novocure™

Novocure (NVCR) overview

Rodman & Renshaw 19th Annual
Global Investment Conference
September 12, 2017

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.

about novocure

global organization

- Headquartered in Jersey
- Five currently active commercial markets (U.S., Germany, Switzerland, Israel and Japan)
- Research facility in Israel
- Ownership of IP and sole distribution rights of Tumor Treating Fields
- 450+ employees globally

proven lead product

- Approved in the U.S., EMEA and Japan for the treatment of adults with glioblastoma (GBM)
- Supported by successful EF-14 phase 3 pivotal trial

rich clinical pipeline

- Broadly applicable mechanism of action across multiple solid tumor types
- Recruiting for phase 3 pivotal trials in brain metastases and non-small cell lung cancer
- Completed or ongoing phase 2 pilot trials in:
  - Pancreatic cancer
  - Ovarian cancer
  - Mesothelioma

low-intensity alternating electric fields

USED ALONE OR IN COMBINATION TO TREAT SOLID TUMORS

surgery

- Most frequently employed therapy
- Reduces size of a tumor prior to initiation of additional therapies

radiation

- Kills cells when delivered at high doses
- Injinjures healthy tissues with numerous potential toxic side effects

pharmacological treatments

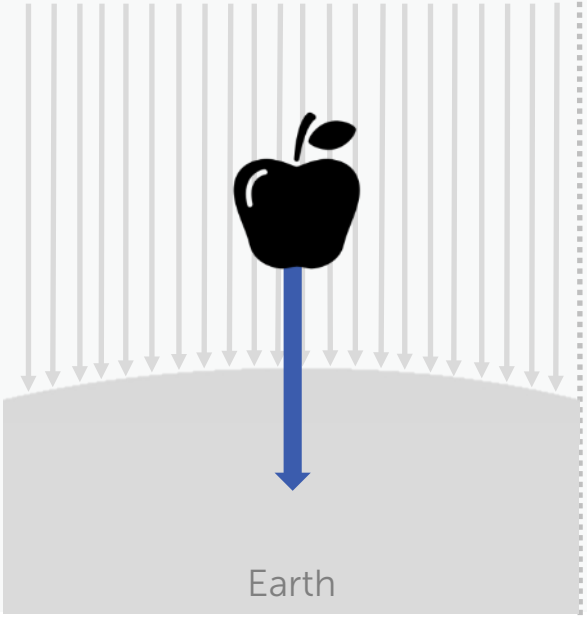
- Includes chemotherapy, targeted therapies and immuno-oncology
- Limited by potential side effects
- Resistance can develop over time

tumor treating fields (TTFields)

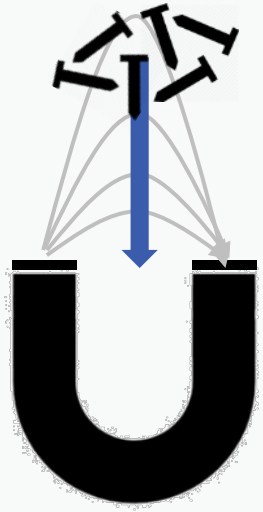
- Low-intensity, alternating electric fields
- Mild side effect profile
- No known resistance or cumulative toxicity
- Can be used in combination with other treatment modalities

electric fields exert forces on electrically polarized molecules

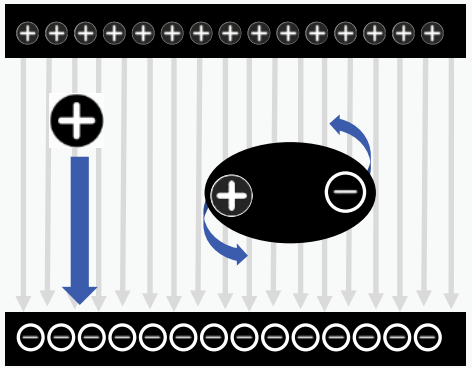
GRAVITATIONAL FIELDS
exert force on masses



