

THE TRIBUNE

AUGUST 2018

Pitch Perfect Entrepreneurship Training 'fastPace' Quickly Hits Stride



UAMS' Marie Burdine, Ph.D., (right) in her lab with David Harrison, research associate, is pursuing multiple patents with her surgical research team.

A new entrepreneurship course for UAMS researchers arrived at just the right time for Marie Burdine, Ph.D., and her lab in the Division of Surgical Research.

The lab is pursuing two patents through BioVentures LLC at UAMS, and there may be more on the way.

Burdine learned about the TRI-supported training – fastPace – in an email from UAMS' Nancy Gray, Ph.D., president of BioVentures and a professor in the Department of Pharmacology and Toxicology. Gray, who has led TRI-supported entrepreneurship boot camps since 2016, taught the fastPace program for the first time this spring.

"I really liked the concept and thought it could help us," said Burdine, assistant professor in the College of Medicine. "We have a couple of other ideas in the lab, and we knew that we needed help in learning how to promote these inventions and how to get funding for them."

The surgical research lab, located at the Arkansas Children's Research Institute, has a patent in the works for its most developed discovery, an immune-response therapy for transplant patients. It also recently

(Continued on page 2)

Message from Dr. James



Dear Colleagues,

We started *The TRIBUNE* in 2012 as a bimonthly newsletter to inform you about TRI's key initiatives and celebrate your TRI-supported successes. While the newsletter has received plenty of positive feedback, we are aiming higher.

Starting with this issue, we have a new look and we're shifting the focus to your translational research endeavors. This means more stories are likely to be about your research and that of your colleagues.

You'll also see even more great content because *The TRIBUNE* is now monthly, with the exception of December and July. Of course, we'll continue to share information about TRI resources and services, and our TRIBUTES page is a mainstay with your publications citing TRI support.

I am excited that this newly redesigned issue features the fastPace entrepreneurship training program. Like the other 27 participants, Marie Burdine, Ph.D., has been empowered by the knowledge she

gained. She now knows the process for pursuing a patent and how to vet and commercialize the ideas that come out of her lab. Her training through fastPace exemplifies the goal of translational – bench to bedside – research.

We are fortunate to have exceptional entrepreneurship leaders and trainers – Drs. Nancy Rusch and Nancy Gray – for fastPace as well as the TRI-supported Health Sciences Entrepreneurship Seminar Series and Boot Camps.

Sincerely,

A handwritten signature in black ink, appearing to read "Laura James, M.D." with a stylized flourish at the end.

Laura James, M.D.
Director, TRI
Associate Vice Chancellor for Clinical
and Translational Research, UAMS

Pitch Perfect (Continued from page 1)

filed an invention disclosure for another possible patent on a nanoparticle that will be tested as a new therapy for Clostridium difficile (C diff). The nanoparticle idea came from Lyle Burdine, M.D., Ph.D., a transplant surgeon and member of the surgical research team. He is also Marie's husband.

KEY LESSONS

Lyle and Marie were among the 28 participants on 14 UAMS fastPace research teams. The four-week course, Marie said, offered key lessons in starting the patent process and how to present to potential investors.

"The fastPace program was great," she said. "When I first started, my presentation had a lot of details that weren't really necessary. I think by the end of the project I had learned how to really make it concise and do a nice pitch."

The idea for the C diff nanoparticle stems from Lyle's work as a doctoral student on a different nanoparticle designed to pull cholera from cells. Because C diff is responsible for most cases of antibiotic-associated diarrhea in surgical patients, Lyle wanted to explore the nanoparticle idea as an alternative to antibiotics. After presenting the idea at a conference at the California Institute of Technology, a Virginia Tech researcher offered to produce the nanoparticle.

A collaboration with Virginia Tech was established last year and researchers there are now close to completing work on the nanoparticle. Marie said her lab is prepared to immediately start testing the nanoparticle in vitro and in vivo in mice.

"Once we get it in our hands and have some preliminary data, that's when we'll really start to focus on getting funding for that project," she said.

The invention disclosure, which will determine if the nanoparticle idea merits a patent application, has been filed with BioVentures and ACRI.

TRI SUPPORT

TRI provided fastPace training support for Gray, Nancy Rusch, Ph.D., a professor and chair of the Department of Pharmacology and Toxicology, and Curtis Lowery, M.D., chair of the Department of Obstetrics and Gynecology. The three traveled to the University of Michigan, where fastPace was developed, to become certified trainers.

