UConn’s Technology Incubation Program (TIP) was established in 2003 with the goal of accelerating the growth and success of technology based startups in the state of Connecticut. TIP companies have a strong connection with the research output of the University of Connecticut (UConn), access to UConn’s high-tech facilities and the ability to work with the University’s expert faculty in various forms of research partnerships.

- Over 107 TIP companies have participated in the program
- Approximately 60% successfully graduated from TIP (nation’s success rate is 25%)
- Raised $258M in Equity and Debt
- Awarded more than $71M in Grants
- Generated over $59M Revenues

Benefits of Being a TIP Company:
- 30,000 square feet of state of the art wet labs and offices in various sizes to meet the needs of growing startups
- Access to subject matter experts from a top 25 public research university
- Access to UConn Core Research Facilities including Stem Cell Core, Animal Care and Bio-Services Center
- Access to university library, computer network & student intern program
- No cost business development services and business service provider office hours
- Educational/networking and social events
- No equity requirement
- Community with other entrepreneurs, business partners, potential investors and UConn staff, students & faculty
- On-staff Entrepreneurs in Residence
Biotech

- Azitra
- Bactana
- CaroGen
- Cornovus Pharmaceuticals
- Frequency Therapeutics
- ImStem Biotechnologies
- LambdaVision
- Lipid Genomics
- Medisynergics
- Mitotherapeutix
- Potentiometric Probes
- QCDx
- Quercus Molecular Design
- RallyBio
- Shoreline Biome
- Thetis Pharmaceuticals
- Torigen Pharmaceuticals
- Vanessa Research

Medical Devices

- Avitus Orthopaedics
- Biorasis
- CytoVeris
- Oral Fluid Dynamics
- QRFertile
- Simvize
- YouComm

Software

- Lincus
- Oscilloscope
- TryCycle Data Systems

Materials & Engineering

- 3D Array Technologies
- Arax Engineering
- Innovation Cooperative 3D
- Solution Spray Technologies
Arax Engineering is committed to improving the cost-effectiveness and sustainability of buildings and bridges by improving the resiliency of columns. Our novel construction material enables accelerated construction and provides improved performance of columns against hazards including earthquakes, blasts, and fires. We also provide structural engineering design services and have professional licensure in California and Connecticut.

3D-Array Technology (3DAT) is developing, producing and licensing high-efficiency, low-cost heterogeneous catalysts and providing cutting-edge contract catalysis research services. 3DAT is currently focusing on developing Diesel Oxidation Catalysts (DOC) and Diesel Particulate Filters (DPF) for the multi-billion dollar global diesel engine market. The company’s first product is scheduled to release in early 2019.

Avitus® Orthopaedics (Avitus) is a medical device company developing novel instruments for minimally invasive surgery. The company was founded by spine surgeons and biomedical engineers at Johns Hopkins University who sought to develop a superior method for bone graft harvesting. Avitus was established with the mission of developing new orthopaedic technologies that improve clinical outcomes while decreasing healthcare costs compared to current procedures and devices.

Azitra Inc. is a preclinical company focused on microbiome-based therapeutics based on a unique technology developed at Yale. Azitra is developing a platform that consists of a safe, re-engineered strain of bacteria that is able to establish residence on human skin and secrete a therapeutic protein. Azitra addresses the high unmet need of a solution for eczema (or atopic dermatitis, AD), which affects approximately 10% children under the age of 13 and 1-2% of adults (11 million) in the US. The market for AD products is $1-2 billion dollars.
Bactana is identifying and commercializing beneficial microbes that enhancing the gut microbiome to improve animal health & farming efficiency while reducing global antibiotic usage. Bactana’s initial product line is based a collection of natural bacteria strains, and is supported by patents and multiple calf trials that demonstrate improved feed efficiency, animal growth, scours reduction, increased milk production, and reduced mortality. We are also developing similar products for use in swine, poultry, and companion animals.

Biorasis, Inc., UConn startup and 2015 MassChallenge Diamond awardee, is developing a rice-grain sized implantable glucose sensor capable of providing diabetic patients with 24/7 glucose readings. The implant is wirelessly powered and communicates with a watch-like device that uses a dedicated app to restore an active lifestyle to diabetic patients. Biorasis is at late stage of preclinical development, with clinical trials projected in 2018. Biorasis technology combines numerous scientific breakthroughs from the UConn labs of Profs. D. Burgess, F. Jain and F. Papadimitrakopoulos.

