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 Tumor Treating Fields delivery systems, including Optune and the NovoTTF-100L System, 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 Quarterly Report on Form 10-Q filed July 25, 2019, or in subsequent 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 FDA-approved for the treatment of adults with supratentorial glioblastoma, or GBM, and for the treatment of adults with malignant pleural mesothelioma (MPM) and its approval for other indications is not certain. Novocure can provide no assurances regarding market acceptance of Optune or NovoTTF-100L or their 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.
striving to extend survival in some of the most aggressive forms of cancer
the Novocure journey

- Novocure founded
- FDA approval in recurrent GBM 2011
- FDA approval in newly diagnosed GBM 2015
- FDA approval for 2nd generation device 2016
- IPO 2015
- Crossed $50M annual revenue 2016
- Crossed $100M annual revenue 2017
- Crossed $350M annual revenue 2019

- METIS trial* in brain metastases open
- LUNAR trial* in NSCLC open
- PANOVA-3 trial* in pancreatic open
- INNOVATE-3 trial* in ovarian open

GBM: glioblastoma; MPM: malignant pleural mesothelioma; HDE: humanitarian device exemption

*Phase 3 pivotal clinical trial

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strengthening our foundation for growth

- 14,000+ patients treated globally
- Four indications in late-stage pipeline
- 180+ issued patents and pending patent applications globally
- $326 million cash on hand*

*Cash, cash equivalents and short-term investments as of December 31, 2019, preliminary and unaudited
like gravity and magnetic fields, electric fields exert forces at a distance
mitotic spindle disruption has been observed in every cancer cell line tested

CONTROL

TUMOR TREATING FIELDS

Non-small cell lung cancer cell line. Blue staining is DAPI, highlighting DNA. Red staining is for pH3, highlighting DNA binding proteins. Green staining is for tubulin, highlighting the mitotic spindle. Novocure data on file.
therapy is frequency-tuned to target dividing cancer cells
growing evidence supports broad applicability in combination with certain other cancer therapies

TUMOR TREATING FIELDS

WITH RADIATION THERAPY

Tumor Treating Fields increased sensitivity to radiation therapy and inhibited DNA damage repair mechanisms in glioblastoma cells

WITH CERTAIN CHEMOTHERAPIES

In vitro dose-response effect of paclitaxel alone and in combination with Tumor Treating Fields in Lewis lung carcinoma cells

WITH CERTAIN IMMUNOTHERAPIES

Tumor Treating Fields in combination with anti-PD-1 were therapeutically effective in vivo in Lewis lung carcinoma cells

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1. * p < 0.05, ** p < 0.01. Kim E.H., et al. Oncotarget 2016 Sep 20; 7(35): 62267-62279
Tumor Treating Fields delivery systems FDA approved for GBM and MPM

**DELIVERY SYSTEM CONSISTS OF ELECTRIC FIELD GENERATOR AND TRANSDUCER ARRAYS**

The Optune® delivery system for GBM*

**CONTINUOUS USE THERAPY INTEGRATED INTO PATIENT’S DAILY LIFE**

the NovoTTF-100L delivery system for MPM**

GBM: glioblastoma
MPM: malignant pleural mesothelioma
* Approved in the U.S. through the Premarket Authorization (PMA) Pathway
** Approved in the U.S. through the IDE pathway
proven to provide long-term quality survival to patients with newly diagnosed GBM

5-year survival analysis was published in JAMA, December 2017

GBM, glioblastoma; TMZ, temozolomide; OS, overall survival; ITT, intent-to-treat.
more time on Optune predicted increased significant survival benefit in GBM

86% of patients received a survival benefit from Optune because they used it more than half the time (n=388/450)

Median OS by percentage of monthly time on Optune*

<table>
<thead>
<tr>
<th>Percentage of Monthly Time on Optune</th>
<th>Median OS, months</th>
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<tbody>
<tr>
<td>90%-100% (n=43) 22-24 hours/day†</td>
<td>25 months</td>
</tr>
<tr>
<td>70%-90% (n=257) 17-22 hours/day†</td>
<td>22 months</td>
</tr>
<tr>
<td>60%-70% (n=46) 14-17 hours/day†</td>
<td>20 months</td>
</tr>
<tr>
<td>50%-60% (n=42) 12-14 hours/day†</td>
<td>18 months</td>
</tr>
<tr>
<td>0% (n=229) TMZ alone</td>
<td>16 months</td>
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TMZ: temozolomide

