



Beverly, Massachusetts www.adeptrix.com	<h2 style="margin: 0;">Adeptrix Corp</h2> <p style="margin: 0;">Research Tools</p>
--	--

Technology Name: Proteomic microarrays

Technology Description: In Life Sciences, there is a need for multiplexed assays capable of orthogonal detection of analytes by fluorescence and mass spectrometry. Such assays generate much greater information content than those based on a single detection platform. Specific applications include: Monitoring changes in cellular pathways between the healthy and disease states for cancer research Studies of enzymatic activity Identification of new drug candidates by combinatorial library screening. Adeptrix proprietary Bead Assisted Mass Spectrometry (BAMS) technology provides both the high throughput capability needed for screening applications and the detailed sample analysis in terms of specificity and quantification.

Company Description: Adeptrix Corp has developed and is commercializing a new biological microarray technology termed Bead-Assisted Mass Spectrometry (BAMS). Briefly, BAMS utilizes the power of MALDI mass spectrometry (MALDI MS) and fluorescence detection to measure multiplexed bead-based assays. BAMS is a versatile, open platform suitable for creating customized assays for genomics, proteomics and intact biological cell analysis. For proteomic applications BAMS eliminates the need for liquid chromatography separations. Our technology allows thousands of assays to be combined in one experiment and measured at the rate of up to 25 assays per second.

New York, New York www.aggamin.com	<h2 style="margin: 0;">Aggamin Pharmaceuticals, LLC</h2> <p style="margin: 0;">Medical Devices</p>
--	--

Technology Name: Biotherapeutics

Technology Description: Aggamin's product is proprietary extracorporeal immunoabsorption device (PE Device) to reduce two key anti-angiogenic proteins in preeclamptic patients. The PE Device is a single-use cartridge containing monoclonal antibodies immobilized to a solid matrix. In the PE Device therapy, blood from the patient is fractionated by the apheresis instrument to separate plasma from the cellular components. Next, preeclamptic plasma containing excess proteins elevated in patients are processed by the PE Device, and plasma with these proteins reduced to normal pregnancy levels is then recombined with cell components and returned to the patient.

Company Description: Aggamin is a bio-medical company founded in 2010 by a scientific and business team to develop and commercialize novel therapies for preeclampsia, a pregnancy-induced hypertensive disorder without a treatment. Preeclampsia is a leading cause of maternal and fetal morbidity and mortality and affects 3-8% of pregnancies with an annual cost of \$7 billions to the U.S healthcare system. Aggamin employs innovative and proprietary biotechnologies and low-risk platform strategies to accelerate drug development and commercialization paths. Our goal is to develop safe, novel, and proprietary target-based therapies to prolong pregnancy and improve patient health and quality of life.



<p>Lincoln, Nebraska airliftenvironmental.com</p>	<p>AirLift Environmental Environmental Technology</p>
<p>Technology Name: Environmental Remediation</p> <p>Technology Description: Clean water is one of the most basic societal needs in the world. Two of the biggest threats to groundwater quality in the U.S. are contamination from chlorinated solvents and petroleum. To address both problems, AirLift Environmental developed slow-release oxidant-paraffin candles that, when inserted into aquifers, slowly dissolve and degrades the contaminant. To prevent the oxidant from migrating downward, aeration tubes are used that release bubbles at the base of the candle, which prevents the oxidant from sinking while greatly facilitating its horizontal distribution. This developed innovation provides a long lasting, cost-effective and efficient technology to treat contaminated aquifers.</p> <p>Company Description: AirLift Environmental, LLC is a veteran-owned small business dedicated to developing and providing innovative and cost-effective solutions to remediating contaminated environments. AirLift was established in 2012 in Lincoln, NE and is owned by Mark Christenson and Steve Comfort.</p>	

<p>Woburn, Massachusetts www.aphios.com</p>	<p>Aphios Corporation Pharmaceuticals</p>
<p>Technology Name: Development of cGMP CBD</p> <p>Technology Description: The primary goal of this research program is to develop a process for manufacturing pharmaceutical grade CBD following cGMP of the US FDA for use in clinical trials for Multiple Sclerosis and other CNS disorders by the NIH, Aphios and other researchers. The availability of pharmaceutical-grade CBD and other cannabinoids such as 9-THC and CBG, manufactured following cGMP guidelines, will facilitate clinical evaluation by investigators and researchers on MS, childhood epilepsy, and other CNS disorders such as Parkinsons disease (PD), Alzheimers disease (AD), Traumatic Brain Injury (TBI), Post-Traumatic Stress Disorder (PTSD), addiction and glaucoma.</p> <p>Company Description: Aphios (www.aphios.com) is a clinical stage biotechnology company developing green enabling technology platforms to improve drug discovery, manufacturing, nanotechnology drug delivery and pathogenic safety, and enhanced therapeutics to improve quality-of-life and treat chronic diseases such as prostate and pancreatic cancer, infectious diseases such as HIV, and Central Nervous System disorders such as Alzheimers disease and Multiple Sclerosis in an environmentally sustainable manner.</p>	



Houston, Texas www.apocell.com	<h2 style="margin: 0;">ApoCell, Inc.</h2> <p style="margin: 0;">Diagnostics</p>
--	---

Technology Name: ApoStream

Technology Description: ApoStream is a proprietary device based on dielectrophoretic (DEP) field-flow assist for capture of rare circulating tumor cells (CTCs), exosomes and cfDNA from whole blood. DEP based technologies are advantageous for CTC and DNA isolation due to their antibody-independent capture of viable particles from a wide variety of cancers. ApoStream is the only DEP-based instrument available for commercialization on a global scale.

Company Description: ApoCell, Inc., is a privately-held specialty clinical research company spun-off from The University of Texas MD Anderson Cancer Center in Houston, TX. The company co-developed a proprietary, innovative technology, ApoStream, with the National Cancer Institute (NCI) to isolate rare circulating tumor cells (CTCs) from the blood of cancer patients. The ApoStream instrument has been shown to isolate various types of cancer cells from a wide variety of cancer patients. ApoStream isolated CTCs can be further characterized using a variety of molecular biology applications including immunophenotyping, targeted sequencing, NGS and FISH analysis for clinical diagnostic applications.

Woburn, Massachusetts	<h2 style="margin: 0;">Aquilus Pharmaceuticals, Inc.</h2> <p style="margin: 0;">Pharmaceuticals</p>
-----------------------	---

Technology Name: A dual active MMP-2/MMP-9 Inhibitor to treat Neuropathic Pain

Technology Description: What makes this technology a scientific innovation is that it provides the first-ever dual active Matrix Metalloproteinase 2/9 inhibitor therapy for general neuropathic pain. Aquilus Pharmaceuticals proprietary inhibitor affects a biological pathway that has never been tested clinically for neuropathic pain, and therefore would be first in class.

Company Description: Aquilus Pharmaceuticals is a biotechnology company specializing in the treatment and management of pain. The company will leverage its unique and proprietary platform of potent matrix metalloproteinase (MMP) inhibitors to develop medicines that will remove some of the root causes behind acute and chronic pain without the detrimental side-effects commonly found in many leading prescription pain medications.



Indianapolis, Indiana arrhythmotech.com	<h2 style="margin: 0;">Arrhythmotech</h2> <p style="margin: 0;">Medical Devices</p>
--	---

Technology Name: neuECG

Technology Description: The sympathetic nervous system (SNS) is part of the autonomic nervous system, which controls many of the autopilot and involuntary functions of the body. The SNS maintains homeostasis and triggers fight or flight response. Currently, to monitor SNS signals, a needle must be placed in the body. Enabling non-invasive monitoring using a simple ECG (electrocardiogram) pad will revolutionize the availability and utility of analyzing sympathetic nerve activity.

Company Description: The mission of Arrhythmotech (AMT) is to bring the power of sympathetic nervous system signal analysis into medical practice to empower new insights, tools, and improvements in patient care. The AMT platform is the first to measure and monitor sympathetic nervous system directly and non-invasively. The platform will be deployed 1) as a research tool in neurology, cardiology and other fields; 2) as a clinical tool monitoring sympathetic nervous activity as a novel biomarker for clinically significant events like cardiac arrhythmias; and 3) to directly monitor human performance in military and active wear.

Port St Lucie, Florida	<h2 style="margin: 0;">Assuage Pharmaceuticals, Inc</h2> <p style="margin: 0;">Pharmaceuticals</p>
------------------------	--

Technology Name: Development of smoking cessation medication

Technology Description: Assuage successfully developed a novel potential smoking cessation drug TPI-202, which selectively targets at the 42 nAChR receptor to help tobacco addicts quit smoking. TPI-202 represents a significantly improved drug for the treatment of smoking cessation with improved efficacy and minimal side effects, and a mechanism of action different than current smoking cessation medications. TPI-202 can significantly block nicotine self-administration, reduce nicotine-seeking behavior, and attenuate cue-induced reinstatement of nicotine seeking in rats. TPI-202, or our optimized lead compound, will be developed as a subcutaneous administered patch that can be administered daily and thus offers the potential of changing the treatment of smoking cessation without serious side effects.

Company Description: Assuage Pharmaceuticals, Inc. is a for-profit company focused on the development of novel treatments for addiction and pain management. Incorporated in Florida in 2012, Assuage Pharmaceuticals is a spinoff from the Torrey Pines Institute for Molecular Studies and has received funding from the National Institute on Drug Abuse within the National Institutes of Health to support its programs on identifying and developing new treatments which may prove useful for the treatment of tobacco addiction.



Durham, North Carolina www.baebies.com	<h2>Baebies, Inc.</h2> Medical Devices
--	--

Technology Name: Digital Microfluidics/Newborn Screening and Child Testing

Technology Description: We are developing a new digital microfluidic platform to automate different types of assays (immunoassays and functional assays) onto a single cartridge for near patient testing of single samples. This novel product will (i) minimize the volume of blood samples required to perform the hypercoagulability testing; (ii) reduce time-to-result and decrease clinical response time; and (iii) decrease the cost of testing by at least an order of magnitude. The final product will represent a streamlined approach to perform a comprehensive hypercoagulability panel using small volume of blood samples.

Company Description: Baebies was founded by Richard West and Vamsee Pamula, following the successful development of digital microfluidics technology, the development and launch of multiple products, and the sale of Advanced Liquid Logic to Illumina, Inc. Baebies has licensed its core technology and built a seasoned management and technical team to pursue opportunities in newborn screening and pediatric testing. Baebies mission is to save lives and make lives better for millions of children by bringing new technologies, new tests and new hope to parents and healthcare professionals worldwide. We are guided by a vision that every pediatric patient deserves a healthy life.

