



NEWS RELEASE

SATELLOS Discloses Drug Target and Provides Development Update on Duchenne Muscular Dystrophy Program

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- The drug target for the Duchenne program is AAK1, a protein kinase in the Notch pathway, which the Company discovered can be modulated to enable muscle regeneration
- Satellos is conducting IND-enabling studies and GMP manufacturing, nominates SAT-3247 as lead drug candidate, files patent applications for its drug target and drug development candidates, and remains on track to initiate clinical development in mid-2024
- The Company has appointed Ms. Courtney Wells, a 20-year industry veteran with Duchenne clinical trial experience, as Senior Vice President, Clinical Development Operations to lead and execute the Company's clinical development plan

TORONTO, November 14, 2023 – **Satellos Bioscience Inc.** (“Satellos” or the “Company”) (TSXV: MSCL) (OTCQB: MSCLF), a publicly traded biotech company developing new small molecule therapeutic approaches to improve the treatment of muscle diseases and disorders, announced today the following updates: AAK1 is the drug target of the Company's lead drug program in Duchenne muscular dystrophy (“Duchenne” or “DMD”); IND-enabling studies and GMP manufacturing are ongoing; SAT-3247 has been nominated as its lead drug candidate; intellectual property applications have been filed to seek protection for the Company's target and small molecule discoveries; and Ms. Courtney Wells has been appointed as Senior Vice President, Clinical Development Operations.

Frank Gleeson, Cofounder and CEO of Satellos, said, “Deploying our proprietary MyoReGenXTM screening platform, we identified AAK1 as having the potential to affect muscle regeneration by regulating asymmetric muscle stem cell



polarity, independent of dystrophin. We have generated multiple series of small molecule inhibitors of AAK1 with pharmaceutical properties designed to meet our therapeutic objectives in treating Duchenne. We are excited to have generated two novel drug candidates, SAT-3247 and SAT-3153, to serve as lead and back-up development candidates, respectively.”

Mr. Gleeson continued, “We are also pleased to welcome a clinical development professional of Courtney’s stature and experience who chose to join Satellos and lead the execution of our clinical development plan for SAT-3247 at this critical junction in our evolution to becoming a clinical stage company in 2024.”

Preclinical data generated by Satellos has demonstrated that SAT-3153 and SAT-3247 have a similar capacity to affect stem cell polarity, enhance muscle regeneration, and improve muscle force in the mdx mouse model of Duchenne. SAT-3247 also exhibited improved oral bioavailability, target specificity, and tissue distribution, when compared directly to SAT-3153. Based on this data, the Company will prioritize SAT-3247 as its lead development candidate to advance into clinical trials with SAT-3153 becoming its back-up candidate. Both small molecule candidates as well as the discovery that AAK1 can be modulated to enable muscle regeneration are covered by patent applications filed by the Company.

“The data in our Duchenne program continue to support our drug target, mechanism of action, and proprietary small molecule leads,” said Phil Lambert, Ph.D., Chief Scientific Officer of Satellos. “In addition, previously published external clinical programs with AAK1 inhibitors have demonstrated the ability to safely inhibit this target, which further encourages us in our development plans. With our team’s expertise, we have created small molecules that are selective for and effective at inhibiting AAK1 to modulate muscle stem cell polarity leading to the repair and regeneration of functional muscle tissue in our preclinical models. We are excited about the improved oral bioavailability, target selectivity, and tissue distribution that SAT-3247 has exhibited in these models. We look forward to expeditiously completing our ongoing IND-enabling studies and GMP manufacturing and moving into clinical trials.”

Alan Jacobs, M.D. FAAN, Chief Medical Officer of Satellos, added, “I am pleased to welcome Courtney to the Satellos team as Senior Vice President of Clinical Development Operations to lead and implement our clinical trial plans.

With more than 20 years of experience in clinical development operations for large pharmaceutical companies and innovative biotech companies, including orphan diseases and Duchenne, we believe her addition is timely and that her expertise will be invaluable in leading and advancing SAT-3247 through clinical development, which we plan to initiate in mid-2024.”

About Muscle Progenitor Cells and Duchenne Muscular Dystrophy

Duchenne patients suffer from an inability to regenerate, grow, and repair muscle. Muscle tissue is regenerated through asymmetric division of muscle stem cells into stem and progenitor cells. Duchenne patients have abundant muscle stem cells, but lack muscle progenitor cells, which leads to a defect in muscle tissue regeneration and results in progressive muscle loss. Satellos scientific founder, Dr. Michael Rudnicki, discovered and has demonstrated how dystrophin is present in muscle stem cells and coordinates a biological process known as “stem cell polarity” to regulate asymmetric cell division. Furthermore, in the absence of dystrophin, the ability to generate progenitor cells is lost, which the Company believes is the underlying cause of Duchene. For the Company’s Duchenne program, Satellos has designed small molecules to inhibit AAK1, a protein kinase member of the Notch pathway. The Company believes AAK1 inhibition, independent of dystrophin, has the capacity to regulate polarity to restore asymmetric muscle stem cell division, generate muscle progenitor cells, and enable muscle regeneration.

About Satellos Bioscience Inc.

Satellos is a publicly traded biotechnology company dedicated to developing life-improving medicines to treat degenerative muscle diseases. Satellos has incorporated breakthrough research in muscle stem cell polarity into a proprietary discovery platform, called MyoReGenXTM, to identify degenerative muscle diseases where deficits in this process affect muscle regeneration and are amenable to therapeutic intervention. With this platform, Satellos is building a pipeline of novel therapeutics to correct muscle stem cell polarity and promote the body’s innate muscle repair and regeneration process. The Company’s lead program is an oral, small molecule drug candidate in development as a potential disease-modifying treatment for Duchenne muscular dystrophy. Satellos is headquartered in Toronto, Ontario. For more information, visit www.satellos.com.

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