

TRIBUNE

AUGUST 2021

Demonstrating Value

Fall Series Aims to Acquaint Researchers with Digital Potential

TRANSLATIONAL RESEARCH INSTITUTE AND INSTITUTE FOR DIGITAL HEALTH & INNOVATION SERIES



going digital

I N N O V A T I O N S T O E N H A N C E R E S E A R C H

Let's Be National Leaders in Digital Health Research



Dear Colleagues,

As a popular book title says, the future is faster than you think. The quickening pace of digital health technologies deployed as health interventions is exciting for both physicians and patients. It has also created great opportunities for researchers to test

whether they translate into improved patient care and more efficient health care systems.

UAMS is fortunate to have research leaders who are utilizing and studying digital health technologies. Two of these researchers, Hari Eswaran, Ph.D., and Carolyn Greene, Ph.D., have led development of the webinar series, *Going Digital - Innovations to Enhance Research*, beginning Sept. 17 (see details in the accompanying article). The series is a collaboration involving TRI, the Institute for Digital Health and

Innovation and the Rural Research Network.

Our goal for this series is to provide information to clinical researchers about how to incorporate digital approaches into research studies. The series will include a review of basic concepts, as well as recent, relevant experiences from funded UAMS faculty members who are testing the efficacy of digital tools and remote monitoring devices on patient care. Our hope is that the series will serve as a starting point for any of you either planning or just curious about including digital health technology in your research.

UAMS, as a Clinical and Translational Science Award institution, should be among the United States' leading digital health research centers. We invite you to join us in this exciting mission and to start by attending the *Going Digital* webinar series.

Sincerely,



Laura James, M.D.

Director, UAMS Associate Vice Chancellor for Clinical and Translational Research

Demonstrating Value (continued from page 1)

UAMS-affiliated researchers are invited to three webinars this fall that will demonstrate the many ways digital health technology can benefit their work.

The webinar series, “Going Digital – Innovations to Enhance Research,” is designed for all researchers, especially those who have questions about how to incorporate some of the latest technologies into their studies.



Carolyn
Greene, Ph.D

“We’ll show innovative, practical examples. We’ll also explain how valuable these technologies can be to our research community,” said Carolyn Greene, Ph.D., an associate professor in the Department of Psychiatry and a keynote presenter as well as a lead organizer for the webinars.

Intra-institutional Collaboration

The webinar series is jointly sponsored by TRI, the UAMS Institute for Digital Health and Innovation (IDHI) and the UAMS Rural Research Network (RRN).

Greene directs TRI’s Team Science Initiative and is a nationally recognized expert and innovator in the use of technology to increase access to evidence-based health care. She is the national manager

of Department of Veterans Affairs’ award-winning program of web-based mental health resources and has extensive experience implementing and evaluating technology-based interventions.

Also leading the event are Hari Eswaran, Ph.D., a professor and director of Research for IDHI, and Veronica Smith, MBA, director of the RRN.

Eswaran is also director of research with the Department of Obstetrics and Gynecology, and he



Hari
Eswaran, Ph.D.

leads one of two federally designated telehealth-focused Rural Research Centers, which was named the Rural Telehealth Evaluation Center. He also leads the South Central Telehealth Resource Center, one of 14 federally designated Telehealth Resource Centers in the United States.

Opportunity Cost

UAMS clinicians have moved apace to adopt digital health technologies to help manage their patients remotely. Now research leaders such as Eswaran, Greene and TRI Director Laura James, M.D., are encouraging broader use of these technologies in clinical trials and other health-related studies.

Examples include a range of mobile apps, virtual monitoring systems used in patient care (telesitters), mobility trackers, wearable monitors for post-hospitalization follow-up, blood pressure monitoring and monitoring for other health issues, including sleep disorders.

“By upping our game in this area, we can move the ball forward on big, innovative groundbreaking projects,” Eswaran said. “This webinar series will be a good step toward helping our researchers gain confidence in the utilization of these technologies. It’s a great opportunity to create a community of digital health researchers who can support each other in their efforts.”

They also noted the exciting possibilities for online participant recruiting and bigger grants.

“The scope of your research and the size of your grant might be limited by how many patients you’re able to enroll, but if you use these remote tools you could have a much bigger study,” Greene said. “By employing some of these digital strategies, researchers could have many more opportunities for grants, greatly increase their collaborations with researchers at other institutions and vastly improve their participant enrollment.”

Please join us for any or all of these Friday *Going Digital* webinars:

- **Sept. 17, All the Basics: Digital Health Research.** Learn conceptual and practical information to help you get started in digital health research. Local resources will be presented.
- **Sept. 24, Mobile Applications: Real-world Examples.** An expert panel of local researchers will share their experiences using different types of digital tools and interventions. This session will focus on mobile applications.
- **Oct. 1, Digital Tools and Wearables: Real-world Examples.** An expert panel of local researchers will share their experiences using different types of digital tools and interventions. Examples include remote patient monitoring, telehealth and wearables.

