other laws that apply to us, we may be subject to penalties, including potentially significant criminal, civil and/or administrative penalties, damages, fines, disgorgement, individual imprisonment, exclusion of products from reimbursement under government programs, contractual damages, reputational harm, administrative burdens, diminished profits and future earnings and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. To the extent that any of our products will be sold in a foreign country, we may be subject to similar foreign laws and regulations, which may include, for instance, applicable post-marketing requirements, including safety surveillance, anti-fraud and abuse laws and implementation of corporate compliance programs and reporting of payments or transfers of value to healthcare professionals.

### **Pharmaceutical Coverage, Pricing and Reimbursement**

In both domestic and foreign markets, our sales of any approved products will depend in part on the availability of coverage and adequate reimbursement from third-party payors. Third-party payors include government authorities, managed care providers, private health insurers and other organizations. Patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part of the associated healthcare costs. Patients are unlikely to use our products, if approved, unless coverage is provided and reimbursement is adequate to cover a significant portion of the cost of our products. Sales of our products will therefore depend substantially, both domestically and abroad, on the extent to which the costs of our products will be paid by third-party payors. These third-party payors are increasingly focused on containing healthcare costs by challenging the price and examining the cost-effectiveness of medical products and services.

In addition, significant uncertainty exists as to the coverage and reimbursement status of newly approved healthcare product candidates. The market for our product candidates for which we may receive regulatory approval will depend significantly on access to third-party payors' drug formularies, or lists of medications for which third-party payors provide coverage and reimbursement. The industry competition to be included in such formularies often leads to downward pricing pressures on pharmaceutical companies. Also, third-party payors may refuse to include a particular branded drug in their formularies or otherwise restrict patient access to a branded drug when a less costly generic equivalent or other alternative is available. Because each third-party payor individually approves coverage and reimbursement levels, obtaining coverage and adequate reimbursement is a time-consuming, costly and sometimes unpredictable process. We may be required to provide scientific and clinical support for the use of any product to each third-party payor separately with no assurance that approval would be obtained, and we may need to conduct expensive pharmacoeconomic studies in order to demonstrate the cost-effectiveness of our products. This process could delay the market acceptance of any product and could have a negative effect on our future revenues and operating results. We cannot be certain that our product candidates will be considered cost-effective. Because coverage and reimbursement determinations are made on a payor-by-payor basis, obtaining acceptable coverage and reimbursement from one payor does not guarantee the Company will obtain similar acceptable coverage or reimbursement from another payor. If we are unable to obtain coverage of, and adequate reimbursement and payment levels for, our product candidates from third-party payors, physicians may limit how much or under what circumstances they will prescribe or administer them and patients may decline to purchase them. This in turn could affect our ability to successfully commercialize our products and impact our profitability, results of operations, financial condition and future success.

Furthermore, in many foreign countries, particularly the countries of the European Union, the pricing of prescription drugs is subject to government control. In some non-U.S. jurisdictions, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of

medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. We may face competition for our product candidates from lower-priced products in foreign countries that have placed price controls on pharmaceutical products. In addition, there may be importation of foreign products that compete with our own products, which could negatively impact our profitability.

### **Healthcare Reform**

In the United States and other jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system that could affect our future results of operations as we begin to directly commercialize our products.

In particular, there have been and continue to be a number of initiatives at the U.S. federal and state level that seek to reduce healthcare costs. Initiatives to reduce the federal deficit and to reform healthcare delivery are increasing cost-containment efforts. We anticipate that Congress, state legislatures and the private sector will continue to review and assess alternative benefits, controls on healthcare spending through limitations on the growth of private health insurance premiums and Medicare and Medicaid spending, the creation of large insurance purchasing groups, price controls on pharmaceuticals and other fundamental changes to the healthcare delivery system. Any proposed or actual changes could limit or eliminate our spending on development projects and affect our ultimate profitability.

In March 2010, the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, or collectively, the Health Care Reform Law was signed into law. The Health Care Reform Law has the potential to substantially change the way healthcare is financed by both governmental and private insurers. The Health Care Reform Law among other things, established an annual, nondeductible fee on any entity that manufactures or imports certain branded prescription drugs and biologic agents; revised the methodology by which rebates owed by manufacturers for covered outpatient drugs under the Medicaid Drug Rebate Program are calculated; increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; extended the Medicaid Drug Rebate program to utilization of certain injectable outpatient drugs, as well as prescriptions of individuals enrolled in Medicaid managed care organizations; required manufacturers to offer 50% point-of-sale discounts on negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer's outpatient drugs to be covered under Medicare Part D; and implemented payment system reforms including a national pilot program on payment bundling to encourage hospitals, physicians and other providers to improve the coordination, quality and efficiency of certain healthcare services through bundled payment models.

The future of the Health Care Reform Law remains uncertain. In January 2017, Congress voted to adopt a budget resolution for fiscal year 2017, or the Budget Resolution, that authorizes the implementation of legislation that would repeal portions of the Health Care Reform Law. Further, on January 20, 2017, President Trump signed an Executive Order directing federal agencies with authorities and responsibilities under the Health Care Reform Law to waive, defer, grant exemptions from, or delay the implementation of any provision of the Health Care Reform Law that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers, or manufacturers of pharmaceuticals or medical devices. Congress also could consider subsequent legislation to replace elements of the Health Care Reform Law that are repealed.

In the future, there may continue to be additional proposals relating to the reform of the United States healthcare system, some of which could further limit the prices we are able to charge for our products candidates, or the amounts of reimbursement available for our product candidates. If future legislation were to impose direct governmental price controls and access restrictions, it could have a significant adverse impact on our business. Managed care organizations, as well as Medicaid and other government agencies, continue to seek price discounts. Some states have implemented, and other states are considering, price controls or patient access constraints under the Medicaid program, and some states are considering price-control regimes that would apply to broader segments of their populations that are not Medicaid-eligible. Due to the volatility in the current economic and market dynamics, we are unable to predict the impact of any unforeseen or unknown legislative, regulatory, payor or policy actions, which may include cost containment and healthcare reform measures. Such policy actions could have a material adverse impact on our profitability.

Moreover, the recently enacted federal Drug Supply Chain Security Act imposes new obligations on manufacturers of pharmaceutical products, among others, related to product tracking and tracing. Among the requirements of this new federal legislation, manufacturers will be required to provide certain information regarding the drug product to individuals and entities to which product ownership is transferred, label drug product with a product identifier, and keep certain records regarding the drug product. Further, under this new legislation, manufacturers will have drug product investigation, quarantine, disposition, and notification responsibilities related to counterfeit, diverted, stolen, and intentionally adulterated products, as well as products that are the subject of fraudulent transactions or which are otherwise unfit for distribution such that they would be reasonably likely to result in serious health consequences or death.

#### ***Physician Payment Sunshine Act***

The Physician Payment Sunshine Act requires most pharmaceutical manufacturers to report annually to the Secretary of HHS any and all financial arrangements, payments, or other transfers of value made by that entity to physicians and teaching hospitals. The payment information is made publicly available in a searchable format on a CMS website. Over the next several years, we will need to dedicate significant resources to establish and maintain systems and processes in order to comply with these regulations. Failure to comply with the reporting requirements can result in significant civil monetary penalties. Similar laws have been enacted or are under consideration in foreign jurisdictions, including France which has adopted the Loi Bertrand, or French Sunshine Act, which became effective in 2013.

#### **Environmental, Health and Safety Laws and Regulations**

We are subject to numerous environmental, health and safety laws and regulations and permitting requirements, including those governing laboratory procedures, decontamination activities and the handling, transportation, use, remediation, storage, treatment, and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, and the risk of injury, contamination or noncompliance with environmental, health and safety requirements cannot be eliminated. Although compliance with such laws and regulations and permitting requirements has not had a material effect on our capital expenditures, earnings or competitive position, environmental, health and safety laws and regulations and permitting requirements have tended to become increasingly stringent and, to the extent legal or regulatory changes occur in the future, they could result in, among other things, increased costs to us or the impairment of our research, development or production efforts.

#### **C. Organizational structure**

We are a Swiss stock corporation (*société anonyme*) organized under the laws of Switzerland. We were formed as a Swiss limited liability company (*société à responsabilité limitée*) on February 13, 2003 with our registered office and domicile in Basel, Switzerland. We converted to a Swiss stock corporation (*société anonyme*) under the laws of Switzerland on August 25, 2003. Prior to our initial public offering, we were a privately owned company. Our domicile and registered office is in Ecublens, near Lausanne, Canton of Vaud, Switzerland. Our registered and principal executive offices are located at EPFL Innovation Park, Building B, 1015 Lausanne, Switzerland, our general telephone number is (41) 21 345 91 21 and our internet address is [www.acimmune.com](http://www.acimmune.com).

We did not have any subsidiaries as of December 31, 2016.

#### **D. Property, plant and equipment**

##### **Facilities**

We lease approximately 13,200 square feet of space at the Innovation Park of the EPFL (École Polytechnique Fédérale Lausanne), Switzerland. This property serves as our corporate headquarters, our research facility and laboratories. We believe that using the EPFL facilities instead of building our own infrastructure helps us to maximize the value of our research and development capital and make efficient use of our funds as we continue to build and develop our pipeline. Due to the expansion of our research and development team and addition of scientists, we have entered into discussions with EPFL to lease additional space in the Innovation Park by the end of 2017. We believe that once we have this additional space, our existing facilities will be sufficient to meet our current needs.

## ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

## ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

You should read the following discussion and analysis of our financial condition and results of operations together with the information under “Item 3. Key Information—A. Selected Financial Data” and our consolidated audited financial statements, including the notes thereto, included in this Annual Report. The following discussion is based on our financial information prepared in accordance with IFRS as issued by the IASB, which might differ in material respects from generally accepted accounting principles in other jurisdictions. The following discussion includes forward-looking statements that involve risks, uncertainties and assumptions. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of many factors, including but not limited to those described under “Item 3. Key Information—D. Risk Factors” and elsewhere in this Annual Report.

### A. Operating results

#### Overview

We are a clinical stage biopharmaceutical company leveraging our two proprietary technology platforms to discover, design and develop novel, proprietary medicines for prevention, diagnosis and treatment of neurodegenerative diseases associated with protein misfolding. Our lead product candidate is crenezumab, a humanized, monoclonal, conformation-specific anti-Abeta antibody that we developed using our proprietary SupraAntigen platform. Crenezumab commenced Phase 3 clinical studies in the first quarter of 2016 and we believe it has the potential to become a best-in-class disease-modifying treatment for Alzheimer’s disease, or AD. Genentech, Inc., a wholly owned subsidiary of Roche, or Genentech, is advancing crenezumab for the treatment of AD under a collaboration agreement with us, pursuant to which it is responsible for the clinical development of crenezumab, including the costs associated with seeking and obtaining regulatory and marketing approvals, manufacturing costs and sales and marketing costs.

Two of our other clinical product candidates, ACI-24 and ACI-35, are being developed using our SupraAntigen platform and target AD through active immunization, where the immune system is stimulated to make its own antibodies against pathological proteins:

- ACI-24 is our wholly-owned anti-Abeta vaccine candidate currently in a Phase 1/2a study. While the analysis of the immune response as well as further treatment of the highest dose cohort 4 is still ongoing the preparation of the Phase 2 clinical protocol is planned to be completed in the second half of fiscal 2017. ACI-24 is also being studied in a Phase 1 clinical study in people with Down syndrome, a population that is at high risk for developing AD-like symptoms.
- ACI-35 is an anti-tau vaccine candidate that we are developing under a collaboration agreement with Janssen. We and Janssen are co-developing ACI-35 through the ongoing Phase 1b clinical study. Further results, which we expect to have completed in the second half of fiscal year 2017, will be the basis for the program’s future development. Janssen is expected to assume responsibility for the clinical development of phase 2 and beyond as well as regulatory approval, manufacturing and commercialization of ACI-35.

Additionally, a passive anti-tau monoclonal antibody candidate is being developed under a collaboration agreement with Genentech. The Phase 1 clinical study in patients with AD and healthy volunteers commenced in the second quarter of 2016, with results expected in the first half of 2017.

We are also using our Morphomer platform to develop complementary diagnostic products such as positron emission tomography, or PET, ligands, which are tracers that can directly measure misfolded tau and alpha-synuclein in the brain, to enable early and reliable disease diagnoses.

We use our two unique proprietary platform technologies, SupraAntigen (conformation-specific biologics) and Morphomer (conformation-specific small molecules), to discover, design and develop medicines and diagnostics to target misfolded proteins. These platforms are our engines for generating novel molecules that are designed to bind to their targets with high affinity and conformational specificity, meaning they are enabled to differentiate between

misfolded proteins and normally-folded proteins. All of our product candidates and our development programs have been derived from our proprietary platforms.

To date, we have primarily financed our operations through the proceeds from our initial public offering, private placements of preferred securities, and upfront and milestone payments from our collaboration partners. We have no products approved for commercialization and have never generated any revenues from product sales. Biopharmaceutical product development is a highly speculative undertaking and involves a substantial degree of risk. It may be several years, if ever, before we or our collaboration partners complete pivotal clinical studies and have a product candidate approved for commercialization and we begin to generate revenue and royalties from product sales. Since our inception, we have received upfront and milestone payments from our collaboration partners and certain other revenue. However, we have also incurred significant operating losses. For example, we incurred net losses of CHF 7.1 million for the fiscal year ended December 31, 2016.

### **Strategic Collaborations and Licensing Agreements**

Since our inception, we have entered into strategic collaboration agreements with a range of partners covering a number of our product candidates. We entered into a strategic collaboration with Genentech in November 2006 (as amended in May 2015) regarding the development, manufacture and commercialization of crenezumab, and we refer to this agreement as the 2006 Genentech agreement. In June 2012, we entered into an additional strategic collaboration agreement with Genentech regarding the development, manufacture and commercialization of our anti-tau antibodies, and we refer to this agreement as the 2012 Genentech agreement. We expect to capitalize on Genentech's drug development and regulatory expertise and commercial capabilities to bring our partnered therapeutic products to market. In May 2014, we entered into a collaboration agreement with Piramal Imaging, a leader in imaging agents, covering our tau PET Imaging tracer. In December 2014, we entered into a strategic collaboration agreement with Janssen regarding the development, manufacture and commercialization of ACI-35, an anti-tau vaccine. We expect to capitalize on Janssen and Johnson & Johnson's extensive regulatory expertise and experience in developing, manufacturing and, if approved, commercializing vaccines to bring ACI-35 to market.

In April 2016, we entered into a non-exclusive collaboration with Biogen covering our alpha-synuclein PET imaging tracer and future initiatives targeted at TDP-43 PET imaging tracers, which is a protein that has been recently linked to neurodegeneration in diseases including AD, PD and amyotrophic lateral sclerosis (commonly known as ALS or Lou Gehrig's disease).

#### ***Crenezumab—Collaboration with Genentech***

Under the 2006 Genentech agreement, we may become entitled to receive upfront and milestone payments totaling up to approximately \$340 million, excluding royalties. We received an upfront payment of \$25 million in 2006 and are entitled to various milestone payments based on the achievement of specified development and commercialization milestones. To date, we have received payments totaling \$65 million from Genentech, including the \$25 million upfront payment and milestone payments totaling \$40 million for crenezumab entering into Phase 1, Phase 2 and Phase 3 clinical studies. Under the 2006 Genentech agreement, we are entitled to various regulatory and marketing approval milestone payments. If crenezumab receives regulatory approval, we will be entitled to receive royalties that are tied to annual sales volumes with different royalty rates applicable in the U.S. and Europe. These percentage rates range from net high single digits to the mid-teens.

The 2006 Genentech agreement also provides for a second indication for which we would be eligible to receive clinical milestone payments payable upon commencement of each of Phase 2 and 3 of clinical development as well as regulatory and marketing milestone payments similar to those applicable to crenezumab. If this second indication receives regulatory approval, we will be entitled to receive royalties that are tied to annual sales volumes at the same rates applicable to crenezumab.

#### ***Anti-Tau Antibodies—Collaboration with Genentech***

Under the 2012 Genentech agreement, we are entitled to receive upfront and milestone payments in excess of CHF 400 million, excluding royalties. We received an upfront payment of CHF 17 million in 2012 and are entitled to various milestone payments based on the achievement of specified clinical, regulatory and commercialization milestones. To date, we have received payments totaling CHF 45 million from Genentech including a milestone payment of CHF 14 million recognized in the second quarter of 2016 and received in July 2016, upon the

commencement of the Phase 1 clinical study. In addition to milestones, we will be eligible to receive royalties on sales at a percentage rate ranging from the mid-single digits to low double digits.

The 2012 Genentech agreement also provides for a second indication for which we would be eligible to receive clinical milestone payments payable upon commencement of each of Phase 2 and 3 of clinical development as well as regulatory and marketing milestone payments. If this second indication receives regulatory approval, we will be entitled to receive royalties that are tied to annual sales volumes at the same rates applicable to the lead indication.

#### ***Tau PET Imaging Tracer—Collaboration with Piramal Imaging***

Under our agreement with Piramal Imaging covering our anti-tau PET imaging agent, we received an upfront payment of €0.5 million in May 2014 and are entitled to various clinical milestone payments totaling up to €7 million based on the achievement of specified development milestones. In addition, we are entitled to further regulatory and sales-based milestones totaling €150.0 million.

#### ***ACI-35—Collaboration with Janssen***

Under the collaboration agreement with Janssen regarding the development of ACI-35, we may become entitled to receive upfront and milestone payments totaling up to CHF 500 million, plus royalties on sales at a percentage rate ranging from low double digits to mid-teens. To date, we have received an upfront payment of CHF 25.9 million and a research contribution of CHF 1.5 million and a CHF 4.9 million clinical milestone payment. The total future payments that we would be entitled to under the agreement for clinical milestones amounts to CHF 78.6 million.

#### ***Alpha-synuclein and TDP-43 PET Imaging Tracers—Collaboration with Biogen***

In April 2016, we entered into a non-exclusive research and development agreement with Biogen covering the research and early clinical development of our alpha-synuclein PET Tracer program for Parkinson's disease and other synucleinopathies, and a second program for the identification, research and development of novel PET ligands against TDP-43, a protein recently linked to neurodegeneration in diseases such as amyotrophic lateral sclerosis. Under the agreement, we were entitled to a technology access fee and receive funding from Biogen towards FTE and research and development activities on both PET imaging programs. The CHF 1.5 million technology access fee is being deferred and recognized over a twelve month period. We will retain all intellectual property rights to any PET product developed for further commercialization.

#### **Grants**

In February 2015, we were awarded a grant from the Michael J. Fox Parkinson's Foundation for the further research and development of an alpha-synuclein diagnostic imaging agent. Under the terms of the grant, we retain all rights, results and intellectual property relating to the program. The grant covered research and development work over a 1.5 year period. We recognized revenues from this grant on a straight line basis over the life of the grant.

In January 2016, we were awarded a grant from the LuMind Research Down Syndrome Foundation to support our ACI-24 Phase 1 clinical study in patients with Down Syndrome. We recognized revenues from this grant on a straight line basis over the annual grant life period.

#### **Internal Control over Financial Reporting**

In preparing our financial statements as of and for the years ended December 31, 2014, 2015 and 2016, a material weakness in our internal control over financial reporting was identified, as defined in the SEC guidelines for public companies. The material weakness identified relates specifically to the accounting for and disclosure of non-routine and complex accounting transactions and the related internal controls and processes supporting these areas. As a result, there is a reasonable possibility that a material misstatement of our consolidated financial statements will not be prevented or detected on a timely basis.

We are in the process of implementing improvements and remedial measures in response to these assessments and recommendations, including:

- assembling a team from our finance department to be responsible for the preparation of financial statements under U.S. Securities laws, including hiring additional qualified personnel as necessary; and
- setting up an internal audit department to review our internal control processes, policies and procedures to ensure compliance with the Sarbanes-Oxley Act.

Although we have been implementing these measures, the implementation of these measures has not fully remediated the material weakness and they may not fully address this material weakness in our internal control over financial reporting, and we therefore may not be able to conclude that it has been fully remedied.

#### **Critical Accounting Policies and Significant Judgments and Estimates**

##### ***Revenue Recognition***

We have historically generated revenues from funds received under collaboration and license agreements as well as research grants. Revenues from research activities made under collaboration arrangements are recognized when there is persuasive evidence that an arrangement exists, services have been rendered, the price is fixed or determinable and collectability is reasonably assured. Since our inception, we have entered into strategic collaboration agreements with a range of partners covering a number of our product candidates.



For collaborations established on programs in pre-clinical stage, we recognize revenue from upfront payments under our collaboration agreements ratably over the term of our estimated period of performance under each agreement. For collaboration agreements on product candidates that are (i) in clinical development, (ii) where the upfront payment reflects a payment for past investments we have made in the development of the product candidate, access to the product candidate, the associated intellectual property and our knowledge, and (iii) where there is no further performance commitment, we recognize the fair value of the upfront payment at the time of entering into the collaboration agreement. For collaboration agreements with product candidates in clinical development but where the conditions described in clauses (ii) and (iii) are not met, we recognize the upfront payments ratably over the term of our estimated period of performance under each agreement.

We record amounts received prior to satisfying the above revenue recognition criteria as deferred revenue until all applicable revenue recognition criteria are met. Deferred revenue represents the portion of research or license payments received that have not been earned.

Milestones are considered substantive if all of the following conditions are met: (i) the milestone is non-refundable, (ii) achievement of the milestone was not reasonably assured at the inception of the arrangement, (iii) substantive effort is involved to achieve the milestone and (iv) the amount of the milestone appears reasonable in relation to the effort expended, and the other milestones in the arrangement and the related risk associated with the achievement of the milestone and any ongoing research and development or other services are priced at fair value. Such payments that are contingent upon achievement of a substantive milestone are recognized entirely as revenues in the period in which the milestone is achieved. To the extent that non-substantive milestones are achieved and we have remaining performance obligations, milestones are deferred and recognized as revenue over the estimated remaining period of performance. If there are no remaining performance obligations, we recognize the revenue in the period it is earned.

Grants provide funding for certain types of expenditures in connection with research and development activities over a contractually-defined period. Revenue related to grants is recognized in the period during which the related costs are incurred and the related services are rendered, provided that the applicable performance obligations under the grants have been met. We intend to continue to evaluate pursuing additional grant opportunities on a case-by-case basis.

#### ***Accrued Research and Development Costs***

We record accrued expenses for estimated costs of our research and development activities conducted by third party service providers, which include amongst others the conduct of preclinical studies and clinical studies and contract manufacturing activities. We record accrued expenses for estimated costs of our research and development activities based upon the estimated amount of services provided but not yet invoiced, and we include these costs in accrued liabilities on the balance sheets and within research and development expenses in the statement of operations and comprehensive income. These costs are a significant component of our research and development expenses. We record accrued expenses for these costs based on the estimated amount of work completed in accordance with agreements established with these third parties.

We estimate the amount of work completed through discussions with our project leaders and external service providers as to the progress or stage of completion of the services and the agreed-upon fee to be paid for such services. We make significant judgments and estimates in determining the accrued balance in each reporting period. As actual costs become known, we adjust our accrued estimates. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed, the number of patients enrolled and the rate of patient enrollment may vary from our estimates and could result in us reporting amounts that are too high or too low in any particular period. Our accrued expenses are dependent, in part, upon the receipt of timely and accurate reporting from CROs and other third-party service providers. To date, there have been no material differences from our accrued expenses to actual expenses.

#### ***Share-Based Compensation***

The Company operates an equity-settled, share-based compensation plan. The fair value of the employee services received in exchange for the grant of options and shares is recognized as an expense. The total amount to be expensed over the vesting period is determined by reference to the fair value of the instruments granted, excluding the impact of any non-market vesting conditions. Non-market vesting conditions are included in assumptions about

the number of instruments that are expected to become exercisable. At each balance sheet date, the Company revises its estimates of the number of instruments that are expected to become exercisable. It recognizes the impact of the revision of original estimates, if any, in the income statement, and a corresponding adjustment to equity over the remaining vesting period.

