

2025 ANNUAL IMPACT REPORT

**Advancing Science,
Improving Healthcare for All**



FRONTIERS
CLINICAL & TRANSLATIONAL
SCIENCE INSTITUTE
AT THE UNIVERSITY OF KANSAS



A MESSAGE FROM OUR LEADERS

To our valued Frontiers CTSI members,

What an incredible year it has been! We've witnessed remarkable achievements from our members while expanding our reach, particularly in rural areas. Thanks to your efforts, our membership has now surpassed 1,000 active members—an exciting milestone that opens new doors for collaboration and scientific progress.

Our annual research symposium continues to flourish, and last year's event at the Kansas State Olathe campus was truly outstanding. In addition, we successfully hosted Mock Study Sections at both K-State Olathe and the University of Kansas Lawrence campuses, and we're eager to bring these events to our other partners in the coming year.

Another highlight was co-hosting the inaugural Midwest Research Skills Development Workshop in partnership with the KU Cancer Center. This invaluable event equipped early-career investigators with the essential skills to thrive in their research careers, and we're already looking forward to next year.

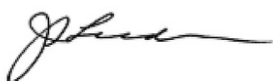
As we look to the year ahead, we have started work on our renewal application. We have formed nine writing teams, led by our co-PIs, Associate Directors, and Executive Director, with contributions from leads, investigators, and core research personnel at our partner institutions. The proposal will undergo a preliminary review this Fall in preparation for submission in May 2026.

Above all, your commitment to our mission is what makes Frontiers CTSI a success. Thank you for driving innovation, fostering collaboration, and pushing the boundaries of science to improve healthcare. Here's to another year of progress and discovery!

Sincerely,



Mario Castro, M.D., MPH
Co-Principal Investigator



J. Steven Leeder, PharmD, Ph.D.
Co-Principal Investigator

***“Science isn’t some lofty thing, it’s helping your mom
with breast cancer, or your brother with colon cancer.”***

Kathy Benich, Community Advisory Board Member

LEADERSHIP



Mario Castro, M.D., MPH
Co-Principal Investigator



J. Steven Leeder, Pharm.D., Ph.D.
Co-Principal Investigator



Lisa Sanderson Cox, Ph.D.
Associate Director



Aditi Gupta, M.D.
Associate Director



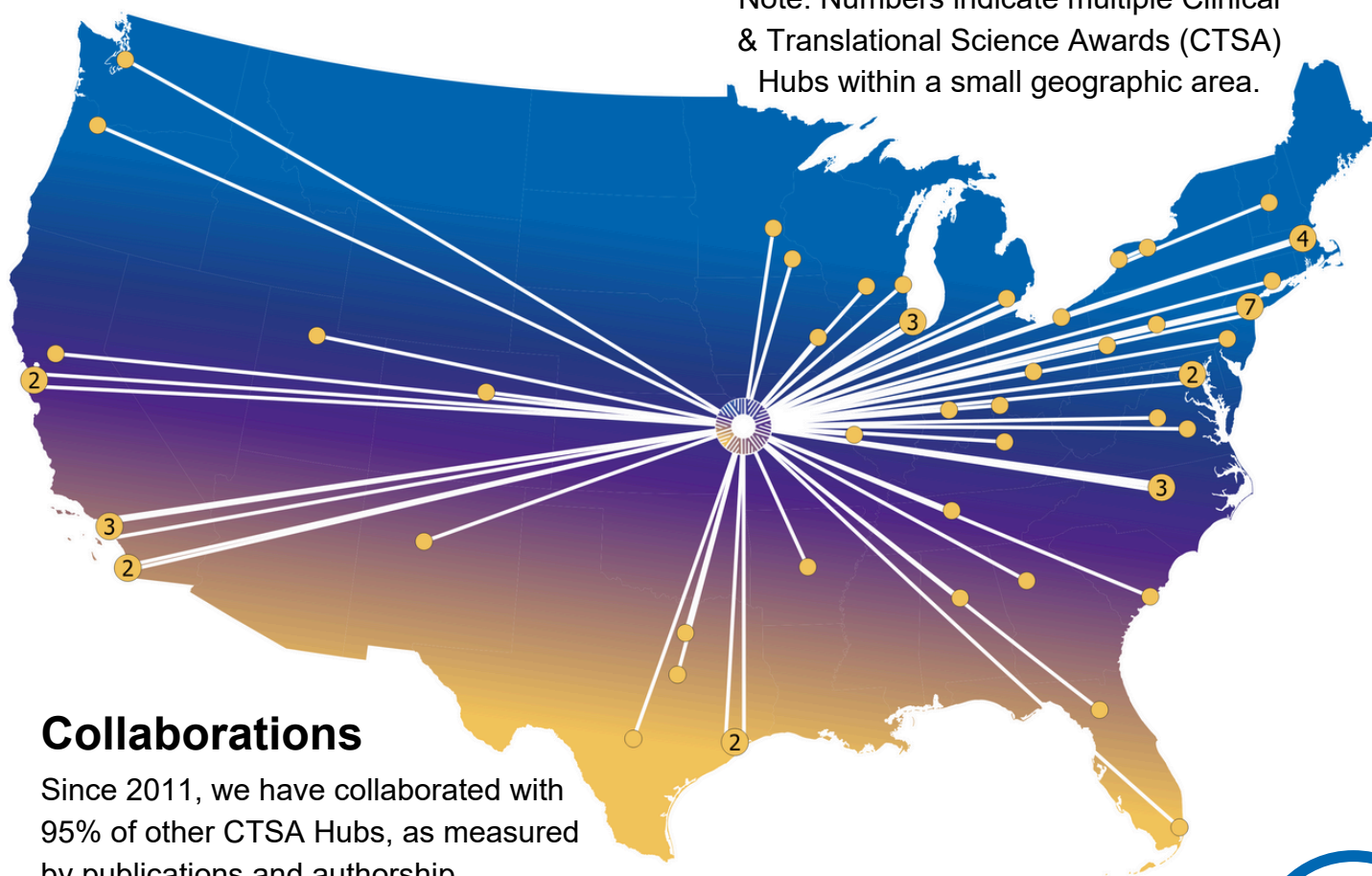
Julius Leary, Ed.D., MBA
Executive Director

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NATIONAL IMPACT

Note: Numbers indicate multiple Clinical & Translational Science Awards (CTSA) Hubs within a small geographic area.



