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Novocure (NVCR) overview

updated January 2018

patientforward

forward-looking statements

This presentation contains certain forward-looking statements with respect to the business of Novocure and certain of its plans and objectives, including with respect to the development and commercialization of its lead product candidate, Optune, for a number of oncology indications. These forward-looking statements can be identified in this presentation by the fact that they do not relate only to historical or current facts. Forward-looking statements often use words “expect”, “intend”, “anticipate”, “plan”, “may”, “should”, “would”, “could” or other words of similar meaning. These statements are based on assumptions and assessments made by Novocure in light of industry experience and perception of historical trends, current conditions, expected future developments and other appropriate factors. By their nature, forward-looking statements involve risk and uncertainty, and Novocure's performance and financial results could differ materially from those expressed or implied in these forward-looking statements due to general financial, economic, regulatory and political conditions as well as more specific risks and uncertainties facing Novocure such as those set forth in its Annual Report on Form 10-K filed on February 23, 2017, or in subsequent quarterly filings with the U.S. Securities and Exchange Commission. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this presentation. Novocure assumes no obligation to update or correct the information contained in this presentation, whether as a result of new information, future events or otherwise, except to the extent legally required.

The statements contained in this presentation are made as at the date of this presentation, unless some other time is specified in relation to them, and service of this presentation shall not give rise to any implication that there has been no change in the facts set out in this presentation since such date. Nothing contained in this presentation shall be deemed to be a forecast, projection or estimate of the future financial performance of Novocure, except where expressly stated.

As of the date of this presentation, Optune is only FDA-approved for the treatment of adults with glioblastoma, or GBM, and its approval for other indications is not certain. Novocure can provide no assurances regarding market acceptance of Optune or its successful commercialization, and can provide no assurances regarding the company’s results of operations or financial condition in the future. This presentation is for informational purposes only and may not be relied upon in connection with the purchase or sale of any security.

Optune® indications for use and important safety information

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INDICATIONS

- 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.

CONTRAINDICATIONS

- Do not use Optune in patients with 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 in patients that 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.

Optune® indications for use and important safety information

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WARNINGS AND PRECAUTIONS

- Optune can only be prescribed by a healthcare provider that has completed the required certification training provided by Novocure (the device manufacturer).
- Do not prescribe Optune for patients that are pregnant, you think might be pregnant or are trying to get pregnant, as the safety and effectiveness of Optune in these populations have not been established.
- The most common (≥10%) adverse events involving Optune in combination with temozolomide were thrombocytopenia, nausea, constipation, vomiting, fatigue, medical device site reaction, headache, convulsions, and depression.
- The most common (≥10%) adverse events seen with Optune monotherapy were medical device site reaction and headache.
- The following adverse reactions were considered related to Optune when used as monotherapy: medical device site reaction, headache, malaise, muscle twitching, fall and skin ulcer.
- Use of Optune in patients with an inactive implanted medical device in the brain has not been studied for safety and effectiveness, and use of Optune in these patients could lead to tissue damage or lower the chance of Optune being effective.
- If the patient has an underlying serious skin condition on the scalp, evaluate whether this may prevent or temporarily interfere with Optune treatment.

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building a global oncology platform

ESTABLISHED COMMERCIAL BUSINESS	BROADLY APPLICABLE MECHANISM OF ACTION	DEMONSTRATED FINANCIAL PERFORMANCE
• First treatment in 10+ years to increase survival in newly diagnosed glioblastoma (GBM) • 7,000+ GBM patients treated to date • 68% year-over-year active patient growth	• Consistently exhibited anti-mitotic effect • Recruiting for three phase 3 pivotal trials • Completed phase 2 pilot trials in 112 patients across three indications	• 77% year-over-year revenue growth with more than $53 million Q4 2017 net revenues • GBM business beginning to fund the pipeline • $186.6 million in cash and short-term equivalents as of September 30, 2017

