Virpax Announces Clinical Trial Site in Canada for First in Human Study of Epoladerm™ for Pain Associated with Osteoarthritis of the Knee

First Patient Expected to be Enrolled by Q2 of 2022

Data To Support Regulatory Filings in the United States

BERWYN, PA – December 20, 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 a clinical trial agreement with Altasciences Company, Inc., a leading clinical trial services company, for a First in Human study investigating Epoladerm™ for pain associated with osteoarthritis of the knee. The study will take place in Canada with a CTA filing and enrollment of the first patient anticipated by Q2 of 2022.

"Performing trials in Canada is an efficient and cost-effective way for Virpax to add robust data in support of the 505(b)(2) FDA approval pathway for Epoladerm™. Through partners like Altasciences, we may strategically accelerate our optimized drug delivery therapeutic candidates through pre-clinical and clinical development," commented Chairman & CEO Anthony P. Mack.

About Epoladerm™

Virpax Pharmaceuticals is developing Epoladerm™ (diclofenac epolamine), an investigational analgesic supplied in a pre-filled device for administration as a topical spray film to manage chronic pain associated with osteoarthritis of the knee. Our proprietary technology provides a convenient aerosol canister for application of the spray film to the knee. The resulting film is thinner than a standard liquid bandage, is visibly clear on the knee and is fast-drying. The spray formulation avoids the inconvenient and messy application of creams or gels to the knee.

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 pharmaceutical-grade cannabidiol (CBD) for the management of epilepsy in children (a rare pediatric disease) and adults. For more information, please visit www.virpaxpharma.com.

About Altasciences

Altasciences is an integrated drug development solution company offering pharmaceutical and biotechnology companies a proven, flexible approach to preclinical and clinical pharmacology studies, including formulation, manufacturing, and analytical services. For over 25 years, Altasciences has been partnering with sponsors to help support educated, faster, and more complete early drug development decisions. Altasciences' integrated, full-service solutions include preclinical safety testing, clinical pharmacology and proof of concept, bioanalysis, program management, medical writing, biostatistics, clinical monitoring, and data management, all customizable to specific sponsor requirements. Altasciences helps sponsors get better drugs to the people who need them, faster.

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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