Gray said the course enabled participants to evaluate whether their novel ideas were salable as they learned about the commercialization process.

"FastPace represents an important new tool for translational research," Gray said. "Having this available for our researchers will help generate more patentable ideas, which benefits researchers, the public and UAMS."



Next fastPace Program March 29 – April 26, 2019

Instructor:

Nancy Gray, Ph.D.

President, BioVentures LLC

Interested? Email nmgray@uams.edu

Researcher Profile



Marie Schluterman Burdine, Ph.D.

*Assistant Professor,
Department of Surgery
Division of Surgical Research,
UAMS
Arkansas Children's
Research Institute*

What inspired you to become a researcher?

I have always been interested in science but it wasn't until I took a Cell Biology course in college that I became intrigued with research. The human body from a molecular standpoint is absolutely fascinating.

What do you like most about your area of research?

Having the ability to discover something totally unknown and add pieces to the puzzle so that new, better therapies for serious diseases can be generated.

What career would you have chosen if not research?

Definitely would have been building something like houses; I love seeing end products from all your hard work.

What current or former biomedical researcher (from anywhere) do you admire most? Why?

My former mentor, Dr. Vidu Garg, is a pediatric cardiologist who is now director of the Center for Cardiovascular Research at Nationwide Children's Hospital in Columbus, Ohio. My first research technician position was at UT Southwestern in Dallas, where he was a fellow. I worked with him on unique projects involving the genetics of congenital heart disease. His important discoveries during the time launched his career. He taught me so much about conducting research, and I am still learning from him. He always takes the time to answer my emails, offering the best advice to help me grow as a faculty member.

TRI Offers Researchers Access to More Than 5,000 Potential Study Participants

UAMS faculty researchers can now access nearly 5,000 potential research participants through the UAMS Translational Research Institute's **ARresearch.org** volunteer registry.

The registrants, who come from all of Arkansas' 75 counties, are representative of the state's diverse population.

The ARresearch registry database is available to all UAMS faculty, including those at Arkansas Children's Hospital and Research Institute and the Central Arkansas Veterans Healthcare System. The registry includes registrants' demographic data and their health interest selections, which indicate the kinds of studies they wish to be contacted about. Researchers may contact registrants based on their health interest choices from the registry's 29 general disease categories.

Registrants' top five health interest selections are:

- **Weight management, 2,491**
- **Mental Health, 2,074**
- **Healthy Volunteer, 1,880**
- **Heart Disease, 1,878**
- **Sleep Disorders, 1,830**

For interested researchers, your IRB protocol will need to include your intent to use the ARresearch registry for recruitment. Once you have received IRB approval, your request may be submitted by visiting **TRI.uams.edu** and using the services portal via the Request Services button.



An ARresearch.org registrant at a recent health fair in Pine Bluff

For more information, please contact Sandra Hatley, hatleysandrae@uams.edu, or 501-686-5417.

Research on the Horizon New TRI-supported Study of the Month



TRI Nurse Coordinator Anja Rassman, R.N., and Kevin Sexton, M.D.

- **UAMS Principal Investigator:** Kevin Sexton, M.D., Assistant Professor, Department of Surgery, College of Medicine
- **Summary:** Phase 2, multi-site clinical trial testing an investigational therapy for sepsis-associated acute kidney injury (SA-AKI) along with standard of care and antibiotic treatment
- **Significance:** AKI is common in critically ill patients, and sepsis is a primary trigger, accounting for 26 to 50 percent of all AKI in developed nations
- **TRI Services:** Medicare coverage analysis and assistance with study budget development and negotiation, IRB submission, regulatory documents, study staff/investigator training, recruitment, enrollment and coordinator services

- **Sponsor:** Atox Bio

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TRIBUTES

The following UAMS researchers cited the Translational Research Institute (TRI) in publications after utilizing TRI resources or funding:

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Thank you for remembering to cite TRI in your publications resulting from studies that receive TRI support.

Find the appropriate citation language at tri.uams.edu/about-tri-2/cite-tri.

TRI Open House Aug. 28!

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HOUSE



Your success as a researcher can be enhanced by knowing where to find the services and resources you need. We're making it easy to get up to speed at the Aug. 28 TRI Open House.

Scheduled from 4:30 - 6 p.m., this event is a great opportunity to relax and meet our team and key partners. We'll have everything in one place, with expertise, tools and tips to help achieve your research goals. We'll also have refreshments (wine and cheese) and door prizes!

See you there!