



**University at Buffalo**  
*The State University of New York*

*Inventors*  
*and*  
*Entrepreneurs*  
*Reception*

Monday, March 25, 2013  
4:00-6:00

UB Clinical and Translational Research Center



UB OFFICE OF SCIENCE, TECHNOLOGY TRANSFER AND ECONOMIC OUTREACH



# **University at Buffalo Inventors and Entrepreneurs Reception**

## **Welcoming Remarks**

Robert J. Genco  
Vice Provost, STOR



Charles F. Zukoski  
Provost



Satish K. Tripathi  
President



## **Introduction of UB Inventors Named on U.S. Patents Visionary Innovator Awards Entrepreneurial Spirit Awards**

Jeffrey A. Dunbar  
Director, STOR



## **Introduction of UB Technology Incubator Awards**

Woody Maggard  
Associate Vice Provost, STOR



## **Introduction of UB Entrepreneurship Award**

Robert J. Genco



## **Closing Remarks**

Alexander N. Cartwright  
Vice President for Research and Economic Development

## **UB Inventors Named on U.S. Patents in 2012**

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**8,110,218    Composition and Methods for Less Immunogenic Protein-Lipid Complexes**

*UB Inventors:* Sathy Balu-Iyer and Robert Straubinger, both of Pharmaceutical Sciences

*Collaborators:* Karthik Ramani and Razvan Miclea, both formerly of Pharmaceutical Sciences

**8,198,432    Porphyrin-Based Compounds for Tumor Imaging and Photodynamic Therapy**

*UB Inventor:* Munawwar Sajjad, Nuclear Medicine

*Collaborators:* Hani Nabi , formerly of Nuclear Medicine; Amy Gryshuk, Allan Oseroff, Suresh Pandey, Ravindra K. Pandey, all from Roswell Park Cancer Institute

**8,088,768    Protein Kinase and Phosphatase Inhibitors**

*UB Inventor:* David G. Hangauer, Chemistry

*Collaborators:* Moustafa El-Araby and Karen Milkiewicz, formerly of Chemistry

**8,142,716    Method of Altering a Fluid-Borne Contaminant**

*UB Inventors:* James Felske, Chemistry; James F. Garvey, John Lordi, and Joseph Mollendorf, all from Mechanical and Aerospace Engineering

**8,158,674    Novel Chalcogenoxanthylum Dyes for Purging Blood Pathogens and for Photodynamic Therapy**

*UB Inventor:* Michael Detty, Chemistry

*Collaborators:* David J. Donnelly, formerly of Chemistry

**8,252,527    Method for Identification of Polynucleotides Capable of Cleaving Target Mrna Sequences**

*UB Inventor:* Jack Sullivan, Ophthalmology

*Collaborator:* Edwin Yau, formerly of Ophthalmology

**8,248,071    Methods of Using Combined Forward and Backward Sampling of Nuclear Magnetic Resonance Time Domain for Measurement of Secondary Phase Shifts, Detection of Absorption Mode Signals Devoid of Dispersive Components, and/or Optimization of Nuclear Magnetic Resonance Experiments**

*UB Inventor:* Thomas Szyperski, Chemistry

*Collaborators:* Arindam Ghosh and Yibing Wu, both formerly of Chemistry

**8,271,572    Generating Partial Sums**

*UB Inventor:* Adly T. Fam, Electrical Engineering

**8,278,072    Method for Synthesis of Sialylated Products Using Reversible Sialylation**

*UB Inventor:* Sriram Neelamegham, Chemical and Biological Engineering

*Collaborators:* Khushi Matta, E. V. Chandrasekaran, and Jun Xue, all from Roswell Park Cancer Institute

**8,329,741    Substituted Pyrrolidine with Central Nervous System Activity**

*Inventor:* Huw M.L. Davies, formerly of Chemistry

## **Visionary Innovators UB Technologies Licensed to Industrial Partners in 2012**

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**Markers for early Sjogren's disease**

*UB Inventors:* Julian L. Ambrus, Jr. and Long Shen, both of Medicine

*Industrial Partner:* IMMCO Diagnostics

## **Workplace Violence Prevention Online Training**

*UB Inventor:* Michele Poitras, Organizational Development & Training

*Industrial Partner:* Pepsi Cola Bottling Company of NY, Inc.