Information above as of December 31, 2017, except where indicated

evolving treatment paradigms for solid tumor cancers

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USED ALONE OR IN COMBINATION TO TREAT SOLID TUMORS

surgery

- Reduces size of a tumor prior to initiation of additional therapies
- Invasive to patient
- Unable to kill microscopic disease

radiation

- Kills cells when delivered at high doses
- Injures healthy tissues as well as cancer cells
- Numerous potentially toxic side effects

pharmacological treatments

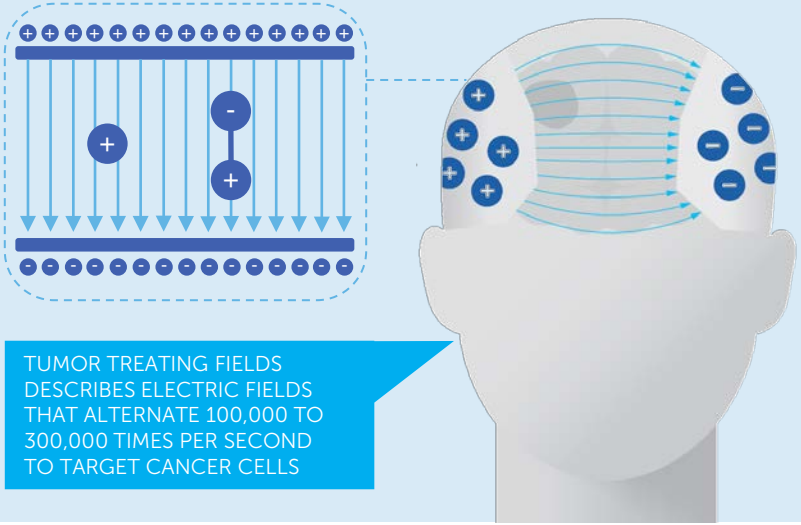
- Includes chemotherapy, targeted therapies and immuno-oncology
- Many treatments target specific patient subgroups
- Frequently accompanied by numerous side effects

tumor treating fields (TTFields)

- Electric fields tuned to specific frequencies
- Disrupts solid tumor cancer cell division
- Mild side effect profile with no known cumulative toxicity

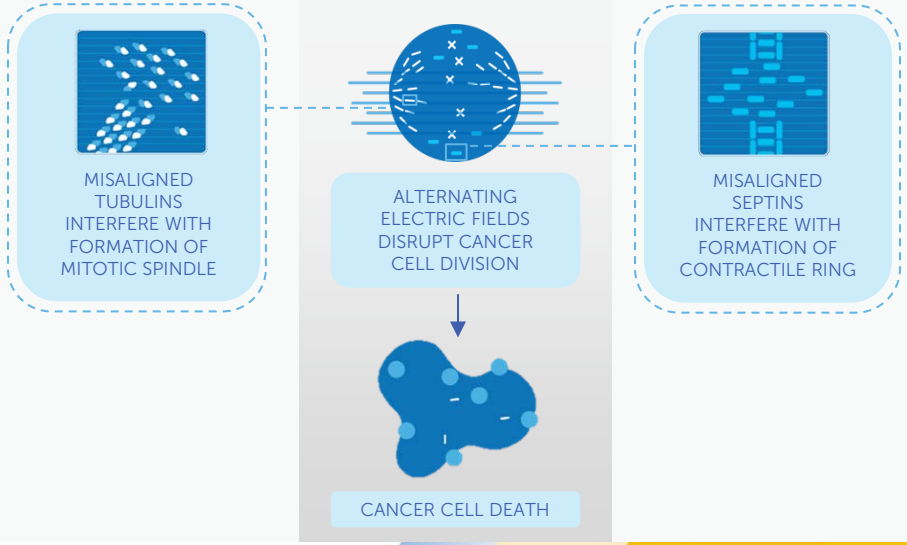
we can leverage physics to fight cancer

AN ELECTRIC FIELD EXERTS FORCES ON CHARGED OBJECTS



TUMOR TREATING FIELDS DESCRIBES ELECTRIC FIELDS THAT ALTERNATE 100,000 TO 300,000 TIMES PER SECOND TO TARGET CANCER CELLS

