A PUBLICATION OF UAMS Translational Research Institute

THE TRIBUNE

OCTOBER 2021

Pioneering MDs

UAMS, ACH Add Fellows to CTSA-Supported Clinical Informatics Program

The clinical informatics fellows are (l-r) junior fellow Salem AlGhamdi, M.B.B.S. (emergency medicine); senior Daniel Liu, M.D. (pediatrics); senior Lori Wong, M.D. (preventive medicine); and transfer senior Jacob Wooldridge, M.D. (pathology). Pictured separately is junior fellow Obeid Shafi, M.D. (pediatrics).

One day, it will be routine for doctors to use artificial intelligence to help make important patient-care decisions. Getting there will require a unique combination of medical and informatics skills - the perfect challenge for a Clinical and Translational Science Awards (CTSA) Program institution like UAMS and its partner, Arkansas Children's (ACH).

"As it relates to translational science, it's very important to hardwire those physician decision points so you don't have to depend on human memory," said Feliciano "Pele" Yu Jr., M.D., chief medical information officer at ACH and professor and chief of the Section of Clinical Informatics in the Department of Pediatrics. "The opportunity is to begin to capture electronic health records data and use it for decision-making. That includes machines helping us make better decisions. But first we need to ensure that we have well designed clinical decision support systems."

Fred Prior, Ph.D., professor and chair of the Department of Biomedical Informatics, began setting that foundation when he joined UAMS six years ago. He credits a strong institutional commitment, including from TRI, which has made biomedical informatics a priority component of UAMS research. Prior leads TRI's

(Continued on page 2)

Dear Colleagues,

Clinical and translational research goes hand-in-hand with biomedical informatics.

A major priority for the 60 CTSA Program hubs across the United States is the development of training programs that enhance the research workforce and prepare trainees and junior faculty to tackle our nation's foremost health threats.

In this issue of The TRIbune, we celebrate the successful launch of a fellowship program in clinical informatics.

Now in its second year, this program prepares medical fellows to use big data by leveraging data repositories available through our own electronic health records and other data repositories. Their expertise is also critical to institutions striving to improve their clinical data systems, and to all clinicians and researchers who want to leverage these systems to advance health in the future.

I am particularly excited that this new program represents a collaboration among informatics experts at UAMS and Arkansas Children's Hospital. The nationally accredited program was among the first in the U.S., and is uniquely designed to ensure that its graduates are able to apply their knowledge in real-world clinical and research settings.

Kudos to Feliciano "Pele" Yu Jr., M.D., and Fred Prior, Ph.D., who developed and oversee this program, which is attracting fellows from across the country.

I look forward to the achievements of these trainees as they learn to harness data in creative ways that improve health outcomes of individuals and communities.

Sincerely,

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

Pioneering MDs (continued from page 1)

Feliciano "Pele" Yu Jr., M.D.

Fred Prior, Ph.D.

Comprehensive Informatics Resource Center (CIRC).

Today, under Prior and Yu's leadership, the UAMS-ACH partnership has established one of the first nationally accredited clinical informatics fellowship programs in the country. In July 2020, the two-year program welcomed two clinicians as its inaugural fellowship class. This year, they added three clinicians.

Yu, director of the Clinical Informatics Fellowship Program, is excited by their dynamism and potential as catalysts for significant advances in the field.

"Our fellows are very hungry to make a difference," he said. "They bring energy and an innovative spirit. They are all problem solvers with new insights and fresh ideas."

