

THE DRIVE TO DISCOVER.
THE EXPERIENCE TO DELIVER.

INCYTE
Annual Report 2009

MATURING PIPELINE

Target	INCYTE Product	Indication	Phase I	Phase II	Phase III
ONCOLOGY					
JAK	INCB18424 (oral) ¹	Myelofibrosis	○		
		PV / ET		○	
		Other hematologic tumors		○	
Sheddase	INCB7839	Breast cancer		○	
cMet	INCB28060 ²	Solid cancers	○		
IDO	INCB24360	Oncology	○		
INFLAMMATION					
JAK	INCB28050 ³	Rheumatoid Arthritis		○	
JAK	INCB18424 (topical)	Psoriasis		○	
DIABETES/METABOLISM					
HSD1	INCB13739	Type 2 diabetes		○	

¹Novartis: out-licensed ex-US rights, Incyte retained US rights

²Novartis: out-licensed worldwide rights

³Lilly: out-licensed worldwide rights

About INCB18424

INCB18424, an oral JAK1/JAK2 inhibitor, is our lead compound in clinical development and has the potential to be the first therapy approved in the US for the treatment of myelofibrosis (MF). MF is a life-threatening condition and considered to be the most serious of the myeloproliferative neoplasms, a group of closely related blood disorders that lead to abnormal numbers or function of blood cells.



In 2009, we launched two Phase III registration trials for INCB18424 in MF: COMFORT-I in the US and COMFORT-II in Europe. Patient recruitment for COMFORT-I has been completed and the trial is expected to include over 280 patients. COMFORT-II is fully enrolled and includes approximately 220 patients. Both studies are expected to be completed in 2010.

To Our Shareholders:

2009 proved to be a **transformative year** for Incyte

We advanced our lead product candidate into Phase III registration trials, formed development and commercialization alliances with two top-tier pharmaceutical companies and significantly strengthened our financial position. These achievements have **accelerated our transition** from a productive R&D organization to an emerging pharmaceutical company that is preparing to market its first product.

In 2010, we intend to build on this progress and move closer to our goal of becoming a successful commercial business driven by strong science.

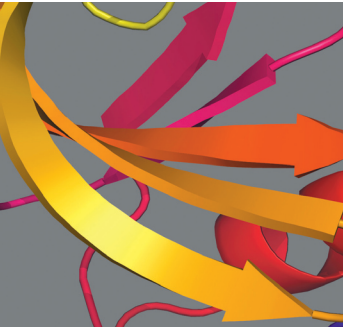
JAK inhibitors: Focusing on our near-term opportunity

Our most advanced product candidate is the oral **JAK (janus kinase) inhibitor INCB18424 ('424)** which has the **potential to be the first approved therapy in the United States for myelofibrosis (MF)**, one of several disorders known as **myeloproliferative neoplasms (MPNs)**. MF is a disabling, often life-threatening condition characterized by abnormal blood-cell production and fibrosis of the bone marrow. The need for an effective treatment is urgent.

Last year, '424 entered two Phase III registration trials—**COMFORT-I** in the US and **COMFORT-II** in Europe. We expect these studies to be completed in 2010. If the results are positive, we intend to file a New Drug Application in the US in 2011.

In anticipation of the potential approval of '424, **we have recruited a core marketing team with experience in commercializing new oncology products**. The team is conducting extensive market research to sharpen our understanding of treatment practices in MF and is also evaluating the commercial opportunity for '424 as a potential treatment for two other **MPNs: polycythemia vera (PV) and essential thrombocythemia (ET)**, where '424 has also shown clinical benefits in a Phase II single-arm trial.

The JAK pathway is implicated in a number of pathologies and we believe that inhibitors of these enzymes may prove efficacious in treating not only MPNs, but also other hematological malignancies and solid tumors. JAK inhibitors have also been shown to be of potential value in treating several inflammatory and autoimmune conditions.



"In the ongoing Phase II trial, INCB18424 continues to provide durable and previously unachievable clinical benefits in patients with myelofibrosis. It is equally gratifying to see significant clinical activity in patients with advanced polycythemia vera and essential thrombocythemia."

Srdan Verstovsek, M.D., Ph.D., Associate Professor, Leukemia Department, Myeloproliferative Disorders Program Leader, M.D. Anderson Cancer Center. Dr. Verstovsek is serving as the principal investigator for the '424 MPN clinical programs.

