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Chair and Members of Economic Matters Committee

Maryland General Assembly
Annapolis, Maryland 21401

March 30, 2026

Re: Support for the Maryland Stem Cell Research Fund (MSCRF) Manufacturing Grants Program

Dear Chair and Members of Economic Matters Committee,

I am writing in strong support of the Maryland Stem Cell Research Fund (MSCRF) and, in particular, its Manufacturing Grants program. As founder and CEO of Theradaptive, Inc., a clinical-stage regenerative medicine company headquartered in Frederick, Maryland, I have had the privilege of working closely with MSCRF since 2018. Few public programs in the country are as well positioned or as effective as MSCRF in advancing regenerative medicine from discovery to real-world patient impact.

About Theradaptive: From Mission to Momentum

Theradaptive's mission is deeply personal to me. As a retired U.S. Army Lieutenant Colonel with 20 years of active-duty service, including a deployment to Iraq, I witnessed firsthand the devastating extremity injuries suffered by our servicemembers. I founded Theradaptive with a singular mission: to develop regenerative therapies that could one day eliminate the need for amputations and restore function to those who sacrifice so much for our country.

Maryland's support through MSCRF has been essential in translating that founding mission into tangible clinical progress. Theradaptive is now developing OsteoAdapt, a first-in-class bone regeneration biologic designed to harness a patient's own stem cells to heal severe bone defects, eliminating the need for painful and complication-prone bone grafts. Our technology has received three FDA Breakthrough Device Designations and is currently being evaluated in clinical studies in spine and dental regeneration. Preliminary safety data from both studies has been highly encouraging, reinforcing the potential for a safer alternative to the current standard of care.



Why MSCRF Is Uniquely Positioned to Run This Program

The MSCRF Manufacturing Grants program is not a generic technology subsidy. It is a precisely designed instrument that addresses one of the most persistent bottlenecks in bringing regenerative medicine therapies to patients: the gap between laboratory-scale production and GMP (Good Manufacturing Practice) manufacturing at clinical and commercial scale. Unlike typical economic development programs, MSCRF combines rigorous, peer-reviewed scientific and regulatory evaluation with milestone-based accountability, ensuring public funds are deployed to companies with credible manufacturing strategies and executable paths to market.

Beyond funding, MSCRF actively connects grantees to Maryland's broader innovation ecosystem, including TEDCO's incubator network, state economic development resources, and Maryland's university research community, allowing each award to function as a force multiplier rather than a one-time program. This approach has a proven track record: MSCRF's investment in Theradaptive alone has been leveraged more than 17-fold through federal and private funding, resulting in over \$85 million deployed in Maryland.

The Value MSCRF Has Delivered to Theradaptive

For Theradaptive, MSCRF's Manufacturing Assistance Grant was catalytic, enabling us to establish and scale GMP manufacturing capabilities at our Frederick, Maryland headquarters. This foundation supported our transition from promising science to clinical execution—achieving FDA IDE approval and advancing our clinical programs—while also driving growth from 3 to 35 high-skill jobs, establishing a 28,000-square-foot state-of-the-art facility, and securing an exclusive U.S. commercialization agreement with a leading spine technology company. These advancements also contributed to industry recognition, including being named the 2023 Emerging Life Sciences Company of the Year by the Maryland Tech Council and one of Frederick's Top 50 Manufacturers in 2025.

Beyond these company-specific outcomes, MSCRF's support has reinforced Maryland's position in regenerative medicine manufacturing while strengthening the state's life sciences ecosystem through high-skill job creation and commercialization. Together, these milestones reflect not only Theradaptive's growth, but the impact of Maryland's innovation ecosystem and the public investment that supports it.

A Call for Continued Investment

The success of MSCRF's Manufacturing Grants program demonstrates the importance of sustained, targeted support at the critical intersection of advanced manufacturing, regulatory readiness, and commercialization. I strongly urge continued, robust support for MSCRF and its Manufacturing Grants program.



Thank you for your service to Maryland and for the opportunity to share Theradaptive's experience. I am happy to provide any additional information or to meet with Committee members at your convenience.

Respectfully submitted,

DocuSigned by:
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