OHIO STATE STARTUPS

The Ohio State University

OHIO STATE STARTUPS *as of June 30, 2019*

TABLE OF CONTENTS

The Ohio State startup portfolio is growing and making waves in the way the world lives. Ohio State's startup portfolio is creating change in many industries, including healthcare, information technology, materials, transportation, agribusiness and more.

Visit **ceo.osu.edu** to learn more.

ADVANCED MATERIALS

3DBioResins LLC

Primary industry: Advanced Materials
License fiscal year: 2016
Ohio State primary inventor(s): David Dean
College: Medicine
Department: Surgery – Plastic Surgery
Joint institution: University of Akron
Website: n/a
Leadership: Joel Rube
Ownership status: privately held
Headquarters: Akron, OH

Description: *3D BioResins provides highly advanced resins for drug delivery, 3D manufacturing, and medical devices. While the use of 3D printing has shown explosive growth in industries ranging from automotive to personal care industries, the deployment of true 3D fabrication methods in the biomedical implant space has lagged due to a lack of medically acceptable resorbable resins. Polypropylene fumarate (PPF) is a resorbable polymer that can be printed using photocrosslinking 3D printing and has broad biomedical applications. Its utility has been limited in the past due to an inability to synthesize PPF commercially or to cGMP standards. 3DBioResins facilitates the production of PPF with chemical and mechanical properties that are appropriate for high levels of production under cGMP conditions. Clinical applications include orthopedic, trauma, soft tissue, mesh, drug delivery, vascular, and tissue engineering.*

ALC Innovations LLC

Primary industry: Advanced Materials
License fiscal year: 2017
Ohio State primary inventor(s): Christopher Callam
College: Arts & Sciences
Department: Chemistry & Biochemistry
Website: n/a
Leadership: Chris Crader
Ownership status: privately held
Headquarters: Columbus, OH

Description: *ALC Innovations offers a plant-derived, all-natural cleaner that is an alternative to harsh cleaning chemicals. The product contains no harmful dyes, no harsh chemicals, and no odor or taste, which makes it ideal to use around food. The cleaner is able to cut through fatty lipid substances, such as lipstick, and can be used on several surface types, such as wood, glass and countertops. In addition to restaurants and retail establishments, ALC Innovations plans to market the product to schools, hospitals and eventually households.*

EnergyEne Inc.

Primary industry: Advanced Materials
License fiscal year: 2014
Ohio State primary inventor(s): Katrina Cornish
College: Food, Agricultural, and Environmental Sciences
Department: Horticulture & Crop Sciences

Website: www.energyene.com
Leadership: Tom Fontana
Ownership status: privately held
Headquarters: Wooster, OH

Description: *EnergyEne produces an alternative material for high-performance latex products in the medical and consumer healthcare industry. This natural rubber material, made from the guayule plant, is allergy-safe and has superior physical properties compared to synthetic rubber. In addition, a byproduct of this process is an energy-rich residual biomass that can be used in biofuel hydrocarbon production. The company has produced a radiation attenuation medical glove and is developing prototypes for lineman's gloves, surgeon's gloves, condoms, and exam gloves.*

HyperDamping Inc.

Primary industry: Advanced Materials
License fiscal year: 2019
Ohio State primary inventor(s): Ryan Harne
College: Engineering
Department: Mechanical & Aerospace Engineering

Website: www.hyperdamping.com
Leadership: Carsten Boers
Ownership status: privately held
Headquarters: Columbus, OH

Description: *HyperDamping Inc. is commercializing vibration, shock, and noise damping technology. Vibrations and shocks cause noise and damage to electronics, vehicles, aircraft, buildings, industrial equipment, and other everyday products. Existing solutions are limited in how much damping can be achieved due to weight load, available space, tolerance, and cost. HyperDamping's unique material designs create effective and lightweight dampers from any elastic material and provide significant cost savings compared to current approaches.*

pH Matter LLC

Primary industry: Advanced Materials
License fiscal year: 2013
Ohio State primary inventor(s): Umit Ozkan
College: Engineering
Department: Chemical & Biomolecular Engineering

Website: http://www.phmatter.com/
Leadership: Paul Matter
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Conventional carbon materials used in battery and fuel cell applications are low-cost, but generally have a single function, electrical conductivity. pH Matter has developed a scalable approach for producing carbon with ideal properties for electro-chemical applications, with multiple functionalities and tuned structure. While this approach is more expensive than conventional carbon black or graphite, the materials reduce overall cell costs by increasing durability and power density.*

ZeoVation Inc.

Primary industry: Advanced Materials
License fiscal year: 2017
Ohio State primary inventor(s): Prabir Dutta
College: Arts & Sciences
Department: Chemistry and Biochemistry
Website: www.zeovation.com
Leadership: Steve Jones
Ownership status: privately held
Headquarters: Columbus, OH

Description: *ZeoVation is an applied materials company that has developed a cost-effective method for manufacturing nanozeolites and hierarchical zeolites to improve the quality, performance and effectiveness of a wide variety of products. ZeoVation has developed a controlled-release, anti-microbial particle with at least a 100-fold higher antimicrobial potency over current zeolite-based antimicrobials and a factor of 1,000 over silver colloids. The particles can be easily incorporated into any product formulation with a limited footprint due to their small size. Potential applications include surface coatings, paints, wound care, polymers, resins, textiles, and consumer products.*

AGRICULTURE, FOOD SCIENCE & NUTRITION

3Bar Biologics Inc.

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2014
Ohio State primary inventor(s):
Brian McSpadden-Gardner
College: Food, Agricultural, and Environmental Sciences
Department: Plant Pathology
Website: www.3barbiologics.com
Leadership: Bruce Caldwell
Ownership status: privately held
Headquarters: Columbus, OH

Description: *3Bar Biologics is a biotech company that has developed a proprietary delivery system to grow beneficial microbes on-site. Activation of the microbes at the point of use helps farmers improve their crop yields and reduce dependence on synthetic fertilizer and pesticides. 3Bar Biologics greatly improves the health and yield of agricultural crops with its simple-to-use, on-site fermentation technology, delivering the most highly viable and abundant beneficial microbes. 3Bar's point of differentiation is its proprietary two-chamber LiveMicrobe™ package and delivery system that activates the "sleeping microbes" with a push of a button in a sealed and closed container. LiveMicrobe™ on-site fermentation guarantees the most abundant and freshest microbes compared with shelf-life limited formulations, ultimately ensuring the biologic can do its job.*

Columbus Nutraceutical Formulations LLC

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2013
Ohio State primary inventor(s): Robert DiSilvestro
College: Education & Human Ecology
Department: Human Sciences
Website: n/a
Leadership: Robert DiSilvestro
Ownership status: privately held

Description: *Columbus Nutraceutical Formulations is commercializing nutritional supplements designed to enhance women's aerobic performance.*

Columbus Nutritionals LLC

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2017
Ohio State primary inventor(s): Robert DiSilvestro
College: Education & Human Ecology
Department: Human Sciences
Website: http://myveganthrive.com/
Leadership: Robert DiSilvestro
Ownership status: privately held
Headquarters: Dublin, OH

Description: *Columbus Nutritionals is commercializing nutritional supplements intended to meet the needs of vegan and vegetarian consumers.*

Egg Tech Ltd.

