

THE BRIDGE



ACCELERATING DISCOVERIES TOWARD BETTER HEALTH

**JANUARY
2013**

Core Support

TRI Strengthens UAMS Research Facilities and Technologies



(L-R) Terri Alpe, molecular imaging specialist, and Michael Borrelli, Ph.D., professor of radiology and director of the Molecular Imaging Core, recently demonstrated the Core's powerful 7T MRI scanner to UAMS researchers Peter Crooks, Ph.D., Roopa Ram, M.D., and Hongyun June Zhu, M.D.

When Kent McKelvey, M.D., became interested in exploring the etiology of bone loss in his Down syndrome patients, he turned to Larry Suva, Ph.D., director of the Skeletal Phenotyping Core.

Working with Suva, other researchers and staff at the Skeletal Phenotyping Core, McKelvey, a UAMS geneticist and Down syndrome specialist, gained new insights that will inform the treatment of his patients.

"This is a perfect example of translational research," said McKelvey, whose published findings received support from the Translational Research Institute (TRI).

TRI's Core Role

The Skeletal Phenotyping Core is one of 16 UAMS cores that offer vital pay-per-use research facilities and technologies to all UAMS investigators. To help ensure that the cores remain strong, TRI, with its NIH-funded Clinical and Translational Science Award (CTSA), provides administrative and other support.

Philip Mayeux, Ph.D., is director of TRI's Translational Technologies Support Center. Through the Support Center, TRI helps promote all of the cores, such as by sponsoring Core Day, by paying for posters and by providing travel awards for

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Letter from Dr. Lowery



Dear Colleagues,

The UAMS Translational Research Institute (TRI) recently signed an agreement that initiated a four-state collaborative involving similarly funded NIH Clinical and

Translational Science Award (CTSA) recipients.

The Western States Collaborative comprises Arkansas, Kansas, New Mexico and Utah, states that share common health care challenges, including significant rural populations. Like Arkansas, each state is served by a single CTSA institution: the University of New Mexico Health Sciences Center (UNM), the University of Kansas Medical Center (KUMC), and the University of Utah Health Care (UHC).

We have identified five initial areas of collaboration: community engagement, emerging technologies, career building/mentoring, multi-center pilot research programs, and integrated and interdisciplinary education, training, and career development in clinical and translational science.

One of our first initiatives is pilot funding for collaborations involving at least two of the four states. The deadline for applications is Feb. 15. You can learn more about the RFA at tri.uams.edu/about-tri/newsroom.

This exciting opportunity will allow us to advance our own research interests while leveraging the collective translational research activities from all the states to deliver results that benefit the region and the nation.

Sincerely,

Curtis Lowery, M.D.

Director
UAMS Translational Research Institute (TRI)



Core Support continued

conferences and training. In some instances, TRI may provide strategic investments, such as its recent purchase of an MRI simulator for the Brain Imaging Research Core.

The cores are featured on TRI's website (tri.uams.edu), which hosts TRI-sponsored informational videos for the cores. The website also includes information on how to establish a new core.

High Marks

TRI conducts an annual assessment of the cores that helps determine each core's UAMS subsidy level. In the most recent assessment, there were 537 users of the cores. Mayeux noted that many users are from outside

UAMS and even other states.

"Our cores are priced competitively, but just as importantly the staff receive really high marks for their customer service based on our user surveys," said Mayeux, professor in the Department of Pharmacology and Toxicology. "They are eager and willing to work with investigators who know they can talk to the core personnel and get their questions answered."

Mayeux said his goal as director is to raise awareness of the cores among UAMS researchers. He invites all researchers to contact him if they have questions about the cores.

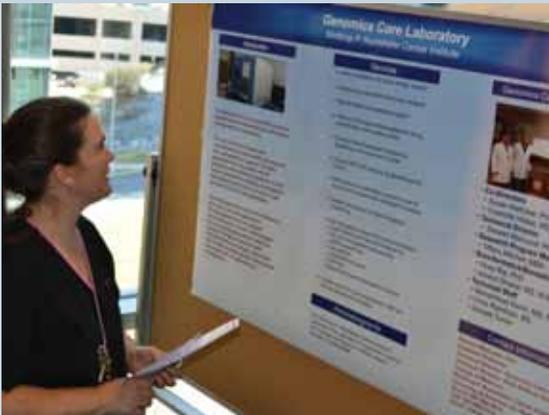
Mayeux can be reached at 686-8895, or prmayeux@uams.edu.



