

Force Protection and Medical

Telemental Healthcare

Encounter Telehealth provides behavioral and mental healthcare for distant communities and patients over a HIPAA-compliant video platform. Patients are treated for depression, anxiety, PTSD, substance abuse and severe mental illnesses (schizophrenia, bi-polar disorder, major depression). New patient evaluations, follow-up medication management, talk therapy and staff training are conducted by Encounter providers. Providers are all licensed and board-certified Psychiatry Mental Health Nurse Practitioners, Certified Social Workers and Licensed Mental Health Professionals.

Warfighter Performance Ankle Support Systems

ARYSE is an orthopedic and performance bracing provider. We create and implement functional stability technology based on biomechanics and the needs of warfighters and other end users. We build this unique, patent-pending technology into both our off-the-shelf and customizable products to mimic natural joint movement and give pre- or post-injury protection at the joint's end range of motion without inhibiting warfighter performance; as a result, diminishing the number of warfighters on restricted duty or medical discharge.

LIFELINK+ for Substance Use Disorder and Behavioral Health Treatments

Lifelink+ is a HIPAA compliant patient management platform that leverages people, process, and technology to help in the recovery of those suffering from addiction. Lifelink+ is designed to increase efficiencies, improve patient outcomes, and enhance patient access and engagement utilizing today's digital technology. With features specifically developed to treat substance use disorders, our artificial intelligence platform utilizes real-time data to optimize the efficiency of treatment. Lifelink+ collects data and compares it against the patient profile to identify and predict anomalies that require intervention while engaging patients and providing motivation and guidance.

Universal Testing and Identification Platform

Our technology allows for the testing of samples - anywhere, anytime - to provide health and identification information quickly and painlessly. It can be used for diagnosing disease and/or personal/forensic identification from the middle of the desert to the inner-city, and give remote real-time data about that person, unit, or division. The data can be used to access many aspects of health and identification – everything from who a person is, what illness someone may have, or where possible disease hotspots.

HeartToHeart CareApp

HeartToHeart's platform connects with patients across lifetime health journeys. HeartToHeart's disruptive approach integrates AI, cloud technologies, and remote collection of data from

medical devices to engage clinicians, patients, and their families in 'shared care'. Our technology addresses challenges from supporting patients with neurological conditions to reducing mortality related to pediatric cardiac surgeries from 20 percent to zero. The latter resulted in the 2017 Microsoft Health Innovation Award. Our vision is to reduce the cost of patient management and improve quality of life by optimizing the timely recognition of potential complications and declines in function, allowing cost-effective quality interventions.

CanaryBox® – Smart Music for the OR

CanaryBox® improves focus and communication in medical operating rooms during life-saving situations. By integrating an OR's existing audio system and vital signs from the patient monitor it automatically reduces music volume if the patient condition deteriorates. CanaryBox assures that normal vital signs are a precondition for music to be played in any surgical operating room.

Fruitful Yoni™: Plant-based Feminine Care

Fruitful Yoni™ Feminine Care Products are uniquely designed for women who are seeking to be proactive in their vaginal health, menstrual health, sexual health, and reproductive health. Unlike others, our sanitary pads are 100% natural and safe, using sustainable resources such as organic industrial hemp for enhanced comfort and maximum absorption - reusable for affordability or disposable for convenience. By eliminating chemical burns, reducing painful cramping, lowering risk of yeast and bacterial infections and preventing cervical cancer, we empower women to be mindful of how we care for our body, to promote wellness and longevity. Made in Oklahoma.

Cellular Monitored Automated Medication Dispenser for use in Opioid Addiction Treatment

PillReady® PRN is a cellular monitored automated medication dispenser designed for use in Medication Assisted Treatment (MAT) for Opioid Use Disorder (OUD) patients. It provides medication on an "as needed" basis to encourage behavioral modification and collects data for statistical individualized patient analysis resulting in better patient outcomes.

Cloud-Based Secure and Affordable Platform for Storing Health Records and Tele-Medicine

Our secure digital platform helps to collect and store health information in one place for 24/7 access. Clients can easily upload, view and share their health information with their physicians using our secure portal. Our telemedicine service enables patient engagement with board-certified physicians from anywhere through our platform. Also, Clients can benefit from our affordable pricing for blood tests, imaging, medications and doctor visits.

