Yumanity Therapeutics' R&D Day Reviews Near-Term Value Drivers and Pipeline-Generating Discovery Engine

May 17, 2021

Clinical efforts expanding to three programs consisting of:

- *the on-going Phase 1b portion of the YTX-7739 Phase 1 program in Parkinson's disease patients with top line results expected in mid-2021*
- *initiation of Phase 1 studies of YTX-9184 for patients with dementia with Lewy bodies in 2H21*
- *initiation of a window of opportunity study of an SCD (stearoyl-CoA desaturase) inhibitor in glioblastoma multiforme patients in early 2022*

BOSTON, May 17, 2021 (GLOBE NEWSWIRE) -- Yumanity Therapeutics (NASDAQ: YMTX), a biopharmaceutical company focused on the development of innovative, disease-modifying therapies for neurodegenerative diseases today held a virtual R&D Day. Management and David S. Russell, M.D., Ph.D., a guest researcher in neurodegenerative disorders from Yale University School of Medicine, discussed the cellular pathology underlying Parkinson's disease (PD) and related disorders, how Yumanity's lead clinical program, YTX-7739, has the potential to address a toxic biochemical pathway associated with PD, and how Yumanity's discovery engine reveals additional novel biological targets with the potential to change the course of other neurodegenerative diseases.

"Yumanity has been a public company for about five months, and in that time the Company has made significant strides in advancing its pipeline," said Richard Peters, M.D., Ph.D., President, Chief Executive Officer and Director of Yumanity Therapeutics. "Not only have we advanced our orally administered SCD inhibitor, YTX-7739, in clinical development but we have also demonstrated target engagement in humans at levels that reduced motor function deficits in a PD mouse model. Our first data from the Phase 1b part of our Phase 1 program in patients with PD are expected in the middle of this year. We expect to initiate clinical development of a second asset, YTX-9184 this year, honoring our commitment to introduce one new clinical program per year."

"We are also excited to announce plans to initiate a third clinical program in early 2022 with a window of opportunity study targeting glioblastoma multiforme. This decision has been informed by compelling results of our SCD inhibitors in a preclinical animal model of the disease. Importantly, we expect our three clinical programs to achieve data read-outs within our expected current cash runway, which is into the third quarter of 2022."

The R&D Day focused primarily on an up-to-date review of the clinical and pre-clinical data on YTX-7739.

- Phase 1 multiple ascending dose (MAD) study. This randomized, double-blind, placebo-controlled study with oral once-daily dosing of 15 mg or 25 mg for up to 28 days demonstrated that YTX-7739 was generally well tolerated in healthy volunteers. The drug was detected in the cerebrospinal fluid (CSF) at concentrations consistent with all pre-clinical animal models. YTX-7739 demonstrated dose dependent target engagement. After 14 days, the 15 mg dose reduced the plasma target engagement biomarker by about 20% while the 25 mg dose reduced the index by about 40%. Reductions in this range resulted in motor function improvement in animal models of PD.
- Target engagement is measured by a validated biomarker called the fatty acid desaturation index (FA-DI). YTX-7739 inhibits the enzyme SCD, which catalyzes the conversion of two saturated fatty acids to unsaturated fatty acids. Increased concentrations of unsaturated fatty acids alter cell membrane structure, resulting in alpha-synuclein aggregation, neuronal toxicity, and neurodegeneration. Inhibition of SCD by YTX-7739 reduces the concentration of unsaturated fatty acids, which in turn is reflected in reductions of the FA-DI biomarker.
- Phase 1 single ascending dose (SAD) study in healthy volunteers demonstrated that YTX-7739 is generally well tolerated. The drug candidate demonstrated a half-life of 47 to 72 hours suggesting once-daily dosing. YTX-7739 was also shown to cross the blood brain barrier with a single, oral dose. Despite evaluating doses of up to 400 mg, which is 10-fold greater than the modeled therapeutic dose expected to be evaluated in humans, no maximum tolerated dose was reached.
- The ongoing Phase 1b portion of the Phase 1 program is a randomized, double-blind, placebo-controlled study enrolling 30 PD patients with mild-to-moderate symptoms who are either treatment naïve or satisfactorily controlled with L-dopa. Two doses of YTX-7739, 20 mg and a second dose to be determined, will be dosed orally once daily for 28 days. Study endpoints include tolerability, pharmacokinetics and target engagement as measured by FA-DI. Several exploratory biomarkers will also be evaluated. Initial results from the study are expected to be announced in mid-2021.

"Today's presentations highlight the progress Yumanity has made with YTX-7739 and demonstrates our improved understanding of neurodegenerative disease pathologies," said Ajay Verma, Executive Vice President, Head of R&D of Yumanity Therapeutics. "Concurrently, we

validated the potential of our unbiased drug discovery engine's ability to identify multiple novel targets for drug development. With our Merck collaboration signed last year and multiple novel targets against different diseases of the central nervous system ready for development, we are extremely well positioned to build a multi-asset neurology product pipeline in the coming years."

A replay of a webcast of the R&D Day is available for 60 days following the event. It can be accessed under "Events & Presentations" in the Investor Relations section of the Company's website at https://www.yumanity.com/investor-relations/events-presentations/.