Collaborations

Since 2011, we have collaborated with 95% of other CTSA Hubs, as measured by publications and authorship.



RESEARCH SPOTLIGHT

Kim Randell, M.D., MS.c.

Director of Research, Division of Emergency Medicine
Children's Mercy Kansas City
Professor of Pediatrics, University of Missouri - Kansas City

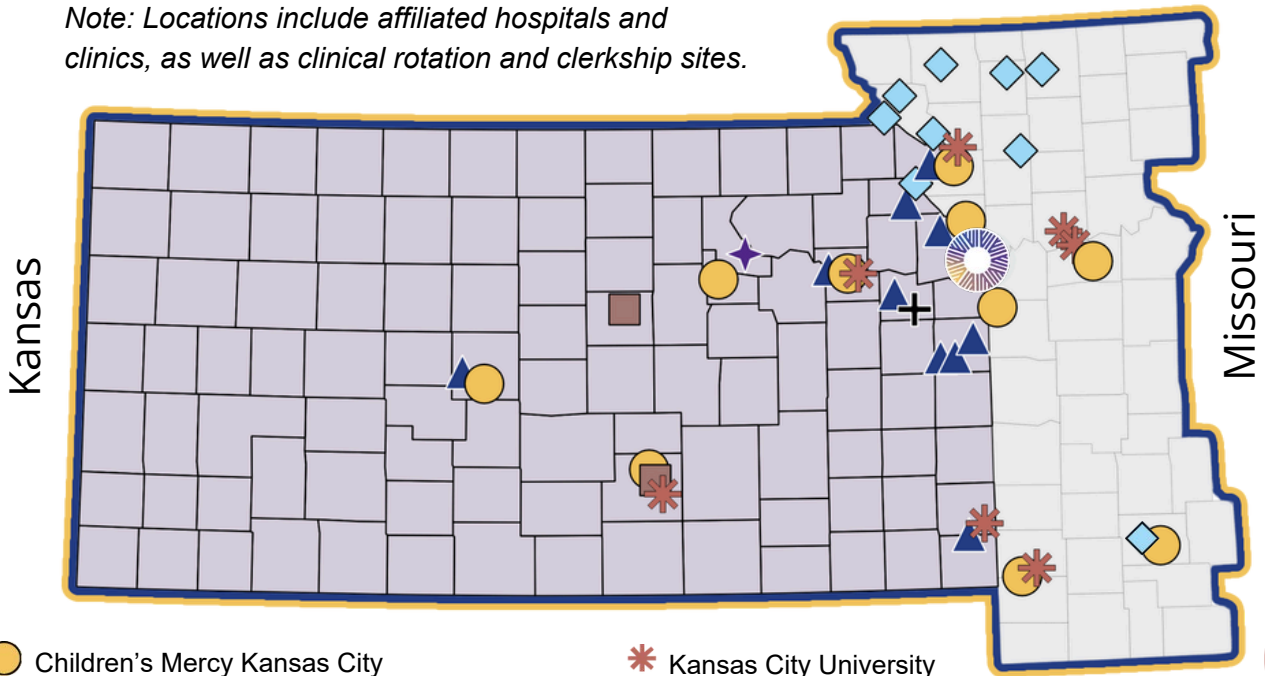
Risk of Intimate Partner Homicide Among Caregivers in an Urban Children's Hospital. (2019). JAMA Pediatrics.

The U.S. Supreme Court decision in *United States v. Rahimi* (2024), relied on findings from Randell's work to uphold that individuals who are subject to domestic violence restraining orders be banned from possessing firearms. This case has had significant public health implications through its impact on gun safety regulations for families and children affected by inter-partner violence.



REGIONAL INSTITUTIONAL PARTNERS

Note: Locations include affiliated hospitals and clinics, as well as clinical rotation and clerkship sites.



● Children's Mercy Kansas City

▲ The University of Kansas Health System

✚ University of Kansas

⬠ St. Luke's Health System

⊙ Frontiers CTSI

* Kansas City University

◆ University of Missouri - Kansas City

✦ Kansas State University

■ University of Kansas Medical Center

LOCAL COMMUNITY INVOLVEMENT

In October 2024, we kicked off our new **Community Advisory Board (CAB)**. This group of community members represent varied backgrounds, experiences, and expertise. They are involved with Frontiers CTSI directly, as members of Frontiers CTSI internal operations group, as attendees of the Multidisciplinary Advocates and Researchers Group, as participants in the Rapid Reactor Panel for our pilot applicants, and as representatives on our External Advisory Committee.

