



Novocure Announces 43 Presentations on Tumor Treating Fields at 24th Annual Meeting of the Society for Neuro-Oncology

November 21, 2019

Presentations on Tumor Treating Fields cover a broad and growing range of topics, with nearly 80 percent of presentations prepared by external authors

ST. HELIER, Jersey—(BUSINESS WIRE)—Novocure (NASDAQ: NVCR) today announced 43 presentations on Tumor Treating Fields, including three oral presentations, will be featured at the 24th Annual Meeting of the Society for Neuro-Oncology (SNO) on Nov. 20 through Nov. 24 in Phoenix. Presentations on Tumor Treating Fields cover a broad and growing range of topics. External authors prepared 34 of the 43 presentations.

The oral presentations on Tumor Treating Fields include an EF-14 post hoc subgroup analysis on tumor growth rates, and the pilot study results of Tumor Treating Fields combined with radiotherapy and temozolomide for the treatment of newly diagnosed glioblastoma.

Highlights among poster presentations include the combinations of Tumor Treating Fields with other therapies such as radiation and immunotherapies, simulations, health economics and outcomes research, patient advocacy, and research on the mechanism of action.

"Year after year, it is amazing to see the continued focus on Tumor Treating Fields at the SNO Annual Meeting," said Novocure CEO Asaf Danziger. "From our first presentation at SNO in 2008 to today, more than 250 abstracts on Tumor Treating Fields have been included at one of the most important conferences in neuro-oncology worldwide. I am proud of our team for their relentless focus on innovative research and for their consistent drive in raising awareness of our therapy among the scientific community. We look forward to another productive year at SNO."

Oral Presentations

(Abstract #: ACTR-46) Tumor Treating Fields combined with radiotherapy and temozolomide for the treatment of newly diagnosed glioblastoma: Final results from a pilot study. R. Grossman. 2:45 to 2:50 p.m. MST Nov. 22.

(Abstract #: RTHP-28) TTFields treatment affects tumor growth rates: A post-hoc analysis of the pivotal phase 3 EF-14 trial. Z. Bomzon. 4:05 to 4:10 p.m. MST Nov. 22.

(Abstract #: QOLP-24) Patients'/parents' experiences of receiving Optune delivered tumor treatment fields: A Pediatric Brain Tumor Consortium Study: PBTC-048. J. Lai. 7:50 to 7:54 p.m. MST Nov. 22.

Poster Presentations

(Abstract #: RDNA-10) TTFields treatment planning for targeting multiple lesions spread throughout the brain. Z. Bomzon. 7:30 to 9:30 p.m. MST Nov. 22. (Radiation Biology and DNA Repair/Basic Science)

(Abstract #: NIMG-20) Evaluation of head segmentation quality for treatment planning of tumor treating fields in brain tumors. Z. Bomzon. 7:30 to 9:30 p.m. MST Nov. 22. (Neuro-Imaging/Clinical Research)

(Abstract #: HOUT-24) Challenges and successes in the global reimbursement of a breakthrough medical technology for treatment of glioblastoma multiforme. C. Proescholdt. 7:30 to 9:30 p.m. MST Nov. 22. (Health Outcome Measures/Clinical Research)

(Abstract #: EXTH-02) The blood brain barrier (BBB) permeability is altered by Tumor Treating Fields (TTFields) in vivo. E. Schulz. 7:30 to 9:30 p.m. MST Nov. 22. (Experimental Therapeutics/Basic Science)

(Abstract #: IMMU-06) TTFields induces immunogenic cell death and STING pathway activation through cytoplasmic double-stranded DNA in glioblastoma cells. D. Chen. 7:30 to 9:30 p.m. MST Nov. 22. (Immunology/Basic Science)

(Abstract #: DRES-06) Prostaglandin E Receptor 3 mediates resistance to Tumor Treating Fields in glioblastoma cells. D. Chen. 7:30 to 9:30 p.m. MST Nov. 22. (Drug Resistance/Basic Science)