MAGNETIC FIELDS
exert force on iron & other magnets

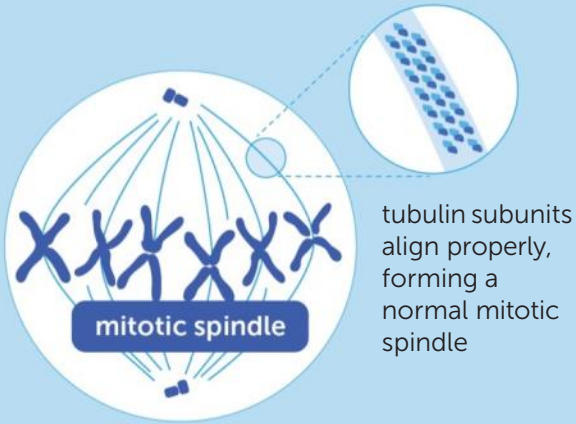


ELECTRIC FIELDS
exert force on charges & polarized molecules



TTFields impact metaphase

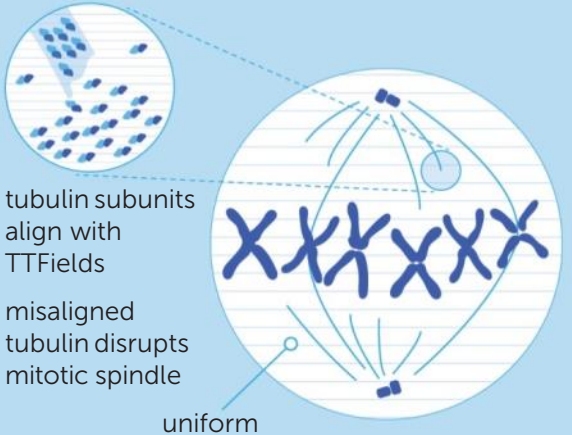
normal metaphase



tubulin subunits align properly, forming a normal mitotic spindle

effect of TTFields on metaphase

tubulin subunits have a high dipole moment



tubulin subunits align with TTFields

misaligned tubulin disrupts mitotic spindle

uniform electric field

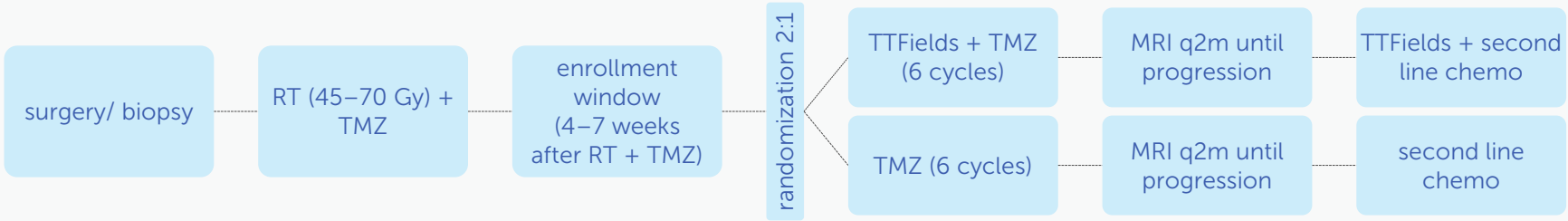
TTFields are delivered via a non-invasive, portable medical device

- Battery or wall-powered electric field generator
- Single-use transducer arrays replaced 2–3 times/week
- Should be used at least 18 hours/day
- Mild side-effect profile, no known systemic toxicity

EF-14 phase 3 pivotal trial initiated in 2009

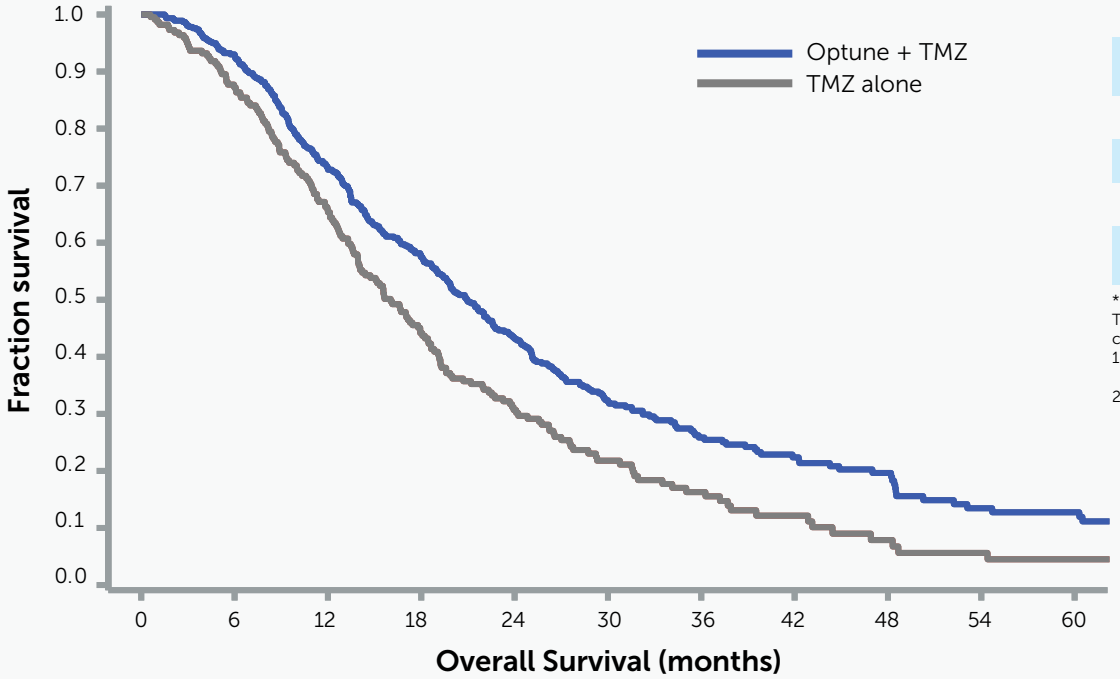
A prospective, multicenter trial of TTFields together with temozolomide compared to standard-of-care temozolomide alone in patients with newly diagnosed GBM

