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ILLINOIS IGNITE 2018

University Breakthroughs Powering Change

Hosted by



AGENDA

MORNING

8:30

Check-In

9:00

Welcome & Opening Remarks: Mark Harris, President & CEO Illinois Science & Technology Coalition

Breakthroughs in Oncology

9:20 - **Jeffrey Hubbell** (University of Chicago): Tumor-targeting Immunotherapies to Enhance Antitumor Efficacy and Reduce Adverse Events

9:40 - **Arnon Lavie** (University of Illinois at Chicago): Structure-Based Design of Novel Therapeutic Agents by Prodrug Development and Enzyme Modification

10:00 - **Stephen Boppert** (University of Illinois at Urbana-Champaign): Stain-Free Slide-Free Histopathology Platform with Biomarkers of Cancer

10:20 - **Vadim Backman** (Northwestern University): Chromatin Regulation to Fight Resistance in Cancer Chemotherapy

10:40 - **Melody Swartz** (University of Chicago): Lymphangiogenesis for Immunomodulation in Cancer Therapy

11:00 -
11:20

Break

Frontiers in Neuroscience

11:20 - **John Rogers** (Northwestern University): Skin-Interfaced Wearables for Clinical Health

11:40 - **Richard Kraig** (University of Chicago): Intranasal IGF-1 for the Treatment of Migraine

12:00 - **Rashid Bashir** (University of Illinois at Urbana-Champaign): Analysis of Blood and Tissue Using Chip Scale Sensors

12:20 - **Terry Vanden Hoek** (University of Illinois at Chicago): Peptide Memetics of Cooling

Check-In

Welcome & Opening Remarks: Mark Harris, President & CEO Illinois Science & Technology Coalition

Network Security, Mobile Computing & Artificial Intelligence

9:20 - **Wen-Mei Hwu** (University of Illinois at Urbana-Champaign): Game Changing AI and Block Chain Systems at the IBM-Illinois Center for Cognitive Computing Systems Research (C3SR)

9:40 - **Aleksandar Kuzmanovic** (Northwestern University): bloXroute: Scaling Blockchains by 1000X and Beyond

10:00 - **Brighten Godfrey** (University of Illinois at Urbana-Champaign): Continuous Network Verification and Congestion Control

10:20 - **Heather Zheng** (University of Chicago): Vulnerabilities in Social and Mobile Networks

10:40 - **Romit Roy Choudhury** (University of Illinois at Urbana-Champaign): New Techniques in Mobile Computing and Their Applications

Materials by Design

11:20 - **Mark Hersam** (Northwestern University): Introducing the Memtransistor: A Potential Foundational Circuit Element for Neuromorphic Computing

11:40 - **Paul Braun** (University of Illinois at Urbana-Champaign): Paradigm Changing Materials for Energy Storage

12:00 - **Dmitri Talapin** (University of Chicago): Direct Optical Patterning of Inorganic Materials

12:20 - **Vikas Berry** (University of Illinois at Chicago): Graphene and Other Nanostructures for Applications from Energy to Medicine

AGENDA

AFTERNOON

12:40 -
1:40

Lunch

Breakthroughs in Oncology

1:40 - **John Katzenellenbogen** (University of Illinois at Urbana-Champaign): Inhibitors of FOXM1, a Key Driver of Many Cancers, and Orally Active Antiestrogens Effective in Recurrent, Endocrine-Resistant Breast Cancers

2:00 - **Jennifer Wu** (Northwestern University): Restoring Anti-Tumor Immunity: Targeting the Immunosuppressive Molecule sMIC

2:20 - **Lev Becker** (University of Chicago): A Novel Biologic for the Treatment of Many Types of Cancer

2:40 - **Gregory Thatcher** (University of Illinois at Chicago): Synthesis of Novel Compounds and Biomimetics for Probing of Biological Systems

3:00 - **Ernst Lengyel** (University of Chicago): CT45A Antigens for T-cell-based Immunotherapies for Ovarian Cancer

3:20 -
3:40

Break

Frontiers in Neuroscience

3:40 - **Maria Siemionow** (University of Illinois at Chicago): Novel Chimeric Cell Technology for Treatment of Rare Diseases

4:00 - **Joseph Moskal** (Northwestern University): Glycogenes: Novel targets for Brain Tumor Therapeutic Development

4:20 - **Euan Parnell** (Northwestern University): Targeting Synaptic GEFs in Alzheimer's Disease and Dementia