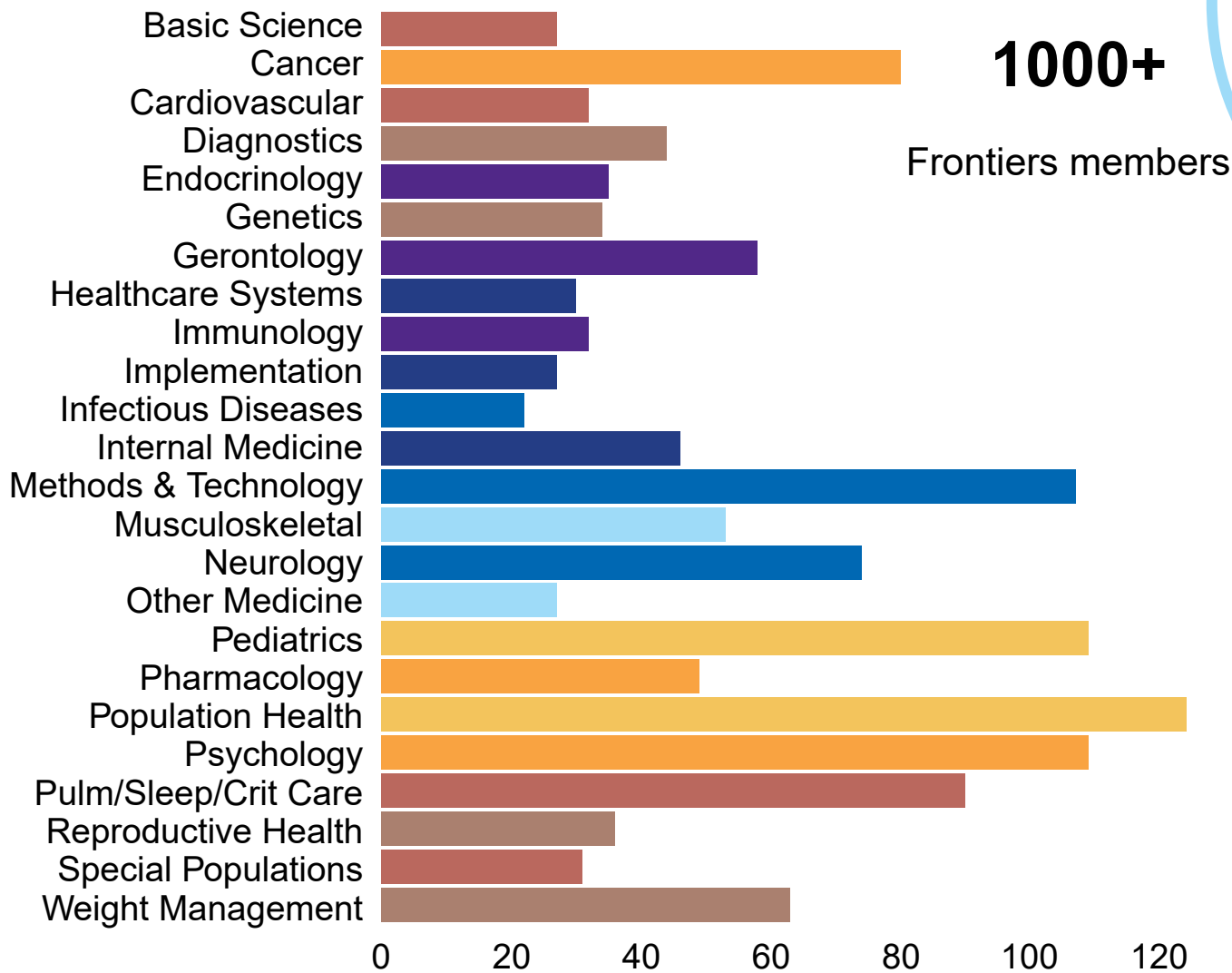


CAB Members: Dalton Allen, Korri Anderson, Kathy Benich, George Kevin Elliot, Ang Ferguson, Shatonda Jones, Ph.D., Jeanette Metzler, Amecia Rivette, Sandy Snook, Sabriya Sowers.

MEMBERSHIP

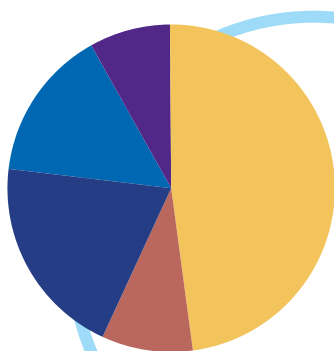
Our membership continues to grow each year, with a 60% increase in Year 3. Frontiers CTSI members are engaged in a wide variety of research topic areas across the translational science spectrum.

Member Research Areas:



Member Research Along the Translational Science Spectrum:

- Population-Based Research (15%)
- Implementation Research (8%)
- Clinical Research (48%)
- Pre-Clinical Research (9%)
- Basic Science (20%)