New alliances: Expanding our efforts in MPN and beyond

Given the breadth of the opportunity with JAK inhibitors, we have secured two strong corporate alliances to expedite and support our own efforts. The first is with Novartis for oral '424 for hematology-oncology indications; the second is with Lilly for our JAK inhibitor INCB28050 ('050) for inflammatory and autoimmune diseases.

Novartis is a global pharmaceutical company and recognized leader in the commercialization of novel oncology drugs. As was our goal, **we have retained exclusive development and commercialization rights for '424** for hematology and oncology indications in the US, while Novartis has assumed responsibility for the compound in hematology-oncology indications outside of the US. Through this alliance, we have already received \$210 million in up-front and milestone payments and may receive over \$1 billion in additional payments as well as potential tiered, double-digit royalties on future ex-US sales of '424.

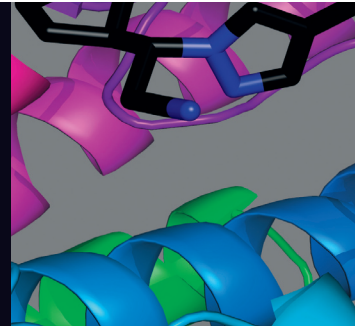
With this alliance now in place, **we can accelerate our efforts to develop '424 in multiple indications.** This year, in addition to progressing '424 in PV and ET, we plan to evaluate '424 in children with leukemia, other hematological malignancies and solid tumors in collaboration with the Children's Oncology Group of the National Cancer Institute. Other possible indications that we may pursue include acute myeloid leukemia as well as other hematological malignancies and possibly solid tumors.

Our collaboration with Novartis also includes our oral **c-MET inhibitor, INCB28060 ('060)**, for various cancers. Novartis will assume responsibility for worldwide development of '060 following completion of a Phase I/II study already under way. We have retained a co-development and co-promotion option and will receive royalties on any potential future sales of '060.

Our alliance with Lilly, a global pharmaceutical company with a commitment to expand its presence in inflammation, is for **worldwide rights to develop and commercialize '050 as an oral treatment for inflammatory and autoimmune diseases.** In exchange, we have received an initial payment of \$90 million and are eligible to receive up to \$665 million in additional

"By successfully completing our equity and convertible senior note offering in 2009, we strengthened our balance sheet and removed a significant financial overhang from the Company. Additionally, with the completion of two collaborative agreements in the fourth quarter, we are in a strong position to advance our pipeline and prepare for the potential launch of INCB18424 in myelofibrosis."

Dave Hastings, Executive Vice President and Chief Financial Officer, Incyte



potential development, regulatory, and commercialization milestones, as well as tiered, double-digit royalty payments on future global sales with rates ranging up to twenty percent if a product is successfully commercialized. We also hold a **co-development option** that can be exercised at the initiation of Phase IIb clinical testing on a compound-by-compound and indication-by-indication basis. If we elect to exercise our co-development option, we will fund 30% of all future global development costs through regulatory approval and would receive an **incremental royalty rate increase ranging up to the high twenties** on potential future global sales.

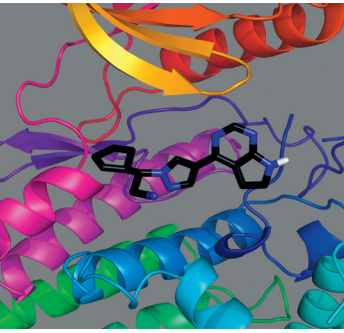
Because we see a potential place for '050 in treating not only rheumatoid arthritis, but also multiple other inflammatory conditions including inflammatory bowel disease, psoriasis and vertebral-joint diseases known as spondyloarthropathies, we view the co-development option we received as an important mechanism for building shareholder value.

Drug discovery: Sustaining a core competency

Notwithstanding the focus on our JAK inhibitors and despite the financial challenges of 2009, we have **retained our core competency in drug discovery**. This year we expect to advance into human testing our IDO (indoleamine 2,3-dioxygenase) inhibitor for solid tumors and select a second compound for a new oncology target. These compounds follow others that have already progressed into Phase II including our **shedase inhibitor, INCB7839**, for breast cancer, our **11 β -HSD1 inhibitor, INCB13739**, for type 2 diabetes and **topical INCB18424** for psoriasis.