4:40 - **Mary Jo LaDu** (University of Illinois at Chicago): A Novel Alzheimer's Disease Biomarker in Human Plasma

5:00 -
6:00

Networking

Lunch

Data Analytics & Robotics

1:40 - **Michael Franklin** (University of Chicago): Data Science, Systems, Distributed Computing, and Big Data

2:00 - **Matthew Spenko** (Illinois Institute of Technology): Robots That Climb and Perch

2:20 - **Kaiyu Guan** (University of Illinois at Urbana-Champaign): Ecohydrology and Remote Sensing

2:40 - **Kris Hammond** (Northwestern University): Humanizing Data Through Natural Language Generation

3:00 - **Mani Golparvar-Fard** (University of Illinois at Urbana-Champaign): Visual Progress Monitoring and Risk Management for Construction Projects

Break

Social Good & Sustainability

3:40 - **Rayid Ghani** (University of Chicago) : Using Data Science and AI to Tackle Social Issues in Public Health, Education, Criminal Justice, and Public Safety in the US as well as Globally

4:00 - **Amin Kohjin-Salehi** (University of Illinois at Chicago): CO2 Conversion to Energy Rich Chemicals Using Inexpensive and Earth Abundant Catalytic System

4:20 - **Sammy Tin** (Illinois Institute of Technology): Design Approaches for Advanced Materials and Processes

4:40 - **Christopher Wolverton** (Northwestern University): The Virtual Materials Laboratory

Networking

STARTUPS

This list includes start-ups affiliated with faculty presenters as well as those that will be available during the networking reception (👤 denotes companies with table space).

American BioOptics

Revolutionizing cancer screening with the introduction of the InPoint™ System, the first personalized cancer risk assessment to provide immediate and accurate results to identify high-risk patients that need further evaluation. The first application of use is for colorectal cancer (CRC).

Northwestern
Founder: Vadim Backman
americanbiooptics.com

Anokion

Anokion harnesses the power of natural immune equilibrium to develop solutions for antigen-specific immune tolerance. The company is focused on applying its antigen-specific immune tolerance technology to reduce the immunogenicity of therapeutic proteins and treat autoimmune diseases.

Co-Founders: Melody Swartz & Jeffrey Hubbell
anokion.com

Aptinix

A clinical-stage biopharmaceutical company focused on the discovery and development of transformative therapies for challenging neurologic disorders. Aptinix has a proven platform for discovering compounds that work through a novel mechanism: modulation of NMDA receptors to enhance communication between neural cells.

Northwestern
Founder: Joseph Moskal
aptinix.com

bloXroute Labs

Resolves the information propagation bottleneck, allowing all nodes to maintain the consensus over the state of the blockchain, even when mining thousands of transactions per second, on-chain. bloXroute is a scalability solution which allows all cryptocurrencies and blockchains to scale to thousands of transactions per second (TPS) on-chain, without changing their protocol.

Northwestern
Founder: Aleksandar Kuzmanovic
bloxroute.com

Clarix Imaging 👤

A medical device company developing innovative imaging hardware and software to provide workflow-friendly solutions for comprehensive surgical oncology. Clarix Imaging enables multidisciplinary clinical teams to improve the accuracy and efficiency in surgical management of cancer. The company's first product is a compact, real-time, high-resolution 3D specimen imaging system for intra-operative surgical margin assessment and for guiding gross pathologic evaluation.

University of Chicago
Founder: Xiaochuan Pan

ClostraBio 👤

ClostraBio is a preclinical-stage pharmaceutical company creating new medicines to prevent life-threatening allergic reactions to food and related diseases resulting from gut microbiome disruption. The company uses its capabilities to study the microbiome to identify metabolites that are missing or depleted when the gut microbiome is disrupted, then replace those metabolites using its propriety polymer delivery platform to restore gut barrier function. ClostraBio is applying this strategy to develop drug candidates for food allergy and inflammatory bowel diseases.

University of Chicago
Co-Founders: Cathryn Nagler & Jeffrey Hubbell
clostrabio.com

Diagnostic Photonics

Diagnostic Photonics provides hand-held, high resolution optical and computed imaging systems. The Foresee (4C) Imaging System provides a real-time, intraoperative view into the structure of human tissue during cancer surgery to ensure all tumor is removed, and reinforces clinicians' confidence in their therapeutic interventional decisions.