* Based on amount of time Optune was turned on and providing therapy over the course of a month. This data reflects the average patient usage of Optune for the first 6 months of treatment (months 1-6).
† Approximation, based on monthly usage:
‡ vs TMZ alone.

patients treated with Optune for newly diagnosed GBM maintained quality of life over time

FDA approved NovoTTF-100L for mesothelioma*, our first torso indication, based on STELLAR results

97% Responded to treatment with NovoTTF-100L + chemo

57% Had stable disease

40% Had a partial response

*unresectable, locally advanced or metastatic, malignant pleural mesothelioma (MPM) to be used together with standard chemotherapy (pemetrexed and platinum-based chemotherapy)

The NovoTTF-100L System was approved by FDA under the Humanitarian Device Exemption (HDE) pathway in May 2019.

Caution: Federal law restricts the NovoTTF-100L System to sale by or on the order of a physician. Humanitarian Device. Authorized by Federal Law for use in the treatment of adult patients with unresectable, locally advanced or metastatic, malignant pleural mesothelioma concurrently with pemetrexed and platinum-based chemotherapy. The effectiveness of this device for this use has not been demonstrated.

STELLAR results published in The Lancet Oncology, October 2019
direct-to-patient distribution model

- Novocure Device Support Specialist delivers device and trains patient
- Novocure provides supplies and 24/7 support for patients
- Novocure bills third-party payers and patients a single fee per month of therapy
continued commercial execution

**Global Net Revenues (USD in Millions)**

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<tr>
<td>FY 2016</td>
<td>$13.1</td>
<td>$17.9</td>
<td>$21.7</td>
<td>$30.2</td>
<td>$34.9</td>
<td>$38.4</td>
<td>$50.1</td>
<td>$53.7</td>
<td>$52.1</td>
<td>$61.5</td>
<td>$64.8</td>
<td>$69.7</td>
<td>$73.3</td>
<td>$86.7</td>
<td>$92.1</td>
<td>$99.2</td>
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<td></td>
<td>$82.9</td>
<td>$177.0</td>
<td>$248.1</td>
<td>$351.3</td>
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**42%**
Revenue Growth 2019 Versus 2018

**20**
Consecutive Quarters of Active Patient Growth Since Initial Presentation of EF-14 Data

Q4 2019 and FY 2019 revenues are preliminary and unaudited

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multiple levers to drive revenue growth

**UNITED STATES**
- 1,002 total prescriptions in the period
- 1,952 active patients at period end
- 263m contracted GBM lives at period end

**EMEA**
- 285 total prescriptions in the period
- 765 active patients at period end
- 19m contracted GBM lives at period end

**JAPAN**
- 93 total prescriptions in the period
- 192 active patients at period end
- 127m contracted GBM lives at period end

Information above as of December 31, 2019.
2019 revenues are preliminary and unaudited.
Global net revenues include Greater China revenue.
additional revenue from collaboration with Zai Lab in Greater China

- Optune for GBM launched in Hong Kong in February 2019
- Phase 2 pilot trial in gastric cancer initiated in January 2020
- Marketing Authorization Application accepted by Chinese NMPA and under review

Greater China includes mainland China, Hong Kong, Macau and Taiwan
strengthening financial performance

**Global Net Revenues ($m)**
- FY 2016: $83
- FY 2017: $177
- FY 2018: $248
- FY 2019: $351

**SG&A Expense Ratio**
- FY 2016: 133%
- FY 2017: 69%
- FY 2018: 61%
- Q3 2019 YTD: 53%

**Cash Flow from Operations ($m)**
- FY 2016: ($108)
- FY 2017: ($33)
- FY 2018: ($2)
- Q3 2019 YTD: $20

**Cash on Hand ($m)**
- FY 2016: $220
- FY 2017: $183
- FY 2018: $246
- FY 2019: $326

---

**REINFORCING LOOP OF GROWTH**

- Growing GBM business establishes solid financial foundation and generates operating leverage
- Strong balance sheet and cash position provide broad flexibility to execute on clinical and product development
- Well-positioned to capture significant TAM expansion opportunity