Key assumptions in determining the fair value of share options granted utilizing the Black-Scholes valuation method include the following:

*Expected Term*

The expected term represents the period that share-based awards are expected to be outstanding. We used the simplified method to determine the expected term, which is calculated as the mid-point between the vesting date and the end of the contractual term of the options.

*Expected Volatility*

For grants issued prior to being a public company we did not have any trading history for our common shares, the expected volatility was estimated based on the average historical volatilities of common shares of comparable publicly traded entities over a period equal to the expected term of the stock option grants. The comparable companies were chosen based on similar geographic location, similar size, and similar stage in the life cycle or area of specialty. We will continue to apply this process until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.

*Risk-Free Interest Rate*

The risk-free rate is based on long dated Swiss government zero coupon bond issues in effect at the time of the grant for periods corresponding with the expected term of the option.

*Expected Dividends*

We have never paid dividends on our common shares and have no plans to pay dividends on our common shares. Therefore, we used an expected dividend yield of zero percent.

In addition to Black-Scholes assumptions, we estimate our forfeiture rate based on our actual and expected forfeitures and we continue to evaluate the adequacy of the forfeiture rate based on the actual forfeiture experience, analysis of employee turnover behavior and other factors. The impact from any forfeiture rate adjustment would be recognized in full in the period of adjustment, and if the actual number of future forfeitures differs from our estimates, we might be required to record adjustments to share-based compensation in future periods.

Historically, for all periods prior to the IPO, the fair value of the common shares underlying our share-based awards was estimated on each grant date by our management and approved by our board of directors. In order to determine the fair value of our common shares underlying option grants, our board of directors considered, among other things, the breadth of our product candidate portfolio, the stages of development of our various product candidates and major changes to stage of development, the progress and additions to our collaboration agreements, risks inherent in our activities, the lack of liquidity of our companies securities and the valuations and sentiment toward biotech companies. Given the absence of a public trading market for our common shares, our board of directors exercised reasonable judgment and considered a number of objective and subjective factors to determine the best estimate of the fair value of our common shares, including our stage of development, progress of our research and development efforts, the strength of our balance sheets and capital base, equity market conditions affecting comparable public companies and the lack of liquidity marketability of our common shares.

*Amendment of 2015 Option Plan*

We grant options at the outset of the award period with the options vesting over a four year period. In line with IFRS accounting principles for option awards, we are using the graded methodology to expense the fair value of the awards on a straight line basis over the four year vesting period of the options. Specifically, the accounting rules require us to recognize that four separate options with four separate option periods were issued. Consequently, in year one, we need to expense (i) the fair value of the awards issued in the first year, (ii) one half of the fair value of the awards to be issued in year two, (iii) one third of the value of the awards to be issued in year three and

(iv) one quarter of the fair value of the options issued to be in year four. The result in the change in the way we expense options means that we are recognizing a larger expense in years one and two (relative to the traditional straight line expensing method) while recognizing a smaller expense in years three and four (relative to the traditional straight line expensing method).

#### *Amendment of Plan A Stock Option Plan*

In 2015, we amended the Plan A stock option plan that we established in 2004. Two key amendments were made to the program: (i) the duration of the stock option plan was increased by two years from 10.5 to 12.5 years and (ii) the split adjusted strike price of the option was reduced from CHF 0.93188 to a split adjusted strike price of CHF 0.14548. The lengthening of the plan's term and lowering of the strike price was effected to bring the plan in line with our other plans, and resulted in a material increase in the value of the options to the option holders and required us to recognize the increase of the transfer in value on our accounts in the first half of 2015. The impact of the amendment of the Plan A stock option plan totaled CHF 0.4 million. There are no further expenses that we need to recognize in the future associated with this plan.

#### *Acceleration of Options*

The original terms of our Stock Option Plan of 2005 (Plan C) contained a provision that would result in the automatic acceleration of all unvested options upon the consummation of an initial public offering. Pursuant to a board resolution on October 13, 2015 the Stock Option Plan of 2005 was amended and the automatic acceleration feature was removed. Instead, employees had the right, but not the obligation, to have their unvested options accelerated such that they vest immediately. Accordingly, a total of 1,250 options were accelerated as a result of AC Immune's IPO in September 2016.

Our board of directors had the authority to accelerate the vesting of all outstanding unvested options granted to employees prior to July 2014, in the event of an initial public offering. Pursuant to a board decision on September 18, 2015, 76,000 options previously granted to directors and executive officers were accelerated upon consummation of AC Immune's IPO in September 2016.

### **Financial Operations Overview**

#### *Revenue*

Given our stage of development, we have not generated any revenue from product sales. Our revenue to date has been derived primarily from four separate collaboration agreements on some of our product candidates in various stages of pre-clinical and clinical developments and a number of research grants we have secured. For collaborations established on programs in pre-clinical stage, we recognize revenue from upfront payments under our collaboration agreements ratably over the term of our estimated period of performance under each agreement. For collaboration agreements on product candidates that are (i) in clinical development, (ii) where the upfront payment reflects a payment for past investments we have made in the development of the product candidate, access to the product candidate, the associated intellectual property and our knowledge, and (iii) where there is no further performance commitment, we recognize the fair value of the upfront payment at the time of entering into the collaboration agreement. For collaboration agreements with product candidates in clinical development but where the conditions described in clauses (ii) and (iii) above are not met, we recognize the upfront payments ratably over the term of our estimated period of performance under each agreement. For all of our collaboration agreements, in addition to receiving upfront payments, we are entitled to milestone and other contingent payments upon achieving pre-defined objectives. Revenue from milestones, if they are non-refundable and deemed substantive, are recognized upon successful accomplishment of the milestones. To the extent that non-substantive milestones are achieved and we have remaining performance obligations, milestones are deferred and recognized as revenue over the estimated remaining period of performance.

Our revenues have experienced fluctuations over the past three years as a result of securing new collaboration agreements, the timing of milestone achievement and the size of each milestone payment. We expect that any revenue we generate from our two collaboration agreements with Genentech, our collaboration agreements with each of Janssen and Piramal Imaging, research and development grants, and any other current or future collaboration partners will fluctuate from year to year as a result of the timing and amount of milestones and other payments.

## ***Research and Development Expenses***

Research and development expenses comprise direct research costs, including the use of CROs, consultants and experts hired to assist on our research and development activities, consumables used for research and development purposes, employment compensation for our research and development, intellectual property, regulatory affairs, quality control and manufacturing personnel, as well as expenses related to regulatory affairs and quality control. Our research and development costs include the costs associated with our recurrent maintenance costs associated with our portfolio of intellectual property including patents. In addition, research and development expenditures include the depreciation of fixed assets used in research and development.

The largest component of our total operating expenses has historically been, and will continue to be, our investment in research and development activities, including the clinical development of our product candidates. Historically, research and development expenses have represented over 80% of our total annual operating costs. Research and development expenses represent costs incurred to conduct research, such as the discovery and development of our product candidates, as well as development of new product candidates from our SupraAntigen and Morphomer platforms as well as the development of product candidates pursuant to our collaboration agreements with Genentech, Janssen and Piramal Imaging. We recognize all research and development costs as they are incurred. Clinical study costs, contract manufacturing and other development costs incurred by third parties are expensed as the contracted work is performed. At present, our research activities comprise five major areas:

- AD therapies;
- Non-AD therapies that are not neuro-orphan therapies;
- Neuro-orphan disease therapies;
- Diagnostics; and
- New discovery projects.

Due to the limited financial resources of the Company, we have historically allocated over 70% of our research and development budget to AD therapies. We expect our research and development expenses to increase substantially in the future and expect to fund a broader number of projects. Specifically, the planned capital raising will impact our research strategy in four key ways:

- (i) we expect to undertake later-stage research and development of our product candidates and, if approved, to take some of those product candidates into commercialization;
- (ii) we will allocate more funding to existing programs to advance the development of these programs;
- (iii) we will increase our research and development efforts on non-AD indications including neuro-orphans; and
- (iv) we will initiate a number of new research initiatives that are complementary to our existing and planned research initiatives.

As a result, research initiatives targeting AD will continue to be the primary focus of our research efforts. However, other indications including PD, selected neuro-orphans and diagnostics are likely to consume an increasing share of the total research and development expenditures.

The table below provides a breakdown of our research and development costs, including direct research and development costs and manufacturing costs related to research and development, by major development program for the periods covered by this Annual Report. These research and development costs exclude employment costs, regulatory, quality assurance and intellectual property costs. With the exception of ACI-35, research costs that are subject to collaboration agreements typically have a limited amount of research expenses since our partners bear most or all of the research and development costs. We have shown below our research and development costs associated with advancing ACI-35, the tau vaccine candidate that is being developed jointly with Janssen, since pursuant to our agreement we were required to provide significant research support for this program until the end of 2016. Our research and development costs for ACI-24 for AD and Down syndrome are expected to increase significantly in the coming years as we fund Phase 2b and Phase 1 clinical studies for ACI-24 in AD and ACI-24 in

Down syndrome, respectively. Research and development costs for our alpha-synuclein PET tracer diagnostics program and other new discovery areas are also likely to rise substantially in the coming years.

#### Detailed Research and Development Expenditures by Major Development Program

	Year ended December 31,			Year Ended December 31,		
	2016	2015	Change	2015	2014	Change
	(in CHF thousands)			(in CHF thousands)		
Programs subject to collaboration agreements(1)	1,439	1,292	147	1,292	1,269	23
ACI-35	4,642	3,611	1,031	3,611	2,389	1,222
ACI-24 (for AD and Down syndrome)	5,124	1,495	3,629	1,495	1,918	(423)
PD (therapeutics and diagnostics)	1,551	757	794	757	685	72
New discovery programs	3,925	1,315	2,610	1,315	2,064	(749)
Total	16,681	8,470	8,211	8,470	8,325	145

(1) Includes research and development expenditures for crenezumab, anti-tau antibodies and tau PET imaging tracer. Does not include research and development expenditures for ACI-35.

#### General and Administrative Expenses

General and administrative expenses include personnel costs, expenses for outside professional services, and all other allocated expenses. Personnel costs consist of salaries, cash bonuses, benefits and share-based compensation. Outside professional services consist of legal, accounting and audit services, IT and other consulting fees. Allocated expenses consist of rent expense related to our office and research and development facility. We expect to incur additional expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC, and those of any national securities exchange on which our securities are traded (NASDAQ), additional insurance expenses, investor relations activities and other administrative and professional services.

#### Financial Income and Expenses

Financial expenses are bank fees associated with charges levied by banks on foreign payments and foreign exchange transactions.

Interest income consists of interest received from banks on our cash balances. Other financial income relates principally to gains that we have made historically on foreign currency transactions, which arise from the fact that some of our collaboration agreements such as the collaboration agreements with Genentech and Piramal Imaging are in currencies other than Swiss Francs, and selected purchases, which we effect in foreign currencies.

#### Taxation

We are subject to corporate taxation in Switzerland.

We are also entitled under Swiss laws to carry forward any losses incurred for a period of seven years and can offset our losses carried forward against future taxes. As of December 31, 2016, we had tax loss carryforwards totaling CHF 36.7 million. There is no certainty that we will make sufficient profits to be able to utilize these tax loss carryforwards.

The corporate tax rate in the Canton of Vaud where we are domiciled is currently 21.2%. The Canton does from time to time, amend the level of taxation levied on corporations and there is no certainty that the tax rate currently in effect will not change in the future. At present, there are discussions on lowering the corporate tax rate in the Canton of Vaud to below 15% by 2021. The Swiss Federal government has recently proposed changes to align Swiss corporate taxation with international recommendations but voters in Switzerland voted against such proposals in a national referendum on February 12, 2017. As a result, uncertainty will continue about the future level of Swiss corporate income taxes that may apply to us until revised proposals are put forward and gain acceptance.

Value Added Tax, or VAT, is charged on all qualifying goods and services by VAT-registered businesses. An amount of 8.0% of the value of the goods or services is added to all sales invoices and is payable to the Swiss tax authorities. Similarly, VAT paid on purchase invoices is reclaimable from the Swiss tax authorities.

## Results of Operations

The numbers below have been derived from our audited financial statements included elsewhere herein. The discussion below should be read along with these condensed financial statements and it is qualified in its entirety by reference to them.

### Comparison of the Years Ended December 31, 2016 and 2015

#### Revenue

The following table summarizes our revenues during the years ended December 31, 2016 and 2015:

	<b>For the Years Ended December 31,</b>		<b>Change</b>
	<b>2016</b>	<b>2015</b>	
	<b>(in CHF thousands)</b>		
Collaboration and license revenue	22,737	38,745	(16,008)
Grant revenue	469	316	153
Other	8	29	(21)
<b>Total revenues</b>	<b>23,214</b>	<b>39,090</b>	<b>(15,876)</b>

Our revenues experience fluctuations as a result of securing new collaboration agreements, the timing of milestone achievements and the size of each milestone payment. The decline in revenues in 2016 compared to the same period in 2015 is primarily related to the timing and size of clinical milestones recognized in each of those periods. Revenues in 2016 resulted from the recognition of a CHF 4.9 million clinical milestone and CHF 1.5 million recognized for research contributions received related to ACI-35 pursuant to our collaboration agreement with Janssen, the recognition of a CHF 14 million milestone payment for commencement of phase 1 clinical studies for the anti-tau antibody under collaboration with Genentech, the recognition of an approximate CHF 1.0 million share of the Biogen upfront payment received in April 2016 that we are recognizing over a twelve month period and CHF 1.1 million in research contribution revenues related to the Biogen collaboration.

In 2015, we recognized revenue from two collaboration agreements, including a \$25 million (CHF 24.3 million) milestone payment related to our collaboration with Genentech for crenezumab and a CHF 14 million milestone payment associated with the Genentech collaboration agreement for our anti-tau antibody candidate.

#### Research and Development Expenses

The following table summarizes our research and development expenses during the years ended December 31, 2016 and 2015:

	<b>For the Years Ended December 31,</b>		<b>Change</b>
	<b>2016</b>	<b>2015</b>	
	<b>(in CHF thousands)</b>		
Operating expenses	18,489	10,476	8,013
Salaries and related costs (1)	7,007	6,286	721
Depreciation of tangible fixed assets	278	287	(9)
<b>Total research and development expenses</b>	<b>25,774</b>	<b>17,049</b>	<b>8,725</b>

(1) Includes share-based compensation.

Our research and development expenses increased to CHF 25.8 million for the year ended December 31, 2016, from CHF 17.0 million, an increase of CHF 8.8 million, as compared to year ended December 31, 2015.

The increase in research and development spending in 2016 was driven by a CHF 1.0 million increase for research and development expenses related to ACI-35, a CHF 3.6 million increase in the outlays related to the two ACI-24 programs driven principally by investment in manufacturing, a CHF 0.8 million increase in Parkinson's disease focused program including the alpha synuclein PET imaging collaboration with Biogen, and a CHF 2.6 million increase in total research and development expenses for new discovery projects that we believe will help us to maintain a scientific leadership position in neurodegenerative diseases.

Our salaries and costs related to our research and development activities rose by CHF 0.7 million to CHF 7.0 million for the year ended December 31, 2016 from CHF 6.3 million for the year ended December 31, 2015. The increase is primarily due to growth of the Company's research and development organization to accelerate the development of its proprietary and partnered pipeline candidates.

#### **General and Administrative Expenses**

The following table summarizes our general and administrative expenses during the years ended December 31, 2016 and 2015:

	<b>For the Years Ended December 31,</b>		<b>Change</b>
	<b>2016</b>	<b>2015</b>	
	<b>(in CHF thousands)</b>		
Salaries and related costs (1)	4,728	2,040	2,688
Operating expenses	3,168	1,377	1,791
<b>Total general and administrative expenses</b>	<b>7,896</b>	<b>3,417</b>	<b>4,479</b>

(1) Includes share-based compensation.

For the year ended December 31, 2016 our general and administrative expenses totaled CHF 7.9 million, up CHF 4.5 million from CHF 3.4 million we incurred during the year ended December 31, 2015. The increase is due to a CHF 1.8 million increase in operating expenses driven by higher professional service costs, such as legal costs, related to AC Immune becoming a public company. The remaining increase is primarily attributable to salary and benefit related costs, including higher stock based compensation expense of CHF 0.6 million relating primarily to a replacement grant issued to a departing executive officer, and 2016 bonus accruals.

#### **Financial Income and Expenses**

The following table summarizes our financial income and expenses during the years ended December 31, 2016 and 2015:

	<b>For the Years Ended December 31,</b>		<b>Change</b>
	<b>2016</b>	<b>2015</b>	
	<b>(in CHF thousands)</b>		
Finance cost	(256)	(26)	(230)
Interest income	43	55	(12)
Finance income	3,573	1,617	1,956
<b>Total financial income</b>	<b>3,360</b>	<b>1,646</b>	<b>1,714</b>

Net financial income increased to CHF 3.4 million for the year ended December 31, 2016, from CHF 1.6 million for the year ended December 31, 2015. The increase was driven by gains related to foreign exchange rates on our cash balances in U.S. dollars offset by higher bank fees during 2016 as compared to 2015.

#### **Comparison of the Years Ended December 31, 2015 and 2014**

##### **Revenue**

The following table summarizes our revenues during the years ended December 31, 2015 and 2014:

	<b>Years Ended December 31,</b>		<b>Change</b>
	<b>2015</b>	<b>2014</b>	
	<b>(in CHF thousands)</b>		
Collaboration and license revenue	38,745	30,179	8,566
Grant revenue	316	75	241
Other	29	15	14
Total revenues	<u>39,090</u>	<u>30,269</u>	<u>8,821</u>

Total revenues rose to CHF 39.1 million for the year ended December 31, 2015 from CHF 30.3 million for the year ended December 31, 2014, an increase of CHF 8.8 million. The increase was principally due to collaboration and license revenues rising to CHF 38.8 million for the year ended December 31, 2015 from CHF 30.2 million for the year ended December 31, 2014. In 2015, we recognized revenue from two collaboration agreements, including a \$25 million (CHF 24.3 million) milestone payment related to our collaboration with Genentech for crenezumab and a CHF 14 million milestone payment associated with the Genentech collaboration agreement for our anti-tau antibody.

#### ***Research and Development Expenses***

The following table summarizes our research and development expenses during the years ended December 31, 2015 and 2014:

	<b>Years Ended December 31,</b>		<b>Change</b>
	<b>2015</b>	<b>2014</b>	
	<b>(in CHF thousands)</b>		
Operating expenses	10,476	9,990	486
Salaries and related costs(1)	6,286	5,828	458
Depreciation of tangible fixed assets	287	298	(11)
Total research and development expenses	<u>17,049</u>	<u>16,116</u>	<u>933</u>

(1) Includes share-based compensation.

Our research and development expenses rose to CHF 17.0 million for the year ended December 31, 2015 from CHF 16.1 million, an increase of CHF 0.9 million, as compared to year ended December 31, 2014.

For the year ended December 31, 2015 our research and development operating costs increased by CHF 0.5 million to CHF 10.5 million due principally to the increase in expenditures related to ACI-35 which we are developing jointly with Janssen.

Our salaries and related costs related to our research and development activities rose by CHF 0.5 million to CHF 6.3 million for the year ended December 31, 2015 from CHF 5.8 million for the year ended December 31, 2014. The increase is due to an average increase in the base compensation of 1.4% and the addition of two scientists to our research and development team.

Our share based compensation related to our research and development employees rose to CHF 0.4 million for the year ended December 31, 2015 from CHF 0.2 million for the year ended December 31, 2014. The increase is primarily due to the fact that the company valuation used as the basis for expensing share based compensation was nearly doubled during 2015 compared to 2014.

#### ***General and Administrative Expenses***

The following table summarizes our general and administrative expenses during the years ended December 31, 2015 and 2014:



	<b>Years Ended December 31,</b>		<b>Change</b>
	<b>2015</b>	<b>2014</b>	
	<b>(in CHF thousands)</b>		
Salaries and related costs	2,040	1,999	41
Operating expenses	1,377	1,437	(60)
Total general and administrative expenses	<u>3,417</u>	<u>3,436</u>	<u>(19)</u>

General and administrative expenses for the year ended December 31, 2015 were CHF 3.4 million which is in line with the CHF 3.4 million for the year ended December 31, 2014. It should be noted that CHF 2.2 million of costs associated with the preparations for becoming a public company in the United States were not expensed in the year ended December 31, 2015 but rather were accrued and carried forward into 2016 and appear under prepaid expenses on our balance sheet for the year ended December 31, 2015.

### ***Financial Income and Expense***

The following table summarizes our financial income and expenses during the years ended December 31, 2015 and 2014:

	<b>Years Ended December 31,</b>		<b>Change</b>
	<b>2015</b>	<b>2014</b>	
	<b>(in CHF thousands)</b>		
Finance cost	(26)	(4)	(22)
Interest income	55	22	33
Finance income	1,617	9	1,608
Total financial income	<u>1,646</u>	<u>27</u>	<u>1,619</u>

Net financial income increased to CHF 1.6 million for the year ended December 31, 2015 from CHF 27 thousand for the year ended December 31, 2014. The increase was driven primarily by gains related to foreign exchange rates on our cash balances in US dollars as well as an increase in the interest income due to significantly higher cash balances on hand during the year in 2015 as compared to 2014.

### **B. Liquidity and capital resources**

Our operations have been financed primarily by proceeds from our initial public offering in September 2016, from collaboration and license agreements we have with a number of partners, and net proceeds from the issuance of preferred shares. At December 31, 2016, we had cash and cash equivalents of CHF 152.2 million.

Our primary uses of capital are, and we expect will continue to be, research and development expenses, compensation and related expenses, and other operating expenses including rent. Cash used to fund operating expenses is impacted by the timing of when we pay expenses, as reflected in the change in our outstanding accounts payable and accrued expenses. We expect to incur substantial expenses in connection with a number of our product candidates in various stages of clinical development including co-funding ACI-35 to the end of the ongoing Phase 1b clinical study, material increases in spending on ACI-24 in AD to fund a Phase 2 study, ACI-24 in Down syndrome, our PET imaging candidates focused on alpha-synuclein and TDP-43 which we are developing together with Biogen and a number of research initiatives focused on neurodegenerative orphan diseases other than AD.

We plan to continue to fund our operating and capital funding needs through proceeds received from collaboration and licensing agreements and through equity or other forms of financing. We may also consider entering into additional collaboration agreements and selectively partnering for clinical development and commercialization. The sale of additional equity would result in additional dilution to our shareholders.

### **Cash Flows**

#### ***Comparison of the Years Ended December 31, 2016 and 2015***

The following table summarizes our cash flows for the periods indicated:

	<u>Years Ended December 31,</u>		<u>Change</u>
	<u>2016</u>	<u>2015</u>	
	<u>(in CHF thousands)</u>		
Net cash provided by (used in):			
Operating activities	(5,646)	44,084	(49,730)
Investing activities	(899)	(244)	(655)
Financing activities	78,790	27,778	51,012
Net change in cash and cash equivalents	<u>72,245</u>	<u>71,618</u>	<u>627</u>

#### *Operating activities*

The net cash used in operating activities was CHF 5.6 million for the year ended December 31, 2016, compared to net cash provided by operating activities of CHF 44.1 million for the year ended December 31, 2015. The decrease in operating cash flows is driven by three factors: (i) reporting a net loss of CHF 7.1 million in 2016 compared with a CHF 20.3 million of income for 2015, (ii) no material changes in receivables balances in 2016 while in 2015 AC Immune received the CHF 25.9 million upfront payment from Janssen in connection with the ACI-35 collaboration, and (iii) offsets due to changes in working capital, for example, accounts payable and accrued expenses positively impacted cash provided by operating activities by CHF 4.2 million.