RESOURCES & SERVICES

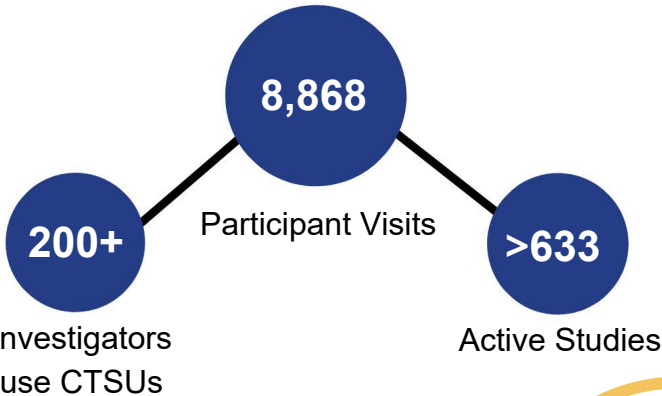


Event Attendees



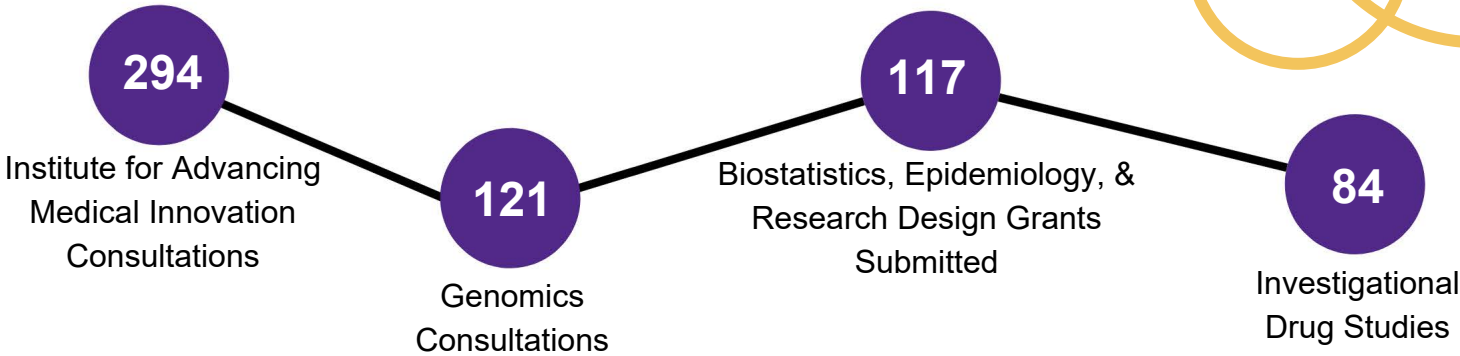
Frontiers
CTSI Events

Clinical & Translational Science Units (CTSUs)

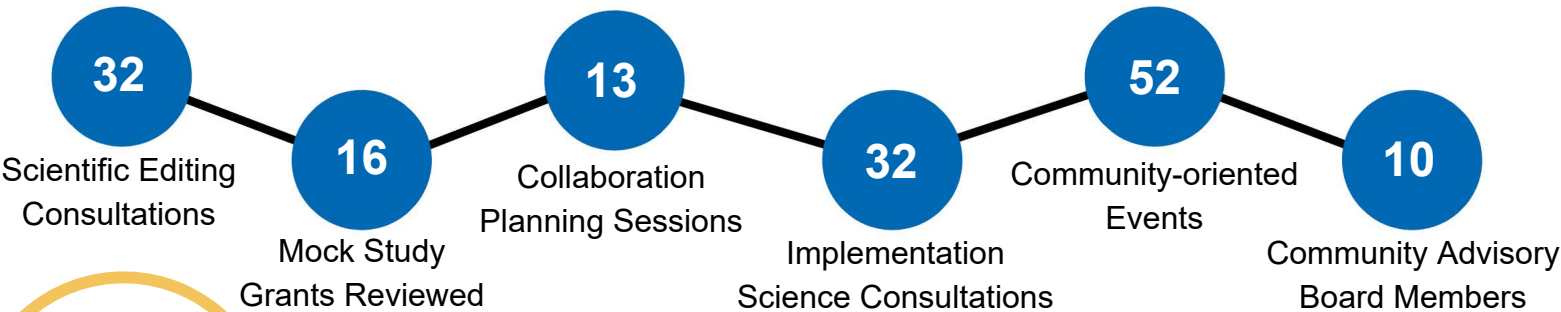


"We utilize the CTSU and we would not be able to do the work we do without it!"
Frontiers CTSI member survey response

Data Collection, Design, & Analysis



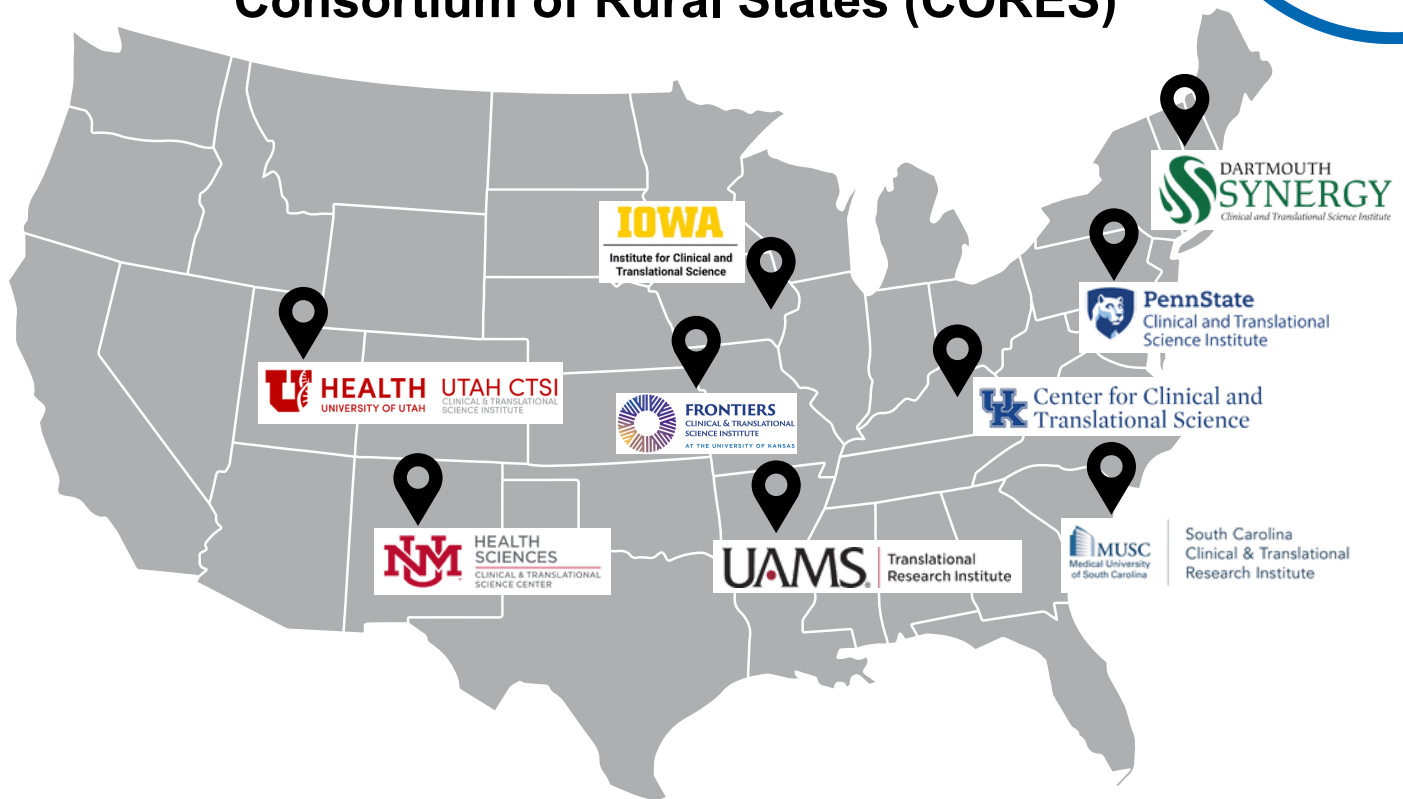
Communication, Collaboration, & Community Engagement



