



HTG Announces Key First Quarter Milestone Achievements for Drug Discovery

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TUCSON, Ariz., April 18, 2023 (GLOBE NEWSWIRE) -- HTG Molecular Diagnostics, Inc. (Nasdaq: HTGM) (HTG), a platform-based life science tools and drug discovery company, today announced the achievement of three significant drug discovery business milestones in the first quarter of 2023.

As reported in January 2023, HTG filed a patent application on December 28, 2022, which included claims directed toward specific compounds, pharmaceutical compositions and methods of treating or preventing disease by administration of the compounds for its first target and indication. These compounds were designed by the company's advanced machine-learning medicinal chemistry platform using a target-first approach. That work has now been followed up with the first of the key first quarter 2023 milestones - in vitro demonstration of efficacy of the lead compounds both as a standalone therapy and in combination with the current standard of care. HTG considers this result a powerful demonstration of its medicinal chemistry platform.

The second key milestone achieved during the first quarter was the use of the company's proprietary HTG EdgeSeq RNA profiling platform to biologically interrogate the lead molecules. This data, along with other primary and secondary data, was then introduced into the company's AI-driven drug discovery engine, resulting in the creation of a second generation of molecules. The second generation of molecules have been subjected to the same in vitro experiments as the first, demonstrating improved efficacy over the first generation of molecules. These results also demonstrate the utility of the AI-driven drug discovery engine in combination with high-quality full transcriptome data.

The third milestone achieved was the use of our AI-driven drug discovery engine to design compounds using transcriptomic data as the starting point. These system-designed compounds showed highly similar characteristics to our lead compounds that were designed starting with the target. These results demonstrate the ability of HTG's engine to design novel compounds based on transcriptomic data alone, which the company believes will open other applications of this platform, including drug repurposing.

In addition to further advancing the company's drug discovery platform, these first quarter efforts have significantly advanced candidate molecules through lead optimization for HTG's first oncology indication in liquid tumors, with a program in solid tumors expected to follow closely behind. This second target for the treatment of solid tumors has been selected and added to HTG's oncology portfolio, which also includes an early pipeline in neurodegenerative diseases.

"We have made significant progress in the advancement of candidate molecules for our first target during the first quarter of 2023, using profiling study results to inform the selection and design of drug candidates, while further building our existing pipeline with additional oncology indications and neurodegenerative programs," said Stephen A. Barat, Ph.D., SVP of Therapeutics at HTG. "We have also further advanced our drug discovery engine, enabling us to not only select molecules but to design them. We constructed our engine in a manner that allows future scalability and flexibility for integrating multiple data streams, which I believe gives us the ability to continue to evolve this unique discovery platform going forward."

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 potential of our AI-driven drug discovery engine, the ability of HTG's engine to design novel compounds based on transcriptomic data and our belief that doing so will open other applications of the platform (including drug repurposing), our expected pipeline advancement, expected future scalability and flexibility in our platform, and the capabilities of our technology. Words such as "designed to," "believe," "anticipate," "expect," "potential," "will" 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 risks associated with drug discovery and development; the risk that our technologies may not provide the benefits that we expect; risks associated with our ability to develop and commercialize our products; risks associated with our ability to enter into licensing, partnering or other transactions for any candidates we discover or develop; the risk that our products and services may not be adopted by biopharmaceutical companies or other customers as anticipated, or at all; and risks related to our need for additional capital. 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 Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 30, 2023. 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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