#### *Investing activities*

Net cash used in investing activities was CHF 0.9 million for the year ended December 31, 2016, compared with CHF 0.2 million for the year ended December 31, 2015. The CHF 0.7 million increase in cash used in investing activities was due to an increase in investments in fixed assets, primarily for laboratory equipment.

#### *Financing activities*

Net cash provided by financing activities was CHF 78.8 million for the year ended December 31, 2016, compared to CHF 27.8 million for the year ended December 31, 2015. The increase was driven primarily by the CHF 74.5 million in gross proceeds (CHF 65.3 million net underwriting fees and IPO related costs) raised from the IPO in September 2016. Additionally, there was a CHF 16.3 million reduction to Preferred Series E/D financing proceeds in 2016 as compared to 2015.

#### *Operating Capital Requirements and Plan of Operations*

We do not expect to generate revenues from royalties based on product sales unless and until our partners obtain regulatory approval of and commercialize our current or any future product candidates. There can be no certainty as to the exact timing, or in fact whether any future milestone payments will ever be made given that these milestone payments are contingent on clear milestones being reached. As of December 31, 2016 we had cash balances totaling CHF 152.2 million. The cash available for operating capital requirements and operations were primarily raised through financing activities totaling CHF 78.8 million for the year ended December 31, 2016.

Accordingly, assuming we do not receive further milestone payments and based on our currently contemplated research and development strategy and expenditures, we believe that our existing capital resources, not including potential milestone payments, will be sufficient to meet our projected operating requirements through at least the fourth quarter of 2018.

We expect to generate losses for the foreseeable future, and these losses could increase as we continue product development and if we successfully achieve regulatory approvals for our product candidates and begin to commercialize any approved products. We are subject to all the risks pertinent to the development of new products, and we may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may harm our business. Upon closing of the IPO, we incurred additional costs associated with operating a public company and we anticipate that we will need substantial additional funding in connection with our continuing operations.

Our future funding requirements will depend on many factors, including but not limited to the following:

- The scope, rate of progress, results and cost of our pre-clinical and clinical studies and other related activities;
- The cost of manufacturing clinical supplies and establishing commercial supplies of our product candidates and any other products we may develop;
- The cost, timing and outcomes of regulatory approvals;
- The costs and timing of establishing sales, marketing and distribution capabilities;
- The terms and timing of any collaborative, licensing and other arrangements that we may establish, including any required milestone and royalty payments thereunder;
- The emergence of competing technologies or other adverse market developments; and
- The potential cost and timing of managing and protecting our portfolio of intellectual property.

#### Comparison of the Years Ended December 31, 2015 and 2014

The following table summarizes our cash flows for the periods indicated:

	<b>Years Ended December 31,</b>		<b>Change</b>
	<b>2015</b>	<b>2014</b>	
	<b>(in CHF thousands)</b>		
Net cash provided by (used in):			
Operating activities	44,084	(17,624)	61,708
Investing activities	(244)	(131)	(113)
Financing activities	27,778	9,801	17,977
Net change in cash and cash equivalents	<u>71,618</u>	<u>(7,954)</u>	<u>79,572</u>

#### *Operating activities*

The net cash provided by operating activities rose to CHF 44.1 million for the year ended December 31, 2015 from net cash used by operating activities of CHF 17.6 million for the year ended December 31, 2014. The significant improvement is driven by three key factors: (i) a significant change in our current receivables which amounted to CHF 0.3 million for the year ended December 31, 2015 compared with CHF 25.9 million for the year ended December 31, 2014 driven by the receipt of the upfront payment from Janssen related to our collaboration on ACI-35, (ii) we generated a net income of CHF 20.3 million for the year ended December 31, 2015 compared with net income of CHF 10.7 million for the year ended December 31, 2014 and (iii) a reduction in the amount deferred revenue which declined to CHF 0.2 million for the year ended December 31, 2015 from CHF 3.7 million for the year ended December 31, 2014.

#### *Investing activities*

Net cash used in investing activities was CHF 0.2 million for the year ended December 31, 2015, compared with CHF 0.1 million for the year ended December 31, 2014. The CHF 0.1 million increase was due to a slight increase in investments in fixed assets in the laboratory.

#### *Financing activities*

Net cash provided by financing activities was CHF 27.8 million for the year ended December 31, 2015, compared to CHF 9.8 million for the year ended December 31, 2014. The increase was driven primarily by the \$30 million (CHF 29.4 million) Series E Private Placement which we completed in October 2015.

#### **C. Research and development, patents and licenses, etc.**

See “Item 4. Information on the Company – B. Business Overview” and Item 5. Operating and Financial Review and Prospects – A. Operating Results – Results of Operations.”

#### D. Trend information

See “Item 5. Operating and Financial Review and Prospects”.

#### E. Off-balance sheet arrangements

We do not have any material off-balance sheet arrangements or commitments.

#### F. Tabular disclosure of contractual obligations

We have been a tenant at our current location in the EPFL Innovation Park since shortly after our inception in 2003. We have entered into long-term rental lease agreements with respect to these facilities. However, our lease agreements are structured such that we can exit these lease agreements without penalty provided we give the owner of our premises sufficient notice.

The following table presents information relating to our contractual obligations as of December 31, 2016:

	Payments Due by Period		
	Less Than 1	Between 1 and 5	Total
	Year	Years	
	(in thousands of CHF)		
Operating lease obligations	255	-	255
Total	255	-	255

The Company has a contractual obligation that require the payment of royalties to a third party, which is associated with the achievement of program milestones. As of December 31, 2016, the Company’s contractual obligation associated with this agreement was CHF 494 thousand.

#### G. Safe harbor

See “Forward-Looking Statements.”

### ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

#### A. Directors and senior management

##### Executive Officers, Other Key Employees and Board of Directors

The following table presents information about our executive officers, other key employees and, directors and director nominees, including their ages, as of December 31, 2016. The term of each of our directors is one year and, accordingly, will expire at our 2017 annual shareholder meeting to be held in May 2017.

Name	Position	Age	Initial Year of Appointment
<b>Executive Officers</b>			
Andrea Pfeifer, Ph.D.	Chief Executive Officer and Director Nominee	59	2003
Andreas Muhs, Ph.D.	Chief Scientific Officer	55	2005
Jean-Fabien Monin	Chief Administrative Officer	46	2009
<b>Other Key Employees</b>			
Wolfgang Barth, Ph.D.	Director of Development	63	2010
David A. Lowe, Ph.D.	Innovation Fellow	70	2014
Joseph Wettstein, Ph.D.	Chief Scientific Officer, Deputy and Head of Non-AD Proteinopathies	62	2016
Julian Gray, M.D., Ph.D.	Clinical Advisor	60	2007
<b>Non-Executive Directors</b>			
Martin Velasco	Chairman and Director	62	2003
Detlev Riesner, Ph.D.	Director	75	2004
Friedrich von Bohlen und Halbach, Ph.D.	Director	54	2015
Peter Bollmann, Ph.D.	Director	63	2015
Thomas Graney(1)	Director	52	2016

(1) Thomas Graney was appointed as non-executive director on November 15, 2016 at the Annual General Meeting of the Company.

The current business addresses for our executive officers, other key employees, directors and director nominee is AC Immune SA, EPFL Innovation Park, Building B, 1015 Lausanne, Switzerland.

#### **Executive Officers**

**Andrea Pfeifer, Ph.D., Co-Founder, Chief Executive Officer and Director:** Dr. Pfeifer co-founded AC Immune in April 2003, and has agreed to serve as a director on our board effective upon completion of the IPO. Prior to founding us, Dr. Pfeifer was head of Nestlé's Global Research in Lausanne, Switzerland. While at Nestlé, she led the scientific development of the first Functional Food, LC1, and one of the first Cosmeceutical products in a joint venture with L'Oreal, Innéov Fermeté. She also co-founded the Nestlé Venture Capital Fund, a Life Sciences corporate venture fund. She serves as chairwoman of Investment Fund BioMedInvest, Basel and AB2 Bio, Lausanne and is a member of the Supervisory Board of Symrise AG, Holzminden. Dr. Pfeifer is a member of the CEOi Initiative on Alzheimer's Disease.

Dr. Pfeifer holds a Ph.D. in Toxicology, Cancer Research from the University of Würzburg, Germany. She continued with post-doctoral work in Molecular Carcinogenesis at the National Institutes of Health, Human Carcinogenesis Branch, in Bethesda, Maryland. Dr. Pfeifer is a registered toxicologist and pharmacist. She received her habilitation from the University of Lausanne, Switzerland and is also an honorary professor at the École Polytechnique Fédérale de Lausanne (EPFL).

**Andreas Muhs, Ph.D., Chief Scientific Officer:** Dr. Muhs has served as our Chief Scientific Officer since 2005. Prior to joining AC Immune in 2005, he was responsible for the development of the cardiac stem cell-based program to treat myocardial infarction, including worldwide pre-clinical program collaborations and technology transfers at ViaCell Inc., Cambridge, MA. Prior to ViaCell Inc., he was the Director of Pharmacology and Histology at Cardion AG where he developed research projects with translation into clinical applications in the fields of heart and circulation, angiogenesis and immunology and based on gene-, protein- and stem cell therapies. Dr. Muhs holds a Ph.D. in Biology from the University Düsseldorf, Germany, where he worked on regulation of endothelial barrier functions.

**Jean-Fabien Monin, Chief Administrative Officer:** Mr. Monin was nominated Chief Administrative Officer in July 2015 following his role as our Chief Financial Officer from March 2009 to July 2015. Prior to AC Immune, he held several positions during his tenure of 14 years at bioMérieux, a leading international *in vitro* diagnostics group, culminating in his nomination as Chief Financial Officer. His last position was CFO of bioMérieux Central Europe based in Vienna, Austria from December 2006 to March 2009. Mr. Monin holds a Masters in Finance and International Business from the University of Paris-Dauphine, France.

In addition, we announced on November 23, 2016 that we had appointed **Mr. Joerg Hornstein as Chief Financial Officer** to replace Mr. George Pavey, who left the Company after the initial public offering. Mr. Hornstein is expected to begin his role as Chief Financial Officer on April 1, 2017. In the meantime, Mr. Monin is acting as our interim principal financial officer.

Prior to joining AC Immune, Mr. Hornstein served as Senior Vice President Group Controlling for Unternehmensgruppe Theo Müller based in Luxembourg from January 2014 to March 2017. Between 2002 and 2013 he worked for Merck KGaA, a leading science and technology company in healthcare, life science and performance materials, where he held various senior finance roles. Amongst others, he was CFO for Merck's operations in Indonesia and Merck Serono's operations in China. Furthermore, he served as Vice President Group Controlling for Merck Group Headquarters in Germany and as Divisional CFO for Merck Millipore in the U.S. Mr. Hornstein holds an MBA with Distinction from London Business School, UK, and a Bachelor of Business Administration from Baylor University in the U.S.

## Other Key Employees

**Wolfgang Barth, Ph.D., Director of Development:** Dr. Barth has served as our Director of Development since June 2010. Prior to joining AC Immune, he was the Head of Development at TRIN-Pharma. Previous to TRIN-Pharma, Dr. Barth was at Bayer Healthcare, where he was the responsible project leader of numerous preclinical and clinical development projects. The most important project was the development of the PDE5 inhibitor Levitra which he led from the start of preclinical development until market launch. Wolfgang Barth holds a Ph.D. in Chemistry from the University of Marburg and received a NATO stipend for a postdoctoral staff position at the Ohio State University.

**David A. Lowe, Ph.D., Innovation Fellow:** Dr. Lowe has served as our Deputy Chief Scientific Officer and more recently as Innovation Fellow since January 2014. Previously, Dr. Lowe was the Chief Scientific Officer at PsychoGenics Inc., Chief Scientific Officer at Memory Pharmaceuticals (acquired by Roche), Executive Vice President and Chief Scientific Officer at Fidelity Biosciences Group in Boston, President, CEO and Director of Envivo Pharmaceuticals (now Forum Pharmaceuticals), Vice President and therapeutic area head at Roche Bioscience in Palo Alto, Vice President and global therapeutic area head at Bayer AG, and head of CNS Biology and deputy head of CNS Research at Sandoz Ltd (now Novartis). Dr. Lowe is also an adjunct professor of Neuroscience at the Icahn School of Medicine in New York City. He received his Ph.D. in Neurobiology from the University of Leeds, UK.

**Joseph G. Wettstein, Ph.D., Chief Scientific Officer Deputy and Department Head of non-AD Proteinopathies:** Dr. Wettstein has served as our Chief Scientific Officer Deputy since February 2016 and leads all of our non-AD programs including our initiatives focused on Parkinson's disease, Huntington's disease and TDP-43 across both therapeutic and diagnostic programs. Prior to AC Immune, Dr. Wettstein was Vice President in Neuroscience with Roche Pharmaceuticals in Basel where he oversaw R&D activities associated with programs designed to discover drugs for patients covering a range of brain disorders including Parkinson's, schizophrenia, Huntington's, Down syndrome, Alzheimer's, autism, bipolar disorder, depression and Fragile X. As Head of Systems Pharmacology, CNS Research at Aventis, he played a critical role in the discovery of the immunomodulatory drug teriflunomide (Aubagio<sup>®</sup>) for multiple sclerosis. Dr. Wettstein holds a Ph.D. from the College of Medicine at the University of Kentucky and was a Postdoctoral Fellow then instructor at Harvard Medical School.

**Julian Gray, M.D., Ph.D., Clinical Advisor:** Dr. Gray has served as Clinical Advisor to our programs in neurodegenerative diseases since January 2007 and works in this function exclusively for AC Immune. He has previously held the position of Head of CNS Therapeutics at Eisai Ltd in London leading the global development of early and late-stage CNS projects in Alzheimer's disease, Parkinson's disease and other CNS areas. Prior to this he served as Head of Alzheimer Clinical Research at Hoffmann-La Roche in Basel where he conducted large scale clinical trials in the US and Europe. After his studies he was Medical Expert at Sandoz Pharmaceuticals in Basel undertaking clinical studies of different compounds in dementia and Parkinson's disease. Dr Gray holds the title of a Specialist in Pharmaceutical Medicine (Switzerland). He received his medical degree (MBBS) from the University of London, a BA and Ph.D. from the University of Oxford and an MBA from the Oxford Brookes University.

## Non-Executive Directors

**Martin Velasco, Chairman and Director:** Mr. Velasco has served on our board of directors since December 2003. Martin Velasco is an entrepreneur and Business Angel with extensive experience in the IT, medical and biotech areas. He serves on the board of directors or advisory board of several other high-tech companies including: as Founder, Chairman and Chief Executive Officer of Anecova, an assisted reproductive technology (ART) company and World Economic Forum Technology Pioneer 2008 as Chairman of the Supervisory Board of Cocomore, a digital communications agency and IT services firm, as Board Member of Aridhia, a Health Informatics company, and as Board Member of Aleva Neurotherapeutics, a Deep Brain Stimulation (DBS) company. Martin is also the Founder and Chairman of Infantia Foundation, a philanthropic organization aiding children in the developing world. He is a member of the Board of BlueOrchard, the leading private microfinance investment advisory company, member of the Strategic Advisory Board of the EPFL, Vice President of the Board of the Foundation EPFL + and Vice Chairman of the European Tech Tour Association.

**Detlev H. Riesner, Ph.D., Director:** Prof. Riesner has served on our board since 2004. He held the Chair of Biophysics at the Heinrich-Heine-University in Düsseldorf, Germany from 1980 to 2007. He has also held the positions of Dean of the Science Faculty and Vice-President of Research. In 2007 he became member of the university's Board of Trustees. He worked as a research fellow at Princeton University and held a guest professorship at the department of Neurology at the University of California, San Francisco. Prof. Riesner is a co-founder of Qiagen N.V., Netherlands, was a member and from 1999 to 2014 chairman of the Supervisory Board. He was also a member of the supervisory boards of NewLab Bioquality AG, Erkrath, Direvo AG, Köln, and Alantos AG, Heidelberg. Currently, he is the chairman of the Advisory Board of Evocxx Technologies GmbH, Monheim am Rhein. Prof. Riesner was a member of the scientific advisory boards of the Friedrich-Löffler-Institut, Isle of Riems, and PrioNet and APRI, both Canada. He received the Max-Planck Forschungspreis for International Co-operation and the Bundesverdienstkreuz 1. Klasse from the Bundespräsident of Germany.

**Friedrich von Bohlen und Halbach, Ph.D., Director:** Dr. von Bohlen has served on our board since October 2015. He is co-founder and managing director of dievini Hopp BioTech holding GmbH & Co. KG. He brings extensive industry experience from Fresenius AG, FAG Kugelfischer, and WASAG-Chemie AG, founded LION bioscience AG in 1997 (now SYGNIS Pharma AG) and served as the company's CEO. Dr. von Bohlen is a board member of various companies of the dievini portfolio and Chairman of Apogenix AG, CureVac AG and Novaliq GmbH. He holds a PhD in Neurobiology from the Swiss Federal Institute of Technology in Zurich, Switzerland.

**Peter Bollmann, Ph.D., Director:** Dr. Bollmann has joined our board in December 2015. He has extensive management and finance experience in Switzerland and abroad as CEO, CFO and member of the board. His broad industry experience embraces biotechnology and medical technology firms including previous Board positions with Cytos Biotechnology and Prionics.

**Thomas Graney, Director:** Mr. Thomas Graney joined our board in November 2016. He has been the Chief Financial Officer and Senior Vice President of Finance & Corporate Strategy at Ironwood Pharmaceuticals, Inc. since September 2014. Mr. Graney spent 20 years working with J&J and its affiliates, serving for four years as worldwide Vice President of Finance and Chief Financial Officer of Ethicon. In addition, Mr. Graney has extensive global experience that spans corporate development, commercial strategy, portfolio management and supply chain management. A Chartered Financial Analyst charterholder, Mr. Graney holds a B.S. in Accounting from the University of Delaware and an M.B.A. in Marketing Finance and International Business from the Leonard N. Stern School of Business at New York University.

## **B. Compensation**

### **Compensation of Directors and Executive Officers**

For the year ended December 31, 2016, the aggregate compensation accrued or paid to the members of our board of directors and our executive officers for services in all capacities was CHF 2.3 million.

During the year ended December 31, 2016, the total fair value of stock options granted to directors and executive officers was CHF 674 thousand.

The amount set aside or accrued by us to provide pension, retirement or similar benefits to members of our board of directors or executive officers amounted to a total of CHF 154,000 in the year ended December 31, 2016.

We incorporate by reference into this Annual Report the information in "Item 1.C—2015 Board Compensation" and "Item 2.C—2015 Executive Compensation" of Exhibit 99.4 to our report on Form 6-K filed with the SEC on March 17, 2017.

### **Equity Incentive Plans**

We ceased issuing new grants under our existing equity incentive plans, which we refer to as the Prior Plans, and adopted a new omnibus equity incentive plan under which we have the discretion to grant a broad range of equity-based awards to eligible participants.

#### ***Prior Plans***

Since our inception in 2003, we have had four separate Prior Plans: Plan A, which were established in 2004 and amended in June 2015; Plan B, which was established in 2005; Plan C1, which was established in 2006; and Plan C2, which was also established in 2006 but which is intended specifically for members of our board of directors to purchase our common shares. Due to a change in the taxation of options in 2013, we introduced a new Equity Incentive Plan in 2013. As of December 31, 2016, there were 403,375 and 1,284,525 common shares underlying outstanding unvested options and vested options granted pursuant to our Prior Plans, respectively.

Furthermore, pursuant to a board resolution on October 13, 2015 all options which were granted to directors and executive officers in connection with IPO were accelerated upon consummation of the IPO. This resulted in the acceleration of a total of 76,000 unvested options.

*Plan Administration.* Under each of the Prior Plans, an option, which can only be granted with the approval of our board of directors, is evidenced by an option agreement signed by the participant to indicate his or her acceptance of the option subject to the terms and conditions of the applicable Prior Plan.

*Eligibility.* Under Plans A, B and C1, options were granted to our directors, employees, advisors and agents. Under Plan C2, options were granted only to selected members of our board of directors. Under the Equity Incentive Plan 2013, options were granted to our director, employees, advisors and agents.

*Option Exercise Price.* With the exception of Plan A, the exercise price of all options issued under the Prior Plans is CHF 0.14548. The original exercise price for options issued under Plan A was CHF 0.93186. However, this exercise price was amended in June 2015 with the approval of our board of directors to be CHF 0.14548. As a result, as of December 31, 2016, all options outstanding under our Prior Plans have an exercise price of CHF 0.14548.

*Vesting Period.* The vesting periods of options issued under our Prior Plans vary. The options granted under Plan A vested immediately but were subject to a four year lockup period. The options granted under Plan B vested over a four year period with 25% of these options vested after one year of service and thereafter, 6.25% of the options granted vesting each quarter. Under Plan C1, the vesting period for options was four years with 25% of the options vesting each year. Under Plan C2, options were immediately exercisable.

*Amendment.* Our board of directors has the authority to amend each of the Prior Plans.

### **2016 Stock Option and Incentive Plan**

At the November 15, 2016 AGM of the Company our board of directors approved the 2016 Stock Option and Incentive Plan (the “2016 Plan”). The maximum number of shares available for issuance under the 2016 Plan is 2,057,740 common shares.

*Plan Administration.* The 2016 Plan is administered by either our board of directors or the compensation committee, or a similar committee performing the functions of the compensation committee. Approval of the plan administrator is required for all grants of awards under the 2016 Plan, but the administrator may delegate to our Chief Executive Officer the authority to grant awards, subject to certain limitations set forth on the plan.

*Awards.* Awards may be granted in the form of incentive stock options, non-qualified stock options, stock appreciation rights, restricted stock units, restricted stock awards, unrestricted stock awards, performance share awards and dividend equivalent rights.

*Eligibility.* Under the 2016 Plan, full or part-time officers and other employees, non-employee directors and consultants of the Company and its subsidiaries who are selected by the administrator are eligible to participate in the plan.

*Option Exercise Price.* Under the 2016 Plan, the option exercise price is determined by the plan administrator at the time of grant, but will not be less than fair market value (as defined in the 2016 Plan) on the grant date, and for incentive stock options granted to any employee who is a 10 percent owner in the Company, will not be less than 110 percent of the fair market value on the grant date.

*Vesting Period.* Vesting conditions are determined by the administrator at the time of grant and are specified in the applicable award certificate.

*Accelerated Vesting.* The administrator may accelerate the exercisability or vesting of all or any portion of any award in circumstances involving the grantee’s death, disability, retirement or termination of employment, or a change in control.

*Amendment.* Our board of directors has the authority to amend the 2016 Plan.



## ***Equity Compensation***

Since the beginning of the fiscal year ended December 31, 2016, we have granted our executive officers, in the aggregate, options for the right to acquire 98,500 shares at a price of CHF 0.14548 per share, that vest over a four year period with 25% vesting on each of July 14, 2017, July 14, 2018, July 14, 2019, and July 14, 2020. In connection with his departure in the fourth quarter of 2016, the Chief Financial Officer forfeited his initial 2016 grant (included in the aggregate total above), and in its place was awarded 49,250 options at an exercise price of CHF 0.14548, which will expire on March 31, 2019.

## **C. Board practices**

### **Board Composition and Election of Directors**

Our board of directors is composed of six directors. Each director is elected for a one-year term. The current members of our board of directors were appointed at a shareholders' meeting held on November 15, 2016 to serve until the 2017 shareholders' meeting to be held in May 2017.

We are a foreign private issuer. As a result, in accordance with the NASDAQ stock exchange listing requirements, we rely on home country governance requirements and certain exemptions thereunder rather than relying on the stock exchange corporate governance requirements. For an overview of our corporate governance principles, see "Item 16G. Corporate governance."