"I wanted to take a moment to say thank you for your insightful comments and thoughtful edits. I truly appreciate your editing support."
Frontiers CTSI member survey response

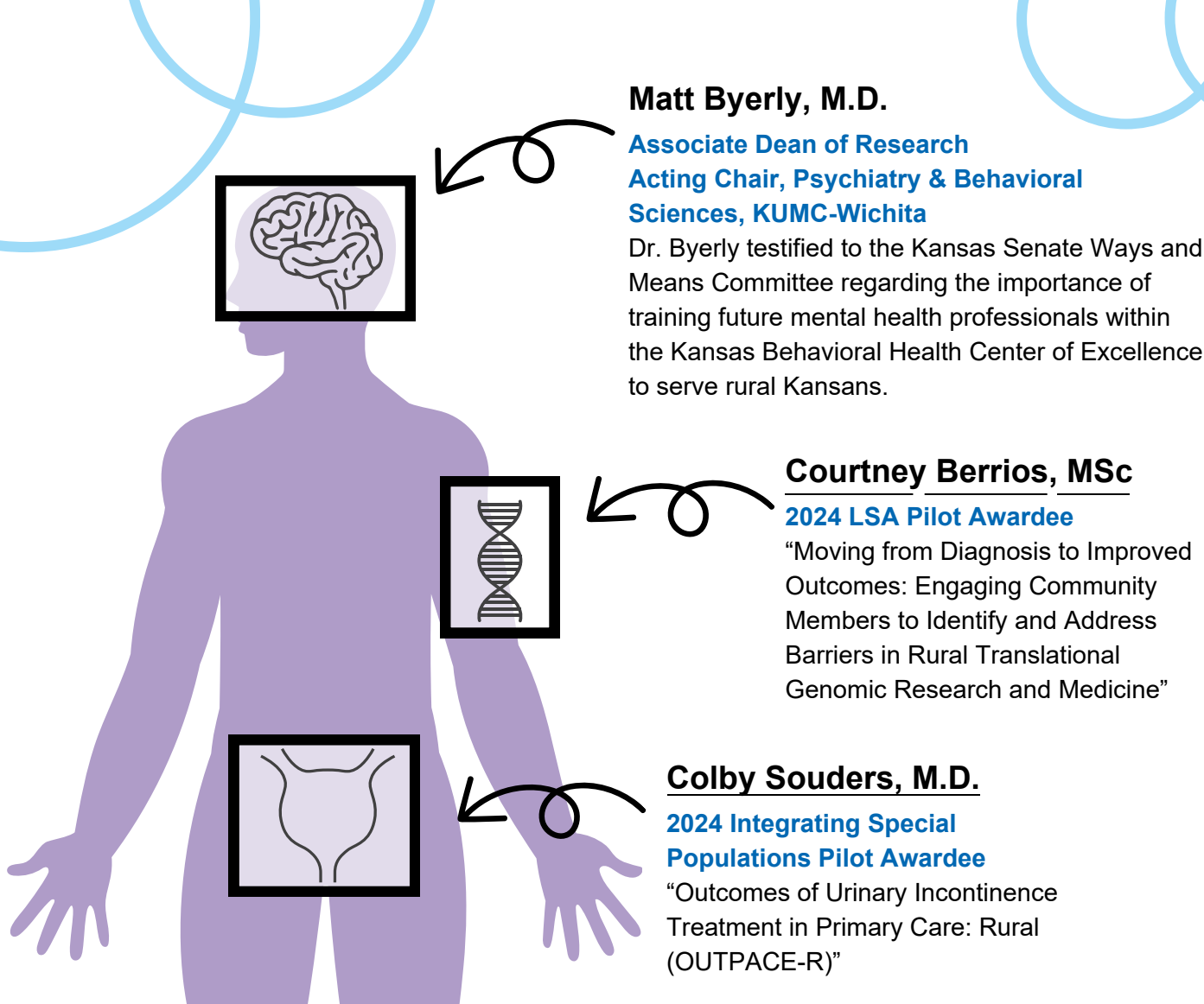
RURAL INVOLVEMENT

Consortium of Rural States (CORES)



Frontiers CTSI is proud to support many initiatives focused on bringing healthcare to rural populations. We are one of nine members in the Consortium of Rural States (CORES), a group of CTSA Hubs that are working to improve health and healthcare in rural communities across the country. Additionally, we funded two rural health pilot awards in Year 3, and our Medical Director of the Wichita CTSU testified before the Kansas State Senate about the importance of training rural healthcare providers.