Coralville, Iowa www.bdmethylation.com	<h2>Behavioral Diagnostics, LLC</h2> Diagnostics
--	--

Technology Name: Epigenetic Diagnostics

Technology Description: Current substance use assessment methods are insensitive, non-specific, and often obfuscated by simple tricks. We have developed and patented a series of DNA methylation based methods of assessing substance use that is sensitive and specific, highly quantitative, and cannot be obfuscated by any known method. They will find wide spread applications in medical (substance use assessment and treatment/prevention), commercial (employee screening) and insurance industries.

Company Description: The focus of Behavioral Diagnostic Incorporated (BDI) is the development and provision of epigenetic diagnostic technologies for the research, civil, forensic, governmental and clinical markets. Our short term goal, which is already being fulfilled, is the introduction of these diagnostic tests for the research markets. Our intermediate term goal is the introduction of these test to the clinical market and oversee their implementation in a broad swath of healthcare settings. Our long term goal is to couple these technologies to other processes to provide more effective healthcare solutions.



<p>Manassas, Virginia www.bententech.com</p>	<p>Benten Technologies Inc Software and Apps</p>
<p>Technology Name: mOQOLD</p> <p>Technology Description: The mobile health (mHealth) solution provides for the management and care of patients with mild to severe dementia in long term care settings including adult day care, assisted living, and skilled nursing facilities to provide quality of care and quality of life programs and services for people in those facilities.</p> <p>Company Description: Benten Technologies is a small, minority owned business focused on developing health and safety solutions. Our mission is based on our tagline of "Do. Better. Wow!" We want to always Do Right, Do Agile, and Do R&D in order to get Better Outcomes, Better Innovations and a Better World. In the end, we want people to look at Benten Technologies and the products and services we are providing and say "Wow!", they are doing Work that Overcomes the World's problems.</p>	

<p>St. Louis, Missouri www.biorankings.com</p>	<p>BioRankings aka William D Shannon Consulting LLC Healthcare IT/Research Tools</p>
<p>Technology Name: Biostatistics/Translational Research Big Data</p> <p>Technology Description: The direct outcome of this program is an analytical software platform for fMRI (brain imaging) connectome data for translational clinical research. The platform will be accessed through cloud-based Software as a Service (SaaS) contracts, and will give the user ability to upload their data and run software modules provided in our analytics suite. This technology enables modules to be added as developed and validated. Each of these modules has the potential to make a significant impact on brain disorder drug development R&D and FDA approval.</p> <p>Company Description: The mission of BioRankings is to help our clients focus on the statistical factors in their research, to analyze their data using the best existing methods for the type of data generated, and develop new methods for their unique data analysis challenges.</p>	

<p>Altadena, California www.bluemarblegameco.com</p>	<p>Blue Marble Rehab inc., dba Blue Marble Health Healthcare IT</p>
<p>Technology Name: Health in Motion</p>	



Technology Description: Health in Motion offers a telemedical self-management tool for older adults and those living with chronic disease who are at risk for falls. The software platform captures data from the older adult in their home, at the clinic or a senior center. The data dashboard (web app) visualizes the data for use by healthcare systems, care providers, senior centers, payors, and caregivers. Health in Motion is one technology offered by Blue Marble. We also offer a similar solution for cognitive function.

Company Description: Blue Marble Health develops telehealth solutions self-management tools for seniors and those living with chronic disease. Our software platform tracks cognitive function, balance and fall risk. Reports support exception-based utilization management. Research outcomes demonstrated reduced fall risk and improved the quality of life.

Allston, Massachusetts www.bluetherapeutics.com	<h2>Blue Therapeutics</h2> Pharmaceuticals
--	--

Technology Name: Pain relief without addiction

Technology Description: Blue Therapeutics is advancing a novel strategy to develop analgesics that are devoid of the opioid side effects by targeting GPCR heteromers. A high-throughput screening and directed SAR approach led to the discovery of Blues lead molecule, Blue181. Blue181 is a first-in-class ligand that selectively activates a specific opioid receptor heteromer that leads to potent antinociception without physical dependence or abuse potential, and much reduced tolerance. This beneficial pharmacology opens the door to more innovation and our strategy has the potential to disrupt the current opioid pain market.

Company Description: Blue Therapeutics is advancing a novel strategy to develop analgesics that are devoid of the opioid side effects by targeting opioid receptor heteromers. Blue's lead molecule has 50x greater analgesic potency than morphine in vivo and lacks physical dependence, tolerance, and the induction of reward seeking behavior in standard mouse models.

Simi Valley, California www.brainimageanalysis.com	<h2>Brain Image Analysis, LLC</h2> Medical Devices
---	--

Technology Name: NeuroAnalytica

Technology Description: NeuroAnalytica is our Linux-based image analysis suite designed for use in clinical trials in Alzheimers disease. It incorporates high-performance structural segmentation with regional measurements of PET, white matter hyperintensities, and highly accurate hippocampal subfield segmentations. In addition NeuroAnalytica



processes ASL, a non-PET alternative for assessment of brain blood flow. The suite is highly customizable for clients specific needs, and can easily be trained for nonstandard MRI sequences and imaging modalities. NeuroAnalytica can be run as a standalone application for batch processing or integrated into a clients platform for high-speed processing of clinical trials data, allowing near real-time availability of data.

Company Description: Develop software for analysis of brain MRI, PET, etc.

<p>New York, New York www.canopyapps.com</p>	<p>Canopy Innovations, Inc. aka Transcendent International, LLC. Healthcare IT</p>
<p>Technology Name: Language Barriers in Healthcare</p> <p>Technology Description: Canopy Learn - the most widely used medical language e-learning platform for providers to develop essential skills in medical Spanish, so they can better communicate with and serve their language-minority patients. Canopy Speak - the largest corpus of translated medical phrases ever created (4,700+ audio-enabled phrases across 15 languages) these mobile apps aide providers in communicating with LEP patients at the point-of-care, and connect directly to live interpreters as need be. Canopy Connect - a Language Bank 2.0 enabling clinicians to instantaneously connect with qualified bilingual interpreters and allow hospitals to deploy and track their existing multilingual personnel more efficiently.</p> <p>Company Description: Canopy Innovations, Inc. is a disruptive digital health company that is transforming the way our healthcare system communicates with underserved patients. The language barrier undermines quality of care for the ~30 million patients who have limited-English proficiency, and creates enormous workflow and financial constraints to the health delivery organizations that serve them. Canopy is tackling these challenges through a portfolio of innovative tools that empower clinicians to acquire specialized medical language skills, communicate with patients across languages at the point of care, Chief Operating Officer rdinate real-time access to live interpreters, and optimize financial management and utilization of existing language resources.</p>	

<p>Chapel Hill, North Carolina</p>	<p>Capture Pharmaceutical Inc. (Bioceutics) Pharmaceuticals</p>
<p>Technology Name: Chelation drug to treat multiple indications such as internal radiation exposure from a dirty bomb</p> <p>Technology Description: Capture Pharmaceutical Inc. has discovered and patented a new orally administered agent (C2E2) that is capable of chelating transuranic elements (e.g., Am, Cm and Pu) and heavy metals (e.g., gadolinium, lead, mercury). The compound is designed to treat individuals with internal radiation exposure associated with a dirty bomb</p>	



explosion or individuals with toxic levels of gadolinium (associated with medical procedures), lead (from environmental sources) and mercury (from environmental sources). The C2E2 molecule has significant advantages over currently available therapies.

Company Description: Capture Pharmaceuticals Inc. is a small business that was established to be the commercial enterprise through which an Investigational New Drug (IND) application would be submitted to the FDA for its lead compound (C2E2), and as a small business entity eligible for SBIR and STTR funding. The company was founded in 2009 by the inventors of the original oral radionuclide decorporation technology, Drs. Michael Jay and Russell Mumper.

<p>Oklahoma City, Oklahoma www.coarebiotechnology.com</p>	<p>COARE Biotechnology Biotechnology for Healthcare</p>
---	--

Technology Name: Cancer Stem Cells

Technology Description: We are developing drugs that specifically eliminate CSCs in pancreatic cancer tumors by blocking their entry into the bloodstream and preventing their uptake at distant sites. Our strategy is to attack the cells that start the cancer: these are also the most resistant to existing therapies. This approach has the advantage of eliminating not only tumor-based cancer cells, but also cancer cells circulating in the bloodstream.

Company Description: COARE Biotechnology is an Oklahoma City-based biotechnology company whose mission is to discover and commercialize drugs against pancreatic cancer and other solid tumors by targeting CSCs. The company was founded in 2010 around technology developed in Dr. Courtney Houchen's lab at the University of Oklahoma Health Sciences Center (OUHSC), and licensed to COARE

<p>Chelsea, Massachusetts www.corticometrics.com</p>	<p>CorticoMetrics LLC Medical Devices</p>
--	--

Technology Name: MRI quantitative neuroimaging

Technology Description: CorticoMetrics is working to bring the cutting-edge automated brain morphometry tool, called FreeSurfer, originally developed at MGH, into direct clinical care. The core platform (the basis of applications targeting a number of neurological disorders and diseases), automatically constructs, from T1-weighted MRI brain scans, models of the boundary between white and gray matter as well as the pial surface. Once these surfaces are known, an array of anatomical measures are generated, including: cortical thickness, surface area, curvature, and surface normal at each point on the cortex, as well as the volume of major subcortical and ventricular structures.



Company Description: CorticoMetrics, LLC (CorticoMetrics) is a neuroscience-focused company developing software to aid neuroradiologists and clinicians in the detection and staging of neurological disorders. Computational neuroimaging technology, originally developed at the Massachusetts General Hospital, identifies and quantifies critical brain structures with a high degree of precision and reproducibility from structural magnetic resonance images (MRI). These quantitative neuroimaging biomarkers can be used in clinical settings with a goal of reducing false negatives and/or increasing examination throughput, as well as in clinical drug trials providing a noninvasive method for characterizing the clinical trial sample population and their therapy responses.

Durham, North Carolina www.cytextherapeutics.com	<h2>Cytex Therapeutics, Inc.</h2> <p>Medical Devices</p>
--	--

Technology Name: Cartilage Resurfacing

Technology Description: The cornerstone of Cytex's joint resurfacing technology is a moldable, three-dimensional textile scaffold engineered with mechanical properties that mimic those of healthy articular cartilage. The scaffold provides a load-bearing surface with cartilage-like properties that functions immediately after implantation, while inducing the patient's own cells to regenerate the native tissues long-term. Flexibility in the manufacturing process (e.g., varying fiber composition, weaving parameters, and anatomical shape) allows broad applicability and customization. Cytex's first generation product focuses on an implant that can resurface large areas of the hip joint. Other products in development include implants for knee and shoulder cartilage and tendon repair.