---

1. SG&A Expense Ratio equals total selling, general and administrative expenses divided by total net revenues in the period
2. Cash on Hand equals sum of cash, cash equivalents and short-term investments in the period

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broadly applicable mechanism of action

**CANCERS OF THE BRAIN**
- 2 marketed indications
- 1 indication in development
- 4 additional cell lines with preclinical evidence

**CANCERS OF THE TORSO**
- 1 marketed indication
- 1 indication in development
- 2 additional cell lines with preclinical evidence

**CANCERS OF THE ABDOMEN**
- 0 marketed indications
- 4 indications in development
- 4 additional cell lines with preclinical evidence
efficacy suggested in all phase 2 pilot studies

NON-SMALL CELL LUNG CANCER PHASE 2 PILOT STUDY1

13.8 months median overall survival vs. 8.3 months in pemetrexed-alone historical control*

PANCREATIC CANCER PHASE 2 PILOT STUDY2

median overall survival not reached vs. 8.5 mos. in nab-paclitaxel + gemcitabine historical control*

OVARIAN CANCER PHASE 2 PILOT STUDY3

median overall survival not reached vs. 13.2 mos. in paclitaxel-alone historical control*


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ongoing METIS trial in brain metastases

**METIS PHASE 3 PIVOTAL, OPEN-LABEL, RANDOMIZED TRIAL DESIGN¹**

- 270 patients with 12 months follow-up
- Primary endpoint: time to intracranial progression
- Designed to detect hazard ratio of 0.57 (+6 mos. in time to progression)
- Final data anticipated in 2021


© Novocure 2020
ongoing LUNAR trial in non-small cell lung cancer

LUNAR PHASE 3 PIVOTAL, OPEN-LABEL, RANDOMIZED TRIAL DESIGN

- 534 patients with 18 months follow-up
- Primary endpoint: overall survival
- Designed to detect hazard ratio of 0.75 (+5 mos. in OS)
- Final data anticipated in 2022


© Novocure 2020
ongoing PANOVA-3 trial in pancreatic cancer

PANOVA-3 PHASE 3 PIVOTAL, OPEN-LABEL, RANDOMIZED TRIAL DESIGN

- 556 patients with 18 months follow-up
- Primary endpoint: overall survival
- Designed to detect hazard ratio of 0.75 (+5 mos. in OS)
- Final data anticipated in 2022

ongoing INNOVATE-3 trial in ovarian cancer

**INNOVATE-3 PHASE 3 PIVOTAL, OPEN-LABEL, RANDOMIZED TRIAL DESIGN**

- 540 patients with 18 months follow-up
- Primary endpoint: overall survival
- Designed to detect hazard ratio of 0.75 (+4 mos. in OS)
- Final data anticipated in 2024

---

**in vitro** data informed HEPANOVA phase 2 pilot trial design in liver cancer

**Efficacy of TTFIELDS and Sorafenib Combination Treatment**

The TTFIELDS/sorafenib combination showed an increase in the overall effect (cytotoxic x clonogenic effects) in HepG2 cells.


**HEPANOVA Phase 2 Pilot Trial Design**

- 25 patients with 6 months follow-up
- Designed to detect an overall radiological response rate of 20% vs. 4.5% in historical controls
- Final data anticipated in 2021

first phase 2 pilot trial in gastric cancer initiated in Greater China in partnership with Zai Lab

EFFICACY OF TTFIELDS AND FOLFOX COMBINATION TREATMENT

PHASE 2 PILOT TRIAL DESIGN EVALUATING SAFETY AND EFFICACY OF TTFIELDS AND XELOX CHEMOTHERAPY IN GASTRIC CANCER

- 50 patients with 12 months follow-up
- Designed to detect investigator-assessed objective response rate per RECIST 1.1

The overall effect of TTFields/FOLFOX combination treatment was significantly higher versus either treatment alone for the AGS cell line. * P<0.05; ** P<0.01; *** P<0.001

late-stage pipeline creates potential for substantial market expansion

= 5,000 cases diagnosed annually in the U.S.