About YTX-7739
YTX-7739 is Yumanity Therapeutics' proprietary lead small molecule investigational therapy designed to penetrate the blood-brain barrier and inhibit the activity of a novel target, stearoyl-CoA desaturase (SCD). SCD appears to play an important and previously unrecognized role in mitigating neurotoxicity arising from the effects of pathogenic alpha-synuclein protein aggregation and accumulation, which ultimately results in the death of neurons and the subsequent dysregulation of movement and cognition that afflicts patients living with these diseases. Through inhibition of SCD, YTX-7739 modulates an upstream process in the alpha-synuclein pathological cascade and has been shown to rescue or prevent toxicity in cellular and preclinical models. The company is assessing the potential utility of YTX-7739 as a disease modifying therapy for Parkinson's disease.

About Yumanity Therapeutics
Yumanity Therapeutics is a clinical-stage biopharmaceutical company dedicated to accelerating the revolution in the treatment of neurodegenerative diseases through its scientific foundation and drug discovery platform. The Company's most advanced product candidate, YTX-7739, is currently in Phase 1 clinical development for Parkinson's disease. Yumanity's drug discovery platform is designed to enable the Company to rapidly screen for potential disease-modifying therapies by overcoming toxicity of misfolded proteins in neurogenerative diseases. Yumanity's pipeline consists of additional programs focused on Lewy body dementia, multi-system atrophy, amyotrophic lateral sclerosis (ALS or Lou Gehrig's disease), frontotemporal lobar dementia (FTLD), and Alzheimer's disease. For more information, please visit www.yumanity.com.

Forward-Looking Statements
This press release contains forward-looking statements, including statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements may be identified by words and phrases such as "aims," "anticipates," "believes," "could," "designed to," "estimates," "expects," "forecasts," "goal," "intends," "may," "plans," "possible," "potential," "seeks," "will," and variations of these words and phrases or similar expressions that are intended to identify forward-looking statements. These forward-looking statements include, without limitation, statements regarding the potential therapeutic benefits of our prospective product candidates and results of preclinical studies, including YTX-7739, and the design, commencement, enrollment, and timing of ongoing or planned clinical trials, clinical trial results, product approvals and regulatory pathways, and the anticipated benefits of our drug discovery platform. Any such statements in this press release that are not statements of historical fact may be deemed to be forward-looking statements. Results in preclinical or early-stage clinical trials may not be indicative of results from later stage or larger scale clinical trials and do not ensure regulatory approval. You should not place undue reliance on these statements, or the scientific data presented.

Any forward-looking statements in this press release are based on Yumanity Therapeutics' current expectations, estimates and projections about our industry as well as management's current beliefs and expectations of future events only as of today and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in or implied by such forward-looking statements. These risks and uncertainties include, but are not limited to, the risk that any one or more of our product candidates will not be successfully developed or commercialized, the risk of cessation or delay of any ongoing or planned clinical trials of Yumanity Therapeutics or our collaborators, the risk that Yumanity Therapeutics may not successfully recruit or enroll a sufficient number of patients for our clinical trials, the risk that Yumanity Therapeutics may not realize the intended benefits of its drug discovery platform, the risk that our product candidates will not have the safety or efficacy profile that we anticipate, the risk that prior results, such as signals of safety, activity or durability of effect, observed from preclinical or clinical trials, will not be replicated or will not continue in ongoing or future studies or trials involving Yumanity Therapeutics' product candidates, the risk that we will be unable to obtain and maintain regulatory approval for our product candidates, the risk that the size and growth potential of the market for our product candidates will not materialize as expected, risks associated with our dependence on third-party suppliers and manufacturers, risks regarding the accuracy of our estimates of expenses and future revenue, risks relating to our capital requirements and needs for additional financing, risks relating to clinical trial and business interruptions resulting from the COVID-19 outbreak or similar public health crises, including that such interruptions may materially delay our enrollment and development timelines and/or increase our development costs or that data collection efforts may be impaired or otherwise impacted by such crises, and risks relating to our ability to obtain and maintain intellectual property protection for our product candidates. For a discussion of these and other risks and uncertainties, and other important factors, any of which could cause Yumanity Therapeutics' actual results to differ materially and adversely from those contained in the forward-looking statements, see the section entitled "Risk Factors" in the definitive proxy statement/prospectus/information statement filed with the Securities and Exchange Commission on November 12, 2020, as well as discussions of potential risks, uncertainties, and other important factors in Yumanity Therapeutics' subsequent filings with the Securities and Exchange Commission. Yumanity Therapeutics explicitly disclaims any obligation to update any forward-looking statements except to the extent required by law.

Investors:
Burns McClellan, Inc.
Lee Roth
lroth@burnsmc.com
(212) 213-0006

Media:
Burns McClellan, Inc.
Ryo Imai / Robert Flamm, Ph.D.
rimai@burnsmc.com / rflamm@burnsmc.com
(212) 213-0006

Yumanity THERAPEUTICS

Source: Yumanity Therapeutics Inc