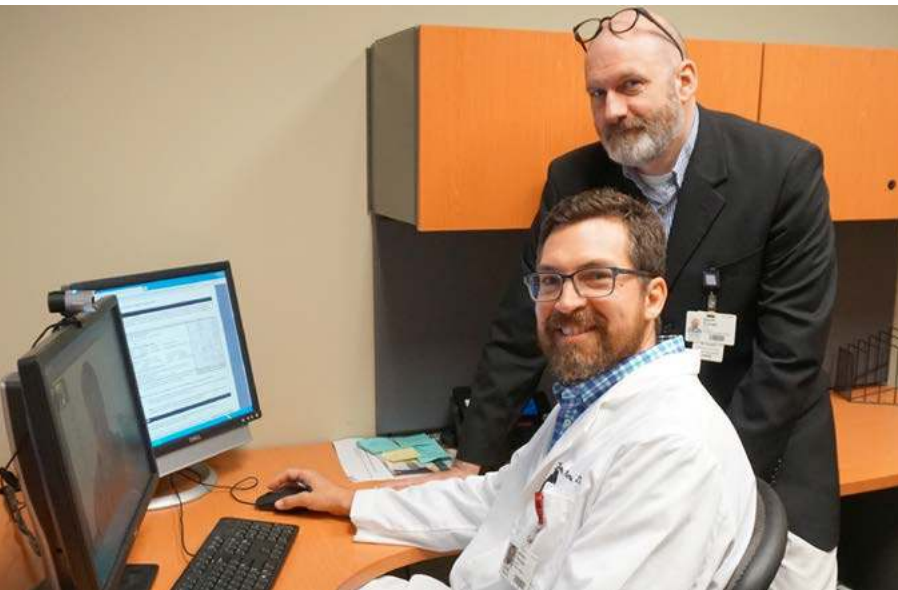


# THE TRIBUNE

JUNE 2019

## A Lifeline for Rural Health Grants Launch Unique Implementation Research Efforts



*Jeremy Thomas, Pharm.D., (front) is using a TRI pilot award to test interactive video as a way to provide clinical pharmacy services to rural patients. The pilot has helped Thomas and Geoffrey Curran, Ph.D., leverage additional funding to expand the telepharmacy effort.*

For several years, Geoffrey Curran, Ph.D., has envisioned a research collaboration with a network of rural pharmacies to tackle the significant health challenges of Arkansas' less populated areas.

In many parts of the state, a community pharmacy is the only nearby health provider. With the right implementation research plan, Curran, director of the TRI-supported UAMS Center for Implementation Research, believes such pharmacies can become lifelines for rural patients with complex health conditions.

With the invitation of Lesha Carpenter, Ph.D., a colleague at the University of North Carolina (UNC) at Chapel Hill, Curran and Carpenter shared the rural pharmacy network idea with leaders at the UNC Eshelman Institute for Innovation in January. Liking what they were hearing, Carpenter and Curran were encouraged to apply for institute funding to start a network involving rural pharmacies in multiple states.

### MULTISTATE LAB

Their application resulted in a \$200,000 award to support a five-state collaborative network – the first of its kind. In addition to Arkansas and North Carolina, it

*(Continued on page 2)*



Dear Colleagues,

As you will read in this issue, we have had some exciting developments in implementation science, with new grants and plans for a new training program to begin this fall.

This relatively new research discipline is vital for effectively translating our research findings to achieve the triple aim of health care: increased access, lower costs and better outcomes. Implementation researchers evaluate methods and strategies for promoting the uptake of evidence-based interventions into routine care.

Led by Geoffrey Curran, Ph.D., the UAMS Center for Implementation Research was established in 2014 and works in partnership with TRI. Dr. Curran's work at the center is in keeping with TRI's mission, and his newly funded work with rural pharmacies and clinics is

important to our priority for improving health and health care for rural populations. We congratulate Dr. Curran and Jeremy Thomas, Pharm.D., on this achievement and note that the projects will be conducted with collaborators from multiple states.

As we report on Page 3, we're breaking new ground with UAMS' first Implementation Science Scholars Program, supported by TRI and led by Dr. Curran. We look forward to issuing the call for a strong field of applicants this fall!

