KL2 Scholar Orientation

Wednesday, June 1, 2022

James H. Hamlen II Boardroom

UAMS

Translational Research Institute

John Arthur, M.D., Ph.D.
Elisabet Borsheim, Ph.D.
Carolyn Greene, Ph.D.
Chaz England, M.S.
Sandra Hatley, MHA, CRS
Kaderick Jones

Welcome

- Welcome and congratulations on the tremendous milestone of becoming a KL2 scholar.
- Including this group, a total of 30+ UAMS researchers have received KL2 Scholar Awards since 2009.
- Those who have completed this program have raised more than $44 million in funding outside of UAMS to support their research projects and assist in jump-starting their careers.
- Let's meet our '22-'24 KL2 scholar cohort!

Welcome – ’22-’24 Cohort NCATS Scholars

Nishank Jain, M.D.
Assistant Professor
Internal Medicine Nephrology

“Platelet, Inflammation and Thrombosis in Chronic Kidney Disease”
Primary Mentor: Dr. John Arthur

Jennifer Andersen, Ph.D.
Assistant Professor
NW AR Campus Research

“Feasibility and Acceptability of a Remote Glucose Monitoring Program for Pregnant Marshallese Women whose Pregnancies are Complicated by Diabetes”
Primary Mentor: Dr. Hari Eswaran

Nakita Lovelady, Ph.D., MPH
Assistant Professor
College of Public Health

“A Feasibility Study for the Implementation of a Hospital-based Violence Intervention Program in the Rural South”
Primary Mentor: Dr. Nickolas Zaller

Welcome – ’22-’24 Cohort Children’s Scholars

Akilah Jefferson-Shah, M.D., M.Sc.
Assistant Professor
Pediatrics Allergy

“Delineating Individual and Population-level Factors that Contribute to Disparate Pediatric Asthma Outcomes and to Develop Predictive Models for Identifying Children at Risk for Poor Outcomes”
Primary Mentor: Dr. Tamara Perry

Jennifer Rumpel, M.D.
Assistant Professor
Pediatrics Neonatology

“Advancing Care of Neonates with Acute Kidney Injury Utilizing the Children’s Hospitals Neonatal Consortium Database”
Primary Mentor: Dr. Mario Schootman

Welcome – ’22-’24 Cohort COM Scholars

Amy Sato, Ph.D.
Assistant Professor
Physiology & Cell Biology, COM

“Identification of Cardioprotective Signatures Induced by Targeting MuRF1 and Vitamin D Signaling in Glucocorticoid-Associated Cardiac Disease”
Primary Mentor: Dr. Marjan Boerma

Timothy “Cody” Ashby, Ph.D., M.S.
Assistant Professor
Biomedical Informatics, COM

“Determining Multiple Myeloma Risk and Heterogeneity at a Single-Cell Resolution”
Primary Mentor: Dr. Fenghuang Zhan

Welcome – ’22-’24 Cohort CI and CAVHS Scholars

Sayem Miah, Ph.D.
Assistant Professor
Biochemistry & Molecular Biology
Cancer Institute

“Targeting BRK with PROTAC to Halt Metastatic Triple Negative Breast Cancer”
Primary Mentor: Dr. Alan Tackett

Deepa Raghavan, M.D.
Physician
Internal Medicine Pulmonary
CAVHS

“Implementation of COPD Clinical Practice Guidelines with Incorporation of Telehealth”
Primary Mentor: Dr. JoAnn Kirchner

Welcome

The overarching goal of our KL2 Scholar Program is to increase the number of outstanding translational scientists who conduct innovative research on health issues that impact the residents of Arkansas and the U.S.

The KL2 Scholar Program is designed to support the research career development of promising early career faculty and enhance successful transition into research independence and leadership at their respective institutions and nationally. The Program focuses on the very best of the best junior faculty who are committed to a research career in clinical and transitional science.

Program Aims

1. Train junior clinical and translational scientists, producing researchers who can flourish as independent scientists in an interdisciplinary environment and accelerate movement of research along the translational research continuum, using focused individual career development plans (IDPs) and education in team science.
2. Enhance mentor effectiveness and create a culture of mentoring through improved mentor training and strategies.
3. Efficiently collect and use data on scholar, mentor, and program outcomes to continually improve the program and understand its impact on rural and underserved populations.
4. Creatively and systematically identify and recruit an ethnically, racially, and professionally diverse group of KL2 scholars with high potential for success in research.