Watch Over My Rx™ Pharmacogenetic Matching of Drugs to Genetics

Each day 350 people die and 7,400 people are hospitalized from a medication prescribed by their doctor. This is because your response to a medication is in your DNA. Watch Over My Rx™ is a software tool that matches your DNA with the right medication and allows you and your

doctor to watch over your medications as new medications are prescribed or as new information becomes known about your existing medications.

KneeStim – Enabling Accelerated, Mobile Physical Rehabilitation for Active Individuals

Articulate Labs' wearable medical devices accelerate joint rehabilitation by augmenting a patient's everyday muscle usage with electrical muscle stimulation. By leveraging everyday activity to actively combat muscle atrophy and inhibition related to injury, chronic conditions, or surgery, our devices make physical rehabilitation more accessible, convenient, and effective. The first application of this technology, KneeStim, will intelligently target and stimulate quadriceps (thigh) musculature during gait to accelerate muscle strengthening and re-education. A goal for KneeStim usage is to help post-arthroplasty patients return to full mission-ready status faster and with less oversight.

Ergonomic Surgical Loupe Strap

I make an ergonomic strap to attach to surgical eyeglasses for surgeons. The strap helps minimize muscular skeletal disorder to surgeons and keeps their glasses secure during surgical practices. I also make glasses for people with no ears or who have craniofacial disfigurement. Microtia is the condition given to children born without ears. I help them. It can also be used for burn victims or victims with major head trauma.

Shark OFF Shark Repellent Jewelry

Shark OFF as taken technology, developed and patented by industry scientists, and created a shark repellent product that will prevent dangerous shark/human interactions.

RISC-V System-on-Chip (SoC) Computer Hardware Accelerators for Biomedical Big Data

DNA and RNA sequencing sensors and instruments produce lots of data, but we can't analyze this data cheaply enough or quickly enough, especially in limited-resource settings. Rapid analyses of such data enable timely, effective responses to infectious disease outbreaks and bio-terrorism threats. SeqStream, SiFive, Inc. and other partners will co-design System-on-Chip (SoC) computer hardware accelerators that combine CPUs implementing the RISC-V computer instruction set architecture (ISA) and specialized data analysis logic on the same computer chip. These semiconductor devices and associated computer platforms will enable the fastest possible analyses of DNA and RNA sequence data at any point-of-need.

An Innovative Software Solution to Optimize Medication Prior Authorization

An increasing number of medications are now requiring prior authorization (PA) by physicians, who spend 10-20 hours weekly completing them. 92% of physicians report that the PA process delays care. 64% of patients wait up to three days to access medication, and over a third of medications requiring PA are abandoned. By 2020, 90% of top-selling medications are projected to require PA. Breezmed automates the medication selection and prior authorization process, increasing provider revenue, decreasing provider burnout and improving patient outcomes.

Allevia™: AI-powered Clinical Intake

Allevia™ is an AI-powered mobile health solution that automates clinical intake for healthcare providers. As soon as a patient requests an appointment, the patient works with our application to fill out a “Preappointment Questionnaire” before their visit. Allevia™ uses smart algorithms, research data, and the patient’s history and symptoms to identify the most important clinical questions their doctor needs to know. Allevia™ then takes the information provided by the patient and converts it into a clinical note that can be directly sent to the health record, giving their care provider the “best door note” possible – all before ever seeing them.

Real Time PCR (qPCR) for Rapidly Detecting Infectious Disease Pathogens

Volente Diagnostics helps healthcare providers accurately diagnose diseases within 24 hours. Volente is a biotech company that uses DNA molecular technologies to perform infectious disease diagnostic testing using Real Time PCR (qPCR). We are providing solutions to the growing problem of antibiotic resistant infections and overuse of antibiotics. Our customers include physician offices, hospital systems, and long-term care facilities. We can license our technology and can even consult to build a high complexity CAP and CLIA lab.

