Virpax Reports Successful Results of Toxicology and Pharmacokinetic Study for Epoladerm™

BERWYN, PA – December 8, 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, reported positive results following the completion of a toxicology and pharmacokinetic study designed to support clinical trials with Epoladerm™, one of its lead investigational product candidates for the management of pain associated with osteoarthritis of the knee.

Charles River Laboratories, a renowned CRO engaged by Virpax to perform Food and Drug Administration (FDA) required pre-clinical studies, has completed a single dose pharmacokinetic study of dermal administration of Epoladerm in minipigs as part of the required Investigational New Drug Application ("IND") enabling trials. Single-dose transdermal delivery of Epoladerm was well-tolerated in all minipigs and no treatment-related clinical observations, changes in body weight, or dermal irritation were observed. All Epoladerm treated animals had plasma levels of Epoladerm confirming transdermal absorption. The maximum plasma concentration (Cmax) was reached at 4 hours post-dose, and plasma Epoladerm remained at 24-hour post-dose for all animals. This data should strengthen the Company's IND filing in advance of the anticipated start of first-in-human clinical trials.

"This is an important step in the development of Epoladerm and further prepares us for expected clinical trials," commented Anthony P. Mack, Chairman and CEO of Virpax. "The results of this study underscore the safety of our spray film technology."

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 clear coating upon application to 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.

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.

Contact:
Christopher M. Chipman, CPA
Chief Financial Officer
cchipman@virpaxpharma.com
610-727-4597

Or

Betsy Brod
Affinity Growth Advisors
betsy.brod@affinitygrowth.com
212-661-2231

Media:
Laura Radocaj
DGI
212-825-3210