TUMOR TREATING FIELDS USES ELECTRIC FIELDS TO DISRUPT CELL DIVISION



broad applicability to solid tumors

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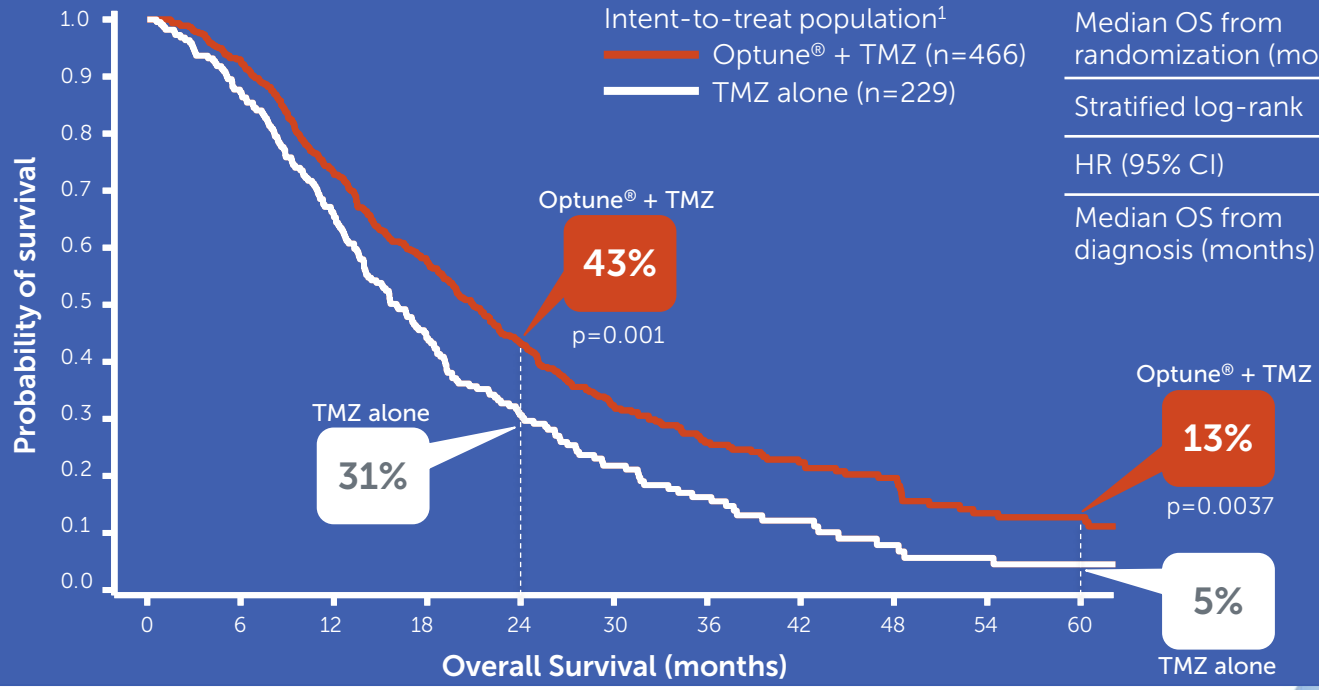
proven superior long-term survival with Optune® plus temozolomide in GBM



Median OS from randomization (months)	20.9	16.0
Stratified log-rank	p=0.00006	
HR (95% CI)	0.63 (0.53-0.76)	
Median OS from diagnosis (months)	24.5	19.8

1. Stupp R, Taillibert S, Kanner A, et al. Effect of Tumor-Treating Fields Plus Maintenance Temozolomide vs Maintenance Temozolomide Alone on Survival in Patients With Glioblastoma: A Randomized Clinical Trial. *JAMA*. 2017;318(23):2306–2316.