CaroGen Corporation is developing transformative immunotherapies for infectious diseases and cancer using its novel virus-like vesicles (VLVs) platform technology with an initial focus on chronic hepatitis B virus (HBV) infection (CHB). VLVs, discovered at Yale University School of Medicine, are safe and have a large capacity to deliver the genes for multiple types of warheads proteins including antigens and cytokines to maximize the efficacy of immunotherapy. CaroGen has selected a clinical candidate and plan to file and IND by Q2 2019 for HBV.
**Cornovus Pharmaceuticals**

*Cell & Genome Sciences Building*

Gary Mattes, CEO
glnmtts@aol.com

**Cornovus Pharmaceuticals, Inc.** focuses on the development of a novel cardioprotective compound, MRS2339, for the treatment of heart failure. MRS2339 was first synthesized at the NIH and is a small molecule that stimulates cardiac myocyte P2X4 receptors, which in turn can activate physically associated eNOS without a rise in intracellular calcium. Recent data has shown that MRS2339 also increases myocyte cGMP in a heart failure model, which likely reflects a consequence of elevated nitric oxide levels.

**CytoVeris** has been founded with the vision to fill an unmet need for innovative new tools that enable surgical oncologists to ‘ID’ and remove all tumor tissue in real-time during cancer resection surgical procedures. CytoVeris’ solution, the Tumor Margin Assessment Probe (TumorMAP) is based on multimodality optical analysis of tissue, and will allow surgeons the ability to attain real-time assessment of tumor-to-normal tissue boundaries, thereby improving the surgeon’s ability to ensure clean margins are attained.

**Frequency Therapeutics** develops small molecule drugs to stimulate cells in the body to reverse biological deficits and restore healthy tissue. Through the transitory activation of these cells, Frequency enables disease modification without the complexity of genetic engineering. Our breakthrough therapy uses a proprietary combination of small-molecule drugs that induce dormant progenitor cells to multiply and create new cells. Our lead program uses these methods to regenerate sensory cells to treat hearing loss. Our platform technology is founded on discoveries in progenitor cell biology by the labs of Bob Langer, Sc.D. at MIT and Jeff Karp, Ph.D., at Harvard Medical School and Brigham & Women's Hospital.

**InnovationCooperative3D (IC3D)** was formed to leverage our collective strategic, creative and technical know-how and global relationships in package design, development, and flexible film manufacturing.

IC3D’s - 1TOUCH Measured Dispenser is the future of dispensing. 1TOUCH can dispense wide range of liquids and gels. It has superior performance, marketplace disruption and is brand-owner desired.

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ImStem Biotechnology, Inc. is a biotechnology company focusing on developing cell therapeutic product derived from human pluripotent stem cells (hESC or iPSC) for tissue repair, treatment of neural, heart, vascular, blood system diseases and autoimmune diseases. With our state-of-art stem cell technologies, we will be able to provide different kinds of therapeutic and research products with unlimited supply and consistent quality in the near future.

LambdaVision, Inc. is developing a high-resolution, protein-based retinal implant to restore vision to the millions of patients blinded by retinal degenerative diseases, including retinitis pigmentosa (RP) and age-related macular degeneration (AMD). The patent-protected retinal implant technology developed by LambdaVision uses the light-activated protein, bacteriorhodopsin, to replace the function of the damaged photoreceptor cells. The flexible, subretinal implant is powered by incident light and does not require any external power supplies or bulky hardware on or outside the eye, and offers the potential for far greater resolution than competing electrode-based technologies.

Linicus In the US alone there are hundreds of thousands of faculty doing research on everything from jellyfish to jet propulsion. But finding a leading expert, even within a single university, can be a painstaking experience. Enter Lincus. Whether you're an undergrad looking for a leading research lab for grad school, a VC firm needing to connect with a key opinion leader for due diligence, a journalist looking for your next expert quote, a faculty member looking for a collaborator, or just a normal human trying to find a leading medical specialist, we've got you covered. Just type a keyword and get leading research experts. Easy.

