AN2 Therapeutics Advances Pipeline With Development Candidate Nomination for Hypophosphatasia (HPP)

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Novel boron-based oral ENPP1 inhibitor advances into development

Oral profile tailored specifically for HPP with potent and specific ENPP1 inhibition, efficacy in proof-of-concept animal models, and favorable pharmacokinetic properties

Phase 1 study planned for 2H/2027

MENLO PARK, Calif.--(BUSINESS WIRE)--Nov. 4, 2026-- AN2 Therapeutics, Inc. (NASDAQ: ANTX), a clinical-stage biopharmaceutical company discovering and developing novel small molecule therapeutics derived from its boron chemistry platform, today announced the advancement of AN2-504661, a novel boron-based ENPP1 inhibitor, as a development candidate for the treatment of HPP.

AN2-504661 was selected following extensive lead optimization and preclinical evaluation demonstrating the potential for a differentiated profile characterized by potent and selective ENPP1 inhibition, favorable pharmacokinetic properties and oral bioavailability, efficacy in animal models, and an encouraging nonclinical safety profile with low potential for hERG-related cardiac effects and other safety liabilities, supporting its potential to be best-in-class.

"The selection of AN2-504661 as a development candidate represents an important milestone for our ENPP1 program and further validates the potential of our boron chemistry platform to address challenging biological targets," said Vince Hernandez, Senior Vice President of Research & Head of Chemistry of AN2 Therapeutics. "We believe ENPP1 represents a compelling target with the potential to address underlying disease biology in hypophosphatasia and are encouraged by the opportunity to provide an oral treatment option for patients living with this rare, debilitating condition who rely on injectable enzyme replacement therapy."

The Company expects AN2-504661 to be Phase 1 ready in the second half of 2027.

About HPP

HPP is a rare inherited metabolic bone disease caused by loss-of-function mutations in the ALPL gene, which encodes tissue-nonspecific alkaline phosphatase, resulting in impaired mineralization of bone and teeth. Depending on disease severity, patients may experience skeletal abnormalities, fractures, chronic pain, muscle weakness, impaired mobility, and other serious complications throughout life. The only U.S.-approved therapy for HPP is an enzyme replacement therapy indicated for patients with perinatal/infantile or juvenile-onset HPP. It requires subcutaneous injections three to six times per week on an ongoing basis and is commonly associated with injection-site reactions. There is currently no approved therapy for adult-onset HPP in the U.S. Adult patients, many of whom are underdiagnosed and may have milder disease, represent a largely underserved population for whom an oral treatment option could address an important unmet need. Oral ENPP1 inhibitors have the potential to address the underlying bone manifestations of the disease and provide a more patient-friendly oral treatment option.

About AN2 Therapeutics

AN2 Therapeutics, Inc. is a clinical stage biopharmaceutical company focused on the discovery and development of novel small molecule therapeutics derived from our boron chemistry platform. Our development pipeline spans hematologic diseases, infectious diseases, and oncology with three Phase 2 studies expected to be active in 2026, two preclinical candidates, as well as advanced research programs focused on targets in oncology, bone disorders, and infectious diseases. We are committed to delivering high-impact drugs to patients that address critical unmet needs and improve health outcomes.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “would,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “believe,” “estimate,” “predict,” “potential,” or “continue,” or the negative of these terms or other similar expressions. Forward-looking statements expressed or implied in this press release include, but are not limited to, statements regarding: the potential and profile of AN2-504661; advancement of the Company’s development programs; expectations regarding the Company’s preclinical studies and clinical trials, including timing of initiation; and other statements that are not historical fact. These statements are based on AN2’s current estimates, expectations, plans, objectives, and intentions, are not guarantees of future performance, and inherently involve significant risks and uncertainties. Actual results and the timing of events could differ materially from those anticipated in such forward-looking statements as a result of these risks and uncertainties, which include, but are not limited to, risks and uncertainties related to: AN2’s ability to implement its plans for its

internal boron chemistry platform and pipeline programs; timely enrollment of patients in AN2's clinical trials and investigator-initiated clinical trials; AN2's ability to fund existing programs like a Phase 1 study for AN2-504661 or obtain additional financing; AN2's ability to procure sufficient supply of its product candidates for its clinical trials; the ability of particular preclinical models to predict safety and efficacy in humans; significant adverse events, toxicities, or other undesirable side effects associated with AN2's product candidates; the significant uncertainty associated with AN2's product candidates ever receiving any regulatory approvals; AN2's ability to obtain, maintain, or protect intellectual property rights related to its current and future product candidates; implementation of AN2's strategic plans for its business and product candidates; global macroeconomic conditions and global conflicts and other risks, including those described under the heading "Risk Factors" in AN2's Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and other reports filed with the U.S. Securities and Exchange Commission (SEC). These filings, when made, are available on the investor relations section of AN2's website at www.an2therapeutics.com and on the SEC's website at www.sec.gov. Forward-looking statements contained in this press release are made as of this date, and AN2 undertakes no duty to update such information except as required under applicable law.

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