

# patientforward

Novocure 2015 Annual Report



# patientforward

We are pursuing dramatic improvements in cancer patient survival while maintaining quality of life using a novel technology that changes the way we view the treatment of solid tumor cancers.

Instead of targeting cancer with drugs or ionizing radiation, we have created a therapy that uses low-intensity electric fields to disrupt cancer cell division without causing many of the typical side effects of other cancer treatments. We call our therapy Tumor Treating Fields, or TTFIELDS. For over 15 years, we have studied TTFIELDS in the laboratory and, more recently, performed clinical trials that strengthen our belief that TTFIELDS therapy provides a viable path forward to revolutionize cancer care.

**We are dedicated to implementing patient-forward cancer treatment protocols utilizing TTFIELDS. Patients' health. Patients' lives. Patients' families and caregivers. They are what matter most to us, and they will guide us forward in our mission to deliver a new cancer therapy that lengthens patients' lives while maintaining quality of life.**



Martin Romero Sanchez  
Optune™ patient  
Houston, Texas

# the business of Novocure



Asaf Danziger, CEO (left)  
William Doyle, Chairman

In the early 2000s, Professor Yoram Palti, our founder and professor emeritus of physiology and biophysics at the Technion—Israel Institute of Technology, sought to leverage his expertise in biophysics to develop a new way to treat cancer that would destroy tumor cells while sparing healthy tissue and avoiding the life-altering side effects of existing cancer therapies.

Professor Palti founded Novocure™ to provide patients with a new cancer treatment based on his hypothesis, since proven, that low-intensity, alternating electric fields, when applied at specific frequencies, can disrupt cancer cell division and cause cancer cell death. This innovative treatment—Tumor Treating Fields, or TTFIELDS—has become a completely new approach to cancer therapy.

When we started, it seemed incredible to many that electric fields could be tuned to kill cancer cells without inducing the systemic side effects so common with cancer therapies currently in use. But the strength of our

data and the growing body of patient stories now speak for themselves.

Establishing, building and growing an innovative company to provide patients with a new cancer treatment modality demands determination, perseverance and an unwavering focus on the scientific evidence to keep moving forward regardless of the obstacles or resistance that may be encountered. This is how we operate.

We are dedicated to our mission of making TTFIELDS available to all cancer patients who may benefit from it.

MORE THAN

300

EMPLOYEES

2

APPROVED INDICATIONS

4

CURRENTLY ACTIVE MARKETS

5

ONGOING OR COMPLETED  
PHASE 2 PILOT TRIALS

2

PHASE 3 PIVOTAL TRIALS  
PLANNED IN 2016

In the fourth quarter of 2015, we achieved several key milestones supporting our mission. On October 5, 2015, we received U.S. Food and Drug Administration approval of Optune—a portable, noninvasive device that delivers TFields therapy—together with temozolomide for newly diagnosed glioblastoma (GBM). On December 15, 2015, the results of our EF-14 phase 3 pivotal trial of Optune together with temozolomide were published in the *Journal of the American Medical Association* with the conclusion that adding TFields therapy to maintenance temozolomide chemotherapy significantly prolonged progression-free and overall survival in newly diagnosed GBM. As of December 31, 2015, we had 605 active patients on Optune therapy compared to 225 at the end of 2014, an increase of 169 percent. We continue to see growth in the number of active patients in the first quarter of 2016 and recently crossed the 700 active patient mark.

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The strength of our data and the growing body of patient stories now speak for themselves.


We also continue to improve our treatment for GBM. Our second generation Optune system, which is half the size and half the weight of our first generation Optune system, is available to all new patients in Europe. We have filed for regulatory approval with the FDA and, assuming we do not receive comments or requests for additional information, we hope to begin marketing our second generation Optune system in the United States after approval later this year.

