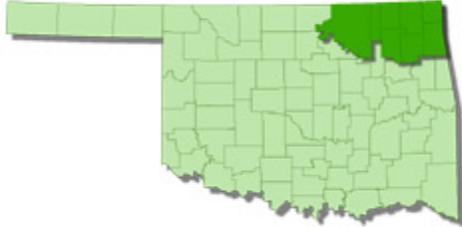


Oklahoma Innovations - OCAST's Official Newsletter

September 2014

EIGHT NORTHEAST OKLAHOMA COUNTIES HOLD REGIONAL INNOVATION FORUM IN BARTLESVILLE



Eight counties in the state's northeast corner are sponsoring a Regional Innovation Forum September 30 in Bartlesville to determine how energy, manufacturing and an educated workforce can transform their region into an economic powerhouse. Governor Mary Fallin is keynote speaker for the event.

Osage, Washington, Rogers, Nowata, Craig, Ottawa, Delaware and Mayes counties are holding the meeting at Bartlesville's Tri-County Technology Center.

Innovation is the process of translating an idea or invention into goods or services that create value – that means someone is willing to pay for it. The process of innovation provides many benefits to the economy.

Governor Fallin is expected to tell the group that innovation includes creating STEM communities all across Oklahoma. A STEM community supports science, technology, engineering and math and makes certain strong STEM programs are available to all of its students.

Presenters at the forum include examples of local and state innovation with special emphasis on energy and manufacturing.

Such companies include Phillips 66, Public Service Company of Oklahoma, Oklahoma Natural Gas, Grand River Dam Authority, Covanta, ABB Total Flow, Clean Line Energy Partners and Pelco Structural.

Oklahoma manufacturing is driven by innovation and is well represented in this conference. Included are NXTGen Filterworks of Claremore, Gallium Compounds of Miami, Sarvam Solutions of Bartlesville, Siemens Process Analytics of Bartlesville and 3M's Advance Materials Division of Miami.

Dr. Stephen McKeever, the governor's secretary of science and math, is to present *OneOklahoma: A Strategic Plan for Science and Technology in Oklahoma*. Also on the program are Lindel Fields, superintendent of the Tri-County Technology Center; Dr. Larry Rice, president of Rogers State University; and Dr. Marci Mack, interim director of the Oklahoma Department of Career and Technology Education.

Regional economic development interests included the Bartlesville Chamber of Commerce, Bartlesville Economic Development Authority, Claremore Economic Development Authority, Miami Economic Development Service, The State Chamber of Oklahoma and i2E, a private sector group that helps Oklahoma technology-based companies commercialize.

Also present are representatives of the Oklahoma Employment Security Commission, Oklahoma Department of Commerce, OCAST – the Oklahoma Center for the Advancement of Science and Technology and the Oklahoma Department of Career and Technology Education.

AIR FORCE SBIR/STTR HOLDS THREE DAY ROAD SHOW ACROSS OKLAHOMA

Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) will be featured during a three-day training roadshow in October. The roadshow will make stops in Stillwater on October 21 at Meridian Technology Center, Norman on October 22 at the OU Center for Applied Research & Development and in Tulsa October 23 at the OSU Helmerich Center.

David Sikora, Air Force SBIR/STTR program manager, will provide guidance to small businesses and university researchers applying for federal funding.

As the program manager for the Air Force Small Business Innovative Research / Small Business Technology Transfer (SBIR/STTR) program Sikora manages a \$300 million budget for the Air Force SBIR/STTR program. The program's mission is to serve the technology needs of the Air Force warfighter by stimulating small business technology research while providing the government with cost-effective technical and scientific solutions to challenging problems.

Sikora previously served as the Air Force Technology Transfer program manager and is experienced in leveraging industry, academia and private sector research. Before entering government service, he worked as a design/project engineer in the paper machine and environmental equipment industries.

He received his bachelor's degree in engineering technology from the University of Dayton and his M.B.A. from Wright State University.

The Air Force Research Laboratory has been assigned execution authority for the SBIR and STTR programs.