Sincerely,

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

# A Lifeline for Rural Health

(Continued from page 1)

includes Alabama, Mississippi and South Carolina. Called the Rural Research Alliance of Community Pharmacies (RURAL-CP), its mission is to reduce health disparities by supporting high quality implementation research with rural pharmacies.

RURAL-CP will be a discovery lab with collaborators evaluating the implementation of interventions and practices.

“We’re exploring how to push out more clinical services that pharmacists can perform,” Curran said. “So it’s a lab for the science part of it, but the idea is to increase services in rural areas because they’re all underserved.”

The initial users of the RURAL-CP will be researchers at UNC, UAMS, University of Mississippi and Auburn University. Eventually other institutions will be invited to use RURAL-CP to conduct research.

## TELEPHARMACY GRANT

The Eshelman Institute also awarded \$300,000 to support implementation of a proposal for Curran, UAMS’ Jeremy Thomas, Pharm.D., and UNC colleagues Melanie Livet, Ph.D., and Jon Easter, Pharm.D., to establish and evaluate a telepharmacy model with rural health clinics in Arkansas and North Carolina. The UAMS Institute for Digital Health and Innovation and Arkansas eLink will provide the telepharmacy broadband platform. Livet and Easter have been researching and implementing pharmacy services provided in-person in primary care clinics for some time.

The telehealth model in the grant builds on a TRI Implementation Research pilot study led by Thomas, a clinical pharmacist and associate professor in the Center for Implementation Research and College of Pharmacy. The project will test telepharmacy for clinical pharmacy consultations in complex medical management cases. Clinical pharmacists have a larger role than retail pharmacists in monitoring patients and guiding their health providers in patient care and disease management.

The two-year study will involve four clinics in Arkansas and four in North Carolina. The focus will be on diabetes, a disease that affects 17 percent more rural residents than urban residents. Diabetes is also associated with high medical costs and poor outcomes.

“There have been a lot of studies showing that patient outcomes are significantly better when pharmacists are working in an interprofessional, collaborative environment with a written protocol that gives them more autonomy in managing patients’ medications,” Thomas said. “We haven’t seen those types of studies or services in small, very rural practices.”

Curran, also a research health scientist at the Central Arkansas Veterans Healthcare System (CAVHS), brings more than a decade of experience conducting implementation research in Veterans Affairs primary care and Federally Qualified Healthcare Centers.

He notes that the new study will explore implementation challenges including cost issues. Some pharmacist services are billable and others are not. “We have to determine how to pay for the services,” Curran said.

# Researcher Profile



## Geoffrey M. Curran, Ph.D.

*Director, Center for Implementation Research*

*Professor, Department of Pharmacy Practice, College of Pharmacy;*

*Department of Psychiatry, College of Medicine, UAMS Research Health Scientist, Central Arkansas Veterans Healthcare System*

### What inspired you to become a clinical researcher?

*After forays into music and counseling, I sought graduate training in sociology. During and right after graduate school I was on the fence about teaching vs. research. I took an NIH-funded postdoctoral fellowship (University of Michigan, Department of Psychiatry) to give a research career a try. It stuck! I draw inspiration now from the challenge of facilitating change in busy healthcare settings.*

### What do you like most about your area of research?

*The purpose of implementation research in healthcare is to figure out how best to help clinicians adopt and sustain evidence-based practices. As such, it is very practical and can lead to quick impacts in terms of the quality of services offered and subsequent health outcomes of patients. I also very much like mentoring junior scholars.*

### What career would you have chosen if not research?

*Something in music performance and/or producing, or teaching sociology.*

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

*Brenda M. Booth, Ph.D., Professor Emeritus at UAMS. She has been my mentor since coming to UAMS 21 years ago. She was a model of hard work, productivity, and integrity, and she took mentoring very seriously. I very much appreciate what she did for me, and I try to do the same for others.*

# Coming Fall 2019

## First Implementation Science Scholars Program



*Geoffrey Curran, Ph.D., will lead the scholars program.*

Geoffrey Curran, Ph.D., may be a little busier than others this summer as he puts the finishing touches on an exciting new TRI-supported Implementation Science Scholars Program - the first such program at UAMS.