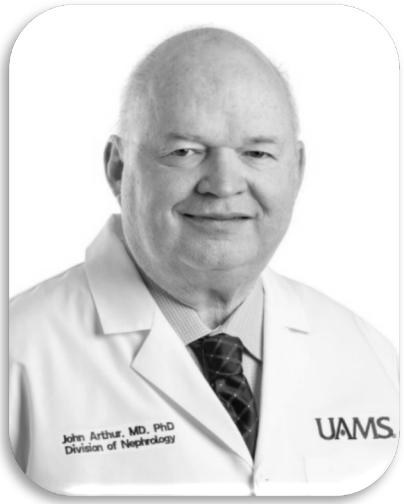
Leadership

Faculty Leadership

- John Arthur, M.D., Ph.D.
- Carolyn Greene, Ph.D.
- Elisabet Borsheim, Ph.D.

Staff Leadership

- Chaz England, M.S.
- Sandra Hatley, MHA, CRS
- Kaderick Jones



WE ARE
here to support you

Background

Established in 2009 and supported by the National Institutes of Health National Center for Advancing Translational Sciences (NCATS), the Translational Research Institute (TRI) is a member of the Clinical and Translational Science Award (CTSA) program.

TRI's mission is to develop new knowledge and approaches that will address and positively impact the complex health challenges of Arkansas' rural and underrepresented populations. TRI seeks to build a thriving research community across Arkansas that assists researchers in turning their discoveries into widely accessible health solutions.

Background

TRI supports translational researchers at the following Arkansas institutions:

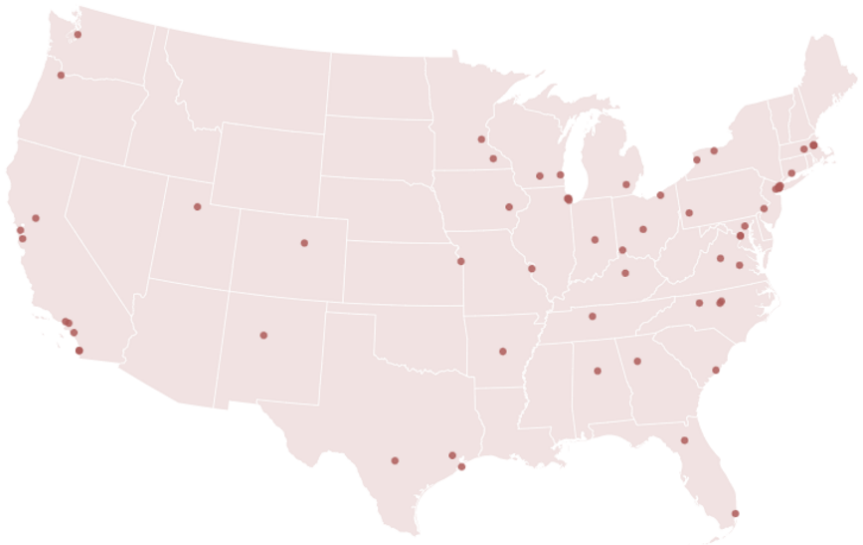
- University of Arkansas for Medical Sciences (UAMS)
- Arkansas Children's Hospital (ACH)
- Arkansas Children's Research Institute (ACRI)
- Central Arkansas Veterans Healthcare System (CAVHS)

Background

Dr. Laura James is the Director of the Translational Research Institute and is also the Associate Vice Chancellor for Clinical and Translational Research, as well as a Professor of Pediatrics. She is also TRI's Principal Investigator (PI).