Company Description: Cytex's mission is to apply leading edge tissue engineering technologies to innovative products designed to alleviate the pain of millions worldwide who suffer from damaged cartilage and osteoarthritis. Cytex Therapeutics was founded in 2006 after Dr. Farsh Guilak submitted a business plan based on research being conducted in his lab to the Duke StartUp Challenge contest. After winning first place, kickstart funding was awarded. The Cytex business plan went on to win numerous national and international awards, while Cytex's core technology has been awarded over \$6 million in local, state, and federal grants due to its innovation and commercial promise.

Ann Arbor, Michigan www.diapin.com	<h2>Diapin Therapeutics LLC</h2> <p>Pharmaceuticals</p>
---	---

Technology Name: Therapeutic Agent for Type 2 Diabetes

Technology Description: The product being developed is DT-110, a tripeptide as an oral therapeutic agent for treatment of type 2 diabetes (T2D). The technology innovation is that DT-110 activates a novel G-protein coupled receptor, the signaling pathway of which has not been previously linked to metabolic diseases. Since activation of this new target has



been shown to play a protective role in cardiovascular system, DT-110 is potentially a first anti-diabetes drug that can not only lower the blood glucose levels but also minimize the risk of cardiovascular diseases associated with T2D.

Company Description: Diapin Therapeutics LLC is a preclinical development-stage company developing novel therapies for treatment of metabolic diseases and related complications.

<p>Lebanon, New Hampshire www.doseoptics.com</p>	<p>DoseOptics, LLC Medical Devices</p>
<p>Technology Name: Medical Imaging</p> <p>Technology Description: When patients are treated with external beam radiation therapy, there is an phenomenon known as Cherenkov radiation that is emitted as visible light. DoseOptics has developed a camera sensitive enough to capture the Cherenkov light. From these images, physicians and medical physicists are able to see where the radiation beam enters and exits the patient. These images, when compared to the expected treatment plan, allow for routine, real-time visualization and verification of the treatment. Currently, verification is done with indirect and time consuming techniques on a periodic basis or not at all.</p> <p>Company Description: DoseOptics is developing camera systems capable of directly imaging radiation beams incident upon a patient's tissue in real-time. Radiation therapy is known today as a "blind" procedure. The newly developed patent pending technology allows clinical teams, for the first time, to visually verify each and every radiation therapy treatment. By providing a way to see radiation like never before, DoseOptics hopes to arm clinicians with a tool capable of reducing misadministration events, improving treatment outcomes, and saving lives.</p>	

<p>Brooklyn, New York epibone.com</p>	<p>EpiBone Inc. Biotechnology for Healthcare</p>
<p>Technology Name: Bone Tissue Engineering</p> <p>Technology Description: EpiBone developed a proprietary technology facilitating maturation of anatomically shaped bone grafts. At a local hospital, the patient undergoes a CT scan and a minimally-invasive procedure of harvesting a fat aspirate. The CT data and aspirate are sent to the EpiBone facility where the scaffold and bioreactor are manufactured from the CT data and stem cells are isolated from the tissue harvest. Then, a living, anatomically precise and patient-specific graft is generated. In two distinct large-animal studies, our product demonstrated improved performance when compared to current standards of treatment by providing high geometric fidelity, better tissue integration and regeneration.</p>	



Company Description: EpiBone is a company engineering living, anatomically precise, functional skeletal grafts from autologous stem cells. Our goal is to produce tissue substitutes capable of revolutionizing the current practice in skeletal reconstruction. Thus far we have focused on the development of anatomically precise, stem cell-infused bone grafts for use in complex craniomaxillofacial (CMF) reconstructions. In studies conducted over the last 15 years, we developed technologies for engineering living bone grafts by 3-5 weeks of bioreactor cultivation of mesenchymal cells in decellularized bone scaffolds. These grafts markedly improved regeneration of the zygomatic arch and temporomandibular joint and ramus in skeletally mature minipigs.

Vista, California	Farus, LLC Medical Devices
-------------------	--------------------------------------

Technology Name: Wearable Cardiotocography System

Technology Description: Farus developed an improved CTG system featuring wearable US and TOCO devices, which are soft, conformal, adhere to the skin, and have wireless and belt-free operation. Wireless telemetry and adhesion to the body makes the devices completely portable and improve patient mobility. The system reduces the need for chronic repositioning of the US and TOCO, decreases the rate at which alarms are activated by false data or interference, and encourages freedom of maternal movement. This is one of the technology offerings by Farus. These innovations provide significant improvement over existing rigid and hard-wired devices, improving patient and staff care.

Company Description: Farus's vision is to develop medical breakthroughs by uniquely applying technologies. Farus works with partners, including leading clinicians, university collaborators, the military, and life science companies to streamline product development for the commercialization of medical devices that fundamentally improve healthcare outcomes. Farus is currently expanding into small-scale medical device manufacturing, and partners with others for large-scale manufacturing as well as for sales and marketing. The goal is to establish an initial business proof of concept for each of the devices it develops. With the business proof of concept established, Farus then looks to spin-off or acquisition of the technology.

Doylestown, Pennsylvania http://fc-cdci.com	Fox Chase Chemical Diversity Center, Inc. Pharmaceuticals
---	---

Technology Name: Small-molecule anti-fungal therapy to treat invasive candidiasis

Technology Description: FCCDCI has discovered a series of small molecule nonpeptide molecules for a topical, fungicidal treatment for oral candidiasis. Our results demonstrated the potent broad spectrum, anti-resistant activity of several



classes of these compounds against Candida, including *C. albicans* and non-*albicans* species in both planktonic and biofilm forms.

Company Description: FCCDCI is a translational biomedical research company with a core competency in medicinal chemistry, in creating new intellectual property. About 55% of the company revenues are from non-dilutive small business grants from the NIH, and the rest are from contract research arrangements with medium- to small-biotechnology companies and academic institutions. Our first Phase II SBIR has resulted in a co-development agreement with another company, from which there is currently a compound in Phase I clinical trials. We have onsite, free access to ~25,000 reagents, with two NMRs, 4 LC/MSs, and standard equipment in medicinal chemistry and drug discovery.

<p>Minnetonka, Minnesota www.genesegues.com</p>	<p>GeneSegues Therapeutics Biotechnology for Healthcare</p>
<p>Technology Name: Biologics/Drug delivery platform technology</p> <p>Technology Description: The goal of our current SBIR project is to advance GS-10, our novel therapeutic, for regional and metastatic cancer toward filing of an Investigational New Drug application. Further, GeneSegues' core Crystallized Ultra-Small Particle (CUSP) nanocapsule technology, which has been developed to delivery virtually any nucleic acid cargo, will partnered with other pharma partners to develop strategic relationships to advance their therapeutic work through advanced delivery capability. We believe GeneSegues is the first to bridge key aspects of viral and non-viral nanoparticle delivery in a non-viral -- yet, viral like -- delivery technology.</p> <p>Company Description: GeneSegues invented a proprietary Crystallized Ultra- Small Particle drug delivery technology that takes RNA-based drugs – right to their target. We are can delivery any nucleic acid and seek to deliver breakthrough therapies, to the most challenging targets to help stop, and potentially defeat cancer and other challenging diseases.</p>	

<p>Salt Lake City, Utah www.glycomira.com</p>	<p>GlycoMira Therapeutics, Inc. Pharmaceuticals</p>
<p>Technology Name: Glycosaminoglycans to treat oral mucositis</p> <p>Technology Description: GM-1111, is a synthetic polysaccharide which has demonstrated utility in a number of disease models to effectively and safely prevent inflammation. However, unlike most anti-inflammatory drugs, GM-1111 blocks multiple factors in inflammation and is therefore better suited to be an effective therapeutic for oral inflammatory diseases.</p>	



Company Description: GlycoMira Therapeutics is developing GM-1111, a synthetic glycosaminoglycan to treat oral mucositis, a disease that lacks effective treatment.

West Palm Beach, Florida www.hdox.com	<h2>H-DOX</h2> Healthcare IT
--	------------------------------

Technology Name: DATA ACQUISITION AND COMPLETION ENGINE

Technology Description: Existing data warehouse and big data solutions in healthcare lack the metadata framework, business rules layers, and data transformers required for reducing the time and cost associated with data analytics and data mining projects. By simplifying data acquisition and storage, DACE enables healthcare organizations to both rapidly and cost-effectively adopt a data-driven strategy.

Company Description: H-DOX offers a single cohesive platform that reduces the cost and complexity of aggregating, structuring, storing, validating, and transporting heterogeneous healthcare data. Our technology provides a robust foundation for healthcare enterprises to run analytics applications and reduces double data entry.

Healdsburg, California hemotekmedical.com	<h2>Hemotek Medical Inc.</h2> Medical Devices
--	---

Technology Name: V-Needle

Technology Description: The V-Needle provides inherent protection from needle access disconnect without the extensive cost and requirements of competing technologies.

Company Description: Hemotek Medical Inc. was founded by biomedical engineers to create elegant and efficient solutions to critical problems in health care delivery. The founders are a former professor of biomedical engineering, a former medical device systems engineer and a urological surgeon. Their first product is a revolutionary approach to dialysis safety.



Seattle, Washington	<h2 style="margin: 0;">ID Genomics, Inc.</h2> <p style="margin: 0;">Diagnostics</p>
---------------------	---

Technology Name: Precision diagnostics to guide antibiotic prescriptions.

Technology Description: ID Genomics, Inc. (IDG), is developing precision diagnostic tests to guide antibiotic choices in less than 30 minutes. Millions of disease-causing bacterial strains can be simplified into a handful of genetically homogeneous crime families, each with distinct responses to antibiotics. IDGs diagnostic tool CLoNeT identifies proprietary genomic barcodes to identify these families using only a few genetic targets. Our reference metadata biorepository, BactNet, links these barcodes to responses to commonly used antibiotics and other clinical metadata. BactNet is a cutting edge tool for real-time epidemiological surveillance, allowing clinicians to pinpoint resistance outbreaks and improving antibiotic stewardship in the community.

Company Description: To combat antibiotic resistant infections, ID Genomics Inc. is developing diagnostic tools that guide antibiotic prescriptions in the clinic in less than thirty minutes. Our diagnostics consist of two complementary components, CLoNeT and BactNet, which combine culture-independent molecular diagnostics with epidemiological surveillance. Our pilot diagnostic has been developed for urinary tract infections and evaluated successfully in observational clinical trials in the urgent care setting at the Group Health Chief Operating Officerperative, Seattles largest HMO. We have eight clinical partners in the U.S., with interest from others in Asia, Europe, and Africa.

