



# Maryland Technology Transfer Offices Partnership Newsletter

University of Maryland College Park • The Johns Hopkins University • University of Maryland Baltimore County  
University of Maryland Baltimore • Morgan State University • University of Maryland Biotechnology Institute  
The Johns Hopkins University/Applied Physics Lab

August 2007

Volume 4, Issue 2

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## INTRODUCTION

The 12th issue of MDTTO focuses on progress made by existing programs and successes throughout the MDTTO network.

## FEATURES

### Varma named as acting executive director at OTC

Gayatri Varma has taken over as acting executive director of the University of Maryland Office of Technology Commercialization, replacing former executive director James A. Poulos III.

Varma, formerly the office's associate director, was named to the post by Melvin Bernstein, vice president of the university's Division of Research.

Bernstein said he is confident Varma will be able to "work to enhance and integrate the OTC into the university's overall technology development efforts across the campus, in the state, and in the region."

Varma has been with OTC since 1997. Prior to her current appointment, she was responsible for the University of Maryland's life science technologies portfolio and managed all related licensing and patenting activities. A registered patent agent, she holds a bachelor's degree in microbiology from Bombay University, Bombay, India; a master's degree in microbiology from M.S. University in Baroda, India; and a doctoral degree in molecular and cell biology from the University of Maryland.

Poulos left his position after nine years at OTC on May 24 to become vice president of technology transfer for the Maryland Technology Development Corporation (TEDCO).

### UMBC's ACTiVATE Program reaches third year

On June 7, participants in the ACTiVATE Program presented their market assessments for several technologies from Maryland's universities.

These presentations marked the completion of Phase I of the Program's third year. ACTiVATE, which stands for Achieving the



Gayatri Varma

Commercialization of Technology in Ventures through Applied Training for Entrepreneurs, is an applied program for training mid-career women to be entrepreneurs by assigning them a university technology and assisting them with the process of forming a business around that technology.

Twelve market assessments were provided to a panel with three reviewers – Amy Millman, president of Springboard Ventures; Linda Saffer, program manager at TEDCO; and Paul Silber, former CEO of InVitro Technologies/Celsis.

In September, the teams will begin Phase II of the Program, during which they will work on the development of a business plan for their technologies with aspirations of starting a company. Twelve companies have been formed as a result of the ACTiVATE Program's first two years.

Here's a brief history of the other companies that formed as a result of ACTiVATE:

**ACCTT Global:** This company's first product, CollabSpace, is a unique, geospatially aware communication and collaboration software that will enable first responders to react to disaster and emergency situations in a more cohesive and efficient manner. The technology is from the Johns Hopkins University Applied Physics Laboratory.

**Atropos Biosciences:** This company is looking at the market for a biodegradable nerve guide device, developed from a new technology for the regeneration of nerves after illness or injury. This technology is from the Johns Hopkins University School of Medicine.

**Simfonix:** This company is exploring the feasibility of teaching foreign languages in a more effective way through the development of a virtual learning environment. Their product will be highly interactive and web-based.

**ImmunoCyte:** Based on technology from the University of Maryland, Baltimore County, this company hopes to commercialize a cell-based cancer vaccine that has been shown to activate T-cell mediated immunity and could potentially inhibit tumor cell proliferation.

**LilyPadSensors.com:** This company will manufacture a light-weight, easy-to-use, non-invasive monitoring device resembling a heating pad that can safely and continuously measure heart rate, respiration and temperature. The device will record and analyze health data and wirelessly transmit a simple "wellness indication" or emergency alarm in case of a problem via the Internet to a Personal Digital Assistant or phone.

**Secure Technologies:** This group hopes to develop the R-VIS product, which is a remote vehicle inspection system that would be used primarily at military checkpoints and entry stations. It allows a soldier to visually inspect a vehicle while remaining a safe distance away, therefore decreasing the immediate threat of an explosion. This technology is from the Johns Hopkins University Applied Physics Laboratory.