Matt Byerly, M.D.

**Associate Dean of Research
Acting Chair, Psychiatry & Behavioral
Sciences, KUMC-Wichita**

Dr. Byerly testified to the Kansas Senate Ways and Means Committee regarding the importance of training future mental health professionals within the Kansas Behavioral Health Center of Excellence to serve rural Kansans.

Courtney Berrios, MSc

2024 LSA Pilot Awardee

“Moving from Diagnosis to Improved Outcomes: Engaging Community Members to Identify and Address Barriers in Rural Translational Genomic Research and Medicine”

Colby Souders, M.D.

**2024 Integrating Special
Populations Pilot Awardee**

“Outcomes of Urinary Incontinence Treatment in Primary Care: Rural (OUTPACE-R)”

RURAL COMMUNITY INPUT

Courtney Berrios’ Lauren S. Aaronson (LSA) Pilot

With a focus on identification of rare genetic conditions in rural areas, this study includes two community advisors, Jewel Akpan and Kelly Baesel-Freund, who are both parents to children with a rare or genetic condition who live and work in rural communities themselves. Akpan and Baesel-Freund have been involved from the beginning of the study, helping to plan the study and apply for funding. Their continued involvement in conducting the study ensures that the study is successful and responsive to the experiences of rural families. Together, they have shaped recruitment materials by suggesting wording and images that would be likely to appeal to eligible participants, and they have suggested a method for participant compensation that could be readily used by participants in a rural setting. They also edited the interview guide for the study, suggesting clearer wording to support better data collection. As Berrios begins analyzing the study data, Akpan and Baesel-Freund are providing input on interpretation of the findings and new areas to explore. They will continue to be involved through publication and making plans for follow-up studies.

INVESTIGATOR SPOTLIGHT



Jennifer L. Goldman, M.D., M.S.

TL1 Training Program Co-Director, Frontiers CTSI
Physician, Divisions of Pediatric Infectious Diseases
& Clinical Pharmacology
Director, Drug Safety Service
Children's Mercy Kansas City

>100

Peer-reviewed
Publications

18

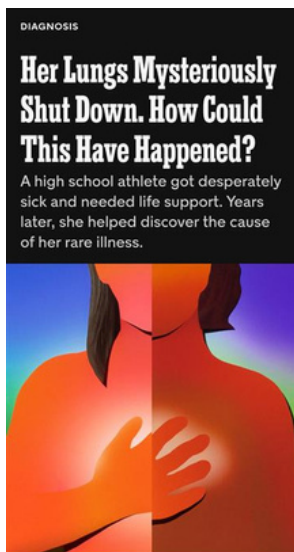
Trainees
Mentored

26

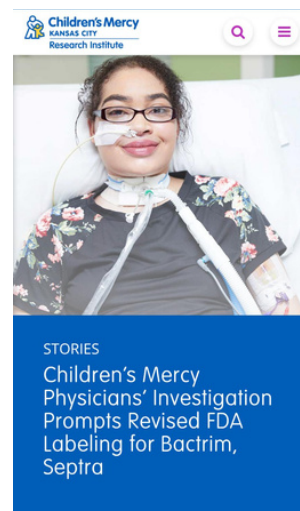
National & International
Presentations

A lifelong resident of the KC Metro, Jennifer L. Goldman, M.D., MS, completed her medical education at KU Medical Center in 2006, followed by Residency and Fellowship at Children's Mercy Kansas City. In 2014, she started a KL2 Career Development Award with Frontiers CTSI. Since then, part of her research program has focused on antibiotic associated adverse drug reactions in pediatric populations, resulting in an FDA-approved relabeling of the frequently used antibiotic, TMP-SMX. During the COVID-19 pandemic, Goldman emerged as a leader in safe return to school through her NIH-funded research on understanding the impact of integrating COVID-19 testing into a large urban school district. Goldman has also taken an active role in mentoring the next generation of physician-scientists, joining the Frontiers CTSI Leadership team as a Co-PI for the TL1 Pre- and Post-Doctoral Training Program, and dedicating valuable time to our Mock Study Section and other Training Opportunities.





Dr. Goldman's work has been highlighted on a national level, with national news features as well as local success stories.



OCTOBER 27, 2021

A 2022 feature in New York Times Magazine highlighted Goldman's work on adverse effects of TMP-SMX.



This work led to a revised FDA labeling for TMP-SMX products, ensuring that the drug is prescribed and used safely.

INVESTIGATOR SPOTLIGHT

Presidential Early Career Award for Scientists and Engineers

Anthony Fehr, Ph.D.

In January 2025, President Joe Biden awarded the Presidential Early Career Award for Scientists and Engineers. This is the highest honor by the US government in recognition of outstanding early career scientists and engineers.

Anthony Fehr, Ph.D. was one of nearly 400 scientists and engineers to receive the award. Fehr is an associate professor in the Department of Molecular Biosciences at the University of Kansas. His research program focuses on novel immune responses to viruses.