Drexel, Missouri innovaprep.com	<h2 style="margin: 0;">InnovaPrep</h2> <p style="margin: 0;">Research Tools</p>
--	---

Technology Name: Concentrating Pipette for BioPharma Applications

Technology Description: The Concentrating Pipette is a small benchtop instrument used for rapidly concentrating bacteria, viruses, and other contaminants from liquids. The technology is based on filtration and a patented process termed 'wet foam elution'. For filtration, the device utilizes single-use pipette tips that contain membrane filters with a large surface area. Elution of the filters is achieved by the release a small volume of carbonated fluid from an on-board canister. The expansion of the fluid to foam allows efficient recovery of the captured particles into a micro-liter volume of clean buffer in seconds for direct detection with rapid microbial methods (RMMs).

Company Description: InnovaPrep is engaged in product development, sales, and out-licensing of a collection of novel tools for modern microbiology. InnovaPrep products provide the critical macro-to-micro interface™ between real world samples and the input volumes of modern molecular methods for analysis. InnovaPrep tools increase sensitivity and enable a faster, easier, and more efficient means of delivering the most highly concentrated sample possible for subsequent analysis. Our 23 pending and awarded patents apply to highly efficient collection and concentration of biological particles from air, surfaces, and liquids. InnovaPrep's Wet Foam Elution™ process underlies many of these patents and enables instant recovery of particles from filters, membranes, surfaces, and objects. The primary utility for



these technologies is to greatly improve the way biological samples, especially dilute samples, are collected and prepared for analysis. Specifically, these technologies allow the most advanced biological detection systems to contribute their full potential.

<p>Ypsilanti, Michigan www.mems-iss.com</p>	<h2 style="text-align: center;">Integrated Sensing Systems Incorporated</h2> <p style="text-align: center;">Medical Devices</p>
<p>Technology Name: Wireless Implantable Hemodynamic Monitoring Systems</p> <p>Technology Description: ISS is developing wireless implantable hemodynamic monitoring systems for chronic tailored treatment of many life-threatening diseases through long-term and continuous monitoring of critical bio-pressure waveforms in various organs. The aim of this SBIR Phase II project was to develop this system for patients with functional single ventricle congenital heart disease. The system consists of a miniature pressure-sensing implant and a companion hand-held readout unit (ROU). The implant contains a MEMS pressure sensor, custom electronics, and a telemetry antenna. Using magnetic telemetry, the ROU transmits power to the implant and the sensed pressure is transmitted back to the ROU.</p> <p>Company Description: Integrated Sensing Systems (ISS), Inc., is a leader in advanced MEMS technologies for design and manufacturing of medical devices. Founded in 1995, ISS is one of the oldest independent medical MEMS companies in the United States. ISS operates a comprehensive, state-of-the-art MEMS fabrication facility located near Ann Arbor, Michigan. ISS is currently certified for ISO 9001:2008, EN13980:2002 for ATEX (intrinsically safe products), and ISO13485:2003 for Class III medical devices. ISS is a vertically integrated company, dedicated to developing and manufacturing system-level products based on MEMS technology (MEMS Inside),</p>	

<p>Angleton, Texas</p>	<h2 style="text-align: center;">IsoTherapeutics Group LLC</h2> <p style="text-align: center;">Pharmaceuticals</p>
<p>Technology Name: CycloSam Sm-153 DOTMP</p> <p>Technology Description: CycloSam is a bone-seeking radiopharmaceutical that consists of a radionuclide, samarium-153 and a phosphonic acid chelant, DOTMP. ITG plans to manufacture and supply DOTMP kits to radiopharmacies. Sm-153 is added to a kit to make a patient dose as prescribed by a physician. The formulation uses readily available low specific-activity Sm-153 which enables compounding and treatment any day of the week. We have repeatedly and consistently produced batches of kits in our cGMP facility. We are collaborating with two institutions on INDs: MD Anderson Cancer Center (Phase 0 dosimetry trial) and Johns Hopkins (Phase I/II high-risk osteosarcoma trial).</p>	



Company Description: IsoTherapeutics Group LLC (ITG) is a radiopharmaceutical research and development company founded in 2005 which specializes in therapeutic radiopharmaceuticals. It both develops its own products and consults with biotechnology or pharmaceutical companies in the development of their products. It is a privately held company that is healthy and is growing steadily. ITG opened its registered cGMP manufacturing facility in June, 2011. ITG is currently working on over ten agents either as inventors or consultants. ITG collaborates with industrial and academic partners to extend its reach, as demonstrated by the team that we have assembled to develop CycloSam.

New Orleans, Louisiana	<h2>LaCell LLC</h2> <p>Biotechnology for Healthcare</p>
------------------------	---

Technology Name: Adipose stromal/stem cells to treat pressure ulcers

Technology Description: Under a Phase I SBIR from NIA, LaCell demonstrated the feasibility of using murine adipose-derived stromal/stem cells (ASC) to accelerate recovery of a murine pressure ulcer model. The company will continue to advance this technology by demonstrating that human primary adipose-derived cells, either uncultured (i.e., stromal vascular fraction or SVF cells) or culture expanded ASC can be used to enhance the quality of skin regeneration and accelerate healing in a pressure ulcer. LaCell will work closely with Tissue Genesis which has developed a closed system for SVF cell isolation at point of care with FDA approval for clinical trials.

Company Description: LaCell is a biotech company focusing on the use of human adipose-derived cells for discovery research and clinical translation in the fields of metabolism, obesity, and regenerative medicine. The company founders are former academicians and committed to providing academic and biotech investigators with access to affordable quality assured and controlled human primary cells to promote innovation and discovery. Additionally, LaCell provides contract research and consulting within its area of expertise and pursues federal funding for discovery research projects leading to novel intellectual property and products with clinical translational potential.

Rochester, New York www.lumetrics.com	<h2>Lumetrics</h2> <p>Medical Devices</p>
---	---

Technology Name: Ultra-compact retinal camera

Technology Description: The core innovation of QuickPic is the automated method of acquiring fundus images while continuously scanning focus; QuickPic then identifies and saves the best in-focus images using on-board digital image processing. This requires no user focusing and is faster and more accurate than auto-focusing, with less hardware. The



on-board image-quality-assessment algorithms provide immediate auditory feedback to the user once an acceptable image has been captured. The entire examination process takes only seconds, minimizing patient discomfort.

Company Description: The company has been founded for the purpose of commercializing the Quickpic, the ultra-compact pen-sized retinal camera. Most of the development work has been conducted at Lumetrics, which was also the recipient of the associated SBIR funding. All the IP has been transferred to the Accuret via an exclusive license agreement.

St. Louis, Missouri	<h2>MedSocket of Missouri Inc.</h2> <p>Healthcare IT</p>
<p>Technology Name: 1-Search</p> <p>Technology Description: 1-Search is one technology MedSocket provides. It is an innovative information retrieval system that leverages patented features to meet diverse information needs that arise during the clinical workflow.</p> <p>Company Description: MedSocket of Missouri, Inc., is dedicated to suit the growing need of healthcare systems by providing customized quick access clinical decision support information at the point of care and patient education products for reducing re-admissions and improving outcomes.</p>	

Evanston, Illinois	<h2>NanoCytomics LLC</h2> <p>Diagnostics</p>
<p>Technology Name: Diagnostics/Early cancer screening</p> <p>Technology Description: NanoCytomics proprietary, automated technology platform, PWS Nanocytology, examines cells at the nanoscale level, where mutations and cellular changes can be detected long before they are evident at the microscopic level. PWS-based tests detect field carcinogenesis (aka, field effect, fertile field, field of injury), the condition necessary for cancer to evolve, making it an important and clinically significant biomarker. If found early enough, pre-cancerous or cancerous lesions can be removed to prevent future malignancies.</p> <p>Company Description: NanoCytomics LLC is a medical diagnostic company that is developing a low-cost, minimally invasive and highly sensitive early screening test for different types of cancers including lung and colon cancer. The test is simple enough to be performed in a primary care office without any extensive preparation. The test is based on a proprietary platform technology called PWS Nanocytology that is licensed from Northwestern University. We plan to launch our first lung cancer pre-screening test in 2017 followed by the colon cancer test in 2018.</p>	



Salt Lake City, Utah	<h2 style="text-align: center;">Nanoshell Company</h2> <p style="text-align: center;">Medical Devices</p>
<p>Technology Name: Nanotechnology for Blood Purification</p> <p>Technology Description: FastReact is an extracorporeal system that utilizes innovative nanotechnology and fluidics to continuously recover targeted substances in biofluids. Many high value, and potentially therapeutic molecules are unavailable due to high process costs. Clinical therapies and drug development benefit from the acquisition of selected substances from complex biological fluids. FastReact offers selectivity, reduced costs, and simplified procedures. It can be used aseptically during blood donation or in industrial labs to process plasma once cells and platelets are recovered. Costs for handling/transport of plasma fractions can be reduced, and multiple materials can be isolated simultaneously with less intervention by lab personnel.</p> <p>Company Description: Nanoshell Company is a developer of unique functional nanotechnologies and supporting devices for medical, industrial, and cosmeceutical uses.</p>	

Pasadena, California	<h2 style="text-align: center;">Neumedicines Inc.</h2> <p style="text-align: center;">Biotechnology for Healthcare</p>
<p>Technology Name: rHuIL-12 as an Immunotherapy and Radiomitigator for CTCL Patients Receiving Radiotherapy</p> <p>Technology Description: Our technology is a novel approach to improve efficacy and safety outcomes of CTCL therapy. The combination of potent tumor-killing agent (radiation) and an immune and radiation toxicity modifier, namely NM-IL-12, will lead to cancer cell killing and simultaneously convert the malignant cells into a highly potent patient-specific immunogen capable of inducing innate, adaptive, and tumor-specific memory immune responses. NM-IL-12 also holds considerable promise as an immunotherapy because of its central role in linking and regulating both innate and adaptive immune responses. Its promise is substantiated by NCI as a priority agent, being ranked third from twenty other cancer therapies.</p> <p>Company Description: Neumedicines Inc. is a privately held, clinical stage, biotechnology company developing protein therapeutics that address unmet clinical and societal needs in the areas of Oncology, Radiomitigation & Infectious Disease. NM-IL-12 (aka HemaMax, and recombinant human interleukin-12 or rHuIL-12), the company's lead product in development, targets multiple pathways of innate and adaptive immunity, as well as hematopoiesis, and is being developed to address a range of clinical indications. At Neumedicines, we are committed to maximizing the scientific, clinical, and commercial potential of NM-IL-12.</p>	



Los Angeles, California	<h2 style="margin: 0;">NeuroSigma, Inc.</h2> <p style="margin: 0;">Medical Devices</p>
-------------------------	--

Technology Name: Neurostimulation and Neurovascular Technologies

Technology Description: Thin Film Nitinol is an innovative biomaterial fabricated via a silicon wafer-based process adapted from the electronics industry. Using these techniques, NeuroSigma is able to produce thin film structures with feature sizes on the single micrometer scale. Extensive preclinical testing of medical devices incorporating thin film technology has demonstrated unique physical and biological properties unmatched by competing products. Importantly, NeuroSigma has shown that its Thin Film Micromesh facilitates rapid tissue in-growth and reconstruction of anatomic defects, suggesting there are a large number of applications for this technology throughout the body.

