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Intensity Therapeutics, The Ottawa Hospital and The Ontario Institute for Cancer Research Sign Agreements to Conduct a Phase 2 Randomized, Window of Opportunity Trial in Early-Stage Breast Cancer

WESTPORT, Conn. & OTTAWA, Ontario & TORONTO--(BUSINESS WIRE)-- Intensity Therapeutics, Inc. (“Intensity”), a clinical-stage biotechnology company developing proprietary, intratumoral immunotherapy products to kill tumors and increase immune system recognition of cancers, today announced that following receipt of the authorization from Health Canada, Intensity executed agreements with The Ottawa Hospital and The Ontario Institute for Cancer Research (OICR) to conduct a Phase II Randomized, Window of Opportunity (WOO) trial evaluating clinical and biological effects of intratumoral INT230-6 vs. no treatment in early stage breast cancer.

“There currently is no drug treatment available in the early presurgical setting with the ability to kill a tumor rapidly in the typical 4-week period from diagnosis to surgery,” said Dr. Angel Arnaout, M.D., FRCSC, Professor of Surgery at University of Ottawa, Scientist at The Ottawa Hospital and Principal Investigator of the study. “Using INT230-6 to rapidly reduce a patient’s cancer cell burden and shut down proliferation in the timeframe from diagnosis to surgery is exciting and could offer increased clinical benefit. We are looking forward to initiating this study.”

The trial is a Phase II, randomized, open label, multi-center study to enroll up to 60 patients with early-stage breast cancer. Patients, randomized 2:1 to treatment, will receive either three doses of INT230-6 on days 1, 8 and 15 post diagnosis or no treatment, the current standard of care (SOC) prior to resection. The study shall evaluate the change in pathological complete response compared to the standard of care. The primary endpoint is the proportion of patients who achieve a complete cell cycle arrest, defined as a reduction in the proportion of cells staining positive for Ki67, a widely used marker of cancer cell proliferation, as assessed by immunohistochemistry. The Ottawa Hospital will conduct subject enrollment and treatment and evaluate clinical responses, OICR will analyze subject immune responses and conduct biomarker analyses. Intensity will fund the trial and provide INT230-6 supply.

“Personalization is a major objective of modern medicine,” said John Bartlett, Ph.D., Program Director, Diagnostic Development at OICR and Professor, Department of Laboratory Medicine and Pathobiology, University of Toronto. “The ability to rapidly reduce a patient’s individual disease burden, diminish their cancer cells proliferation markers without

causing systemic side effects and stimulate a patient-specific, anti-cancer T-cell response has the potential to create a new type of personalization for patients. We are eager to generate data that would help us understand INT230-6's ability to train the immune system on a patient's neoantigens prior to surgery without concurrent immune suppression."

"WOO trials form a key part of OICR's new research strategy because they are essential in helping to identify new biomarkers and develop more precise diagnostics and treatments for patients," said Dr. Christine Williams, Ph.D., Deputy Director, OICR. "This trial is the first in our newly-launched Window of Opportunity Network, and it shows the promise and enthusiasm for WOO trials across the research community. We are proud to be working with proven clinical and industry partners like The Ottawa Hospital and Intensity Therapeutics to determine the effectiveness of INT230-6 in helping early-stage breast cancer patients."

"We are excited to collaborate with The Ottawa Hospital and OICR, two leaders in breast cancer research," said Ian B. Walters, MD, Chief Medical Officer at Intensity Therapeutics. "Killing cancer immediately after its diagnosis may give patients more peace of mind that all effort is being made to stop the cancer from growing or spreading prior to resection, as well as improve the cosmetic and functional outcome of the surgery. If this trial is successful, use of INT230-6 prior to surgery for breast cancer and other indications may be possible."

Lewis H. Bender, President and CEO of Intensity Therapeutics added, "According to our estimates, based on the American College of Surgeons database, there were approximately 60,000 early breast cancer patients in the U.S. in 2020 who did not receive any therapy prior to surgery. Killing tumors weeks in advance of resection may improve patient outcomes for long term benefit. We look forward to working with our colleagues at The Ottawa Hospital and OICR to determine the utility of INT230-6 in this early-stage patient population."

About Window of Opportunity (WOO) Studies

In WOO studies, patients receive a test agent(s) between their cancer diagnosis and standard treatment (usually surgery). The pre-operative setting, with treatment naive patients, enables an expedited analysis of therapeutic agents and focused biomarker research for better patient stratification. WOO studies are becoming a well-recognized development tool, particularly in breast cancer.