## **A Novel Means to Evaluate Immunosuppression in Transplant Recipients**

*UB Inventors:* Oleh Pankewycz and Mark R. Laftavi, both of Surgery

*Industrial Partner:* EMD Millipore Corporation

## **Controlled Synthesis of Nanocrystals and Nanoparticles by a Gas-Emulsion Process**

**And**

**Controlled synthesis of Polymorphic nanostructures (nanodots, nanorods, nanowires, nanotubes, nanolaminates, hollow nanospheres) using templates formed by Amphiphilic Block Copolymer stabilized "water in oil" and "oil in water" ternary systems**

*UB Inventor:* Paschalis Alexandridis, Chemical and Biological Engineering

*Industrial Partner:* Quantum Technology Group

## **Haptic Enabled Simulator for Rehabilitation and Improved Writing Skill**

*UB Inventors:* Thenkurussi Kesavadas, Mechanical and Aerospace Engineering and Ann Bisantz, Industrial and Systems Engineering

*Industrial Partner:* Tactus Technologies, Inc.

## **Skills Trainer for Robotic Surgery**

*UB Inventor:* Thenkurussi Kesavadas, Mechanical and Aerospace Engineering

*Industrial Partners:* Simulated Surgical Systems, LLC

**Patient Dose Tracking System for Fluoroscopic Procedures**

*UB Inventors:* Daniel R. Bednarek, Radiology and Stephen Rudin, Neurosurgery

*Industrial Partner:* Toshiba Medical Systems Corporation

**Neural Network For Predicting Respiratory Disturbance Index  
And**

**CPAP titration using artificial neural network**

*UB Inventors:* Ali El-Solh, Medicine

*Industrial Partner:* Appian Partners, LLC

**Peptide to Block Mechanically Activated Ion Channels  
and**

**Inhibition of Ion Channels by Peptide Enantiomers**

*UB Inventors:* Frederick Sachs and a Tom Suchyna, both of Physiology and Biophysics

*Industrial Partner:* Tonus Therapeutics, Inc.

**Entrepreneurial Spirit  
2012 UB Faculty Entrepreneur**

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**Vladimir Mitin, Electrical Engineering**

Founder of Optoelectronic Nanodevices, LLC

## **2012 UB Technology Incubator Company Graduates**

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### **BridgeComposites, LLC**

**[www.bridgecomposites.com](http://www.bridgecomposites.com)**

BridgeComposites, LLC works in the field of civil engineering to deliver innovative technology to bridge owners. The company develops and supplies bridge superstructures and decks for highway and pedestrian applications that are made primarily of corrosion-resistant fiber reinforced polymer (FRP) composite material. Bridge Composites was a member of the UB Technology Incubator from 2011-2012.

### **GSELearning Software**

**[www.gselearning.com](http://www.gselearning.com)**

GSE develops custom interactive learning content featuring rich multimedia with delivery online or in CDROM/DVD. GSE provides complete end-to-end solutions with expertise in online course development and deployment. GSE also has an online Learning Management System (LMS) available to host custom e-Learning courseware for clients. GSE was a member of the UB Technology Incubator from 2002-2012.

### **Ladybug Teknologies, Inc.**

**[www.ladybugteknologies.com](http://www.ladybugteknologies.com)**

Established in 2002, Ladybug develops and sells products that enable legal aged consumers to practice informed consumption while keeping our communities safe. Today our BAQ Tracker line includes an innovative software application, an experiential breath kiosk and a suite of enforcement-quality breathalysers that address the needs of everyone from enforcement to those of the social drinker. Ladybug Teknologies was a member of the UB technology Incubator from 2010-2012.

## **TPF Enterprises, LLC**

**[www.tpfenterprises.us](http://www.tpfenterprises.us)**

TPF Enterprises aids commercialization of new technology solutions in the areas of alternative energy, electronics and clean tech through consulting and product development for startup companies, established companies and Government agencies. Cooperating with Universities, industry organizations, consultants, government agencies and partner companies, TPF works in a transparent and open manner to develop cost-effective and sustainable solutions to new opportunities. TPF Enterprises was a member of the UB Technology Incubator from 2011-2012.