### **Board Meetings**

Our Board of Directors held in 2016 five physical meetings and several additional meetings by conference call. The Board discussed and analyzed the scientific, business, financial and organizational risks of the Company based on the external factors and internal changes impacting the risks for the Company in the future

### **Director Independence**

As a foreign private issuer, under the listing requirements and rules of NASDAQ, we are not required to have independent directors on our board of directors, except to the extent that our audit and finance committee is required to comply with independence requirements, subject to certain phase-in schedules. However, our board of directors has determined that, under current listing requirements and rules of NASDAQ (which we are not subject to) and taking account any applicable committee independence standards, Martin Velasco, Detlev Riesner, Friedrich von Bohlen Und Halbach, Peter Bollmann and Thomas Graney are "independent directors." In making such determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances our board of directors deemed relevant in determining the director's independence, including the number of ordinary shares beneficially owned by the director and his or her affiliated entities, if any.

### **Committees of the Board of Directors**

Our board of directors established two separate committees: an audit and finance committee and a compensation, nomination and governance committee.

#### ***Audit and Finance Committee***

The audit and finance committee, which consists of Peter Bollmann, Thomas Graney and Martin Velasco, assists our board of directors in overseeing our accounting and financial reporting processes and the audits of our financial statements. In addition, the audit and finance committee is directly responsible for the appointment, compensation, retention and oversight of the work of our independent registered public accounting firm. Peter Bollmann serves as Chairman of the committee. The audit and finance committee consists exclusively of members of our supervisory board who are financially literate, and Peter Bollmann and Thomas Graney are considered to be "audit committee financial experts" as defined by the SEC. Our board of directors has determined that Peter Bollmann, Thomas Graney and Martin Velasco satisfy the "independence" requirements set forth in Rule 10A-3 under the Exchange Act.

The audit and finance committee is governed by a charter that complies with NASDAQ rules. The audit and finance committee has the responsibility to, among other things:

- review and assess the qualifications, independence, performance and effectiveness of the independent auditor;
- review the scope of the prospective audit by the independent auditor, the estimated fees, and any other matters pertaining to the audit;
- approve any audit and non-audit services proposed to be provided by the independent auditor to ensure independent auditor independence;
- review and assess the independent auditor's report, management letters and take notice of all comments of the independent auditor on accounting procedures and systems of control, and review the independent auditor's reports with management;
- be responsible for the resolution of disagreements between the management and the independent auditor;
- review and evaluate the lead audit partner of the independent audit team and confirm and evaluate their rotation;
- review, discuss with the chief financial officer and the independent auditor and approve (i) the annual and quarterly financial statements, (ii) reports intended for publication and (iii) any other financial statements intended for publication to consider significant financial reporting issues and judgments made in connection with the preparation of our financial statements, including any significant changes in our selection or application of accounting principles;
- review with the management, personnel responsible for the design and implementation of the internal audit function and the independent auditor in separate meetings any analysis or other written communication prepared by the management and/or the independent auditor setting forth significant financial reporting issues and judgments made in connection with the preparation of the financial statements, including critical accounting policies, the effect of regulatory and accounting initiatives, as well as off-balance sheet transactions and structures on our financial statements;
- review and approve our quarterly financial statements for the first three quarters of each calendar year and the corresponding financial results releases;
- review in cooperation with the independent auditor and the management whether the accounting principles applied are appropriate in view of our size and complexity;
- periodically review our policies and procedures for risk management and assess the effectiveness thereof including discussing with management our major financial risk exposures and the steps that have been taken to monitor and control such exposures;
- discuss with management and external advisors any legal matters that may have a material impact on our financial statements and any material reports or inquiries from regulatory or governmental agencies which could materially impact our contingent liabilities and risks;
- review our disclosure controls and procedures and internal control over financial reporting which shall include significant deficiencies and material weaknesses in the design or operation of internal controls over financial reporting;
- establish procedures for the receipt, retention and treatment of complaints received regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submission by employees of concerns regarding questionable accounting or auditing matters; and
- recommend to the board whether to approve and ratify any related person transaction in accordance with our related person transaction policy.

The audit and finance committee will meet as often as it determines is appropriate to carry out its responsibilities, but in any event will meet at least four times per year.

### ***Compensation, Nomination and Governance Committee***

The compensation, nomination and governance committee, consists of Detlev Riesner (chair), Martin Velasco and Thomas Graney and will assist our board of directors in overseeing our cash compensation and equity award recommendations for our executive officers along with the rationale for such recommendations, as well as summary information regarding the aggregate compensation provided to our executive officers. Swiss law requires that we adopt a compensation committee, so in accordance with NASDAQ Listing Rule 5615(a)(3), we will follow home country requirements with respect to the compensation, nomination and governance committee. As a result, our practice will vary from the requirements of NASDAQ Listing Rule 5605(d), which sets forth certain requirements as to the responsibilities, composition and independence of compensation committees, and from the independent director oversight of director nominations requirements of NASDAQ Listing Rule 5605(e). We will be subject to the Swiss Ordinance Against Executive Compensation (“Say on Pay” Rule). This means that the compensation of our board of directors and Executive Officers must be presented by the board of directors to our shareholders and our shareholders must vote on the proposed compensation.

In addition, this committee will also be responsible for director and board committee nominations as well as reviewing and amending, if required, our corporate governance framework and guidelines.

#### **D. Employees**

As of December 31, 2016, we employed 67 employees, 10 of whom were part-time employees. 42 of our employees hold Ph.D. degrees and 21 hold M.Sc. degrees. Our 67 employees are from over 20 countries. The average number of employees (calculated on full time equivalents) in 2016 was 58. We have never had a work stoppage, and none of our employees are represented by a labor organization or under any collective-bargaining arrangements. We consider our employee relations to be good.

#### **E. Share ownership**

See “Item 7. Major Shareholders and Related Party Transactions-A. Major shareholders.”

### **ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS**

#### **A. Major shareholders**

The following table presents information relating to the beneficial ownership of our common shares as of the date of this Annual Report by:

- each person, or group of affiliated persons, known by us to own beneficially 5% or more of our outstanding common shares;
- each of our executive officers and directors; and
- all executive officers and directors as a group.

The number of common shares beneficially owned by each entity, person, executive officer or director is determined in accordance with the rules of the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any common shares over which the individual has sole or shared voting power or investment power as well as any common shares that the individual has the right to acquire within 60 days of March 1, 2017 through the exercise of any option, warrant or other right. Except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all common shares held by that person.

The percentage of outstanding common shares is computed on the basis of 56,922,242 common shares outstanding as of March 1, 2017. Common shares that a person has the right to acquire within 60 days of March 1, 2017 are deemed outstanding for purposes of computing the percentage ownership of the person holding such rights, but are not deemed outstanding for purposes of computing the percentage ownership of any other person, except with respect to the percentage ownership of all executive officers and directors as a group. Unless otherwise indicated below, the address for each beneficial owner is AC Immune, EPFL Innovation Park, Building B, Lausanne.

Shareholder	Shares Beneficially Owned	
	Number	Percent
<b>5% Shareholders</b>		
dievini Hopp BioTech holding GmbH & Co KG(1)	18,041,000	31.7%
Varuma AG(2)	11,400,000	20.0%
<b>Executive Officers and Directors</b>		
Andrea Pfeifer(3)	3,076,500	5.4%
Andreas Muhs(4)	898,500	1.6%
Jean-Fabien Monin(5)	*	*
Martin Velasco(6)	974,750	1.7%
Detlev Riesner(7)	769,000	1.4%
Friedrich von Bohlen und Halbach(8)	*	*
Peter Bollmann	*	*
Thomas Graney	*	*
All executive officers and directors as a group (8 persons)	6,125,000	10.8%

\* Indicates beneficial ownership of less than 1% of the total issued and outstanding common shares.

- (1) Represents 18,041,000 shares held by dievini Hopp BioTech holding GmbH & Co KG. Dietmar Hopp controls the voting and investment decisions of the ultimate parent company of dievini Hopp BioTech holding GmbH & Co KG. The shares registered in the name of dievini Hopp BioTech holding GmbH & Co KG may also be deemed to be beneficially owned by Friedrich von Bohlen und Halbach and Matthias Hothum, each of whom is a managing director of dievini Hopp BioTech holding GmbH & Co KG. The address for dievini Hopp BioTech holding GmbH & Co KG, Friedrich von Bohlen und Halbach and Matthias Hothum is Johann-Jakob-Astor Str. 57, 69190 Walldorf, Germany.
- (2) The address for Varuma AG is Aeschenvorstadt 55, CH-4051 Basel, Switzerland. Rudolf Maag controls the voting and investment decisions of Varuma AG.
- (3) Consists of 2,908,500 of our common shares and options to purchase 168,000 of our common shares exercisable within 60 days of December 31, 2016.
- (4) Consists of 581,750 of our common shares and options to purchase 316,750 of our common shares exercisable within 60 days of December 31, 2016.
- (5) Consists of 265,000 of our common shares and options to purchase 62,500 of our common shares exercisable within 60 days of December 31, 2016.
- (6) Consists of 964,500 of our common shares and options to purchase 10,250 of our common shares exercisable within 60 days of December 31, 2016. Includes shares held through an entity controlled by Mr. Velasco and, as such, Mr. Velasco has sole voting and dispositive power over such shares.
- (7) Consists of 769,000 of our common shares and options to purchase 5,000 of our common shares exercisable within 60 days of December 31, 2016. Includes shares held through an entity controlled by Dr. Riesner and, as such, Dr. Riesner has sole voting and dispositive power over such shares.
- (8) Consists of 78,750 of our common shares, and excludes the 18,041,000 shares registered in the name of dievini Hopp BioTech holding GmbH & Co KG that may also be beneficially owned by Friedrich von Bohlen und Halbach. See note (1) above.

#### Holders

As of March 10, 2017, we had 195 shareholders of record of our common stock.

#### Significant Changes in Ownership by Major Shareholders

We have experienced significant changes in the percentage ownership held by major shareholders as a result of our initial public offering. Prior to our initial public offering in September 2016, our principal shareholders were dievini Hopp BioTech holding GmbH & Co KG (36.5%) and Varuma AG (23.1%).

In September 2016, we completed our initial public offering and listed our common shares on the NASDAQ Global Market. In the initial public offering, we issued and sold 6,900,000 common shares, including 900,000

common shares sold to the underwriters pursuant to the underwriters' over-allotment option. While none of our existing shareholders sold common shares in the initial public offering, the percentage ownership held by certain shareholders decreased as a result of the issuance of the common shares sold by us in the initial public offering.

## **B. Related party transactions**

The following discussion pertains to a Registration Rights Agreement entered by the Company, which represents the only related party transaction we have entered into since January 1, 2014 with any of our executive officers, directors and holders of more than 10% of any class of our voting securities, or any member of the immediate family of any of the foregoing persons, other than the compensation arrangements we describe under "Item 6. Directors, Senior Management and Employees—B.Compensation."

### **Registration Rights Agreement**

We entered into a registration rights agreement in connection with the Series E Private Placement with certain investors in the Series E Private Placement pursuant to which we granted them certain demand and piggyback registration rights for the resale of the common shares held by them, as described below. The shareholders party to the registration rights agreement hold an aggregate of 33,028,758 of our common shares, representing approximately 58.0% of the voting power of our common shares outstanding as of March 1, 2017. The registration rights described below will expire on the earlier to occur of (i) the fifth anniversary of the completion of our initial public offering and (ii) the date on which there are no remaining registrable securities held by the parties to the registration rights agreement. The registration rights agreement provides that we must pay certain registration expenses in connection with any demand, piggyback or shelf registration. The registration rights agreement contains customary indemnification and contribution provisions.

#### ***Demand Registration Rights***

Pursuant to the terms of the registration rights agreement, at any time after the date that is six months after completion of our initial public offering, or the trigger date, a shareholder or group of shareholders holding at least 10% of our outstanding common shares may request that we effect a registration under the Securities Act of all or any portion of such requesting shareholders' registrable securities. At least 10 business days prior to the anticipated filing date of the registration statement relating to such demand registration, we must give all other shareholders party to the registration rights agreement notice of such requested registration. Within five business days of such notice, any of the other shareholders party to the registration rights agreement may request that we also effect the registration of the registrable securities held by them. We will not be required to effect a registration of all such registrable securities unless the aggregate proceeds expected to be received from the sale of such registrable securities equals or exceeds \$10 million or such lesser amount that constitutes all of the requesting shareholders' registrable securities (*provided* that such lesser amount is at least \$5 million). In no event will we be required to effect more than two demand registrations or underwritten take downs referred to under "—Shelf Registration Rights" below. Depending on certain conditions, we may postpone a demand registration on two occasions during any period of twelve consecutive months for up to 90 days.

#### ***Piggyback Registration Rights***

Pursuant to the terms of the registration rights agreement, at any time after the trigger date, if we propose to register any of our securities, whether or not for sale for our own account, we must give notice to the shareholders party to the registration rights agreement, and they will be entitled to certain piggyback registration rights allowing them to each their shares in the registration, subject to certain marketing and other limitations. As a result, whenever we propose to file a registration statement under the Securities Act, the holders of these shares are entitled to notice of the registration and to request that we include their shares in the registration.

#### ***Shelf Registration Rights***

Pursuant to the terms of the registration rights agreement, at any time after the first anniversary of the completion of our initial public offering, if we are eligible to use a shelf registration statement, then a shareholder or group of shareholders holding at least 10% of our outstanding common shares may request that we effect a shelf registration on similar terms as the demand registrations described above, except that offerings will be conducted as underwritten takedowns. We will only be required to effect one public offering from such shelf registration statement within any six month period, each of which shall be deemed to constitute a demand registration for

purposes of the number of demand registrations we are required to effect as described under “—Demand Registration Rights” above.

#### **Related Person Transaction Policy**

Prior to our initial public offering, we entered into a new related person transaction policy under which any such transaction must be approved or ratified by the audit and finance committee.

#### **Indemnification Agreements**

In connection with our initial public offering, we entered into indemnification agreements with our executive officers and directors. The indemnification agreements and our Articles of Association require us to indemnify our executive officers and directors to the fullest extent permitted by law.

#### **C. Interests of Experts and Counsel**

Not applicable.

### **ITEM 8. FINANCIAL INFORMATION**

#### **A. Consolidated statements and other financial information**

##### **Financial statements**

See “Item 18. Financial Statements,” which contains our financial statements prepared in accordance with IFRS.

##### **Legal Proceedings**

From time to time we may become involved in legal proceedings that arise in the ordinary course of business. During the period covered by the financial statements contained herein, we have not been a party to or paid any damages in connection with litigation that has had a material adverse effect on our financial position. No assurance can be given that future litigation will not have a material adverse effect on our financial position. When appropriate in management’s estimation, we may record reserves in our financial statements for pending litigation and other claims.

##### **Dividends and Dividend Policy**

We have never declared or paid cash dividends on our capital stock. We intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination related to dividend policy will be made at the discretion of our board of directors.

Under Swiss law, any dividend must be proposed by our board of directors and approved by our shareholders. In addition, our auditors must confirm that the dividend proposal of our board of directors conforms to Swiss statutory law and our articles of incorporation. A Swiss corporation may pay dividends only if it has sufficient distributable profits brought forward from the previous business years (“*report des bénéfices*”) or if it has distributable reserves (“*réserves à libre disposition*”), each as evidenced by its audited standalone statutory balance sheet prepared pursuant to Swiss law and after allocations to reserves required by Swiss law and its articles of association have been deducted. Distributable reserves are generally booked either as “free reserves” (“*réserves libres*”) or as “reserve from capital contributions” (“*apports de capital*”). Distributions out of nominal share capital, which is the aggregate nominal value of a corporation’s issued shares, may be made only by way of a share capital reduction.

##### **B. Significant changes**

A discussion of the significant changes in our business can be found under “Item 4. Information on the Company—A. History and development of the Company” and “Item 4. Information on the Company—B. Business Overview.”

## ITEM 9. THE OFFER AND LISTING

### A. Offering and listing details

See “-C. Markets” below.

### B. Plan of distribution

Not applicable.

### C. Markets

Our common shares began trading on the Nasdaq Global Market on September 23, 2016 under the symbol “ACIU”. The following table sets forth the high and low sales prices as reported in USD by NASDAQ for the periods presented:

	High	Low
<b>Year Ended December 31, 2016:</b>		
Third Quarter	19.97	14.11
Fourth Quarter	18.95	10.36
<b>Month Ended:</b>		
September 30, 2016	19.97	14.11
October 31, 2016	18.95	13.01
November 30, 2016	17.47	10.36
December 31, 2016	15.00	11.48
January 31, 2017	14.06	11.70
February 28, 2017	13.67	11.62
March 2017 (through March 10, 2017)	13.39	11.50

### D. Selling shareholders

Not applicable.

### E. Dilution

Not applicable.

### F. Expenses of the issue

Not applicable.

## ITEM 10. ADDITIONAL INFORMATION

### A. Share capital

Not applicable.

### B. Memorandum and articles of association

On September 25, 2016, we adopted the Articles of Association filed as Exhibit 1.1 hereto.

We incorporate by reference into this annual report on Form 20-F the description of our Articles of Association contained in our Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on September 23, 2016. Such description sets forth a summary of certain provisions of our articles of association as currently in effect.

### C. Material contracts

Except as otherwise disclosed in this Annual Report on Form 20-F (including the Exhibits), we are not currently, and have not been in the last two years, party to any material contract, other than contracts entered into in the ordinary course of business.

#### **D. Exchange controls**

There are no Swiss governmental laws, decrees or regulations that restrict, in a manner material to us, the export or import of capital, including any foreign exchange controls, or that generally affect the remittance of dividends or other payments to non-residents or non-citizens of Switzerland who hold our common shares.

#### **E. Taxation**

The following summary contains a description of the material Swiss and U.S. federal income tax consequences of the acquisition, ownership and disposition of common shares, but it does not purport to be a comprehensive description of all the tax considerations that may be relevant to a decision to purchase common shares. The summary is based upon the tax laws of Switzerland and regulations thereunder and on the tax laws of the United States and regulations thereunder as of the date hereof, which are subject to change.

##### **Taxation of AC Immune SA**

As disclosed in Note 14 of the financial statements, the Company has tax losses which are subject to expiration. These tax losses represent potential value to the Company to the extent that the Company is able to create taxable profits before the expiry period of these tax losses.

Consistent with prior years, the Company has not recognized any deferred tax asset relating to tax losses available for offset against future profits as the recognition criteria have not been met as of the balance sheet date.

Switzerland is currently in the process of reforming certain elements of its corporate tax law (Swiss Corporate Tax Reform III, "CTR III") to align Swiss corporate taxation with international recommendations. The recent dispatch of CTR III included proposed changes which may impact the taxation of AC Immune SA (including the abolition of the holding taxation at cantonal level). Voters in Switzerland rejected a CTR III tax reform proposed by the Swiss Federal government in a national referendum on February 12, 2017. As a result, uncertainty will continue regarding the future level of Swiss corporate income taxes that may apply to us until revised proposals are put forward and gain acceptance.

##### **Swiss Tax Considerations**

###### ***Swiss federal, cantonal and communal individual income tax and corporate income tax***

###### *Non-Resident Shareholders*

Shareholders who are not resident in Switzerland for tax purposes, and who, during the relevant taxation year, have not engaged in a trade or business carried on through a permanent establishment or fixed place of business situated in Switzerland for tax purposes (all such shareholders for purposes of this section, "Non-Resident Shareholders"), will not be subject to any Swiss federal, cantonal and communal income tax on dividends and similar cash or in-kind distributions on Shares (including dividends on liquidation proceeds and stock dividends) (such dividends for the purposes of this, "Dividends"), distributions based upon a capital reduction (*remboursements liés à la réduction de la valeur nominale des actions*) and reserves paid out of capital contributions (*apports de capital*) on Shares, or capital gains realized on the sale or other disposition of Shares (see, however, "—Swiss Federal Withholding Tax" below for a summary of Swiss federal withholding tax on Dividends, and "—Foreign final withholding tax" below for a summary on final withholding taxes in respect of Shares held in Swiss accounts by Non-Resident Shareholders).

###### *Resident Private Shareholders*

Swiss resident individuals who hold their Shares as private assets are required to include Dividends, but not distributions based upon a capital reduction (*remboursements liés à la réduction de la valeur nominale des actions*) and reserves paid out of capital contributions (*Apports de capital*), in their personal income tax return and are subject to Swiss federal, cantonal and communal income tax on any net taxable income for the relevant taxation period, including the Dividends, but not the distributions based upon a capital reduction (*remboursements liés à la réduction de la valeur nominale des actions*) and reserves paid out of capital contributions (*apports de capital*). Capital gains resulting from the sale or other disposition of Shares are not subject to Swiss federal, cantonal and communal income tax, and conversely, capital losses are not tax-deductible for Resident Private Shareholders (the



shareholders referred to in this paragraph for the purposes of this section, “Resident Private Shareholders”). See “— *Domestic Commercial Shareholders*” below for a summary of the taxation treatment applicable to Swiss resident individuals, who, for income tax purposes, are classified as “professional securities dealers”.

#### *Domestic Commercial Shareholders*

Corporate and individual shareholders who are resident in Switzerland for tax purposes, and corporate and individual shareholders who are not resident in Switzerland, and who, in each case, hold their Shares as part of a trade or business carried on in Switzerland, in the case of corporate and individual shareholders not resident in Switzerland, through a permanent establishment or fixed place of business situated, for tax purposes, in Switzerland, are required to recognize Dividends, distributions based upon a capital reduction (*remboursements liés à la réduction de la valeur nominale des actions*) and reserves paid out of capital contributions (*apports de capital*) received on Shares and capital gains or losses realized on the sale or other disposition of Shares in their income statement for the relevant taxation period and are subject to Swiss federal, cantonal and communal individual or corporate income tax, as the case may be, on any net taxable earnings for such taxation period. The same taxation treatment also applies to Swiss-resident private individuals who, for income tax purposes, are classified as “professional securities dealers” for reasons of, *inter alia*, frequent dealing, or leveraged investments, in shares and other securities (the shareholders referred to in this paragraph for purposes of this section, “Domestic Commercial Shareholders”). Domestic Commercial Shareholders who are corporate taxpayers may be eligible for dividend relief (*réduction pour participations*) in respect of Dividends and distributions based upon a capital reduction (*remboursements liés à la réduction de la valeur nominale des actions*) and reserves paid out of capital contributions (*apports de capital*) if the Shares held by them as part of a Swiss business have an aggregate market value of at least CHF 1 million.

#### ***Swiss cantonal and communal private wealth tax and capital tax***

##### *Non-Resident Shareholders*

Non-Resident Shareholders, in principle, are not subject to Swiss cantonal and communal private wealth tax or capital tax.

##### *Resident Private Shareholders and Domestic Commercial Shareholders*

Resident Private Shareholders and Domestic Commercial Shareholders who are individuals are required to report their Shares as part of private wealth or their Swiss business assets, as the case may be, and will be subject to Swiss cantonal and communal private wealth tax on any net taxable wealth (including Shares), in the case of Domestic Commercial Shareholders to the extent the aggregate taxable wealth is allocable to Switzerland. Domestic Commercial Shareholders who are corporate taxpayers are subject to Swiss cantonal and communal capital tax on taxable capital to the extent the aggregate taxable capital is allocable to Switzerland.

#### ***Swiss Federal Withholding Tax***

Dividends that the Company pays on the Shares are subject to Swiss Federal withholding tax (*impôt anticipé*) at a rate of 35% on the gross amount of the Dividend. The Company is required to withhold the Swiss federal withholding tax from the Dividend and remit it to the Swiss Federal Tax Administration. Distributions based upon a capital reduction (*remboursements liés à la réduction de la valeur nominale des actions*) and reserves paid out of capital contributions (*apports de capital*) are not subject to Swiss federal withholding tax.

