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Catabasis Pharmaceuticals Presents Positive Pre-Clinical Data at Digestive Disease Week 2016; Data Support CAT-2054, a Phase 2 Asset, as a Potential Treatment for Nonalcoholic Steatohepatitis (NASH)

CAMBRIDGE, MA, May 21, 2016 – Catabasis Pharmaceuticals, Inc. (NASDAQ:CATB), a clinical-stage biopharmaceutical company, today announced positive pre-clinical data supporting CAT-2054 as a potential treatment for nonalcoholic steatohepatitis (NASH). The data presented compared CAT-2003, an analog of CAT-2054, versus control in a murine metabolic model of NASH followed for up to 16 weeks. The CAT-2000 series are inhibitors of Sterol Regulatory Element-Binding Protein 1 (SREBP1) and SREBP2, master regulators of lipid metabolism. CAT-2003 demonstrated a significant decrease in gene expression markers of liver inflammation as well as a significant decrease in fibrosis and steatosis. Also seen were significantly reduced ballooning degeneration and significant reduction in the development of pre-neoplastic lesions in the liver, which are precursors to the development of hepatocellular carcinoma. CAT-2054 is an oral product candidate currently in a Phase 2a clinical trial in patients with hypercholesterolemia, which has completed enrollment; top-line results are expected around mid-year 2016.

Additional positive findings presented indicate CAT-2054 is a promising potential therapeutic for patients affected by NASH. Compared with control, treatment with the CAT-2054 analog significantly reduced hepatic cholesterol and triglyceride levels. Changes in gene expression consistent with SREBP inhibition and consistent with the modulation of metabolism, inflammation and fibrosis, pathways known to be important in the pathogenesis of NASH, were observed. These pre-clinical results add to the existing published data from other researchers as to the key role that SREBP plays in both steatosis and NASH.

“The scientific rationale for SREBP inhibition as a potential treatment approach in NASH is strong and these pre-clinical data are supportive of further exploring the therapeutic utility of CAT-2054 in NASH,” said Arun Sanyal, M.D., Professor of Medicine in the Gastroenterology Division of Virginia Commonwealth University Medical Center. “An oral therapy with a novel mechanism of action that may provide benefits not only on liver inflammation, fibrosis and steatosis but also on metabolic parameters such as LDL-C may make a meaningful difference in the profound unmet medical need and cardiovascular risk associated with NASH.”

“We are excited about these data that support the role of SREBP in NASH. Work by others has suggested a role for SREPB in NASH and we believe these new pre-clinical data with the CAT-2000 series, along with the previously reported safety, tolerability, pharmacokinetic and pharmacodynamic data for CAT-2054, support the development of CAT-2054 for NASH,” said

Andrew Nichols, Ph.D., Senior Vice President, Research and Non-Clinical Development at Catabasis. “We look forward to data from the current Phase 2a trial of CAT-2054 in patients with hypercholesterolemia expected around mid-year 2016, and believe a statistically significant change in LDL-C in this trial would provide further clinical proof of concept and guide dosing in NASH and hypercholesterolemia.”

About CAT-2054

CAT-2054 is an oral small molecule with a novel mechanism of action being developed as a potential treatment of nonalcoholic steatohepatitis (NASH) and hypercholesterolemia. By inhibiting Sterol Regulatory Element-Binding Protein (SREBP), a master regulator of lipid metabolism in the body, CAT-2054 has the potential to significantly reduce LDL-C and liver fat; it may also have beneficial effects on other metabolic parameters such as triglycerides and glucose. This profile may differentiate CAT-2054 from currently approved therapies and others in development. We have shown in pre-clinical models of NASH that the CAT-2000 series significantly improves liver inflammation, fibrosis and steatosis. We have previously reported positive Phase 1 data, including reductions in LDL-C. We are currently conducting a Phase 2a trial of CAT-2054 in addition to high intensity statin therapy in patients with hypercholesterolemia, which may help guide future clinical trials in NASH and hypercholesterolemia.

About Catabasis

At Catabasis Pharmaceuticals, our mission is to bring hope and life-changing therapies to patients and their families. We have product candidates in both rare diseases and serious lipid disorders. Our SMART (Safely Metabolized And Rationally Targeted) linker drug discovery platform enables us to engineer molecules that simultaneously modulate multiple targets in a disease. We are applying our SMART linker platform to build an internal pipeline of product candidates for rare diseases and plan to pursue partnerships to develop additional product candidates. For more information on the Company's drug discovery platform and pipeline of drug candidates, please visit www.catabasis.com.

About Digestive Disease Week® (DDW)

Digestive Disease Week® (DDW) is the largest international gathering of physicians, researchers and academics in the fields of gastroenterology, hepatology, endoscopy and gastrointestinal surgery. Jointly sponsored by the American Association for the Study of Liver Diseases (AASLD), the American Gastroenterological Association (AGA) Institute, the American Society for Gastrointestinal Endoscopy (ASGE) and the Society for Surgery of the Alimentary Tract (SSAT), DDW take place May 21-24, 2016, at the San Diego Convention Center, San Diego, CA. The meeting showcases more than 5,000 abstracts and hundreds of lectures on the latest advances in GI research, medicine and technology. More information can be found at www.ddw.org.

Forward Looking Statements

Any statements in this press release about future expectations, plans and prospects for the Company, including statements about future clinical trial plans and other statements containing the words “believes,” “anticipates,” “plans,” “expects,” “may” and similar expressions, constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of

1995. Actual results may differ materially from those indicated by such forward-looking statements as a result of various important factors, including: uncertainties inherent in the initiation and completion of preclinical studies and clinical trials and clinical development of the Company's product candidates; availability and timing of results from preclinical studies and clinical trials; whether interim results from a clinical trial will be predictive of the final results of the trial or the results of future trials; expectations for regulatory approvals to conduct trials or to market products; availability of funding sufficient for the Company's foreseeable and unforeseeable operating expenses and capital expenditure requirements; other matters that could affect the availability or commercial potential of the Company's product candidates; and general economic and market conditions and other factors discussed in the "Risk Factors" section of the Company's Quarterly Report on Form 10-Q for the period ended March 31, 2016, which is on file with the Securities and Exchange Commission, and in other filings that the Company may make with the Securities and Exchange Commission in the future. In addition, the forward-looking statements included in this press release represent the Company's views as of the date of this press release. The Company anticipates that subsequent events and developments will cause the Company's views to change. However, while the Company may elect to update these forward-looking statements at some point in the future, the Company specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing the Company's views as of any date subsequent to the date of this release.

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