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2002
Ohio State primary inventor(s): Ahmed Yousef
College: Food, Agricultural, and Environmental Sciences
Department: Food Science & Technology
Website: n/a
Leadership: William Gross
Ownership status: privately held
Headquarters: Lewis Center, OH

Description: *Egg Tech pasteurizes eggs in the shell using a breakthrough process that utilizes heat and ozone to improve egg quality and shorten pasteurizing time.*

OHIO STATE STARTUPS

Foods for Purpose LLC

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2017
Ohio State primary inventor(s): Yael Vodovotz
College: Food, Agricultural, and Environmental Sciences
Department: Food Science & Technology

Website: n/a
Leadership: Yael Vodovotz
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Foods for Purpose develops nutrient-rich functional food products. The company's first product is a novel black raspberry-based food, formulated as a confection, with high nutraceutical potential. Black raspberries exhibit distinct antioxidant, anti-inflammatory and antiangiogenic chemo-preventive properties. The company's black raspberry confection provides concentrated nutrients with a stable shelf life.*

MediNutra LLC

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2013
Ohio State primary inventor(s): Robert DiSilvestro
College: Education & Human Ecology
Department: Human Sciences

Website: www.medinutra.com
Leadership: Robert DiSilvestro
Ownership status: privately held
Headquarters: Mansfield, OH

Description: *MediNutra is a nutraceutical company commercializing meal replacement strategies for patients that have undergone bariatric surgery. Following bariatric surgery, a patient's food intake is limited and patients rely heavily on protein-based meal replacement products and supplements. MediNutra's protein-based product has improved texture and taste compared to other meal replacements on the market. In addition, the patient does not need to take supplements because the product is a single meal replacement.*

ProteoSense LLC

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2014
Ohio State primary inventor(s): Stephen Lee
College: Engineering
Department: Biomedical Engineering

Website: www.proteosense.com
Leadership: Mark Byrne
Ownership status: privately held
Headquarters: Columbus, OH

Description: *ProteoSense is developing the RapidScan™ pathogen detection platform that allows all segments of the food supply chain to detect food and waterborne pathogens on-site, in 90 minutes or less. This technology will enable the food industry to prevent contaminated produce, dairy, meat and packaged foods from reaching the market, reducing recalls, brand impairment, unnecessary expenses and foodborne illness. Initially, the company is focused on detection of Listeria, Salmonella and E.coli.*

Soil1 LLC

Primary industry: Agriculture, Food Science & Nutrition
License fiscal year: 2018
Ohio State primary inventor(s): Khandakar Islam
College: Food, Agricultural, and Environmental Sciences
Department: School of Environment and Natural Resources

Website: www.soil1.com
Leadership: Ben Hofecker
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Soil1 has developed a portfolio of technologies enabling inexpensive soil ecology testing to take place in the farmer's field. This provides the farmer with instantaneous soil quality and condition feedback to empower decisions leading to greater yields and profit. Soil1's initial product is a one-step soil test that gives a real-time measurement of soil organic matter, nitrogen and microbial vitality in the field. The low cost of the test makes it an affordable solution for farmers in developing countries.*

ANIMAL HEALTH

Aptimmune Biologics Inc.

Primary industry: Animal Health
License fiscal year: 2015
Ohio State primary inventor(s): Renukaradhya Gourapura
College: Food, Agricultural, and Environmental Sciences
Department: Food Animal Health Research Program

Website: www.aptimmune.com
Leadership: Heather Bessoff
Ownership status: privately held
Headquarters: St. Louis, MO

Description: *Aptimmune Biologics specializes in developing mucosal vaccines to protect against the most costly viral diseases affecting the swine industry. Its first vaccines are focused on addressing two major viral respiratory pathogens, Porcine Reproductive and Respiratory Virus (PRRSV) and Influenza A virus in swine (IAV-S).*

LARAD Inc.

Primary industry: Animal Health
License fiscal year: 2014
Ohio State primary inventor(s): Daral Jackwood
College: Food, Agricultural, and Environmental Sciences
Department: Food Animal Health Research Program

Website: www.laradinc.com
Leadership: H. Ken Rudd
Ownership status: privately held
Headquarters: Wooster, OH

Description: *LARAD is developing platform virus-like-particle (VLP) technology for improved vaccines and diagnostics for food-animal diseases. LARAD's VLP technology is highly flexible and can be customized in response to viral mutation, allowing pharmaceutical companies to update their product and bring updated vaccines to market quickly. Additionally, LARAD's VLP vaccines are produced using an expression system that yields higher quantities of product without the need for extensive downstream processing. This reduces the cost of production and the time needed to process a final product. Vaccine and diagnostic reagents under development include infectious bursal disease virus VLP vaccine, Avian Reovirus vaccine, Chicken Anemia Virus vaccine and Infectious Pancreatic Necrosis Virus (IPNV) vaccine.*

ELECTRONICS, COMMUNICATIONS & NETWORKING

Buckeye Photonics LLC

Primary industry: Electronics, Communications & Networking
License fiscal year: 2018
Ohio State primary inventor(s): Betty Lise Anderson
College: Engineering
Department: Electrical & Computer Engineering

Website: n/a
Leadership: Chris Sanese
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Buckeye Photonics is commercializing optical switching technology for the telecommunications market, alleviating the optical-electrical-optical (OEO) conversion. This technology reduces upfront construction cost in data centers (lasers, detectors, cooling mechanisms and infrastructure) and ongoing costs such as maintenance, water and electric bills.*

GhostWave Inc.

Primary industry: Electronics, Communications & Networking
License fiscal year: 2017
Ohio State primary inventor(s): Eric Walton
College: Engineering
Department: Electrical & Computer Engineering

Website: www.ghostwaveinc.com
Leadership: Dean Zody
Ownership status: privately held
Headquarters: Columbus, OH

Description: *GhostWave develops radars designed to detect and avoid collisions of multiple radars. The company's radars utilize a patented, pseudo-random radio frequency generator that decreases the likelihood of a nearby radar utilizing the exact same frequency at the exact time. This technology enables flight and drone operators to receive random signals that eliminate the risk of interference and overlap.*

UbiHere Inc.

Primary industry: Electronics, Communications & Networking
License fiscal year: 2018
Ohio State primary inventor(s): Alper Yilmaz
College: Engineering
Department: Civil, Environmental and Geodetic Engineering

Website: www.ubihere.com
Leadership: John Bair
Ownership status: privately held
Headquarters: Columbus, OH

Description: *UbiHere uses patented advanced positioning analytics to provide GPS-free location mapping in real time. This tag technology quickly and precisely locates people, equipment and inventory. The technology utilizes machine learning to allow the end-user to discover actionable information about the location and movement of these assets, providing immediate insights to improve workplace safety and compliance, retail experience, fleet management and operational efficiency.*

ENERGY & ENVIRONMENT

CGC Ultramarin LLC

Primary industry: Energy & Environment
License fiscal year: 2014
Ohio State primary inventor(s): Codrin Cantemir
College: Engineering
Department: Center for Automotive Research

Website: n/a
Leadership: Codrin Cantemir
Ownership status: privately held
Headquarters: Columbus, OH

Description: *CGC Ultramarin specializes in high-performance naval propulsion systems. The Marine Jet Propulsion System technology offered by CGC Ultramarin is designed to perform as a high power inboard and outboard engine, with a power output in the 500–10,000 Hp range and a focus on units above 1000 Hp.*

Simple-Fill

Simple-Fill Inc.

Primary industry: Energy & Environment
License fiscal year: 2014
Ohio State primary inventor(s): Codrin Cantemir
College: Engineering
Department: Center for Automotive Research

Website: www.simple-fill.com
Leadership: Rob Underhill
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Simple-Fill is changing the way vehicles are fueled with an innovative liquid piston technology that compresses natural gas in a more affordable, reliable and efficient way. Leveraging liquid to compress, cool and dehydrate natural gas, Simple-Fill has eliminated the complexity and cost associated with traditional reciprocating compressors, enabling more industries to take advantage of alternative fuels.*

HEALTHCARE IT

A1 Control LLC

Primary industry: Healthcare IT
License fiscal year: 2018
Ohio State primary inventor(s): Eileen Faulds
College: Wexner Medical Center
Department: WMC - University Hospitals

Website: n/a
Leadership: Carl Noble
Ownership status: privately held
Headquarters: Lewis Center, OH

Description: *Glucose monitoring and control systems, such as the "artificial pancreas", are complex devices able to precisely and continuously control insulin levels. Despite their superior technology, the use of such devices by patients at home may be limited due to the difficulty in providing appropriate and effective training tools. A1 Control is developing an engaging, game-like computer application for patients who must use sophisticated glucose monitoring devices to treat diabetes mellitus. The application will assess the patient's current level of knowledge, provide personalized education more quickly and cost-efficiently than current approaches, and provide feedback to therapy providers regarding patient performance – facilitating greater use of the state-of-the-art glucose monitoring technology.*

Ambassador Software Group Ltd.