- 83 centers; 695 newly diagnosed GBM patients randomized 2:1 (TTFields plus TMZ vs TMZ alone)
- Treated until second progression or 24 months
- Pre-specified interim analysis 18 months after enrollment of the 315th patient
- Endpoints:
  - Primary endpoint — progression-free survival (PFS) (intent to treat)
  - Secondary endpoint — overall survival (OS) (as treated)



Novocure, Ltd. Effect of NovoTTF-100A Together With Temozolomide in Newly Diagnosed Glioblastoma Multiforme (GBM) In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000-[cited 2017 Jul]. Available from: https://clinicaltrials.gov/ct2/show/NCT00916409. NLM Identifier: NCT00916409

EF-14 overall survival

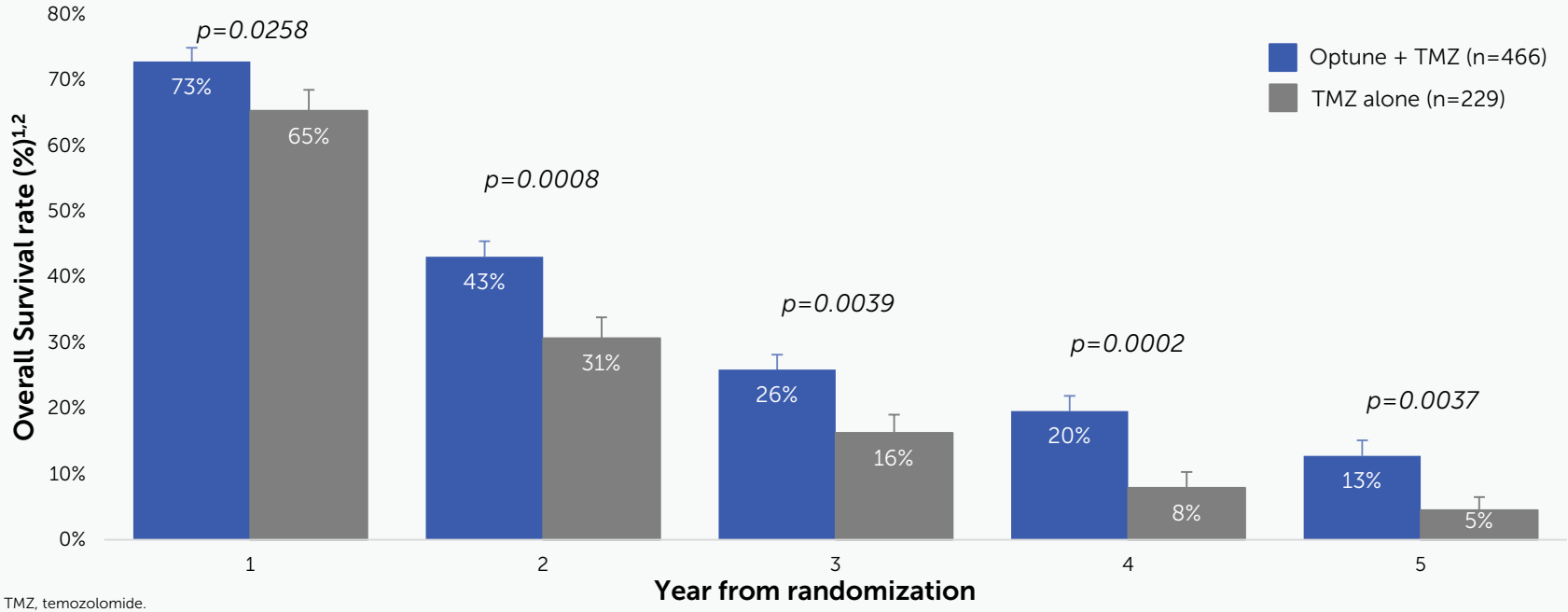


	OPTUNE + TMZ (n=466)[1,2]	TMZ ALONE (n=229)[1,2]
Median OS from randomization, mo	20.9	16.0
95% CI, mo	19.3-22.7	14.0-18.4
Stratified log-rank	p=0.0001	
HR (95% CI)	0.63 (0.53-0.76)	
Median OS from diagnosis, mo	24.5	19.8

*Both interim and final analyses are protocol prespecified.[1,2]
TMZ, temozolomide; ITT, intent-to-treat; PFS, progression-free survival; CI confidence interval; HR, hazard ratio.

1. Stupp R, et al; on behalf of EF-14 trial investigators. Slides presented at: AACR Annual Meeting 2017; April 1-5, 2017; Washington, DC.
2. Optune Instructions for Use. Novocure 2016.