Data Milestone

The UAMS Enterprise Data Warehouse now has nearly 1 million patients whose de-identified data can support a wide range of translational research. The Data Warehouse became one of the few in the country with a statewide reach when it recently added data from about 200,000 patients seen at UAMS Area Health Education Centers (AHECs) Family Medical Centers in Arkansas. The Data Warehouse receives support through the Translational Research Institute (TRI) Comprehensive Informatics Resource Center (CIRC).

Core Programs



Carrie Brown, M.D., reads a poster on display at Core Day, an annual TRI-sponsored event that promotes the research involving each of UAMS' 16 cores.

Below are UAMS core facilities supported by the Translational Research Institute (TRI), including the Clinical Research Services Core (CRSC), which is managed by TRI.

- Biodosimetry Diagnostic Core • Digital Microscopy Lab • DNA Damage & Toxicology Core • Flow Cytometry Core • Proteomics Core • DNA Sequencing Core • Genomics Core • Crystallography Core • Experimental Pathology Core • Skeletal Phenotyping Core • Tissue Procurement Facility • Bioluminescent & Fluorescent Imaging Core • Biotelemetry & Ultrasound Imaging Core • Molecular Imaging Core • Transgenic Mouse Core • Brain Imaging Research Core • Clinical Research Services Core.

The Bridge is produced for UAMS-affiliated investigators by the UAMS Translational Research Institute (TRI).

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Question of the Month

What is the Translational Research Institute's role in the education of researchers?

TRI's Research Education, Training and Career Development program provides resources for community partners, graduate and medical students, and junior faculty across all UAMS colleges. Its goal is to attract a diversity of outstanding students and faculty members to clinical and translational research careers, and provide them the guidance and tools to be successful, independent investigators. UAMS researchers can apply for funded career development training, such as our KL2 Scholar Awards, and mentoring is available through the TRI "Pathfinders," advisers who assist students and faculty in identifying appropriate mentors and outlining academic and career development plans.

Part of the Answer

Two new efforts by the Translational Research Institute (TRI) to recruit research participants are beginning to bear fruit. More than 630 Arkansans have signed up through ResearchMatch, an online registry of people willing to volunteer for research. Another 149 people have requested text messages about research at UAMS that calls for volunteer participation. Researchers interested in using these recruitment resources may contact Kim Morehead, 526-7906, or email moreheadkimberly@uams.edu.

High Hopes

Researchers Complete First Dosing of Meth Medication



UAMS and InterveXion researchers (l-r) Misty Stevens, Ph.D., Brooks Gentry, M.D., and Michael Owens, Ph.D., are looking forward to additional clinical tests of a drug to help meth users fight their addictions. Not pictured are InterveXion's Ralph Henry, Ph.D., and Barry Holtz, Ph.D.

UAMS and InterveXion researchers Brooks Gentry, M.D., Michael Owens, Ph.D., and Misty Stevens, Ph.D., M.B.A., have led their pharmaceutical company, InterveXion Therapeutics LLC, through the first phase of dosing in the first human safety study of a medication to help methamphetamine users fight their addictions.

The medication is expected to significantly reduce or prevent the euphoric rush that drug users crave by keeping methamphetamine in the bloodstream and out of the brain, where the drug exerts its most powerful effects.

Funding for the project was awarded to UAMS and InterveXion from the National Institute on Drug Abuse (NIDA). Additional support has been provided by the Translational Research Institute (TRI), which submitted a letter of support as part of the RO1 grant application for the clinical trial indicating TRI's commitment to provide biostatistical services and other funding totaling \$58,000 to help facilitate the clinical trial.

In the Phase I trial, 40 healthy volunteers who do not use methamphetamine received the

medication - a monoclonal antibody named ch-mAb7F9 - and experienced no serious side effects. Doses ranged from 0.2 to 20 mg/kg.

Results of the Phase 1a study are expected in mid-2013.

"While we still have lots of work to do, this is a significant milestone for this research," said Gentry, a UAMS professor and InterveXion's chief medical officer who is overseeing the clinical trial phase. "Many experimental drugs fail during the first phase of a clinical trial, so we're excited that we can now look forward to testing in methamphetamine users who want help reducing their meth dependence."

Assuming it receives FDA approval, the antibody will be given as an integral part of a methamphetamine user's complete treatment program, which consists of counseling and possibly other medications to reduce craving.

InterveXion, a UAMS BioVentures incubator client company, has licensed the technology for anti-methamphetamine antibody products from UAMS and is working closely with the university during product development.



TRI AUTHORS

The following UAMS researchers cited the Translational Research Institute (TRI) in publications between Nov. 5 and Dec. 21, 2012, after utilizing TRI resources or receiving TRI funding:

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Cite Us!

Thank you for remembering to cite TRI in your publications resulting from studies that receive TRI support. Please note TRI's award numbers: **UL1TR000039** and **KL2TR000063**.