The Swiss federal withholding tax on a Dividend will be refundable in full to a Resident Private Shareholder and to a Domestic Commercial Shareholder, who, in each case, *inter alia*, as a condition to a refund, duly reports the Dividend in his individual income tax return as income or recognizes the Dividend in his income statement as earnings, as applicable.

A Non-Resident Shareholder may be entitled to a partial refund of the Swiss federal withholding tax on a Dividend if the country of his or her residence for tax purposes has entered into a bilateral treaty for the avoidance of double taxation with Switzerland and the conditions of such treaty are met. Such shareholders should be aware that the procedures for claiming treaty benefits (and the time required for obtaining a refund) might differ from country to country. For example, a shareholder who is a resident of the U.S. for the purposes of the bilateral tax treaty between the U.S. and Switzerland is eligible for a partial refund of the amount of the withholding tax in excess of the 15% treaty rate, provided such shareholder: (i) qualifies for benefits under this treaty and qualifies as beneficial

owner of the Dividends; (ii) holds, directly or indirectly, less than 10% of the voting stock of the Company; (iii) does not qualify as a pension scheme or retirement arrangement for the purpose of the bilateral treaty; and (iv) does not conduct business through a permanent establishment or fixed base in Switzerland to which the Shares are attributable. Such an eligible U.S. share may apply for a refund of the amount of the withholding tax in excess of the 15% treaty rate. The applicable refund request form may be filed with the Swiss Federal Tax Administration following receipt of the Dividend and the relevant deduction certificate, however no later than 31 December of the third year following the calendar year in which the Dividend was payable.

#### **Swiss Federal Stamp Taxes**

The Company will be subject to and pay to the Swiss Federal Tax Administration a 1% Swiss federal issuance stamp tax (*taxe sur les émissions*) on the consideration received by it for the issuance of the Shares less certain costs incurred in connection with the issuance. The issuance of the Shares to the initial shareholders at the offering price is not subject to Swiss federal securities turnover tax (*droit de timbre de négociation*).

Any subsequent dealings in the Shares, where a bank or another securities dealer in Switzerland, as defined in the Swiss Federal Stamp Tax Act, acts as an intermediary, or is a party, to the transaction, are, subject to certain exemptions provided for in the Swiss Federal Stamp Tax Act, subject to Swiss securities turnover tax at an aggregate tax rate of up to 0.15% of the consideration paid for such Shares.

#### **Foreign Final Withholding Tax**

On January 1, 2013, treaties on final withholding taxes of Switzerland with the United Kingdom and Austria entered into force (each, a “Contracting State”). The treaties require a Swiss paying agent, as defined in the treaties, to levy a flat-rate final withholding tax (*impôt libérateur*) at rates specified in the treaties on certain capital gains and income items (interest, dividends, other income items, all as defined in the treaties), deriving from assets, including the Shares, held in accounts or deposits with a Swiss paying agent by (i) an individual resident in a Contracting State or, (ii) if certain requirements are met, by a domiciliary company (*société de domicile*), an insurance company in connection with a so-called insurance wrapper (*contrat d’assurance vie utilisé comme enveloppe*) or other individuals if the beneficial owner is an individual resident in a Contracting State. The flat-rate tax withheld substitutes the ordinary income tax on the respective capital gains and income items in the Contracting State where the individual is tax resident. In order to avoid the withholding of the flat-rate tax by the Swiss paying agent, such individuals may opt for a disclosure of the respective capital gains and income items to the tax authorities of the Contracting State where they are tax residents. If Swiss federal withholding tax of 35% has been withheld on dividends, the Swiss paying agent will—to the extent provided in the applicable bilateral treaty for the avoidance of double taxation between Switzerland and the Contracting State—in its own name and on behalf of the relevant shareholder file with the Swiss tax authorities a request for the partial refund of the Swiss federal withholding tax. The Swiss federal withholding tax, which is not refundable according to the bilateral tax treaty (residual tax), is credited against the flat-rate final withholding tax. Switzerland may conclude similar treaties with other European countries.

#### **Material U.S. Federal Income Tax Considerations for U.S. Holders**

The following is a description of the material U.S. federal income tax consequences to U.S. Holders, as defined below, of owning and disposing our common shares. It does not describe all tax considerations that may be relevant to a particular person’s decision to acquire common shares.

This discussion applies only to a U.S. Holder that holds common shares as capital assets for U.S. federal income tax purposes. In addition, it does not describe all of the U.S. federal income tax consequences that may be relevant in light of a U.S. Holder’s particular circumstances, including alternative minimum tax consequences, the potential application of the provisions of the Code known as the Medicare contribution tax and tax consequences applicable to U.S. Holders subject to special rules, such as:

- certain financial institutions;
- dealers or traders in securities who use a mark-to-market method of tax accounting;

- persons holding common shares as part of a hedging transaction, straddle, wash sale, conversion transaction or other integrated transaction or persons entering into a constructive sale with respect to the common shares;
- U.S. Holder whose functional currency for U.S. federal income tax purposes is not the U.S. dollar;
- entities classified as partnerships for U.S. federal income tax purposes;
- tax-exempt entities, including an “individual retirement account” or “Roth IRA”;
- persons that own or are deemed to own ten percent or more of our voting shares; or
- persons holding common shares in connection with a trade or business conducted outside of the United States.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds common shares, the U.S. federal income tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. Partnerships holding common shares and partners in such partnerships should consult their tax advisers as to the particular U.S. federal income tax consequences of owning and disposing of the common shares.

This discussion is based on the Code, administrative pronouncements, judicial decisions, final, temporary and proposed Treasury regulations, and the income tax treaty between Switzerland and the United States (the “Treaty”) all as of the date hereof, any of which is subject to change or differing interpretations, possibly with retroactive effect.

A “U.S. Holder” is a holder who, for U.S. federal income tax purposes, is a beneficial owner of common shares, who is eligible for the benefits of the Treaty and who is:

- a citizen or individual resident of the United States;
- a corporation, or other entity taxable as a corporation, created or organized in or under the laws of the United States, any state therein or the District of Columbia; or
- an estate or trust the income of which is subject to U.S. federal income taxation regardless of its source.

U.S. Holders should consult their tax advisers concerning the U.S. federal, state, local and non-U.S. tax consequences of owning and disposing of common shares in their particular circumstances.

#### ***Taxation of Distributions***

As discussed above under “Dividends and Dividend Policy,” we do not currently expect to make distributions on our common shares. In the event that we do make distributions of cash or other property, subject to the passive foreign investment company rules described below, distributions paid on common shares, other than certain pro rata distributions of common shares, will generally be treated as dividends to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles). Because we do not maintain calculations of our earnings and profits under U.S. federal income tax principles, we expect that distributions generally will be reported to U.S. Holders as dividends. For so long as our common shares are listed on NASDAQ or we are eligible for benefits under the Treaty, dividends paid to certain non-corporate U.S. Holders will be eligible for taxation as “qualified dividend income” and therefore, subject to applicable limitations, will be taxable at rates not in excess of the long-term capital gain rate applicable to such U.S. Holder.

U.S. Holders should consult their tax advisers regarding the availability of the reduced tax rate on dividends in their particular circumstances. The amount of a dividend will include any amounts withheld by us in respect of Swiss income taxes. The amount of the dividend will be treated as foreign-source dividend income to U.S. Holders and will not be eligible for the dividends-received deduction generally available to U.S. corporations under the Code. Dividends will be included in a U.S. Holder’s income on the date of the U.S. Holder’s receipt of the dividend. The amount of any dividend income paid in euros will be the U.S. dollar amount calculated by reference to the exchange rate in effect on the date of actual or constructive receipt, regardless of whether the payment is in fact converted into U.S. dollars at that time. If the dividend is converted into U.S. dollars on the date of receipt, a U.S.

Holder should not be required to recognize foreign currency gain or loss in respect of the dividend income. A U.S. Holder may have foreign currency gain or loss if the dividend is converted into U.S. dollars after the date of receipt.

Subject to applicable limitations, some of which vary depending upon the U.S. Holder's particular circumstances, Swiss income taxes withheld from dividends on common shares at a rate not exceeding the rate provided by the Treaty will be creditable against the U.S. Holder's U.S. federal income tax liability. The rules governing foreign tax credits are complex and U.S. Holders should consult their tax advisers regarding the creditability of foreign taxes in their particular circumstances. In lieu of claiming a foreign tax credit, U.S. Holders may, at their election, deduct foreign taxes, including any Swiss income tax, in computing their taxable income, subject to generally applicable limitations under U.S. law. An election to deduct foreign taxes instead of claiming foreign tax credits applies to all foreign taxes paid or accrued in the taxable year.

#### ***Sale or Other Disposition of Common Shares***

Subject to the passive foreign investment company rules described below, gain or loss realized on the sale or other disposition of common shares will be capital gain or loss, and will be long-term capital gain or loss if the U.S. Holder held the common shares for more than one year. The amount of the gain or loss will equal the difference between the U.S. Holder's tax basis in the common shares disposed of and the amount realized on the disposition, in each case as determined in U.S. dollars. This gain or loss will generally be U.S.-source gain or loss for foreign tax credit purposes. The deductibility of capital losses is subject to various limitations.

#### ***Passive Foreign Investment Company Rules***

Under the Code, we will be a PFIC for any taxable year in which, after the application of certain "look-through" rules with respect to subsidiaries, either (i) 75% or more of our gross income consists of "passive income," or (ii) 50% or more of the average quarterly value of our assets consist of assets that produce, or are held for the production of, "passive income." For purposes of the above calculations, we will be treated as if we hold our proportionate share of the assets of, and receive directly our proportionate share of the income of, any other corporation in which we directly or indirectly own at least 25%, by value, of the shares of such corporation. Passive income generally includes interest, dividends, rents, certain non-active royalties and capital gains. Based on our business plan and certain estimates and projections, including as to the relative values of our assets, we do not believe that we were a PFIC for our 2016 taxable year and do not expect to be a PFIC in the immediately foreseeable future. However, there can be no assurance that the IRS will agree with our conclusion. In addition, whether we will be a PFIC in 2017 or any future years is uncertain because, among other things, (i) we currently own, and will own after the completion of the IPO, a substantial amount of passive assets, including cash, and (ii) the valuation of our assets that generate non-passive income for PFIC purposes, including our intangible assets, is uncertain and may vary substantially over time. Accordingly, there can be no assurance that we will not be a PFIC for any taxable year. If we are a PFIC for any year during which a U.S. Holder holds common shares, we generally would continue to be treated as a PFIC with respect to that U.S. Holder for all succeeding years during which the U.S. Holder holds common shares, even if we ceased to meet the threshold requirements for PFIC status.

If we were a PFIC for any taxable year during which a U.S. Holder held common shares (assuming such U.S. Holder has not made a timely mark-to-market election, as described below), gain recognized by a U.S.

Holder on a sale or other disposition (including certain pledges) of the common shares would be allocated ratably over the U.S. Holder's holding period for the common shares. The amounts allocated to the taxable year of the sale or other disposition and to any year before we became a PFIC would be taxed as ordinary income. The amount allocated to each other taxable year would be subject to tax at the highest rate in effect for individuals or corporations, as appropriate, for that taxable year, and an interest charge would be imposed on the amount allocated to that taxable year. Further, to the extent that any distribution received by a U.S. Holder on its common shares exceeds 125% of the average of the annual distributions on the common shares received during the preceding three years or the U.S. Holder's holding period, whichever is shorter, that distribution would be subject to taxation in the same manner as gain, described immediately above.

A U.S. Holder can avoid certain of the adverse rules described above by making a mark-to-market election with respect to its common shares, provided that the common shares are "marketable." Common shares will be marketable if they are "regularly traded" on a "qualified exchange" or other market within the meaning of applicable Treasury regulations. If a U.S. Holder makes the mark-to-market election, it generally will recognize as ordinary

income any excess of the fair market value of the common shares at the end of each taxable year over their adjusted tax basis, and will recognize an ordinary loss in respect of any excess of the adjusted tax basis of the common shares over their fair market value at the end of the taxable year (but only to the extent of the net amount of income previously included as a result of the mark-to-market election). If a U.S. Holder makes the election, the holder's tax basis in the common shares will be adjusted to reflect the income or loss amounts recognized. Any gain recognized on the sale or other disposition of common shares in a year when we are a PFIC will be treated as ordinary income and any loss will be treated as an ordinary loss (but only to the extent of the net amount of income previously included as a result of the mark-to-market election).

In addition, in order to avoid the application of the foregoing rules, a United States person that owns stock in a PFIC for U.S. federal income tax purposes may make a "qualified electing fund" election (a "QEF Election") with respect to such PFIC if the PFIC provides the information necessary for such election to be made. If a United States person makes a QEF Election with respect to a PFIC, the United States person will be currently taxable on its pro rata share of the PFIC's ordinary earnings and net capital gain (at ordinary income and capital gain rates, respectively) for each taxable year that the entity is classified as a PFIC and will not be required to include such amounts in income when actually distributed by the PFIC. We do not intend to provide information necessary for U.S. Holders to make qualified electing fund elections.

In addition, if we were a PFIC or, with respect to particular U.S. Holder, were treated as a PFIC for the taxable year in which we paid a dividend or for the prior taxable year, the preferential dividend rates discussed above with respect to dividends paid to certain non-corporate U.S. Holders would not apply.

If a U.S. Holder owns common shares during any year in which we are a PFIC, the holder generally must file annual reports containing such information as the U.S. Treasury may require on IRS Form 8621 (or any successor form) with respect to us, generally with the holder's federal income tax return for that year.

U.S. Holders should consult their tax advisers concerning our potential PFIC status and the potential application of the PFIC rules.

#### ***Information Reporting and Backup Withholding***

Payments of dividends and sales proceeds that are made within the United States or through certain U.S.-related financial intermediaries generally are subject to information reporting, and may be subject to backup withholding, unless (i) the U.S. Holder is a corporation or other exempt recipient or (ii) in the case of backup withholding, the U.S. Holder provides a correct taxpayer identification number and certifies that it is not subject to backup withholding.

The amount of any backup withholding from a payment to a U.S. Holder will be allowed as a credit against the holder's U.S. federal income tax liability and may entitle it to a refund, provided that the required information is timely furnished to the IRS.

#### ***Information With Respect to Foreign Financial Assets***

Certain U.S. Holders who are individuals (and, under proposed regulations, certain entities) may be required to report information relating to an interest in our common shares, subject to certain exceptions (including an exception for common shares held in accounts maintained by certain U.S. financial institutions). U.S. Holders should consult their tax advisers regarding the effect, if any, of this legislation on their ownership and disposition of the common shares.

#### **F. Dividends and paying agents**

Not applicable.

#### **G. Statement by experts**

Not applicable.

## H. Documents on display

We are subject to the informational requirements of the Exchange Act. Accordingly, we are required to file reports and other information with the SEC, including annual reports on Form 20-F and reports on Form 6-K. You may inspect and copy reports and other information filed with the SEC at the Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Information on the operation of the Public Reference Room may be obtained by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet website that contains reports and other information about issuers, like us, that file electronically with the SEC. The address of that website is [www.sec.gov](http://www.sec.gov).

Additionally, pursuant to Swiss law, any shareholder of record has the right to receive a free copy of this Annual Report and to inspect this Annual Report at any time at our registered office in Lausanne.

As a foreign private issuer, we are exempt under the Exchange Act from, among other things, the rules prescribing the furnishing and content of proxy statements, and our executive officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we will not be required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act.

## I. Subsidiary information

Not applicable.

## ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

The Company's activities expose it to the following financial risks: market risk (currency and interest risk), credit risk and liquidity risk. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance.

Market risk arises from our exposure to fluctuation in interest rates and currency exchange rates. We are exposed to market risks in the ordinary course of our business, which are principally limited to foreign currency exchange rate fluctuations and to a lesser degree, interest rate fluctuations.

### **Market Risk**

#### *Foreign exchange risk*

The Company is exposed to foreign exchange risk arising from currency exposures, primarily with respect to the EUR, USD and to a lesser extent to GBP, DKK and SEK. The currency exposure is not hedged. However, the Company has the policy of matching its cash holdings to the currency structure of its expenses, which means that the Company holds predominately CHF, EUR and USD (see also Notes 3, 19 and 20 of the financial statements).

We have a number of collaboration agreements where the upfront payments, milestone payments and future royalty payments are not denominated in Swiss Francs, our reporting currency. Furthermore, many of our research and development activities are subcontracted to parties outside of Switzerland and we purchase materials from suppliers outside of Switzerland. As a result, we are exposed to foreign exchange risk. Approximately 40% of our total costs are incurred in currencies other than the Swiss Franc. Due to the size of some of the income received from collaboration agreements but also the high percentage of our costs indirectly being in foreign currencies, a hypothetical 10% change in exchange rates relative to the Swiss Franc could have a material impact on our financial statements.

#### *Interest rate risk*

As of December 31, 2016 we had cash and cash equivalents of CHF 152.2 million, which consisted exclusively of bank deposits. Such interest-earning instruments carry a degree of interest rate risk. However, historical fluctuations of interest income have not been significant and have been principally impacted by the change in our cash balances as opposed to changes in interest rates received on the cash balances.

We have not been exposed nor do we anticipate being exposed to material risks due to changes in interest rates. A hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our financial statements.

***Credit risk***

The majority of the cash and cash equivalents is held within one bank. However, the credit risk on liquid funds is limited because the counterparties are banks with high credit-ratings assigned by international credit-rating agencies. The maximum amount of credit risk is the carrying amount of the financial assets. Trade and other receivables are fully performing, not past due and not impaired (see Note 7 to the financial statements).

***Liquidity risk***

Inherent in the Company's business are various risks and uncertainties, including its limited operating history and the high uncertainty that new therapeutic concepts will succeed. AC Immune's success may depend in part upon its ability to (i) establish and maintain a strong patent position and protection, (ii) enter into collaborations with partners in the biotech and pharmaceutical industry, (iii) acquire and keep key personnel employed, and (iv) acquire additional capital to support its operations.

The Company's approach of managing liquidity is to ensure sufficient cash to meet its liabilities when due. Therefore, management closely monitors the cash position on rolling forecasts based on expected cash flow to enable the Company to finance its operations for at least 24 months.

Based on the current cash position, the Company is well financed until the end of 2018.

**ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES**

**A. Debt securities**

Not applicable.

**B. Warrants and rights**

Not applicable.

**C. Other securities**

Not applicable.

**D. American Depositary Shares**

Not applicable.

**PART II**

**ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

**A. Defaults**

No matters to report.

**B. Arrears and delinquencies**

No matters to report.

## **ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS**

### **E. Use of Proceeds**

On September 23, 2016, we completed our initial public offering of common shares pursuant to a Registration Statement on Form F-1, as amended (Registration No. 333-211714) that was declared effective on September 22, 2016. Under the registration statement, we sold an aggregate of 6,900,000 common shares (which includes 900,000 common shares from the full exercise of the underwriters' over-allotment option to purchase additional shares). All of these common shares were sold at a price to the public of US\$11.00 per share, yielding net proceeds of \$70.5 million (CHF 69.4 million) after underwriting discounts and commissions. Credit Suisse, Jefferies LLC and Leerink Partners LLC were joint book-running managers for the initial public offering. We paid the offering expenses in connection with the initial public offering, which were approximately CHF 3.5 million (\$3.6 million), and which included SEC registration fees, FINRA filing fees, NASDAQ listing fees and expenses, legal fees and expenses, printing expenses, transfer agent fees and expenses, accounting fees and expenses as well as other miscellaneous fees and expenses, but excluded the underwriting discounts and commissions. In addition, we received gross proceeds of approximately \$13.5 million (CHF 13.2 million) from the Series E Private Placement Extension.

Between the effective date of the Registration Statement and December 31, 2016, we used approximately CHF 10.5 million of the net proceeds to fund research and development expenses for ACI-35, ACI-24 for AD, PD-focused programs, non-AD and Non-PD programs and general administrative expenses. None of the net proceeds were used to make payments (other than compensation paid to our executive officers, directors and an affiliate of one of our directors, each as described in this Annual Report), directly or indirectly, to (i) any of our directors, officers or their associates, (ii) any persons owning 10% or more of our common shares or (iii) any of our affiliates. The intended use of the remaining net proceeds has not changed from the information mentioned in the prospectus relating to the Registration Statement.

## **ITEM 15. CONTROLS AND PROCEDURES**

### **A. Disclosure Controls and Procedures**

As of December 31, 2016, under the supervision and with the participation of our management, including our Chief Executive Officer and Principal Financial Officer, we performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act). There are inherent limitations to the effectiveness of any disclosure controls and procedures system, including the possibility of human error and circumventing or overriding them. Even if effective, disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives.

Based on such evaluation, our Chief Executive Officer and Interim Principal Financial Officer concluded that our disclosure controls and procedures are not effective due to the material weaknesses in our internal control over financial reporting identified during our preparation for our initial public offering and annual financial statements as more fully described in "Item 5. Operating and Financial Review and Prospects—A. Operating Results—Internal Control Over Financial Reporting."

### **B. Management's Annual Report on Internal Control over Financial Reporting**

This Annual Report does not include a report of management's assessment regarding internal control over financial reporting due to a transition period established by rules of the Securities and Exchange Commission for newly public companies.

### **C. Attestation Report of the Registered Public Accounting Firm**

This Annual Report does not include an attestation report of our registered public accounting firm due to an exemption provided to emerging growth companies under the JOBS Act.



#### D. Changes in Internal Control over Financial Reporting

See “Item 5. Operating and Financial Review and Prospects—A. Operating Results—Internal Control Over Financial Reporting” for changes in our internal control over financial reporting (as defined in Rule 13a-15(f) under the Exchange Act) that occurred during the period covered by this Annual Report that have materially affected, or are reasonably likely to materially affect, internal control over financial reporting.

#### ITEM 16. [RESERVED]

##### ITEM 16A. Audit committee financial expert

Our board of directors has determined that Peter Bollmann is the audit committee financial expert, as that term is defined by the SEC, and is independent for the purposes of SEC and NASDAQ rules.

##### ITEM 16B. Code of ethics

###### Code of business conduct and ethics

We have adopted a Code of Business Conduct and Ethics which covers a broad range of matters including the handling of conflicts of interest, compliance issues and other corporate policies such as insider trading and equal opportunity and non-discrimination standards. Our Code of Business Conduct applies to all of our directors, executive officers and employees. We have published our Code of Business Conduct and Ethics on our website, [www.acimmune.com](http://www.acimmune.com). The information contained on our website is not a part of this Annual Report.

##### ITEM 16C. Principal accountant fees and services (in CHF and thousands)

	2016	2015
	(in CHF thousands)	
Audit Fees	340	600
Audit-related Fees	419	162
Total Fees	759	762

For the year ended December 31, 2016, Ernst & Young AG was the Company’s auditor for the IFRS and statutory accounts. At the ordinary annual general meeting on November 15, 2016, the shareholders appointed Ernst & Young AG as the Company’s auditor for a term of office of one year.

Audit-related fees in 2016 and 2015, included audit fees in connection with the Company’s initial public offering activities. The 2016 fees also covered interim reviews and filings of interim financial statements, statutory audits, and review of the IPO registration statement.

###### *Pre-Approval Policies and Procedures*

To ensure the independence and objectivity of the Company’s external auditors, the provision of all non-audit services by the external auditors are pre-approved by the Audit Committee.

##### ITEM 16D. Exemptions from the listing standards for audit committees

Not applicable

##### ITEM 16E. Purchases of equity securities by the issuer and affiliated purchasers

In 2016, no purchases of our equity securities were made by or on behalf of AC Immune SA or any affiliated purchaser.

##### ITEM 16F. Change in registrant’s certifying accountant

Not applicable.

## **ITEM 16G. Corporate governance**

### *Summary of Significant Corporate Governance Differences from NASDAQ Listing Standards*

Our common shares are listed on the NASDAQ Global Market. We are therefore required to comply with certain of the NASDAQ's corporate governance listing standards, or the NASDAQ Standards. As a foreign private issuer, we may follow our home country's corporate governance practices in lieu of certain of the NASDAQ Standards. Our corporate governance practices differ in certain respects from those that U.S. companies must adopt in order to maintain a NASDAQ listing. A brief, general summary of those differences is provided as follows.