University of Illinois at Urbana-Champaign

Founder: Stephen Boppart
diagnosticphotonics.com

Dimension Inx

With its unique and proprietary 3D-Painting technologies, Dimension Inx is transforming the landscape of medical and nonmedical industries with innovative, practical, scalable, functional and user-friendly materials. The company offers an extensive range of advanced material products (e.g. synthetic and naturally derived biomaterials, metals and alloys, advanced carbon and non-carbon materials, and simple and complex ceramics) compatible with advanced manufacturing processes, including 3D-printing as well as final manufactured product and service solutions.

Northwestern
Co-Founders: Ramille Shah & Adam Jakus
dimensioninx.com

Dystrogen Therapeutics

Dystrogen Therapeutics is a clinical stage regenerative medicine company focusing on rare diseases. The company is currently testing Dystrophin Expressing Chimeric (DEC) cell therapy for Duchenne Muscular Dystrophy. DECs work by combining a malfunctioning cell of the Duchenne patient with a working cell from a healthy donor. Dystrogen has created dystrophin-producing cells that can engraft inside the patient's muscles and increase their dystrophin levels.

University of Illinois at Chicago
Founder: Maria Siemionow
dystrogen.com

EarthSense

EarthSense creates compact, autonomous, and teachable robots for agricultural applications, opening new possibilities in crop breeding, agricultural product development, product testing, and crop research. It improves the speed, accuracy, and cost of in-field data collection and real-time analytics. Its TerraSentia robot carries a variety of sensors to collect data on traits including plant health, physiology, and stress response, among others. EarthSense also has developed a cloud-based platform to teach the robot to automatically measure a variety of key traits.

University of Illinois at Urbana-Champaign
Co-Founders: Girish Chowdhary & Chinmay Soman
earthsense.co

Enzyme By Design

Enzyme by Design focuses on providing safer cancer therapeutics for indications in which there is a large unmet clinical need. Current indications the company is targeting include hematological malignancies with the potential to also treat certain solid tumors through decreasing the toxicity of these chemotherapeutics. Enzyme by Design closely analyzes the 3-D structure of proteins and, through careful structure-based design, introduces minor mutations at the amino acid level that affects the enzymatic activity so as to achieve the desired effect.

University of Illinois at Chicago
Founder: Arnon Lavie
enzymebydesign.com

Epicore BioSystems

Epicore Biosystems creates soft microfluidics devices that harvest and route sweat from skin pores. These novel biosensing devices monitor human physiology to optimize athletic performance and health.

Northwestern & University of Illinois at Urbana-Champaign
Co-Founders: John Rogers & Roozbeh Ghaffari

Fertility Basics

Fertility Basics has developed a user-friendly App which accesses a complex algorithm for the diagnosis and treatment of an individual's infertility. The science behind this App is backed by 20 years of clinical practice. 80% of the couples who have used the science behind this App have become pregnant within a year and have not needed to undergo costly in-vitro fertilization (IVF). The App has been designed with three interfaces for use by couples, physicians, and medical students. The App is now available on the UIC App store and is being further beta tested by UI Health physicians.

University of Illinois at Chicago
Founder: John Holden

Ikaika Therapeutics

Ikaika is developing biologics to target genetic modifiers of human muscular dystrophy (MD). LTBP4, a latent binding protein, has been identified as a modifier of the most common and devastating form of human MD, Duchenne Muscular Dystrophy. LTBP4's hinge region after proteolysis can lead to TGFb & myostatin release which modify muscular dystrophy. Ikaika is developing high affinity anti-LTBP4 antibodies to stabilize its hinge region, thereby limiting TGFb and myostatin activation. Ikaika has identified additional genetic regions that modify MD and cardiomyopathy.

Northwestern
Co-Founders: Beth McNally & Alexis Demonbreun

InnSight Technology ↩

InnSight Technology is primarily focused on the development and commercialization of OcuCheck, a novel, hand-held, point-of-service biosensor device for detecting anterior ophthalmic injuries. OcuCheck can quantify specific biomarkers in the tear that result from micro leaks from corneal wounds. This is the first device of its kind to provide an accurate, objective measurement that can be used to assess the integrity of the corneal surface after surgery or trauma. The device is easy-to-use, provides immediate results, and is a game-changer for use in eye clinics and by health personnel.

University of Illinois at Urbana-Champaign

Co-Founders: Dipanjan Pan, Leanne Labriola
innsighttech.com

Inspirit IoT

Providing hardware accelerator solutions coupled with an advanced high-level synthesis and machine-learning optimization toolkit to enable smart IoT applications. Inspirit IoT delivers a compelling channel and customer experience in markets where performance, power, and time-to-market are a mission or regulatory imperative.

