

INNOVATION SHOWCASE 2018

COMPANY BIOS

MEDICAL DEVICES

Avails Medical

<https://availsmedical.com/>

Avails Medical is dedicated to solving one of the most serious health threats in modern medicine - antibiotic resistance. As repeatedly stated by experts around the world, antibiotic resistance could spell the end of modern medicine. At Avails Medical we have developed an electronic bio-sensor platform technology that allows performing antibiotic susceptibility testing directly from positive blood cultures with >95%+ correlation to gold standard methods. This significantly reduces the time for targeted antibiotic treatment decision from days to hours, saving lives, costs, and antibiotic overuse.

Bikanta

<http://bikanta.com/>

Image-guided surgery is the path forward in operative and robotic medical procedures. Unfortunately, today's real-time imaging techniques have limits due to signal loss or toxicity. Bikanta is introducing a revolutionary nanotechnology platform based on nanodiamonds that resolves these issues while empowering researchers & medics to detect & address diseases early at the molecular level.

Cactus Medical

Cactus Medical is empowering parents and clinicians with better diagnostic tools for ear infections. Ear infections are one of the most common childhood conditions and the leading cause of unnecessary antibiotic use in children. In a clinical study conducted in collaboration with CHOC Children's Specialists, Cactus' revolutionary optical tympanometry technology detects middle ear effusion (indicative of an ear infection) with 98% overall accuracy and works through ear wax.

Collectgen

Founded in 2018, CollectGen develops saliva-based technologies that help dentists and patients identify early signs of gum disease in less than 15 minutes. The test can be done by anyone from the comforts of home, in-between dental visits. Our smartphone app allows dentists and patients see and track results in real-time and implement preventive measures sooner, allowing patients to save their natural teeth. We believe that our solutions will not only support dentists in their treatment planning, but also encourage a more productive and engaging discussion to take place between them and their patients.

Deton

<http://detoncorp.com/>

Deton is transforming the understanding and treatment of lung disease by providing complete and timely lung health information through Aero-sol Biopsy. Our proprietary solution captures aerosol droplets from the lungs and extracts the genetic information contained within them.

Diassess

<http://diassess.com/>

Diassess is a medical diagnostic start-up developing the first disposable DNA test empowering consumers to test for infectious diseases within the privacy of their home. Based on the test result, a companion mobile app can automatically generate a prescription for medicine such as an antiviral and antibacterial therapy. The company was recently awarded a \$22M government contract from BARDA to develop an over-the-counter (OTC) consumer flu test. Future OTC tests are planned for STDs (Chlamydia and Gonorrhea), strep throat, bacterial vs. viral infection differentiation, and an upper respiratory panel. Diassess has validated the technology through multiple blinded clinical studies exceeding 1,000+ patients and has achieved sensitivities ranging between 95% to 100%, which surpasses FDA OTC and CLIA Waiver requirements. Prior to Diassess, the founding team authored \$6.5M in grant funding from the Gates Foundation, DARPA, NIH, and NSF.

Ferrologix

<http://www.ferrologix.com/>

Ferrologix Inc is seeking to accelerate clinical translation and manufacturing of cell based therapies using a unique magnetic nanotechnology. Out core technology, known "magnetic ratcheting," utilizes disposable chips to precisely and rapidly specific types of cells from blood or tissue with higher precision and speed compared to current methods. We believe our technology can address the critical growing pains of the cell therapy industry and accelerate clinical translation & manufacturing of personalized cellular therapeutics.

IsoWalk

<http://isowalk.com/>

Isowalk is a medical device and digital health company developing a hardware and software platform for smart mobility aids. Isowalk's technology integrates precision gait analysis and remote monitoring capabilities into a biomechanically optimized walking aid designed to reduce falls and actively assist ambulation. Isowalk's unique data brings clinical visibility to gait performance in the mobility impaired, and expresses mobility health as new wellness marker, particularly for seniors.

Maestrogames

<https://www.maestrogames.com/>

Combining virtual reality (VR), music, and movement with gamification, Maestro Games elevates the effectiveness of these therapies for such mental health challenges such as depression, anxiety, post-traumatic stress disorder, and moral injury. Additionally, studies show the positive impact music and VR therapies have on Alzheimer's, Autism, Dementia and traumatic brain injury.