We are making progress toward treating other solid tumors in addition to GBM. We have five ongoing or completed phase 2 pilot trials in brain metastases, non-small cell lung cancer, ovarian cancer, pancreatic cancer and mesothelioma. Early in 2016, we presented data from the first cohort of our PANOVA phase 2 pilot trial in advanced pancreatic cancer demonstrating that TFields may improve survival of patients with this terrible disease. Based on the positive data from the first cohort of PANOVA patients, we have accelerated our planning of a phase 3 pivotal trial in pancreatic cancer. We also expect to open phase 3 pivotal trials in brain metastases and non-small cell lung cancer in 2016.

Over a decade ago, we joined Novocure for the opportunity to make a meaningful difference in the lives of cancer patients. We reached a pivotal milestone in 2015 with the FDA approval of Optune for newly diagnosed GBM in the United States. Our passion to bring Optune to all GBM patients who may benefit from it and to develop TFields for additional solid tumor cancers is greater than ever.



Asaf Danziger, CEO



William Doyle, Chairman

# moving forward with clinical trials



With more than 15 years of research, we believe we have gained a deep understanding of the underlying mechanisms of action and the multiple pathways through which TTFields exert their effects within dividing cancer cells. In the lab, we have demonstrated that TTFields have an anti-mitotic effect in over 15 different solid tumor types. We have translated this preclinical research into clinical results in glioblastoma, for which we have an approved and marketed product, as well as in non-small cell lung cancer and pancreatic cancer, for which we have phase 2 pilot trial results. We are conducting ongoing clinical research in brain metastases, pancreatic cancer, ovarian cancer and mesothelioma.

TTFields therapy delivers low-intensity, alternating electric fields through the skin to the region of a tumor. Due to the unique shape formed by cancer cells as they divide, TTFields can cause cellular building blocks to pile up and destroy the cells. Also during division, proteins form structures to pull essential cellular components into new daughter cells. TTFields can prevent the proper formation of these structures and prevent the proper movement of the cellular components again resulting in cell death. Laboratory experiments show these

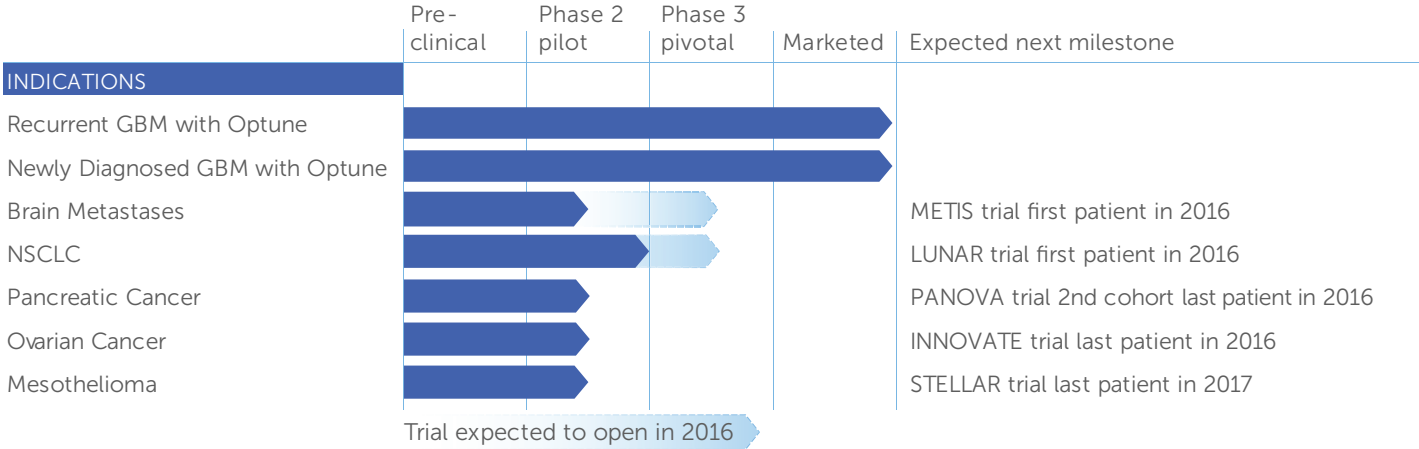
mechanisms of action inhibit tumor growth and can lead to tumor shrinkage. Laboratory experiments also show TTFields affect healthy cells much less than cancer cells since healthy cells multiply at a much slower rate, if at all, and TTFields are frequency tuned to target cancer cells with specific physical properties.

