Praxis Precision Medicines Announces Positive Topline Results from PRAX-628 Phase 1 Study Enabling Best-in-Class Profile

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PRAX-628 demonstrated a favorable safety and tolerability profile in healthy volunteers at concentrations more than 15-fold the MES EC50; PRAX-628 predicted therapeutic range at least 3-fold wider than current market leader based on MES model

Phase 1 results support preclinical profile for PRAX-628 indicating potential for best-in-class efficacy

PRAX-628 Phase 2 study for treatment of focal epilepsy expected to initiate in 4Q23

BOSTON, May 11, 2023 (GLOBE NEWSWIRE) -- Praxis Precision Medicines, Inc. (NASDAQ: PRAX), a clinical-stage biopharmaceutical company translating genetic insights into the development of therapies for central nervous system (CNS) disorders characterized by neuronal excitation-inhibition imbalance, today announced positive topline results from the PRAX-628 Phase 1 healthy volunteer study evaluating the safety, tolerability and pharmacokinetics (PK) of single ascending doses (SAD) and multiple ascending doses (MAD) of PRAX-628.

PRAX-628 is a next-generation, functionally selective small molecule targeting the hyperexcitable state of sodium-channels in the brain. PRAX-628 is currently being developed as a once daily, oral treatment for adult focal onset epilepsy.

“Today’s data reinforce our expectations that PRAX-628 has the potential to be the best-in-class treatment for patients suffering from focal epilepsy,” said Marcio Souza, president and chief executive officer of Praxis. “The ultimate goal of an anti-seizure medication is seizure freedom for all affected patients, and a wide therapeutic window is critical to reach that goal. Today’s results support previously announced preclinical data to demonstrate that the unique functional selectivity of PRAX-628 may lead to a wider therapeutic range than current standard-of-care and other potential treatments in development.”

Summary of PRAX-628 Phase 1 Study Topline Results:

- In the study, PRAX-628 or placebo was administered to 40 healthy participants (n=30, placebo=10)
- SAD cohorts evaluated PRAX-628 doses ranging from 5 mg to 45 mg and MAD cohorts evaluated PRAX-628 doses of 20 mg and 30 mg, resulting in concentrations of more than 15-fold the mouse Maximal Electroshock Seizure model (MES) EC_{50}
- PRAX-628 was generally well-tolerated at all tested doses
- PK data demonstrated dose-dependent exposure supporting once-daily dosing without titration to achieve potentially therapeutically effective drug concentration levels
- The most common treatment-related adverse events (AEs) across all cohorts were fatigue, dizziness, somnolence, headache, disturbance in attention and nausea
- All AEs were mild, mostly transient and resolved without further intervention
- No AEs led to study drug withdrawal
- No serious adverse events (SAEs), clinically significant ECG findings, vital signs or neurological examination findings were observed

Additional results from the PRAX-628 Phase 1 study will be presented at an upcoming medical conference. Based on the Phase 1 results and preclinical profile, Praxis intends to advance PRAX-628 into a Phase 2 study in focal epilepsy in the fourth quarter of 2023.

About PRAX-628
PRAX-628 is a next-generation, functionally selective small molecule targeting the hyperexcitable state of sodium-channels in the brain that is currently being developed as a once daily, oral treatment for adult focal onset epilepsy. Preclinical data demonstrates PRAX-628 is differentiated from standard of care Na_V blockers, with the potential to be best-in-class for focal epilepsy. In vitro, PRAX-628 has demonstrated superior selectivity for disease-state Na_V channel hyperexcitability. In vivo studies of PRAX-628 have demonstrated unprecedented potency in the maximal electroshock seizure model, a highly predictive translational model for efficacy in focal epilepsy.

About Praxis
Praxis Precision Medicines is a clinical-stage biopharmaceutical company translating insights from genetic epilepsies into the development of

therapies for CNS disorders characterized by neuronal excitation-inhibition imbalance. Praxis is applying genetic insights to the discovery and development of therapies for rare and more prevalent neurological disorders through our proprietary small molecule platform, Cerebrum™, and antisense oligonucleotide (ASO) platform, Solidus™, using our understanding of shared biological targets and circuits in the brain. Praxis has established a diversified, multimodal CNS portfolio including multiple programs across movement disorders and epilepsy, with four clinical-stage product candidates. For more information, please visit www.praxismedicines.com and follow us on Facebook, LinkedIn and Twitter.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995 and other federal securities laws, including express or implied statements regarding Praxis' future expectations, plans and prospects, including, without limitation, statements regarding the clinical development of PRAX-628, as well as other statements containing the words "anticipate," "believe," "continue," "could," "endeavor," "estimate," "expect," "anticipate," "intend," "may," "might," "plan," "potential," "predict," "project," "seek," "should," "target," "will" or "would" and similar expressions that constitute forward-looking statements under the Private Securities Litigation Reform Act of 1995.

The express or implied forward-looking statements included in this press release are only predictions and are subject to a number of risks, uncertainties and assumptions, including, without limitation: uncertainties inherent in clinical trials; the expected timing of submissions for regulatory approval or review by governmental authorities; regulatory approvals to conduct trials; and other risks concerning Praxis' programs and operations as described in its Annual Report on Form 10-K for the year ended December 31, 2022, its Quarterly Reports on Form 10-Q and other filings made with the Securities and Exchange Commission. Although Praxis' forward-looking statements reflect the good faith judgment of its management, these statements are based only on information and factors currently known by Praxis. As a result, you are cautioned not to rely on these forward-looking statements. Any forward-looking statement made in this press release speaks only as of the date on which it is made. Praxis undertakes no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future developments or otherwise.

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