NanoString Introduces New Gene Expression Research Panel for Human Organ Transplantation

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Created in Collaboration with Banff Consortium to Study Mechanisms of Organ Rejection

SEATTLE--(BUSINESS WIRE)--Sep. 23, 2019-- 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 researchers to evaluate the human immune response following organ transplantation.

The new nCounter® Human Organ Transplant panel has been created through a collaboration between NanoString and the Banff Foundation for Allograft Pathology (https://banfffoundation.org/), a global consortium of 6 leading transplant institutes including, University of Alberta, Erasmus Medical Center Rotterdam, Imperial College London, Massachusetts General Hospital, University of Oxford and the Paris Transplant Group, and Descartes University contributed to the design of the panel. The consortium aims to improve organ transplant outcomes through advanced molecular characterization of the in-situ response in the allograft and to make available a transformational new panel approach for research that can be used to accelerate the identification of new biomarkers of rejection, uncover the mechanisms behind tissue damage, and monitor toxicities brought on by immunosuppressive drugs and infections.

“The creation of this new panel further reinforces the goals of the Banff Foundation for Allograft Pathology to lead the development and dissemination of the international Banff Classification of Allograft Pathology, which now includes the use of molecular diagnostics tools, and to facilitate multidisciplinary, collaborative research to enhance its scientific basis and clinical utility to improve the care of transplant patients,” said Michael Mengel, M.D., Board of Directors, Banff Foundation for Allograft Pathology and Professor, Department of Laboratory Medicine & Pathology, University of Alberta, Canada.

The growing prevalence of chronic disease such as diabetes, cardiovascular disease and NASH are contributing to the increased demand for organ transplants. Globally, each year there are approximately 100,000 new organ transplants and the number of those added to the waiting lists more than double that. With over 40% of organ transplant recipients experiencing some type of rejection in their first year and 60% over a lifetime there is a great need to improve understanding of the mechanisms of rejection, provide better monitoring for patients who are experiencing rejection and develop new tools to help make organ transplants more successful.

The nCounter® Human Organ Transplant Panel leverages the robustness, ease of workflow and rapid time-to-results of the nCounter platform to provide a standardized panel that the research community may use to develop new biomarker signatures that could form the basis for clinical assays for use pre- and post-transplant to improve transplant efficiency.

The customizable, 770-gene expression panel has been developed specifically for use with the predominant transplant organs including kidney, heart, lung and liver and includes genes across 37 different pathways, critical components of the immune response, tissue injury and mechanisms of action for immunosuppressive drugs. The panel also includes probes for detection of common viral infections known to be problematic with transplants including BK polyomavirus, cytomegalovirus and Epstein-Barr virus.

“The creation of the NanoString-Banff Consortium and the Human Organ Transplant Panel further highlights our mission to partner with the research community to provide leading-edge tools to address significant unmet scientific and clinical challenges,” said Brad Gray, president and CEO of NanoString.


The Human Organ Transplant Panel is for research use only; not for use in diagnostic procedures.

About NanoString Technologies, Inc.

NanoString Technologies is a leading provider of life science tools for translational research and molecular diagnostic products. The company’s nCounter® Analysis System is used in life sciences research and has been cited in more than 2,800 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 GeoMx™ Digital Spatial Profiler enables highly-multiplexed spatial profiling of RNA and protein targets in a variety of sample types, including FFPE tissue sections. 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.

About the NanoString-Banff Consortium

As an evolution of the Banff Working group for molecular diagnostics, the following Banff consortium partnered with NanoString in the development of the nCounter® Human Organ Transplant Panel:

Massachusetts General Hospital: Drs. Robert Colvin, Neal Smith, Ivy Rosales
Imperial College London: Dr. Candice Roufosse,
University of Oxford: Drs. Fadi Issa, Joanna Hester
Paris Transplant Group, Université de Paris – INSERM: Drs. Alexandre Loupy, Blaise Robin, Dagobert Jessey, Jean-Paul Duong Van Huyen
Erasmus Medical Center Rotterdam: Drs. Marian Claansen-van Groningen, Jan von der Thüsen

NanoString-Banff Consortium
The goal is to generate a Banff Open source data storage and exchange platform for data generated using the nCounter® Human Organ Transplant Panel: “Who puts data in can analyze all data in the repository.” This will allow for rapid and cost-effective multicenter validation of biomarker signatures and the conduct of multicenter studies in the spirit of the open source Banff community. From such research studies, standardized, smaller diagnostic Banff consensus panels or classifiers can be generated for open use in routine diagnostics.

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

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