Company Description: NeuroSigma is commercializing medical devices based on its Thin Film Nitinol technology platform, with the lead Thin Film product being a flow diverting stent for treating intracranial aneurysms. Results from preclinical testing of the Thin Film Flow Diverter suggest that this unique device has significant advantages over competing products. Confirmation of these results in clinical trials could establish the Thin Film Flow Diverter as a market leader in this rapidly growing space. NeuroSigma is preparing the Thin Film Flow Diverter for a clinical study in 2017 followed by commercialization in the European Union.

Skokie, Illinois	<h2 style="margin: 0;">Norfolk Medical/Cell-Safe Life Sciences LLC</h2> <p style="margin: 0;">Medical Devices</p>
------------------	---

Technology Name: An Ultra filtrate perfusion bio artificial pancreas for high-density islet replacement without immunosuppression

Technology Description: The Cell-Safe System is an implanted macro-encapsulation system, a fundamentally new approach in the replacement of dysfunctional cells, such as the insulin producing Islet Cells in the Type-1 Diabetes (T1D) patient. This is accomplished via transplantation and isolation of new cells, either allogeneic or xenogeneic cells, embedded in a highly compatible bioengineered perfusion system, subjected to a continuous supply of native tissue fluid, allowing for immuno-protection and optimal oxygen, nutrient, and waste exchange. Simply put, the Cell-Safe is a totally implanted, self-reliant system capable of producing enough insulin to allow a diabetic patient to no longer require exogenous insulin.

Company Description: Cell-Safe Life Sciences is a spin-off of technology created at Norfolk Medical. Norfolk Medical was founded in 1981 and is an FDA Approved and ISO 13485 certified, privately held medical device company focused on the design and manufacturing of products for the human market and animal research community. Cell-Safe Life Sciences, LLC develops and manufactures implantable macro-encapsulation systems used in the replacement of dysfunctional cells.



<p>Research Triangle Park, North Carolina</p>	<p style="text-align: center;">NovaTarg Therapeutics Pharmaceuticals</p>
<p>Technology Name: Transporter Dependent Drug Discovery</p> <p>Technology Description: NovaTarg has a novel approach to the discovery of tissue selective AMPK activators useful for the treatment of metabolic diseases and cancer. AMPK is a central regulator of energy utilization in cells, its activation reduces levels of glucose and lipid while also inhibiting cell proliferation and protein synthesis. By modifying known AMPK activators so that they enter cells by specific transporters we have been able to target drugs in a tissue selective fashion. This work has led to the discovery of NT1195, a potent and selective AMPK activator for the treatment of type 2 diabetes.</p> <p>Company Description: NovaTarg is a drug discovery and development company focused on innovative medicines to treat metabolic diseases and cancer. NovaTarg has identified its first drug candidate for type 2 diabetes which will enter preclinical development during 4Q16.</p>	

<p>Greenville, South Carolina</p>	<p style="text-align: center;">NUBAD LLC Research Tools</p>
<p>Technology Name: RNA targeted drugs</p> <p>Technology Description: NUBAD has developed assays and small molecules that selectively bind to functional sites in nucleic acid targets, such as DNA or RNA, implicated in human disease. NUBAD, LLC has recently been issued 2 patents for this technology and owns the complete rights to such-high throughput probing of DNA and RNA binding sites.</p> <p>Company Description: NUBAD develops novel probes, assays and small molecule therapeutics targeting RNA and DNA structures identified as targets in human disease. As new genomic targets are constantly identified, NUBADs technologies will assist discovery of DNA and RNA targeted small molecule drugs.</p>	

<p>Vancouver, Washington www.4saliva.com</p>	<p style="text-align: center;">Oasis Diagnostics Corporation Diagnostics</p>
<p>Technology Name: VerOFy Rapid Saliva Point-of-Care Technology for Cortisol Quantification</p>	



Technology Description: The technology we have developed is a rapid saliva testing platform technology for the quantification of levels of the hormone cortisol in saliva specimens, providing immediate results [in 20 minutes] at the point-of-care. The technology comprises three elements- standardized saliva collection using the Oasis SuperSAL Extra Collection Device, a rapid lateral flow test system [VerOFy] and a reading device. LIAM that provides a readout of results that can be transmitted to a smart phone via Bluetooth on board

Company Description: Oasis Diagnostics is a pioneer in the development and commercialization of tools for the standardized collection of saliva specimens and the subsequent testing of such specimens. Current devices includes devices for collection of RNA, DNA, proteins, bacteria, viruses, drugs of abuse and hormones from saliva. Devices also include specialized tools for infants and small and large animals.

Baltimore, Maryland www.perceptivenavigation.com	<h2>Perceptive Navigation, LLC</h2> <p>Medical Devices</p>
---	--

Technology Name: Vu-Path / Percutaneous Ultrasound-Guided Catheter

Technology Description: The Vu-Path system is Perceptives first-generation product initially targeting the vascular and pericardial access markets. It consists of the first ever percutaneous, forward-viewing ultrasound catheter combined with an interventional channel. The Vu-Path system has three main components: 1) a small-aperture ultrasound transducer, 2) backend laptop, ultrasound machine to process images, and 3) a kit comprising of a single-use, sterile sheath and other procedural tools (e.g. needle, gauze, lidocaine). For the first time, providers will be able to perform minimally-invasive procedures at the targeted site with precision and accuracy.

Company Description: Perceptive Navigation, LLC, is a Maryland-based medical device company developing forward-viewing, image-guided (e.g. ultrasound, infrared, OCT) percutaneous catheters. The companys core technology seeks to significantly improve both the safety and efficacy of millions of procedures per year in the areas of radiology, cardiology, interventional oncology, and urology. The company expects to launch its first product, Vu-Path, in 2017 under a 510(k) class II submission. Vu-Path will initially target the pericardial and vascular access markets, estimated at \$1B in the U.S.

Philadelphia, Pennsylvania	<h2>Phelix Therapeutics LLC</h2> <p>Biotechnology for Healthcare</p>
----------------------------	--

Technology Name: Peptidomimetic Calpain and Cathepsin inhibitors. Development programs targeting CoVs (SARS/MERS), Ebola and other viruses, Alzheimers, and DMD



Technology Description: As entry into host cells is the first step in the viral life cycle, this offers a major target for treatment and prevention. CoVs encode three surface proteins, and the spike S protein must be proteolyzed by human cathepsin L for proper entry. As several CoVs utilize Cat L for entry, this offers an opportunity to develop pan-anticonoravirus inhibitors. We aim to generate potent, specific lead drug candidates for Cat-L via exploration of various binding pockets that result in inhibition of SARS-CoV and MERS-CoV infections. Phelix has other technology platforms for other disease targets related to calpain inhibition.

Company Description: Developing proprietary calpain & cathepsin inhibitors targeting CoVs (SAR/MERS), Ebola, and neuro/degenerative diseases.

Boston, Massachusetts	<h2>Platelet BioGenesis</h2> <p>Biotechnology for Healthcare</p>
<p>Technology Name: Stem cell-based therapy / Regenerative Medicine / Thrombopiasis</p> <p>Technology Description: Platelet BioGenesis has developed a scalable feeder/serum-free cell culture protocol to differentiate human induced Pluripotent Stem Cells (iPSCs) into megakaryocytes, and trigger platelet production by reproducing the architecture and shear stresses of bone marrow in a microfluidic bioreactor. We have previously shown that we can generate human platelets from iPSCs, and that they are ultrastructurally and functionally comparable to donor platelets (Thon et al. Blood. 2014; Feng et al. Stem Cell Reports. 2014).</p> <p>Company Description: Platelet BioGenesis is a Harvard University spinout that is making human platelets from stem cells. We are currently a pre-clinical stage company and while our major focus is to scale and validate our lab-generated human platelets for human clinical use (5 year plan), our goal for the CAP program is to explore a parallel market that we could conceivably enter within the year, would align with the NIH and DoD's mission of advancing stem cell-based therapeutics (including our own) and might provide a self-sustaining revenue source that could support our longer term research program.</p>	

Peabody, Massachusetts www.PrivoTechnologies.com	<h2>Privo Technologies</h2> <p>Biotechnology for Healthcare</p>
<p>Technology Name: Chemo Thin Wafer for topically treating squamous cell carcinomas</p> <p>Technology Description: Privo's initial indication is for topically and locally treating oral cancer which is an orphan disease. Privos topical wafer PRV111 is a patch significantly that is safer than the current gold standard, delivering up to 2mg of cisplatin locally to the tumor compared to the current 150mg delivered intravenously into the blood stream. Privo</p>	



has shown that its treatment delivers 25x more cisplatin to the tumor while delivering 350x less cisplatin into the blood stream. This technology is easy to administer, requiring placement onto the lesion for only 1 hour (compared to approximately 6 to 8 hours with IV chemotherapy).

Company Description: Privo has developed a unique, patent pending application for topically treating oral cancer with 1/90th of the generic drug cisplatin, which is currently used as intravenous (IV) injection. Privo has received FDA's orphan designation and, in several sets of animal studies, Privo has been able to eliminate oral cancer tumors.

South San Francisco, California profusa.com	<h2>Profusa, Inc.</h2> Medical Devices
--	--

Technology Name: Lumee Oxygen Sensing System

Technology Description: PROFUSAs long-term goal is to develop a minimally invasive, syringe-injectable, tissue-integrating continuous oxygen sensor. Luminescent smart oxygen sensing molecules are incorporated within specially designed porous hydrogel scaffolds, which have been shown to induce vascular ingrowth into and throughout the material. Changes in fluorescence lifetime and intensity of the sensing ensembles reflect tissue oxygen concentration variations and are monitored with a miniaturized and wearable fluorometer. The collected oxygen concentration data is then wirelessly transmitted from the optical patch via radio frequency to a personal device, such as a smart phone, for patient viewing and onto a web-based e-system for physician viewing.