(Abstract #: EXTH-34) In vitro tumor treating fields (TTFields) applied prior to radiation enhances the response to radiation in patient-derived glioblastoma cell lines. S. Mittal. 7:30 to 9:30 p.m. MST Nov. 22. (Experimental Therapeutics/Basic Science)

(Abstract #: CSIG-20) Effect of tumor-treating fields (TTFields) on EGFR phosphorylation in GBM cell lines. M. Reinert. 7:30 to 9:30 p.m. MST Nov. 22. (Cell Signaling and Signaling Pathways/Basic Science)

(Abstract #: CBMT-14) The dielectric properties of brain tumor tissue. M. Proescholdt. 7:30 to 9:30 p.m. MST Nov. 22. (Cell Biology and Metabolism/Basic Science)

(Abstract #: CSIG-26) Is intrinsic apoptosis the signaling pathway activated by tumor-treating fields for glioblastoma. K. Carlson. 7:30 to 9:30 p.m. MST Nov. 22. (Cell Signaling and Signaling Pathways/Basic Science)

(Abstract #: ATIM-08) Trial in Progress: CA209-9Y8 phase 2 trial of tumor treating fields (TTFs), nivolumab plus/minus ipilimumab for bevacizumab-naïve, recurrent glioblastoma. Y. Odia. 7:30 to 9:30 p.m. MST Nov. 22. (Adult Clinical Trials – Immunologic/Clinical Research)

(Abstract #: ACTR-60) A phase 2, historically controlled study testing the efficacy of TTFs with adjuvant temozolomide in high-risk WHO grade II and III astrocytomas (FORWARD). A. Allen. 7:30 to 9:30 p.m. MST Nov. 22. (Adult Clinical Trials – Non-Immunologic/Clinical Research)

(Abstract #: TMIC-54) Comparison of cellular features at autopsy in glioblastoma patients with standard treatment of care and tumor treatment fields. A. Lowman. 7:30 to 9:30 p.m. MST Nov. 22. (Tumor Microenvironment/Basic Science)

(Abstract #: ACTR-26) Safety and efficacy of bevacizumab plus Tumor Treating Fields (TTFs) in patients with recurrent glioblastoma (GBM): data from a phase II clinical trial. J. Fallah. 7:30 to 9:30 p.m. MST Nov. 22. (Adult Clinical Trials – Non-immunologic/Clinical Research)

(Abstract #: RBTT-02) Radiosurgery followed by Tumor Treating Fields for brain metastases (1-10) from NSCLC in the phase 3 METIS trial. V. Gondi. 7:30 to 9:30 p.m. MST Nov. 22. (Randomized Brain Tumor Trials in Development/Clinical Research)

(Abstract #: INNV-16) Complete response of thalamic IDH wildtype glioblastoma after proton therapy followed by chemotherapy together with Tumor Treating Fields. M. Stein. 7:30 to 9:30 p.m. MST Nov. 22. (Innovations in Patient Care/Clinical Research)

(Abstract #: INNV-20) A systematic review of tumor treating fields therapy for primary for recurrent and glioblastoma. P. Shah. 7:30 to 9:30 p.m. MST Nov. 22. (Innovations in Patient Care/Clinical Research)

(Abstract #: STEM-16) Dual Inhibition of Protein Arginine Methyltransferase 5 and Protein Phosphatase 2a Enhances the Anti-tumor Efficacy in Primary Glioblastoma Neurospheres. H. Sur. 7:30 to 9:30 p.m. MST Nov. 22. (Stem Cells/Basic Science)

(Abstract #: CBMT-13) 3DEP system to test the electrical properties of different cell lines as predictive markers of optimal tumor treating fields (TTFs) frequency and sensitivity. M. Giladi. 5 to 7 p.m. MST Nov. 23. (Cell Biology and Metabolism/Basic Science)

(Abstract #: EXTH-37) A novel transducer array layout for delivering Tumor Treating Fields to the spine. Z. Bomzon. 5 to 7 p.m. MST Nov. 23. (Experimental Therapeutics/Basic Science)