## **TREK, INC**

**[www.trekinc.com](http://www.trekinc.com)**

TREK, INC. designs and manufactures high performance electrostatic measurement instruments, sensors, and monitors, and high voltage amplifiers, power supplies & generators. Trek's products and technical expertise are used by OEMs involved in semiconductor manufacturing and electrophotography; in applications sensitive to electrostatic discharge (ESD); and by companies and universities involved in various fields of research. TREK INC. was a member of the UB Technology Incubator from 2007-2012.

# **2012 UB Incubator Company Entrants**

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## **AndroBioSys**

**[www.androbiosys.com](http://www.androbiosys.com)**

AndroBioSys provides proprietary contract research services in the angiogenesis area and has established models that use isolated cancerous human prostate, breast and ovarian cells and tissues. The goal of the company is to develop targeted therapeutics and provide preclinical testing assays that will be more predictive of clinical efficacy. With record numbers of drugs coming off patent and the shifting demographics of an aging population, AndroBioSys is poised to assist in filling the diminishing drug pipeline. AndroBioSys joined the UB Biosciences Incubator in December 2012.

## **AccuTheranostics**

**[www.accutheranostics.com](http://www.accutheranostics.com)**

AccuTheranostics, Inc. provides clinical laboratory services that improve currently available chemotherapy cancer treatment options available to the physician and patient, and also enable the pharmaceutical industry to more rapidly and cost-effectively develop new cancer treatment drugs. AccuTheranostics joined the UB Biosciences Incubator in October 2012.

## **Ceno Technologies**

**[www.cenotechnologies.com](http://www.cenotechnologies.com)**

Ceno Technologies is meeting the demands of biotechnology customers in the life sciences industry by providing research into solutions for drug delivery systems either via Nano Technology or Transdermal Systems. Their Bio Division is active in research with antibody and other bioactive components being carried via nanoparticles and so called soluble nanoparticles. Their Antimicrobial research ranges from quick and broad kill but safe topical systems for hands and skin, to whole systems and devices for hospitals, food processing facilities, other commercial uses and finally consumer use, which are revolutionary in nature. Ceno Technologies joined the UB Biosciences Incubator in December 2012.

## **Cloud 62**

**[www.cloud62.com](http://www.cloud62.com)**

Cloud 62 is a technology consulting company focused on implementing Salesforce.com related technology for existing and new customers who have purchased Salesforce.com. Cloud 62 joined the UB Technology Incubator in December 2012.

## **Helios-NRG, LLC**

**[www.heliosnrg.com](http://www.heliosnrg.com)**

Helios-NRG, LLC, founded in 2009, is a technology development and consulting company with expertise in industrial gases, gas separations, clean energy, strategic management and commercial development. The company is developing a step change algae technology for bio-fuels and water remediation applications. A novel

gas separation membrane technology is under development in partnership with Oak Ridge National Labs. The company provides consulting services to the Department of Energy and Industrial clients in algae, hydrogen, separations, clean coal, gasification, CO2 capture technologies and in plant operations and commercial practices. Helios-NRG joined the UB Technology Incubator in May 2012

### **Optoelectronic Nanodevices (OPEN)**

**[www.open-buffalo.com](http://www.open-buffalo.com)**

OptoElectronic Nanodevices LLC has been established to commercialize scientific and engineering achievements into real optoelectronic devices, such as solar cells and photodetectors. The company develops novel optoelectronic nanomaterials with enhanced photoresponse, high photovoltaic efficiency, and low recombination losses. The company was founded by UB professors highly qualified in the area of photonics, nanoelectronics, and material science. The company provides design of advanced devices and technological support. OPEN joined the UB Technology Incubator in September 2012.

### **UFC Biotechnology, Inc.**

**[www.ufcbiotech.com](http://www.ufcbiotech.com)**

UFC Biotechnology (a New York State Corporation) is focused on providing products for Life Sciences here and abroad. UFC Biotechnology is focused on synthesizing high value molecules used in Life Sciences. It will offer a number of high value molecules such as Luciferin.

