NEWS RELEASE

md anderson and bridgebio pharma launch navire pharma to develop targeted therapy for patients with difficult-to-treat cancer

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HOUSTON and PALO ALTO, Calif., Oct. 4, 2017 /PRNewswire/ — **The University of Texas MD Anderson Cancer Center** and **BridgeBio Pharma** today announced the launch of **Navire Pharma**, a biopharmaceutical company aimed at developing novel small-molecule inhibitors of a tyrosine-protein phosphatase called SHP2 for genetically-driven and treatment-resistant cancer.

BridgeBio has committed $30 million and a team of senior business managers to the company, while MD Anderson, through its **Institute for Applied Cancer Sciences** (IACS), provides intellectual property and an oncology drug development team to advance SHP2 inhibitors toward clinical studies.

SHP2, encoded by the PTPN11 gene, links growth factor signaling with the downstream RAS/ERK/MAPK pathway to regulate cell growth and division. Over-activity of this pathway, often driven by distinct gene mutations, causes or contributes to many human cancers. Inhibiting SHP2offers a new approach to treat tumors relying on this pathway.

Shafique Virani, M.D., joins BridgeBio as CEO in residence, and will serve as CEO of Navire. Virani was most recently officer and vice president of business development, licensing and M&A at Roche/Genentech where he assumed several leadership roles across the globe over 13 years.

“Navire’s compounds potently bind SHP2 and prevent activation of the protein, blocking its ability to promote tumor growth,” said Virani. “Directly inhibiting SHP2 could provide patients and physicians a new, transformative approach to treat RTK-driven cancers at their source.”

Navire Pharma's lead compounds were discovered and developed by the IACS team led by Phil Jones, Ph.D., executive director and head of drug discovery at IACS, together with Benjamin G. Neel, M.D., Ph.D., director of the Laura and Isaac Perlmutter Cancer Center at New York University(NYU).

"Resistance mechanisms that cause many patients to stop responding to therapy rely on SHP2activity," said Jones, a scientific co-founder of Navire. "Our 'molecular glue' inhibitory approach inactivates SHP2 and could help overcome these resistance pathways."

SHP2 also suppresses T-cell activity against growing tumors through regulation of the adaptive immune response by binding to PD-1 and dephosphorylating CD28 and the protein LCK. SHP2inhibition may relieve this negative effect, enhancing the patient's immune response to fight cancer proliferation.

"SHP2's role in oncogenic signaling has been known for decades, but effective approaches for inhibiting the protein were only recently discovered," said Neel, Navire scientific co-founder and chairman of the company's scientific advisory board. "These novel approaches have demonstrated compelling efficacy in pre-clinical disease models, which we hope will translate into benefit for patients."

Other members of Navire's scientific advisory board, comprised of leaders in cell signaling and hematological and solid tumors, include:

- Kwok Kin-Wong, M.D., Ph.D., chief of Hematology and Medical Oncology, NYU
- Scott Kopetz, M.D., Ph.D., associate professor, Gastrointestinal Medical Oncology, MD Anderson
- Frank McCormick, Ph.D., director of the University of California, San Francisco (UCSF) Cancer Center and associate dean of the UCSF School of Medicine, and co-founder, Onyx Pharmaceuticals
- Lillian Siu, M.D., professor of Medicine, Princess Margaret Cancer Centre, Toronto

BridgeBio also has added pharmaceutical and biotechnology executives to the Navire team, including Uma Sinha, Ph.D., and Brian Metcalf, Ph.D., who together have advanced more than 30 drug candidates into human trials, and have brought nine safe and effective drug products to market. The BridgeBio team will closely collaborate with MD Anderson through IND filing and prosecute subsequent clinical trials.

"Navire combines MD Anderson's clinicians and drug development scientists with our veteran biotechnology team to create a focused organization to develop SHP2-targeted therapies," said Neil Kumar, Ph.D., chief executive officer of BridgeBio Pharma. "Together, we aim to bring these novel treatments to patients at the soonest possible opportunity."

About Navire Pharmaceuticals

Navire Pharma, a subsidiary of **BridgeBio Pharma**, and in collaboration with the Institute for Applied Cancer Science at MD Anderson, is developing inhibitors of SHP2 as targeted therapeutics for the treatment of multiple cancers. Founded in 2017 with the aim of harnessing advances in understanding of SHP2 signaling to create novel targeted oncology medications, Navire is led by a team of veteran biotechnology executives. Together with patients and physicians, the company aims to bring safe, effective treatments to market as quickly as possible.

About MD Anderson

The University of Texas MD Anderson Cancer Center in Houston ranks as one of the world's most respected centers focused on cancer patient care, research, education and prevention. The institution's sole mission is to end cancer for patients and their families around the world. MD Anderson is one of only 47 comprehensive cancer centers designated by the National Cancer Institute (NCI). MD Anderson is ranked No.1 for cancer care in U.S. News & World Report's "Best Hospitals" survey. It has ranked as one of the nation's top two hospitals for cancer care since the survey began in 1990, and has ranked first 13 times in the last 16 years. MD Anderson receives a cancer center support grant from the NCI of the National Institutes of Health (P30 CA016672).

About BridgeBio Pharma

BridgeBio is a clinical-stage biotech company developing novel, genetically targeted therapies to improve the lives of patients. The BridgeBio approach combines a traditional focus on drug development with a unique corporate model, allowing rapid translation of early stage science into medicines that treat disease at its source. Founded in 2015 by a team of industry veterans, the company has built a robust portfolio of ten transformative drugs ranging from pre-clinical to late stage development in multiple therapeutic areas including oncology, cardiology, dermatology and endocrinology. The company's focus on scientific excellence and rapid execution aims to translate today's discoveries into tomorrow's medicines.