The Air Force SBIR/STTR program manager is responsible for:

- Establishing the program schedule
- Requesting and collecting topics for the Department of Defense (DoD) SBIR Program Solicitations

- Allocating the number of topics among the Program Executive Officers, AFRL Technology Directorates (TDs), Air Force Sustainment Center, Air Force Test Center and Product Centers
- Managing and allocating funds to the AFRL TDs and Centers
- Creating and maintaining the Air Force SBIR/STTR database
- Coordinating outreach and marketing efforts nationwide
- Responding to small business inquiries

Sessions run from 9 a.m. to 11:30 a.m.

Registration is available online at www.sbirstrstillwater.eventbrite.com, www.sbirstrnorman.eventbrite.com or www.sbirstrtulsa.eventbrite.com.

Sponsors for the roadshow include Meridian Technology Center, Oklahoma State University, the University of Oklahoma, the Oklahoma Center for the Advancement of Science and Technology and i2E.

ARL BIOPHARMA INC./DNA SOLUTIONS

Where do you find expertise in pharmaceuticals, toxicology, regulatory support and research and development of benefit in civil and criminal court cases at the local, state and federal levels?

Where do you find the only known registry for North American white-tailed deer and mule deer breeders in addition to genotyping services available to wildlife enforcement agencies?

The answer to both questions and many more like them are available from a group of companies founded by scientist-entrepreneur Dr. Tom Kupiec. ARL BioPharma Inc. offers a comprehensive range of analytical, bioanalytical, microbiological, genetic and legal services.

Kupiec's other companies include DNA Solutions, Inc. (DNAS) and The Kupiec Group.

ARL is a contract research laboratory performing pharmaceutical services, research projects, laboratory testing and analysis for pharmaceutical companies, manufacturers, research facilities and academic institutions.

DNAS is a genetic testing laboratory providing relationship and forensic testing in humans and animals. It is where the deer registry is located. Innovative scientists at DNA Solutions help discover answers contained within the strands of DNA.



ARL Biopharma Inc./DNA Solutions was one of nine firms featured in the 2014 Oklahoma Technology Showcase

The Kupiec Group is a knowledge-based business revealing the truth through science. Their experts provide forensic consulting services including litigation support and research, forensic investigations and expert witness services. These services are specialized in pharmaceutical, toxicological, regulatory support and research and development. The Kupiec Group expertise is sought-after information for court cases at all levels.

Kupiec runs his companies by developing a high quality network of individuals and relationships in organizations, academia and community. He believes his practice helps drive jobs and revenue back into Oklahoma.

The corporations have averaged double-digit growth per year over the last 15 years and staffing has grown from three to more than 100. Future services include large molecule analysis in proteins and peptides as well as pharmacogenomics. Future R&D will target synthetic cannabinoids testing, molecular diagnostics, microbial identification and animal identification.

DEANGELIS EXPLAINS HIS FOUR LIFE SCIENCE VENTURES TO HEALTH CENTER PR COUNCIL



Serial entrepreneur Paul DeAngelis, professor of Biochemistry and Molecular Biology at the OU Health Sciences Center, talked about the four companies he founded at a September 16 Health Center public relations council meeting in the OU research park.

The Oklahoma Center for the Advancement of Science and Technology (OCAST) hosted the event.

DeAngelis studied glycobiology and carbohydrates and has identified several bacterial and viral polysaccharide synthases. His knowledge was a key element in starting the four companies – Hyalose, Heparinex, Choncept and Caisson Biotech.

At Hyalose, DeAngelis worked with Dr. Paul Weigel to develop an injectable gel for reducing knee pain and the pair developed a surgical aid, for cataract surgery, that is sold around the world.

His most recent company, Caisson Biotech, began in 2009 with technology based on using natural sugar polymer to enhance performance of other drugs.

As a professor he has enjoyed watching his graduate students excel. One of his students is a managing director of Emergent Technologies Inc., the largest investor in his companies. He has two former students working in his labs.

DeAngelis has won seven OCAST Applied Research awards totaling more than \$2 million. He successfully competed for a \$1.6 million award from the former state program Economic Development Generating Excellence (EDGE).

The scientist is a private pilot with multiple ratings and is an accomplished scuba diver. He has completed dives in many countries around the world including Africa, Indonesia, New Guinea and Malaysia.