- Glioblastoma (GBM)
- Mesothelioma (MPM)
- Brain metastases from non-small cell lung cancer
- Non-small cell lung cancer
- Pancreatic cancer
- Ovarian cancer

Today

~3 Years

~5 Years

patientforward
product innovation intended to improve efficacy and patient ease of use
potential to improve efficacy through extended time on therapy and increased intensity

TIME ON THERAPY IN EF-14 STUDY

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* Based on amount of time Optune was turned on and providing therapy over the course of a month. This data reflects the average patient usage of Optune for the first 6 months of treatment (months 1-6). Approximation based on monthly usage, i.e., TMZ alone.


ELECTRIC FIELD INTENSITY

* Based on amount of time Optune was turned on and providing therapy over the course of a month. This data reflects the average patient usage of Optune for the first 6 months of treatment (months 1-6). Approximation based on monthly usage, i.e., TMZ alone.

current product development programs

ONGOING TECHNOLOGY INNOVATION
WITH 33 NEW PATENT APPLICATIONS IN 2019
striving to extend survival in some of the most aggressive forms of cancer
NovoTTF-100L™ System and Optune® indications for use and important safety information

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.
- The NovoTTF-100L System is indicated for the treatment of adult patients with unresectable, locally advanced or metastatic, malignant mesothelioma (MPM) to be used concurrently with pemetrexed and platinum-based chemotherapy.

CONTRAINDICATIONS

- Do not use Optune in patients with GBM with an implanted medical device, a skull defect (such as, missing bone with no replacement), or bullet fragments. 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 the NovoTTF-100L System in patients with MPM with implantable electronic medical devices such as pacemakers or implantable automatic defibrillators, etc.
- Use of Optune for GBM or the NovoTTF-100L System for MPM together with implanted electronic devices has not been tested and may lead to malfunctioning of the implanted device.
- Do not use Optune for GBM or the NovoTTF-100L System for MPM in patients known to be sensitive to conductive hydrogels. Skin contact with the gel used with Optune and the NovoTTF-100L System may commonly cause increased redness and itching, and may rarely lead to severe allergic reactions such as shock and respiratory failure.
NovoTTF-100L™ System and Optune® indications for use and important safety information

WARNINGS AND PRECAUTIONS

- Optune and the NovoTTF-100L System can only be prescribed by a healthcare provider that has completed the required certification training provided by Novocure®.
- The most common (≥10%) adverse events involving Optune in combination with chemotherapy in patients with GBM were thrombocytopenia, nausea, constipation, vomiting, fatigue, convulsions, and depression.
- The most common (≥10%) adverse events related to Optune treatment alone in patients with GBM were medical device site reaction and headache. Other less common adverse reactions were malaise, muscle twitching, and falls related to carrying the device.
- The most common (≥10%) adverse events involving the NovoTTF-100L System in combination with chemotherapy in patients with MPM were anemia, constipation, nausea, asthenia, chest pain, fatigue, device skin reaction, pruritus, and cough.
- Other potential adverse effects associated with the use of the NovoTTF-100L System include: treatment related skin toxicity, allergic reaction to the plaster or to the gel, electrode overheating leading to pain and/or local skin burns, infections at sites of electrode contact with the skin, local warmth and tingling sensation beneath the electrodes, muscle twitching, medical site reaction and skin breakdown/skin ulcer.
- If the patient has an underlying serious skin condition on the treated area, evaluate whether this may prevent or temporarily interfere with Optune treatment and the NovoTTF-100L System.
- Do not prescribe Optune or the NovoTTF-100L System for patients that are pregnant, you think might be pregnant or are trying to get pregnant, as the safety and effectiveness of the NovoTTF-100L System and Optune in these populations have not been established.
- Please go to Optune.com to see the Optune Instructions For Use (IFU) for complete information regarding the device’s indications, contraindications, warnings, and precautions.

Please go to Optune.com to see the NovoTTF-100L IFU for complete information regarding the device’s indications, contraindications, warnings, and precautions.
Appendix
2019 accomplishments support future value creation

Initiation of INNOVATE-3 clinical trial

FDA approval of NovoTTF-100L for MPM under HDE pathway

Medicare coverage of Optune for newly diagnosed GBM

Marketing Authorization Application for GBM accepted in China

Publications in Red Journal and The Lancet Oncology

265+ presentations at key medical congresses

$80 million cash added to the balance sheet*

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*Cash, cash equivalents and short-term investments as of December 31, 2019, preliminary and unaudited versus 2018.