NanoString Announces Launch of CAR-T Characterization Panel for use in Development and Manufacturing

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SEATTLE, Nov. 08, 2018 (GLOBE NEWSWIRE) -- NanoString Technologies, Inc. (NASDAQ:NSTG), a provider of life science tools for translational research and molecular diagnostic products, today announced the launch of a new gene expression panel for the molecular characterization of CAR-T cells in research, development and manufacturing. The nCounter® CAR-T Characterization Panel was created in collaboration with eight leading centers in the field of CAR-T therapy. This novel panel is designed for use across the entirety of the CAR-T workflow including leukapheresis, manufacturing and post-infusion monitoring and may further efforts for product optimization, development of quality controls and an understanding of mechanisms that influence CAR-T performance.

The nCounter® CAR-T Characterization Panel leverages the robustness, ease of workflow and rapid time-to-results workflow of the nCounter platform and aims to provide a standardized set of biomarker discovery tools for the community to advance the field of CAR-T therapy. This customizable, 780-gene expression panel incorporates content to measure eight essential components of CAR-T cell biology including T-cell activation, metabolism, exhaustion, and receptor diversity with optional customization for measuring transgene expression with NanoString’s Protein Barcoding Service. The content is designed to investigate biomarkers for CAR-T characterization, persistence and toxicity in patients, with potential applications in non-human primate toxicity studies.

“The introduction of the CAR-T Characterization Panel further underscores our mission to partner with the community to provide cutting edge tools to address unmet scientific and clinical challenges,” said Alessandra Cesano, NanoString’s chief medical officer. “We continue to draw inspiration from the rapid advances in cell therapy and are thrilled to bring the power of the nCounter platform to the field of CAR-T therapy.”

“Quantitative measures to profile CART-T cell therapeutics are important to understand what we are delivering to patients. Companies like NanoString are creating tools that will allow the field to understand not only the final product but also the key manufacturing steps, which is critical to advancing this area of immunotherapy,” said Dr. Lisa H. Butterfield, Professor of Medicine, Surgery and Immunology, Director of the Hillman Immunologic Monitoring and Cellular Products Laboratory at the University of Pittsburgh, UPMC Hillman Cancer Center.

“As CAR-T products join the therapeutic armamentarium in oncology, product characterization and optimization will greatly benefit from more sophisticated and quantitative analysis, leading to acceleration of the development process in this space,” said Adrian Bot, M.D., Ph.D., vice president Translational Medicine at Kite Pharma, a Gilead Company.

Adoptive Cell Therapy (ACT) is a rapidly emerging approach to immunotherapy, despite its long history in translational labs and the clinic. There are several different types of ACT, but the one that has demonstrated the most clinical promise to date is chimeric antigen receptor, or CAR-T cell therapy. CAR-T therapy represents a new and challenging class of “living drugs”, as a patient’s own T-cells are used to develop the drug product and the therapeutic can persist for years post-treatment in patients. With the approval of two CAR-T products over the past year, the field has experienced a significant increase in momentum with over 600 active studies worldwide and 100+ pharmaceutical, biotechnology and specialized cancer centers with a focus on CAR-T therapy. Along with that momentum, there is recognition that significant challenges remain. In particular, standardizing a manufacturing process dependent on highly variable inputs and complex biology has proven to be one of the greatest unmet needs. The field is also highly focused on understanding the factors that influence efficacy, safety and utility in a broader variety of tumor types.

The nCounter® CAR-T Characterization Panel is expected to begin shipping in December. Learn more about this product at https://www.nanostring.com/products/gene-expression-panels/gene-expression-panels-overview/car-t-characterization-panel.

About NanoString Technologies, Inc.
NanoString Technologies provides life science tools for translational research and molecular diagnostic products. The company's nCounter® Analysis System has been employed in life sciences research since it was first introduced in 2008 and has been cited in more than 2,000 peer-reviewed publications. The nCounter Analysis System offers a cost-effective way to easily profile the expression of hundreds of genes, proteins, miRNAs, or copy number variations, simultaneously with high sensitivity and precision, facilitating a wide variety of basic research and translational medicine applications, including biomarker discovery and validation. The company's technology is also being used in diagnostics. The Prosigna® Breast Cancer Prognostic Gene Signature Assay together with the nCounter Dx Analysis System is FDA 510(k) cleared for use as a prognostic indicator for distant recurrence of breast cancer. In addition, the company collaborates with biopharmaceutical companies in the development of companion diagnostic tests for various cancer therapies, helping to realize the promise of precision oncology.

For more information, please visit www.nanostring.com.

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