**TaraFinn:** This group continues to work toward the development of new, highly selective, and sensitive molecular sensors that change color in the presence of illegal narcotics, including commonly abused drugs such as cocaine, methamphetamine and date-rape drugs like flunitrazepam and GHB.

**BioLoCO2Motive:** This company is a research and development company whose primary mission is to create biotechnology solutions for environmental problems. They are currently focused on a technology that converts carbon dioxide waste from factories into useful fuels.

**Screen for Life Technologies:** This company is trying to develop a simple, cost-effective, PCR-based screening tool for translocation related leukemia that would be administered every year to individuals during their annual physicians visit, similar to cholesterol testing. This would facilitate early detection of the majority of leukemia patients allowing treatment to begin in the earliest stages of disease resulting in increased survival rate.

**TMH (Twenty Minutes from Home):** This company is assessing commercial opportunities for a cancer therapy protocol involving cesium chloride, which has been shown to be an effective treatment for cancer in some patients.

**M3 Global:** This company is looking at the U.S. market for a continuing medical education software product, INMEDA, that is currently on sale in Germany. The software product is interactive and uses real patient data for its case studies.

**Amethyst Technologies, LLC** is a biotechnology service company providing a range of services and products relating to validation, calibration, and engineering-based resources for organizations requiring compliance with international, federal, state, and local regulations.

## **UMB faculty cross hurdle with stroke patient treatment**

For UMB faculty Jill Whitall, Sandy McCombe-Waller and David Grant, the recent formation of Newregen Inc. was a critical step to help the thousands of stroke patients they strive to rehabilitate every year.

Newregen is founded on a medical device invented by Dr. Whitall and her colleagues at the School of Medicine, Department of Physical Therapy and Rehabilitation Sciences. The device, a bilateral arm training with rhythmic auditory cueing or “BATRAC” for short, was featured in an October 2004 Journal of American Medical Association article reporting favorable outcomes in stroke patients left with some degree of paralysis.

“I am very excited about Newregen and the potential it has to create a useful and inexpensive product that stroke patients will be able to purchase and use at home,” said Jill Whitall. “In addition, I hope that in the future a large scale state of the art machine can be designed for widespread use in hospital clinics around the world.”

Newregen’s Founder and Chief Executive Officer, Kris Appel, recently won first place in two business plan competitions, and has attracted several interested investors. Currently, Newregen is working with a medical device engineering firm to redesign the device for commercial manufacturing purposes. The company aims to have a device in the market within the year.



**Theodore J. Roumel**

## **UMBI names new chief technology transfer officer**

The University of Maryland Biotechnology Institute has named the former director of of technology transfer at the National Institutes of Health as its new chief technology commercialization officer, university officials said.

Theodore J. Roumel was named to the position in June. He replaces Claude Nash, who served in the same position until earlier this year.

In an interview with the Daily Record of Baltimore, Roumel said a major goal is to focus on sustaining long-term investments rather than just focusing on the amount of income the office generates.

“There may have been more emphasis put in the past on just funding licenses for individual technologies and relying on that royalty stream to come in,” he said. “That’s not my emphasis.”

Roumel spent the last nine years of his career as director of technology transfer at the National Institutes of Health and two years advising the pharmaceutical industry’s advocacy organization.

## **Disease treatment based on UMB technology shows promise**

UMB start-up company Alba Therapeutics recently announced positive results from its recent clinical trial.

The company, founded on discoveries by Dr. Alessio Fasano and investigators at the University of Maryland Baltimore’s Mucosal Biology Research Center, is working to develop a new potential therapy to Celiac Disease (CD), a genetic disorder affecting nearly one of every 133 people in the United States.

While drugs can treat CD, no cure exists, and untreated CD can be life threatening. The peptide-based therapy currently in clinical trials, AT1001, came from Fasano’s research into characterization of a novel molecule called zonulin, which regulates the intercellular tight junctions within the gut epithelium.

Fasano and colleagues hypothesized that zonulin was linked to the pathogenesis of autoimmune diseases such as CD, and the clinical results suggest this to be true, giving hope to millions of CD patients. Alba Therapeutics is based in Baltimore at the University of Maryland, Baltimore BioPark.