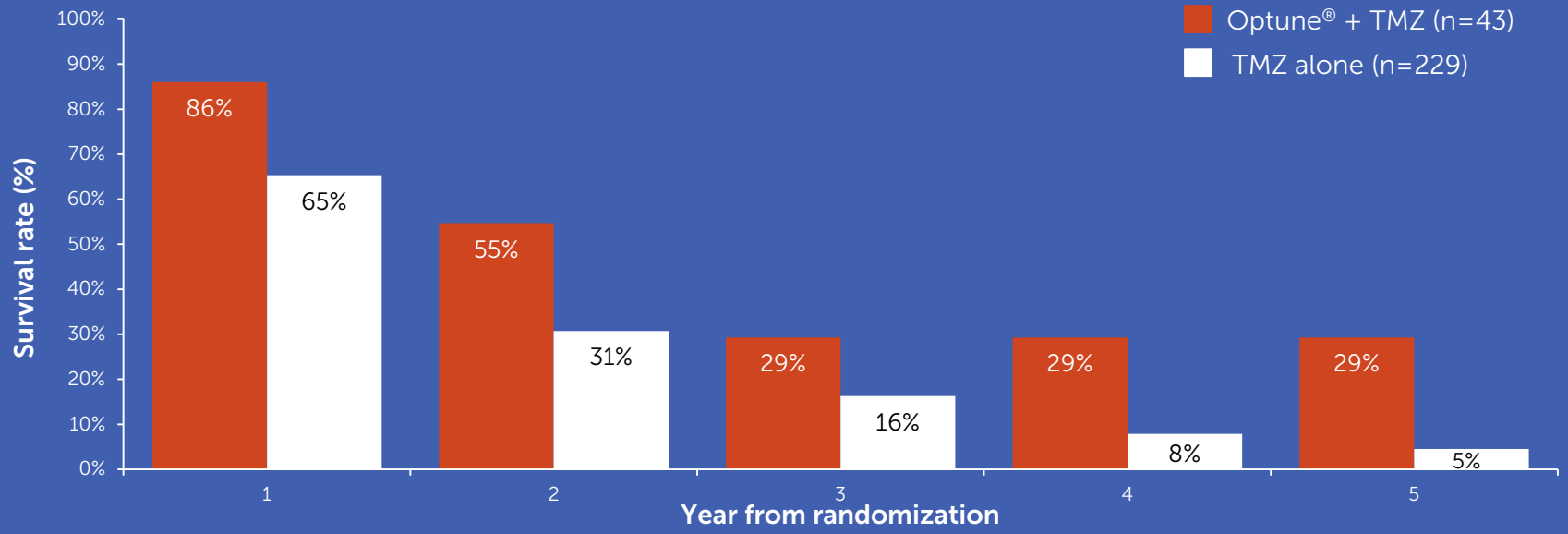
Optune® plus TMZ consistently sustained superior rates of survival

FIVE-YEAR SURVIVAL INTENT-TO-TREAT ANALYSIS[1]

1. Stupp R, Taillibert S, Kanner A, et al. Effect of Tumor-Treating Fields Plus Maintenance Temozolomide vs Maintenance Temozolomide Alone on Survival in Patients With Glioblastoma: A Randomized Clinical Trial. *JAMA*. 2017;318(23):2306–2316.