EF-14 annual survival rates

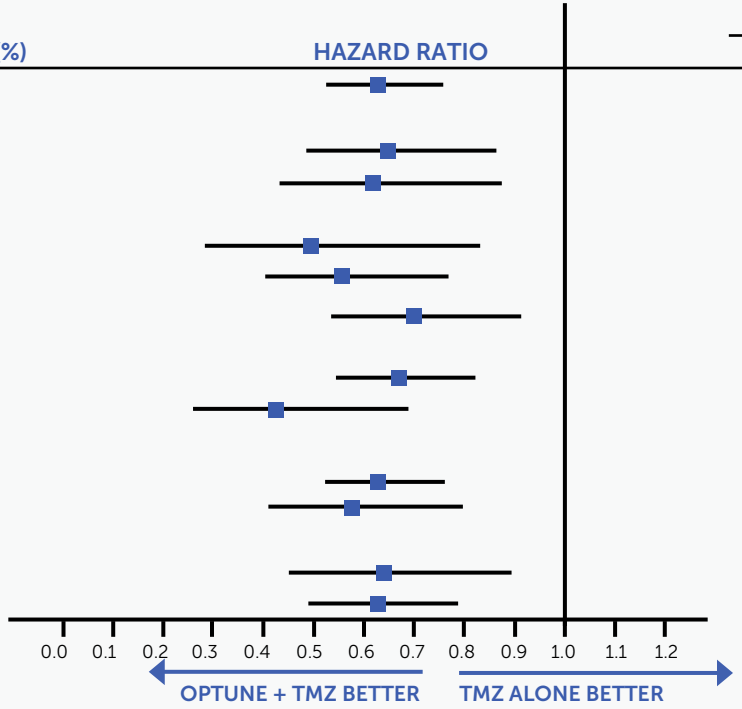


TMZ, temozolomide.

1. Stupp R, et al; on behalf of EF-14 trial investigators. Slides presented at: AACR Annual Meeting 2017; April 1-5, 2017; Washington, DC.
2. Novocure Data on File. OPT-129.1

EF-14 subgroup analysis

SUBGROUP	NO. OF PATIENTS (%)	MEDIAN SURVIVAL (MONTHS) OPTUNE + TMZ[1]	MEDIAN SURVIVAL (MONTHS) TMZ ALONE[1]
Overall	695 (100)	20.9	16.0
MGMT (central)			
Unmethylated	304 (44)	16.9	14.7
Methylated	214 (31)	31.6	21.2
Resection			
Biopsy	89 (13)	16.5	11.6
Partial	234 (34)	21.4	15.1
Gross total	372 (53)	22.6	18.5
Age			
<65 y	583 (84)	21.6	17.1
65+ y	112 (16)	16.0	10.9
KPS			
90-100	457 (67)	23.3	17.8
≤80	228 (33)	14.9	11.0
Gender			
Female	222 (32)	24.6	18.5
Male	473 (68)	19.1	15.5

