



Kindeva and BOL Pharma Sign Agreement for Development of Inhaled Cannabinoid Products

St. Paul, MN (December 1, 2020) – Kindeva Drug Delivery (Kindeva) and Breath of Life International (BOL Pharma or BOL) have signed an agreement to study the feasibility of multiple inhaled cannabinoid products. Under the agreement, Kindeva will develop novel formulations of BOL Pharma’s cannabinoid-based drug products delivered by Kindeva’s metered-dose inhaler (MDI) technology. Subject to all required regulatory approvals, the products under development could go on to treat a range of central nervous system diseases, including autism spectrum disorder, epilepsy, and general severe pain and anxiety experienced as part of conditions such as palliative care and diabetic neuropathy. If successful, this early-stage activity could lead to the long-term commercial supply of regulated inhaled cannabinoid products, leveraging Kindeva’s commercial manufacturing capabilities and BOL’s accumulated know-how and innovation in the field of medical cannabis.

Kindeva, a leading global contract development and manufacturing organization (CDMO), has a historical legacy of solving complex drug delivery challenges in the pharmaceutical, biotechnology, and life sciences sectors. The company has over 60 years of development-driven innovation across multiple drug delivery technologies, including inhalation, transdermal, and microneedles. In inhalation, Kindeva’s list of novel achievements includes the invention of the world’s first MDI and the world’s first CFC-free MDI.

“We are thrilled to launch this partnership with BOL Pharma,” said Aaron Mann, CEO of Kindeva Drug Delivery. “This is a partnership between two highly innovative and growing companies. BOL Pharma is an acknowledged leader in medical cannabis, and I’m excited that Kindeva has the opportunity to support their progress in this space. Kindeva’s formulation and development expertise, built on more than 20 successful customer launches, enables us to be a strategic partner to BOL Pharma throughout the development lifecycle. Most importantly, the successful development of these products would ultimately offer patients a new and valuable tool for treating truly debilitating conditions.”

“We are excited to form a partnership with Kindeva Drug Delivery, formerly 3M Drug Delivery Systems, a recognized global leader in the development of complex drugs, to develop a best-in-class inhaler,” said Kfir Avraham, CEO of BOL Pharma. “By entering into this collaboration, BOL Pharma reaffirms its commitment to developing pharmaceutical-based cannabinoid products to address serious medical needs. This partnership, bringing together two leading companies, will provide a patient-centric solution to those at need.”

This announcement highlights the growing opportunity for inhalation to expand into adjacent therapy areas and indications. In recent years, Kindeva has been actively identifying and progressing new development opportunities in inhalation that go beyond asthma and COPD. “The BOL partnership demonstrates how broad and effective inhaled drug delivery can be,” Mann said. “Applications for inhaled therapies go beyond respiratory diseases. In this case, we’re looking at the systemic delivery of drugs via the lungs. Due to heightened bioavailability compared to oral delivery, inhaled cannabinoids have the

possibility to significantly reduce the dosage and reduce the variability currently observed with cannabinoid treatment, with the potential to also enhance the overall accuracy, safety and efficacy.”

The products are being developed for multiple markets worldwide, including the United States, the United Kingdom, and the European Union. “With Kindeva as our partner, BOL pharma is committed to testing this best-in-class inhaler in clinical trials to establish the safety and efficacy in several unmet medical conditions in consultation with the FDA and EMA”, said Boaz Hirshberg MD, CMO of BOL Pharma. “This partnership will allow us to develop a platform that will deliver an accurate and consistent dose to patients. Furthermore, the rapid onset of action will provide an advantage, especially when dealing with severe pain.”

About Kindeva Drug Delivery

Headquartered in St. Paul, Minnesota, Kindeva Drug Delivery is a leading global contract development and manufacturing organization (CDMO) in the pharmaceutical industry. Kindeva provides unique technologies and quality services to its customers, ranging from formulation and product development to commercial manufacturing. Kindeva focuses on complex drug programs, and its current offering spans inhalation drug delivery, transdermal drug delivery, microstructured transdermal systems (microsystems), and connected drug delivery. Kindeva employs approximately 1,000 people worldwide. For more information, visit www.kindevadd.com.

About BOL Pharma

BOL Pharma is a vertically integrated company in the medical cannabis and cannabinoid-based pharmaceutical industries with operations spanning the value chain from cultivation through production and extraction, formulation and product development, and product research and testing. BOL Pharma is one of the first licensed medical cannabis cultivators in Israel and has been at the forefront of the Israeli medical cannabis industry since 2008. BOL Pharma’s commitment to research and development and well-established partnerships with key universities, medical centers, and corporations is rooted in its culture of innovation. We are currently one of the only companies in Israel accredited by the Ministry of Health of Israel (“Ministry of Health”) with both Good Agricultural Practices (“GAP”) Israeli certification for propagation and cultivation and Good Manufacturing Practices (“IMC GMP”) Israeli certification for manufacturing of finished products, and EU-GMP for API manufacturing. These certifications authorize us to have our medical cannabis and cannabinoid-based APIs sold in pharmacies in Israel and the global markets. For more information, visit www.Bolpharma.com.