The two-year program will seek to train clinicians at UAMS and Arkansas Children's Hospital who are involved in quality improvement. At no cost to trainees, it will introduce implementation science approaches to QI initiatives in clinical care programs.

"We're bringing a little bit of just plain science, but also what we've learned from implementation science, to train some of these folks who are already engaged in QI efforts in the TRI hub hospitals (UAMS and ACH), and help them do it better," said Curran, director of the Center for Implementation Research. "We're hopeful this will be a good way to help them enhance the work they're doing."

The Center for Implementation Research is supported by the colleges of Pharmacy and Medicine and a partnership with TRI. It has assisted and mentored faculty, residents and students from the colleges of Medicine, Pharmacy, Nursing, and Public Health in the development of implementation related grants and projects across multiple disciplines.

Integrating research and clinical care is a priority for UAMS, TRI and the national Clinical and Translational Science Awards (CTSA) Program, which supports TRI.

"We expect to have four to five people in the first year of this program who will be getting didactics from us, and then we will mentor them in a quality improvement project," Curran said. "Ideally, participants will be able to use what they learn to turn QI projects into studies they can publish."

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## Research on the Horizon: New TRI Study of the Month

- **UAMS Principal Investigator:** Mitch McGill, Ph.D., Assistant Professor, Fay W. Boozman College of Public Health
- **Summary:** A pilot study evaluating the safety and pharmacokinetics of acetaminophen in patients with compensated liver cirrhosis versus a healthy control group.
- **Significance:** Pain treatment in compensated cirrhosis patients is limited. Acetaminophen is one of the few analgesics that is used, but its safety and pharmacokinetics have not been studied in this important population. Some patients are treated with opioids, so demonstrating the safety of acetaminophen in cirrhosis patients may help to offset use of addictive opioids.
- **TRI Services:** Protocol development, coordinator and regulatory support, development of RedCap
- **Sponsor:** UAMS Medical Research Endowment



*(L-R) TRI Research Program Manager Michael Bailey assists research team members Morgan Tripod, Mitch McGill, Ph.D., and Jonathan Dranoff, M.D.*

## TRIBUTES

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

Bihorac A, Ozrazgat-Baslanti T, Ebadi A, Motaei A, Madkour M, Pardalos PM, Lipori G, Hogan WR, Efron PA, Moore F, Moldawer LL, Wang DZ, Hobson CE, Rashidi P, Li X, Momcilovic P. "MySurgeryRisk: Development and Validation of a Machine-learning Risk Algorithm for Major Complications and Death After Surgery." *Ann Surg.* 2019 Apr; **269**(4):652-662.

Brown A, Wells J, Onteddu S, Bryant-Smith G, Sharma R, Joiner R, Nalleballe K, Richard-Davis G, Sheng S, Benton T, Culp W, Lowery C. "Women on Hormone Therapy with Ischemic Stroke, Effects on Deficits and Recovery." *J Neurol Neurosurg Psychiatry Res.* 2019 Jan-Jun; 1(1).

Cook CR, Lyon AR, Locke J, Waltz T, Powell BJ. "Adapting a Compilation of Implementation Strategies to Advance School-Based Implementation Research and Practice." *Prev Sci.* 2019 May 31.

Kurten RC, Rawson R, Shoda T, Duong LD, Adejumobi D, Levy R, Newbury RO, Rothenberg ME, Akuthota P, Wright BL, Dohil R, Jones SM, Aceves SS. "Development and Application of a Functional Human Esophageal Mucosa Explant Platform to Eosinophilic Esophagitis." *Sci Rep.* 2019 Apr 17; 9(1):6206.

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Find the appropriate citation language at [tri.uams.edu/about-tri-2/cite-tri](http://tri.uams.edu/about-tri-2/cite-tri).*

*The **TRIBUNE** is produced by the UAMS Translational Research Institute (TRI).  
It is supported by grant U54TR001629 through the National Center for Advancing  
Translational Sciences of the National Institutes of Health (NIH). The content is solely the  
responsibility of the authors and does not necessarily represent the official views of the NIH.*

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