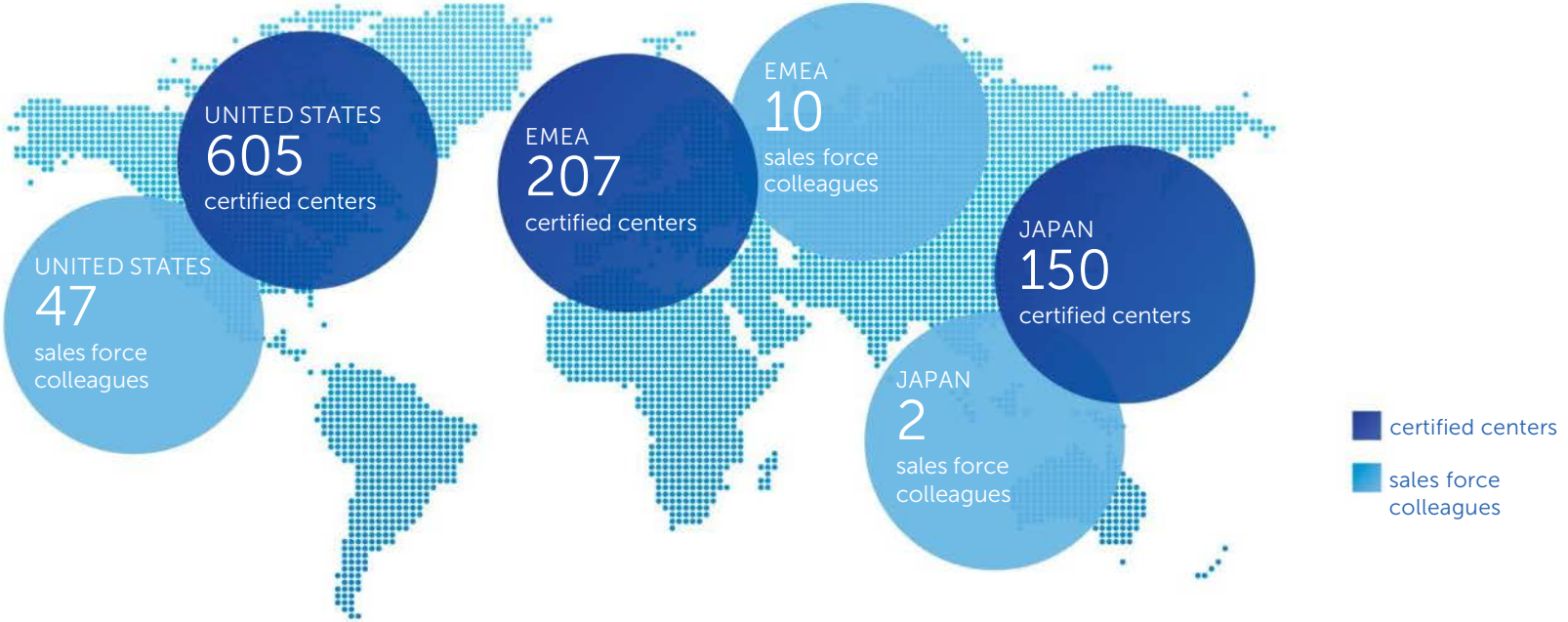


TMZ, temozolomide; MGMT, O6-methylguanine-DNA methyltransferase; KPS, Karnofsky Performance Score.

1. Stupp R, et al; on behalf of EF-14 trial investigators. Slides presented at: AACR Annual Meeting 2017; April 1-5, 2017; Washington, DC