AI Application to Improve Patient Experiences and Clinical Outcomes

PatientsVoices identifies specific changes within a health care organization that will improve patient experiences and clinical outcomes. The technology accurately converts patient ideas from survey comments and social media into improvement priorities. The resulting road map for change is displayed in dashboards and answers the tough questions facing health care leaders today, e.g. what do we work on next?’ This solution takes the guess work out of identifying and resolving problems that frustrate patients. The result: loyal patients, better outcomes and efficient operations.

SURVIVOR Portable Ruggedized Telemedicine Technology with Low Bandwidth Operating Capabilities

The SURVIVOR development program is a telementoring and telemedicine capability that can be deployed to far-forward environments and would directly benefit the forward deployed warfighter by allowing for a higher standard of care without the logistical challenges and tradeoffs that accompany evacuating personnel. The SURVIVOR is the only product today that can deliver a physician anywhere in the world in their life-size 3-D form, with direct eye contact while using minimal bandwidth, reducing risk of complications in transit, improving the likelihood of return to duty, and increasing the likelihood of long-term quality of life for injured warfighters.

Pluripotent Stem Cells from Peripheral Nerves for Cell Autograft Therapies

A population of quiescent pluripotent stem cells reside within peripheral nerves. The cells are easily propagated from a non-essential nerve into uniform cultures using restrictive media. The cells can be induced to differentiate into cells of all 3 embryonic layers. Until, this discovery, we

have lacked a reliable source of pluripotent stem cells for clinical application, because non-self cells will be rejected without immunosuppression of the recipient patient. Pluripotent cells, iPCs, can be created by viral introduction of primitive genes, but these cells can undergo malignant transformation and other unwanted epigenetic changes. This new approach should allow a simple and safe method for self-to-self stem cell autograft cell therapies with minimal expected morbidity.

VivO2, Saving Babies with Biotech, First Non-invasive in Utero Diagnostics

Prenatal Hope has developed a diagnostic tool, the VivO2, that will tell doctors in real time when a baby is in distress due to lack of oxygen during birth. This will eliminate guessing or interpretations of data that aren't currently measuring for this biometric. The VivO2 provides quantitative data that will save lives, reduce doctor liability and unnecessary procedures. We will help recover the US as a safer, cheaper place of birth and get our military women back to active duty faster. Our IP has international patent filing and we've secured Letter of Intent for global distribution to 136 countries.

MIRA, Minimally Invasive Miniature Surgical Robot

Virtual Incision Corporation (VIC) has developed a new Minimally Invasive Robot Assistant (MIRA) to assist in surgical procedures in the abdomen. MIRA has been developed with multiple Department of Defense and NASA grants. Large capital costs and limited mobility are the main barriers to wider adoption of surgical robots in military hospitals. The MIRA is much smaller, lighter, and less expensive than the widely used daVinci surgical robot, which has been used in more than 5 million surgeries. MIRA has the same or enhanced capabilities in a wide variety of abdominal procedures and is portable. MIRA is at TRL-7 with two first in human surgeries outside of the U.S. and is currently filing an IDE with the FDA. MIRA can be used by surgeons for remote surgery. VIC is seeking funding to assist with clinical trials and/or guidance to deploy its robot into the military medical ecosystem and to develop remote cooperative surgical capability.

Healium by StoryUP

Healium kits are drug-less, portable solutions that use VR and AR to reduce brain stress in as little as four minutes while allowing the user to control virtual assets with their biometrics. The data-driven platform is the world's first VR | AR channel powered by a brain-computer interface and other wearables. In peer-reviewed journals, Healium has been shown to reduce self-reported anxiety and increase feelings of positivity.

PathTrac Software and Laboratory-based Bacterial Transmission Surveillance System

RDB Bioinformatics collects, identifies and reports on Antimicrobial Resistant bacteria threats to the Warfighter. Civilian, Military, and Government (CMG) personnel who are deployed to areas of the world where antibiotic-resistant bacteria are widespread are at risk for dangerous bacterial infections. Why is this important? They come home/base/office carrying drug-

resistant or difficult to treat infections...and those potential threats to the health of our personnel must be identified and treated. 1) Decolonize personnel prior to, and return from, close-quarter deployments 2) Develop rapid diagnostic kit's (RDK) based on those tests 3) Deploy border detention surveillance with a similar approach