We believe TTFields may be combined with other existing and future solid tumor therapies offering the potential for more effective, safer treatments. We are conducting research and supporting independent research to determine the optimal combinations of TTFields with radiation and pharmacological therapies to enhance the therapeutic benefits of TTFields and expand the population of patients who may benefit from treatment with TTFields.

We plan to continue to invest in our clinical pipeline and expect to open phase 3 pivotal trials for brain metastases and non-small cell lung cancer in 2016.

We believe we will establish TTFields as a new treatment for a variety of solid tumors that increases survival without significantly increasing side effects when used in combination with other cancer treatments.

# Novocure pipeline



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# Michael Davies

In May 2015, Michael Davies was settling into his new position as an executive assistant at a TV production company, planning to move to his own place and establishing roots in West Hollywood when a shocking glioblastoma diagnosis put his plans on hold.





"I was starting my life," said the 24-year-old who lives in La Habra, California.

Michael's tumor was surgically removed at St. Jude Medical Center. Michael knew he would need the support of his mother and stepfather and the comfort of home as he began standard-of-care radiation and chemotherapy at City of Hope. He decided to postpone his move to West Hollywood.

Michael recalled when his doctor introduced Optune as a treatment option with chemotherapy. It took him a couple of days to process the idea of using Optune, and once he started Optune therapy, some trial and error was required as he incorporated it into his life. He learned to dress in ways to cover parts of the device and created an array-change schedule to facilitate his exercise routines. Soon Michael started feeling like himself again.

"It was a process to get used to," Michael said. "But we figured out what works for us."

In the face of his diagnosis, Michael strives to maintain normalcy and continue his personal and professional pursuits. He enjoys the entertainment industry and appreciates the foundational knowledge he's gaining from working in the legal department of a TV

production company. He has always been fascinated by TV and movie making, and studied the industry in college. He hopes one day to work in development for a network while also engaging his passion for writing and performing stand-up comedy. Writing and humor have helped Michael cope with his diagnosis.

Michael begins each day with a two-hour commute to West Hollywood and participates in a recreational sports league twice a week after work. On weekends, he spends time with friends, relaxes and exercises. In April, Michael plans to visit Las Vegas, one of his favorite cities.

"I do whatever I have to do to make sure I'm living as much of my normal life as possible," Michael said.

He feels optimistic that researchers will one day find a cure. However, today, he aims to maintain a positive attitude and remain focused on moving his life forward.

"I just hope that one day this will all be behind me and I'll still be living the normal life that I'm trying to live now," he said. "I just want to be happy."

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"I do whatever I have to do to make sure I'm living as much of my normal life as possible."



patientforward

Amy Luton, DSS (Device Support Specialist)

Our Device Support Specialists (DSSs) embody our patient-forward mission and set our business apart from other companies that market cancer therapies. Our DSSs work one-on-one with patients—educating them about Optune, and providing technical support and personal contact with Novocure.



“The DSS is on the journey with the patient the entire time he or she is on therapy,” said Kenda Pennington, Novocure’s Director of Device Support Specialists.

Amy Luton, who lives in the Houston metropolitan area, has been a DSS in Texas for six years. Amy worked in medical device and surgical support for five years before joining Novocure. At the time, Novocure was just starting out in the United States. Amy remembers her first meeting with the original patient support team.

“You could just tell their heart was in this, and I wanted to be a part of that,” she said.