Lipid Genomics is developing its FDA-allowed phase I clinical trial for an investigational drug targeted at people with variations in the HDL ("good cholesterol") SCARB1 gene. More than 117 million people in the US could benefit from this drug. Lipid Genomics has a potential to generate a very sizeable profit as the market size for this therapeutic is $2.8 billion and for the second product, a novel immune checkpoint inhibitor, lymphocyte activation gene-3 (LAG-3) the market size is $1.4 billion.
Cell & Genome Sciences Building

Dennis Godek, Co-Founder
Harry Howard, Co-Founder
medisynnergics@gmail.com

MediSynergics, LLC is an early-stage pharmaceutical research company that is working on the discovery of new treatments for patients with inadequate or unmet medical needs. The primary mission of the company is to discover new chemical entities (NCE’s) for the treatment of human diseases. The company has discovered several “hits” in the central nervous system (CNS), infectious diseases (ID) and cancer therapeutics areas and have filed provisional and non-provisional patent applications with the US Patent and Trademark Office. Most importantly MediSynergics was awarded a two-year SBIR grant ($600K) by the NIAID division of the National Institutes for Health to fund their antiparasitic project.

Cell & Genome Sciences Building

Bob Hennessey CEO
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Bob Hemley COO
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Mitotherapeutix is a biopharmaceutical company with a mission to develop products for treatment of diseases that can be targeted by modifying or influencing mitochondrial metabolic pathways in the cell. Every cellular process is driven by energy and that energy is produced by the cells’ metabolic machinery, when the process breaks down, there are dire consequences for those cells. In metabolic disorders typically seen in the liver increasing mitochondrial metabolism seems to correct the underlying problem and this is the primary target and treatment solution Mitotherapeutix is pursuing.

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J. Robert Kelly, Managing Partner, CEO
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Oral Fluid Dynamics, LLC is currently developing a type of dental implant medical device to treat Xerostomia, a medical condition characterized by chronic dry mouth. Xerostomia affects an estimated 64 million patients in the USA either due to side effects of prescription drugs, radiation therapy or Sjögren’s Syndrome. There are 4 million Sjögren’s patients in the US and this population is the initial focus of our efforts.

Cell & Genome Sciences Building

Ed Large, CEO
edward.large@oscilloscope.com

Oscilloscope is developing technologies and software for analyzing audio and other time-based signals, including music and speech. Oscilloscope’s patented technology enables nonlinear signal processing to be effectively and efficiently implemented in hardware and software. Our novel technology is based on research in auditory neuroscience, enabling signal processing, pattern analysis, and learning using neural networks that resonate to acoustic signals. Our technology will power the next generation of interactive audio applications.
**Potentiometric Probes** develops and supplies voltage-sensitive dyes for academic and pharmaceutical industry researchers. These fluorescent dyes are used to stain cells, tissues, and whole organs and allow electrical activity of the brain and heart to be studied optically using microscopes. Voltage-sensitive dyes are used in basic research, as well as for drug discovery and cardiac safety screening of developmental drugs. Potentiometric Probes is developing new voltage-sensitive dye technology that promises to have rapid response as well as high sensitivity for the highest resolution and most informative optical voltage recordings possible.

**QCDx** is a medical device company developing novel, cell-based liquid biopsy, utilizing deep quantitation of cells from a simple blood sample. A proprietary microscopy system can analyze >10 million cells stained for 8+ immunofluorescent biomarkers with conventional protocols or ex vivo. QCDx was founded by diagnostic industry experts and entrepreneurs with the mission to deliver precision cancer diagnosis that will improve patient outcomes by optimizing treatment, monitoring therapy, characterizing metastasis and assessing treatment toxicity.

**QRfertile**, is developing an in-home device with a smartphone-based automated analyzer to measure semen quality. The testing process requires the user to load a semen sample on a disposable paper-based device, which reacts with the reagents in test zones on the paper and produces an array of colors; the user then images the result with his smartphone. From this point on, the process is automated: the smartphone rapidly returns measurements of sperm count, sperm motility, fructose, and pH.