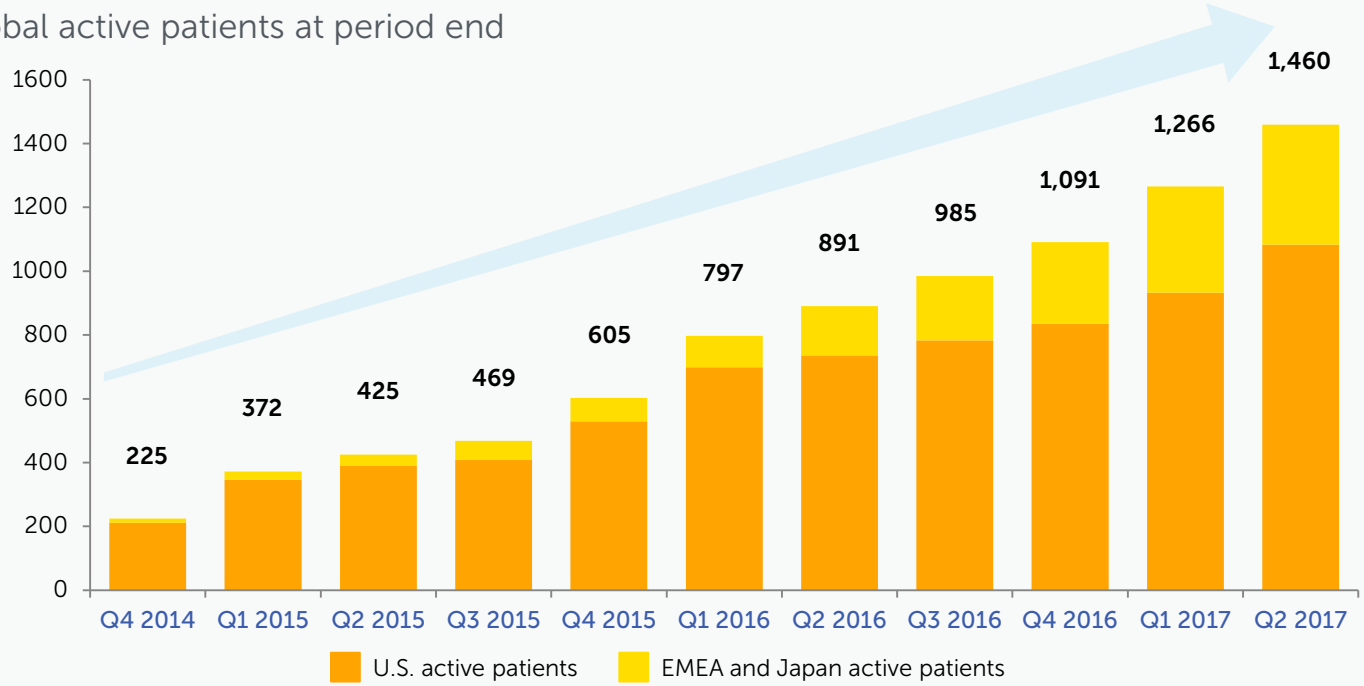
global commercial presence

global active markets as of June 30, 2017



active patient growth

global active patients at period end



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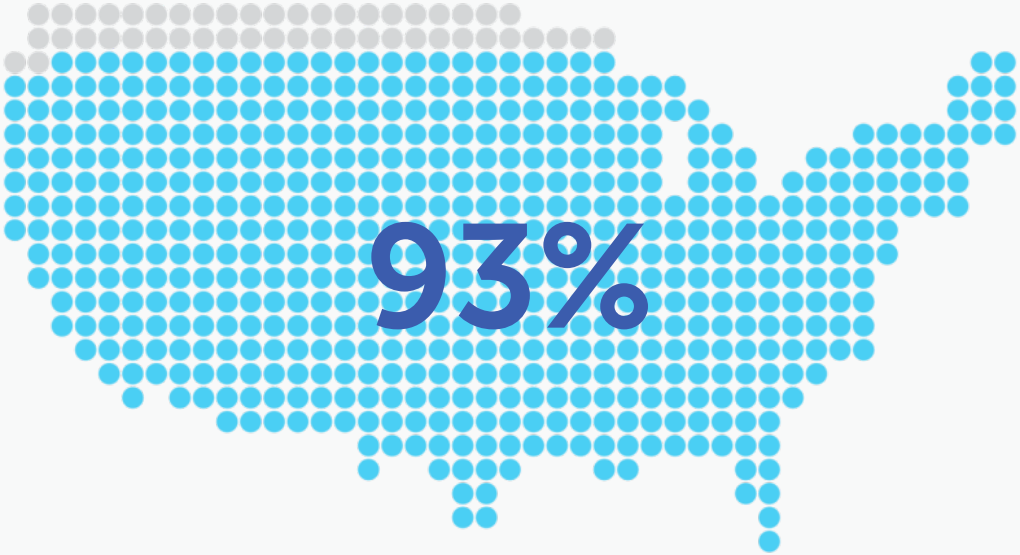
CONSECUTIVE QUARTERS OF ACTIVE PATIENT GROWTH SINCE PRESENTATION OF EF-14 DATA

expanding U.S. commercial market access



OF AMERICANS WITH PRIVATE HEALTH INSURANCE[1,2]
NOW HAVE POSITIVE COVERAGE OF OPTUNE

>204

MILLION COVERED LIVES
IN THE U.S.

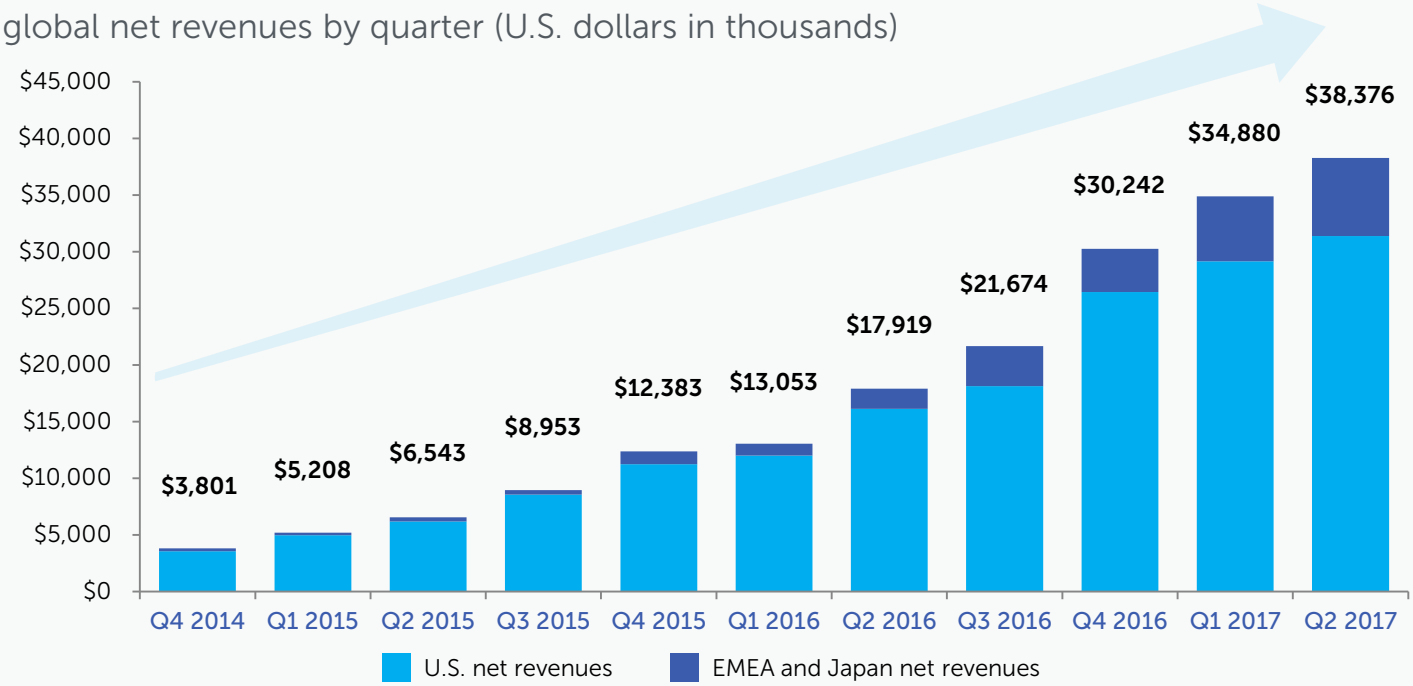
>174

MILLION CONTRACTED LIVES
IN THE U.S.