Company Description: Profusa is revolutionizing continuous monitoring of body chemistries through highly miniaturized, long-lasting, accurate, tissue-integrating biosensors. Our approach to creating a better biosensor is based on understanding and overcoming the body's natural response to implanted material. Our ultra-small biosensors are well-tolerated by the body because they are compatible and integrate with the surrounding tissue. Our first product, the Lumee Oxygen Sensing Platform, is designed to report reliable tissue oxygen levels. We are dedicated to becoming a leader in the development of multi-analyte biosensors that provide unprecedented insights into our overall health status.

Clifton, New Jersey	<h2>REAL Prevention</h2> Healthcare IT
---------------------	--

Technology Name: Women's Stories: An HPV Prevention and Health Promotion Technology

Technology Description: Women's Stories: An HPV Prevention and Health Promotion Technology combines cutting edge prevention science with cutting edge technology to produce an HPV vaccination promotion intervention that can save lives and money. A tablet-based technology in medical clinic waiting rooms that serves to check clients in for



appointments, provide health information and HPV vaccine decision narratives (real women's stories), schedule the first vaccine, and send customized text/email reminders for follow-up vaccines). The product fits seamlessly into normal clinic practices, nearly doubled the update of the vaccine in early studies, and was easy to use. RP has 4 additional health promotion products.

Company Description: REAL Prevention LLC (RP) develops and markets innovative, health promotion technologies using the most up-to-date theory and practices, specializing in digital narrative, culturally grounded interventions. Current projects include web and mobile applications for substance use prevention, media literacy around alcohol and tobacco products, sex education, and cancer prevention with target audiences spanning childhood to early adulthood. We utilized an innovative collaborative strategy of developing our products with a variety of community partners including D.A.R.E. America, 4-H: Youth Development Organization, Planned Parenthood, and the Boys and Girls Clubs of America. This insures that our products are rapidly brought to large markets.

<p>Salt Lake City, Utah www.recursionpharma.com</p>	<p>Recursion Pharmaceuticals Pharmaceuticals</p>
<p>Technology Name: Translation of rare disease therapies</p> <p>Technology Description: Our innovative and proprietary discovery platform has been the subject of previous grant funding. This specific application relates to the drug candidates identified by the platform and their potential for commercialization. Our most advanced asset is less than 12 months from IND and we have 6 additional programs in late stage in vitro or in vivo validation. As our platform develops we will have many additional drug candidates to commercialize and we seek creative approaches to advance these assets to market in a systematic and efficient fashion.</p> <p>Company Description: We combine innovative biological science with advanced computational algorithms to discover new therapeutic opportunities for rare genetic diseases.</p>	

<p>Madison, Wisconsin</p>	<p>Regenerative Medical Solutions Pharmaceuticals</p>
<p>Technology Name: Insulin secreting pancreatic beta cells derived from pluripotent stems for use in drug screening and treating type 1 diabetes</p> <p>Technology Description: RMS has achieved significant scientific breakthroughs, including achieving a highly-similar match between human islets and RMS hESC and hiPSC-derived beta-like cells, both in terms of gene expression and function.</p>	



RMS has a dual mandate to provide its cells for research purposes (toxicity testing, high throughput screening and drug discovery) as well as potential therapeutic applications.

Company Description: RMS was established to develop and commercialize the foundational patents from Dr. Jon Odoricos extensive work over 20 years at the University of Wisconsin-Madison to culture human pancreatic cells from pluripotent stem cells. In its brief history, RMS has achieved additional scientific breakthroughs, including achieving a highly-similar match between human islets and RMS hESC and hiPSC-derived beta-like cells, both in terms of gene expression and function. These significant breakthroughs have led to the filing of additional patents by RMS, enabling RMS to pursue both research and therapeutic business plans in its mission to help find and/or develop a cure for diabetes.

San Francisco, California	<h2>ReThink Medical</h2> <p>Medical Devices</p>
<p>Technology Name: CorBand: Non-invasive physiologic monitor for heart failure patients to prevent unnecessary hospitalizations</p> <p>Technology Description: Our medical device collects accurate physiologic data (heart rate, heart rate variability, activity, respiration, temperature, and subclincial edema), leverages our proprietary algorithm to detect worsening heart failure conditions, and relays the relevant intelligence to the patient's healthcare organization enabling proactive interventions preventing the hospitalization. Our technology is designed around patient compliance: extremely comfortable, lasts months on a single charge, and requires no interaction.</p> <p>Company Description: ReThink Medical produces a remote patient physiologic monitor for predicting heart failure related hospitalizations, enabling preventative interventions.</p>	

Charlottesville, Virginia	<h2>RetiVue</h2> <p>Medical Devices</p>
<p>Technology Name: Ophthalmology</p> <p>Technology Description: Retinopathy of Prematurity (ROP) is a blinding eye disease affecting premature babies, with 28,000 babies at-risk each year for developing ROP, with 500 babies becoming blind from this disease. Proper screening and early treatment of ROP is cost-effective and can greatly reduce vision loss. The RetiVue WF is a pediatric camera providing that enables sensitive detection of ROP through high resolution imaging of the peripheral retina. This core</p>	



technology provides edge to edge viewing of the retina that has the potential to revolutionize screening for any number of neonatal and adult eye diseases including ROP, diabetic retinopathy, and macular degeneration.

Company Description: In 2011, RetiVue was founded as a socially driven company, with the vision of creating a sustainable business that improves the quality of life of the millions around the world without access to eye care services. We aim to position our products as the de facto standard for affordable retinal imaging and screening, thereby helping to enable early detection of eye disease and prevent needless blindness.

Rockville, Maryland www.reveragen.com	<h2>ReveraGen BioPharma</h2> <p>Pharmaceuticals</p>
<p>Technology Name: Drug development - vamorolone</p> <p>Technology Description: Single asset company, vamorolone as lead compound currently in Phase 2 clinical trials.</p> <p>Company Description: ReveraGen is developing a dissociative steroidal drug that separates the efficacy seen with traditional glucocorticoids from the side effect profiles. The lead compound, vamorolone (VBP15), showed promising efficacy in mouse models of Duchenne muscular dystrophy and other inflammatory diseases. Financial support to develop VBP15 for FDA IND and clinical trials were through partnerships with the Foundation to Eradicate Duchenne, National Institutes of Health TRND program, MDA Venture Philanthropy, CureDuchenne, Save Our Sons, CDMRP program of the Department of Defense, and NIH NINDS direct-to-phase II SBIR. VBP15 is currently in Phase 2 clinical trials in support of the initial indication, Duchenne muscular dystrophy. ReveraGen is working to expand indications for VBP15, including inflammatory bowel disease, cystic fibrosis, sickle cell anemia and others.</p>	

Edina, Minnesota www.rxfuction.com	<h2>RxFuction Inc.</h2> <p>Medical Devices</p>
<p>Technology Name: Walkasins/wearable sensory prosthesis for balance</p> <p>Technology Description: Our initial patent, "SENSOR PROSTHETIC FOR IMPROVED BALANCE CONTROL" describes wearable technology to measure foot pressure distribution related to balance and to provide sensory feedback learned by the user as new balance sense. Our first device Walkasins, developed under SBIR funding, measures foot pressure through a thin consumable sole insert, and displays pressure information through a vibrotactile feedback array placed around the lower leg, to help improve balance function. For purposes of existing reimbursement codes, we are initially targeting patients with peripheral neuropathy who have gait and balance problems thereby providing a prosthetic function for these patients.</p>	



Company Description: Our initial patent, "SENSOR PROSTHETIC FOR IMPROVED BALANCE CONTROL" describes wearable technology to measure foot pressure distribution related to balance, and to provide sensory feedback to be used as new balance sense. Our first device Walkasins, developed under SBIR funding, measures foot pressure through a thin consumable sole insert, and displays pressure information through a vibrotactile feedback array placed around the lower leg, to help improve balance function. We are initially targeting patients with peripheral neuropathy who have gait and balance problems thereby providing a prosthetic function for these patients.

Vienna, Virginia www.sarfez.com	<h2>Sarfez Pharmaceuticals, Inc.</h2> Pharmaceuticals
--	---

Technology Name: Drug Development

Technology Description: Sarfez has developed a proprietary extended release formulation technology (US provisional patent applications 61/887,396 and converted in a PCT application claiming rights in more than 50 countries).

Company Description: Sarfez finds innovative methods to repurpose and improve the efficacy of existing drugs that have a long history of clinical data. As a small company in collaboration with a very experienced scientific team, it brought a novel drug formulation (ER torsemide) all the way from concept to commercialization with a small budget. Moreover, the risk of the drugs failure is small, since the timed-release formulation is already tested in patients and the drug has known long safety profile. The regulatory path is to less than 5 years from concept to market (half of a traditional pharmaceutical program).

Westlake Village, California	<h2>SELFA, Inc.</h2> Medical Devices
------------------------------	--------------------------------------

Technology Name: Medical Devices

Technology Description: The central innovation of the SELFA technology is the T-nwFET biosensor that performs label-free signal transduction as well as extreme proximity, label-free signal amplification in the electrical domain to deliver ultralow LLOD (lower limit of detection) and boost output current by 1-2 orders of magnitude above generic nwFET biosensors, thus rendering SELFA technology commercially viable in the research tool and POC markets. The SELFA bio-analytical platform has application in proteomics, transcriptomics and genetics. Converts bio-marker concentrations to electronic current with extraordinary sensitivity without enzymatic reactions, optics, fluorescent or other labels. Femtogram detection in proteins and PCR-free detection of nucleic acids.



Company Description: SELFA is a novel semiconductor bio-analytical platform with application in proteomics, transcriptomics and genetics. Directly converts bio-marker concentrations to the electrical domain with extraordinary sensitivity (e.g. 1000X ELISA) without enzymatic reactions, optics, fluorescent or other labels. Femtogram detection in proteins and PCR-free detection of nucleic acids. Attributes of semiconductor technology makes possible multiplex assays and low equipment cost. SELFA has developed an ultra-sensitive cTnI assay and currently is seeking to develop a RNA (mRNA, microRNA) and DNA mutation research tool product.