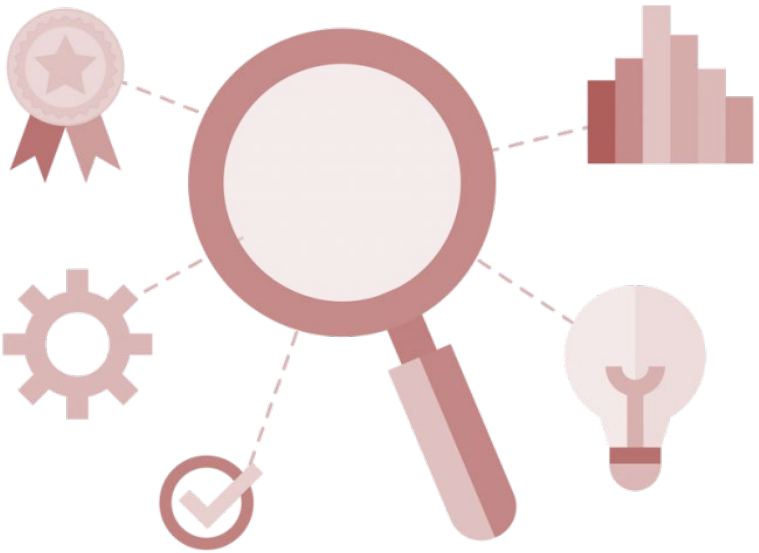
About the CTSA Consortium

- The CTSA program creates a definable academic home for clinical and translational research.
- CTSA institutions work to transform the local, regional, and national environment to increase the efficiency and speed of clinical and translational research across the country.
- The CTSA Consortium aims to improve human health by transforming the research and training environment to enhance the efficiency and quality of clinical and translational research.
- TRI encourages meaningful collaborations with other CTSA institutions.
- Each CTSA has its own KL2 program.



Program Activities

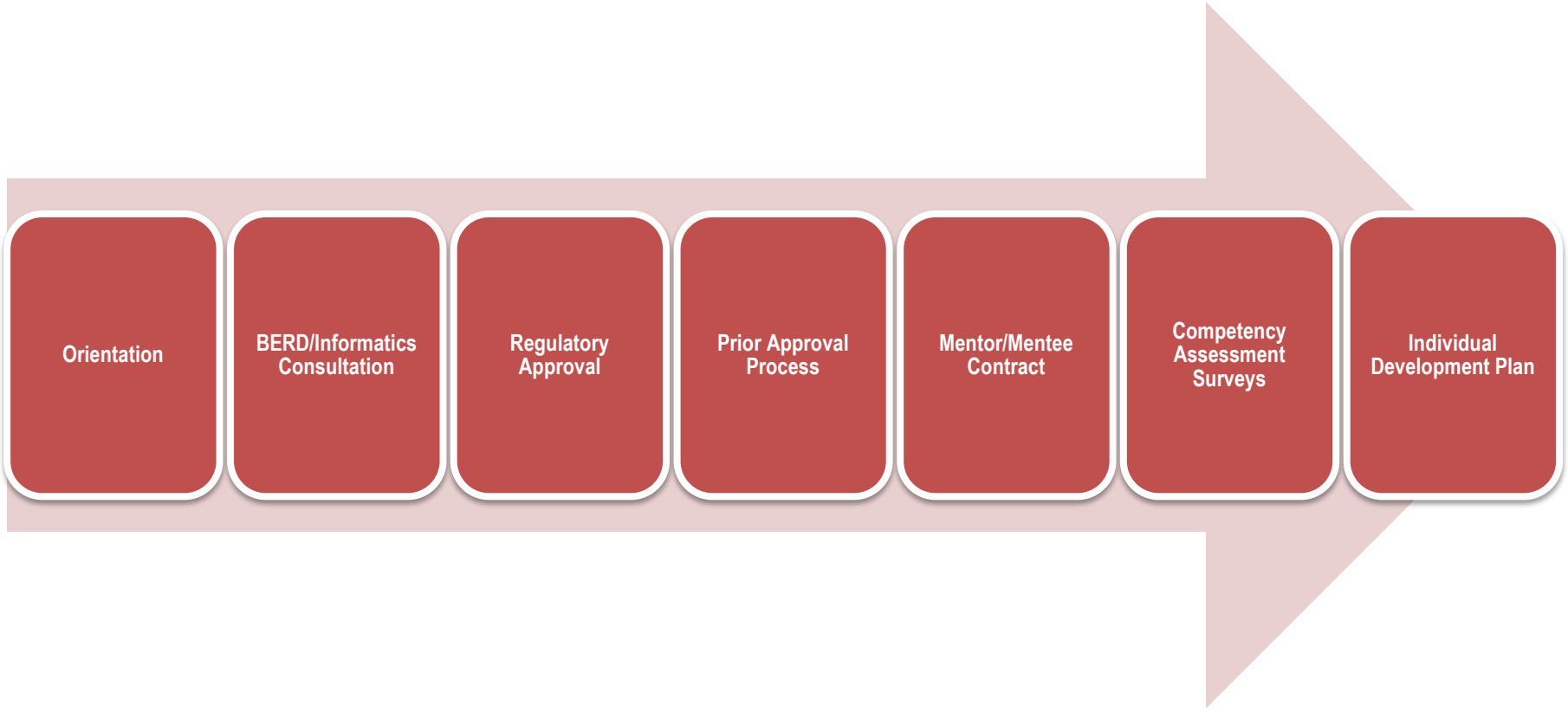
- Mentored research project
- Interdisciplinary program activities
- Individualized training options