Primary industry: Healthcare IT
License fiscal year: 2013
Ohio State primary inventor(s): Justin Pestrue and Luke MacAdam
College: Wexner Medical Center
Department: WMC - Shared Services
Website: www.ambsw.com
Leadership: Tim Newcome
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Ambassador provides patient-care planning software designed to anticipate patient needs and personalize a non-clinical care plan. The company's software pulls real-time patient information from the hospital's electronic medical records and uses predictive analytics to anticipate patient needs, enabling healthcare organizations to enhance their patient satisfaction scores.*

Amber Intellectual LLC

Primary industry: Healthcare IT
License fiscal year: 2006
Ohio State primary inventor(s): Cynthia Roberts
College: Medicine and Engineering
Department: Ophthalmology; Surgery; Biomedical Engineering
Website: n/a
Leadership: Cynthia Roberts
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Amber Intellectual was formed to commercialize software for physicians to perform corneal topography analysis. Amber Intellectual adapts the code for its customers for use in a particular application and topographic file format.*

Health Care DataWorks Inc.

Primary industry: Healthcare IT
License fiscal year: 2009
Ohio State primary inventor(s): Jyoti Kamal
College: Wexner Medical Center
Department: School of Biomedical Science - Biomedical Informatics
Website: n/a
Leadership: Jason Buskirk
Ownership status: acquired/merged
Headquarters: Columbus, OH

Description: *Health Care DataWorks provides business intelligence solutions that enable healthcare organizations to improve quality of care and reduce costs. Through its KnowledgeEdge™ product suite, Health Care DataWorks delivers an enterprise data warehouse necessary for hospitals and health systems to effectively and efficiently gain deeper insights into their operations. The company was acquired by Health Catalyst in July 2015.*

OHIO STATE STARTUPS

MassMatrix Inc.

Primary industry: Healthcare IT
License fiscal year: 2016
Ohio State primary inventor(s): Michael Freitas
College: Medicine
Department: School of Biomedical Sciences - Molecular Virology, Immunology and Medical Genetics

Website: www.massmatrix.bio
Leadership: Hall Johnson
Ownership status: privately held
Headquarters: Columbus, OH

Description: *MassMatrix delivers bioinformatic enterprise-class solutions for analyzing mass spectrometry-based protein data in the drug discovery process. Current approaches utilized by pharmaceutical companies are hindered by a lack of automation in the data analysis pipeline and cumbersome software tools that lack enterprise capabilities. MassMatrix combines advanced algorithms and a user-focused experience to help scientists gain accurate insights from biological data, resulting in fewer false discoveries, increased productivity and reduced costs.*

MatchTx LLC

Primary industry: Healthcare IT
License fiscal year: 2016
Ohio State primary inventor(s): James Chen
College: Medicine
Department: SBS - Biomedical Informatics

Website: www.match-tx.com
Leadership: Jeff Spitzner
Ownership status: privately held
Headquarters: Columbus, OH

Description: *MatchTx provides a SaaS solution that helps researchers, oncologists and clinical trial managers identify the full set of biomarkers that collectively predict cancer patients' treatment outcomes. Patent-pending algorithms classify millions of combinations of genomic and clinical data to find the full set predictive biomarkers from reference data sets. The company's Deep Genetic Signatures™ product creates a personalized match between a novel treatment and those patients most likely to respond positively. This makes clinical trials faster, cheaper, and more effective.*

Med-Compliance IQ Inc.

Primary industry: Healthcare IT
License fiscal year: 2017
Ohio State primary inventor(s): Metin Gurcan; Gayle Gordillo; Chandan Sen
College: Medicine
Department: School of Biomedical Sciences - Biomedical Informatics

Website: www.woundwiseIQ.com
Leadership: Gary Ross
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Med-Compliance IQ is a software company specializing in the application of image analytics and artificial intelligence for wound care. Current chronic wound treatment depends on medical professionals visually evaluating the color, depth, area and shape of the wound's edges to document how the wound has changed from one medical examination to the next. This manual process is subjective, inaccurate and time-consuming. The company's first product, WoundWiseIQ, is a patented imaging and analytics technology that can streamline and automatically document chronic wounds and their healing progress, leading to improved CMS compliance reporting for reimbursement to medical care providers and reduced healthcare costs.*

TransChart LLC

Primary industry: Healthcare IT
License fiscal year: 2006
Ohio State primary inventor(s): Ronald Ferguson
College: Medicine
Department: Surgery

Website: http://transchart.org/
Leadership: Martha Collins
Ownership status: privately held
Headquarters: Columbus, OH

Description: *TransChart is an electronic medical record (EMR) system for managing transplant and advanced disease patients. Coupled with specialized services, the TransChart Core software facilitates improved management of the organ transplant process from referral through the post-transplant lifetime of care. The TransChart system can be integrated into existing EMR workflows, simplifies regulatory compliance and provides data analytics for optimized patient care.*

HEALTH & WELLNESS

CancerBridge LLC

Primary industry: Health & Wellness
License fiscal year: 2015
Ohio State primary inventor(s): Michael Caligiuri
College: Wexner Medical Center
Department: James Cancer Hospital and Solove Research Institute

Website: www.mycancerbridge.com/
Leadership: Kent Bowen
Ownership status: acquired/merged
Headquarters: Columbus, OH

Description: *CancerBridge's platform provides employers with the ability to offer employees a telephonic navigation line for access to both a cancer-certified nurse and a cancer super-subspecialist physician for cancer-related inquiries. Built and spun out of The James, CancerBridge is a fusion of cancer inquiry, care navigation workflow, and a sophisticated call center routing technology linking patients and super-subspecialty cancer physicians for specific inquiries in minutes versus days or weeks. CancerBridge was acquired by Ohio State Health Inc. in November 2018.*

Child and Family Psychological Services Inc.

Primary industry: Health & Wellness
License fiscal year: 2010
Ohio State primary inventor(s): Mary Fristad
College: Medicine
Department: Psychiatry

Website: n/a
Leadership: Mary Fristad
Ownership status: privately held
Headquarters: Worthington, OH

Description: *Child and Family Psychological Services provides educational materials to help therapists treat children with bipolar disorder.*

Games that Move You PBC

Primary industry: Health & Wellness
License fiscal year: 2015
Ohio State primary inventor(s): Lynne Gauthier
College: Medicine
Department: Physical Medicine & Rehabilitation

Website: www.gamesthatmoveyou.com
Leadership: Roger Crawfis
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Games That Move You creates therapy-in-motion for improved upper extremity mobility. With professional constraint-induced therapy treatments prohibitively expensive and inaccessible to most, the company is deploying a clinically-validated gamified therapy. For example, the Recovery Rapids game allows players to control an onscreen kayaker navigating through river obstacles by performing movements of their weaker arm and hand. This virtual reality-based physical therapy product can help optimize and expedite the recovery process.*

Perfect Practice Inc.

