Singular Genomics and TwinStrand Biosciences Collaborate to Develop Ultra-high Accuracy NGS Solutions for the G4 Platform

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This partnership combines TwinStrand's proven duplex sequencing solution with Singular's HD-Seq™ technology on the G4 Sequencing Platform to maximize mutation detection sensitivities for applications such as monitoring measurable residual disease (MRD)

SAN DIEGO, June 06, 2022 (GLOBE NEWSWIRE) -- Singular Genomics Systems Inc. (Nasdaq: OMIC) and TwinStrand Biosciences, Inc. today announced a collaboration to develop highly sensitive next generation sequencing (NGS) solutions for the Singular G4 Sequencing Platform for cutting-edge applications like minimal residual disease (MRD) detection. MRD is a key prognostic indicator that is important for risk stratification, treatment planning and drug development across oncology. Current non-duplex sequencing methods for measuring MRD produce an abundance of sequencing errors which obscure these low-frequency, cancer-derived mutations.

Singular Genomics and TwinStrand have partnered to combine their respective technologies of Q50+ High Definition Sequencing (HD-Seq™) and TwinStrand Duplex Sequencing™ to co-develop ultra-sensitive MRD applications. With the speed and flexibility of the G4 platform, the technologies together are designed to offer a high-performance tool that detects rare variants in circulating tumor DNA (ctDNA) and cells with orders of magnitude, greater sensitivity and specificity than other non-duplex NGS-based liquid biopsy assays. The combination of these two technologies offer greater efficiency, thus enabling lower sequencing costs, compared to duplex sequencing on other platforms. We believe the combination of technologies from Singular and TwinStrand will lead to more clinically relevant turnaround time at lower overall costs while providing the highest level of accuracy on a benchtop sequencer.

"We are thrilled to work with TwinStrand, a highly respected leader in the important and growing field of rare variant detection in translational cancer research," said Drew Spaventa, Chairman, Chief Executive Officer and Founder of Singular Genomics. "Working together and leveraging our collective technologies, we have the opportunity to set a new standard in ultra-high accuracy, high efficiency sequencing for applications like MRD detection."

"This exciting collaboration with Singular Genomics combines the individually powerful elements of our respective technologies into a unified high-performance platform that achieves an unprecedented combination of sensitivity, speed, modest cost and benchtop deployability without tradeoffs," said Jesse Salk, M.D., Ph.D., Chief Executive Officer of TwinStrand. "We are excited to explore a broad array of medically-important opportunities to deliver the highest quality data to our scientific and clinical research community."

This collaboration is designed to strategically expand the product offerings for both companies. Both parties are excited to continue this foundational partnership and hope to provide innovative solutions to the sequencing market beyond initial MRD applications.

About Singular Genomics Systems, Inc.
Singular Genomics is a life science technology company that is leveraging novel, next generation sequencing (NGS) and multiomics technologies to build products that empower researchers and clinicians. Our mission is to accelerate genomics for the advancement of science and medicine. Our Singular Sequencing Engine is the foundational platform technology that forms the basis of our products as well as our core product tenets: power, speed, flexibility, and accuracy. We are currently developing two products that are purpose-built to target applications in which these core product tenets matter most. Our first product, the G4, targets the NGS market. Our second product in development, the PX, combines single cell analysis, spatial analysis, genomics, and proteomics in one integrated instrument to offer a versatile multiomics solution.

About TwinStrand Biosciences
TwinStrand Biosciences is leading the way in identifying ultra-low frequency genomic variants that are undetectable by conventional methods. The company's highly sensitive and specific Duplex Sequencing technology delivers clearer insights to researchers and clinicians in applications ranging from residual cancer detection to genetic toxicology. This data can inform critical decisions in clinical medicine, public health, and other fields of science on a faster timescale, where actions are most impactful. TwinStrand's scientist-leaders have authored more than two dozen peer-reviewed articles using Duplex Sequencing technology and have developed a portfolio of more than 175 patents and patent applications. The company has partnered with pharmaceutical companies, academic centers, clinical research networks, and federal regulatory agencies to bring high precision genomics to the forefront of their science. For more information visit www.twinstrandbio.com.

Singular Genomics Forward-Looking Statements
Certain statements contained in this press release, other than historical information, may constitute forward-looking statements within the meaning of the Federal securities laws. These forward-looking statements may include statements regarding the attributes, performance, and future benefits of the MRD applications and quotes of our management. In some cases, you can identify forward-looking statements by the words "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. Any such forward-looking statements are based on our management's current expectations and are subject to a number of risks and uncertainties that could cause our actual future results to differ materially from our management's current expectations or those implied by the forward-looking statements. These and other risk factors that may affect our future results of operations are identified and described in more detail in our most recent filings on Forms 10-K and 10-Q and in other filings that we make with the SEC from time to time, including our Quarterly Report on Form 10-Q for period ended March 31, 2022, filed with the SEC on May 10, 2022. Accordingly, you should not rely upon forward-looking statements as predictions of future events or our future performance. Except as required by applicable law, we undertake no obligation to update publicly or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

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