Visit TRI.uams.edu for the registration link.

TRI Announces Two Data Scholars for 2021-2022

TRI has announced the selection of two Data Scholars for 2021-2022. The Data Scholars Program supports UAMS faculty in learning and applying the principles and methods of data analytics and data sciences to inform clinical practice and policy. Scholars will pursue formal course work in addition to receiving mentoring during their data science-focused research project.

The scholars and their project titles are:



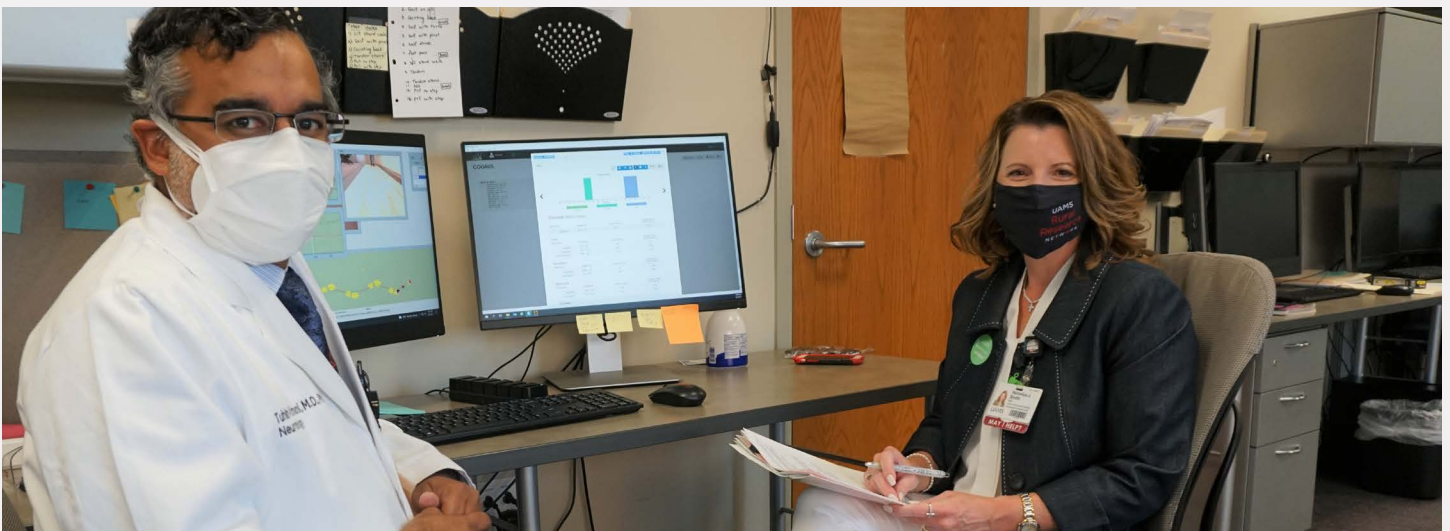
Melanie MacNicol, Ph.D., Assistant Professor, College of Medicine, Department of Neurobiology and Developmental Sciences; "A Multidisciplinary Approach to Identify the Role and Regulation of Pituitary Function in Mediating Appropriate Responses to Metabolic Signals"



Michail Mavros, M.D., Assistant Professor, College of Medicine, Department of Surgical Oncology; "Extended Venous Thromboembolism Prophylaxis in Cancer Patients Undergoing Abdominal Surgery: Clinical Outcomes and Barriers to Implementation"

TRI data scholars receive 20% salary support, reimbursement for tuition and fees up to \$5,000 per year, and mentoring support.

TRI Study of the Month



Tuhin Virmani, M.D., is assisted on the study by Veronica Smith, MBA, director of the Rural Research Network.

- **Principal Investigator:** Tuhin Virmani, M.D., Ph.D., Associate Professor, College of Medicine, Department of Neurology; Director, Movement Disorders Program
- **Summary:** This project aims to 1) Develop digital data collection methods for evaluation of cognitive and motor function in remote Parkinson's disease patients using telehealth, and 2) Develop biomedical informatics tools for collation, storage and exploration of clinical and research data.
- **Significance:** This project could improve the quality of clinical care in rural Arkansas and help remote Parkinson's patients feel empowered as participants in research of their disease. New biomedical informatics tools in UAMS ARIES platform will allow secure, privacy-protected integration of disparate datasets for researchers to study phenotypic variation in neurodegenerative disorders.
- **TRI/Rural Research Network Services:** Implementation and facilitation of clinical research within UAMS Regional Programs
- **Sponsor:** TRI, NIH/NCATS

The UAMS Rural Research Network is supported by TRI, Regional Programs, Office of Community Health and Research and Winthrop P. Rockefeller Cancer Institute.