ALLIANCE SCHEDULES OKLAHOMA CONFERENCE ON MANUFACTURING IN TULSA

The 2014 Oklahoma Conference on Manufacturing is scheduled Tuesday, September 30 and Wednesday, October 1 at the [Renaissance Tulsa Hotel & Convention Center](#).

This year's conference features a Tuesday afternoon half-day session just for manufacturers. This in-depth "Manufacturer's Workshop" will focus on specific aspects of continuous improvement. It is limited to the first 100 who sign up.

A networking reception is scheduled Tuesday evening at the hotel.

On Wednesday, there will be nationally-recognized speakers and workshops, including sessions on New Markets, Lean Manufacturing, Innovation and New Product Development, Updates on Government Regulations, Strategic Planning and much more.

State-of-the-art manufacturing equipment will be on display and a gathering of experts will field questions on a full range of subjects important to company growth.

RESEARCH PARK TRIO TAKES ICE BUCKET CHALLENGE TO SUPPORT FIGHT AGAINST ALS

The ALS Association has reached \$115 million so far from its Ice Bucket challenge and in local support in communities nationwide. Participants in an ice bucket and iced-down vat "dunk" included, from left, J.R. Caton, representing the OU Health Sciences Center; Dr. Craig Shimasaki, co-founder, CEO and president of Moleculera Labs; and Michael Carolina, executive director of OCAST. The trio was challenged by several individuals including Dr. Tom Kupiec, founder of ARL Biopharma Inc. and DNA Solutions.



Amyotrophic lateral sclerosis (ALS), often referred to as "Lou Gehrig's Disease," is a progressive neurodegenerative disease that affects nerve cells in the brain and the spinal cord.

The Association is actively involved in meeting with key stakeholder groups to provide input into a plan to spend the \$115 million in Ice Bucket Challenge donations wisely. The plan, which

will be heavily focused on driving ALS research forward, will be voted on by the National Board of Trustees in mid-October.

2014 OKLAHOMA TECHNOLOGY SHOWCASE

The photographs below represent a portion of the activities that highlighted the 2014 Oklahoma Technology Showcase held last month at the University of Central Oklahoma in Edmond.



CALENDAR

SBIR/STTR deadlines

United States Department of Agriculture due October 2, 2014 - [click here](#) for more funding information

Department of Energy (Phase I / Phase II) due October 14, 2014 - [click here](#) to learn about the DoE program

National Institutes of Health / Centers for Disease Control due November 5, 2014 - [click here](#) for the solicitation

National Institutes of Health due December 5, 2014 - [click here](#) for the solicitation

OKLAHOMA INNOVATIONS RADIO PROGRAM

The third annual Oklahoma Technology Showcase drew high-tech companies and supporters from around the state. Listen to interviews with some of the exciting companies represented at the event.

[Listen to the show.](#)

Oklahomans are familiar with the toll disasters can bring in just moments. These disasters can often be life-changing and cause residents to react with additional stress and anxiety. When emergencies occur, it is also important to remember the impact disasters have on children and youth. The Oklahoma State Department of Health Emergency Preparedness and Response Service observed [National Preparedness Month](#) in September.

[Listen to the show.](#)

The [Oklahoma School of Science and Mathematics](#) (OSSM) is designed as a two-year residential public high school for academically gifted students in mathematics and science. The late Dr. Julian Stanley of Johns Hopkins University, a nationally known expert on gifted education, called OSSM, “the most rigorous academic program of its kind in the nation.”

[Listen to the show.](#)

To hear more interviews on *Oklahoma Innovations* visit the [OCAST website](#) or listen weekly on:

Altus - Saturday at 6 a.m. - KOCU 90.1 FM
Ardmore - Saturday at 6 a.m. - KLCU 90.3 FM
Chickasha - Saturday at 6 a.m. - KCCU 100.1 FM
Clinton - Saturday at 6 a.m. - KYCU 89.1 FM
Lawton/Fort Sill - Saturday at 6 a.m. - KCCU 89.3 & 102.9 FM
Oklahoma City - Sunday at 5 p.m. - KTOK AM 1000
Tulsa - Sunday at 8 a.m. - KRMG AM 740/FM 102.3
Wichita Falls, TX - Saturday at 6 a.m. - KMCU 88.7 FM