As a Frontiers CTSI investigator, Fehr received a Pilot award in 2020, and provided his expertise and service to training programs such as the biannual Mock Study Section.



LAUREN S. AARONSON (LSA) PILOT AWARDS



Courtney Berrios, MSc.

Children's Mercy Kansas City

"Moving from Diagnosis to Improved Outcomes: Engaging Community Members to Identify and Address Barriers in Rural Translational Genomic Research and Medicine"



Deanna Hanson-Abromeit, Ph.D., MT-BC

University of Kansas

"Group Parent-Infant Music-Based Intervention to Support Pre-Linguistic Language Acquisition for Infants at Risk for Language Delay Due to Living in Under-Resourced Environments"



Emily Mailey, Ph.D.

Kansas State University

"Integrating Nature-Based Physical Activity into Mental Healthcare: Development of a Toolkit and Training Intervention for University Counseling Centers"

LSA Pilots Since 2019:

22

LSA Pilots Awarded

\$12.48

Return on each \$1.00 of
Frontiers Pilot Funding

Rapid Reactor Panel (RRP)

Each LSA Pilot applicant participated in the RRP - an opportunity for pilot award applicants to get community input and feedback to integrate into their pilot award applications. Over two meetings, Community Advisory Board (CAB) members heard from 10 applicants. Each applicant had 10 minutes to present their project using a template provided by Frontiers CTSI.



"The RRP gave me great ideas on how to better recruit/develop community partnerships and build a network of those interested in public health." LSA Pilot Applicant



PILOT & TRAILBLAZER AWARDS

BERD = Biostatistics, Epidemiology, & Research Design

IAMI = Institute for Advancing Medical Innovation

ISP = Integrating Special Populations



Leonidas Bantis, Ph.D.

BERD Trailblazer Awardee

University of Kansas Medical Center

“Combinations and Cut-off Estimation of Non-monotone Markers”



Susana Chavez-Bueno, M.D.

IAMI Trailblazer Awardee

Children's Mercy Kansas City

“Optimization of Vaginal Lactoferrin Formulation for Use in Pregnancy”



Hyunjoon Kim, Ph.D.

IAMI Trailblazer Awardee

University of Kansas

“Novel TLR7/8 Agonists for Bladder Cancer Immunotherapy”



Colby Souders, M.D.

ISP Pilot Awardee

University of Kansas Medical Center

“Outcomes of Urinary Incontinence Treatment in Primary Care: Rural (OUTPACE-R)”



KL2 CAREER DEVELOPMENT PROGRAM

The KL2 Mentored Career Development Award cultivates the next generation of clinical and translational scientists by providing early career faculty with structured mentorship, protected time for research, and the resources necessary to advance toward independent research careers.



Amy Bodde, Ph.D., MPH

University of Kansas Medical Center



Alejandra Camacho-Soto, M.D.

University of Kansas Medical Center



Bethany Forseth, Ph.D.

University of Kansas Medical Center



Rebecca Lepping, Ph.D.

University of Kansas Medical Center



April McNeill-Johnson, M.D.

Children's Mercy Kansas City



Abid Qureshi, M.D.

University of Kansas Medical Center



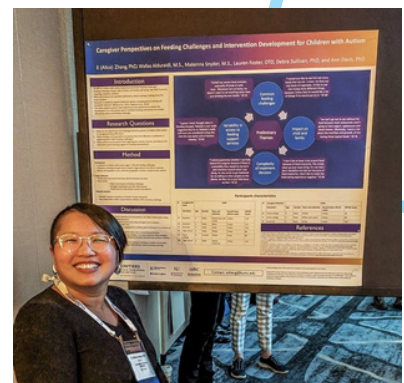
Kathryn Unruh, Ph.D.

University of Kansas



E. Alice Zhang, Ph.D., BCBA-D

University of Kansas Medical Center



"The KL2 award has been transformative in providing the systematic and comprehensive mentorship and training I needed to build an independent research path. It is laying the foundation for my current project and long-term career development."

Alice Zhang, Ph.D

KL2 SCHOLAR HIGHLIGHTS

April McNeill-Johnson, M.D.

“Perceived Health Care Needs Among Detained Youth.” (2025).

Pediatrics.

When McNeill-Johnson’s manuscript was accepted for publication in *Pediatrics*, she was also invited to submit an accompanying video abstract. With the help of the science communications team at Frontiers CTSI, she created a four-minute video highlighting her research and sharing the experiences of the detained youth in her study. Video abstracts such as McNeill-Johnson’s are integral to communicating biomedical research findings to a broad range of audiences.

“I just looked at the Canva! It is amazing and you did amazing work. Thank you so much for your support and expertise.”

Dr. McNeill-Johnson regarding work provided by our Biomedical Writer



Two former KL2 Scholars received K23 Awards (Mentored Patient-Oriented Research Career Development Awards) from the National Institutes of Health (NIH) in Year 3.



Kathryn Kyler, Ph.D.

University of Kansas Medical Center

2024 KL2 Scholar: “Systemic Corticosteroid Pharmacokinetics and Pharmacodynamic Biomarker Identification in Children with Asthma and Obesity”
Year 1: \$188,073 (Funded by NHLBI)



Anna Wallish, Ph.D., OTR/L

University of Kansas

2022 KL2 Scholar: “Examining Mechanisms of Challenging Eating Behaviors in Children with Autism Using a Biopsychosocial Approach”
Year 1: \$165,240 (funded by NICHD)

RESEARCH SPOTLIGHT: MUSIC AS MEDICINE

Music is universal, offering comfort, entertainment, and inspiration to cultures around the world. In recent years, Frontiers CTSI has funded and worked with multiple investigators whose focus is on capturing the power of music to promote health across the lifespan, including child language development and Alzheimer's disease and dementias.

