



Industry:
Biotechnology, Life Sciences,
Digital Health

Management/Founder Team:
Justin Burdge, PhD, Founder
and CEO
Ishmail Abdus-Saboor, PhD,
Founder and Advisor
Agnes Gjekmarkaj, MBA/MS,
Co-Founder and CBO

Strategic Advisory Board:
Gerri Henwood, CEO Baudax
Bio.
Karen Wu, PhD, Co-Founder
Lucerna

Scientific Advisory Board:
Jeff Mogil, PhD, Leader in
Preclinical Pain Research
Field, McGill University
Victoria Abaira, PhD,
Preclinical Spinal Cord
Injury, Rutgers University
Talmo Pereira, PhD, Creator of
SLEAP, SALK

Number of Employees: 3

Finance:
Funding to Date:
Founders - \$7K
Sales - \$100K

Funding Sought:
\$500K for Preclinical
commercialization, R&D in
Veterinary and Clinical
Settings, IP, Licensing,
Operating Costs, Overhead

IP:
PCT Filing

Legal:
Goodwin Procter LLP

Company Description and Background:
Tactorum is a biotechnology company that advances pain research through innovative behavioral analysis tools. The first device, invented by Justin Burdge and Ishmail Abdus-Saboor, the ARM (Automated Reproducible Mechano-stimulator), integrates machine learning and robotics to improve pain measurement accuracy in preclinical research. The objective is to enhance the translation of pain research from animal models to human clinical applications, develop objective methods for measuring pain, and advance the development of non-opioid pain therapeutics. The potential demonstrated by the ARM led to Tactorum’s founding.

Problem:
Pain has no reliable biomarker, and current methods for measuring pain are manual, inconsistent, prone to human error, and require months of training. These limitations affect research accuracy, objective pain measurement, and delay drug development, impacting animal and human well-being.

Solution:
The ARM automates mechano-sensory assays in preclinical research, improving accuracy, eliminating bias, and reducing labor costs and animal use. Using precise mechanical stimuli, high-speed imaging, and remote operation, ARM provides consistent, objective pain assessment, accelerating drug development.

Market:
The market for pain assessment technologies spans preclinical, veterinary, and clinical pain assessment, with a Serviceable Available Market (SAM) of \$7.9B, and a Serviceable Obtainable Market (SOM) of \$1.1B. Our beachhead of preclinical pain research includes academics, pharma/biotech, and CRO’s, and has a SOM of \$114M without any regulatory barriers.

Competition / Competitive Advantage:
The ARM outperforms competitors like Von Frey (Gold Standard) and Electronic Von Frey (IITC, BioSeb) by eliminating manual inconsistencies, researcher bias, and extensive training requirements. Unlike Hargreaves Apparatus (Thermal) and Blackbox Bio (Spontaneous Pain), which lack high throughput capability, consistent stimulus delivery, and advanced automation, ARM provides precise, reproducible results with automated analysis, making it essential in preclinical pain research.

Traction and Progress:
Tactorum has established a beta testing program to validate and enhance the ARM. This includes 6 ARM installations at Columbia University, Rutgers University, McGill University, Feinstein Institute, University of Washington, and Temple University. The latter three will be sales, bringing in a combined \$100K revenue. Tactorum has four potential sales in the pipeline, including pharmaceutical and CRO clients, with the goal of bringing in \$220K in revenue in 2025. Tactorum is receiving matching funds from and being incubated by the CUNY Advanced Science Research Center for Advance Technology.

Future Plans and Milestones:
Tactorum's next milestones focus on product validation, commercialization, and expansion. Technically, we will complete pilot studies with academic partners, enhance automation and data analytics, and scale manufacturing while exploring veterinary and clinical applications. Commercially, we aim to expand beyond academia, secure pharma, and CRO partnerships, and raise funding to drive growth and expand market adoption.

Financial Forecast Preclinical:

(In Thousands)	2025	2026	2027	2028	2029
Revenue	\$220	\$695	\$2,525	\$5,708	\$11,300
Margins	33%	76%	83%	86%	90%
Growth Rate		215%	263%	126%	97%
Gross Profit	\$72	\$550	\$2,102	\$4,908	\$10,219