Program Applications and Awardees

Year	Number of Applications	Number of Awards	Funding Mechanism
2019	11	5	• 3 – NCATS • 1 – Cancer Institute • 1 – ACRI
2020	9	3	• 3 – NCATS
2021	17	5	• 3 – NCATS • 1 – Cancer Institute • 1 – CAVHS
2022	16	9	• 3 – NCATS • 1 – Cancer Institute • 2 – ACRI • 1 – CAVHS • 2 – College of Medicine

Timeline of Actions



Core Competencies

- Guide to skills and knowledge that you need in order to be successful.
- Think about areas you may need more help.
- Use as a guide on who to approach for assistance in certain areas.
  - You have done an awesome job of structuring your training programs.
  - Core Competency Assessment will be performed in order to identify gaps that we need to work on.

Core Competencies

Table 12: KL2 Program Activities Addressing Scholar Skills and Core Competencies		
Domain	**Core Competencies**	**Program Activities**
Research Design & Methodology	Critically evaluate research literature Formulate hypotheses and aims Construct an experimental study design Select measurements and apply operational definitions Understand sample size, power and sampling techniques Understand methods of experimental control, internal/external validity Knowledge of human laboratory procedures and techniques	Mentor/mentor team meetings Co-Directors meetings Grant writing course K Paseo program TRI RCD seminars Tailored didactic coursework
Human Subjects Protection & Research Ethics	Develop strong foundation in best practices and ethical standards for conducting clinical research Understand ethical considerations specific to patient-centered research, especially in vulnerable populations Understand professional ethics, e.g., authorship, conflicts of interest	Mentor meetings CITI program RCR training program/bootcamp Tailored didactic coursework TRI ethics consultations
Data Collection, Management, Analysis and Interpretation	Construct plan for data collection and entry Construct data file management plan Understand statistical and clinical significance Use common statistical tests & software packages; interpret output	Mentor/mentor team meetings TRI biostatistics consults Tailored didactic coursework Bioinformatics training and consults TRI RCD seminars
Dissemination of Research Findings	Display outcomes data Prepare/submit conference abstracts Prepare/submit journal manuscripts and respond to critiques Integrate findings into existing literature Provide clear written and oral interpretation of results Create and deliver oral and poster presentations	Mentor meetings OGSP consultations Preparation and presentation at CTS and other professional meetings Tailored didactic coursework Community Engagement consults
Research Administration	Secure and maintain IRB approval Build/participate on multidisciplinary research team(s) Develop/revise study timelines Prepare/manage study budgets Supervise research staff Interact with university clinical, financial & research admin personnel	Mentor/mentor team meetings Co-Directors meetings TRI RCD seminars Tailored didactic coursework
Grant Writing	Understand R-series funding opportunities (R03, R21, R01) and equivalents (VA, DOD, voluntary health organizations Understand funding sources, mechanisms, forms, and formats, submission requirements, cycles and review procedures Demonstrate proficient grant writing skills	Mentor meetings Grant-writing course, consultations K Paseo TRI RCD seminars Tailored didactic coursework
Professional Development and Challenges	Understand career phases and academic expectations Understand promotion & tenure requirements and cycles Expand circle of collaborators, consultants and networking Demonstrate efficient time management Handle potential conflicts of interest and/or commitment	Mentor/mentor team meetings Co-Directors meetings TRI RCD seminars TRI/UAMS Professional Development seminars

Research Project

- You have already worked hard in order to develop a plan.
- Projects are valuable in and of themselves, but remember to continue to adapt them in order to facilitate application for an independent funding event.