About the Intensity OICR OHRI Phase II WOO Study

Individuals interested in learning more about the study, or how to reach the study staff for participation, can visit www.clinicaltrials.gov and use the trial identifier NCT0478123. Participation in the trial will not interfere with or delay the date of surgery. The study is a Phase II Randomized Window of Opportunity Trial for Intratumoral **IN**T230-6 (**VIN**blastine **CI**splatin) Evaluating Clinical and **B**io**L**ogical **E**ffects in early Stage Breast Cancer (the **INVINCIBLE** trial). Tumor tissue obtained at diagnosis and the time of the definitive surgical procedure will be analyzed for Ki67, a marker of complete cell cycle arrest (CCCA), cancer proliferation, immune biomarkers and pathological complete response (pCR), the absence of live cancer in the tumor and surrounding lymph nodes. There are a number of other objectives of the trial:

1. To assess the Residual Cancer Burden after treatment with INT230-6,
2. To characterize the overall safety of INT230-6 injected prior to surgery, and

3. To perform broad immune profiling of the blood in patients by assessing changes in CD4/CD8 T cells and identification of CD8 tetramers, and whether INT230-6 treatments results in an increase in infiltrating immune cells such as macrophages, NK, DC, CD4 T-cells, CD8 T-cells, regulatory T-cells.

About INT230-6

INT230-6, Intensity's lead proprietary investigational product candidate, is designed for direct intratumoral injection. INT230-6 was discovered using Intensity's proprietary DfuseRx℠ technology platform. The drug is composed of two proven, potent anti-cancer agents, cisplatin and vinblastine, and a penetration enhancer molecule that helps disperse the drugs throughout tumors for diffusion into cancer cells. In preclinical studies, INT230-6 eradicated tumors by a combination of direct tumor killing, release of tumor antigens and recruitment of immune cells to the tumor. Results generated by both the Company and the National Cancer Institute (NCI) showed treatment with INT230-6 in *in vivo* models of severe cancer resulted in substantial improvement in overall survival compared to standard therapies. Further, INT230-6 provided complete responses in animals with long-term protection from multiple re-challenges of the initial cancer and resistance to other cancers. The Company's research published in the International Journal of Molecular Sciencesin June 2020 and joint research with the NCI published in July 2019 in the Journal OncoImmunology as part of Intensity's awarded CRADA , also showed strong synergy when INT230-6 was combined with anti-PD-1 and anti-CTLA-4 antibodies.

About The Ottawa Hospital

The Ottawa Hospital is one of Canada's top learning and research hospitals, where excellent care is inspired by research and driven by compassion. As the third-largest employer in Ottawa, our support staff, researchers, nurses, physicians, and volunteers never stop seeking solutions to the most complex health-care challenges. Our multi-campus hospital, affiliated with the University of Ottawa, attracts some of the most influential scientific minds from around the world. Backed by generous support from the community, we are committed to providing the world-class, compassionate care we would want for our loved ones. www.ottawahospital.on.ca

About the Ontario Institute for Cancer Research

OICR is a collaborative, not-for-profit research institute funded by the Government of Ontario. We conduct and enable high-impact translational cancer research to accelerate the development of discoveries for patients around the world while maximizing the economic benefit of this research for the people of Ontario. For more information visit www.oicr.on.ca.

About Intensity Therapeutics

Intensity Therapeutics, Inc. is a privately held, clinical-stage biotechnology company pioneering a new immune-based approach to treat solid tumor cancers. Intensity leverages its DfuseRx℠ technology platform to create new, proprietary drug formulations that following direct injection rapidly disperse throughout a tumor and diffuse therapeutic agents into cancer cells. Intensity's product candidates have the potential to induce an adaptive immune response that not only attacks the injected tumor, but also non-injected tumors. The Company executed a Cooperative Research and Development Agreement (CRADA) with

the National Cancer Institute's (NCI) Vaccine Branch in 2014 and partnerships with Merck and BMS. For more information, please visit www.intensitytherapeutics.com and follow us on Twitter @IntensityInc.

About Other Intensity Clinical Studies

In addition to the new WOO study, INT230-6 is currently being evaluated in several Phase 2 cohorts (NCT03058289) in patients with various advanced solid tumors. Phase 1 dose escalation cohorts completed in 2020. There have been no dose limiting adverse events observed in patients to date, even when dosing into deep tumors in the lung, pancreas or liver. In 2019, the Company executed a clinical collaboration agreement with Merck Sharpe & Dohme (Merck) to evaluate the combination of INT230-6, Intensity's lead product candidate, and KEYTRUDA® (pembrolizumab), Merck's anti-PD-1 (programmed death receptor-1) therapy, in patients with advanced solid malignancies. In 2020, the Company executed a clinical collaboration agreement with Bristol Myers Squibb (BMS) to evaluate the combination of the Company's lead product, INT230-6, with BMS's anti-CTLA-4 antibody, Yervoy® (ipilimumab), in patients with advanced solid malignancies. Clinical data reported improved survival at higher doses of INT230-6 per total tumor burden. Several patients demonstrated tumor shrinkage, symptomatic improvement, and evidence of cancer cell death and immune cell activation on tumor biopsy. In the combination cohort with pembrolizumab, Intensity reported that the safety of the combination was comparable to INT230-6 monotherapy.

Forward Looking Statements

This press release contains forward-looking statements regarding Intensity Therapeutics' plans, future operations and objectives. Such statements involve known and unknown risks, uncertainties and other factors that may cause actual performance or achievements to be materially different from those currently anticipated. These forward-looking statements include, among other things, statements about the initiation and timing of future clinical trials.

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