#### *Independent Directors*

Swiss law does not require that a majority of our board of directors consist of independent directors. Our board of directors therefore may include fewer independent directors than would be required if we were subject to NASDAQ Listing Rule 5605(b)(1). In addition, we are not subject to NASDAQ Listing Rule 5605(b)(2), which requires that independent directors must regularly have scheduled meetings at which only independent directors are present.

#### *Compensation Committee*

Although Swiss law also requires that we have a compensation committee, we will follow home country requirements with respect to such committee. As a result, our practice will vary from the requirements of NASDAQ Listing Rule 5605(d), which sets forth certain requirements as to the responsibilities, composition and independence of compensation committees.

#### *Quorum requirements*

In accordance with Swiss law and generally accepted business practices, our articles of association do not provide quorum requirements generally applicable to general meetings of shareholders. Our practice thus varies from the requirement of NASDAQ Listing Rule 5620(c), which requires an issuer to provide in its bylaws for a generally applicable quorum, and that such quorum may not be less than one-third of the outstanding voting stock.

#### *Solicitation of proxies*

Our articles of association provide for an independent proxy holder elected by our shareholders, who may represent our shareholders at a general meeting of shareholders, and we must provide shareholders with an agenda and other relevant documents for the general meeting of shareholders. However, Swiss law does not have a regulatory regime for the solicitation of proxies and company solicitation of proxies is prohibited for public companies in Switzerland. Thus, our practice will vary from the requirement of NASDAQ Listing Rule 5620(b), which sets forth certain requirements regarding the solicitation of proxies.

#### *Shareholder approval*

We have opted out of shareholder approval requirements for the issuance of securities in connection with certain events such as the acquisition of stock or assets of another company, the establishment of or amendments to equity-based compensation plans for employees, a change of control of us and certain private placements. To this extent, our practice varies from the requirements of NASDAQ Listing Rule 5635, which generally requires an issuer to obtain shareholder approval for the issuance of securities in connection with such events.

## **ITEM 16H. Mine safety disclosure**

Not applicable.

## **PART III**

## **ITEM 17. Financial statements**

We have responded to Item 18 in lieu of this item.

## ITEM 18. Financial statements

Financial Statements are filed as part of this Annual Report, see page F-1.

## ITEM 19. Exhibits

(a) The following documents are filed as part of this registration statement:

- 3.1 Form of Articles of Association
- 2.1 Registration Rights Agreement (incorporated herein by reference to Exhibit 4.1 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.1 Research Collaboration and License Agreement between AC Immune SA Corporation and Genentech, Inc. dated November 6, 2006 (incorporated herein by reference to Exhibit 10.1 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.2 Amendment to the Research Collaboration and License Agreement between AC Immune SA Corporation and Genentech, Inc. dated May 7, 2015 (incorporated herein by reference to Exhibit 10.2 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.3 Research Collaboration and License Agreement between AC Immune SA Corporation and Genentech, Inc. dated June 15, 2012 (incorporated herein by reference to Exhibit 10.3 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.4 License and Collaboration Agreement between Piramal Imaging Ltd., Piramal Imaging SA and AC Immune SA, dated May 9, 2014 (incorporated herein by reference to Exhibit 10.4 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.5 License, Development and Commercialization Agreement between Janssen Pharmaceuticals, Inc. and AC Immune SA, dated December 24, 2014 (incorporated herein by reference to Exhibit 10.5 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.6 Form of Indemnity Agreement (incorporated herein by reference to Exhibit 10.6 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.7 AC Immune SA 2013 Equity Incentive Plan (incorporated herein by reference to Exhibit 10.7 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.8 Subscription Agreement among Fidelity entities and AC Immune SA, dated October 16, 2015 (incorporated herein by reference to Exhibit 10.8 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.9 Subscription Agreement among Temasek entities and AC Immune SA, dated October 16, 2015 (incorporated herein by reference to Exhibit 10.9 to the Company's Registration Statement on Form F-1 (File No. 333-211714) filed with the SEC on May 31, 2016)
- 4.10 Stock Option Plan - AC Immune of December 31, 2004 (incorporated by reference to the Registrant's Registration Statement on Form S-8, filed with the SEC on September 29, 2016)
- 4.11 Employee Stock Option and Share Plan of AC Immune (2005 Plan) (incorporated by reference to the Registrant's Registration Statement on Form S-8, filed with the SEC on September 29, 2016)
- 4.12 AC Immune SA 2013 Equity Incentive Plan (incorporated by reference to the Registrant's Registration Statement on Form F-1, filed with the SEC on May 31, 2016)
- 4.13 AC Immune SA 2016 Stock Option and Incentive Plan (incorporated by reference to the Registrant's Report on Form 6-K, filed with the SEC on October 13, 2016)
- 12.1\* Certification of Andrea Pfeifer pursuant to 17 CFR 240.13a-14(a)
- 12.2\* Certification of Jean-Fabien Monin pursuant to 17 CFR 240.13a-14(a).
- 13.1\* Certification of Andrea Pfeifer pursuant to 17 CFR 240.13a-14(b) and 18 U.S.C.1350
- 13.2\* Certification of Jean-Fabien Monin pursuant to 17 CFR 240.13a-14(b) and 18 U.S.C.1350

15.1\* Consent of Ernst & Young AG

# Confidential treatment has been requested for portions of this exhibit. These portions have been omitted from the registration statement and submitted separately to the United States Securities and Exchange Commission.

\* Filed herewith

(b) Financial Statement Schedules

None.

**Signatures**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

AC IMMUNE SA

By: /s/ Andrea Pfeifer

Name: Andrea Pfeifer  
Title: Chief Executive Officer

By: /s/ Jean-Fabien Monin

Name: Jean Fabien Monin  
Title: Chief Administrative Officer

Date: March 17, 2017

## INDEX TO FINANCIAL STATEMENTS

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## **Report of Independent Registered Public Accounting Firm**

The Board of Directors and Shareholders of AC Immune SA

We have audited the accompanying balance sheets of AC Immune SA as of December 31, 2016 and 2015, and the related statements of income, comprehensive income, changes in equity and cash flows for each of the three years in the period ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of AC Immune SA at December 31, 2016 and 2015, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2016, in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

Ernst & Young AG

/s/ Ernst & Young AG

Geneva, Switzerland  
March 17, 2017

**Financial Statements (IFRS)****Balance Sheets**

		<b>As of the Years Ended December 31,</b>	
	<b>Notes</b>	<b>2016</b>	<b>2015</b>
<b>ASSETS</b>			
Non-current assets			
Property, plant and equipment	4	1,120	500
Financial assets	5	86	85
<b>Total non-current assets</b>		<u>1,206</u>	<u>585</u>
Current assets			
Prepaid expenses	6	1,278	2,508
Accrued income	6	889	47
Other current receivables	7	517	269
Cash and cash equivalents	8	152,210	76,522
<b>Total current assets</b>		<u>154,894</u>	<u>79,346</u>
<b>Total assets</b>		<u>156,100</u>	<u>79,931</u>
<b>SHAREHOLDERS' EQUITY AND LIABILITIES</b>			
Shareholders' equity			
Share capital	9	1,135	928
Share premium		188,166	110,496
Accumulated losses		(46,921)	(40,381)
<b>Total shareholders' equity</b>		<u>142,380</u>	<u>71,043</u>
Non-current liabilities			
Net employee defined benefit liabilities	15	3,798	2,787
<b>Total non-current liabilities</b>		<u>3,798</u>	<u>2,787</u>
Current liabilities			
Trade payables & other payables	10	4,035	1,719
Accrued expenses	10	5,366	4,337
Deferred income	10	521	45
<b>Total current liabilities</b>		<u>9,922</u>	<u>6,101</u>
<b>Total liabilities</b>		<u>13,720</u>	<u>8,888</u>
<b>Total shareholders' equity and liabilities</b>		<u>156,100</u>	<u>79,931</u>

The accompanying notes are an integral part of these financial statements.



**Statements of Income / (Loss)**

	Notes	For the Years Ended December 31,		
		2016	2015	2014
<b>in CHF thousands except for share and per share data</b>				
<b>Revenue</b>				
Contract revenue	11	23,214	39,090	30,269
<b>Total revenue</b>		<b>23,214</b>	<b>39,090</b>	<b>30,269</b>
<b>Operating expenses</b>				
Research and development expenses	12	(25,774)	(17,049)	(16,116)
General and administrative expenses	12	(7,896)	(3,417)	(3,436)
<b>Total operating expenses</b>		<b>(33,670)</b>	<b>(20,466)</b>	<b>(19,552)</b>
Operating income / (loss)		(10,456)	18,624	10,717
Finance income		3,573	1,617	9
Interest income		43	55	22
Finance cost		(256)	(26)	(4)
Finance result, net		3,360	1,646	27
Income / (loss) before tax		(7,096)	20,270	10,744
Income tax expense	14	—	—	—
Income / (loss) for the period		<b>(7,096)</b>	<b>20,270</b>	<b>10,744</b>
<b>Earnings / (loss) per share (EPS):</b>				
Basic, income / (loss) for the period attributable to equity holders	18	(0.14)	0.47	0.25
Diluted, income / (loss) for the period attributable to equity holders		(0.14)	0.44	0.24
Weighted-average number of shares used to compute EPS basic		50,096,859	43,412,250	42,684,750
Weighted-average number of shares used to compute EPS fully diluted		50,096,859	46,043,198	45,552,500

**Statements of Comprehensive Income / (Loss)**

	For the Years Ended December 31,		
	2016	2015	2014
<b>in CHF thousands</b>			
Income / (loss) for the period	(7,096)	20,270	10,744
Other comprehensive income / (loss) not to be reclassified to income or loss in subsequent periods (net of tax)			
- Re-measurement losses on defined benefit plans (net of tax of CHF 0 for all periods)	(761)	(736)	(1,318)
<b>Total comprehensive income / (loss), net of tax</b>	<b>(7,857)</b>	<b>19,534</b>	<b>9,426</b>

The accompanying notes are an integral part of these financial statements.

## Statements of Changes in Equity

in CHF thousands	Share capital	Share premium	Accumulated losses	Total
<b>Balance as of January 1, 2014</b>	812	73,211	(70,092)	3,931
Net income for the period	—	—	10,744	10,744
Other comprehensive loss	—	—	(1,318)	(1,318)
<b>Total comprehensive income</b>	—	—	9,426	9,426
Share-based payments	—	—	211	211
Issuance of preferred Series D shares	42	9,854	—	9,896
Exercise of options	—	3	—	3
<b>Balance as of December 31, 2014</b>	854	83,068	(60,455)	23,467
<b>in CHF thousands</b>	<b>Share capital</b>	<b>Share premium</b>	<b>Accumulated losses</b>	<b>Total</b>
<b>Balance as of January 1, 2015</b>	854	83,068	(60,455)	23,467
Net income for the period	—	—	20,270	20,270
Other comprehensive loss	—	—	(736)	(736)
<b>Total comprehensive income</b>	—	—	19,534	19,534
Share-based payments	—	—	540	540
Issuance of preferred Series E shares	62	29,437	—	29,499
Exercise of options	12	130	—	142
Transaction costs	—	(2,139)	—	(2,139)
<b>Balance as of December 31, 2015</b>	928	110,496	(40,381)	71,043
<b>in CHF thousands</b>	<b>Share capital</b>	<b>Share premium</b>	<b>Accumulated losses</b>	<b>Total</b>
<b>Balance as of January 1, 2016</b>	928	110,496	(40,381)	71,043
Net loss for the period	—	—	(7,096)	(7,096)
Other comprehensive loss	—	—	(761)	(861)
<b>Total comprehensive loss</b>	—	—	(7,857)	(7,857)
Share-based payments	—	—	1,317	1,317
Preferred Series E extension shares	28	13,177	—	13,205
Proceeds from IPO net of underwriting fees	138	69,250	—	69,388
Exercise of options	41	260	—	301
Transaction costs	—	(5,017)	—	(5,017)
<b>Balance as of December 31, 2016</b>	1,135	188,166	(46,921)	142,380

The accompanying notes are an integral part of these financial statements.

## Statements of Cash Flows

	in CHF thousands		
	For the Years Ended December 31,		
	2016	2015	2014
<b>Operating activities</b>			
Net income / (loss) for the period	(7,096)	20,270	10,744
<b>Adjustments to reconcile net income for the period to net cash flows:</b>			
Depreciation of property, plant and equipment	278	287	298
Finance result, net	(3,360)	(1,646)	(27)
Share-based compensation expense	1,317	540	210
Changes in pensions	250	(359)	164
<b>Changes in working capital:</b>			
Prepaid expenses	(494)	(2,135)	141
Accrued income	(842)	6	(53)
Other current receivables	(248)	25,666	(25,744)
Accrued Expenses	1,564	1,707	2
Deferral of unearned revenue	476	(160)	(3,717)
Accounts payable	2,592	(141)	341
<b>Cash provided by/(used in) operating activities</b>	<b>(5,563)</b>	<b>44,035</b>	<b>(17,641)</b>
Interest income	43	55	22
Finance costs	(126)	(6)	(5)
<b>Net cash flows provided by/(used in) operating activities</b>	<b>(5,646)</b>	<b>44,084</b>	<b>(17,624)</b>
<b>Investing activities</b>			
Purchases of property, plant and equipment	(899)	(244)	(128)
Other non-current assets	-	-	3
<b>Net cash flows used in investing activities</b>	<b>(899)</b>	<b>(244)</b>	<b>(131)</b>
<b>Financing activities</b>			
Proceeds from issuance of preferred Series E / D	13,206	29,499	10,000
Proceeds from issuance of common shares	69,388	-	-
Transaction costs of issue of shares	(4,105)	(1,859)	(200)
Proceeds from issuance of shares-option plans	301	87	4
Cost on issue of shares-option plans	—	(4)	(3)
Proceeds from employee loan repayments	—	55	-
<b>Net cash flows provided by financing activities</b>	<b>78,790</b>	<b>27,778</b>	<b>9,801</b>
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>72,245</b>	<b>71,618</b>	<b>(7,954)</b>
Cash and cash equivalents at January 1	76,522	3,306	11,251
Exchange gains on cash and cash equivalents	3,443	1,598	9
Cash and cash equivalents at December 31	152,210	76,522	3,306
<b>Net increase / (decrease) in cash and cash equivalents</b>	<b>72,245</b>	<b>71,618</b>	<b>(7,954)</b>

Non-cash transactions: 2016 Proceeds from the issuance of common shares represents cash received relating to our initial public offering completed in September 2016 and is net of CHF 5.1 million in non-cash underwriting fees.

The accompanying notes are an integral part of these financial statements.

## Notes to the Financial Statements

### 1. General information

AC Immune SA (the “Company” or “AC Immune”) is a clinical stage biopharmaceutical company leveraging our two proprietary technology platforms to discover, design and develop novel, proprietary medicines for prevention, diagnosis and treatment of neurodegenerative diseases associated with protein misfolding. Misfolded proteins are generally recognized as the leading cause of neurodegenerative diseases, such as Alzheimer’s disease, or AD, and Parkinson’s disease, or PD, with common mechanisms and drug targets, such as Abeta, tau and alpha-synuclein. Our lead product candidate is crenezumab, a humanized, monoclonal, conformation-specific anti-Abeta antibody that we developed using our proprietary SupraAntigen platform. Phase 3 clinical studies for crenezumab were commenced in early 2016. We use our two unique proprietary platform technologies, SupraAntigen (conformation-specific biologics) and Morphomer (conformation-specific small molecules), to discover, design and develop medicines and diagnostics to target misfolded proteins.

The Company was initially incorporated as a limited liability company on February 13, 2003 in Basel and effective August 25, 2003 was transitioned into a stock company. The Company’s corporate headquarters are located at EPFL Innovation Park Building B, Ecublens/Lausanne, Vaud, Switzerland.

### 2. Basis of preparation

#### *Going concern*

The financial statements have been prepared on the basis that the Company will continue as a going concern after considering the Company’s cash position of CHF 152.2 million as of December 31, 2016, which reflects \$75.9 million (CHF 74.5 million) in gross proceeds raised in the initial public offering (“IPO”) in September 2016, the \$13.5 million (CHF 13.2 million) the Company raised in the Series E Extension financing in April 2016, the receipt of payment in 2016 of CHF 14 million for the clinical milestone related to the collaboration with Genentech on the anti-tau antibody program and the receipt of payment of CHF 4.9 million in 2016 for the clinical milestone related to ACI-35 pursuant to its collaboration with Janssen.

To date, the Company has financed its cash requirements primarily from share issuances and revenues from collaboration agreements. The Company is a clinical stage company and is exposed to all the risks inherent to establishing a business. Inherent to the Company’s business are various risks and uncertainties, including the substantial uncertainty as to whether current projects will succeed. The Company’s success may depend in part upon its ability to (i) establish and maintain a strong patent position and protection, (ii) enter into collaborations with partners in the biotech and pharmaceutical industry, (iii) successfully move its product candidates through clinical development, (iv) attract and retain key personnel, and (v) acquire capital to support its operations.

#### **Statement of compliance**

The financial statements have been prepared in accordance with International Financial Reporting Standards (“IFRS”) as issued by the International Accounting Standards Board (“IASB”). These financial statements have been approved for issue by the Board of Directors on March 17, 2017.

#### **Basis of measurement**

The financial statements have been prepared under the historical cost convention except for items that are required to be accounted for at fair value.

#### **Functional currency**

The financial statements of the Company are presented in Swiss Francs (CHF), which is also the functional currency of the Company. All financial information presented in Swiss Francs (except for share capital and earnings per share data) has been rounded to the nearest thousand CHF (CHF thousands), unless otherwise indicated. The Company also has transactions denominated in U.S. Dollars (\$) and Euros (EUR) that are translated to CHF using prevailing exchange rates at the date of transaction or as of the balance sheet date.

### 3. Summary of significant accounting policies

The principal accounting policies adopted in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

#### **Current vs. non-current classification**

The Company presents assets and liabilities in the balance sheet based on current/non-current classification. The Company classifies all amounts to be realized or settled within twelve months after the reporting period to be current and all other amounts to be non-current.

#### **Foreign currency transactions**

Foreign currency transactions are translated into the functional currency Swiss Francs (CHF) using prevailing exchange rates at the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies are translated into CHF at rates of exchange prevailing at reporting date. Any gains or losses from these translations are included in the statement of income in the period in which they arise.

#### **Revenue recognition**

Revenue includes upfront fees, milestone payments as well as revenue from research agreements associated with collaborations with third parties and grants from public institutions and foundations.

##### *Upfront fees*

Revenue from non-refundable, upfront license fees and performance milestones where the Company has continuing involvement is recognized over the estimated performance or agreement period, depending on the terms of the agreement. The recognition of revenue is prospectively changed for subsequent changes in the development or agreement period.

For collaboration agreements on product candidates (i) that are in clinical development, (ii) where the upfront fee reflects a payment for past investments the Company has made in the development of the product candidate, access to the product candidate, the associated intellectual property and our knowledge, and, (iii) where there is no further performance commitment, the Company recognizes the fair value of the upfront payment at the time of entering into the collaboration agreement. For collaboration agreements (i) in clinical development but where conditions (ii) and (iii) are not met, the Company recognizes revenue from upfront fees under our collaboration agreements pro-rata over the term of the estimated period of performance under each agreement.

For collaboration agreements, in addition to receiving upfront fees, the Company is also entitled to milestone and other contingent payments upon achieving pre-defined objectives.

##### *Milestone payments*

Revenue from milestones, if they are non-refundable and deemed substantive, is recognized upon successful accomplishment of the milestones. To the extent that non-substantive milestones are achieved and the Company has remaining performance obligations, milestones are deferred and recognized as revenue over the estimated remaining period of performance.

##### *Grant revenue*

Grants provide funding for certain types of expenditures in connection with research and development activities over a contractually-defined period. Revenue related to grants is recognized in the period during which the related costs are incurred and the related services are rendered, provided that the applicable performance obligations under the grants have been met.

#### **Research and development expenditure**

Given the stage of development of the Company's products, all research expenditure is recognized as expense when incurred.

For external research contracts the “stage of completion” method is used to estimate the amount of accrued expense related to the research projects for its clinical studies. The Company estimates its accrued expenses as of the balance sheet date in the financial statement based on facts and circumstances known at the time.

Registration costs for patents are part of the expenditure for research and development projects. Therefore, registration costs for patents are expensed when incurred as long as the research and development project concerned does not meet the criteria for capitalization.

Upfront payments relating to in-licensing agreements are recognized over an appropriate, project-specific duration.

#### **Property, plant and equipment**

Equipment is shown at historical acquisition cost, less accumulated depreciation and any accumulated impairment losses. Historical costs include expenditures that are directly attributable to the acquisition of the items. Depreciation is calculated using a straight-line method to write off the cost of each asset to its residual value over its estimated useful life as follows:

IT equipment	3 years
Laboratory equipment	5 years
Leaseholds improvements / furniture	5 years

The assets’ residual values and useful lives are reviewed, and adjusted if appropriate, at each balance sheet date. Where an asset’s carrying amount is greater than its estimated recoverable amount, it is written down to its recoverable amount.

Profits and losses on disposals are determined by comparing the disposal proceeds with the carrying amount and are included in the income statement.

#### **Financial assets and liabilities**

The Company’s financial assets and liabilities are comprised of receivables, cash and cash equivalents and trade payables. The carrying amount for these financial assets and liabilities approximates fair value.

##### ***Receivables***

Receivables are non-derivative financial assets with fixed payments that are not quoted in an active market. They arise when the Company provides money, goods or services directly to a debtor with no intention of trading the receivable. They are included in current assets, except for maturities greater than 12 months after the balance sheet date, which are classified as long-term assets. Receivables are recognized at their billing value. An allowance for doubtful accounts is recorded for potential estimated losses when there is objective evidence of the debtor’s inability to make required payments.

##### ***Cash and cash equivalents***

Cash and cash equivalents include deposits held with external financial institutions and cash on hand. All cash and cash equivalents are either in cash or in deposits with less than 3 months’ duration.

##### ***Trade payables***

Trade payables are recognized initially at fair value, which represents cost incurred.

The Company assesses at each period whether there is objective evidence that financial assets are impaired. Recognized impairment losses would be immediately recognized in the income statement.

## Share capital and Initial Public Offering

Ordinary (Common) Shares are classified as equity, as were all Preferred Shares previously outstanding. Expenses directly attributable to the issuance of new shares are shown in equity as a deduction, net of tax, from the proceeds.

### *Preferred Shares*

AC Immune had five classes (Class A, B, C, D and E) of Preferred Shares outstanding as of December 31, 2015. These Preferred Shares remained outstanding until the Company completed an IPO in September 2016 and at that time the Preferred Shares were converted to Common Shares on a one-for-one basis. The Preferred Shares were a class of shares that AC Immune SA issued in connection with five separate capital increases and conveyed voting rights and certain other rights to their holders.

The holders of Preferred Shares owned 80.1% of the total amount of shares outstanding (assuming conversion of the Preferred Shares into Common Shares on a one-for-one basis) as of December 31, 2015 and the Company's Board of Directors were predominantly the holders of Preferred Shares. The Preferred Shares have been the primary source of equity financing for the Company over the past 13 years until the Company completed an IPO in September 2016, at which point all Preferred Shares were converted to Common Shares. The Preferred Shares did not have mandatory redemption features, however, the Shareholders' Agreement provided for conversion of Preferred Shares into Common Shares as a result of an IPO. The redemption of the Preferred Shares was authorized by the Company's Board of Directors.

