Virpax Signs Agreement with Sinclair Research to Initiate Investigational New Drug (IND)-Enabling Studies for AnQlar™

BERWYN, PA, October 6, 2021 — Virpax® Pharmaceuticals Inc. ("Virpax" or the "Company") (NASDAQ: VRPX), a company specializing in developing product candidates for pain management, CNS disorders and anti-viral indications, signed an agreement with Sinclair Research, a leading provider of nonclinical research services, to initiate preclinical studies of AnQlar™. AnQlar is being developed by Virpax as a daily over-the-counter (OTC) prophylactic product for treatment against SARS and influenza.

Under the terms of this agreement, Sinclair Research will perform preclinical animal studies including method, dosage and toxicity as part of the enabling trials for an Investigational New Drug Application ("IND") for AnQlar, as required by the U.S. Food and Drug Administration ("FDA"). The studies are expected to begin in January of 2022.

"This agreement represents another significant step in the expedited commercialization pathway for AnQlar and is an important milestone in the development of our anti-viral pipeline. With the additional funding recently secured by Virpax and the strengthening of our balance sheet, we are continuing to advance our product candidates and to move them through preclinical studies and into human clinical trials," said Anthony Mack, Chairman and Chief Executive Officer of Virpax Pharmaceuticals.

About AnQlar™

AnQlar (GCPQ) is a chitosan derivative and is a positively charged molecule that binds electrostatically to negatively charged coronaviruses. AnQlar can prevent the binding of coronavirus to the ACE-2 receptor on the cell surface that mediates viral infection. This molecule may have two mechanisms of action: viricidal properties and prevention of entry into cells via the ACE-2 receptor.

AnQlar is also a mucoadhesive with a prolonged nasal residence time and may be a molecular barrier to viral infection by inhibiting such binding by nasal application. Preliminary in-vitro, ex-vivo, and in-vivo data demonstrated that AnQlar inhibits replication of SARS-CoV-2 and may inhibit viral spread as well as viral brain load at non-toxic concentrations.

About Virpax Pharmaceuticals

Virpax is developing branded product candidates for non-addictive pain management and neurological disorders using its proprietary technologies to optimize and target drug delivery. Virpax is initially seeking FDA approval of its three patented drug delivery platforms. Epoladerm™ is a topical diclofenac spray film formulation being developed to manage

osteoarthritis pain. Probudur™ is a single injection long-acting liposomal bupivacaine formulation being developed to manage post-operative pain. Envelta™ is an intranasal Molecular-Envelope Technology (MET) enkephalin formulation being developed for the management of acute and chronic pain, including pain associated with cancer, as well as post-traumatic stress disorder (PTSD) under the name PES200. MET technology is also used in AnQlar™, a candidate to inhibit viral replication caused by influenza or SARS-CoV-2. Virpax recently acquired global rights to VRP324, a product candidate for the nasal delivery of a cannabidiol (CBD) for the management of epilepsy in adults and children, a rare pediatric disease. For more information, please visit www.virpaxpharma.com.

Forward-Looking Statement

This press release contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and Private Securities Litigation Reform Act, as amended, including those relating to the Company's planned clinical trials, product development, clinical and regulatory timelines, market opportunity, competitive position, possible or assumed future results of operations, business strategies, potential growth opportunities and other statements that are predictive in nature. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate and management's current beliefs and assumptions.

These statements may be identified by the use of forward-looking expressions, including, but not limited to, "expect," "anticipate," "intend," "plan," "believe," "estimate," "potential," "predict," "project," "should," "would" and similar expressions and the negatives of those terms. These statements relate to future events or our financial performance and involve known and unknown risks, uncertainties, and other factors, including the potential impact of the recent COVID-19 pandemic and the potential impact of sustained social distancing efforts, on the Company's operations, clinical development plans and timelines, which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include those set forth in the Company's filings with the Securities and Exchange Commission. Prospective investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this press release. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

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