patients with compliance >90% had maximal survival benefit

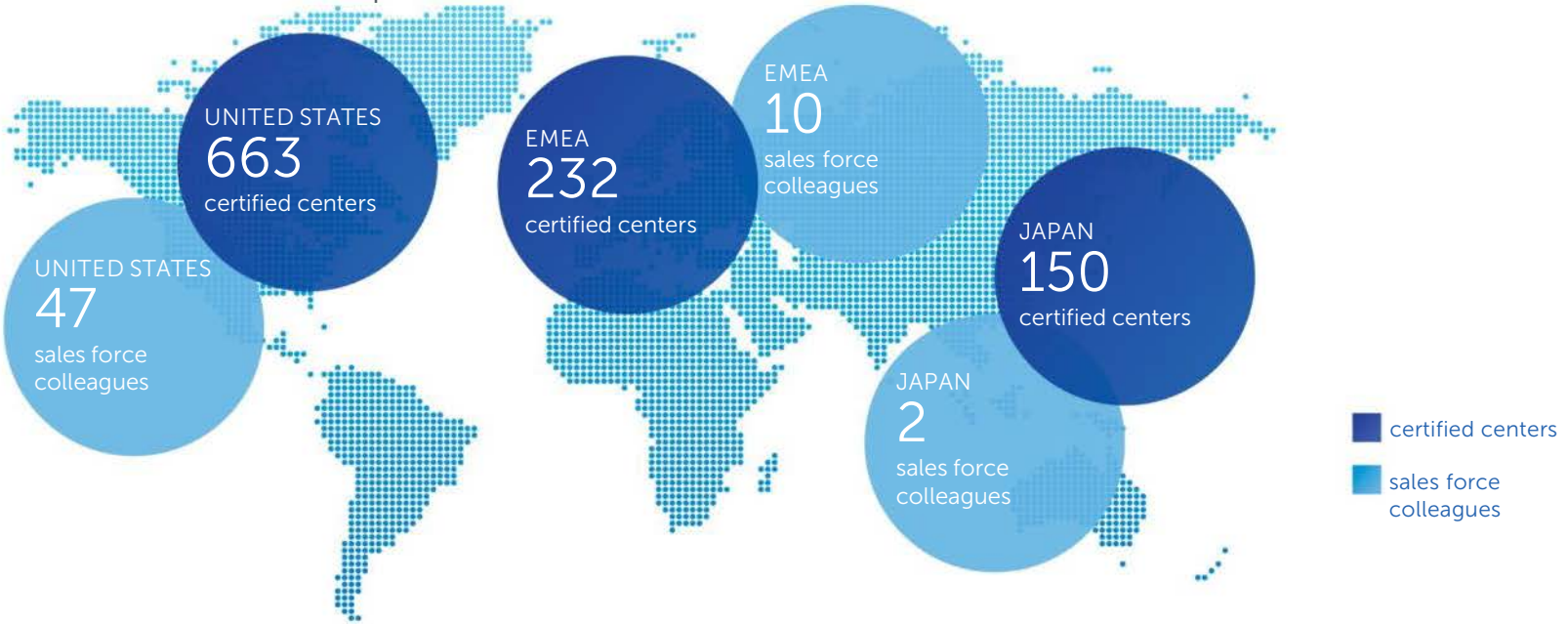
FIVE-YEAR SURVIVAL ANALYSIS IN MOST COMPLIANT PATIENTS (>90%)[1]



1. Ram Z, Kim CY, Nicholas GA and Toms S on behalf of EF-14 investigators. Compliance and treatment duration predict survival in a phase 3 EF-14 trial of Tumor Treating Fields with temozolomide in patients with newly diagnosed glioblastoma. Presented at: 2017 Society for Neuro Oncology; November 16-19, 2017; San Francisco, CA. Oral presentation ACTR-27.

