Virpax to Initiate Investigational New Drug (IND) Enabling Studies for Epoladerm™

BERWYN, PA, March 10, 2021 — Virpax® Pharmaceuticals Inc. ("Virpax" or the "Company") (NASDAQ: VRPX), today announced that it has signed an agreement with Charles River Laboratories to initiate preclinical studies of Epoladerm™, Virpax's proprietary, patented, anti-inflammatory topical spray film delivery technology for acute musculoskeletal pain. Under the terms of this agreement, Charles River Laboratories will perform seven preclinical animal studies including method, dosage, and toxicity as part of the required U.S. Food and Drug Administration ("FDA") enabling trials for an Investigational New Drug Application ("IND") for Epoladerm™.

"We recently completed our initial public offering with the expectation that the funds raised would be used to further our product candidate pipeline and move through preclinical studies into clinical trials. This agreement to perform the enabling trials for Epoladerm™ is our first step in accomplishing this goal," said Anthony Mack, Chief Executive Officer of Virpax Pharmaceuticals.

Dr. Jeff Gudin, Chief Medical Officer and co-founder of Virpax added, "Upon completion of these preclinical studies, we anticipate filing our IND briefing documents in the first half of 2021."

About Epoladerm™

Epoladerm™ delivers Diclofenac Epolamine, a nonsteroidal anti-inflammatory drug ("NSAID") via its meter-dosed spay film formulation. Epoladerm™ is being developed to treat acute musculoskeletal pain; it was studied in ex-vivo skin studies and demonstrated comparable skin absorption to the Diclofenac Epolamine 1.3% patch. Epoladerm™ spray film dries on the skin within 60 and 90 seconds. As a result of the Pre-Investigational New Drug ("Pre-IND") review, the FDA has indicated that it is reasonable for Virpax to pursue a 505(b)(2) accelerated New Drug Application ("NDA"). Once the Phase I trial is completed, Virpax anticipates scheduling an End-of-Phase-One meeting with the FDA before potentially moving into Phase III clinical trials.

About Virpax Pharmaceuticals

Virpax is developing branded, non-addictive pain management product candidates using its proprietary technologies to optimize and target drug delivery. Virpax is initially seeking FDA approval using its three patented drug delivery platforms. Epoladerm™ is a topical diclofenac metered-dose spray film formulation being developed to manage acute musculoskeletal pain and osteoarthritis. Probudur™ is a single injection liposomal bupivacaine formulation being developed to manage post-operative pain. Envelta™ is an intranasal molecular envelope enkephalin formulation being developed to manage acute and chronic pain, including pain associated with cancer. Virpax is also using its intranasal Molecular Envelope Technology (MET) to develop its PES200 product candidate to manage post-traumatic stress disorder (PTSD) and its MMS019

product candidate to inhibit viral replication caused by influenza or SARS-CoV-2. 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, the clinical development of our product candidates, 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