The voting rights associated with Preferred Shares were the same as for Common Shares. Each Preferred Share entitled the holder to one vote. No dividends were paid on the Preferred Shares and the holders of Preferred Shares were not entitled to any dividends unless dividends are paid on the Common Shares.

The Preferred Shares had a liquidation preference wherein, in the event of a change of control or a liquidation of the Company, the holders of Preferred Shares were entitled to receive, prior and in preference to the holders of Common Shares, the amount corresponding to the price paid for each Preferred Share. Thereafter, all holders of Preferred Shares participated with the holders of Common Shares on an as-if-converted basis in any remaining proceeds.

On October 23, 2015, AC Immune completed a 250-for-1 stock split. The split was applied to all of AC Immune's outstanding common shares, preferred shares (Series A, B, C, D and E) and vested and unvested options. The stock split impacted earnings per share ("EPS"). To facilitate a comparison of EPS figures, the 2015 and 2014 reported EPS figures were adjusted to reflect the stock split. 2015 and 2014 disclosures in notes 9 (share capital), 16 (share-based compensation) and 18 (earnings per share) have all been prepared taking into consideration the 250-for-1 stock split.

On April 15, 2016, AC Immune completed a private placement of Series E preferred shares, each with a nominal value of CHF 0.02 per share (the "Series E Private Placement Extension"). An aggregate 1,401,792 Series E preferred shares were issued at a price of \$9.6384 per preferred share to certain strategic investors, individuals and existing shareholder in the Series E Private Placement Extension for an aggregate subscription amount of approximately \$13.5 million. The Series E preferred shares had substantially the same terms as the Series A, B, C and D preferred shares and were accounted for as equity on AC Immune's balance sheet and subsequently converted to Common Shares as a result of the IPO.

### *Initial Public Offering (IPO)*

On September 22, 2016, AC Immune successfully priced a 6.0 million common share IPO at \$11.00 per share. On the same day, the underwriters exercised the over-allotment option which resulted in a further 900,000 common shares being placed in the market and took the total number of shares offered to investors to 6.9 million common shares. The gross proceeds received were \$75.9 million (CHF 74.5 million) while the proceeds net of underwriting fees amounted to \$70.6 million (CHF 69.3 million).

The IPO resulted in an increase of CHF 64.2 million in the share premium of AC Immune excluding the effect of transaction costs associated with the IPO related to the issuance of new shares. Transaction costs associated with

the IPO and related to the issuance of new shares, were charged directly against the share premium account thereby reducing the total equity reported.

## **Employee benefits**

### *Post-employment benefits*

The Company operates the mandatory pension schemes for its employees in Switzerland. The schemes are generally funded through payments to insurance companies or trustee-administered funds. The Company has a pension plan designed to pay pensions based on accumulated contributions on individual savings accounts. However, this plan is classified as a defined benefit plan under IAS 19.

The net pension liability is the present value of the defined benefit obligation at the balance sheet date minus the fair value of plan assets. The defined benefit obligation is in all material cases calculated annually by independent actuaries using the projected unit credit method, which reflects services rendered by employees to the date of valuation, incorporates assumptions concerning employees' projected salaries, pension increases as well as discount rates of highly liquid corporate bonds which have terms to maturity approximating the terms of the related liability.

### *Share-based compensation*

The Company operates an equity-settled, share-based compensation plan. The fair value of the employee services received in exchange for the grant of options is recognized as an expense. The total amount to be expensed over the vesting period is determined by reference to the fair value of the instruments granted, excluding the impact of any non-market vesting conditions. Non-market vesting conditions are included in assumptions about the number of instruments that are expected to become exercisable. At each balance sheet date, the Company revises its estimates of the number of instruments that are expected to become exercisable. It recognizes the impact of the revision of original estimates, if any, prospectively in the income statement, and a corresponding adjustment to equity over the remaining vesting period.

Stock options granted under the Company's stock option plans A, B and C are valued using the Black-Scholes option pricing model (see Note 16). This valuation model as well as parameters used such as expected volatility and expected term of the stock options are partially based on management's estimates.

The proceeds received net of any directly attributable transaction costs are credited to share capital (nominal value) and share premium when the options are exercised.

## **Provisions**

Provisions are recognized when the Company has a present legal or constructive obligation as a result of past events where it is more likely than not that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made.

## **Taxation**

Current income tax assets and liabilities for the period are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the tax amounts are those that are enacted or substantively enacted, at the reporting date in accordance with the fiscal regulations of the respective country where the Company operates and generates taxable income. Deferred tax is provided using the liability method on temporary differences between the tax bases of assets and liabilities and their carrying amounts for financial reporting purposes at the reporting date.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realized or the liability is settled, based on tax rates (and tax laws) that have been enacted or substantively enacted at the reporting date. If required, deferred taxation is provided in full using the liability method, on all temporary differences at the reporting dates. It is calculated at the tax rates that are expected to apply to the period when it is anticipated the liabilities will be settled, and it is based on tax rates (and laws) that have been enacted or substantively enacted at the reporting date.



Deferred income tax assets are recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized. Although the Company has substantial tax loss carryforwards, historically, due to the fact that the Company had limited certainty on the achievement of key milestones, it has not recognized any deferred tax assets.

### **Earnings per share**

The Company presents basic earnings per share for each period in the financial statements. The earnings per share is calculated by dividing the earnings of the period by the weighted average number of shares (common and preferred) outstanding during the period. Diluted earnings per share reflect the potential dilution that could occur if dilutive securities such as share options were vested or exercised into common shares or resulted in the issuance of common shares that would participate in net income. Anti-dilutive shares are excluded from basic and dilutive earnings per share calculation.

### **Critical judgments and accounting estimates**

The preparation of financial statements in conformity with IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses.

The areas where AC Immune has had to make judgments, estimates and assumptions relate to (i) revenue recognition on collaboration and licensing agreements, (ii) clinical development accruals, (iii) pensions, (iv) income taxes and (v) share-based compensation. Actual results may differ from these estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future periods affected.

### ***Income taxes***

As disclosed in Note 14, the Company has tax losses that can generally be carried forward for a period of 7 years from the period the loss was incurred. These tax losses represent potential value to the Company to the extent that the Company is able to create taxable profits before the expiry period of these tax losses. The Company has not recorded any deferred tax assets in relation to these tax losses.

### ***Preferred shares***

Significant judgment was required in determining the classification of the Preferred Shares issued by the Company as either equity or liabilities. The Preferred shareholders received certain preference rights that represented a significant proportion of the net assets of the Company in the case of liquidation or certain exit events, the occurrence of which was outside the control of the Company. These Preferred Shares remained outstanding until the Company completed an IPO in September 2016 and at that time the Preferred Shares were converted from Preferred Shares to Common Shares on a one-for-one basis.

### **Segment reporting**

The Company has one segment. The Company currently focuses all of its resources on discovering and developing therapeutic and diagnostic products targeting misfolded proteins.

The Company is managed and operated as one business. A single management team that reports to the chief operating decision maker comprehensively manages the entire business. Accordingly, the Company views its business and manages its operations as one reportable segment. Non-current assets are located in and revenue is attributable to the Company's country of domicile, Switzerland.

## Standards, amendments and interpretations effective in current reporting period but without impact on the Company financial statements

The following standards, amendments and interpretation currently are mandatory for accounting periods beginning on or after January 1, 2016, but did not have a material effect on the Company's financial statements as a result of adoption:

- Disclosure Initiative (Amendments to IAS 1)
- Annual Improvements to IFRSs 2012-2014 Cycle
- Clarification of Acceptable Methods of Depreciation and Amortization (Amendments to IAS 16 and IAS 38)

## Standards, amendments and interpretations to existing standards not yet effective

Certain new standards, amendments and interpretations to existing standards have been published and are mandatory for accounting periods beginning on or after January 1, 2017 or later periods but which the Company has not adopted early:

Recently released Standards/ Interpretations	Date Issued	Effective date (mostly annual periods beginning on or after) Early adoption is often permitted	Planned application by AC Immune
IFRS 9 Financial instruments	Nov 2009 to July 2014	Effective Jan 1, 2018 with early adoption allowed	Jan 1, 2018
		Early application of the own credit risk improvements, prior to any other changes in the accounting for financial instruments, is permitted by IFRS 9	
IFRS 15 Revenue from Contracts with Customers	May 2014	Annual periods beginning on or after January 1, 2018. Earlier application permitted.	Jan 1, 2018
IFRS 16 Leases	Jan 2016	Effective for annual periods beginning on or after 1 January 2019 (subject to EU endorsement)	Jan 1, 2019
Annual Improvements 2012-2014 Cycle (IAS 12 Income Taxes)	Jan 2016	Effective for annual period beginning on or after January 1, 2017	Jan 1, 2017
Disclosure Initiative (Amendments to IAS 7)	Jan 2016	Effective for annual period beginning on or after January, 2017 (subject to EU endorsement)	Jan 1, 2017
Clarifications to IFRS 15 "Revenue from Contracts with Customers"	Apr 2016	Effective for annual period beginning on or after January 1, 2018 (subject to EU endorsement)	Jan 1, 2018
Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2)	Jun 2016	Effective for annual period beginning on or after January 1, 2018 (subject to EU endorsement)	Jan 1, 2018
IFRIC Interpretation 22 Foreign Currency Transactions and Advance Consideration	Dec 2016	Effective for annual period beginning on or after January 1, 2018 (subject to EU endorsement)	Jan 1, 2018

The Company has not yet evaluated the impact of these revised standards and amendments on its financial statements. Further consideration of the pending adoption of IFRS 15 is discussed below.

The Company is currently analyzing the impact of IFRS 15 Revenue from contracts with customers, which amends revenue recognition requirements and establishes principles for reporting information about the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. The standard replaces IAS 18 Revenue and IAS 11 Construction contracts and related interpretations. This analysis includes reviewing current accounting policies and practices to identify potential differences that would result from applying the requirements under the new standard. The Company has initiated contract reviews and expects to complete the contract evaluations and validate results by the end of the third quarter of 2017. The Company is also evaluating its accounting policies and the new disclosure requirements and expects to complete its evaluations of the impacts of the accounting and disclosure requirements on its business processes and controls by the end of the third quarter of 2017. Full implementation will be completed by the end of 2017. The Company will continue to evaluate the method of adoption and the potential impact that IFRS 15 may have on our financial position and results of operations.

#### 4. Property, plant and equipment

in CHF thousands	Laboratory Equipment	IT Equipment	Leasehold Improvement / Furniture	Total
<b>Historical cost</b>				
<b>As of January 1, 2015</b>	1,815	172	146	2,133
Acquisitions	243	—	—	243
<b>As of December 31, 2015</b>	2,058	172	146	2,376
Acquisitions	735	126	37	898
<b>As of December 31, 2016</b>	2,793	298	183	3,274
<b>Accumulated depreciation</b>				
<b>As of January 1, 2015</b>	1,397	100	92	1,589
Depreciation	232	38	17	287
<b>As of December 31, 2015</b>	1,629	138	109	1,876
Depreciation	229	34	15	278
<b>As of December 31, 2016</b>	1,858	172	124	2,154
<b>Net book value December 31, 2015</b>	429	34	37	500
<b>Net book value December 31, 2016</b>	935	126	59	1,120

#### 5. Financial assets

in CHF thousands	For the Years Ended December 31,	
	2016	2015
Rental deposit (restricted cash)	83	82
Security Deposit	3	3
<b>Total</b>	86	85

AC Immune has two deposits in escrow accounts totaling CHF 86 thousand associated with the lease of the Company's premises.

#### 6. Prepaid expenses and accrued income

	in CHF thousands	For the Years Ended December 31,	
		2016	2015
Prepaid expenses		1,278	339
Deferred offering costs		-	2,169
Accrued income		889	-
Grant receivable		-	47
<b>Total</b>		<b>2,167</b>	<b>2,555</b>

The prepaid expenses relate mainly to research contracts with down-payments at contract signature and the related activities will start or continue into 2017.

As of December 31, 2015, the deferred offering costs of CHF 2,169 thousand consisted primarily of direct incremental legal, accounting and printing costs relating to the Company's then planned IPO. Upon successful completion of the IPO in September 2016, the deferred offering costs were an offset against IPO proceeds within equity share premium (see Note 3).

Accrued income consists of 2016 services performed within our Biogen contract (see Note 11), which have not yet been invoiced.

#### 7. Other current receivables

	in CHF thousands	For the Years Ended December 31,	
		2016	2015
Other receivables		182	103
Swiss VAT		320	147
Withholding tax		15	19
<b>Total</b>		<b>517</b>	<b>269</b>

The maturity of these assets is less than three months. The Company considers the counterparty risk as low and the carrying amount of these receivables is considered to correspond to their fair value.

#### 8. Cash and cash equivalents

	in CHF thousands	For the Years Ended December 31,	
		2016	2015
Cash		152,210	76,522
<b>Total</b>		<b>152,210</b>	<b>76,522</b>
<b>By Currency</b>			
CHF		41,322	19,812
EUR		6,727	2,371
USD		104,161	54,339
<b>Total</b>		<b>152,210</b>	<b>76,522</b>

At the balance sheet dates, Company funds were held in CHF, EUR and USD bank accounts. As of December 31, 2016, funds in EUR and USD were translated into CHF at a rate of 1.0721 and 1.0160, respectively.

## 9. Share capital

As of December 31, 2016 and 2015, the issued share capital amounted to CHF 1,135,468 and CHF 928,050 respectively and comprised of 56,773,392 Common Shares and 46,402,500 Common and Preferred Shares, respectively.

The table below summarizes the Company's capital structure:

	<b>For the Years Ended December 31,</b>			
	<b>2016</b>		<b>2015</b>	
	<b>Number</b>	<b>CHF</b>	<b>Number</b>	<b>CHF</b>
Common shares with a nominal value of CHF 0.02 each	56,773,392	1,135,468	9,227,250	184,545
Preferred shares Series A with a nominal value of CHF 0.02 per share	-	-	3,538,000	70,760
Preferred shares Series B with a nominal value of CHF 0.02 per share	-	-	16,782,500	335,650
Preferred shares Series C with a nominal value of CHF 0.02 per share	-	-	9,619,000	192,380
Preferred shares Series D with a nominal value of CHF 0.02 per share	-	-	4,122,500	82,450
Preferred shares Series E with a nominal value of CHF 0.02 per share	-	-	3,113,250	62,265
<b>Total</b>	<b>56,773,392</b>	<b>1,135,468</b>	<b>46,402,500</b>	<b>928,050</b>

The Common and Preferred Shares nominal values of CHF 0.02 per share are fully paid in. On April 15, 2016, AC Immune completed a private placement of Series E preferred shares, each with a nominal value of CHF 0.02 per share (the "Series E Private Placement Extension"). An aggregate 1,401,792 Series E preferred shares were issued at a price of \$9.6384 per preferred share to certain strategic investors, individuals and existing shareholder in the Series E Private Placement Extension for an aggregate subscription amount of approximately \$13.5 million. The Series E preferred shares had substantially the same terms as the Series A, B, C and D preferred shares. As previously referenced in Note 3, all outstanding Preferred Shares were converted to common shares as a result of the IPO completed in September 2016.

The change in common shares outstanding for the year ended December 31, 2016 represent 1) 6.9 million common shares issued as a result of the Company's 2016 IPO, 2) 38,577,042 additional common shares as a result the conversion of all outstanding preferred shares (including the 1.4 million preferred Series E shares issued in April 2016) on a one-for-one basis as a result of the Company's 2016 IPO, and 3) 2,069,100 share options exercised during 2016.

On October 23, 2015, AC Immune completed a 250-for-1 stock split. The split applies to all of AC Immune's outstanding common shares, preferred shares (Series A, B, C, D and E) and vested and unvested options. The stock split had an impact on the earnings per share ("EPS"). To facilitate a comparison of EPS figures, the 2015 and 2014 reported EPS figures were adjusted to reflect the stock split.

On October 23, 2015 the Company successfully completed a preferred share financing round of USD 30 million (CHF 29.4 million). The split-adjusted share price of the round was \$9.63624 for each of the 3,113,250 Series E Preferred Shares.

## 10. Trade payables and accrued liabilities

	in CHF thousands	For the Years Ended December 31,	
		2016	2015
Trade payables and other payables		4,035	1,719
Accrued research and development costs		3,265	1,661
Accrued payroll expenses		1,419	1,304
Other accrued expenses		682	1,372
Deferred income		521	45
Total		9,922	6,101

An accrual of CHF 1.0 million and CHF 880 thousand was recognized for performance-related remuneration relating to 2016 and 2015, respectively.

### Deferred income

In 2016 we received a research contribution from Biogen for research collaboration of \$1.5 million (CHF 1.5 million) for the alpha-synuclein and TDP-43 PET imaging programs. As of December 31, 2016, the remaining CHF 521 thousand is recorded as a current liability in deferred income and is expected to be recognized as revenue in 2017 as remaining performance obligations are completed.

In 2015 we received a grant from the Michael J. Fox Foundation for developing an alpha-synuclein protein positron emission tomography (PET) imaging agent. The grant covers an 18 month period. We recognized revenues on a straight line basis over the period of the grant. As of December 31, 2015, the remaining CHF 45 thousand was recorded as a current liability in deferred income.

## 11. Revenues

	in CHF thousands	For the Years Ended December 31,		
		2016	2015	2014
Collaboration and license revenue		22,737	38,745	30,179
Grant revenue		469	316	75
Other		8	29	15
Total		23,214	39,090	30,269

### *Anti-Abeta antibody in AD - Collaboration agreement of 2006 with Genentech*

In November 2006, AC Immune signed an exclusive, worldwide licensing agreement for crenezumab, our humanized monoclonal antibody targeting misfolded Abeta. Genentech commenced Phase 3 clinical studies for crenezumab in the first quarter of 2016. If crenezumab receives regulatory approval, we will be entitled to receive royalties that are tied to annual sales volumes with different royalty rates applicable in the U.S. and Europe. These percentage rates range from net high single digits to the mid-teens.

Under the agreement with Genentech, we may become eligible to receive payments totaling up to approximately \$340 million, excluding royalties. As of December 31, 2016 we have received total payments of \$65 million (CHF 70.1 million); \$40 million (CHF 45.8 million) was received in three milestone payments prior to 2013 and \$25 million (CHF 24.3 million) was received in July 2015.

We recognized the Phase 3 July 2015 payment as revenue in our 2015 fiscal year since there was no further performance requirement to be met by the Company. The agreement provides for a second therapeutic product based on the same intellectual property and anti-Abeta antibody compound as well as an anti-Abeta diagnostic product. Genentech may terminate the agreement at any time by providing three months' notice to us. In such event all costs incurred are still refundable.

#### ***Anti-tau antibody in AD – Collaboration agreement of 2012 with Genentech***

In June 2012, we entered into a second partnership with Genentech to commercialize our anti-tau antibodies for use as immunotherapeutics. The value of this exclusive, worldwide alliance is potentially greater than CHF 400 million and includes upfront and milestone payments. In addition to milestones, we will be eligible to receive royalties on sales at a percentage rate ranging from the mid-single digits to high single digits. The agreement also provides for collaboration on two additional indications built on the same anti-tau antibody program as well as a potential anti-tau diagnostic product.

Until December 31, 2016, we have received payments totaling CHF 45 million, including a CHF 14 million milestone recognized in the second quarter of 2016 related to the start of phase 1 clinical trials for this program. Pursuant to the exclusive global license agreement, there was no further performance obligation attached to this payment, therefore we recognized the full amount as collaboration and license revenue in June 2016.

Genentech may terminate the agreement at any time by providing three months' notice to us. In such event all costs incurred are still refundable.

#### ***Tau Vaccine in AD – Collaboration agreement of 2014 with Janssen Pharmaceuticals***

In December of 2014, we entered into a partnership with Janssen Pharmaceuticals, a Johnson & Johnson company, to develop and commercialize therapeutic anti-tau vaccines for the treatment of AD and potentially other tauopathies. The partnership includes a worldwide exclusive license and research collaboration. We and Janssen will co-develop the lead therapeutic vaccine, ACI-35, through Phase 1b completion. From Phase 2 and onward, Janssen will assume responsibility for the clinical development, manufacturing and commercialization of ACI-35. ACI-35 is an active therapeutic vaccine stimulating the patient's immune system to produce a polyclonal antibody response against phosphorylated tau protein.

The agreement also allows for the collaboration to be expanded to a second indication based on the same anti-tau vaccine program and intellectual property related to this program.

We received an upfront payment of CHF 25.9 million which we recognized in 2014 and are eligible to receive development, regulatory and commercialization milestone payments for AD and a potential second indication outside of AD. Additionally, we will receive royalties on sales at a percentage rate ranging from the low double digits to mid-teens. The two companies have entered into a three-year joint research collaboration to further characterize and develop novel vaccine therapies for the treatment of tauopathies.

The recognition of the upfront payment from Janssen was recorded at the time of receipt as the Company determined that the license granted to Janssen was a separate, non-contingent deliverable under the agreement. The Company determined the license had stand-alone value based on Janssen's ability to create value from the license without our research and development support services due their extensive experience in vaccine development and production which would allow them to complete the phase 1b clinical trials.

In January 2016, we received payments of CHF 1.5 million for pre-payment of research and external research costs. Pursuant to the terms of the collaboration agreement, there is a performance obligation until the end of the year. As a result, we recognized the proceeds from the milestone payment over a 12-month period on a straight-line basis. In May 2016, we received a CHF 4.9 million payment for reaching a clinical milestone in the phase 1b study. As we met all performance obligations on reaching the milestone, we have recognized this income as revenue.

As part of this agreement, AC Immune and Janssen have committed to spend CHF 13.8 million in clinical development until the end of Phase 1b. Any remaining commitment not spent on the Phase 1b study will be carried forward to cover additional development costs with Janssen continuing to be responsible for any costs above the stated CHF 13.8 million. Under the terms of the agreement, Janssen may terminate the agreement at any time after completion of the Phase 1b clinical study by providing 90-day notice to us.

### ***Tau-PET imaging agent in AD – Collaboration agreement of 2014 with Piramal Imaging***

In May 2014, AC Immune SA entered into our first diagnostic partnership with Piramal Imaging, a division of Piramal Enterprises, Ltd. The agreement with Piramal is an exclusive, worldwide licensing agreement for the research, development and commercialization of the Company's tau protein positron emission tomography (PET) tracers supporting the diagnosis and clinical management of AD and potential tau-related disorders and includes upfront and sales milestone payments totaling up to EUR 157 million, plus royalties on sales at a percentage rate ranging from mid-single digits to low double digits.

The upfront payment of EUR 500 thousand received from this collaboration was deferred over a period of 12 months which was the joint Research Collaboration period. As such, the residual balance in deferred revenue related to this collaboration at December 31, 2014, was recognized until May 2015. We are also entitled to further clinical milestones totaling EUR 7 million should the compound make it through to Phase 3 clinical studies and are further entitled to potential regulatory, commercialization and sales based milestones totaling EUR 150 million.

Piramal may terminate the agreement by providing three months' notice to the Company.

### ***Alpha-synuclein and TDP-43 PET tracer in AD – Collaboration agreement of 2016 with Biogen***

On April 13, 2016, AC Immune entered into a non-exclusive research collaboration agreement with Biogen International GmbH, or Biogen. Under the agreement, we and Biogen have agreed to collaborate in the research and early clinical development of our alpha-synuclein PET Tracer program for Parkinson's disease and other synucleinopathies, and a second program for the identification, research and development of novel PET ligands against TDP-43, a protein recently linked to neurodegeneration in diseases such as amyotrophic lateral sclerosis. In addition, we have agreed to share the costs of the collaboration, with Biogen primarily funding the majority of research costs, subject to a cap, which includes an upfront technology access fee and funding towards research and development personnel. We will own all intellectual property rights to any invention relating to alpha-synuclein or TDP-43 PET tracers.