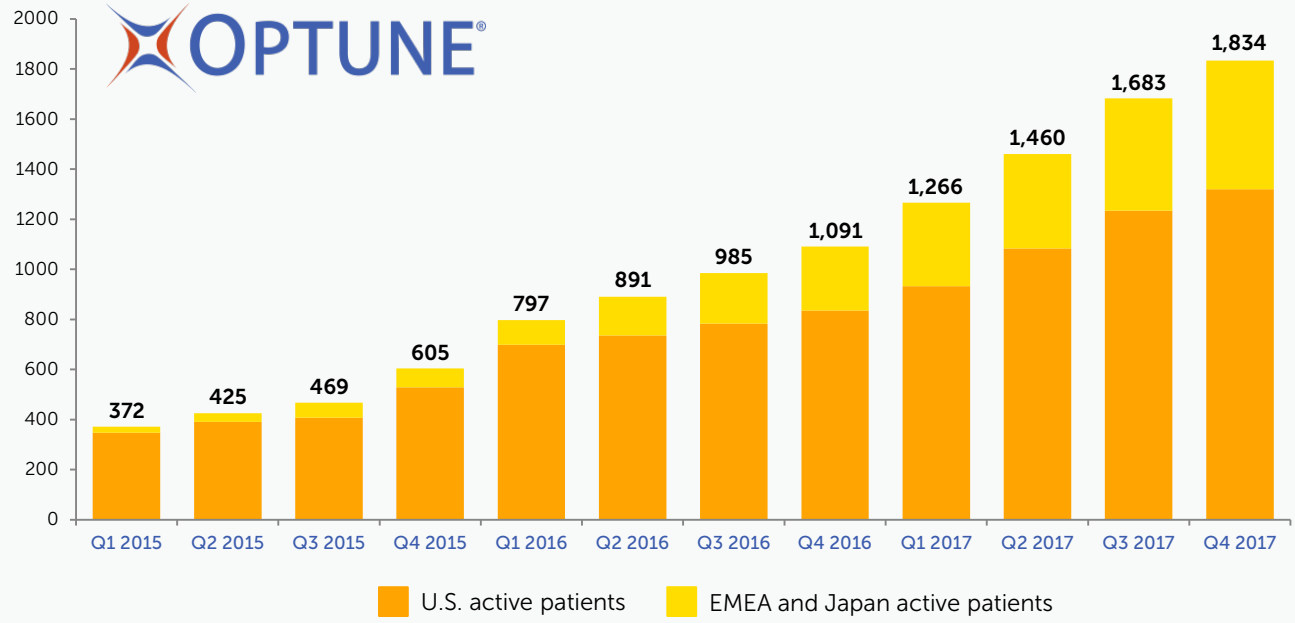
global commercial presence

global active markets as of September 30, 2017



successful commercial launch in GBM

active patients at period end



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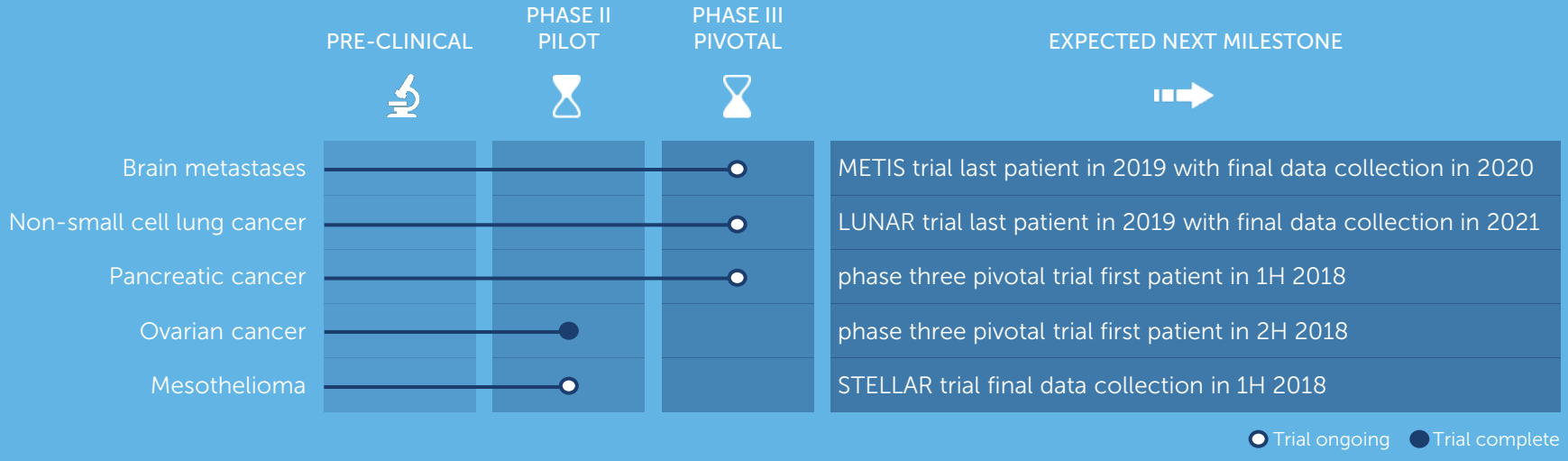
CONSECUTIVE QUARTERS OF ACTIVE PATIENT GROWTH SINCE INITIAL PRESENTATION OF EF-14 DATA