Research Career Development Plan

- This is the secondary significant component of the KL2 program.
  - Stay in close contact with your mentors. You may find that you need others' help as you proceed.
  - TRI will facilitate the help that you need.

Things to Know

1. Responsible Conduct of Research Training
   - Scholar will complete the NIH requirement of Responsible Conduct of Research training within the two year award period.
2. Compliance
   - Scholar will comply with the Health Insurance Portability and Accountability Act and other research and confidentiality requirements described in the UAMS Administrative Code.
3. Individual Touch-base Meetings
   - Weekly Mentor Meetings
   - Quarterly Director's Meetings
     - Meeting includes Primary Mentor, Program Directors, and Success and Support Team member(s).
     - During these meetings, you will have the opportunity to discuss successes and challenges with your support team in order to identify and mitigate barriers.

Things to Know

4. Group Meetings
   - Third week of each month
   - KL2 Seminar/Research Career Development Seminar Series
     - Goal is to increase scholars' productivity, improve communication skills, and foster a team science environment that emphasizes the importance of obtaining broad input to improve research quality.
5. Work in Progress (WIP)
   - 2-3 times each year per scholar
   - Opportunity to discuss, obtain feedback, practice presentation skills, etc.
6. Research Fundamentals
   - First Friday of each month
   - Shared with COBRE, T32, TL1 and other trainees
   - Scientific career development - IDP, communication, RCR, grant writing and management, funding sources, writing specific aims, peer review, budget management, and leadership
   - Part of extended career development training

Things to Know

Study Tasks by Aim	Year 1				Year 2				One-on-One, Weekly Mentor Meetings					Quarterly Meetings of All Study Team
	7/21 - 6/22				7/22 - 8/23									
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Sexton	Baghal	Powell	Lipshitz	Swindle	
AIM 1: Characterize primary care team EMR communication flow related to medically complex patients									X					
Refine IRB protocol	X								X					
Submit full de-identified data request to Arkansas Clinical Data Repository		X	X						X	X	X			
Data cleaning and transposition			X						X	X				
Quantitative data analysis			X						X	X				
CDP: Coursera - "Social Network Analysis: Computational Social Science" Course		X							X					
CDP: UAMS DBMI - "Introduction to the Discipline of Clinical Informatics"	X								X		X			
CDP: UAMS DBMI - Biomedical Informatics Research & Application Seminar	X	X	X	X	X	X	X	X	X		X			
CDP: Coursera - "Fundamentals of Data Visualization with Tableau" Course				X					X	X				
AIM 2: Determine how changes in EMR communication patterns of primary care teams relate to care outcomes									X					
Submit full data request to UAMS EMR (EPIC)				X					X	X				
Quantitative data analysis				X					X	X	X	X	X	
Submit manuscript 1				X					X	X	X	X	X	
CDP: UAMS DBMI - "Evidence-based Clinical Decision Making Using Data"			X						X		X			
CDP: UAMS DBMI - "Healthcare and System Process Improvement and Redesign"			X						X		X			
CDP: UAMS DBMI - "Leadership, Teams, and Project Managing for Success"			X						X		X			
CDP: UAMS COPH - HPMT 5103 The Health Care System	X	X							X					
CDP: UALR - INFQ 7303 Principles of Information Quality	X	X							X					
CDP: High Risk Clinic Shadowing w/ Dr. Riley Lipschitz			X	X										
HPMT 6319: Implementation Research in Clinical Practice Settings					X	X							X	
AIM 3: Identify unaddressed, residual communication needs of the primary care teams in managing medically complex patients									X					
Develop interview protocol					X				X			X	X	
Modify IRB protocol					X				X			X	X	
Recruit 30 interview participants						X			X			X	X	
Conduct 30 interviews						X			X			X	X	
Qualitative data analysis						X	X		X	X	X	X	X	
Submit poster presentations							X		X	X	X	X	X	
Submit manuscripts 2 and 3							X	X	X	X	X	X	X	
CDP: Weekly Clinical Informatics Lab Meetings W/ Primary Mentor	X	X	X	X	X	X	X	X	X					
CDP: UAMS Responsible Conduct of Research	X	X	X						X					
CDP: CITI Training Renewal - Behavioral Science Modules	X								X					
CDP: Association for Clinical and Translational Science			X				X	X	X					