University of Illinois at Urbana-Champaign

Founder: Deming Chen
Advisor: Wen-Mei Hwu
inspirit-iot.com

IntelinAir ↩

IntelinAir is a precision agriculture company empowering farmers by providing them with easy-to-use and actionable expert analysis of high-resolution images from frequent overflights of their fields. Farmers use IntelinAir to make data-driven decisions to improve operational efficiency, yields, and profitability.

University of Illinois at Urbana-Champaign

Founder: Naira Hovakimyan
intelinair.com

Kanyos Bio

Kanyos Bio aims to develop antigen-specific immune tolerance technology for two specific autoimmune indications, type-1 diabetes and celiac disease.

Founder: Jeffrey Hubbell
kanyos.com

Kuros Biosciences

Kuros has spent more than a decade refining technologies that instruct the body to form bone using targeted and controlled mechanisms of action.

Founder: Jeffrey Hubbell
kuros.ch

Laurel Therapeutics ↩

Laurel Therapeutics is focused on developing a seven amino acid peptide inhibitor of angiogenesis and vascular permeability, referred to as EBIN. The EBIN peptide has shown remarkable promise in a rodent model of laser-induced choroidal neovascularization (CNV), which mimics angiogenic eye diseases, including age-related macular degeneration and diabetic retinopathy. The peptide was effective in this model whether administered as an intra-vitreous injection, or very importantly, as a topical eye-drop. It also is effective in animal models of acute lung injury, sepsis, allergy, and cancer.

University of Illinois at Chicago
Founder: Yulia Komarova

LifeFoundry ↩

LifeFoundry's platform, BioFoundry, enables on-demand, high-throughput, and precision engineering of biological systems for practical applications, including synthesis of high-value chemicals, drug development & waste treatment. It is the world's first fully-automated and highly-versatile robotic platform for synthetic biology applications. LifeFoundry partners with clients to expedite their R&D and achieve significant cost reduction, and is currently helping Fortune 500 companies construct & evaluate industrial microorganisms to optimize their fermentation processes.

University of Illinois at Urbana-Champaign
Founders: Sam Hamedi Rad & Ran Chao
life-foundry.com

LiveBx

Stain-free slide-free molecular histopathology from a novel laser light source and pulse shaping techniques that captures dynamic cellular and molecular events as new diagnostic biomarkers of disease. LiveBx (Living Biopsy) technology acquires real-time images from fresh resected or in-vivo tissues without the need for stains or dyes, changing the way that tissue is assessed microscopically for disease detection and diagnosis.

University of Illinois at Urbana-Champaign
Founder: Stephen Boppert

MulticoreWare

A worldwide team of scientists and entrepreneurs focused on developing technologies for video codecs, media analytics, and autonomous vehicles. By leveraging combined skills in high performance and heterogeneous computing, machine learning and neural networks, computer vision, and compiler technologies, MulticoreWare is uniquely positioned to advance the state-of-the-art in focus areas including autonomous vehicle research, media analytics, machine learning, and neural networks.

University of Illinois at Urbana-Champaign
Founder: Wen-Mei Hwu
multicorewareinc.com

NanoCytomics

Dedicated to enabling dramatic improvements in cancer survival rates. The company's proprietary PWS technology platform is designed to provide highly accurate, low-cost, non-invasive testing that will revolutionize the risk stratification of patients, helping physicians identify people that are likely to benefit from gold-standard procedures to diagnose cancer as early as possible, when treatments are most likely to be effective.

Northwestern
Founder: Vadim Backman
nano-cytomics.com

Narrative Science

Humanizing data like never before, with technology that interprets your data, then transforms it into insightful, natural language narratives at unprecedented speed and scale. Turn your data into an actionable, powerful asset you can use to make better decisions, improve interactions with customers, and empower your employees.

Northwestern, Co-Founders:
Kris Hammond & Larry Birnbaum
narrativescience.com

NeuroLux

Developing discovery tools for neuroscience. NeuroLux's breakthrough technologies for optogenetics are lightweight, battery-free, implantable, and ultraminiaturized.

University of Illinois at Urbana-Champaign, Co-Founders:
John Rogers & Anthony Banks
neurolux.org

NowPow

NowPow offers a multi-sided referral platform that seamlessly supports all participants in the referral process by building and managing community resource networks. NowPow partners with health systems, health plans, and community-based organizations to provide social needs identification, screenings, referral matching technology, closed loop referrals, and outcome tracking.

