HTG Molecular Diagnostics Provides Highlights of its Second Event in Drug Discovery KOL Webcast Series

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TUCSON, Ariz., Dec. 28, 2022 (GLOBE NEWSWIRE) -- HTG Molecular Diagnostics, Inc. (Nasdaq: HTGM) (HTG), a life science company advancing precision medicine through its innovative transcriptome-wide profiling and advanced medicinal chemistry technology, provides here a summary of its second HTG Therapeutics key opinion leader (KOL) webinar: "*The Role of RNA Profiling in Drug Discovery and Analysis,*" hosted on Tuesday, December 13, 2022.

In this latest webinar, Dr. Robert Spitale of the University of California, Irvine, delved into the many potential roles for RNA profiling in drug discovery and development and how it can be leveraged to improve the selection of lead compounds.

Dr. Spitale described how RNA, an information-rich molecule, has the potential to provide valuable insights into the effects, mechanisms of action and toxicity concerns of potential drug compounds. Scientists have historically seen the difficulty of scaling RNA profiling as the primary barrier to fully utilizing RNA profiling in drug screening. Dr. Spitale noted that HTG's EdgeSeq technology is designed to make RNA profiling scalable, allowing for expedited wet-lab processing and data analysis, enabling the efficient screening of compounds with the many other benefits that RNA profiling provides.

HTG also provided a real-world example of how its team has used RNA profiling to differentiate between several compounds targeting mTOR in development of its transcriptome-informed approach to drug discovery. This study has allowed the team to specifically describe differential regulation of the ferroptosis pathway by closely related compounds. Ferroptosis is an alternative cell-death pathway, and its regulation represents a promising cancer therapy target.

Dr. Stephen A. Barat, Senior Vice President and head of HTG's Therapeutics business unit, commented: "We believe the working example we cited using several compounds sharing mTOR as a pharmacologic target illustrates the principles of this approach and how we now have successfully reduced to practice an easily scalable model of transcriptome informed drug discovery and design. We expect to apply this approach agnostically across therapy areas to bring forward candidate small molecules more quickly and cost effectively increasing the chances for success in development by virtue of the greater insight RNA profiling provides when applied early at this stage of drug discovery." This same approach is currently being applied to HTG's compound libraries for the company's first drug candidate, which will be further discussed in early 2023.

The webinar is available on-demand at the following link: REGISTER.

HTG's Therapeutics unit is actively using its transcriptome-informed approach to drug discovery to design and further refine small-molecule chemical libraries. The goal of this approach is to enable the selection and characterization of de-risked candidate molecules across selected therapeutic targets of interest leading to potential business development and licensing opportunities in various therapeutic areas. A video providing an overview of HTG's Therapeutics business, white papers and additional materials are available on the Company's website HERE.

About KOL Dr. Spitale:

Dr. Spitale currently serves as the Associate Director and Associate Dean of Research in the School of Pharmacy & Pharmaceutical Sciences at University of California, Irvine (UCI). After joining UCI Pharmaceutical Sciences Department as an Assistant Professor in 2014, he was promoted to Associate Professor in 2018, and rose to the ranks of Professor in 2020. In this time, Dr. Spitale's research has focused on developing novel chemical and bioinformatic approaches toward understanding the role of RNA structure and function in normal biology as well as disease. Beyond his research accomplishments, he has been an active presence in the UCI community as the Director of the RNA Club and its annual symposium, a co-founder of the Chemical and Systems Biology Club and the faculty advisor for the Pharm Sci undergraduate student council. He is also a vital part of the development of the planned School of Pharmacy and Pharmaceutical Sciences, having served on the Pharmacy Planning group responsible for creating proposals to the UCI Senate, UC System, and the Accreditation Council for Pharmacy Education (ACPE). Dr. Spitale received his Ph.D. degree in Chemistry at the University of Rochester in 2009, as an Elon Huntington Hooker Fellow with Professor Joseph Wedekind. He then transitioned to postdoctoral studies at Stanford University and was awarded the A.P. Giannini Fellowship to support his research with Professor Howard Chang.

About HTG:

HTG is accelerating precision medicine from diagnosis to treatment by harnessing the power of transcriptome-wide profiling to drive translational research, novel therapeutics and clinical diagnostics across a variety of disease areas.

Building on more than a decade of pioneering innovation and partnerships with biopharma leaders and major academic institutes, HTG's proprietary RNA platform technologies are designed to make the development of life science tools and diagnostics more effective and efficient and to unlock a differentiated and disruptive approach to transformative drug discovery. For more information visit www.htgmolecular.com.

Forward-Looking Statements:

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the

Private Securities Litigation Reform Act of 1995, including statements regarding the capabilities and benefits of using RNA profiling in the drug discovery process, results that may be implied from prior results, the goals of HTG transcriptome-informed drug discovery approach and the ability to achieve those goals, and the design and potential benefits, including potential scalability, of HTG's RNA platform technologies. Words such as "believes," "plans," "can," "expects," "intends," "will," "goal," "potential" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements necessarily contain these identifying words. These forward-looking statements are based upon management's current expectations, are subject to known and unknown risks, and involve assumptions that may never materialize or may prove to be incorrect. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of various risks and uncertainties, including, without limitation, risks associated with drug discovery and development; past results may not be indicative of future results; the risk that our RNA platform and medicinal chemistry technologies may not provide the benefits that we expect; risks associated with our ability to develop and commercialize our products; the risk that our products and services may not be adopted by biopharmaceutical companies or other customers as anticipated, or at all; our ability to manufacture our products to meet demand; competition in our industry; additional capital and credit availability; our ability to attract and retain qualified personnel; risks associated with the impact of the COVID-19 pandemic on us and our customers; and product liability claims. These and other factors are described in greater detail in our filings with the Securities and Exchange Commission (SEC), including under the "Risk Factors" heading of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2022, as filed with the SEC on November 10, 2022. All forward-looking statements contained in this press release speak only as of the date on which they were made, and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made

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