Amy enjoys interacting with patients and caregivers, and helping them while on Optune therapy. On any given day, she might train a new patient starting therapy, meet with caregivers, assist patients over the phone or handle administrative tasks. She said Novocure’s personalized focus provides patients and their families with a high level of support.

DSSs most often assist patients in their homes. When a new patient starts therapy, a DSS will spend about two hours with the patient and their caregivers, teaching them how to shave the patient’s head, place the arrays, use the equipment and care for the patient’s skin. A DSS will

reach out to new patients within a few days of starting treatment and visit monthly to download compliance reports that show patients how many hours of therapy they received each day. If a patient has a problem or needs support in between visits, a DSS will communicate via phone or in person.

Amy said, “Given what patients and their families are going through, a DSS must be flexible, compassionate and considerate to address their needs and help them with Optune through their treatment.”

Working with families facing a life-threatening illness keeps Amy grounded and reinforces what she values most in her own life: spending time with her husband, Clay, and daughters, Charlotte Rose, 6 months, and Ella Reese, 3.

“It’s very humbling to be a DSS at Novocure, knowing we’re providing such an innovative therapy to these patients. Being a part of that is wonderful,” she said.

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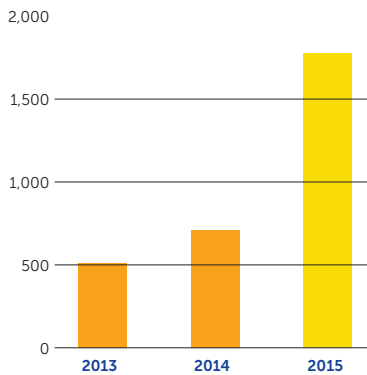
“The DSS is on the journey with the patient the entire time he or she is on therapy.”



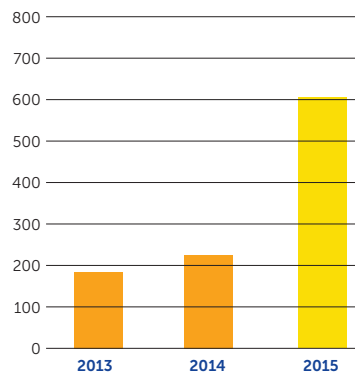
# financial highlights



## prescriptions

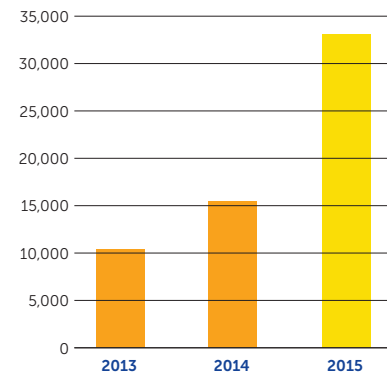


## active patients



## net revenues\*

(USD THOUSANDS)



\*We account for revenues when cash is collected and all other revenue recognition criteria have been met.

Our financial results should be considered in the context of our key operating statistics—prescriptions and active patients. Prescriptions are a leading indicator of demand. The conversion of prescriptions to new patients is driven by the prescription fill rate and the time to fill a prescription. The relationship between filled prescriptions and active patients is driven by treatment duration. We bill a single monthly fee at the start of each month of therapy for each active patient.

We invest in our business both to grow revenue in the near term through expansion in glioblastoma and to advance our pipeline in a variety of additional solid tumors. We hope to broaden our commercial opportunity and, ultimately, to lengthen the lives of patients while maintaining their quality of life. Our balance sheet remains strong with more than \$269 million in cash, cash equivalents and short-term investments at December 31, 2015.