A new capital structure: Financing the future

In 2009, we increased our cash position and financial "runway" and ended the year with **pro forma cash, cash equivalents, and marketable securities of \$465 million**, including the impact of the February 2010 redemption of our remaining 3½% convertible senior and subordinated notes due in 2011. This improved capital structure was the result of a public offering of common stock and a private placement of new convertible senior notes with net proceeds of over \$500 million.



"As the first JAK inhibitor to enter clinical trials in MF, '424 is currently well ahead of other JAK inhibitor compounds in development. As important as our first-to-market position could be, the clinical benefits seen with '424 suggest that the compound could also become the standard-of-care -- first in MF and later in PV and ET."

Pat Andrews, Executive Vice President and Chief Commercial Officer, Incyte

Our 2010 agenda: Sustaining Incyte's momentum

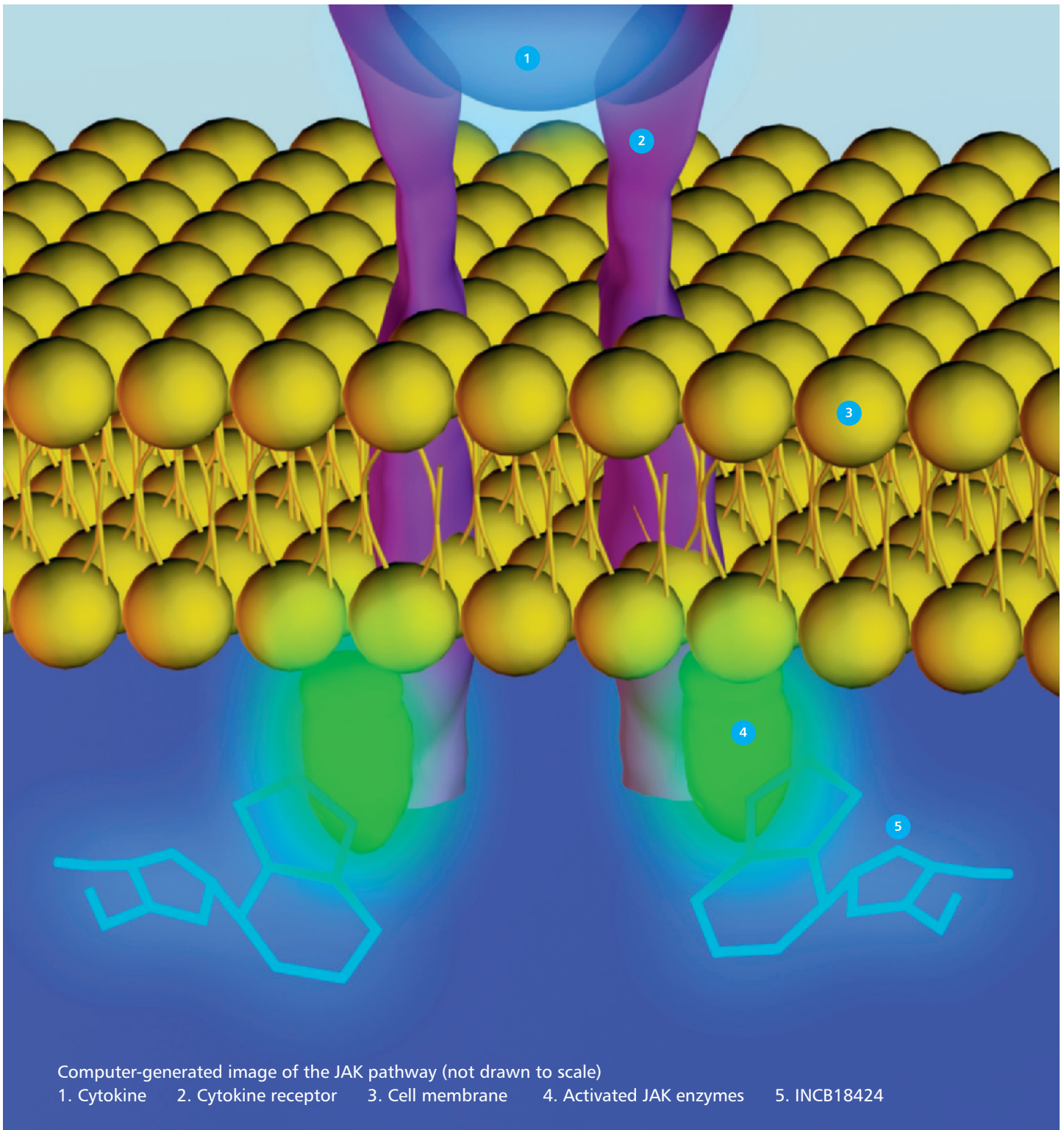
Some of our key goals in 2010 include:

- complete the Phase III trials of '424 in MF and, with positive results, prepare a New Drug Application for submission to the Food and Drug Administration (FDA);
- broaden the indications for '424, first in PV, then ET, once we have reached an understanding with regulators on the best path forward;
- initiate the pediatric trial of '424 with the Children's Oncology Group;
- finish the current Phase II trial of '050 in rheumatoid arthritis and decide whether to exercise our co-development option in a Phase IIb trial with Lilly;
- conduct the Phase I/II trial of '060 in cancer and transfer the program to Novartis for continued development;
- conclude the Phase II trial of INCB7839 in breast cancer in preparation for discussing registration requirements with the FDA;
- advance both the IDO inhibitor and a second new compound for cancer into human testing; and,
- build and invest in marketing and medical affairs to ensure a rapid and successful launch of our first product.

In closing, I want to thank our employees for their achievements in 2009, which continue to be distinguished by rigorous science, effective teamwork and disciplined program execution. Their productivity and competence give me confidence we can deliver significant and sustainable shareholder value in 2010 and in future years.

Sincerely,

Paul A. Friedman, M.D.
President and Chief Executive Officer
April 2010



Targeting the JAK Pathway

JAKs are enzymes that reside inside cells and control specific biological activities such as production of new blood cells and maintenance of immune system function. Over-activation of the JAK pathway can occur as a result of genetic mutations and/or elevated cytokine levels and lead to abnormal numbers or function of blood cells. There are four JAK enzymes, JAK1, JAK2, JAK3 and TYK2, and several JAK inhibitors are currently in development. Some target a specific JAK enzyme while others block two or more members of the JAK family. Incyte has chosen to block JAK1 and JAK2 to selectively target the two key mechanisms that are thought to lead to over-activation of the JAK pathway, genetic mutations and high levels of cytokines.

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800/231-5469
Foreign Shareowners:
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TDD Foreign Shareowners:
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Annual Meeting

The Annual Meeting of Stockholders will be held May 18, 2010, at 10:00 a.m., Eastern Daylight Time, at the Hotel du Pont, 11th and Market Streets, Wilmington, Delaware.

Outside Counsel

Pillsbury Winthrop Shaw Pittman LLP

Independent Registered Public Accounting Firm

Ernst & Young LLP

Market Information

Incyte's Common Stock trades on The Nasdaq Global Market under the symbol INCY.

Investor Relations

You can obtain recent press releases and other publicly available information on Incyte by visiting our web site at www.incyte.com.

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Forward-looking Statements

Except for the historical information set forth herein, the matters set forth in this annual report, including without limitation statements regarding our anticipated future success in drug discovery and development, plans regarding our product pipeline, plans and expected timelines for advancing our drug candidates through clinical trials, NDA submission and potential commercialization, potential therapeutic and commercial value, including attributes and indications of our drug candidates, intentions to build our commercial operations and commercialize drug candidates ourselves, and our expectations with respect to our agenda and goals for 2010, contain predictions, estimates and other forward-looking statements. These forward-looking statements are subject to risks and uncertainties that may cause actual results to differ materially, including the risk that results of clinical trials may be unsuccessful or insufficient to meet applicable regulatory standards, the high degree of risk associated with drug development and clinical trials, the uncertainty of the FDA and European approval process, risks related to the timing of and patient enrollment in clinical trials, the impact of competition and technological advances, the results of further research and development, unanticipated delays, risks associated with our dependence on our relationships with our collaborators, risks related to obtaining effective patent coverages for our products and other risks detailed from time to time in Incyte's filings with the Securities and Exchange Commission, including our Form 10-K for the year ended December 31, 2009. Incyte disclaims any intent or obligation to update these forward-looking statements.