Primary industry: Health & Wellness
License fiscal year: 2013
Ohio State primary inventor(s): Ajit Chaudhari
College: Medicine
Department: Health and Rehabilitation Sciences

Website: www.perfectpracticeusa.com
Leadership: Ajit Chaudhari
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Perfect Practice is commercializing a device to help users develop core stability to achieve maximum athletic performance and reduce the risk of injury. The CoreX Therapy system measures a user's pelvic alignment and provides real-time feedback through an iPhone app for improved training of the neuromuscular system. The CoreX Therapy system can be used in multiple applications including baseball, golf, equestrian sports and physical therapy.*

Rekovo LLC

Primary industry: Health & Wellness
License fiscal year: 2015
Ohio State primary inventor(s): Lise Worthen-Chaudhari
College: Medicine
Department: Physical Medicine & Rehabilitation

Website: www.rekovo.com
Leadership: Todd Whittington
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Rekovo uses movement and art to improve patient engagement, compliance and satisfaction during physical and occupational therapy sessions. Rekovo's first product, Agile Art, is a SAAS + hardware tool for physical therapists that decreases time-to-recovery for patients that require balance therapy. Agile Art provides clinical teams with data to track patient progress and outcomes (duration of task, time engaged, speed of motion). Patients with neurological disorders, traumatic brain injuries, spinal cord injuries, and those recovering from balance deficits can benefit from this product.*

The Difference USA LLC

Primary industry: Health & Wellness
License fiscal year: 2016
Ohio State primary inventor(s): Anthony Schlegel
College: Athletics
Department: Athletics

Website: www.thedifferenceusa.com
Leadership: Anthony Schlegel
Ownership status: privately held
Headquarters: Lewis Center, OH

Description: *The Difference USA is a fitness equipment company, founded by former Ohio State strength and conditioning coach Anthony Schlegel. The company's first product, The Difference, is a portable hand-placement/striking machine that enhances upper body speed and strength, optimizing athletic performance for athletes in all sports.*

MEDICAL DEVICES, DIAGNOSTICS & IMAGING

Adaptive Sensory Technology Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2014
Ohio State primary inventor(s): Zhong-Lin Lu
College: Arts & Sciences
Department: Psychology

Website: www.adaptivesensorytech.com
Leadership: Luis Lesmes
Ownership status: privately held
Headquarters: Boston, MA

Description: *Adaptive Sensory Technology (AST) provides advanced, quantitative tools for clinicians to detect changes in functional vision. The company's first product, the AST Manifold Platform, utilizes AST's Quick Contrast Sensitivity Function algorithm to bring increased precision to vision assessment. This technology is expected to improve clinical research, clinical trials, and the clinical practice for vision and eye health. The company is currently applying this platform technology to measuring contrast sensitivity deficits in low vision, age-related macular degeneration, retinitis pigmentosa, glaucoma, multiple sclerosis, and congenital and adult cataract disease. AST has also licensed technologies from Harvard Medical School.*

Bionymer Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2019
Ohio State primary inventor(s): Vishnu Sundaresan
College: Engineering
Department: Mechanical & Aerospace Engineering

Website: n/a
Leadership: Robert Northcutt
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Bionymer Inc. is commercializing a sensor that uses a novel, electrochemical technique capable of capturing ions from a surrounding solution and providing a real-time electrical output directly related to the number of ions captured. The company's initial product is a sensor that is able to continuously monitor the sodium and potassium levels of hyponatremia and hyperkalemia patients and display the information to healthcare providers in real-time. Currently, clinicians do not have the tools to be able to make an accurate and timely diagnosis of these conditions, resulting in increased mortality. This technology will allow clinicians to actively intervene and potentially significantly improve the treatment and outcome for these patients.*

Core Quantum Technologies Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2013
Ohio State primary inventor(s): Jessica Winter
College: Engineering
Department: Chemical & Biomolecular Engineering

Website: www.corequantum.com
Leadership: Kristie Melnik
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Core Quantum Technologies (CQT) develops nanoparticles for use in biomedical optics and imaging applications. CQT's MultiDot technology is a nanotechnology-based platform consisting of semiconductor quantum dot nanoparticles encapsulated in polymer-based micelles. This product enables the user to continuously track tagged molecules with increased brightness and photostability compared to standard quantum dot technology.*

Enlyton Ltd.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2004
Ohio State primary inventor(s): Thomas Magliery
College: Arts & Sciences
Department: Chemistry and Biochemistry

Website: www.enlyton.net
Leadership: Thomas Magliery
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Enlyton is a biopharmaceutical company developing a tumor-antigen-directed platform of products for cancer-specific imaging and detection. The company's imaging methods allow for pre- and post-operative imaging, along with intraoperative imaging for better detection of cancer during surgery to improve patient survival.*

ENTvantage Diagnostics Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2014
Ohio State primary inventor(s): Subinoy Das
College: Medicine
Department: Otolaryngology

Website: www.entv-dx.com
Leadership: Joe Skraba
Ownership status: privately held
Headquarters: Austin, TX

Description: *ENTVantage Dx is commercializing a proprietary collection device and bacterial assay kit as a rapid, in-office diagnostic test for differentiating viral from bacterial sinusitis. The first-of-its-kind, FDA Class II Diagnostic test kit will provide primary care and ENT physicians with a simple and accurate point-of-care test for sinusitis that takes 10 minutes to achieve results. The device has 16 issued patents in the US, Europe and Japan and four patents pending.*

LenTechs LLC

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2018
Ohio State primary inventor(s): Melissa Bailey
College: Optometry
Department: Optometry

Website: n/a
Leadership: Robin Sears
Ownership status: privately held
Headquarters: Columbus, OH

Description: *LenTechs is developing a novel soft bifocal contact lens.*

LiveFocus LLC

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2018
Ohio State primary inventor(s): Yi Zhao
College: Engineering
Department: Biomedical Engineering

Website: n/a
Leadership: Yi Zhao
Ownership status: privately held
Headquarters: Columbus, OH

Description: *LiveFocus is developing an affordable scanner that turns a smartphone into a digital whole-slide scanning microscope, enabling pathologists to acquire and transmit whole-slide imaging (WSI) in a convenient, timely and affordable way. The LiveFocus™ whole-slide scanner utilizes an adaptive liquid lens technology to reduce the complexity, size and cost of WSI equipment. Using the combination of a smartphone for imaging and a disposable liquid lens for magnification reduces operational issues and maintenance cost by eliminating the need for replacement lens components or samples. In addition, the image acquisition is performed using personal smartphones in-situ, reducing the cost of microscope and camera.*

Noxsano Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2018
Ohio State primary inventor(s): Arthur Epstein
College: Arts & Sciences
Department: Physics

Website: www.noxsano.com
Leadership: Alan Willey
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Noxsano is developing a device to improve the treatment of chronic wounds, which close slowly, increasing the risk for infection and associated morbidity. A key dysfunction in chronic wounds is a breakdown in biological signaling due to nitric oxide (NO) deficiency. Noxsano's proprietary technology uses an electrochemical approach to generate nitric oxide at point of use to enable real-time control of the level of nitric oxide in the wound. This technology restores normal wound healing function in chronic wounds. This technology also has the potential to improve patient outcomes and decrease health care costs associated with treating chronic wounds.*

Ohio Neuromodulation Development Company LLC

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2018
Ohio State primary inventor(s): Ali Rezai
College: Medicine
Department: Neurological Surgery

Website: n/a
Leadership: Will Rosellini
Ownership status: privately held
Headquarters: North Canton, Ohio

Description: *Ohio Neuromodulation Development Company is commercializing new medical devices for neurological and psychiatric conditions.*

Pneumocool LLC

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2019
Ohio State primary inventor(s): James Bott
College: Wexner Medical Center
Department: Respiratory Therapy

Website: n/a
Leadership: Ted Bernard
Ownership status: privately held
Headquarters: New Albany, OH

Description: *Pneumocool LLC offers a bladeless, personal cooling device to help treat patients with dyspnea, or shortness of breath. Dyspnea is a common symptom of patients with chronic respiratory disorders, congestive heart failure, respiratory infections, allergic reactions, anxiety and even pregnancy. Studies show that reducing dyspnea and avoiding intubation can cut hospital stays by nearly 50%. The advantages of this technology include that it is disposable, small, inexpensive and can easily be used by patients with limited dexterity or mobility.*