7,000+

PATIENTS TREATED TO DATE GLOBALLY

ongoing clinical trials



tumor treating fields has consistently exhibited anti-mitotic effect

PANOVA PHASE 2 PILOT TRIAL IN ADVANCED PANCREATIC CANCER

	FIRST COHORT		SECOND COHORT	
EFFICACY ENDPOINTS	TTFIELDS WITH GEMCITABINE[1]	GEMCITABINE-ALONE HISTORICAL RESULTS[2]	TTFIELDS WITH NAB-PACLITAXEL PLUS GEMCITABINE[3]	NAB-PACLITAXEL PLUS GEMCITABINE HISTORICAL RESULTS[2]
Median PFS	8.3 months	3.7 months	12.7 months	5.5 months
Median OS	14.9 months	6.7 months	Not yet reached	8.5 months
One-year survival rate	55%	22%	72%	35%
Partial response rate	30%	7%	40%	23%
Stable disease	30%	28%	47%	27%

1. Rivera F., et al. PANOVA: A pilot study of TTFields concomitant with gemcitabine for front-line therapy of advanced pancreatic adenocarcinoma. In: 2016 Gastrointestinal Cancers Symposium; 2016 Jan 21-23; San Francisco, CA. Alexandria (VA): ASCO; 2016. Abstract 682.
2. Von Hoff D.D., Ervin T., Arena F.P., et al. Increased Survival in Pancreatic Cancer with nab-Paclitaxel plus Gemcitabine. *N Engl J Med.* 2013 Oct 31;369(18):1691-703. doi: 10.1056/NEJMoa1304369
3. Benavides M. et.al. PANOVA: A phase II study of TTFields (150kHz) concomitant with standard chemotherapy for front line therapy of advanced pancreatic adenocarcinoma In: Proceedings of the 107th Annual Meeting of the American Association for Cancer Research; 2017 Apr 1-5; Washington, DC. Philadelphia (PA): AACR; 2017. Abstract CT130.

addressing large market segments with significant unmet medical needs

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BRAIN METASTASES	NON-SMALL CELL LUNG CANCER	PANCREATIC CANCER	OVARIAN CANCER	MESOTHELIOMA
				
225,000	630,000	196,000	96,000	13,000
CASES DIAGNOSED ANNUALLY IN TARGET MARKETS[1]	CASES DIAGNOSED ANNUALLY IN TARGET MARKETS[3-5]	CASES DIAGNOSED ANNUALLY IN TARGET MARKETS[3-5]	CASES DIAGNOSED ANNUALLY IN TARGET MARKETS[3-5]	CASES DIAGNOSED ANNUALLY IN TARGET MARKETS[3,6-7]
~25%	23.6%	8.7%	46.7%	9.1%
OF NSCLC PATIENTS DEVELOP BRAIN METS[2]	FIVE YEAR SURVIVAL[3]	FIVE YEAR SURVIVAL[3]	FIVE YEAR SURVIVAL[3]	FIVE YEAR SURVIVAL[3]