(Abstract #: NIMG-41) Rapid and accurate creation of patient-specific computational models for GBM patients receiving Optune therapy with conventional imaging (T1w/PD). Z. Bomzon. 5 to 7 p.m. MST Nov. 23. (Neuro-Imaging/Clinical Research)

(Abstract #: HOUT-17) Utilities of rare cancers like malignant pleural mesothelioma and glioblastoma multiforme – do they compare? C. Proescholdt. 5 to 7 p.m. MST Nov. 23. (Health Outcome Measures/Clinical Research)

(Abstract #: INNV-17) Innovative educational approaches to enhance patient and caregiver understanding of Optune® for glioblastoma. M. Shackelford. 5 to 7 p.m. MST Nov. 23. (Innovations in Patient Care/Clinical Research)

(Abstract #: EXTH-05) Therapeutic implications of TTFs induced DNA damage and replication stress in novel combinations for cancer treatment. N. Karanam. 5 to 7 p.m. MST Nov. 23. (Experimental Therapeutics/Basic Science)

(Abstract #: EXTH-31) Combination of tumor treating fields (TTFs) and paclitaxel produces additive reductions in proliferation and clonogenicity in patient-derived metastatic non-small cell lung cancer (NSCLC) cells. S. Michelhaugh. 5 to 7 p.m. MST Nov. 23 (Experimental Therapeutics/Basic Science)

(Abstract #: EXTH-53) Tumor Treating Fields leads to changes in membrane permeability and increased penetration by anti-glioma drugs. E. Chang. 5 to 7 p.m. MST Nov. 23. (Experimental Therapeutics/Basic Science)

(Abstract #: RDNA-01) Tubulin and microtubules as molecular targets for TTF therapy. J. Tuszyński. 5 to 7 p.m. MST Nov. 23. (Radiation Biology and DNA Repair/Basic Science)

(Abstract #: SURG-01) OptimalTTF-1: Final results of a phase 1 study: First glioblastoma recurrence examining targeted skull remodeling surgery to enhance Tumor Treating Fields strength. A. Korshøj. 5 to 7 p.m. MST Nov. 23. (Surgical Therapy/Clinical Research)

(Abstract #: ATIM-39) Phase 2 open-labeled study of adjuvant temozolomide plus Tumor Treating Fields plus Pembrolizumab in patients with newly diagnosed glioblastoma (2-THE-TOP). D. Tran. 5 to 7 p.m. MST Nov. 23. (Adult Clinical Trials – Immunologic/Clinical Research)

(Abstract #: ACTR-49) Initial experience with scalp preservation and radiation plus concurrent alternating electric tumor-treating fields (SPARE) for glioblastoma patients. A. Song. 5 to 7 p.m. MST Nov. 23. (Adult Clinical Trials – Non-Immunologic/Clinical Research)

(Abstract #: RTHP-25) TTFs dose distribution alters tumor growth patterns: An imaging-based analysis of the randomized phase 3 EF-14 trial. M. Ballo. 5 to 7 p.m. MST Nov. 23. (Radiation Therapy/Clinical Research)

(Abstract #: ACTR-19) Report on the combination of Axitinib and Tumor Treating Fields (TTFs) in three patients with recurrent glioblastoma. E. Schulz. 5 to 7 p.m. MST Nov. 23. (Adult Clinical Trials – Non-Immunologic/Clinical Research)

(Abstract #: PATH-47) TTF may apply selective pressure to glioblastoma clones with aneuploidy: a case report. M. Ruff. 5 to 7 p.m. MST Nov. 23. (Molecular Pathology and Classification – Adult and Pediatric/Clinical Research)

(Abstract #: RARE-39) Combination of Tumor Treating Fields (TTFields) with lomustine (CCNU) and temozolomide (TMZ) in newly diagnosed glioblastoma (GBM) patients – a bi-centric analysis. L. Lazaridis. 5 to 7 p.m. MST Nov. 23. (Rare Tumors/Clinical Research)