**Quercus Molecular Design (QMD)** is a UConn faculty-started startup specializing in the rational design of small molecules that simultaneously inhibit multiple essential protein targets to enhance potency and slow the onset of drug resistance. QMD is applying this novel multi-targeting strategy to several drug discovery projects serving anti-cancer, anti-bacteria and anti-viral indications.
Rallybio is a privately-held early-stage biotechnology company incorporated in January 2018. Our ambition is to create a world-leading biotechnology organization that transforms the lives of patients with devastating disease, built around people with an outstanding track record in pharmaceutical research and development. We will work on highly-promising drug candidates that have strong biological rationales and that can be addressed using the well-validated therapeutic modalities of small molecules, engineered proteins, and antibodies.

Shoreline Biome has created discovery tools that are advancing the leading edge of understanding how the human microbiome functions across the entire landscape of human health and disease. Tracking microbial populations in healthy and diseased microbiomes is crucial to advancing our understanding of infectious disease, as well as chronic ailments including allergy, obesity, immune system dysregulation, and mental health. The initial products from Shoreline Biome are the first DNA sequencing assays to comprehensively, rapidly, and inexpensively identify all members of the microbiome down to the subspecies or strain level. These results are achieved through our superior cell breaking technology and rational product design. Our companion analysis software enables straightforward identification and quantitation of all of the bacteria in microbiome samples.

Simvize is developing a swift and affordable rheometer, a device to measure viscosity. This device may prove particularly convenient in laboratory measurements of inks, paints, oils, drug delivery solutions, and food additives. We foresee this technology fulfilling an important medical role as a point-of-care measurement of the viscosity of blood, which is a strong evaluator of overall cardiovascular health.

Solution Spray Technologies has licensed innovative solution precursor plasma spray (SPPS) technology from UConn. SST’s leadership team, which includes two ex-UConn Faculty, combines deep technical expertise with materials commercialization experience. SST is actively commercializing the technology through collaborations with industry leading gas turbine and coating services companies.

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**Thetis Pharmaceuticals** is a biopharmaceutical company developing novel therapies for the treatment of gastrointestinal inflammatory diseases. Thetis’ proprietary technology platform enables the pharmaceutical development of bioactive lipids that actively regulate inflammation and promote tissue repair and healing. Thetis’s technology overcomes the stability, manufacturing, formulation and patentability hurdles that have limited the development of bioactive lipids as pharmaceutical agents, unlocking their robust pharmacology to be developed as first-in-class therapeutics.

**Torigen Pharmaceuticals, Inc.** is focused on providing veterinary cancer solutions for companion animals. The product, VetiVax(TM) is a novel, personalized immunotherapy that uses the animals’ own tumor cells to fight cancer. Torigen’s treatment can work for multiple tumor indications treating over 2,000,000 companion animals diagnosed with cancer each year.

**TryCycle** is bi-directional software system, designed to reduce the burden on health resources who treat and manage patients with behavioral and mental health disorders. A technology-based ‘early warning system’, TryCycle learns human behavior patterns in real time and helps to provide predictive data insights, between visits with patients. New, otherwise unavailable data streams, enable clinicians to monitor changes in behavior, mood, and activity level of their entire patient load, and intervene with clients who are most at risk.

**Vanessa Research** is an emerging healthcare and biotech company. As part of the UConn TIP program, VRI is developing a non-surgical medical device, HaloGard™ that aims to treat cervical insufficiency in women in the second trimester of their pregnancies. VRI’s HaloGard™ technology works to keep the cervix safely closed in order to increase the probability of having a healthy, full-term delivery.
YouCOMM has developed the patent pending YouCOMM Room M8, a tablet-based communication device that provides effective patient-caregiver communication. The device has 20+ need options and allows patients to send specific needs to a nurse’s on-call phone. Custom messages are supported. The system can be controlled via touch, voice recognition or head gestures, making it convenient for motor impaired patients.

Dan Yasoshima Co-Founder and CEO
daniel.yasoshima@youcommllc.com
TIP LOCATIONS

UConn Storrs

Advanced Technology Laboratory (ATL)
1392 Storrs Road
Storrs, CT 06269

Depot Campus – Longley Building
270 Middle Turnpike
Storrs, CT 06269

UConn Health Center

Cell & Genome Sciences Building
400 Farmington Avenue
Farmington, CT 06032

Is your startup interested in TIP?

Send us an email to get the conversation started!

tip@uconn.edu

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Contact: tip@uconn.edu
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For sponsorship opportunities that match your organization’s interests, contact: TIP@uconn.edu

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