University of Chicago
Founder: Stacy Lindau
nowpow.com

Onchilles Pharma

Onchilles Pharma Inc. is a preclinical-stage oncology company developing novel biologics for the treatment of cancer based on discoveries. Its biologics have a unique method of action that will enable the development of medicines for a variety of cancers that selectively kill cancer cells without damaging normal cells and tissues.

University of Chicago
Founder: Lev Becker

Pax Neuroscience

Pax Neuroscience, a clinical diagnostics company, is focused on development and commercialization of blood tests based on protein biomarkers for depression and for antidepressant response. These diagnostics allow patients and physicians to make better individualized treatment decisions and shorten tremendously the time lag between initiation of antidepressant treatment and knowledge about whether a given drug has therapeutic efficacy (currently 6-8 weeks for each drug). There is no other product that can both confirm a physician's diagnosis of depression and predict treatment response. Pax's lead product is a simple blood test that offers objective biological evidence of depression and rapid indication of treatment response, derived from physiological changes specific to clinical depression.

University of Illinois at Chicago
Founder: Mark Rasenick
paxneuroscience.com

Phi Optics

Phi Optics is developing the next generation of optical imaging systems through its Quantitative Phase Imaging Platform. The company's technology platform uses standard tools and processes and combines the performance of traditional modalities of a light microscope with the real-time 3D topography capabilities of QPI. This combination offers a significant advantage for applications that require low-cost, fast, and accurate imaging of nanostructures.

University of Illinois at Urbana-Champaign
Founder: Gabriel Popescu
phioptics.com

PhotoniCare

Improving medical outcomes through innovative applications of light-based point-of-care imaging technologies at the front-line of healthcare. PhotoniCare's first product, the hand-held ClearView imaging tool, uses optical coherence tomography to see through the eardrum to accurately diagnose ear infections and improve the management of this prevalent disease.

University of Illinois at Urbana-Champaign
Co-Founders: Stephen Boppart & Ryan Shelton
photoni.care

Prenosis

Developing precision medicine tools including a point-of-care device for blood cell and protein measurements, and machine learning and data analytics for stratification of sepsis.

University of Illinois at Urbana-Champaign
Co-Founders: Rashid Bashir & Bobby Reddy
prenosis.co

Preora Healthcare

Preora's PWS Nanocytology™ platform detects early cellular changes at the nanoscale level that cause cancer, and the corresponding impact on treatments for cancer. The platform is composed of three core technologies, from sample preparation to analysis, that will increase the depth and quality of clinically-relevant information.

Northwestern
Founder: Vadim Backman
preorahealthcare.com

Psyonic 🦿

Psyonic is dedicated to creating robotic medical devices that push the boundaries of human-machine interfaces while being accessible to those who need them worldwide. The company's first product is an advanced bionic hand for people with upper limb amputations. This hand is the fastest on the market, easy to control, provides touch feedback, and is robust to impacts.

University of Illinois at Urbana-Champaign
Founder: Aadeel Akhtar
psyonic.co

QuesTek 🦿

QuesTek provides innovative materials solutions. It designs and develops new advanced materials in less than 50% of the time and at less than 30% of the cost of traditional empirical methods. By leveraging its proprietary Materials by Design technology, the current focus is in high-performance steels and other alloys.

Northwestern
Founder: Gregory Olson
questek.com

Radius

Committed to developing and commercializing innovative endocrine therapeutics in the areas of osteoporosis and oncology. Radius' lead product, TYMLOS® (abaloparatide) injection, was approved by the U.S. Food and Drug Administration for the treatment of postmenopausal women with osteoporosis at high risk for fracture.

University of Illinois at Urbana-Champaign
Founder: John Katzenellenbogen
radiuspharm.com

Reconstruct

Provides a command center of 3D timelines for construction projects that track visual progress, labor productivity, and predictive analytics that empower executives and their project teams to stay on time and on budget.

University of Illinois at Urbana-Champaign
Co-Founders: Mani Golparvar-Fard & Derek Hoiem
reconstructinc.com

RMarkBio

rMark Bio's industry-leading AI solution understands the real-time business strategies of R&D, Medical Affairs, Marketing, and Commercial to provide field representatives with clear and concise 'next best decisions' that remove inefficiencies and increase ROI for thought leader engagements.

University of Chicago
Founder: Lev Becker
rmarkbio.com

Sense Photonics

Building the next generation of LiDAR systems for autonomous vehicles, UAVs, industrial automation, and many other applications. Sense Photonic's core technology enables a simple, high-performance, solid state solution with no moving parts that can meet the rigorous performance, reliability, and cost requirements of the automotive industry.

