RealSeq awarded NHGRI grant to develop novel RNA "fragmentomics" technology

Next Gen RNA fragmentomics-based diagnostics

SANTA CRUZ, CALIFORNIA, UNITED STATES, October 9, 2023 /EINPresswire.com/ -- RealSeq Biosciences, Inc., a company developing RNA fragmentomics as real-time diagnostics for disease, was

awarded a grant from the National Human Genome Research Institute (NHGRI) for the development of a new small RNA-seq NGS technology. The SBIR Phase I grant, titled "Preparation of sequencing libraries for multi-analyte analysis of small RNAs," supports development of the RealSeq®-RF technology, enabling comprehensive analysis of RNA fragmentomics that allows highly sensitive and specific detection of all types of small RNA and RNA fragments present in biofluids. The RealSeq-RF platform advances the Company's RiboMarker® next generation RNA fragmentomics-based diagnostic programs, including Valley Fever, a fungal disease dramatically increasing due to climate change.

"We are super excited to receive this grant from the NHGRI," said Sergio Barberan-Soler, Ph.D., CEO of RealSeq Biosciences. "It supports our work to advance small RNA biomarker discovery and our groundbreaking RiboMarker platform while also providing a powerful tool for researchers studying small RNAs."

RealSeq-RF, a novel sRNA-seq library technology solves the technical problems currently limiting the ability to visualize the full complement of the RNA fragmentome in biofluids. Sequencing analysis of the entire extracellular RNA fragmentome including small non-coding RNAs (e.g., miRNA and fragments of larger coding and non-coding RNAs (e.g., mRNA, lncRNA and tRNA) is critical as it offers higher origin-specificity and sensitivity profiling required for biomarker discovery and liquid biopsies.

The technology is an extension of RealSeq's proprietary small RNA-seq platform, which has been demonstrated to provide superior, low biased ability to detect microRNAs.

"The development of RealSeq-RF is a key part of our strategy to excel in the RNA fragmentome

field," said Sergei Kazakov, Ph.D., CSO of RealSeq Biosciences and Principal Investigator on this grant. "This new approach advances the capability of RealSeq to allow specific detection of all small RNA types. RealSeq-RF provides researchers with the data they need to better understand the role of small RNAs in health and disease."

RealSeq Biosciences is a commercial stage company on track to achieve record revenue in 2023 with strong [customer validation](#). The Company's technology is extensively used by researchers in pharmaceutical and biotechnology companies and academic institutions.

About RealSeq Biosciences: RealSeq Biosciences, Inc. is a privately held biotech company with offices and laboratories in Santa Cruz, California. The company specializes in developing groundbreaking and innovative technologies focusing on RNA fragmentomics, small RNA analysis, NGS research tools and biomarkers. RealSeq's visionary approach to RNA fragmentomics-based diagnostics is making development and use of dynamic markers of disease a new reality.

Anne Scholz
RealSeq Biosciences
+1 831-205-0127
ascholz@realseqbiosciences.com

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