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Our product, The Last Maestro™, leads the player through a symphonic conducting experience inside a stunning virtual landscape. A scoring mechanism incentivizes the player to improve his or her score.

Our database engine will gather player & biofeedback data from each session and allow for clinical background data to be track. Staff will be able to use real time statistical information and artificial intelligence to gauge the effectiveness of the game/treatment and alter it as required.

QT Medical

<http://www.qtmedical.com/>

QT Medical, Inc. is a medical device startup incorporated in 2013. With innovative technologies, we aim to bring high quality 12-lead electrocardiogram (ECG) available to everyone. QT ECG™ is the first hospital-quality 12-lead ECG cleared by the FDA for personal use. It is the world's most compact 12-lead ECG system with a proprietary pre-positioned electrodes that enable laypeople to do an ECG test without training. With its simplicity, ease of use, familiar interface by mobile technology, QT ECG™ is bringing hospital-quality 12-lead ECG to homes.

Raydiant Oximetry

<http://www.raydiantoximetry.com/>

Raydiant Oximetry, Inc. has developed a safe and noninvasive technology that directly monitors a babies' oxygenation during childbirth. For obstetric providers who are dissatisfied with current fetal heart rate monitoring systems, this technology will lead to more informed decision making and better patient care.

SmarterABX

<http://www.smarterabx.com/>

SmarterABX is developing infection management software for healthcare facilities that integrates with electronic medical record (EMR) systems. Our software empowers Antibiotic Stewardship teams by providing them with self-service reports and dashboards. Our adaptive prescribing guidance at order-time and advanced analytics de-risks infection management.

Synova Life Sciences

<https://www.synovalife.com/>

Synova Life Sciences is a medical device company currently bringing to market an automated cell-processing system to harvest a person's own stem cells from their fat (adipose tissue). Stem cells from fat have shown therapeutic and regenerative promise in heart attack, stroke, brain injury, pulmonary disorders, osteoarthritis and cartilage, autoimmune disorders, and much more. The current gold standard in harvesting technology is slow, uses harmful chemicals, and is onerously complex. Synova's technology is 30 times faster, gets twice as many cells, uses no chemicals, and is simple, automated and easy. Synova is dedicated to developing solutions that help people regenerate their bodies to improve and extend their lives.

Tempathic

<https://www.tempathic.com/>

Tempathic is a SaaS monitoring, orchestration, and analytics application for life sciences companies operating controlled environments. Tempathic analyzes sensor data to detect and prevent problems before they become critical and then guides the people responding through the necessary steps to resolve the problem. Tempathic is agnostic to sensor vendor and type. By connecting all the actions and conditions into a complete system, Tempathic reduces the risk of materials loss and disruptions to operations and improves compliance.

Veriskin

<http://www.veriskin.com/>

Veriskin is a medical device company dedicated to facilitating and improving the accuracy of skin cancer screening. Uncertainty in the initial assessment by non-specialist caregivers leads to failure to detect cancer at an early, more treatable stage, hundreds of malpractice claims due to false negative diagnoses and many unnecessary specialist referrals and biopsies. Veriskin has developed a non-invasive, low-cost, hand-held device that aids a non-expert user to rapidly and objectively determine whether a suspect skin lesion is cancerous.

THERAPEUTICS

AcuraStem

<https://acurastem.com/>

AcuraStem utilizes advanced stem cell technology and artificial intelligence to predict drug efficacy for neurodegenerative disease using living neurons from current patients – a virtual nerve biopsy. AcuraStem has used this technology platform, iNeuroRx™, to discover and bring forward a novel and potentially curative preclinical ALS therapeutic candidate, winning over \$4M in grant funding from the NIH and the Muscular Dystrophy Association for this effort; iNeuroRx™ was born out of research from the lab of AcuraStem's President and co-founder Dr. Justin Ichida, and heralded in the February 5, 2018 issue of Nature Medicine. The iNeuroRx™ platform uniquely positions AcuraStem to identify additional promising therapeutics.