TRIBUTES

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

Baloh J, Curran GM, Timko C, Grant KM, Cucciare MA. Al-Anon Intensive Referral (AIR): A Qualitative Formative Evaluation for Implementation. *J Subst Abuse Treat*. 2021 Jun 2;132:108520. doi: 10.1016/j.jsat.2021.108520. Epub ahead of print. PMID: 34111772

Carpenter DM, Hastings T, Westrick S, Rosenthal M, Mashburn P, Kiser S, Shepherd JG, Curran G. Rural Community Pharmacies' Preparedness for and Responses to COVID-19. *Res Social Adm Pharm*. 2021 Jul;17(7):1327-1331. doi: 10.1016/j.sapharm.2020.10.008. Epub 2020 Oct 21. PMID: 34155979; PMCID: PMC7577225

Ge J, Pletcher MJ, Lai JC; N3C Consortium. Outcomes of SARS-CoV-2 Infection in Patients with Chronic Liver Disease and Cirrhosis: a N3C Study. *medRxiv* [Preprint]. 2021 Jun 7:2021.06.03.21258312. doi: 10.1101/2021.06.03.21258312. PMID: 34127981; PMCID: PMC8202438

Jung S, Harris N, Niyonshuti II, Jenkins SV, Hayar AM, Watanabe F, Jamshidi- Parsian A, Chen J, Borrelli MJ, Griffin RJ. Photothermal Response Induced by Nanocage-Coated Artificial Extracellular Matrix Promotes Neural Stem Cell Differentiation. *Nanomaterials (Basel)*. 2021 May 4;11(5):1216. doi: 10.3390/nano11051216. PMID: 34064443; PMCID: PMC8147862

McElfish PA, Scott AJ, Chatrathi HE, Rowland B, Long CR, Nagarsheth N, Calcagni M, Patolia J, Haggard-Duff LK, Selig JP. Undiagnosed Hypertension and Undiagnosed Type 2 Diabetes among Overweight and Obese Marshallese Participants in a Diabetes Prevention Program. *Yale J Biol Med*. 2021 Mar 31;94(1):5-12. PMID: 33795978; PMCID: PMC7995951

Rando HM, Bennett TD, Byrd JB, Bramante C, Callahan TJ, Chute CG, Davis HE, Deer R, Gagnier J, Korashy FM, Liu F, McMurry JA, Moffitt RA, Pfaff ER, Reese JT, Relevo R, Robinson PN, Saltz JH, Solomonides A, Sule A, Topaloglu U, Haendel MA. Challenges in Defining Long COVID: Striking Differences across Literature, Electronic Health Records, and Patient-reported Information. *medRxiv* [Preprint]. 2021 Mar 26:2021.03.20.21253896. doi: 10.1101/2021.03.20.21253896. PMID: 33791733; PMCID: PMC8010765.

Samanta D, Singh R, Gedela S, Scott Perry M, Arya R. Underutilization of Epilepsy Surgery: Part II: Strategies to Overcome Barriers. *Epilepsy Behav*. 2021 Apr;117:107853. doi: 10.1016/j.yebeh.2021.107853. Epub 2021 Mar 4. PMID: 33678576; PMCID: PMC8035223.

Schuldt RF, Felix HC, Bradway CK. The Impact of Severe Obesity on Home Health Care Agency Admission: An Organizational Perspective. *Home Health Care Serv Q*. 2021 Jan-Mar;40(1):27-38. doi: 10.1080/01621424.2020.1856747. Epub 2020 Dec 17. PMID: 33327895.

Swindle T, McBride NM, Selig JP, Johnson SL, Whiteside-Mansell L, Martin J, Staley A, Curran GM. Stakeholder Selected Strategies for Obesity Prevention in Childcare: Results from a Small-scale Cluster Randomized Hybrid Type III Trial. *Implement Sci*. 2021 May 1;16(1):48. doi: 10.1186/s13012-021-01119-x. PMID: 33933130; PMCID: PMC8088574.

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.

The **TRIBUNE** is produced by the UAMS Translational Research Institute (TRI). It is supported by grant ULI TRO03107 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.

WEBSITE:
[TRI.uams.edu](https://tri.uams.edu)

EMAIL:
TRI@uams.edu

TRI MAIN NUMBER:
(501) 614-2287

Editor
David Robinson
Designer
Leslie Norris
TRI Director
Laura James, M.D.