# \$111

MILLION IN GROSS BILLINGS FOR THE FULL YEAR 2015

# \$269

MILLION IN CASH, CASH EQUIVALENTS AND SHORT-TERM INVESTMENTS AT YEAR END



## consolidated statement of operations

USD Thousands	Year ended December 31,		
	2015	2014	2013
Net revenues	\$ 33,087	\$ 15,490	\$ 10,359
Cost of revenues	20,610	10,036	7,013
Gross profit	12,477	5,454	3,346
Operating costs and expenses:			
Research, development and clinical trials	43,748	40,381	34,797
Sales and marketing	38,861	21,177	16,406
General and administrative	33,864	24,052	16,602
Total operating costs and expenses	116,473	85,610	67,805
Operating loss	(103,996)	(80,156)	(64,459)
Financial expenses, net	(3,151)	(144)	(12,558)
Loss before income taxes	(107,147)	(80,300)	(77,017)
Income taxes	4,434	382	353
Net loss	\$ (111,581)	\$ (80,682)	\$ (77,370)

# leadership

## Corporate Officers and Executive Leadership

**William F. Doyle**  
Chairman

**Asaf Danziger**  
Chief Executive Officer

**Mike Ambrogi**  
Chief Operating Officer

**Wilco Groenhuysen**  
Chief Financial Officer

**Eilon Kirson, M.D., Ph.D.**  
Chief Science Officer and  
Head of Research and Development

**Todd Longsworth**  
General Counsel

**Peter Melnyk**  
Chief Commercial Officer

**Yoram Palti, M.D., Ph.D.**  
Chief Technology Officer

## Board of Directors

**William F. Doyle**  
Chairman

**William Burkoth**  
Asaf Danziger

**Timothy Langloss**

**Louis Lavigne, Jr.**

**Kinyip Gabriel Leung**

**Robert J. Mylod, Jr.**

**Yoram Palti, M.D., Ph.D.**

**Gert Lennart Perlhagen**

**Charles G. Phillips III**

**Tony Vernon**

## market price of and dividends on the registrants' common equity and related stockholder matters

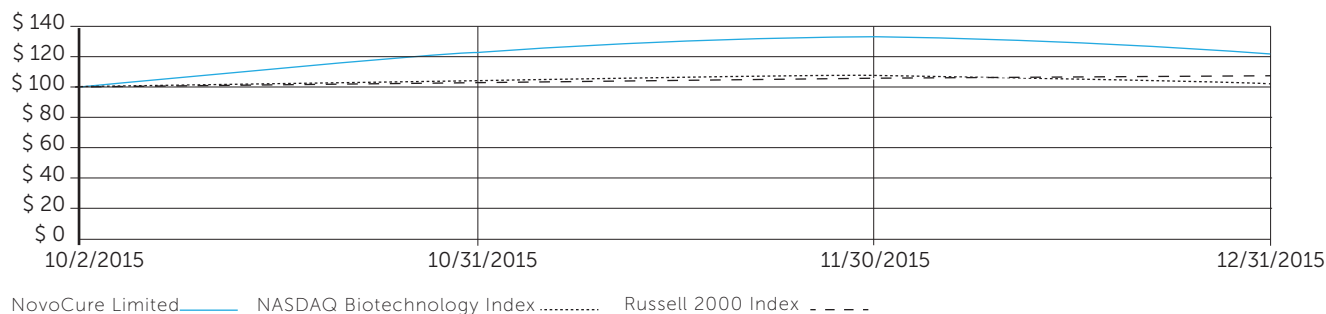
This graph is not "soliciting material," is not deemed "filed" with the SEC and is not to be incorporated by reference into any of our filings under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date hereof and irrespective of any general incorporation language in any such filing.

The following graph shows the total stockholder return of an investment of \$100 in cash at market close on October 2, 2015 (the first day of trading

of our ordinary shares) through December 31, 2015 for (1) our ordinary shares, (2) the Russell 2000 Index, and (3) the NASDAQ Biotechnology Index. Pursuant to applicable SEC rules, all values assume reinvestment of the full amount of all dividends; however, no dividends have been declared on our ordinary shares to date. The stockholder return shown on the graph below is not necessarily indicative of future performance, and we do not make or endorse any predictions as to future stockholder returns.