## **Lewis settles in at Morgan State**

James E. Lewis Sr. says he first became aware of the intellectual property field years ago, when he learned about it the hard way while working as a NASA-funded research assistant at Tuskegee University.

A Delaware native, Lewis was supposed to present his work on using an artificial storage protein gene to genetically engineer peanut plants at a conference, but his work was retracted.

“At that time, I had no idea of what was going on,” he said. “It wasn’t until later, while working as a summer associate at (law firm) Shanks & Herbert that I realized the effects an early publication can have on one’s patent rights. At that point, I realized what Tuskegee University and other smaller/minority research institutions were missing: an office of technology transfer.”

Three years ago, Lewis, a former offensive guard for the Delaware State University Hornets football team, got his start in the field, jumping from a career as a lawyer to join Morgan State as it was starting its technology transfer office.

“I jumped at the opportunity to come to this university and provide them with a service that will help them avoid similar situations that I have experienced,” he said. “This opportunity has allowed me to achieve one of my career goals.”

Lewis said his office is unique when compared to other offices in the Maryland Technology Transfer Offices Partnership because it is smaller – he is the only one on staff at Morgan State who manages technology transfer. Within the first year, his office has managed to file three provisional patent applications and obtain several invention disclosures.

Lewis said he knows those statistics may sound “mediocre” to larger offices, but he doesn’t anticipate the numbers remaining that small.

“Through our assertive efforts, we will change that,” he said. “...The university has a strong commitment to the development of this office. As our office continues to grow, I do not see a problem in obtaining additional staff members to assist in the operation of our office.”

Lewis said the biggest challenge he faces is promoting technology transfer within the university.

“In addition to providing seminars and one-on-one meetings on the capabilities of this office, I have taken the initiative to form an intellectual property task force committee which consists of faculty representatives from each respective department,” he said. “Each committee representative has volunteered to be a liaison for their respective departments and assist in spreading information as it relates to technology transfer.”

Lewis holds a bachelor’s degree in plant science and biology from Delaware State, where he was a DuPont Career enrichment scholar. He earned his law degree at Texas Southern University’s Thurgood Marshall School of Law in Houston, where he served as associate editor for the Thurgood Marshall Law Review.



**James E. Lewis**

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# CALENDAR

- Aug. 7                    Maryland Minority Research and Development Initiative Information Session  
                                 University of Maryland Golf Course  
                                 8:30 to 11:30 a.m.  
                                 University of Maryland, College Park  
                                 Route 193 and Stadium Drive  
                                 College Park, MD 20742  
                                 For more information, e-mail [jdubois@marylandtedco.org](mailto:jdubois@marylandtedco.org)
- Aug. 15                    Coffee and Informatics with Steve Walker  
                                 8 to 9:30 p.m.  
                                 The Center for Business and Technology Development  
                                 Business Resource Center and the NeoTech Incubator  
                                 9250 Bendix Road, North  
                                 Columbia, MD 21045  
                                 For more information, e-mail [troberson@hceda.org](mailto:troberson@hceda.org)
- Sept. 17                    Basic Business Finance Seminar  
                                 8 a.m. to 4 p.m.  
                                 Prince George's County Economic Development Corp.  
                                 1100 Mercantile Lane, Suite 115A  
                                 Largo, MD 20774  
                                 To register, e-mail [tharrison@pgcedc.com](mailto:tharrison@pgcedc.com). Registration cost is \$1,649.99 per person.
- Sept. 28                    Maryland Minority Research & Development Initiative SBIR/STTR Proposal Workshop  
                                 8:30 a.m. to 6:30 p.m.  
                                 Prince George's County Economic Development Center  
                                 1100 Mercantile Lane, Suite 115A  
                                 Largo, MD 20774  
                                 For more information, e-mail [jdubois@marylandtedco.org](mailto:jdubois@marylandtedco.org)

To submit items for the MDTTO calendar, e-mail OTC at [info@otc.umd.edu](mailto:info@otc.umd.edu)