Northwestern
Founder: John Rogers
sense-photonics.com

Seurat Therapeutics 🦿

Seurat Therapeutics is innovating migraine care and accelerating the translation of scientific discoveries into life-changing medicine. By replicating environmental enrichment, a naturally occurring phenomenon, in a therapeutic approach, the company is working to stop migraines and prevent them in the future. Their treatment philosophy stems from a belief that novel neurotherapeutics based on EE can improve brain health.

University of Chicago
Founder: Richard Kraig
seurat-therapeutics.com

Sonica

Sonica is developing a next-generation, proprietary sensor technology paired with advanced analytics that allows for multi-modal sensing in a discrete, comfortable form factor. The technology has broad implications across military, consumer and medical applications-
-Sonica has validated the technology in collaboration with leading academic institutions in its first target area: stroke rehabilitation.

Northwestern
Founder: John Rogers

Synaural 🦿

Synaural is an early stage neurotechnology company which offers a patented technology with proven capability to objectively measure brain health and function. This technology can be leveraged by professionals to inform the screening and diagnosis of neurological conditions through an individual's lifecycle.

Northwestern
Founder: Nina Kraus
synaural.com

Tanvas

Tanvas uses electrostatics to control friction and create virtual touch. The applications for this technology are endless – feel the edges of keys, the snap of a toggle switch, the swipe of a turned page, the direction and magnitude of impacts in a game. For anyone who wants to elevate, deliver or participate in a more engaging and complete touchscreen experience, Tanvas provides a touchable canvas. Their programmable tools allow OEMs, agencies and developers to imagine and create an infinite number of holistic and integrated experiences on any touch display.

Northwestern

**Co-Founders: Edward Colgate
& Michael Peshkin**
tanvas.co

Trillbit

Trillbit is creating proximity intelligence using sound. Trillbit's cross-platform and zero deployment cost solution can convert any speaker and microphone into a secure data transfer device. Trillbit is pursuing secure near field communication applications including an alternative channel for IoT device and a location intelligence platform which can serve as a broader secure cyber-physical system. Using University of Illinois technology, Trillbit has also created a data privacy product: A device that can stop any recording with a microphone thus making an area secure from eavesdropping/ recording.

**University of Illinois at Urbana-
Champaign**
Technology Advisor:
Romit Roy Choudhury
trillbit.com

Veriflow

Developing continuous network verification, which builds a deep understanding of network infrastructure to model and mathematically verify network-wide policies, providing intuitive, actionable insight. Veriflow is the first networking company to leverage this technology to eliminate network outages and vulnerabilities which can lead to astronomical losses.

**University of Illinois at Urbana-
Champaign**
**Co-Founders: Brighten Godfrey
& Matthew Caesar**
veriflow.net

Vivotronix

Vivotronix has developed non-obtrusive wearable cardiovascular monitors that can be applied as a chest patch, chest band, or integrated into sportswear. The core technology is clinically-validated sensors and sensor fusion algorithms with predictive analytics to estimate important hemodynamic parameters noninvasively and continuously from optical pulse wave analysis. The monitored and reported physiological parameters and indices include blood pressure, cardiac output, energy expenditure, metabolic indices, vascular stiffness, and cardiovascular load.

University of Illinois at Chicago
Founder: Shane Phillips

Wearifi

Developing lightweight, wearable near-field communication technology with potential uses ranging from patient monitoring to consumer transaction payments.

**University of Illinois at Urbana-
Champaign & Northwestern**
**Co-Founders: John Rogers
& Anthony Banks**

X-Celeprint

Developing and licensing patented Micro-Transfer Printing (μ TP) and related technology. μ TP is a cost-effective and scalable manufacturing platform for integrating microscale devices such as lasers, LEDs or integrated circuits onto non-native substrates. A wholly-owned subsidiary of XTRION N.V.

**University of Illinois at Urbana-
Champaign**
Founder: John Rogers
x-celeprint.com

Xerion Advanced Battery

Developing battery technologies based upon StructurePore™, a nanostructured, 3-D conductive foam, and DirectPlate™, a manufacturing method which directly deposits the battery materials via electroplating. Together, these technologies form a platform that supports building batteries with custom properties such as high power, high energy, fast charge, and reduced cost.

**University of Illinois at Urbana-
Champaign**
Founder: Paul Braun
xerionbattery.com

UNIVERSITY BREAK- THROUGHS POWERING CHANGE