We expect to commence a Phase 1 clinical study of our alpha-synuclein PET imaging agent in 2017. As of December 31, 2016, we received CHF 1.5 million for the technology access fee, which is being deferred and recognized over a twelve month period. As of December 31, 2016, CHF 521 thousand is recorded as a current liability in deferred income and is expected to be recognized as revenue in 2017 as remaining performance obligations are completed, which is expected in the second quarter of 2017.

### ***Grants***

In February 2015, we received a grant from the Michael J. Fox Foundation for developing an alpha-synuclein protein positron emission tomography (PET) imaging agent. The grant covers an 18 month period.

In January 2016, we were awarded a grant from the LuMind Research Down Syndrome Foundation to support our ACI-24 Phase 1 clinical study in patients with Down Syndrome. The grant covers a 12 month period.

We recognized revenues on a straight line basis over the period of the grant.

## **12. Expenses by category**

### ***Research and Development***

	in CHF thousands	For the Years Ended December 31,		
		2016	2015	2014
Operating expenses		18,489	10,476	9,990
Payroll expenses		6,450	5,879	5,669
Share-based compensation		557	407	159
Depreciation of tangible fixed assets		278	287	298
<b>Total research and development expenses</b>		<b>25,774</b>	<b>17,049</b>	<b>16,116</b>



## General and Administration

	in CHF thousands	For the Years Ended December 31,		
		2016	2015	2014
Operating expenses		3,168	1,377	1,437
Payroll expenses		3,969	1,908	1,947
Share-based compensation		759	132	52
<b>Total general and administrative expenses</b>		<b>7,896</b>	<b>3,417</b>	<b>3,436</b>

### 13. Related-party transactions

Key management including the Board of Directors (five individuals excluding the CEO) and the Executive Management (four individuals) compensation is:

	in CHF thousands	For the Years Ended December 31,		
		2016	2015	2014
Short-term employee benefits		2,251	1,776	1,631
Post-employment benefits		154	124	97
Share-based compensation		832	8	8
<b>Total</b>		<b>3,237</b>	<b>1,908</b>	<b>1,736</b>

In July 2015, George Pavey joined AC Immune as Chief Financial Officer and a member of Executive Management. At the same time, Jean-Fabien Monin assumed the role of Chief Administrative Officer. He had previously been Chief Financial Officer since 2009. In April 2017, Joerg Hornstein will assume the responsibility as the Chief Financial Officer as a member of the Executive Management.

Friedrich von Bohlen and Peter Bollmann joined the Board of Directors of AC Immune in October and December 2015, respectively. Friedrich von Bohlen replaced Christof Hettich who stepped down from the Board in August 2015. Hans-Beat Guertler resigned from the board in December 2015. His position was assumed by Peter Bollmann. In November 2016, Mr. Thomas Graney joined the Board of Directors of AC Immune, replacing Mathias Hothum as his term expired.

Short-term employee benefits comprise of salaries, bonus payments, social security and expenses allowances.

98,500, 45,000 and 62,500 options were granted in 2016, 2015 and 2014, respectively, to the Executive Management of the Company. Zero options were granted in 2016, and 2015, and 51,250 in 2014, respectively, to the Directors of the Company. In connection with his departure in the fourth quarter of 2016, the Chief Financial Officer forfeited his initial 2016 grant (included in the aggregate 2016 total above), and in its place was awarded 49,250 options. The fourth quarter 2016 grant date fair value of the replacement award was CHF 674 thousand.

### 14. Income taxes

The Company recognized no income tax expense or deferred tax asset or liability positions for the years ended December 31, 2016, 2015, and 2014.

The income tax expense for each year can be reconciled to Income / (loss) before tax as follows:

	in CHF thousands	For the Years Ended December 31,		
		2016	2015	2014
Income / (loss) before income tax		(7,096)	20,270	10,744
Tax expense / (benefit) calculated at the statutory rate of 21% (22% for 2015 and 2014)		(1,504)	4,566	2,420
Effect of Swiss Tax Holidays		-	-	(2,420)
Permanent differences		(166)	-	-
Effect of unrecognized carry forward tax loss		-	(4,566)	-
Effect of unused tax losses and tax offsets not recognized as deferred tax assets		1,670	-	-
<b>Effective income tax rate benefit / (expense)</b>		<b>0</b>	<b>0</b>	<b>0</b>

The tax rate used for the 2016 reconciliations above is the corporate tax rate of 21% (22%: 2015 and 2014) payable by corporate entities in the Canton of Vaud, Switzerland on taxable profits under tax law in that jurisdiction.

In 2015, AC Immune was able to apply tax loss carryforwards to reduce its effective tax rate to zero.

The Company was granted by the Canton of Vaud, Switzerland, a 10-year tax holiday for all income and capital taxes on a communal and cantonal level, commencing in the fiscal year 2005 and valid through to December 31, 2014. It has also been granted a 9-year tax holiday for direct Swiss Federal tax commencing in the fiscal year 2006 through to December 31, 2014. Consequently, the effective tax rate for 2014 was zero.

in CHF thousands	For the Years Ended December 31,		
	2016	2015	2014
<b>Unrecognized deductible temporary differences, unused tax losses and unused tax credits</b>			
Deductible temporary differences, unused tax losses and unused tax credits for which no deferred tax assets have been recognized are attributable to the following:			
- Tax losses	36,707	29,079	49,253
- Deductible temporary differences related to the retirement benefit plan	3,798	2,787	2,410
<b>Total</b>	<b>40,505</b>	<b>31,866</b>	<b>51,663</b>

Deductible temporary differences related to the retirement benefit plan do not expire. Tax losses expiry dates are shown in the table below:

in CHF thousands	2016	2015	2014
<b>Tax losses split by expiry date</b>			
December 31, 2017	-	-	11,961
December 31, 2018	2,175	2,175	10,388
December 31, 2019	16,566	16,566	16,566
December 31, 2020	10,338	10,338	10,388
December 31, 2021	-	-	-
December 31, 2022	-	-	-
December 31, 2023	7,628	-	-
<b>Total</b>	<b>36,707</b>	<b>29,079</b>	<b>49,253</b>

The tax losses available for future offset against taxable profits have increased by CHF 7.6 million from 2015, representing the amount of tax losses that are additionally available as an offset, subject to expiration as disclosed in the table above, against future taxable income.

Consistent with prior years, the Company has not recorded any deferred tax assets in relation to the past tax losses available for offset against future profits as the recognition criteria have not been met at the balance sheet date.

#### 15. Retirement benefit plan

The Company participates in a collective foundation covering all of its employees including its executive officers. In addition to retirement benefits, the plan provides death or long-term disability benefits.

Contributions paid to the plan are computed as a percentage of salary, adjusted for the age of the employee and shared approximately 46% and 54% by employee and employer, respectively.

This plan is governed by the Swiss Law on Occupational Retirement, Survivors and Disability Pension Plans (BVG), which requires contributions to be made to a separately administered fund. The fund has the legal form of a foundation and it is governed by the board of trustees, which consists of an equal number of employer's and employee's representatives. The board of trustees is responsible for the administration of the plan assets and for the definition of the investment strategy.

The collective foundation is governed by a foundation board. The board is made up of an equal number of employee and employer representatives of the different affiliated companies. The Company has no direct influence on the investment strategy of the foundation board.

The assets are invested by the pension plan, to which many companies contribute, in a diversified portfolio that respects the requirements of the Swiss BVG. Therefore disaggregation of the pension assets and presentation of plan assets in classes that distinguish the nature and risks of those assets is not possible. Under the Plan, both the Company and the employee share the costs equally. The structure of the plan and the legal provisions of the BVG mean that the employer is exposed to actuarial risks. The main risks are investment risk, interest risk, disability risk and the life expectancy of pensioners. Through our affiliation with the pension plan, the Company has minimized these risks, since they are shared between a much greater number of participants. On leaving the Company, a departing employee's retirement savings are transferred to the pension institution of the new employer or to a vested benefits institution. This transfer mechanism may result in pension payments varying considerably from year to year.

The pension plan is exposed to Swiss inflation, interest rate risks and changes in the life expectancy for pensioners.

For accounting purposes under IFRS, the plan is treated as a defined benefit plan. Liabilities are calculated annually by an independent actuary. Plan assets have been estimated at their fair market value and liabilities have been calculated according to the "Projected Unit Credit" method.

The following table sets forth the status of the defined benefit pension plan and the amount that should be recognized in the balance sheet:

in CHF thousands	For the Years Ended December 31,	
	2016	2015
Defined benefit obligation	(11,596)	(9,439)
Fair value of plan assets	7,798	6,652
<b>Total liability</b>	<b>(3,798)</b>	<b>(2,787)</b>

The following amounts have been recorded as net pension cost in the statement of income:

in CHF thousands	For the Years Ended December 31,		
	2016	2015	2014
Service cost	742	641	521
Interest cost	75	101	137
Interest income	(56)	(76)	(118)
Impact of plan amendment	-	(584)	-
<b>Net pension cost</b>	<b>761</b>	<b>82</b>	<b>540</b>

The changes in defined benefit obligation, fair value of plan assets and unrecognized (gains) / losses are as follows:

#### A. Change in defined benefit obligation

in CHF thousands	2016	2015	2014
Defined benefit obligation as of January 1	(9,439)	(8,091)	(6,044)
Service cost	(742)	(641)	(521)
Interest cost	(75)	(101)	(137)
Change in demographic assumptions	(389)	—	—
Change in financial assumptions	(26)	(591)	(1,303)
Other actuarial gains / (losses)	(378)	(176)	9
Plan amendment	—	584	—
Benefit payments	(111)	(48)	227
Employees' contributions	(436)	(375)	(322)
<b>Defined benefit obligation as of December 31</b>	<b>(11,596)</b>	<b>(9,439)</b>	<b>(8,091)</b>

## B. Change in fair value of plan assets

	in CHF thousands	2016	2015
Fair value of plan assets as of January 1		6,652	5,681
Interest income		56	76
Employees' contributions		436	375
Employer's contributions		511	441
Benefits payments		111	48
Plan assets gains		32	31
Fair value of plan assets as of December 31		<u>7,798</u>	<u>6,652</u>

Employer's contribution to the pension plan for the financial year 2017 are estimated to be CHF 543 thousand.

## C. Change in net defined benefit liability

	in CHF thousands	2016	2015	2014
Net defined benefit liabilities as of January 1		2,787	2,410	929
Net pension cost through statement of income		761	82	540
Re-measurement through other comprehensive income		761	736	1,318
Employer's contribution		(511)	(441)	(377)
Net defined benefit liabilities as of December 31		<u>3,798</u>	<u>2,787</u>	<u>2,410</u>

The fair value of the plan assets is the cash surrender value of the insurance with AXA. The investment strategy defined by the board of trustees follows a conservative profile.

The plan assets are primarily held within instruments with quoted market prices in an active market, with the exception of real estate and mortgages.

The weighted average duration of the defined benefit obligation is 22.7 years as of December 31, 2016.

The actuarial assumptions used for the calculation of the pension cost and the defined benefit obligation of the defined benefit pension plan for the year 2016, 2015 and 2014 are as follows:

	For the Years Ended December 31,		
	2016	2015	2014
Discount rate	0.70%	0.80%	1.25%
Rate of future increase in compensations	1.50%	1.50%	1.50%
Rate of future increase in current pensions	0.50%	0.50%	0.50%
Mortality and disability rates	BVG 2015G	BVG 2010G	BVG 2010G

In defining the benefits, the minimum requirements of the Swiss Law on Occupational Retirement, Survivors and Disability Pension Plans (BVG) and its implementing provisions must be observed. The BVG defines the minimum pensionable salary and the minimum retirement credits.

A quantitative sensitivity analysis for significant assumption as of December 31, 2016 is as shown below:

Assumptions	Discount rate		Future salary increase		Future pension cost	
	+0.5% increase	-0.5% decrease	+0.5% increase	-0.5% decrease	+0.5% increase	-0.5% decrease
	in CHF thousands					
Defined benefit obligation	10,264	12,857	11,700	11,499	12,215	10,763
Impact on the net defined benefit obligation	1,332	(1,261)	(104)	97	(619)	833

The sensitivity analyses above is subject to limitations and has been determined based on a method that extrapolates the impact on net defined benefit obligation as a result of reasonable changes in key assumptions occurring at the end of the reporting period.

## 16. Share-based compensation

The Company has the following equity settled share-based compensation plans outstanding:

PLAN	Number of instruments awarded	Vesting conditions	Contractual life of options
Stock option plan A	362,750	4 years' service from grant date	12.5 years
Stock option plan B	819,000	4 years' service from grant date	10.5 years
Stock option plan C1	6,775,250	4 years' service from grant date	10 years
Stock option plan C2	735,500	4 years' service from grant date	10 years

The number and weighted average exercise prices (in CHF) of options under the share option programs for Plans A, B and C1 are as follows:

	Number of Options	Weighted Average Exercise Price	Weighted Average Remaining Term (Years)
Outstanding at January 1, 2014	3,768,000	0.22119	4.4
Forfeited during the year	(4,500)	-	-
Cancelled during the year	(19,000)	-	-
Exercised during the year	(21,250)	-	-
Granted during the year	283,250	-	-
Outstanding at December 31, 2014	4,006,500	0.21668	4.5
<b>Exercisable at December 31, 2014</b>	<b>3,370,000</b>	<b>0.23013</b>	<b>4.2</b>
Outstanding at January 1, 2015	4,006,500	0.21668	4.5
Forfeited during the year	(23,250)	-	-
Cancelled during the year	(15,250)	-	-
Exercised during the year	(594,250)	-	-
Granted during the year	223,250	-	-
Outstanding at December 31, 2015	3,597,000	0.14548	3.6
<b>Exercisable at December 31, 2015</b>	<b>3,032,500</b>	<b>0.14548</b>	<b>3.4</b>
Outstanding at January 1, 2016	3,597,000	0.14548	3.6
Forfeited during the year	(106,000)	-	-
Cancelled during the year	(19,250)	-	-
Exercised during the year	(2,069,100)	-	-
Granted during the year	285,250	-	-
Outstanding at December 31, 2016	1,687,900	0.14548	5.6
<b>Exercisable at December 31, 2016</b>	<b>1,284,525</b>	<b>0.14548</b>	<b>6.5</b>

All 2016 and 2015 option related activity in the table above occurred at a weighted average exercise price of CHF 0.14548.

The weighted average fair values of the options granted in 2016, 2015 and 2014 are CHF 5.85, CHF 1.77, and CHF 0.77, respectively. These fair values of options granted have been determined using the Black-Scholes option pricing model and an exercise price of CHF 0.14548 (2015 and 2014: CHF 0.14548), a share price of CHF 5.96 (2015: CHF 1.91 and 2014: CHF 0.90), a risk-free interest rate of 0% (2015: 0% and 2014: 0.23%) and a volatility of 80% (2015 and 2014: 50%) with an expected duration of 6 years (2015 and 2014: 6 years).

Prior to the IPO, the exercise price was set by the Board of Directors; there were no options granted in 2016 subsequent to the IPO. The volatility is based on the historical trend of an appropriate sample of companies operating in the biotech and pharmaceutical industry. The risk-free interest rate is based on the CHF swap rate for the expected life of the option. The weighted average share price of common share options exercised in 2016 is CHF 6.22 (2015: CHF 1.91 and 2014: CHF 0.90).

The expense charged against the income statement for the financial year 2016 amounts to CHF 1.317 thousand (2015: CHF 539 thousand and 2014: 211 thousands). The expense is revised by the Company based on the number of instruments that are expected to become exercisable. This 2016 expense also reflects a share based option award that was modified in 2016 to amend the option grant's contractual life and the issuance of a replacement award. An incremental fair value of CHF 238 thousand was immediately recognized in 2016 as a result of the modification of the share options contractual life. Additionally, in connection with his departure in the fourth quarter of 2016, the Chief Financial Officer forfeited his initial 2016 grant (included in the aggregate 2016 total of 98,500), and in its place was awarded 49,250 options, which has been accounted for as a new award granted on the date of forfeiture of the original award. The fourth quarter 2016 grant date fair value of the replacement award was CHF 674 thousand. The fair value of the modified award was measured using the Black-Scholes option pricing model with similar assumptions to the 2016 option.

An incremental fair value of CHF 238 thousand was immediately recognized in 2016 as a result of the modification of the share options contractual life. Additionally, due to the departure of the Chief Financial Officer in the fourth quarter of 2016, the initial referenced grant of 98,500 was considered a forfeiture as the vesting conditions would not be met. Subsequently, an agreement was formalized whereby 50% of the previously forfeited options (49,250 options) would be awarded as a replacement grant with no remaining service condition, which has been accounted for as a new award granted on the date of forfeiture of the original award. The fourth quarter 2016 grant date fair value of the replacement award was CHF 674 thousand.

The fair value of the modified award was measured using the Black-Scholes option pricing model with similar assumptions to the 2016 option grants described above, except for a currently quoted common share price as of the date of the modification.

#### 17. Commitments and contingencies

<b>in CHF thousands</b>	<b>For the Years Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
Within one year	9,175	5,989
Between one and five years	1,624	1,111
<b>Total</b>	<b>10,799</b>	<b>7,100</b>

The Company has research contracts with several external service providers. As of December 31, 2016 external research projects for CHF 8.9 million were committed for 2017. Rental contract for laboratory and offices space at the EPFL Innovation Park in Ecublens/Lausanne can be cancelled within a 6 month notice period. Lease expense in 2016 was CHF 391 thousand. As of December 31, 2016, rental contracts for CHF 255 thousand were committed for 2017.

The Company has a contractual obligation that require the payment of royalties to a third party, which is associated with the achievement of program milestones. As of December 31, 2016, the Company's contractual obligation associated with this agreement was CHF 494 thousand.

#### 18. Earnings per share

<b>in CHF thousands except for share and per share data</b>	<b>For the Years Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
Net income / (loss) attributable to owners of the Company	(7,096)	20,270	10,744
Earnings per share (EPS):			
Basic, income / (loss) for the period attributable to equity holders	(0.14)	0.47	0.25
Diluted, income / (loss) for the period attributable to equity holders	(0.14)	0.44	0.24
Weighted-average number of shares used to compute EPS basic	50,096,859	43,412,250	42,684,750
Weighted-average number of shares used to compute EPS fully diluted	50,096,859	46,043,198	45,552,500

For the years ended December 31, 2016, 2015 and 2014 basic and diluted earnings per share is based on the weighted average number of shares issued and outstanding. Weighted-average dilutive shares outstanding excludes antidilutive share options that totaled 1,687,900 from the computation of diluted income (loss) per common share for the year-ended December 31, 2016.

#### **19. Financial instruments and risk management**

The Company's activities expose it to the following financial risks: market risk (currency risk), credit risk and liquidity risk. The Company's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Company's financial performance.

The following table shows the carrying amounts of financial assets and financial liabilities:

<b>in CHF thousands</b>	<b>For the Years Ended December 31,</b>	
	<b>2016</b>	<b>2015</b>
<b>Financial assets</b>		
Cash and cash equivalent	152,210	76,522
Other receivables	517	269
Total financial assets	<u>152,727</u>	<u>76,791</u>
<b>Financial liabilities</b>		
Trade and accrued expenses	9,401	6,056
Total financial liabilities	<u>9,401</u>	<u>6,056</u>

#### ***Foreign exchange risk***

The Company is exposed to foreign exchange risk arising from currency exposures, primarily with respect to the EUR, USD and to a lesser extent to GBP, DKK and SEK. The currency exposure is not hedged. However, the Company has a policy of matching its cash holdings to the currency structure of its expenses, which means that the Company holds predominately CHF, EUR and USD (see also Notes 8 and 19). In the Company's income statements for the years ended December 31, 2016, 2015 and 2014 a gain of CHF 3.5 million, CHF 1.6 million and CHF 9 thousands, respectively, is recognized in the financial statement line item "Finance Income."

#### ***Credit risk***

The majority of the cash and cash equivalents is held within one bank. However, the credit risk on liquid funds is limited because the counterparties are banks with high credit-ratings assigned by international credit-rating agencies. The maximum amount of credit risk is the carrying amount of the financial assets. Trade and other receivables are fully performing, not past due and not impaired (see Note 7).

### ***Liquidity risk***

Inherent in the Company's business are various risks and uncertainties, including its limited operating history and the high uncertainty that new therapeutic concepts will succeed. AC Immune's success may depend in part upon its ability to (i) establish and maintain a strong patent position and protection, (ii) enter into collaborations with partners in the biotech and pharmaceutical industry, (iii) acquire and keep key personnel employed, and (iv) acquire additional capital to support its operations.

The Company's approach of managing liquidity is to ensure sufficient cash to meet its liabilities when due. Therefore, management closely monitors the cash position on rolling forecasts based on expected cash flow to enable the Company to finance its operations for at least 24 months.

Based on the current cash position, the Company is well financed through the end of 2018.

### ***Foreign currency***

The Company undertakes certain transactions denominated in foreign currencies. Hence, exposure to exchange rate fluctuations arises. Exchange rate exposures are managed by matching its cash holdings to the currency structure of its expenses.

As of December 31, 2016, if the CHF had strengthened/weakened by 10% against the EUR and the USD with all other variables held constant, the net loss for the period would have been lower/higher by CHF 10.9 million (2015: CHF 5.6 million), mainly as a result of foreign exchange gains/losses on predominantly EUR/USD denominated cash and cash equivalents.

### ***Interest rates***

The Company is not materially exposed to any interest rates fluctuations.

## **20. Capital risk management**

The Company's objectives when managing capital are to safeguard the Company's ability to continue as a going concern and to preserve the capital on the required statutory level in order to succeed in developing a cure against AD.

## **21. Post balance sheet events**

No events that would require adjustments to or disclosure in the financial statements occurred between the date of the balance sheet and the date these financial statements were approved by the Board of Directors of the Company.



**CERTIFICATION**

I, Andrea Pfeifer, certify that:

1. I have reviewed this annual report on Form 20-F of AC Immune SA;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (c) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 17, 2017

/s/ Andrea Pfeifer  
Andrea Pfeifer  
Chief Executive Officer

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## CERTIFICATION

I, Jean-Fabien Monin, certify that:

1. I have reviewed this annual report on Form 20-F of AC Immune SA;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;
4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the company and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (c) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and
5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the company's internal control over financial reporting.

Date: March 17, 2017

/s/ Jean-Fabien Monin  
Jean-Fabien Monin  
Interim Principal Financial Officer

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**CERTIFICATION**

The certification set forth below is being submitted in connection with AC Immune SA's annual report on Form 20-F for the year ended December 31, 2016 (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Andrea Pfeifer, the Chief Executive Officer of AC Immune SA, certifies that, to the best of her knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of AC Immune SA.

Date: March 17, 2017

/s/ Andrea Pfeifer  
Name: Andrea Pfeifer  
Chief Executive Officer

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**CERTIFICATION**

The certification set forth below is being submitted in connection with AC Immune SA's annual report on Form 20-F for the year ended December 31, 2016 (the "Report") for the purpose of complying with Rule 13a-14(b) or Rule 15d-14(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code.

Jean-Fabien Monin, the Interim Principal Financial Officer of AC Immune SA, certifies that, to the best of his knowledge:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of AC Immune SA.

Date: March 17, 2017

/s/ Jean-Fabien Monin  
Name: Jean-Fabien Monin  
Interim Principal Financial Officer

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**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8 No. 333-213865) pertaining to the AC Immune SA 2013 Equity Incentive Plan, the Employee Stock Option and Share Plan of AC Immune (2005), and the Stock Option Plan – AC Immune of December 31, 2004 of AC Immune SA, and
- (2) Registration Statement (Form S-8 No. 333-216539) pertaining to the AC Immune SA 2016 Stock Option and Incentive Plan of AC Immune SA

of our report dated March 17, 2017, with respect to the financial statements of AC Immune SA, included in this Annual Report (Form 20-F) for the year ended December 31, 2016.

/s/ Ernst & Young AG

Geneva, Switzerland  
March 17, 2017

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