## comparison of cumulative total return

Among NovoCure Limited, the Russell 2000 Index, and the NASDAQ Biotechnology Index



Assumes \$100 invested on October 2, 2015  
Assumes dividend reinvested  
Fiscal year ending December 31, 2015

## total return annual comparison cumulative total return summary

		10/2/2015	10/31/2015	11/30/2015	12/31/2015
<b>NovoCure Limited</b>	Return%		22.92	8.37	-8.17
	Cum \$	100.00	122.92	133.21	122.32
<b>NASDAQ Biotechnology Index</b>	Return%		3.25	2.62	1.25
	Cum \$	100	103.25	105.96	107.29
<b>Russell 2000 Index</b>	Return%		4.35	3.25	-5.02
	Cum \$	100.00	104.35	107.74	102.33

### Indications For Use

Optune is intended as a treatment for adult patients (22 years of age or older) with histologically-confirmed glioblastoma multiforme (GBM).

Optune with temozolomide is indicated for the treatment of adult patients with newly diagnosed, supratentorial glioblastoma following maximal debulking surgery and completion of radiation therapy together with concomitant standard of care chemotherapy.

For the treatment of recurrent GBM, Optune is indicated following histologically- or radiologically-confirmed recurrence in the supratentorial region of the brain after receiving chemotherapy. The device is intended to be used as a monotherapy, and is intended as an alternative to standard medical therapy for GBM after surgical and radiation options have been exhausted.

### Summary of Important Safety Information

#### Contraindications

Do not use Optune if you have an active implanted medical device, a skull defect (such as, missing bone with no replacement), or bullet fragments. Use of Optune together with implanted electronic devices has not been tested and may theoretically lead to malfunctioning of the implanted device. Use of Optune together with skull defects or bullet fragments has not been tested and may possibly lead to tissue damage or render Optune ineffective.

Do not use Optune if you are known to be sensitive to conductive hydrogels. In this case, skin contact with the gel used with Optune may commonly cause increased redness and itching, and rarely may even lead to severe allergic reactions such as shock and respiratory failure.

### Warnings and Precautions

Use Optune only after receiving training from qualified personnel, such as your doctor, a nurse, or other medical personnel who have completed a training course given by Novocure (the device manufacturer).

Do not use Optune if you are pregnant, you think you might be pregnant or are trying to get pregnant. It is not known if Optune is safe or effective in these populations.

The most common ( $\geq 10\%$ ) adverse events involving Optune in combination with temozolomide were low blood platelet count, nausea, constipation, vomiting, fatigue, scalp irritation from device use, headache, convulsions, and depression.

All servicing procedures must be performed by qualified and trained personnel.

Do not use any parts that do not come with the Optune Treatment Kit, or that were not sent to you by the device manufacturer or given to you by your doctor.

Do not wet the device or transducer arrays.

If you have an underlying serious skin condition on the scalp, discuss with your doctor whether this may prevent or temporarily interfere with Optune treatment.

Please visit [www.optune.com/safety](http://www.optune.com/safety) for Optune Instructions for Use (IFU) for complete information regarding the device's indications, contraindications, warnings, and precautions.

# looking ahead

As far as we've come in the last 15 years, we are intensely focused on the future. With a patient-forward approach, we will continue to develop and commercialize TTFields to treat solid tumor cancers.

We will work relentlessly to make our therapy available to all glioblastoma (GBM) patients who may benefit from TTFields. We will work with regulatory agencies to gain approval of our smaller, lighter, second generation Optune system in the United States and to gain approval of Optune for the treatment of newly diagnosed GBM in Japan.

We are more committed than ever to developing TTFields to treat other solid tumors. We will continue to support the patients in our ongoing clinical trials and will work to open at least two new phase 3 pivotal trials in the upcoming year.

Throughout it all, we will remain **patient-forward**.

**novocure**<sup>TM</sup>

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