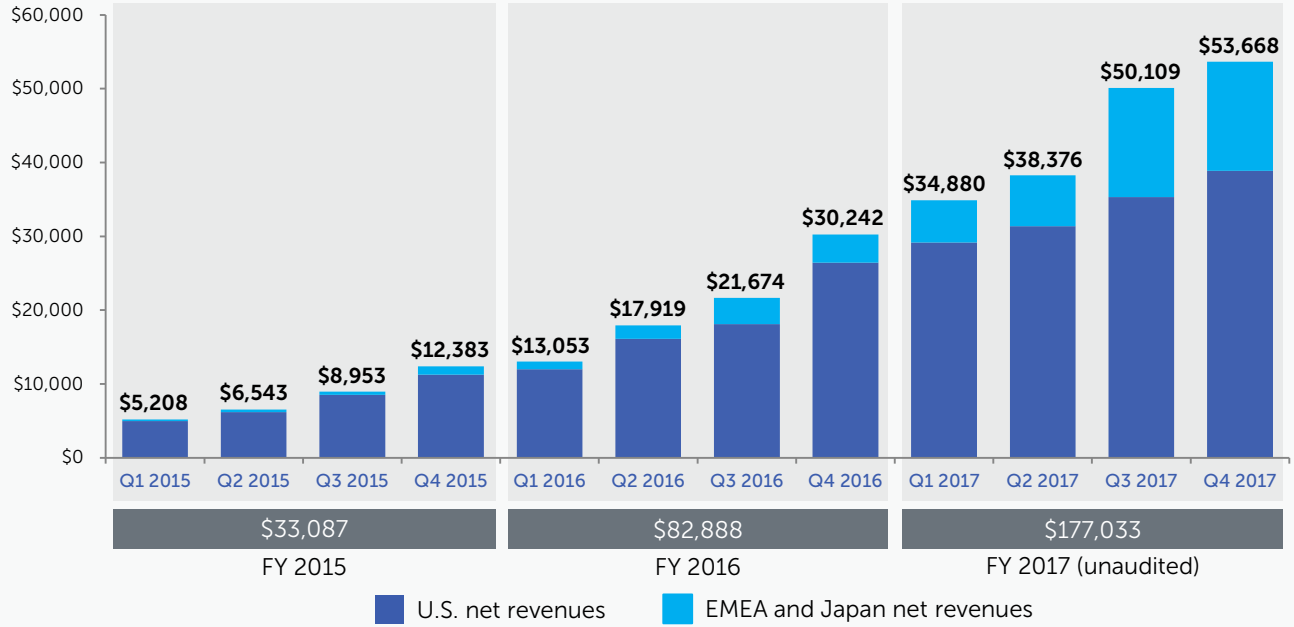
1. Goetz P, Ebinu JO, Roberge D, Zadeh G. Current Standards in the Management of Cerebral Metastases. *Intl J of Surg Onc*. 2012;2012:493426. doi:10.1155/2012/493426. 2. Owen S, Souhami L. The management of brain metastases in non-small cell lung cancer. *Frontiers in Oncology*. 2014;4:248. doi:10.3389/fonc.2014.00248. 3. Howlader N, Noone AM, et al. SEER Cancer Statistics Review, 1975-2014, National Cancer Institute. Bethesda, MD, https://seer.cancer.gov/csr/1975_2014/, based on November 2016 SEER data submission, posted to SEER web site, April 2017. 4. Ferlay J, Steliarova-Foucher E, et al. Cancer incidence and mortality patterns in Europe: estimates for 40 countries in 2012. *Eur J Cancer*. 2013;49(6):1374-403. doi: 10.1016/j.ejca.2012.12.027. 5. WHO (2016) GLOBOCAN 2012: Estimated Cancer Incidence, Mortality, and Prevalence Worldwide in 2012, Lyon, France (accessed January 2018). 6. Peto J, Decarli A, La Vecchia C, Levi F, Negri E. The European mesothelioma epidemic. *Br J Cancer* 1999;79:666 –72. doi: 10.1038/sj.bjc.6690105. 7. Robinson B.M. Malignant pleural mesothelioma: an epidemiological perspective. *Ann Cardiothorac Surg*. 2012; 1(4): 491–496. doi: 10.3978/j.issn.2225-319X.2012.11.04.

multiple combination therapy opportunities

Pre-clinical evidence to date suggests additive or synergistic benefits with certain other cancer therapies

demonstrated financial performance

global net revenues (USD in thousands)



77%

YEAR-OVER-YEAR REVENUE GROWTH

$186.6

MILLION IN CASH AND SHORT-TERM EQUIVALENTS AS OF SEPTEMBER 30, 2017

long term value creation beyond 2018

near-term opportunity 2018-2021

- Drive commercial adoption of Optune within GBM
- Expand coverage for GBM patients in currently active markets and establish access for GBM patients in new markets
- Progress mesothelioma towards commercialization
- Advance the clinical pipeline in multiple solid tumor indications
- Grow annual revenues while improving SG&A operating leverage

long-term opportunity 2021+

- Launch Tumor Treating Fields platform for additional indications in large addressable markets
  - Brain metastases from non-small cell lung cancer
  - Non-small cell lung cancer
  - Pancreatic cancer
  - Ovarian cancer