OHIO STATE STARTUPS

Pressure Safe Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2019
Ohio State primary inventor(s): Carmen DiGiovine
College: Medicine
Department: Health and Rehabilitation Sciences

Website: n/a
Leadership: Joe Hyland
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Pressure Safe is commercializing the product Sit Smart—a portable, wireless, pressure-sensing mat that is integrated with a smartphone app. Patients managing spinal cord injuries and wheelchair use face unique problems, as their seated position puts them at risk for developing pressure ulcers without warning. The Sit Smart device can be incorporated with the preferred pad of the wheelchair user and gives real-time feedback through the smartphone app to let patients know when they need to shift their weight. Sit Smart also provides advanced data to clinicians about a patient's behavior over time, allowing for long-term monitoring and analysis.*

RegenFix LLC

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2018
Ohio State primary inventor(s): David Dean
College: Medicine
Department: Surgery - Plastic Surgery

Website: n/a
Leadership: Al Siblani
Ownership status: privately held
Headquarters: Toledo, OH

Description: *RegenFix LLC is developing devices to assist in the healing of damaged bones. Cancer, trauma, osteopenia and reconstructive surgery often result in bone resection. Current clinical methods rely on bone tissue transfer combined with metallic implants. These metallic components are stiffer than normal bone and can lead to changes in the tissue architecture resulting in implant failure. The company's implants are made of NiTi (nitinol), which is biocompatible and provides a bone-like stiffness. The devices can be built through 3D printing to create cost-effective and patient-specific implants to improve skeletal surgery and joint replacement outcomes.*

S4 Medical Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2018
Ohio State primary inventor(s): Emile Daoud; Nishaki Mehta; Veeral Oza
College: Medicine
Department: Internal Medicine
Website: n/a
Leadership: Bill Fuller
Ownership status: privately held
Headquarters: Cleveland, OH

Description: *S4 Medical is a medical device company focused on innovative solutions for cardiac procedures to treat atrial fibrillation (Afib). Afib is an irregular heartbeat affecting 30 million people worldwide. Catheter ablation is an effective treatment for Afib, but carries a risk of esophageal injury due to the close anatomical position of the heart and esophagus. The company's initial product is a simple, yet comprehensive, solution for reducing complications to the esophagus during catheter ablation treatment for Afib, resulting in improved patient outcomes.*

Sight4All Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2015
Ohio State primary inventor(s): Melissa Bailey
College: Optometry
Department: Optometry
Website: www.theeyescanapp.com
Leadership: Robin Sears
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Sight4All is a medical diagnostic software company whose primary software applications test, record, and transmit vision assessments, including eye alignment and auto refraction. An estimated 2.5 billion people worldwide need glasses, but currently lack access to vision care. The company's proprietary smartphone app requires no additional hardware and provides access to efficient and affordable vision care.*

SolitonReach Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2016
Ohio State primary inventor(s): Furrukh Khan
College: Engineering
Department: Electrical & Computer Engineering
Website: n/a
Leadership: David Moritz
Ownership status: privately held
Headquarters: Columbus, OH

Description: *SolitonReach is a system of drift-free motion capture sensors that performs inertial measurement sensing of functional movement and range of motion analysis. The company's sensors are wireless and have a long battery life with negligible drift, making them useful for repeatable measurements in clinical and sports applications. The company is focused initially on developing sensors for total knee, partial knee and total hip replacement surgical applications. The SolitonReach sensors can be added to patient-specific implant kits, making outcomes of traditional knee replacement procedures more competitive with robotic outcomes at a significantly reduced cost.*

OHIO STATE STARTUPS

SpineDynX LLC

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2016
Ohio State primary inventor(s): Bill Marras
College: Engineering
Department: Integrated Systems Engineering

Website: n/a
Leadership: Curtis Crocker
Ownership status: privately held
Headquarters: Westerville, OH

Description: *SpineDynX is a medical device company commercializing the clinical lumbar motion monitor (cLMM). The cLMM enables improved outcomes for spine treatment at the point of care by providing objective and actionable data. Currently, there is a lack of objective data to accurately diagnose, track and treat low back pain. The cLMM uses an extensive patient database to assess a patient's back in motion and accurately determine the extent and nature of impairment, as well as current re-injury risk.*

Spirosure Inc.

Primary industry: Medical Devices, Diagnostics & Imaging
License fiscal year: 2014
Ohio State primary inventor(s): Prabir Dutta
College: Arts & Sciences
Department: Chemistry and Biochemistry

Website: www.spirosure.com
Leadership: Solomon Ssenyange
Ownership status: privately held
Headquarters: Pleasanton, CA

Description: *Spirosure is developing devices using novel, breath-based analysis technology to diagnose and manage respiratory diseases. The company's breath-analysis devices focus on providing cost-effective, non-invasive products to diagnose and manage chronic respiratory disease, such as asthma, COPD and chronic pulmonary hypertension. The company uses novel sensors, proprietary algorithms and consumer technology, enabling medical researchers to detect biomarkers in a patient's breath to diagnose and monitor respiratory conditions. Spirosure aims to ultimately improve health outcomes through preventative healthcare.*

Spot Biosystems Ltd.

License fiscal year: 2019
Technology lead: James Lee
College: Engineering
Department: Chemical & Biomolecular Engineering

Website: www.spotbiosystems.com
Leadership: Andrew Lee
Ownership status: privately held
Headquarters: Palo Alto, CA

Description: *Spot Biosystems is a biotechnology company commercializing extracellular vesicle research conducted at Ohio State. The company's first product to market is an exosome-based liquid biopsy platform for detection and treatment of cancer. In addition, Spot is developing a therapeutic suite of IP around gene therapy for cancer treatment, which is currently being tested in pre-clinical models.*

RESEARCH TOOLS & REAGENTS

InGex LLC

Primary industry: Research Tools & Reagents
License fiscal year: 2000
Ohio State primary inventor(s): Alan Lambowitz
College: Arts & Sciences
Department: Molecular Genetics

Website: www.ingex.com
Leadership: Paul Gold
Ownership status: privately held
Headquarters: St. Louis, MO

Description: *RNA-Seq provides comprehensive transcriptome profiling and allows for both mapping and quantifying transcriptome signatures associated with diseases. Ingex supplies two products utilizing a thermostable group II intron reverse transcriptase (TGIRT) for RNA-Seq, TGIRT™-III stand-alone enzyme and the TGIRT™ template-switching RNA-seq kit. TGIRT demonstrates several beneficial properties for RNA-Seq compared to the standard retroviral reverse transcriptase, including high fidelity, processivity, strand displacement activity, and proficient template switching activity that is minimally dependent upon sequence. The company licenses proprietary technology from Ohio State and the University of Texas – Austin.*

ROBOTICS, SENSORS & ADVANCED MANUFACTURING

AccuFiber Technologies LLC

Primary industry: Robotics, Sensors & Advanced Manufacturing
License fiscal year: 2016
Ohio State primary inventor(s): John Lannutti
College: Engineering
Department: Materials Science Engineering
Website: n/a
Leadership: Hugo Trux
Ownership status: privately held
Headquarters: Grandview Heights, Ohio

Description: *AccuFiber Technologies electrospins core-shell, nanofiber-based, oxygen sensors and targets commercially viable products based on this technology. Compared to conventional or optical-based sensors, the company's nanofiber-based sensors have several advantages including greater sensitivity, lower manufacturing costs and real-time detection of even low levels of oxygen. The company is integrating its nanofiber-based oxygen sensor into a wide range of products, with initial efforts focused on military applications.*

OHIO STATE STARTUPS

AwareAbility Technologies LLC

Primary industry: Robotics, Sensors & Advanced Manufacturing
License fiscal year: 2018
Ohio State primary inventor(s): Lei Cao
College: Engineering
Department: Mechanical & Aerospace Engineering
Website: www.awaretk.com
Leadership: Vasil Hlinka
Ownership status: privately held
Headquarters: Columbus, OH

Description: *AwareAbility Technologies is bringing to market IoT sensors that are durable, able to function in harsh environments, and have a 10+ year power life. The company's tracking tags help businesses analyze data from almost anywhere in the physical world. This enables them to overcome barriers by gathering and processing data in austere environments through three core technologies: radiological power technologies, Internet of Things-based data collection and machine learning analytics.*

Circular Wave Drive Partners Inc.