1. U.S. population insured with employers, non-group insurance or Medicare Advantage plans
2. Appealing Medicare fee-for-service denials, impacting 20-25% of U.S. active patients

revenue growth

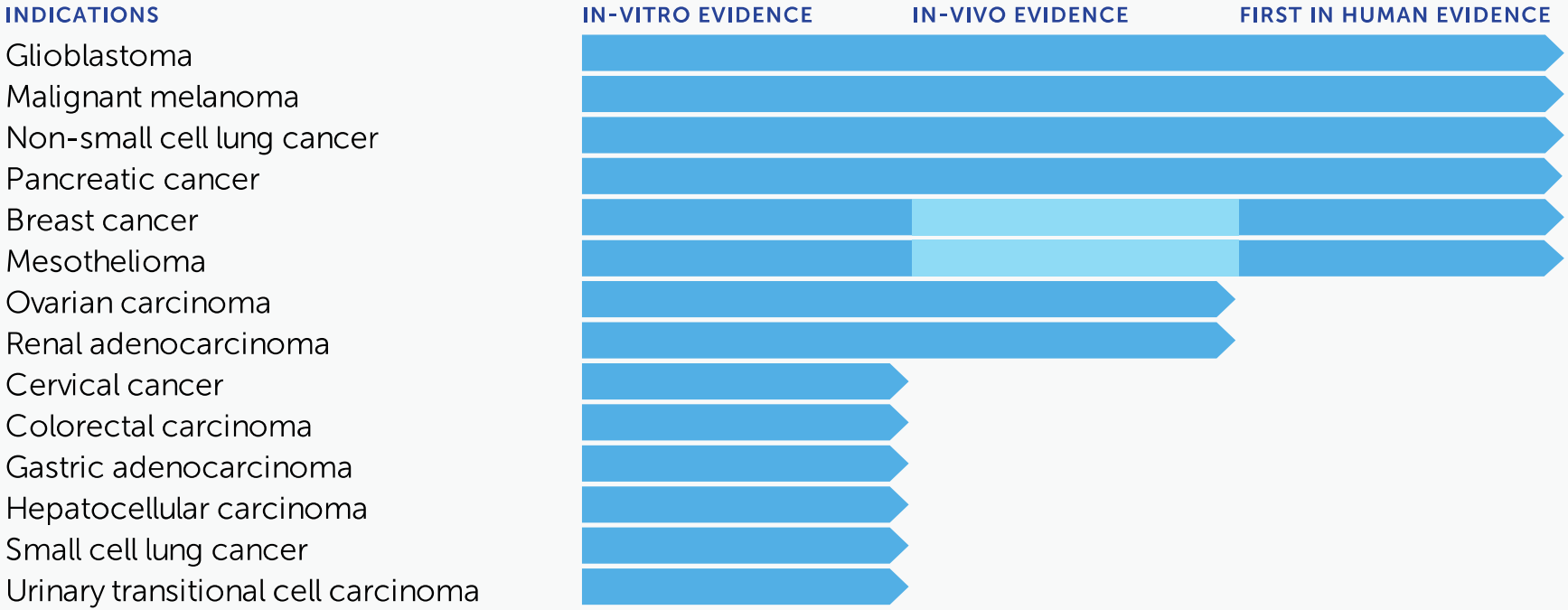
global net revenues by quarter (U.S. dollars in thousands)



