bicycle therapeutics

Bicycle Therapeutics Presents Posters at the SITC 35th Anniversary Annual Meeting

November 9, 2020

CAMBRIDGE, England & BOSTON--(BUSINESS WIRE)--Nov. 9, 2020-- <u>Bicycle Therapeutics plc</u> (Nasdaq: BCYC), a biotechnology company pioneering a new and differentiated class of therapeutics based on its proprietary bicyclic peptide (*Bicycle®*) technology, today announced that preclinical data for BT7480, a tumor-targeted immune cell agonist (TICA[™]), and an EphA2/CD137 TICA will be presented during an e-poster session at the Society for Immunotherapy of Cancer's (SITC) 35th Anniversary Annual Meeting on November 9-14, 2020.

"We continue to produce compelling data characterizing the preclinical profiles of our novel, fully synthetic immuno-oncology, or IO, candidates," said Kevin Lee, Ph.D., Chief Executive Officer of Bicycle Therapeutics. "The data presented at SITC provide further evidence of the potential advantages of our TICAs over conventional, biologic-based IO therapies. Our molecules are able to fully engage the local tumor microenvironment with intermittent systemic exposure. Furthermore, because our TICAs are fully synthetic, we can customize each molecule's pharmacokinetic profile and easily swap tumor-targeting and/or immune cell agonizing *Bicycles* for a generalizable approach. We believe our TICAs represent a major innovation in precision targeted immune modulation, and we look forward to initiating a clinical trial for our lead IO program, BT7480, in 2021."

In preclinical models, BT7480 exhibited potent, target-dependent anti-tumor activity, and facilitated the development of immunogenic memory. New data presented at SITC demonstrate that treatment with BT7480 leads to significant modulation of the tumor microenvironment, including immune checkpoints. This finding supports potential dosing of BT7480 in combination with checkpoint inhibitors. At dose levels tested, BT7480 has been shown to be well-tolerated in non-human primates. IND-enabling activities for BT7480 are ongoing.

Based on new data presented at SITC, one of Bicycle's EphA2/CD137 TICAs demonstrated potent EphA2-dependent activity in both CD137 reporter and primary immune cell assays. As with BT7480, intermittent dosing was associated with robust anti-tumor activity in an MC38 syngeneic mouse model that expresses human CD137. There, complete responder animals became resistant to rechallenge with MC38 tumor cells, implying an immunogenic memory response. Bicycle also showed a potential ability to induce significant modulation of the tumor immune microenvironment, including immune checkpoints. Bicycle announced earlier this year that it has selected an EphA2/CD137 TICA candidate, BT7455.

Together, data to be presented at SITC demonstrate the potential generalizability of the TICA platform, with a Nectin-4/CD137 TICA and an EphA2/CD137 TICA exhibiting similar anti-tumor activity and immune modulation. Details on Bicycle's poster presentations at SITC are as follows:

Poster Title: BT7480, a fully synthetic tumor-targeted immune cell agonist (TICA[™]) induces tumor localized CD137 agonism and modulation of tumor immune microenvironment

Abstract #: 706

Live Q&A: Thursday, November 12, 4:50 p.m. - 5:20 p. m. ET and Saturday, November 14, 1:00 p.m. -1:30 p.m. ET

Poster Title: EphA2/CD137 Bicycle tumor-targeted immune cell agonists (TICAs[™]) induce tumor regressions, immunogenic memory, and reprogramming of the tumor immune microenvironment Abstract #: 700

Live Q&A: Thursday, November 12, 4:50 p.m. – 5:20 p. m. ET and Saturday, November 14, 1:00 p.m. –1:30 p.m. ET

About Bicycle Therapeutics

Bicycle Therapeutics (NASDAQ: BCYC) is a clinical-stage biopharmaceutical company developing a novel class of medicines, referred to as *Bicycles*®, for diseases that are underserved by existing therapeutics. *Bicycles* are fully synthetic short peptides constrained with small molecule scaffolds to form two loops that stabilize their structural geometry. This constraint facilitates target binding with high affinity and selectivity, making *Bicycles* attractive candidates for drug development. Bicycle's lead product candidate, BT1718, a *Bicycle* Toxin Conjugate (BTC) that targets MT1-MMP, is being investigated in an ongoing Phase I/II clinical trial in collaboration with the Centre for Drug Development of Cancer Research UK. Bicycle is also evaluating BT5528, a second-generation BTC targeting EphA2, in a Company-sponsored Phase I/II study. BT8009 is a BTC targeting Nectin-4, a well-validated tumor antigen, and is also currently being evaluated a Company-sponsored Phase I/II trial. Bicycle is headquartered in Cambridge, UK with many key functions and members of its leadership team located in Lexington, MA. For more information, visit bicycletherapeutics.com.

Forward-Looking Statements

This press release may contain forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements may be identified by words such as "aims," "anticipates," "believes," "could," "estimates," "expects," "forecasts," "goal," "intends," "may," "plans," "possible," "potential," "seeks," "will" and variations of these words or similar expressions that are intended to identify forward-looking statements, although not all forward-looking statements contain these words. Forward-looking statements in this press release include, but are not limited to, statements regarding and the therapeutic potential and potential advantages of Bicycle's product candidates, Bicycle's ability to customize its TICAs, Bicycle's plans to initiate clinical trials for BT7480 and BT7455, Bicycle's ability to advance its product candidates through clinical development. Bicycle may not actually achieve the plans, intentions or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements as a result of various factors, including: risks presented by the ongoing COVID-19 pandemic; uncertainties inherent in the initiation and completion of clinical trials and clinical development of Bicycle's product candidates; availability and timing of results from preclinical studies and clinical trials; whether the outcomes of preclinical studies will be predictive of clinical trial results; the risk that trials

and studies may be delayed and may not have satisfactory outcomes; expectations for regulatory approvals to conduct trials or to market product; and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, are described in greater detail in the section entitled "Risk Factors" in Bicycle's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (SEC) on November 5, 2020, as well as in other filings Bicycle may make with the SEC in the future. Any forward-looking statements contained in this press release speak only as of the date hereof, and Bicycle expressly disclaims any obligation to update any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise, except as otherwise required by law.

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