Virpax to Develop Intranasal Cannabidiol Product for the Management of Epilepsy in Adults and Children

--Virpax to Expand Use of Molecular Envelope Platform Technology--

BERWYN, PA, September 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, has acquired the exclusive worldwide rights from Nanomerics Ltd. ("Nanomerics") to use Nanomeric's molecular envelope platform technology (MET) for the nasal delivery of a cannabidiol (CBD) for the management of epilepsy in adults and children.

Under the license agreement with Nanomerics, Virpax has the right to develop, manufacture, market and sell VRP324, the first investigational formulation delivered via the nasal route to enhance CBD transport to the brain. VRP324 uses a preassembled device and cartridge to propel the CBD powder formulation into the nose to the brain via the olfactory nerve/bulb. This product candidate will be formulated to potentially treat seizures associated with tuberous sclerosis complex (TSC), Lennox-Gastaut syndrome and Dravet syndrome in patients one year of age and older. Lennox-Gastaut syndrome and Dravet syndrome are rare central nervous system diseases considered serious epileptic encephalopathies that cause different types of epileptic seizures as well as cognitive and behavioral changes and are generally resistant to treatment. Nanomerics has initiated preclinical studies of VRP324. If animal studies are successfully completed, Virpax plans to immediately proceed with preparing a pre-Investigational New Drug Application briefing document for the U.S. Food and Drug Administration's review.

"We believe VRP324 is the first step toward building our neurological disorder therapy pipeline, expanding the use of our novel delivery platform technologies to multiple categories of neurology," said Anthony P. Mack, Chairman and CEO of Virpax. "Our Envelta™ IND enabling studies completed by the National Center for Advancing Translational Sciences as a part of our Cooperative Research and Development Agreement, have determined that the MET intranasal delivery formulation bypasses the liver. Consequently, we believe that since the CBD will not be metabolized in the liver, this may reduce the concern of drug-to-drug interaction and/or the need to adjust the dosage of other related medications," concluded Mr. Mack.

About VRP324

VRP324 is a drug product candidate based on nanotechnology which enables the delivery of CBD into the brain via intranasal delivery for the management of seizures associated with tuberous sclerosis complex (TSC) in patients one year of age and older, as well as patients one year of age and older who experience seizures associated with Lennox-Gastaut syndrome (LGS) or Dravet syndrome. VRP324 is manufactured using high pressure homogenization and spray drying. In animal studies, the MET nanoparticles are well-tolerated via the nasal route at the dose administered.

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 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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