Sona Nanotech's THT Cancer Studies Demonstrates Strong Efficacy in Third Preclinical Study and Plans for First-in-human Early Feasibility Study

Halifax, Nova Scotia--(Newsfile Corp. - December 11, 2024) - Sona Nanotech Inc. (CSE: SONA) (OTCQB: SNANF) (the "**Company**", "**Sona**") announces results from its most recent preclinical study of its Targeted Hyperthermia Therapy ("THT") which uses the Company's patented, biocompatible gold nanorods ("GNRs") to treat certain solid cancer tumors, shrinking them and acting as an immune stimulator. Building on its success in melanoma and breast cancer studies, the Company's third preclinical efficacy study was conducted in an immunologically 'cold' colorectal cancer model ("CT26"), a model that represents the majority of human colon cancers, which do not typically respond to current standard of care immunotherapies.

In this preliminary study, whereas no mice that were given standard immunotherapy alone showed any response, 100% of mice in the THT treatment group responded to the same immunotherapy with 50% (4 out of 8) of those tumors eliminated within 12 days of treatment, as shown by the green line in Figure 1, below.

Sona Nanotech CEO, David Regan, commented, "*The further preclinical evidence presented in compelling data gives us greater confidence as to Sona's THT's ability to prime non-responding tumors, thereby enhancing immunotherapy's ability to respond. As we move closer towards securing early feasibility studies to gain human data, we look forward to sharing concrete examples of THT's ability to lift the response rate of immunotherapies for patients suffering from cancer.*"

Preliminary detailed cellular analysis of THT-treated tumors revealed increased immune cell infiltration into the tumor microenvironment with elevated expression of PD-1 receptors on both CD4+ T-helper cells and CD8+ cytotoxic T cells. The elevated expression of PD-1 and heightened immune cell activation further supports the notion that THT primes the tumor microenvironment for enhanced responsiveness to standard checkpoint blocking immunotherapies. The immunotherapy used in this study was a PD-1 checkpoint inhibitor as it is the predominantly prescribed treatment for cancer. Research is ongoing in this model and will be subjected to peer review.

Study principal investigator and Sona Chief Medical Officer, Dr. Carman Giacomantonio, commented, "*Colon cancers in humans are typically immunogenically 'cold' tumors in that they are highly resistant to current leading immunotherapies. As such, our success in eliminating these difficult preclinical tumors is profound and provides evidence of our ability to convert these cold tumors into ones that will respond to immunotherapies. Further biomarker analysis on the 50% of animals that were completely cleared of tumors will determine the extent to which Sona's THT can produce lasting immune protection against cancer recurrence, and we look forward to sharing those results."*

