August 7, 2023

180 Life Sciences Announces an Agreement for a Clinical Pharmacology Study Testing a New Formulation of CBD for Enhanced Oral Uptake

PALO ALTO, Calif., Aug. 07, 2023 (GLOBE NEWSWIRE) -- 180 Life Sciences Corp. (NASDAQ: ATNF) ("180 Life Sciences" or the "Company"), today announced that an agreement has been reached with Prof. Avi Domb of the Hebrew University, School of Pharmacy, and with Prof. Elyad Davidson, of Hadassah Hospital, to perform a clinical pharmacology ("Pharmacokinetic" or "PK") study of the uptake of cannabidiol (CBD) in a formulation which can be delivered as a pill orally. The PK study will seek to determine how much CBD is taken up into the blood of volunteers.

While CBD preparations have previously been approved by the U.S. Food and Drug Administration (FDA) for rare forms of childhood epilepsy, a major problem in working with CBD is its low and unpredictable and variable uptake following the most convenient delivery form, by mouth, as CBD in oil. This has hampered progress and clinical trials seeking potential uses for CBD, such as for the treatment of pain, post-traumatic stress disorder (PTSD), head trauma, and more, where reports have suggested the possibility of benefits. To help try to solve this problem, Prof. Domb and colleagues have developed "ProNanoLipospheres" (PNL), a mixture of components available over-the-counter, which form little droplets and have been shown to be absorbed from the gastrointestinal tract into blood. The dosage form has been shown in preliminary testing in rats to increase uptake of CBD, decrease absorption variability and enable controlled release pharmacokinetics. Based on these animal results, a human PK study is being designed to test whether the formulation increases CBD blood levels after oral administration. This PK study will be performed at Hadassah Hospital executed by an experienced team under the supervision of Prof. Davidson and Prof. Domb, in collaboration with 180 Life Sciences. The currently available plant-based CBD formulations may contain up to 100 compounds and not just the CBD molecule. From prior work over several years with Prof. Raphael Mechoulam of Hebrew University, who discovered the human endocannabinoid system, a number of synthetic CBD compounds were developed, that in animal models exhibited both anti-inflammatory and analgesic properties. Prof. Mechoulam recently passed away but leaves a legacy that may provide substantial clinical benefit to patients suffering from pain.

"We believe that the new pill formulation has the potential to dramatically improve the availability and absorption of CBD taken orally as a pill, and plan to facilitate clinical studies to test this," said Prof. Sir Marc Feldmann, Executive Co-Chairman of 180 Life Sciences, who continued, "If successful, we believe that this may significantly expand the use of CBD and derivatives and may permit their use in multiple conditions including most importantly pain (a huge unmet need where there are few safe drugs), anxiety and, as discussed below, weight management. Recent human studies have demonstrated that CBD can improve post-

operative pain and might decrease opioid consumption, an important goal[(1)]. This is an exciting prospect and Prof. Domb's team has a track record in formulating medications for therapeutic use."

"We are delighted to collaborate with the team at 180 Life Sciences, including Prof. Marc Feldmann, who pioneered the development of anti-Tumor Necrosis Factor (TNF) antibodies for rheumatoid arthritis," said Prof. Domb of the Hebrew University, School of Pharmacy. "Ultimately, our team's formulation may use pure synthetic CBD, which we believe in many countries is not subject to controlled substance regulations, but in other countries may be subject to local regulations, and which we believe will be convenient to administer", continued Prof. Domb.

"We are excited to be working with talented cannabis research pioneers such as Prof. Domb," said Dr. James Woody, CEO of 180 Life Sciences, who continued, "We believe that this work could potentially validate the effectiveness of solid PNL, and if so, could potentially open up the door to many new uses to be considered and researched. These may include combination therapy including anti-inflammatory biologics, together with the analgesic properties of CBD when administered in appropriate doses with this potential new convenient pill formulation. In addition, considering our recent provisional patent filing describing the potential combination treatment of using CBD with GLP-1 agonists to suppress appetite, delivery of CBD in a solid pill formula for obesity and weight management may provide a convenient therapy.

180 Life Sciences has filed patents to protect its discoveries. The Company's focus now is on our core assets that are in the clinic, which is comprised of our anti-TNF program for Dupuytren's disease (fibrosis of the hand) and delirium, and now CBD."

(1) Talk by Michael J. Alaia, MD, FAAOS concerning the efficacy of an orally absorbed CBD tablet for postoperative pain relief following rotator cuff surgery. Presented at the 2022 American Academy of Orthopaedic Surgeons Annual Meeting.

About 180 Life Sciences Corp.

180 Life Sciences Corp. is a clinical stage biotechnology company focused on the development of therapeutics for unmet medical needs in chronic pain, inflammation and fibrosis by employing innovative research, and, where appropriate, combination therapy. The Company's current primary focus is a novel program to treat several inflammatory disorders using anti-TNF (tumor necrosis factor).