Primary industry: Robotics, Sensors & Advanced Manufacturing
License fiscal year: 2015
Ohio State primary inventor(s): Jacob Martin; Yuan Zheng
College: Engineering
Department: Chemical & Biomolecular Engineering
Website: www.circularwavedrive.com
Leadership: Flavio Lobato
Ownership status: privately held
Headquarters: Columbus, OH

Description: *The robotics, aerospace and medical equipment industries heavily rely on speed reduction technology. However, existing speed reducers have a short lifespan and are expensive to manufacture. Circular Wave Drive's technology enables a full product line of low-cost, compact and highly-efficient speed-reducing gearing systems which overcome the limitations of both the Harmonic Gear Drive and Nabtesco RV. This allows Circular Wave Drive to disrupt both the value and premium markets. The company is focused on launching the technology in China due to country's sizeable command of the robotics market and aggressive push toward innovative speed reducer technology.*

Nikola Labs Inc.

Primary industry: Robotics, Sensors & Advanced Manufacturing
License fiscal year: 2015
Ohio State primary inventor(s): Chi-Chih Chen
College: Engineering
Department: Electrical & Computer Engineering
Website: www.nikola.tech
Leadership: Will Zell
Ownership status: privately held
Headquarters: Westerville, OH

Description: *Nikola Labs is a wireless power company with an advantaged far-field technology that converts radio-frequency (RF) energy into direct current (DC) power. The company's first application is predictive facility maintenance (PfM) system for manufacturing equipment, such as motors, bearings, pumps and gearboxes. The Nikola PfM system includes wirelessly powered temperature and vibration sensors, a transponder that powers the system, and a cloud-based software application that allows customers to view and analyze the data.*

Sparrow Robot LLC

Primary industry: Robotics, Sensors & Advanced Manufacturing
License fiscal year: 2018
Ohio State primary inventor(s): Yuan Zheng
College: Engineering
Department: Electrical & Computer Engineering
Website: n/a
Leadership: Yuan Zheng
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Sparrow Robot, LLC is developing an active robotic walker using cooperative pulleys to enable a disabled person to walk.*

Tech4Imaging LLC

Primary industry: Robotics, Sensors & Advanced Manufacturing
License fiscal year: 2008
Ohio State primary inventor(s): Liang-Shih Fan
College: Engineering
Department: Chemical & Biomolecular Engineering
Website: www.tech4imaging.com
Leadership: Quassai Marashdeh
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Tech4Imaging produces a non-invasive, non-destructive electrical capacitance volume tomography (ECVT) imaging technology for commercial and industrial use. ECVT provides 3-D volume images by reconstructing electrical signals acquired from a capacitance sensor. Combining this sensor with advanced analytics software and consultation services, the company provides industrial process visualization, combustion volume imaging, multi-phase flow measurements and imaging that can be applied to energy, aerospace, automotive and pharmaceutical industrial processes.*

TeraProbes Inc.

Primary industry: Robotics, Sensors & Advanced Manufacturing
License fiscal year: 2015
Ohio State primary inventor(s): Kubi Sertel
College: Engineering
Department: Electrical & Computer Engineering
Website: www.teraprobes.com
Leadership: Niru K. Nahar
Ownership status: privately held
Headquarters: Columbus, OH

Description: *TeraProbes manufactures innovative, non-contact metrology systems for high-frequency electronic device and integrated circuit testing. TeraProbes' proprietary test-bed consists of an automated probe station and virtual, no-contact probe tips, enabling S-parameter characterization for the entire mmW and THz bands. The highly accurate no-contact system reduces probe wear and tear, as well as the high hardware and operation costs associated with on-wafer characterization.*

SOFTWARE & INFORMATION TECHNOLOGY

Columbus Technology LLC (DBA: Delphic DB)

Primary industry: Software & Information Technology
License fiscal year: 2015
Ohio State primary inventor(s): Arnab Nandi
College: Engineering
Department: Computer Science & Engineering

Website: n/a
Leadership: Victor Thorne
Ownership status: privately held
Headquarters: New Albany, OH

Description: *Columbus Technology has licensed technology and software that enables very fast, large dataset querying that is needed for big data analytics applications. The company is testing the software's data capture, processing and analytics capability with government and defense-based use cases to achieve proof of concept. Target markets include customers in the insurance, banking, utilities and retail industries.*

DAtAnchor Inc.

Primary industry: Software & Information Technology
License fiscal year: 2019
Ohio State primary inventor(s): Emre Koksal
College: Engineering
Department: Electrical & Computer Engineering

Website: www.datanchor.net
Leadership: Emre Koksal
Ownership status: privately held
Headquarters: Columbus, OH

Description: *DAtAnchor is a novel crypto-technology that provides seamless and easy to use, encryption, automated data governance, and dynamic access control and revocation capabilities. These features enable businesses to protect their sensitive data, even when it may be exfiltrated. DAtAnchor is a universal solution, protecting all data types, along with any application used to secure it. It is very easy to set up, and DAtAnchor seamlessly integrates with existing cloud-based security solutions and distributed storage systems. DAtAnchor substantially reduces the overhead associated with data security compliance requirements.*

Fanping Ltd. (DBA: Global Reach)

Primary industry: Software & Information Technology
License fiscal year: 2015
Ohio State primary inventor(s): Galal Walker, Jun Liu
College: Arts & Sciences
Department: East Asian Languages & Literatures

Website: www.greatscholars.us
Leadership: Keith Johanns
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Global Reach is a software services company that provides a third-party platform, Great Scholars, to connect foreign scholars with sponsoring professors. University faculty and staff can utilize the platform to expand their international scholar exchange program. The Great Scholars platform is simple, secure and affordable.*

Grad Central LLC

Primary industry: Software & Information Technology
License fiscal year: 2018
Ohio State primary inventor(s): Michael Hardesty
College: Arts & Sciences
Department: Arts & Sciences Technology

Website: n/a
Leadership: David Dorr
Ownership status: privately held
Headquarters: Cincinnati, OH

Description: *GradCentral is commercializing software technology designed to manage graduate education programs, evaluations, student data and communications in a paper-free environment. By providing single-source access to data, as well as a customizable user experience, GradCentral provides a unique platform that will improve the management of graduate student education.*

Greater Fool LLC

Primary industry: Software & Information Technology
License fiscal year: 2015
Ohio State primary inventor(s): David Taffany
College: Medicine
Department: Comprehensive Cancer Center

Website: n/a
Leadership: David Taffany
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Greater Fool is an Apple iPad platform for mouse lab research organizations. The company's Mouseville tool helps researchers meet critical organizational needs to facilitate research studies. The technology encompasses both cloud-based data storage and an iPad application for researchers to facilitate and organize mouse breeding and research activities.*

OHIO STATE STARTUPS

inmobly Inc.

Primary industry: Software & Information Technology
License fiscal year: 2013
Ohio State primary inventor(s): Hesham El Gamal
College: Engineering
Department: Electrical & Computer Engineering

Website: www.inmobly.com
Leadership: Richard Cohen
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Inmobly, Inc. is an AI-based end-to-end video delivery platform that allows mid-sized media companies, educational institutions and enterprises to deliver highly targeted and cost-effective video streaming services directly to consumers. Inmobly's over-the-top (OTT) technology profiles the interests of viewers and smartly caches content of interest to provide targeted video content with reduced distribution and storage costs. Inmobly's technology also improves the user experience through optimized content delivery with network dynamics to allow for immediate playback without buffering, while reducing churn and increasing user engagement.*

Innovate IP Inc.