<p>Madison, Wisconsin www.sembabio.com</p>	<p>Semba Biosciences, Inc. Pharmaceuticals</p>
<p>Technology Name: Continuous Chromatography</p> <p>Technology Description: With the SBIR Phase II grant we developed a continuous chromatography system for purification of clinical-grade antibodies based on our novel valve design that will support flow rates to enable rapid processing of culture fluid containing 5-10 g/L mAb to match the future demand for therapeutic mAbs in the range of 200 kg/yr. The GMP device will feature a single-use flow path to eliminate the need for sanitation and revalidation between campaigns, and will constitute a customizable plug-and-play chromatography module compatible with future integrated continuous bioprocessing facilities. Semba also currently manufactures a line of sophisticated instruments for non-cGMP regulated applications.</p> <p>Company Description: Semba Biosciences, Inc. (Semba) provides innovative equipment for high-performance purification of biomolecules and chemicals to the worldwide research and biomanufacturing communities. Founded in 2005 and based in Madison WI, the company pioneered the development of bench top continuous chromatography systems. Semba developed and successfully commercialized a line of sophisticated instruments for non-cGMP regulated applications. The company offers a unique combination of technical expertise in protein biochemistry, molecular biology, engineering, chemistry, and continuous chromatography. Semba intends to become a leading manufacturer of cGMP-compliant continuous chromatography equipment for the global biopharmaceutical industry within the next 5 years.</p>	

<p>Aurora, Colorado</p>	<p>Sharklet Technologies, Inc. Medical Devices</p>
<p>Technology Name: Advanced Micropatterned Wound Dressings for Enhanced Epithelialization</p> <p>Technology Description: Sharklet Technologies, Inc. (STI) proposes to develop an advanced bilayer wound treatment device, the Sharkskin Wound Dressing, that will significantly enhance the healing of complex, deep-partial to full-</p>	



thickness wounds by directing migration of skin cells and new blood vessels into the wounded area, overcoming the limitations of current dressings and reducing the need for autologous skin grafting.

Company Description: Sharklet Technologies, Inc. is a Delaware corporation, founded in 2007 and headquartered in Aurora, Colorado at the Bioscience Park Center incubator in the Fitzsimmons Life Science District (in close proximity to the University of Colorado Health Sciences Center/Anschutz Medical Campus) to invent, develop and commercialize medical devices. Our vision is to develop non-toxic, topography-based products to improve human health. Over the years the firm has grown to 10 employees and employs several contractors that provide key functions including Manufacturing, Operations, and Accounting.

Eugene, Oregon	<h2 style="margin: 0;">Sheidow Consulting, Inc.</h2> <p style="margin: 0;">Healthcare IT</p>
----------------	--

Technology Name: Training Support System / technology transfer and dissemination of evidence-based treatments

Technology Description: The TSS provides the comprehensive training and support a clinician and agency need in order to effectively implement an evidence-based treatment, specifically Contingency Management (CM) for treating adolescent SUDs. The TSS offers a supportive environment for the outpatient clinician so that they can learn CM at their own pace, with individualized feedback, ongoing remediation training, and a continuous quality improvement process for evaluating outcomes and measuring fidelity. Importantly, the TSS is entirely web-based to ensure convenience, efficiency, and low costs.

Company Description: Sheidow Consulting, Inc. (SCI) is a start-up which expands on Dr. Sheidow's work as a Research Scientist at the Oregon Social Learning Center. SCI provides training, consultation, and quality assurance monitoring of evidence-based psychosocial treatments. SCI focuses on translating adolescent and family-based treatments, and substance abuse research, into community practice (technology transfer). Our company investigates ways to disseminate evidence-based treatments into community-based treatment settings to improve therapist performance which will then improve patient outcomes and then develops the technology (i.e. web-based training, quality assurance monitoring tools, etc.) to disseminate these treatments.

Rockville, Maryland	<h2 style="margin: 0;">Shuttle Pharmaceuticals, LLC</h2> <p style="margin: 0;">Pharmaceuticals</p>
---------------------	--

Technology Name: Radiation sensitizer



Technology Description: Shuttle Pharmaceuticals' mission is to improve the outcomes of cancer patients undergoing radiation therapy. Cancer treatment with radiation therapy can be made more effective when delivered in combination with drugs that sensitize cancer cells to the killing effects of radiation. Ropidoxuridine (IPdR) is an oral pro-drug that is metabolized to IUdR and incorporated into the DNA of rapidly dividing cells to effect radiation sensitization of cancers. Shuttle seeks funding to support clinical trials to develop and commercialize ropidoxuridine for use with radiation therapy.

Company Description: Shuttle Pharmaceuticals, LLC (Shuttle) will develop and commercialize ropidoxuridine (IPdR) a small molecule prodrug as a radiosensitizer in the treatment of cancer. To date, there is no drug approved by the FDA for the indication of radiosensitizer ropidoxuridine would be the first. The NIH/NCI has supported ropidoxuridine pre-clinical and animal testing, drug manufacture, an IND and a phase 0 clinical trial. Shuttle has been awarded an SBIR contract to perform a Phase I clinical trial of ropidoxuridine and radiation therapy. Shuttle seeks funding from the capital markets to support phase II and III clinical trials.

Los Angeles, California	<h2>Sixal Inc</h2> <p>Biotechnology for Healthcare</p>
<p>Technology Name: Biologic to treat all human allergic (IgE mediated) disease - severe food allergy, allergic asthma, etc.</p> <p>Technology Description: We have discovered a novel way to use a low affinity monoclonal antibody to successfully mitigate the degranulation of mast cells and basophils (key components of food allergy and allergic asthma). Ultimately, patients who do not respond well to first line therapies would benefit from symptomatic relief, and potentially resolve the underlying condition resulting in the allergic/asthmatic response.</p> <p>Company Description: Sixal is developing a low affinity humanized monoclonal antibody that is able to block human allergic reactivity to all food and inhalant allergens responsible for severe food allergy and allergic asthma respectively. We have completed all the proof of principle studies and are now moving toward commercialization with pre-IND studies.</p>	

Durham, North Carolina	<h2>Southeast TechInventures Inc</h2> <h3>(DBA CurlBio, LLC)</h3> <p>Pharmaceuticals</p>
<p>Technology Name: Diabetes, Obesity, NAFLD</p> <p>Technology Description: AMP-activated protein kinase (AMPK) has been proposed as a potential drug target for metabolic diseases including diabetes and fatty liver disease. However, no direct AMPK activators have reached clinical</p>	



use. We have identified novel small molecule scaffolds with efficacy in in vitro and in vivo models of fatty liver disease that activate AMPK either indirectly or through directly targeting the AMPK-unique regulatory gamma AMPK subunit. This approach will circumvent many of the selectivity issues observed with previous small molecule AMPK activators. If successful, these scaffolds would represent the first in class therapeutic compounds for fatty liver disease.

Company Description: CurlBio, LLC is a spinoff from Southeast TechInventures Inc. (STI) a technology accelerator that is focused on transitioning technologies from university laboratories to the commercial marketplace. CurlBio/STI is an emerging diabetes and obesity drug development company that is developing novel AMPK activators for the treatment of diabetes and fatty liver disease.

Plymouth Meeting, Pennsylvania	<h2 style="margin: 0;">Starship Health Technologies, LLC</h2> <p style="margin: 0;">Healthcare IT</p>
--------------------------------	---

Technology Name: REPEAT (Realizing Enhanced Patient Encounters through Aiding and Training)

Technology Description: REPEAT applies learning sciences understanding of skill acquisition as a process of guided practice, supported with context sensitive coaching and feedback. REPEAT uses computer game technology to create a virtual encounter with a synthetic patient as a guided practice environment, and employs mobile computing to bring the environment to the learners mobile device. Intelligent tutoring systems techniques guide the learner within and across encounters. Cognitive models of personality and culture create a broad range of patient characters, adding the key dimension of patient diversity to the environment. REPEAT is our most mature product, but not our only one.

Company Description: Starship Health Technologies is a small business formed by three partners with successful clinical, research and entrepreneurial experience. Our mission is to improve health outcomes and health care processes by translating social/cognitive science and advanced information technology research into practical solutions for providers, patients, and payers. We focus on four inter-related challenges facing the health care system: Increasing the accountability in health care services; Reducing barriers to effective clinical collaboration and Chief Operating Officer ordination of care; Increasing the quality and effectiveness of clinical communication; and Making health care clinical and information infrastructure as mobile as today's patients and providers.

Elkhorn, Nebraska	<h2 style="margin: 0;">Therapeutic Vision, Inc.</h2> <p style="margin: 0;">Pharmaceuticals</p>
-------------------	--

Technology Name: Kinostat, a topical aldose reductase inhibitor for prevention of diabetic cataracts in dogs and subsequently for human diabetic keratopathy



Technology Description: Topical aldose reductase inhibitor for the prevention of cataracts in diabetic dogs and clinically cataracts and keratopathy in humans.

Company Description: Therapeutic Vision, Inc. is a small company that is focused on the development of pharmaceuticals primarily for the companion animal market and eventually their owners. We are developing age-related and diabetic therapies for the preservation of vision and the prevention of neurodegeneration. As experts in cataract development we offer contract toxicological research services to evaluate the effects of drugs on lens opacity/cataract formation.

Salt Lake City, Utah	<h2 style="margin: 0;">TheraTarget, Inc.</h2> <p style="margin: 0;">Pharmaceuticals</p>
----------------------	---

Technology Name: Biodegradable polymer-drug conjugates to treat solid tumor cancers

Technology Description: TheraTarget's lead polymer-drug conjugate candidate, KT-1, demonstrates compelling therapeutic efficacy in challenging ovarian and pancreatic cancer preclinical animal models compared to standard drug treatment. The circulating polymer-drug conjugate is stable, inactive and released in a bioactive form only inside the tumor on degradation of the linkage. Extended half-life and minimal organ toxicity achieves unprecedented tumor regression. TheraTarget is well positioned to file an Investigational New Drug Application (IND) with FDA in 2017.

Company Description: TheraTarget is preclinical stage pharmaceutical company in the field of innovative polymer conjugated drug therapeutics. TheraTarget's patented, proprietary breakthrough degradable polymer (HPMA)-drug conjugate platform overcomes major limitations of previously failed polymer conjugates in cancer clinical trials due to poor intravascular tumor retention and systemic toxicity. TheraTarget's technology is suitable to ANY patentable compound addressing tumor specific retention, extending half-life, and effective kidney clearance to achieve higher therapeutic index. The approach promises unparalleled ability to improve survival of cancer patients where current chemotherapy is sub-optimal.