Forward-Looking Statements

This press release includes "forward-looking statements", including information about management's view of the Company's future expectations, plans and prospects, within the safe harbor provisions provided under federal securities laws, including under The Private Securities Litigation Reform Act of 1995 (the "Act"). Words such as "expect," "estimate," "project," "budget," "forecast," "anticipate," "intend," "plan," "may," "will," "could," "should," "believes," "predicts," "potential," "continue" and similar expressions are intended to identify such forward-looking statements. These forward-looking statements involve significant risks and uncertainties that could cause the actual results to differ materially from the expected results and, consequently, you should not rely on these forward-looking statements as predictions of future events. These forward-looking statements and factors that may cause

such differences include, without limitation, risks regarding the outcome of the pharmacokinetics (PK) study discussed above, the timing and costs thereof, and the ability to obtain sufficient participants; our ability to commercialize PNL and our other drug candidates, if proven successful for treatment in trials; risks regarding whether the administrative processes required for the issuance of patents will be completed in a timely manner or at all, whether patents, if issued, will provide sufficient protection and market exclusivity for the Company, whether any patents held by the Company may be challenged, invalidated, infringed or circumvented by third parties; events that could interfere with the continued validity or enforceability of a patent; the Company's ability generally to maintain adequate patent protection and successfully enforce patent claims against third parties; the timing of, outcome of, and results of, clinical trials statements regarding the timing of our planned marketing authorization application (MAA) submission to the UK Medicines and Healthcare products Regulatory Agency (MHRA) and our planned New Drug Application submission (NDA) to the U.S. Food and Drug Administration (FDA), our ability to obtain approval and acceptance thereof, the willingness of MHRA to review such MAA and the FDA to review such NDA, and our ability to address outstanding comments and questions from the MHRA and FDA; statements about the ability of our clinical trials to demonstrate safety and efficacy of our product candidates, and other positive results; the uncertainties associated with the clinical development and regulatory approval of 180 Life Sciences' drug candidates, including potential delays in the enrollment and completion of clinical trials, the costs thereof, closures of such trials prior to enrolling sufficient participants in connection therewith, issues raised by the U.S. Food and Drug Administration (FDA), the MHRA and the European Medicines Agency (EMA); the ability of the Company to persuade regulators that chosen endpoints do not require further validation; timing and costs to complete required studies and trials, and timing to obtain governmental approvals; the accuracy of simulations and the ability to reproduce the outcome of such simulations in real world trials; 180 Life Sciences' reliance on third parties to conduct its clinical trials, enroll patients, and manufacture its preclinical and clinical drug supplies; the ability to come to mutually agreeable terms with such third parties and partners, and the terms of such agreements; estimates of patient populations for 180 Life Sciences planned products; unexpected adverse side effects or inadequate therapeutic efficacy of drug candidates that could limit approval and/or commercialization, or that could result in recalls or product liability claims; 180 Life Sciences' ability to fully comply with numerous federal, state and local laws and regulatory requirements, as well as rules and regulations outside the United States, that apply to its product development activities; the timing of filing, the timing of governmental review, and outcome of, planned Investigational New Drug (IND) applications for drug candidates; current negative operating cash flows and a need for additional funding to finance our operating plans; the terms of any further financing, which may be highly dilutive and may include onerous terms, increases in interest rates which may make borrowing more expensive and increased inflation which may negatively affect costs, expenses and returns; statements relating to expectations regarding future agreements relating to the supply of materials and license and commercialization of products; the availability and cost of materials required for trials; the risk that initial drug results are not predictive of future results or will not be able to be replicated in clinical trials or that such drugs selected for clinical development will not be successful; challenges and uncertainties inherent in product research and development, including the uncertainty of clinical success and of obtaining regulatory approvals; uncertainty of commercial success; the inherent risks in early stage drug development including demonstrating efficacy; development time/cost and the regulatory approval process; the progress of our clinical trials; our ability to find and enter

into agreements with potential partners; our ability to attract and retain key personnel; changing market and economic conditions; our ability to produce acceptable batches of future products in sufficient quantities; unexpected manufacturing defects; manufacturing difficulties and delays; competition, including technological advances, new products and patents attained by competitors; challenges to patents; product efficacy or safety concerns resulting in product recalls or regulatory action; changes in behavior and spending patterns of purchasers of health care products and services; changes to applicable laws and regulations, including global health care reforms; expectations with respect to future performance, growth and anticipated acquisitions; the continued listing of the Company's securities on The Nasdaq Stock Market; expectations regarding the capitalization, resources and ownership structure of the Company; expectations with respect to future performance, growth and anticipated acquisitions; the ability of the Company to execute its plans to develop and market new drug products and the timing and costs of these development programs; estimates of the size of the markets for the Company's potential drug products; the outcome of current litigation involving the Company; potential future litigation involving the Company or the validity or enforceability of the intellectual property of the Company; global economic conditions; geopolitical events and regulatory changes; the expectations, development plans and anticipated timelines for the Company's drug candidates, pipeline and programs, including collaborations with third parties; access to additional financing, and the potential lack of such financing; and the Company's ability to raise funding in the future and the terms of such funding, and dilution caused thereby; and the effect of rising interest rates and inflation, economic downturns and recessions, declines in economic activity or global conflicts. These risk factors and others are included from time to time in documents the Company files with the Securities and Exchange Commission, including, but not limited to, its Form 10-Ks, Form 10-Qs and Form 8-Ks, and including the Annual Report on Form 10-K for the year ended December 31, 2022, and Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, and future SEC filings. These reports and filings are available at www.sec.gov and are available for download, free of charge, soon after such reports are filed with or furnished to the SEC, on the "Investors", "SEC Filings", "All SEC Filings" page of our website at www.180lifesciences.com. All subsequent written and oral forward-looking statements concerning the Company, the results of the Company's clinical trial results and studies or other matters and attributable to the Company or any person acting on its behalf are expressly qualified in their entirety by the cautionary statements above. Readers are cautioned not to place undue reliance upon any forward-looking statements, which speak only as of the date made, including the forward-looking statements included in this press release, which are made only as of the date hereof. The Company cannot guarantee future results, levels of activity, performance or achievements. Accordingly, you should not place undue reliance on these forward-looking statements. The Company does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement to reflect any change in its expectations or any change in events, conditions, or circumstances on which any such statement is based, except as otherwise provided by law.

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