Wounded Warrior Comfort Kit, Therapeutic Garments Provide Comfort in Any Care, Anywhere Apparel. Supportive Throughout the Recovery Journey

Warfighters suffering traumatic injuries undergo a series of life-saving treatments and grueling rehabilitative efforts. Audrey Spirit's Wounded Warrior Comfort Kit is specialized apparel providing comfort during any care, anywhere: hospital, clinic, rehab, home, or upon return to desk duty. Looking like a regular shirt but unlike typical clothing or hospital gowns, ergonomic fasteners are positioned to promote independence and self-care. This assistive technology finally equips warriors throughout their healing mission. As resilient as the warfighter, this apparel allows full accessibility throughout medical treatment, rehabilitation and recovery, maintains mental health, accommodates prosthetics, and eases clinical and family caregivers' tasks.

Acosta Medical Group - UroGard

Acosta Medical Group provides high quality incontinence products to improve the quality of care received, reduce community effort to support long-term care needs, and improve the quality of life of our customers.

Interoperable & Secure Medical Data Transfer Network Supporting Rapid Deployment

Rapidly deploy an interoperable medical data transfer network supporting collaboration across medical organizations and Telemedicine. Transfer DICOM® (Digital Imaging and Communication in Medicine) studies, medical images, and DICOM'ized medical records / data between organizations with disparate IT systems, IT policies, Picture Archiving and Communication Systems (PACS), Vendor Neutral Archives (VNA), and clouds. Transfer medical data in the DICOM® format via Secure File Transfer Protocol (SFTP) packets that are managed, encrypted, and compressed and that are resilient to intermittent internet connections. Transfer medical data without a Virtual Private Network (VPN) and without overloading an organization's existing network.

Assisted Tactical Combat Casualty Care (A-TCC)

Remote medical assistance via the augmented reality device is revolutionizing healthcare and poised to enhance survivability in fast-paced, austere environments, reducing human error by delivery of tailored patient vitals direct to the medic's Field of View. A practitioner of the operational arts requires a dependable, light-weight, adaptable Augmented-Reality (AR) device thoughtfully integrated with the operator's existing wearable architecture. The Department of Defense has already realized the value of AR through an Integrated Visual Augmentation (IVAS)

Program agreement with Microsoft. However, the engagement of an industry juggernaut without competition endangers the value of equipment to an end-user, the operator.

Directional Microwave Ablation Applicator for Precise Thermal Ablation

Microwave ablation (MWA) offers a low cost, non-toxic, outpatient, minimally invasive cancer treatment. Needle-like applicators embedded with microwave antennas are inserted into tumors to heat and kill them. However current MWA systems can only create a spherical treatment zone, which cannot treat tumors with irregular shapes or those located near critical sensitive anatomy. We developed a directional MWA applicator that can heat targets from the “outside-in,” protecting nearby sensitive tissues. This approach is faster, safer, and more effective and could also be adapted for an expanded range of medical conditions beyond cancer (such as nerve ablation to alleviate chronic pain).

Tactical Autonomous Treatment - Inflating Retractor (T.A.T.-I.R.)

The T.A.T.-I.R. is a simple, "pen-shaped", injectable device that will allow a caregiver to fully pack and compress a penetrating junctional wound in a matter of seconds. The T.A.T.-I.R. will be a preassembled device that when deployed; self-conforms to any wound cavity/shape, provides complete wound encapsulation, and applies static autonomous pressure directly to surrounding tissues with enough force to stop hemorrhage. Additionally, the T.A.T.-I.R. will be a user-friendly device to allow non-clinical (civilian) bystanders the ability to rapidly control hemorrhage and stabilize gunshot victims until help has arrived.

Automatic Injury Detection (AID) Sensor

Automatic Injury Detection (AID) is a smart, body worn, sensor which automatically sends an emergency alert when penetrated. AID Sensor can be easily inserted into body armor and thus can help detect injury of officers or soldiers. It uses LoRa technology to communicate to the cloud and system operators over a long range. AID Sensor's function is to send a call for help immediately after an attack happens. By sending help faster it can help save lives of soldiers and officers.