Example of a Mentoring Meeting Plan

Things to Know

Other Training Opportunities

1. Annual ACTS Meeting
   - March or April every year.
   - Scholars are welcomed to submit abstract and attend as there are opportunities to moderate panels, meet with NIH, FDA, and members of Congress, and participate in Mock Study Sections.
2. Team Science Training
   - Online modules
3. K to R Program (K-Paseo)
4. Path 2 K Program

Evaluation Mechanisms

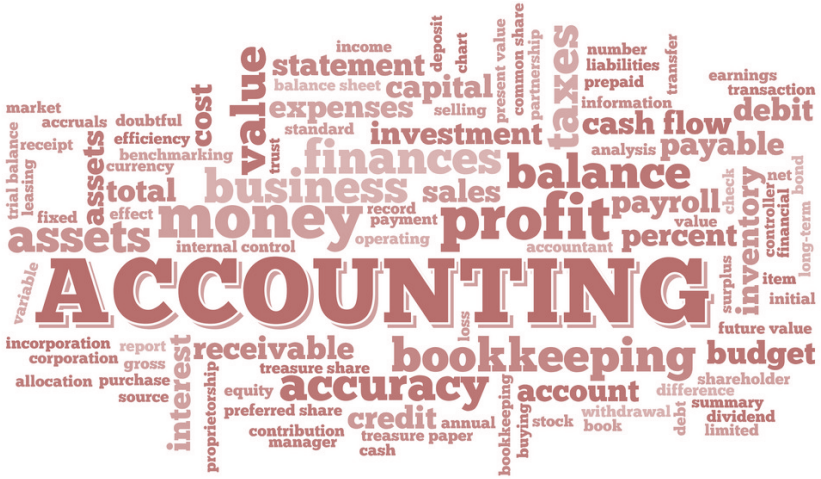
- Scholar evaluation of mentor
- Mentor evaluation of scholar
- Mentorship Self-Reflection Tool
- Mentorship Effectiveness Scale

Reporting Mechanisms

- REDCap – Used for all reporting.
- Quarterly Progress Reports – Provides updates on research progress, coursework, mentor meetings, RCR training, etc.
- Annual Report – Required for two years past project termination date.
- Final Report – Within 60 days of close of grant term.
- Mentor Reports – Semi-annual frequency.
- Publication Reports – This is a new tool that provides scholars with the ability to report on any completed publications.

Financial Management

- Funding for the project will be provided by the creation of a separate account in the UAMS SAP accounting system.
- This account will be setup under the Principal Investigator's home department.
- All requisitions should be processed through the appropriate UAMS channels.



Financial Management

Topics Regarding Your KL2 Financial Management:

1. Account Setup and Financial Responsibility
2. Tracking and Reporting Monthly Expenditures
3. Budget Changes and Modifications
4. Audit and Allowable Costs
5. No Cost Extensions
6. Final Closeout

Laura Wilson, CRA
Director of Business Operations
(501) 526-6582

Things to Remember

- Federal vs. Institutional funding
- Scope Changes
  - Changes in scope of work, mentor, or significant budget changes should be approved in writing by the KL2 Program Directors.
  - The scholar should notify TRI in writing if they are unable to complete the project and will terminate the award.
- No Cost Extensions
  - Scholar should submit request and budget to the appropriate parties.
  - This is typically done at the end of the second year.