Aequor

<http://www.aequorinc.com/>

Aequor, Inc. -- Aequor is a pre-clinical company targeting skin and soft tissue infections caused by antimicrobial resistant bacteria and fungi -- the Superbugs. Aequor's patented novel treatment has proven effective against all modes of pathogen growth, including biofilm which is a major deterrent to wound/infection healing. In development are other treatments against Gram-negative targets. Upon reviewing our validation testing, the NIH and DOD selected Aequor into accelerator programs to do all IND-enabling trials for up to 9 molecules for FDA applications.

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[ARIZ Precision Medicine](https://arizbio.com/)

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ARIZ Precision Medicine is a pre-clinical oncology focused biotechnology company developing a portfolio of potentially curative drug candidates for the treatment of cancer. ARIZ combines a genetic payload targeting the epigenetic drivers of cancer with targeted drug delivery systems that precisely deliver concentrated therapeutics to the site of the cancer, while at the same time sparing healthy cells.

[Aukera, Inc.](http://aukerasolutions.com/)

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Aukera, Inc. is a biotech company with a proprietary vault nanocapsule platform designed to help healthcare and personal care companies improve the delivery of their products. Many promising medicines never enter the market due to poor solubility, short half-life, toxicity and limited biodistribution. We believe that Aukera's vault nanocapsules will be a revolutionary nanoformulation strategy that will facilitate market entry of life-saving medicines.

[Avery Therapeutics Inc.](http://www.averytherapeutics.com/)

<http://www.averytherapeutics.com/>

Avery Therapeutics is a pre-clinical stage company developing tissue-engineered grafts to treat degenerative diseases. Our first product is MyCardia, an allogeneic engineered heart tissue for treating mid-to-late stage ischemic chronic heart failure, a condition affecting more than 2 million people in the US. The MyCardia technology can be extended to other cardiac indications including dilated cardiomyopathy, congenital defects and arrhythmias.

[Basepaws](https://www.basepaws.com/)

<https://www.basepaws.com/>

Basepaws is a pet health company. We created the first consumer DNA test for cats and are expanding our offering to dogs and other tests, including microbiome, cancer testing, and nutrition. Basepaws is building the largest database of pet health data on the planet while giving owners insights about their pets. Our products are built on proprietary cost-saving sequencing technology which combines low coverage whole genome sequencing with the specificity of amplicon approaches.

[Cairn Biosciences](https://www.cairnbio.com/)

<https://www.cairnbio.com/>

Cairn Biosciences is developing next-generation therapeutics that overcome acquired resistance to cancer therapy. Cairn's drug discovery engine addresses the profound unmet need for new tools to decipher cellular complexity and enable scalable discovery of groundbreaking therapies. We industrialize the monitoring of multiple dynamic facets of previously inaccessible biology in live cells, enabling accelerated discovery of a pipeline of drugs for a wide range of indications. Our initial focus is the compelling opportunity to benefit cancer patients by overcoming acquired resistance to PARP inhibitors – a multibillion dollar market. Our vision is a world where killer diseases are relegated to chronic conditions by Cairn's approach to overcoming disease progression.

[Cayuga Biotech](http://www.cayugabiotech.com/)

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Cayuga Biotech is a company developing injectable, biomimetic materials to control bleeding. Our shelf-stable therapeutics mimic polymers released by platelets to safely and effectively accelerate clotting after injury. These therapeutics are designed for treating bleeding episodes in rare bleeding populations, patients on blood thinners, and uncontrollable hemorrhage to reduce blood loss and save lives.

[Hillhurst Biopharmaceuticals](http://www.hillhurstbio.com/)

<http://www.hillhurstbio.com/>

Hillhurst is developing an oral drug product that enables the chronic use of low, non-toxic doses of carbon monoxide (CO) as a treatment for Sickle Cell Disease, providing a highly novel dual mechanism of action to this orphan disease. The efficacy and safety of CO in Sickle Cell Disease has been demonstrated by others, but chronic clinical use has not been possible with traditional CO delivery (such as inhaled gas) due to risk of accidental inhalation exposure and dosing and compliance issues. Our drug overcomes these barriers to use, enabling the chronic use of this promising therapeutic in Sickle Cell Disease.