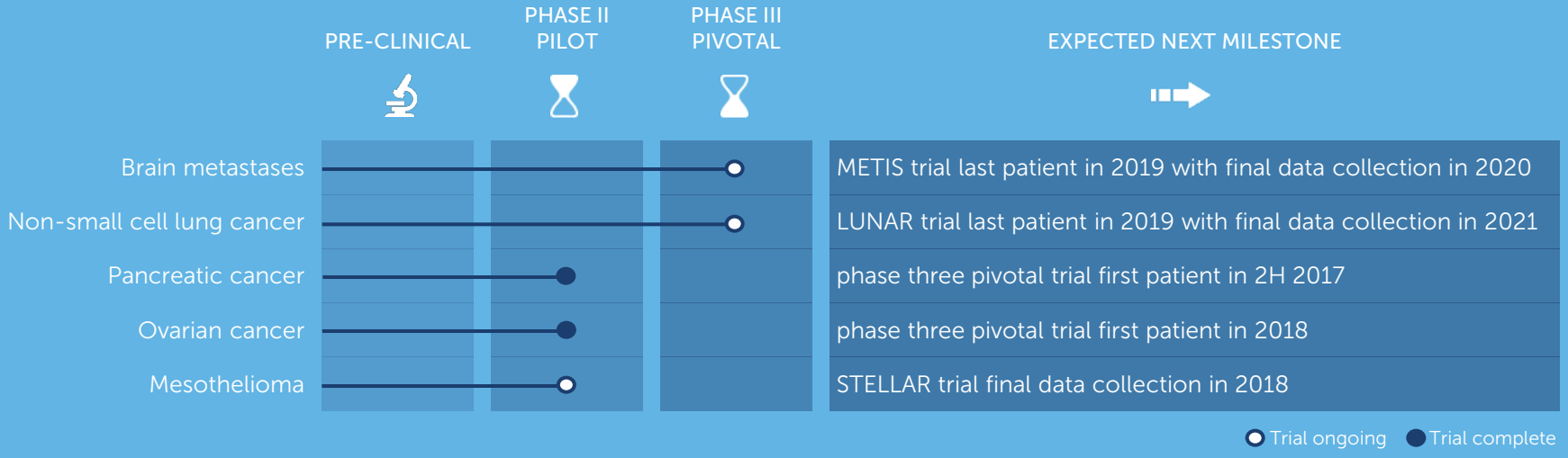
114%

YEAR-OVER-YEAR REVENUE GROWTH

broad applicability to solid tumors



ongoing clinical trials



phase 2 pilot PANOVA trial

	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.

phase 2 pilot STELLAR trial

A prospective, open label, single-arm, non-randomized, multicenter study testing safety and preliminary efficacy of TTFields at 150 kHz together with pemetrexed and cisplatin or carboplatin in patients with previously untreated malignant pleural mesothelioma versus historical controls

- 80 patients in Europe with unresectable, previously untreated malignant mesothelioma
- Actively recruiting patients since February 2015, interim data presented at IASLC in December 2016
- Primary endpoint – overall survival (OS)

EFFICACY ENDPOINTS	TTFIELDS WITH PEMETREXED AND CISPLATIN OR CARBOPLATIN[1]	PEMETREXED AND CISPLATIN-ALONE HISTORICAL RESULTS[2]
Median PFS	7.3 months	5.7 months
Median OS	Not yet reached	12.1 months
One-year survival rate	79.7%	50.3%

Novocure, Ltd. Safety and Efficacy of TTFields (150 kHz) Concomitant With Pemetrexed and Cisplatin or Carboplatin in Malignant Pleural Mesothelioma (STELLAR) In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000-[cited 2017Jul]. Available from: https://clinicaltrials.gov/ct2/show/NCT02397928. NLM Identifier: NCT02397928

1. Cerasoli, G.L. International Association for the Study of Lung Cancer. OA22.01 – STELLAR – Interim Results of a Phase 2 Trial of TTFields with Chemotherapy for First Line Treatment of Malignant Mesothelioma. Oral Session: Novel Trials and Biomarkers in Malignant Pleural Mesothelioma. Wednesday, Dec. 7, 2016, 2:20 p.m. CET
2. Vogelzang N.J., Rusthoven J.J., Symanowski J., et al. Phase III Study of Pemetrexed in Combination With Cisplatin Versus Cisplatin Alone in Patients With Malignant Pleural Mesothelioma *J Clin Oncol*. 2003 Jul 15;21(14):2636–44. doi: 10.1200/JCO.2003.11.136

phase 2 pilot INNOVATE trial

A prospective, open label, single-arm, non-randomized, multicenter study testing feasibility, safety, toxicity and preliminary efficacy of TTFields at 200 kHz together with weekly paclitaxel in patients with recurrent ovarian cancer versus historical controls

- 30 patients in Europe with recurrent ovarian cancer
- Last patient enrolled May 2016 with six month follow-up
- Primary endpoint – severity and frequency of adverse events

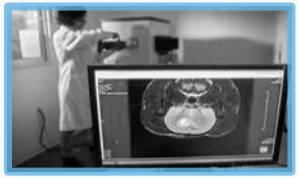
EFFICACY ENDPOINTS	TTFIELDS WITH PACLITAXEL[1]	PACLITAXEL-ALONE HISTORICAL RESULTS[2]
Median PFS	8.9 months	3.9 months*
Median OS	Not yet reached	13.2 months
One-year survival rate	61%	

Novocure, Ltd. Safety, Feasibility and Effect of TTFields (200 kHz) Concomitant With Weekly Paclitaxel in Recurrent Ovarian Carcinoma (INNOVATE) In: ClinicalTrials.gov [Internet]. Bethesda (MD): National Library of Medicine (US). 2000- [cited 2017Jul]. Available from: https://clinicaltrials.gov/ct2/show/NCT02244502. NLM Identifier: NCT02244502

1. Vergote I., et.al. INNOVATE: a phase II study of TTFields (200 kHz) concomitant with weekly paclitaxel for recurrent ovarian carcinoma. 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 CT135.
2. Poveda A.M., Selle F., Hiplert F. et al. Bevacizumab Combined With Weekly Paclitaxel, Pegylated Liposomal Doxorubicin, or Topotecan in Platinum-Resistant Recurrent Ovarian Cancer: Analysis by Chemotherapy Cohort of the Randomized Phase III AURELIA Trial. *J of Clin Onc*. 2015 Nov 10;33(32):3836-8. doi: 10.1200/JCO.2015.63.1408. * Median PFS reflects the weekly paclitaxel subgroup; Median PFS for all chemotherapies was 3.4 months

three strategic objectives

Drive commercial adoption of Optune



Advance the clinical pipeline

Focus on improving operating leverage