Expectations

- Submission of at least 3 manuscripts
  - Two where you are the primary or secondary author.
  - Two should represent original research.
- A K- or R-level proposal should be submitted or under development by the end of year two.
- Cite TRI in all relevant items.
- For full context of expectations, please refer to page 5 your Program Handbook

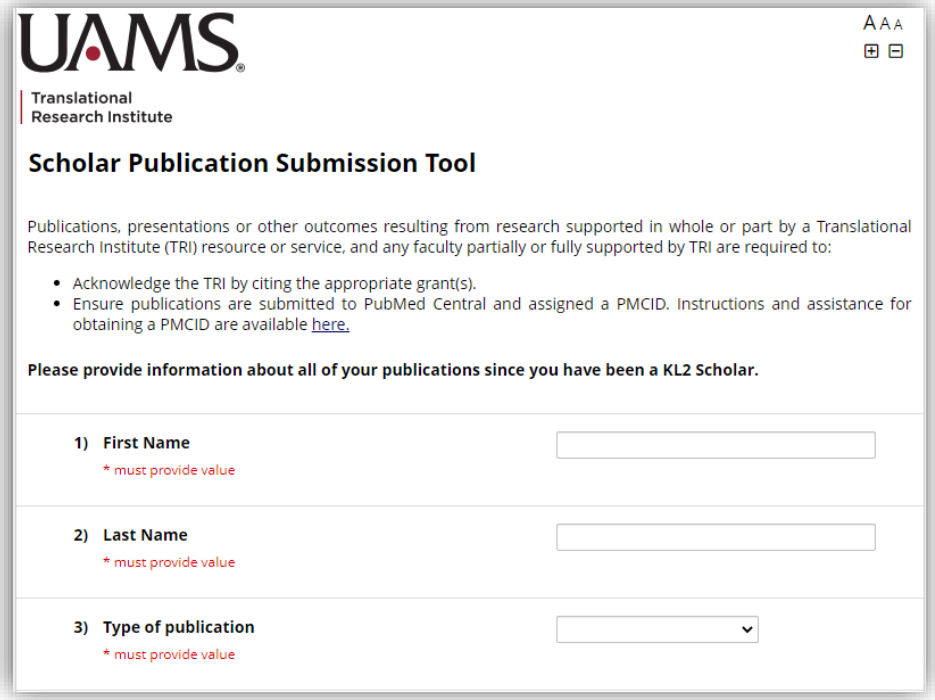
Expectations

- One opportunity to publish is the Summer 2022 Writing Challenge.
- The challenge runs from June 1st to August 31st and is a way for researchers to compete with others on who can publish the most as primary authors.
- Be on the lookout for the next TRI Announcement, which provides additional details on the challenge… and don't forget to cite TRI!

Cite TRI

- As a reminder, publications, presentations, or other outcomes resulting from research support in whole or part by a TRI resource or service are required to be acknowledged by citing the appropriate grant(s).
- TRI has a new, simplified “Cite Us” logo.

Cite TRI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Scholar Publication Submission Tool

Publications, presentations or other outcomes resulting from research supported in whole or part by a Translational Research Institute (TRI) resource or service, and any faculty partially or fully supported by TRI are required to:

- Acknowledge the TRI by citing the appropriate grant(s).
- Ensure publications are submitted to PubMed Central and assigned a PMCID. Instructions and assistance for obtaining a PMCID are available here.

Please provide information about all of your publications since you have been a KL2 Scholar.

1) **First Name**
* must provide value

2) **Last Name**
* must provide value

3) **Type of publication**
* must provide value

Scholars should report all finalized publications to the Scholar Publication Submission tool in REDCap.