Primary industry: Software & Information Technology
License fiscal year: 2018
Ohio State primary inventor(s): Michael Coutinho
College: Office of Business & Finance
Department: Technology Licensing

Website: www.innovateip-inc.com
Leadership: Jim Bratton
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Innovate IP provides a web-based platform for managing intellectual property assets. Innovate IP's software enables research institutions (universities, hospitals, federal labs, and corporations) to manage the creation, protection and disposition of intellectual property assets. The multi-tenant platform serves as a work-flow manager and transaction tracking repository moving innovation from lab to market. The software allows inventors, administrators, licensees, law firms and others to collaborate in a unified system to generate, monitor and report outcomes for impact.*

MIPAR Software LLC

Primary industry: Software & Information Technology
License fiscal year: 2017
Ohio State primary inventor(s): John Sosa; Hamish Fraser
College: Engineering
Department: Materials Science Engineering

Website: www.mipar.us
Leadership: John Sosa
Ownership status: privately held
Headquarters: Worthington, OH

Description: *MIPAR is a comprehensive image analysis software capable of identifying and accurately measuring features from nearly any image. MIPAR's user-friendly interface allows for the creation of customizable and non-destructive "recipes" to enable users to create application-specific and efficient image processing workflows. The software has widespread applications including materials science, life science, particle analysis, earth science, face detection and aerial photography.*

Mobikit Inc.

Primary industry: Software & Information Technology
License fiscal year: 2019
Ohio State primary inventor(s): Arnab Nandi
College: Engineering
Department: Computer Science & Engineering

Website: www.mobikit.io
Leadership: Arnab Nandi
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Mobikit provides data infrastructure for connected vehicle management systems. The adoption of fully autonomous vehicles will dramatically shift the mobility experience and is projected to create 22 billion hours of additional in-vehicle daily media consumption. As enterprises begin to take advantage of the immense value of vehicle data, there is a need for faster and more streamlined ways to build transportation-based apps. Mobikit's technology enables developers to rapidly build and assemble desktop, mobile, and vehicle-dashboard applications that consume spatiotemporal vehicle data.*

Online Emotion Inc.

Primary industry: Software & Information Technology
License fiscal year: 2018
Ohio State primary inventor(s): Aleix Martinez
College: Engineering
Department: Electrical & Computer Engineering

Website: www.online-emotion.com
Leadership: Xavier Xicota
Ownership status: privately held
Headquarters: Coral Gables, FL

Description: *Online Emotion is developing a patented software technology that offers comprehensive and accurate recognition of facial expressions, emotions and non-verbal behavior. The patented algorithms identify more than 8,000 distinct facial articulations and 43 emotions, compared with the seven or less typically detected by others. In addition, the algorithms work in realistic conditions – at practically any pose, in different lighting and under partial occlusions. The technology has applications in various markets including, transportation, health, retail, security and marketing.*

OHIO STATE STARTUPS

RedBud SoftWare Inc.

Primary industry: Software & Information Technology
License fiscal year: 2019
Ohio State primary inventor(s): Joan Leonard
College: Arts & Sciences
Department: Biological Sciences Greenhouse

Website: www.redbudsaas.com
Leadership: Bob Wiggins
Ownership status: privately held
Headquarters: Columbus, OH

Description: *RedBud SoftWare delivers modern agriculture software for greenhouse growers. RedBud is a cloud-based SaaS that provides a centralized platform for greenhouse operators to streamline task management with actionable insights and dynamic record-keeping. RedBud helps growers reduce costs, while maximizing crop consistency and repeatable results.*

Sesame Data Solutions Inc.

Primary industry: Software & Information Technology
License fiscal year: 2019
Ohio State primary inventor(s): Arnab Nandi
College: Engineering
Department: Computer Science & Engineering

Website: n/a
Leadership: Chad Snow
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Sesame's initial product is a middleware that resides between a database or distributed file system like Hadoop and a data visualization or business intelligence tool like Tableau, accelerating data returned from Structured Query Language (SQL) queries. Sesame intercepts a user query to understand and anticipate the next user query. Sesame solves data latency problems to save companies time and money, while improving user productivity.*

THERAPEUTICS, DRUG DELIVERY & BIOTECHNOLOGY

Aether Therapeutics Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2018
Ohio State primary inventor(s): Wolfgang Sadee; John Oberdick
College: Medicine
Department: School of Biomedical Sciences - Pharmacology
Website: n/a
Leadership: Brian Cummings
Ownership status: privately held
Headquarters: Austin, TX

Description: *Aether Therapeutics develops new therapies for pain and addiction. The company is developing its lead compound, 6BMX, as a first-in-class treatment strategy for the prevention of neonatal abstinence syndrome (NAS). NAS affects infants born to mothers suffering from opioid addiction, a significantly increasing problem due to the opioid epidemic. 6BMX preferentially enters the fetal brain to protect the developing fetus from the adverse effects of opioid exposure—including opioid withdrawal symptoms after birth, premature birth and developmental abnormalities—while not affecting the mother.*

AveXis Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2014
Ohio State primary inventor(s): Arthur Burghes
College: Medicine
Department: School of Biomedical Science - Molecular & Cellular Biochemistry
Website: www.avexis.com
Leadership: Sean Nolan
Ownership status: acquired/merged
Headquarters: Bannockburn, IL

Description: *AveXis is a biotechnology company developing gene therapies designed to treat rare and life-threatening neurological genetic diseases. The initial proprietary investigational gene replacement therapy, AVXS-101 (onasemnogene abeparvovec-xioi) is in development for the treatment of spinal muscular atrophy (SMA). In addition, the company is pursuing gene therapies for Rett syndrome (AVXS-201) and a genetic form of amyotrophic lateral sclerosis (ALS) caused by mutations in the superoxide dismutase 1 (SOD1) gene (AVXS-301). The company was acquired by Novartis for $8.7 billion in May 2018.*

Celenex Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2018
Ohio State primary inventor(s): Arthur Burghes
College: Medicine
Department: School of Biomedical Science - Molecular & Cellular Biochemistry
Website: n/a
Leadership: Samit Varma
Ownership status: acquired/merged
Headquarters: Santa Monica, CA

Description: *Celenex is a clinical-stage gene therapy company bringing to market a portfolio of ten gene therapies licensed from Nationwide Children's Hospital and The Ohio State University for treatments for lysosomal storage disorders. The company is initially targeting Batten disease, with therapies targeting CLN6, CLN3 and CLN8, as potential first-to-market curative therapies for these rare and devastating diseases. Celenex was acquired by Amicus Therapeutics in September 2018 for $100M upfront and $277M in potential downstream milestone payments.*

CytoImmune Therapeutics, LLC

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2019
Ohio State primary inventor(s): Michael Caligiuri
College: College of Medicine
Department: Internal Medicine - Hematology
Website: www.cytoimmune.com
Leadership: Will Rosellini
Ownership status: privately held
Headquarters: Monrovia, CA

Description: *CytoImmune Therapeutics is commercializing a coordinated immunotherapy platform for cancer treatments that combines chimeric antigen receptors (CARs) and bispecific antibodies (biAbs) with T cells and natural killer cells. This technology reduces the patient's time to personalized treatment and enables optimized dosing with limited off-target effects. The company is developing product candidates targeted at treating acute myeloid leukemia, glioblastoma and multiple myeloma.*

Entrada Therapeutics Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2019
Ohio State primary inventor(s): Dehua Pei
College: Arts & Sciences
Department: Chemistry & Biochemistry
Website: www.entradatx.com
Leadership: Dipal Doshi
Ownership status: privately held
Headquarters: Boston, MA