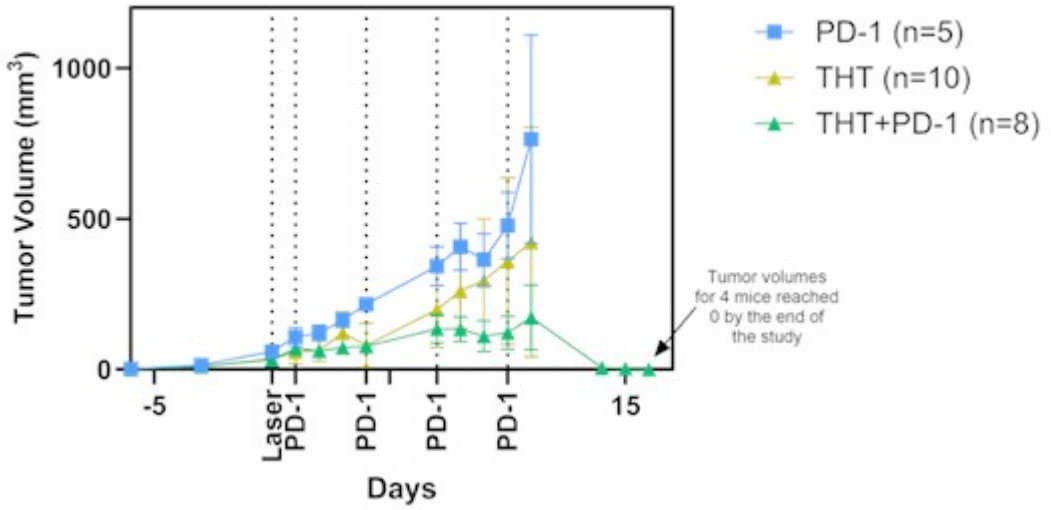

Figure 1: Tumor Volume in Preclinical Colorectal Cancer Study of Sona's Targeted Hyperthermia Therapy

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/5500/233333_2faff2837430c99f_001full.jpg

The Company is currently working with a contract research organization specializing in medical device clinical trials to secure a site for the Company's previously announced intention to deliver a first-in-human early feasibility study ("EFS") in 2025. The Company has developed its clinical trial protocol and THT system administration instructions package and related documents for clinical application. The Company will continue to provide updates on the status of its progress towards an EFS study as significant milestones are achieved, including clinical trial site selection and trial commencement.

The Company is hosting a webinar today, Wednesday, December 11th at 11am EST to discuss the results of its colorectal cancer preclinical efficacy study and its future plans. Interested parties can register here:

https://us06web.zoom.us/webinar/register/WN_apH56PLBRQyklIF9bcvTrA

A recording of the webinar will be available tomorrow in the Investor Information section of the Company's website.

Contact:

David Regan, CEO
+1-902-442-0653
david@sonanano.com

About Sona Nanotech Inc.
Sona Nanotech, a nanotechnology life sciences company, is developing Targeted Hyperthermia™, a photothermal cancer therapy, which uses therapeutic heat to treat solid cancer tumors. The heat is delivered to tumors by infrared light that is absorbed by Sona's gold nanorods in the tumor and re-emitted as heat. Therapeutic heat (42-48°C) stimulates the immune system, shrinks tumors, inactivates cancer stem cells, and increases tumor perfusion – thus enabling drugs to reach all tumor compartments more effectively. The size, shape, and surface chemistry of the nanorods target the leaky vasculature of solid tumors, and the selective thermal sensitivity of tumor tissue enables the therapy to deliver clean margins. Targeted Hyperthermia promises to be safe, effective, minimally invasive, competitive in cost, and a valuable adjunct to drug therapy and other cancer treatments.

Sona has developed multiple proprietary methods for the manufacture of gold nanoparticles which it

uses for the development of both cancer therapies and diagnostic testing platforms. Sona's gold nanorod particles are cetyltrimethylammonium ("CTAB") free, eliminating the toxicity risks associated with the use of other gold nanorod technologies in medical applications. It is expected that Sona's gold nanotechnologies may be adapted for use in applications, as a safe and effective delivery system for multiple medical treatments, subject to the approval of various regulatory boards, including Health Canada and the FDA.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING INFORMATION: This press release includes certain "forward-looking statements" under applicable Canadian securities legislation, including statements regarding the anticipated applications and potential opportunities of Targeted Hyperthermia Therapy, Sona's preclinical and clinical study plans, Sona's intention to submit preclinical study results for peer reviewed publication, future patent filings and its product development plans. Forward-looking statements are necessarily based upon a number of assumptions or estimates that, while considered reasonable, are subject to known and unknown risks, uncertainties, and other factors which may cause the actual results and future events to differ materially from those expressed or implied by such forward-looking statements, including the risk that Sona may not be able to successfully obtain sufficient clinical and other data to submit regulatory submissions, raise sufficient additional capital, secure patents or develop the envisioned therapy, the risk that Sona's intended publications may not be accepted by a leading scientific journal and the risk that THT may not prove to have the benefits currently anticipated. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. Sona disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Not for distribution to United States newswire services or for dissemination in the United States

sona ·nanotech·

To view the source version of this press release, please visit
https://www.newsfilecorp.com/release/233333