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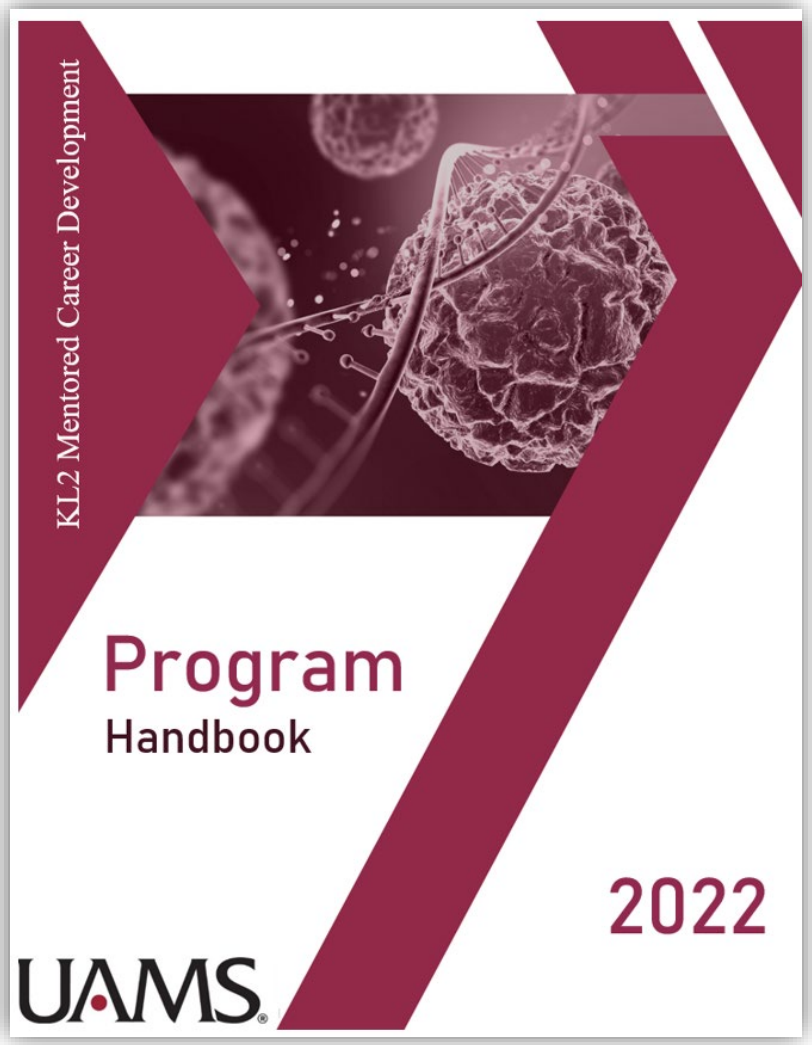
TRI Resources



Please ensure that you refer to your Program Handbook, as necessary.

Program Staff are available to answer any questions that you may have.

TRI Resources

- AR-CDR (Clinical Data Repository)
- AR-CRIS (Clinical Research Informatics Suite)
- ARresearch.org
- Biostatics Research and Design Consultations
- Community Engagement Consultations
- Community Review Boards
- Equipment Library
- Honest Broker
- Implementation Science Consultations
- Mock Study Sections
- Profiles
- Protocol Assistance
- REDCap
- Regulatory Submissions (IRB)
- Research Coordinators
- Research Space (Human Subjects)

Previous KL2 Scholars Weigh In

"Without the KL2 program, I wouldn't have had the protected time to submit grants and manuscripts. It was truly the launching pad for my UAMS research career!"

Keneshia Bryant-Moore, Ph.D., RN, FNP-BC

"Without the support and mentoring provided by the KL2 grant of UAMS, I would not have received a NIH NIAID KO8. This grant provides awardees a roadmap for successful NIH submissions while further helping them navigate institutional requirements for excellent research. I would and have recommend(ed) that any young investigator at UAMS apply for this grant."

Joshua Kennedy, M.D.

"The KL2 program provided me the protected time I needed to establish an independent line of research at UAMS and key skills to advance my pursuit of external funding. I am very grateful for my time as a KL2 scholar."

Taren Swindle, Ph.D.

Previous KL2 Scholars Weigh In

"The KL2 program was instrumental in my career development, allowing me the protected time I needed to immerse myself in my scholarly development. I was able to take courses to develop essential skills, benefit from mentorship across departments, and connect with other researchers and collaborate on projects. Since the KL2, I have continued to lead research projects and programs at UAMS dedicated to implementation of evidence-based mental health practices for young children. I am truly grateful for the opportunity and would highly recommend the program to others."

Sufna G. John, Ph.D.

"For me it was, in particular, protected research time and having funds to do some research that helped me a lot to advance my career. The seminars helped me to see what resources are available at UAMS (particularly statistical support) and I enjoyed our meetings to get input from my peers for the higher-ups. The annual meeting in Washington was good for the grant mock session, and there was also some very innovative research."

Carolina D. Schinke, M.D.

Questions