UFC Biotechnology formed a joint venture in Kingdom of Saudi Arabia (KSA). The joint venture company is called UFC Biotech. This JV Company will provide a continually evolving portfolio of products designed to meet everyday R&D needs for the growing area of molecular biology and Life Sciences within the Kingdom and the region. UFC Biotechnology joined the UB Technology Incubator in July 2012.

## UB Entrepreneurship Award

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This award is to recognize an exceptional entrepreneur that has championed a UB technology and created a highly successful company and whose products and services will create a major impact in their ability to benefit the public good worldwide.

This year this award goes to Dr. Laurent Levy who is the CEO of Nanobiotix. Dr. Levy is a former UB postdoctoral associate and inventor from France who embodies the accomplishments and global prominence of UB's research excellence. While conducting postdoctoral research at UB's Institute for Lasers, Photonics and Biophotonics about a decade ago, Dr. Levy co-invented two nanomedicine technologies for treatment and diagnosis of cancer. These two inventions became the first intellectual property that Levy used to found Nanobiotix, a French nanomedicine firm he started in 2003.

**About Nanobiotix:** [www.nanobiotix.com](http://www.nanobiotix.com)

Nanobiotix, pioneer and leader in nanomedicine, has developed a revolutionary concept dedicated to the local treatment of cancer. Nanobiotix is focused on the development of NanoXray, a pipeline of patented products, which are based on the physical mechanism of action of the nanoparticles interacting with X-rays and maximizing radiation effect into tumor cells. NanoXray products aim at enhancing the efficacy of the radiotherapy in the tumor without increasing damage to healthy tissues. They are meant to be used with existing standard radiation equipment available in almost every hospital worldwide.

Nanobiotix was spun-out around University at Buffalo technology and has been primarily funded by leading European venture capital firms. The company has more than 30 employees and is based in Paris, France. Nanobiotix's objective is to enhance its leading position in the nanomedicine field in the main oncology markets. NanoXray products aim to target the major indications of cancers (breast

cancer, prostate cancer, lung cancer), leading to a potential market of several billion dollars.

In October 2012, Nanobiotix was listed on the NYSE Euronext market after raising 14.2 million euros (\$18.1 million) in an IPO. That success followed the announcement earlier in 2012 of a deal with Asian firm PharmaEngine, which will bring Nanobiotix up to \$57 million in investment and expedite the development of a cancer nano-therapeutic.



UB OFFICE OF SCIENCE, TECHNOLOGY TRANSFER AND ECONOMIC OUTREACH

The University at Buffalo Office of Science, Technology Transfer, and Economic Outreach (STOR) is UB's interface between the inventive work of laboratory research and the applied commercial development that brings the benefits of that work to market.

STOR promotes economic revitalization through technology transfer and economic outreach activities, and fosters partnerships between UB - New York's major public research university - and the business community. STOR manages the UB Incubation Services program, which includes the UB Technology Incubator, the UB Biosciences Incubator and the Directed Energy Virtual Cleantech Incubator.

STOR is headed by UB Vice Provost Robert J. Genco, D.D.S., Ph.D., SUNY Distinguished Professor of oral biology and microbiology. Dr. Genco is a world-renowned scientist with demonstrated success in commercializing both his own discoveries and those of others.

STOR provides business leaders, researchers, and entrepreneurs with easy access to UB's extensive resources and expertise.

**Contact STOR at (716) 645-5500 or visit us at  
[www.stor.buffalo.edu](http://www.stor.buffalo.edu).**

## **Bruce Holm Memorial Catalyst Fund**

An anonymous UB faculty member has launched the Bruce Holm Memorial Catalyst Fund with a \$1 million challenge gift to support STOR. Named for the UB senior vice provost who died in 2011, the fund could generate a total of \$2 million if its challenge is fully met.

The Fund is intended to support applied research and development directed specifically to prepare new technology for commercialization. Proof-of-concept, prototype development, toxicity testing, marketing and other studies to advance the technology are all supported.

**To donate to the  
Bruce A. Holm Memorial Catalyst Fund**

<http://giving.buffalo.edu/giving-options/honorary-and-memorial-gifts/in-memory-of/bruce-holm>

For further information contact Dr. Robert J. Genco,  
rjgenco@buffalo.edu (716) 645-3113