[MAXBiopharma](https://www.maxbiopharma.com/)

<https://www.maxbiopharma.com/>

At MAX BioPharma we aim to capitalize on our key discoveries made several years ago while analyzing a previously understudied group of sterol molecules, oxysterols, and their role in human health and disease. As pioneers of Oxysterol Therapeutics®, leveraging combined expertise in the fields of cellular biology, lipid biochemistry and drug discovery, we work to build a new generation of therapeutic agents that can address unmet medical needs with some of the most fatal and debilitating human disorders, such as osteoporosis, cancer, and fibrosis.

[PanaceaNano Inc](https://www.panaceanano.com/)

<https://www.panaceanano.com/>

Dr. Youssry and Sir Fraser Stoddart co-founded PanaceaNano, a company that focuses on developing molecular machine inventions, a technology Sir Fraser discovered that made him win the Nobel Prize in Chemistry in 2016. PanaceaNano's first patented technology commercialized a new class of porous, bio-degradable, organic nano-cube ("ONC") materials for encapsulation and controlled skin delivery. These materials are being employed in Anti-Aging skin care products under the product line NOBLE. In parallel, PanaceaNano is developing extended, time-release drug delivery vehicles with external nano-gated pores working as molecular machines that can be activated under specific conditions for controlled release.

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Reglagene

<https://www.reglagene.com/>

Reglagene is a preclinical stage oncology therapeutics company that targets many of cancer's most notorious genes. Unlike medicines that directly modulate protein function, our technology enables selective targeting of an aberrant gene to dial its transcription up or down. In vivo proof of concept is achieved for a small molecule agent that reduces expression of telomerase reverse transcriptase, inducing rapid apoptosis across a variety of tumor types. Biomarker analysis supports a mechanism of action independent of telomerase's classic telomere maintenance role.

SciBac

<http://www.scibac.com/>

SciBac creates rEvolutionary live biotherapeutics that treat and prevent antibiotic resistant disease, while fortifying the microbiome. Using their proprietary platform technology, SciBac selectively mates beneficial microbes to create hybrid probiotics that target disease through multiple modes of action. SciBac has an expanding pipeline that includes biotherapeutics for Clostridium difficile infections, chronic Pseudomonas and Staph in cystic fibrosis patients.

SinoPia

<http://www.sinopiabio.com/>

Sinopia Biosciences is a drug repurposing biotech that is leveraging its proprietary omics data-driven discovery platform to identify therapeutics for preventing or treating adverse drug reactions. The company is advancing its lead compound (SB-0107) to proof-of-concept clinical trials by mid-2020. SB-0107 is a patent protected unique repurposing compound that significantly potentiates levodopa's efficacy to treat Parkinson's Disease without exacerbating its main side effect, levodopa-induced dyskinesia.

Sixal

Sixal is a preclinical therapeutic company developing treatments for IgE mediated disorders such as food allergies, allergic asthma, urticaria, and mastocytosis (an orphan indication) via a novel low affinity approach.

TruGenomix Health

<https://www.trugenomix.com/>

TruGenomix Health is a precision genomics company, focused on developing a screening tool to identify patients with predisposition to trauma. Our patented biomarker technology will improve the standard of care, reduce cost and provide targeted treatment solutions for individuals exposed to a traumatic event. Currently, PTSD is a global health crisis that affects over 700 million people (10% of global population) and presents significant challenges with regards to diagnosis and treatment. This technology will provide clinicians with an objective test that empowers them to recommend more personalized treatment options.

Valley Fever Solutions

<http://valleyfeversolutions.com/>

Valley Fever Solutions (VFS) is a Phase IIa clinical stage company targeting the orphan disease coccidioidomycosis ("Valley Fever"). NikZ is a small molecule, NCE, novel MOA, fungicidal to an important class of fungi. OOPD, QIDP, LDAP. After considerable effort, we are now running large scale manufacturing (new patents!). With 80% of cases in only 3 US counties, trials and sales should be relatively inexpensive. We address an orphan patient population with no available therapies. This alone should net \$130M sales. Trial costs will be 20-30% of this. Expanded indications should reach the >\$800M peak sales of standard of care drugs.