(Abstract #: ACTR-31) The use of TTFields for newly diagnosed GBM patients in Germany in routine clinical care (TIGER: TTFields in Germany in routine clinical care). O. Bahr. 5 to 7 p.m. MST Nov. 23. (Adult Clinical Trials – Non-Immunologic/Clinical Research)

(Abstract #: INNV-09) Clinical efficacy of tumor treating fields for newly diagnosed glioblastoma. Y. Liu. 5 to 7 p.m. MST Nov. 23. (Innovations in Patient Care/Clinical Research)

(Abstract #: EXTH-61) Celecoxib Improves Outcome of Patients Treated with Tumor Treating Fields. K. Swanson. 5 to 7 p.m. MST Nov. 23. (Experimental Therapeutics/Basic Science)

(Abstract #: INNV-23) Glioblastoma and Facebook: An Analysis Of Perceived Etiologies and Treatments. N. Reddy. 5 to 7 p.m. MST Nov. 23. (Innovations in Patient Care/Clinical Research)

(Abstract #: INNV-12) Outcomes in a Real-world Practice For Patients With Primary Glioblastoma: Impact of a Specialized Neuro-oncology Cancer Care Program. N. Banerji. 5 to 7 p.m. MST Nov. 23. (Innovations in Patient Care/Clinical Research)

(Abstract #: RBTT-11): NRG Oncology NRG-BN006: A Phase II/III Randomized, Open-label Study of Toca 511 and Toca FC With Standard of Care Compared to Standard of Care in Patients With Newly Diagnosed Glioblastoma. M. Ahluwalia. 5 to 7 p.m. MST Nov. 23. (Randomized Brain Tumor Trials Development/Clinical Research)

About Novocure

Novocure is a global oncology company working to extend survival in some of the most aggressive forms of cancer through the development and commercialization of its innovative therapy, Tumor Treating Fields. Tumor Treating Fields is a cancer therapy that uses electric fields tuned to specific frequencies to disrupt solid tumor cancer cell division. Novocure's commercialized products are approved for the treatment of adult patients with glioblastoma and malignant pleural mesothelioma. Novocure has ongoing or completed clinical trials investigating Tumor Treating Fields in brain metastases, non-small cell lung cancer, pancreatic cancer, ovarian cancer and liver cancer.

Headquartered in Jersey, Novocure has U.S. operations in Portsmouth, New Hampshire, Malvern, Pennsylvania and New York City. Additionally, the company has offices in Germany, Switzerland, Japan and Israel. For additional information about the company, please visit www.novocure.com or follow us at www.twitter.com/novocure.

Approved 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.

Important Safety Information

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.

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 ($\geq 10\%$) 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 ($\geq 10\%$) 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 and the NovoTTF-100L System treatment.

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 Optune and the NovoTTF-100L System in these populations have not been established.

Forward-Looking Statements

In addition to historical facts or statements of current condition, this press release may contain forward-looking statements. Forward-looking statements provide Novocure's current expectations or forecasts of future events. These may include statements regarding anticipated scientific progress on its research programs, clinical trial progress, development of potential products, interpretation of clinical results, prospects for regulatory approval, manufacturing development and capabilities, market prospects for its products, coverage, collections from third-party payers and other statements regarding matters that are not historical facts. You may identify some of these forward-looking statements by the use of words in the statements such as "anticipate," "estimate," "expect," "project," "intend," "plan," "believe" or other words and terms of similar meaning. Novocure's performance and financial results could differ materially from those reflected 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 on July 25, 2019, with the U.S. Securities and Exchange Commission. Given these risks and uncertainties, any or all of these forward-looking statements may prove to be incorrect. Therefore, you should not rely on any such factors or forward-looking statements. Furthermore, Novocure does not intend to update publicly any forward-looking statement, except as required by law. Any forward-looking statements herein speak only as of the date hereof. The Private Securities Litigation Reform Act of 1995 permits this discussion.

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Media and Investor Contact:

Ashley Cordova

acordova@novocure.com

212-767-7558

Source: Novocure