Description: *Entrada Therapeutics is developing an intracellular biologics and drug delivery platform designed to enable new treatments for devastating diseases. Entrada's delivery vehicles boast improved bioavailability, biodistribution, metabolic stability and enhanced efficiency compared to previous gold standards. Initially the company will focus on utilizing its intracellular delivery system for treating a rare, fatal mitochondria disease with no currently approved treatment options.*

ExonanoRNA LLC

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2018
Ohio State primary inventor(s): Peixuan Guo
College: Pharmacy
Department: Pharmacy
Website: www.exonanorna.com
Leadership: Peixuan Guo
Ownership status: privately held
Headquarters: Columbus, OH

Description: *ExoNanoRNA is commercializing a novel drug delivery system utilizing branched RNA nanostructures to improve drug solubility in vivo, drug loading efficiency, and drug efficacy while reducing toxicity and allowing for tumor targeting.*

Inthera Bioscience AG

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2014
Ohio State primary inventor(s): Quintin Pan
College: Medicine
Department: Otolaryngology
Website: www.intherabio.com
Leadership: Ulrich Kessler
Ownership status: privately held
Headquarters: Waedenswil, Switzerland

Description: *Inthera Bioscience AG is a pre-clinical stage oncology company developing small-molecule inhibitors of protein-protein interactions. The company utilizes a proprietary technology platform to rationally design orally available molecules that display hot spot residues on a non-peptidic backbone, merging the versatility of small molecules with the specificity of biologics. The initial focus is reactivation of the p53 tumor suppressor pathway in HPV-associated cancers.*

OHIO STATE STARTUPS

LPN Research & Development Corp.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2019
Ohio State primary inventor(s): Ian Davis
College: Veterinary Medicine
Department: Veterinary Biosciences
Website: n/a
Leadership: Kevin P. Killeen
Ownership status: privately held
Headquarters: Boston, MA

Description: *LPN Research & Development Corp. licensed technology to develop novel therapeutics for lung diseases including asthma, COPD, and ARDS.*

Medeoryx Limited

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2019
Ohio State primary inventor(s): Daniel Gallego Perez
College: Engineering
Department: Biomedical Engineering
Website: n/a
Leadership: Alex Yang
Ownership status: privately held
Headquarters: Hong Kong

Description: *Medeoryx is commercializing direct tissue reprogramming utilizing tissue nanotransfection (TNT) technology that can deliver reprogramming cargo directly into adult cells in milliseconds, without the need for viral delivery vectors. TNT induces direct in vivo cellular reprogramming and is applicable to both skin and surgically-accessible tissue. The technology has applications to improve the treatment of diabetes, cancer, wound healing, and limb ischemia.*

NanoMedical Systems Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2008
Ohio State primary inventor(s): Mauro Ferrari
College: Medicine
Department: Internal Medicine
Website: www.nanomedsys.com
Leadership: Randy Goodall
Ownership status: privately held
Headquarters: Austin, TX

Description: *NanoMedical Systems (NMS) is commercializing silicon-based medical nanotechnology products for personalized medicine. The company's Personalized Molecular Drug-delivery System (PMDS) is an implantable capsule with a nano-channel chip that provides sustained, controlled drug release within the optimal therapeutic range. This translates to improved safety and therapeutic efficacy, ultimately resulting in improved patient outcomes. The company licensed technology from Ohio State and the University of Texas.*

NervGen Pharma Corp.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2018
Ohio State primary inventor(s): Yingjie Shen
College: Medicine
Department: School of Biomedical Science - Neuroscience

Website: www.nervgenpharma.com
Leadership: Ernest Wong
Ownership status: publicly held
Headquarters: Vancouver, British Columbia

Description: *NervGen Pharma Corp. is a regenerative medicine company dedicated to the advancement of innovative therapeutics for the treatment of nerve damage, including spinal cord and peripheral nerve injuries. The company's technology targets protein tyrosine phosphatase sigma (PTPσ), a neural receptor that inhibits nerve regeneration. Inhibition of the PTPσ receptor promotes regeneration of damaged nerves and improvement of nerve function in animal models for various medical conditions. Initially, the company is advancing its lead compound, NVG-291, towards clinical trials for the treatment of spinal cord injuries. NervGen completed its IPO in March 2019 and began trading on the Canadian TSX Venture Exchange ("NGEN"). The company licensed technologies co-developed by Ohio State, Case Western Reserve University, Oregon Health & Sciences University, Versitech, and the University of Hong Kong.*

NeurXStem Inc. (DBA: NeuRenaisson)

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2017
Ohio State primary inventor(s): Rene Anand
College: Medicine
Department: School of Biomedical Sciences - Pharmacology

Website: www.neurxstem.com
Leadership: Rene Anand
Ownership status: privately held
Headquarters: Columbus, OH

Description: *NeurXStem produces synthetic neural organoids from iPSC-derived skin cells that closely replicate the human central nervous system in a dish. This Neural Organoid Platform™ meets high scientific metrics of reliability, reproducibility and robustness. This makes the platform highly suitable for pre-clinical research and development to identify and evaluate potential drugs for toxicity, safety and efficacy on model systems that accurately mimic human functions. In addition, the platform can be engineered with genetic predisposition for a wide range of diseases, including Alzheimer's, tuberous sclerosis, Parkinson's, and cancer, and may be used as a research tool for brain disorder disease biology.*

OHIO STATE STARTUPS

OncoImmune Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2005
Ohio State primary inventor(s): Yang Liu
College: Medicine
Department: Pathology
Website: www.oncoimmune.com
Leadership: Yang Liu
Ownership status: privately held
Headquarters: Rockville, Maryland

Description: *OncoImmune specializes in therapeutics for cancer, inflammation and autoimmune diseases. OncoImmune's lead compound CD24Fc is a clinical stage asset targeting the CD24-Siglec axis that regulates host inflammatory response to tissue injuries. This has broad implications in the pathogenesis of autoimmune diseases, cancer and graft-versus-host disease. OncoImmune has received orphan drug designation for CD24Fc in both the United States and Europe.*

Prelude Therapeutics Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2016
Ohio State primary inventor(s): Robert Baiocchi
College: Medicine
Department: Internal Medicine
Website: www.preludetx.com
Leadership: Kris Vaddi
Ownership status: privately held
Headquarters: Wilmington, DE

Description: *Prelude Therapeutics is focused on the discovery and development of differentiated small-molecule drugs targeting gene regulation for cancer and rare diseases.*

Sirona Therapeutics Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2014
Ohio State primary inventor(s): Susan Mallery
College: Dentistry
Department: Oral Pathology
Website: n/a
Leadership: Bence Boelcskevy
Ownership status: privately held
Headquarters: Columbus, OH

Description: *Sirona Therapeutics is commercializing an oral patch that delivers chemopreventive drugs directly to pre-cancerous oral lesions, reducing toxicity and adverse side effects.*

TRIM-edicine Inc.

Primary industry: Therapeutics, Drug Delivery & Biotechnology
License fiscal year: 2018
Ohio State primary inventor(s): Jianjie Ma
College: Medicine
Department: Surgery
Website: www.trim-edicine.com
Leadership: Jianjie Ma
Ownership status: privately held
Headquarters: Columbus, OH

Description: *TRIM-edicine is developing novel protein therapeutics and biologics to treat unmet medical needs, such as acute and chronic tissue injuries, muscular dystrophy, cancer, aging and diabetes. Novel therapeutic approaches involve the MG53, MG29, and ATAP proteins.*

We are dedicated to creating startup companies by matching Ohio State innovations with experienced entrepreneurs and a full-continuum of funding. Ohio State startups have contributed innovations to industries locally, nationally and worldwide, helping to build a robust entrepreneurial ecosystem.

Visit **ceo.osu.edu/new-ventures** to connect with a member of our new ventures team.

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