Company Profile

Industry Sector: High Content Drug Screening.

Company Overview: Myomics’ mission is to discover and develop new therapeutics for improving muscle function. Using its patented tissue engineered muscle-based drug screening technology, Myomics can rapidly and accurately discover new drugs intended to improve skeletal muscle performance as well as attenuate skeletal muscle dysfunction in disorders such as sarcopenia, cancer cachexia, and the muscular dystrophies. In-house efforts are currently focused on discovering and developing small molecule therapeutics for Duchenne’s Muscular Dystrophy (DMD) for which there are no currently approved drugs.

Target Market(s): Pharmaceutical firms, biotech companies, academic centers, non-profit foundations, sports medicine.

Opportunity: Myomics is currently seeking partners, licensees, funding, and fee-for-service drug screening contracts.

Key Value Drivers

Technology and Competitive Advantage: Myomics’ robotic MyoForce Analysis System™ (MFAS™) uses contractile three-dimensional human muscle tissue analogs to rapidly screen drugs in vitro for enhanced muscle strength, reduced fatigue, and injury prevention. Myomics takes a fundamentally different approach to drug screening than high throughput screening (HTS) companies. Most competitors aim HTS at a single targeted pathway. Hundreds of positive hits are obtained and it is costly and time consuming to take these into follow-on in vivo studies. Myomics high content screening technology is based on muscle function rather than single pathways and can better predict which compounds are most likely to succeed in animal and human studies. It is thus an ideal secondary screen on HTS hits, reducing time and cost ten-fold. Also, screening with diseased human muscle tissue gives greater confidence before moving into clinical trials.

Plan & Strategy: Continue operations on fee-for-service screening contracts while developing Myomics own IP around unique compounds for improving muscle function.

Management

Leadership:

Herman Vandenburgh, President and CEO
Dr. Vandenburgh, a Myomics founder, is an expert on muscle tissue engineering.
Frank Benesch-Lee, Lead Engineer
Mr. Benesch-Lee, a Myomics founder, is an expert in robotic hardware/software.
Janet Shansky, Lab Operations
Ms. Shansky has over 20 years experience in muscle tissue culture.

Advisory Board:

Robert Valentini, M.D., Ph.D., CEO, Concordia Medical
Dr. Valentini, a Myomics founder, is a serial entrepreneur in drug development.
Richard Horan, MBA, Manager, Slater Technology Fund
Mr. Horan brings extensive knowledge in the area of biotech start-up financing.
Gregory Crawford, Ph.D., Dean of Science, University of Notre Dame
Dr. Crawford, a Myomics founder, is an expert in automated imaging technology.
Brian S. Tseng, M.D., Ph.D., Pediatric Neurologist, MGH
Dr. Tseng is Director of the Muscular Dystrophy Clinic at MGH for Children.

Screening Service Clients: Novartis Pharma AG, Children’s National Medical Center, Massachusetts General Hospital, University of Colorado, University of Notre Dame, Brown University, Charley’s Fund, Jett, Hood, and Sharp Foundations