The senior fellows (year two) are:

- **Daniel Liu, M.D.,** Pediatrics Residency: UAMS; Medical School: UAMS; Certified Epic Physician Builder (Advanced and Analytics)
  - Project: "Using Machine Learning to Advance Telehealth"
- **Lori Wong, M.D.,** Public Health & General Preventive Medicine Residency: University of Kentucky College of Medicine Program; Medical School: Medical College of Wisconsin; Certified Epic Physician Builder (Advanced and Analytics)
  - Project: "The Impact of an Organization-wide Electronic Health Record (EHR) System Upgrade on User's Daily EHR Activity Time"
- **Jacob Wooldridge, M.D.,** Fellowship: Hematopathology, Columbia University Vagelos College of Physicians and Surgeons; Pathology Residency, University of Texas Medical Branch Hospitals Program; Medical School: University of Texas Medical Branch School of Medicine; (Transfer student for senior year from Clinical Informatics Fellowship at Stony Brook University, New York)

The junior fellows are (projects under development):

- **Salem AlGhamdi, M.B.B.S.,** Emergency Medicine Residency: University of Maryland, Baltimore Medical School: Taif University College of Medicine
- **Obeid Shafi, M.D.,** Pediatrics Residency: Flushing Hospital Medical Center Program, New York; Medical School: Jawaharlal Nehru Medical College, Aligarh

The program structure, Yu said, ensures a well-rounded, applied-knowledge experience. The fellows spend 40% of their time helping run and improve the clinical information systems at UAMS and ACH. Another 30% of their time is for specialized training and rotations, 10% is in the classroom, and up to 20% is for seeing patients.

The fellows are also conducting research, with research resources provided by TRI, and are required to submit a manuscript.

In addition, they provide informatics consults to medical residents through a partnership with the College of Medicine Office of Graduate Medical Education.

"It's applied clinical informatics, meaning when you leave this fellowship program you will have done something operationally during your training and be ready to lead informatics efforts," Yu said.

TRI has supported biomedical informatics at UAMS and ACH through grant opportunities, access to national clinical data networks, and salary support of 16 biomedical informatics faculty and staff.

The partnerships with TRI, Prior said, are helping UAMS deliver on major informatics priorities for UAMS and the NIH National Center for Advancing Translational Sciences (NCATS).

"In the last few years, we have become national leaders in the field, and the Clinical Informatics Fellowship Program is exhibit 1A," Prior said. "It is a tribute to the support of our institutional leaders, and the CTSA support through TRI has made all the difference in our success."

TRI, DDEI Call for Research Mini-Grant Applications

TRI and the UAMS Division for Diversity, Equity and Inclusion (DDEI) have issued a Request for Applications (RFA) for mini-grants of up to $10,000 that will support research of underrepresented minority (URM) faculty.

The one-year grants can be used for a broad range of research activities including consultant fees, supplies, software, transcribing and analyzing existing data, data collection, publication fees, participant incentives and other activities to prepare for applying for extramural funding.

All applications must be submitted no later than Dec. 13, 2021, at 5 p.m.

For questions or additional information, please contact **Paul Duguid at pduguid@uams.edu.** Potential applicants are welcome to request an informal consultation with our faculty prior to submitting their application.

A $30,000 UAMS Chancellor's Circle award will increase the number of mini-grants available this year.

To view the RFA, visit TRI.uams.edu.

TRI Announces Five Implementation Science Scholars

TRI and the UAMS Center for Implementation Research (CIR) have selected five clinical faculty as the 2022 Implementation Science Scholars. Using the principles of implementation science, faculty at CIR guide the scholars through didactic sessions and provide oversight and mentoring for their experiential implementation science projects. The two-year program provides 20% salary support (up to salary cap).

The scholars and their project titles are:

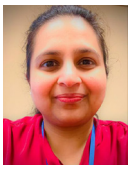
Amit Agarwal, M.B.B.S., M.D., Associate Professor, Department of Pediatrics, College of Medicine (COM)
Implementation of Standardized Tracheostomy Care Method by Multidisciplinary Team Model (MDT) and Incorporating High-Fidelity Simulation to Train Caregivers of Children Requiring Long-Term Mechanical Ventilation

Shipra Bansal, M.D., Assistant Professor, Department of Pediatrics COM
Implementing Standardized Bone Health Care Guidelines in Children with Duchenne Muscular Dystrophy

Holly D. Maples, Pharm.D., Associate Professor, Department of Pharmacy Practice, College of Pharmacy
Reducing the Variations in Diagnosis and Treatment of Pediatric UTI's in Arkansas

Spyridoula Maraka, M.D., M.S., Assistant Professor, Department of Internal Medicine, COM
Implementation of Combined Strategies to Minimize Levothyroxine Overuse

Deepa Raghavan, M.D., FCCP, Assistant Professor, Department of Internal Medicine, COM
Bridging Gaps in COPD Care



Implementation Science Symposiums Set

Implementation Science scholars will present their work in two symposiums in December.