Salt Lake City, Utah	<h2 style="margin: 0;">Thermlmage, Inc.</h2> <p style="margin: 0;">Medical Devices</p>
----------------------	--

Technology Name: AccuCor DTMS

Technology Description: Thermlmage invented a proprietary platform technology focused on non-invasive deep tissue and core temperature measurement and monitoring. The company's MicroSense technology permits non-invasive temperature measurements in the body to a depth of 7 cm. A small antenna placed over the area of interest measures



the microwave energy generated by the heat within the body. The microwave energy detected is processed, converted to temperature data through proprietary algorithms, and displayed on a monitor. This system is more than one thousand times more sensitive than a cellphone, and is capable of receiving microwave signals of less than one billionth of a watt.

Company Description: Founded in 2007, Thermlmage, Inc. is a medical device company offering a unique and proprietary platform technology focused on non-invasive deep tissue and core temperature measurement and monitoring. The Company's MicroSense technology permits non-invasive temperature measurements in the body to a depth of 5 to 7 cm - a major scientific accomplishment that creates a strong future in patient care for Thermlmage and paves the way for expanded product opportunities.

Houston, Texas	<h2 style="text-align: center;">Tietronix Software Inc.</h2> <p style="text-align: center;">Healthcare IT</p>
<p>Technology Name: eXperimental Design Assistant</p> <p>Technology Description: XDA is a secure, web-based platform designed to guide researchers through the proper design and execution of preclinical, in vivo research studies. The experimental design and execution process implemented in XDA addresses the key elements for rigorous addiction study design, including the following: - the purpose of the study - animal model selection, including species and strain, with rationale - adequate controls and balancing of extraneous variables - sex inclusion - rules for deleting data before performing the experiment - sample size based on power analysis - randomization and blinding - repetition of the experiment to confirm results</p> <p>Company Description: Tietronix is a team of professionals with expertise in the latest technologies. Our team consistently delivers the best value to our loyal and satisfied customers. Our quality products and services are the result of our repeatable processes with continuous improvement, exemplary project management, and commitment to our customers. We work with our customers in a team environment to provide agile response to their needs.</p>	

West Lafayette, Indiana	<h2 style="text-align: center;">Tymora Analytical Operations</h2> <p style="text-align: center;">Research Tools</p>
<p>Technology Name: Protein arrays for profiling of cancer signaling</p> <p>Technology Description: We plan to further develop a novel technology, termed pIMAGO (phospho-imaging), as commercially viable products for sensitive, specific, high-throughput and multiplexed phosphorylation assays. This assay developed for on-membrane detection will allow for simple and efficient qualitative and quantitative assessment of</p>	



protein phosphorylation with multiplexing capabilities without the use of either radioactive isotopes or expensive and restrictive phospho-specific antibodies. The technique has the capability to detect any global changes in phosphorylation of a protein of interest in the Western Blotting (commercialized by us as the result of Phase I efforts) and microarray/macroarray formats.

Company Description: Tymora Analytical Operations provides new research products and reagents to R&D organizations within the life sciences market. Tymora has developed a set of highly effective technologies for the analysis of protein phosphorylation that relates to the onset of numerous diseases, most notably cancer. Tymoras flagship products, PolyMAC and pIMAGO, greatly enhance an organizations ability to discover and develop new therapies that combat disease.

Oklahoma City, Oklahoma	<h2 style="text-align: center;">VADovations</h2> <p style="text-align: center;">Medical Devices</p>
<p>Technology Name: Heart Assist Device</p> <p>Technology Description: Innovation: 1)'AAA' battery-sized device will be the first implantable blood pump developed for pediatric use. 2)The device has been designed from the beginning to offer superior blood handling to reduce bleeding and blood-clotting complications. 3)Low cost of production compared to other devices in the field. Other Commercial Applications: Our novel design enables changing 2 parts to modify the device from a pediatric pump to an adult VAD. 1)Adult right VAD (no current competitors), 2)Adult VAD for diastolic heart failure (no current effective therapies or devices), 3)VAD for pulmonary hypertension (no current competitors), 4)Fontan VAD (potentially 1,200 per year).</p> <p>Company Description: The company is developing a platform of smaller, safer, more cost effective medical devices to treat heart failure. These devices, called ventricular assist devices (VADs), are implantable blood pumps that take over some or all of the work for the failing heart. Current VADs require a large, open chest surgery to implant, cost over \$100,000, and have high complication rate of stroke, bleeding, infection, and blood clotting in the devices. Our technology addresses these limitations through a patented novel design approach, integration of advanced computational models and blood testing methods, and an emphasis on low cost production.</p>	

Chicago, Illinois	<h2 style="text-align: center;">Vidasym</h2> <p style="text-align: center;">Pharmaceuticals</p>
<p>Technology Name: Novel drugs research and development</p>	



Technology Description: Current treatments for osteoporosis include several anti-resorptive (or anti-catabolic) and some anabolic agents. However, safety, side effects and low compliance remain serious issues. Vitamin D receptor modulators (VDRMs) such as calcitriol are currently used to treat osteoporosis in several countries outside the US, but those currently on the market have substantial hypercalcemic toxicity. VS-105, a novel VDRM with potent anabolic bone effects, has an exceptionally wide TI at >50-fold (vs. calcitriol at 1-fold). Our long-term goal is to develop VS-105 into an oral, once daily capsule (0.2 5 g/day) for preventing and treating osteoporosis.

Company Description: The principals at Vidasym have 100+ years of experience and expertise in the drug discovery/development business. Vidasym has a portfolio of novel, patented compounds targeting serious diseases with significant unmet medical need (chronic kidney disease, osteoporosis, immune disorders). VS-105, a novel (patent claims allowed in numerous countries), potent vitamin D receptor modulator with a significantly improved safety profile, is entering Phase I clinical studies targeting osteoporosis and chronic kidney disease, with a market potential at US\$1+ billion. VS-505, a phosphate binder derived from natural polymer, is currently in a proof-of-concept clinical study on hemodialysis subjects.

Ashburn, Virginia

Vidrio Technologies, LLC

Research Tools

Technology Name: 2-Photon Laser Scanning Microscopy Software and Hardware

Technology Description: The Phase II SBIR allows Vidrio to develop and directly sell microscope data acquisition and image analysis hardware. Vidrio's main product is ScanImage, software that controls microscopy hardware. The ScanImage user interface is written in Matlab providing a convenient scripting language for automating complex experimental paradigms in microscopy. Our saying "Don't let the microscope control you!" means the scientist has complete control over her microscope including the ability to customize the instrumentation and integrate with any behavioral apparatus. Off the shelf hardware from NI is sub-optimal. New hardware developed through this Phase II SBIR will optimize data acquisition and analysis.

Company Description: Vidrio Technologies, LLC was founded in 2013 to commercialize 2-Photon Laser Scanning Microscopy software, hardware, and consulting services. The company aspires to become the leading producer of software for microscope control and microscopy time series data analysis as well as a producer of specialty hardware that can provide both cutting-edge microscope control and significant local parallel computing power. The company's initial focus has been to produce and release a commercial version of the software package ScanImage. ScanImage provides a more powerful alternative by enabling experimental synchronization when performing imaging experiments. The company also has a blooming hardware and consulting business.



Richardson, Texas myvisiontrack.com	<h2 style="margin: 0;">Vital Art and Science, LLC</h2> <p style="margin: 0;">Medical Devices</p>
---	--

Technology Name: mVT Service

Technology Description: Our mVT App implements a unique vision function test developed for home use. It is clinically validated and the only FDA cleared (K143211) app-based home vision monitor for patients diagnosed with maculopathy, such as AMD (Age-related Macular Degeneration) and DR (diabetic retinopathy). Our SBIR Phase I and II directly funded development and clinical validation of this unique and patent protected new vision test. Our mVT Service is only available by prescription from your Ophthalmologist, Retina Specialist or Optometrist.

Company Description: Vital Art and Science, LLC (VAS) has created the first FDA Cleared Vision App that tracks disease progression in patients with Age-Related Macular Degeneration (AMD) and Diabetic Retinopathy (DR). The mVT App is prescribed to patients with AMD and DR via their Optometrist, Ophthalmologist, or Retina Specialist (the mVT prescriber). Our goal is to reduce vision blindness by actively monitoring the patients home vision test results and alerting the patients mVT prescriber of any significant vision function change. Early vision detection allows for sooner office assessments and possibly therapy.

St. Paul, Minnesota www.vivaquant.com	<h2 style="margin: 0;">VivaQuant, LLC.</h2> <p style="margin: 0;">Medical Devices</p>
---	---

Technology Name: Automated ECG interval and arrhythmia analysis

Technology Description: Our technology provides effective and efficient reporting of arrhythmias and intervals from ambulatory ECGs. We accomplish this by removing baseline wander and 95% of noise while preserving ECG signal morphology, and by using advanced time- and frequency-based methods to optimize QRS detection that is the basis for identifying most common arrhythmias. This technology also facilitates very accurate and sensitive measurement of changes in QT (and other) intervals well within the 10ms sensitivity suggested by the FDA.

Company Description: VivaQuant, LLC is an early-revenue-stage St. Paul, MN-based limited liability company engaged in commercializing products based on a revolutionary ECG processing technology, MultiDomain Signal Processing (MDSPTM). This proven platform technology, which represents one of the most significant advances in electrocardiogram (ECG) processing in the last 30 years, is the core enabler of a line of wearable remote monitoring devices and software for monitoring and diagnosing cardiac arrhythmias, evaluating cardiac safety of drugs and devices, and for managing certain types of chronic disease such as heart failure and cardiac ischemia.



<p>Grass Valley, California www.eigen.com</p>	<p>ZMK Medical Technologies dba Eigen Medical Devices</p>
<p>Technology Name: Prostate Cancer Diagnostics and Therapeutics</p> <p>Technology Description: Eigen has developed a semi-robotic, image-guided prostate biopsy device, 'Artemis' and associated software, 'ProFuse', that fuse MR images with real-time ultrasound and enable the urologist to visualize the lesion(s) in real time when performing the biopsy. The Artemis/ProFuse system has FDA 510(k) clearance, CE-mark clearance and Health Canada and TGA approval and has been extensively used globally at multiple hospitals for over six years. With the help of federal grant funding, Eigen is currently developing state-of-the-art fusion techniques that will make the current technology more robust, easy-to-use and make Eigen stand out even more from competitors.</p> <p>Company Description: Eigen is a leading innovator in medical imaging techniques based out of Grass Valley, California. Eigens medical division was founded in 2006 with a vision to improve healthcare through innovations in image-guided diagnosis and treatment of diseases. Today, Eigen is at the forefront of innovative technology for prostate biopsies. Currently, Eigen has 4 510(k) clearances and over 30 scientific publications and 22 intellectual property patents from the companys research and development efforts. Eigen has a strong team of medical doctors, imaging scientists and software engineers and has established strong relationships with clinical and research partners globally.</p>	