Scholars completing their **first year of the program** will present **Dec. 7, 1 -4:30 p.m.**

Those graduating from the **two-year program** will present **Dec. 8, 9 a.m. -12:30 p.m.**

Stayed tuned for additional event details.

TRI Study of the Month

TRI's Study of the Month features Sumant Inamdar, M.D., (right) with TRI's Danielle Evans, Ph.D., research program manager.

- **UAMS Principal Investigator:** Sumant Inamdar, M.D., Assist. Prof., Div. of Gastroenterology and Hepatology, Department of Internal Medicine, COM
- **Summary:** The SpHincterotomy for Acute Recurrent Pancreatitis (SHARP Trial) is testing the effectiveness of Endoscopic Retrograde CholangioPancreatography with sphincterotomy, a common procedure for the condition. It is an NCATS Trial Innovation Network (TIN) facilitated study.
- **Significance:** Pancreatitis can cause severe pain. A sphincterotomy opens a blocked duct in the pancreas to allow fluids to drain, which researchers hypothesize provides long-term relief to the acute pain associated with the condition.
- **TRI Services:** Budget development, Medicare coverage analysis, regulatory and research nurse coordinator services.
- **Sponsor:** NIH National Institute of Diabetes and Digestive and Kidney Diseases

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TRI Announces 2021 Team Science Voucher Recipients

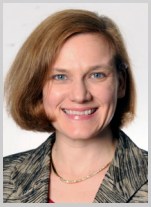
TRI has announced its 2021 Team Science Voucher Program recipients. The voucher program aims to increase the quantity, quality and effectiveness of cross-disciplinary research at UAMS. Awards of up to $20,000 went to five UAMS teams.

The vouchers will help the teams generate key data and increase their projects' translational potential. TRI will also provide resources and mentoring as needed to facilitate the teams' implementation of team science.

The principal investigators, team members and project titles are:

Akilah Jefferson, M.D., Assistant Professor, College of Medicine, Department of Pediatrics; *Association of Quality Metrics and Adverse Outcomes for Children with Asthma*

Team members: Clare Brown, Ph.D., MPH, Arina Eyimina, M.A., Anthony Goudie, Ph.D., Tamara Perry, M.D., Mandana Rezaeiahari, Ph.D., and Mick Tilford, Ph.D.

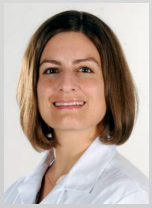


Erika Petersen, M.D., Professor, College of Medicine, Department of Neurosurgery; *Gamified Quantification of Normal and Pathological Movement Using 2D and Virtual Reality Interfaces and Haptic Sensing for Therapeutic Efficacy and Disease Progression in Movement Disorders*

Team members: Tuhin Virmani, M.D., Ph.D., Joseph Sanford, M.D.

Analiz Rodriguez, M.D., Ph.D., Assistant Professor, College of Medicine, Department of Neurosurgery; *Immunotherapy for Melanoma Brain Metastases*

Team member: Alan Tackett, Ph.D.



Rachel Slotcavage, M.D., Assistant Professor, College of Medicine, Department of Surgery; *Evaluation of Neurocognitive Dysfunction in Primary Hyperparathyroidism*

Team member: Neil M. Masangkay, M.D.

Christopher Walter, Ph.D., Assistant Professor, College of Health Professions; *Physical Therapy Team Science to Address Movement Deficits in the Marshallese Community*

Team members: Don Willis, Ph.D., and Holly Felix, Ph.D.

*The **TRIbune** is produced by the UAMS Translational Research Institute (TRI). It is supported by grant UL1 TR003107 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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