"When a music therapist or musician comes to share music, even people with severe dementia come into the room and start singing along. They remember the words. It is amazing to see, and I think it is because music is engaging other parts of their brain that may not be affected by the dementia."

Rebecca Lepping, Ph.D.



"We have an intervention that's designed to target prelinguistic skills and parent-infant conversational turns... We're really trying to be more specific about what the active ingredients of change are, rather than using familiar children's songs."

Deanna Hanson-Abromeit, Ph.D.



MUSIC PROJECTS FUNDED BY FRONTIERS CTSI

Amy Smith, Ph.D.

Postdoctoral Fellow, *Children's Mercy Research Institute*

2022 TL1 Postdoctoral Trainee: "The Impact of a Music Enrichment Program on Health and Developmental Outcomes During Early Childhood"

Cole Bird

Medical Student, *University of Kansas Medical Center*

2024 TL1 Predoctoral Trainee: "A Behavioral Health Precursor to SINGS - Song-based Intervention for Neuromusculature in the Geriatric Swallow"

Christy L'Esperance

Community Engagement Specialist, Host, *Kansas Public Radio*

2023 Broderick Crawford Community-Research

Partnership Awardee: "Music as Medicine by Classical KC"

Deanna Hanson-Abromeit, Ph.D.

Department of Music Education & Music Therapy, *University of Kansas*

2024 LSA Pilot Awardee: "Group Parent-infant Music-based Intervention to Support Pre-linguistic Language Acquisition for Infants at-risk for Language Delay due to Living in Under-resourced Environments."

Kai Ling Kong, Ph.D.

Department of Pediatrics, *Children's Mercy Kansas City*

2023 Pilot Awardee: "A Community-based Music Enrichment Program to Address Health and Developmental Disparities During Early Childhood"

Michelle Redmond, Ph.D.

Department of Population Health, *University of Kansas Medical Center - Wichita*

2023 ISP Pilot Awardee: "Exploring Life Course and Everyday Stressors in the Lives of Pregnant and Postpartum Women: The Role of Music Therapy as an Intervention Tool"

Rebecca Lepping, Ph.D.

Department of Neurology, *University of Kansas Medical Center*

2023 KL2 Scholar: "Music-Based Interventions for Alzheimer's Disease and Related Dementias"

2019 Pilot Awardee: "Analgesic Effect of Music Listening During Pain Elicitation in Fibromyalgia"

TL1 TRAINING PROGRAM

The TL1 Pre- and Postdoctoral Training Program, supported by the NIH CTSA initiative, offers mentored research experiences, formal coursework, and career development resources to prepare trainees for impactful careers in clinical and translational science.

Predoctoral Trainees



Cole Bird

University of Kansas Medical Center



Trenton Edwards

University of Kansas Medical Center - Wichita

Postdoctoral Trainees



Landon Deru, Ph.D., MBA, ATC

University of Kansas Medical Center



Brittany Martinez, Ph.D.

University of Kansas Medical Center



Aaron Smith, Ph.D.

University of Kansas Medical Center



Alexandra Prosser-Dombrowski, M.D.

Children's Mercy Kansas City



TL1 TRAINEE HIGHLIGHTS

A former TL1 Postdoctoral Trainee received an NIH K01 (Research Scientist Development Award) award in Year 3.



Robin Shafer, Ph.D.

University of Kansas

2019 TL1 Postdoctoral Scholar

"Multi-modal Sensory Feedback Mechanisms of Fine and Gross Motor Control in Autism Spectrum Disorders"

Year 1: \$148,423 (funded by NIMH)



Brittany Martinez, Ph.D.

Co-Chair Trainee Representative to the National CTSA T/R Directors' Executive Council:

In this role, Dr. Martinez will use her research and leadership skills to represent trainees from all CTSA hubs, ensuring their needs are heard by the T/R directors.



Kara Christensen Pacella, Ph.D.

Assistant Professor, Department of Psychology

Director, Clinic for Research on Eating, Sleep, and Therapy

University of Nevada - Las Vegas

2020 TL1 Postdoctoral Trainee

After completing her TL1 Postdoctoral Training Award in 2019, Kara Christensen Pacella joined the faculty at the University of Nevada - Las Vegas. There, she has further developed her program of clinical research and runs her own lab. She has continued to collaborate with colleagues and mentors from her tenure as a TL1 trainee. In 2025, she was recognized as a 2025 Rising Star by the Association for Psychological Science.

"I'm grateful to Frontiers for the opportunity to take part in the TL1 program. It allowed me to get support from mentors who wanted to see [me] do my best and succeed."

Kara Christensen Pacella, Ph.D.

2

NIH-funded
Grants

49

Peer-reviewed
Publications

TRAINING EVENT

The University of Kansas Cancer Center and Frontiers CTSI held the first **Midwest Research Skills Development Workshop** in May 2025 at Big Cedar Lodge in Ridgedale, Missouri. The workshop was designed to help early career faculty and trainees develop their research careers, including mentoring, grantsmanship, time management, negotiation, and work-life balance. Attendees networked, attended sessions, and participated in hands-on experiences. The idea was introduced by **Anthony Sung, M.D.**, who has previously participated in a similar workshop at Duke University.

Many Frontiers CTSI investigators attended the workshop, and several members of our leadership team presented, including **Mario Castro, M.D., MPH**; past Frontiers KL2 scholars, **Devin Koestler, Ph.D.**, and **Jennifer Villwock, M.D.**; and Frontiers CTSI workforce heterogeneity co-lead **Carrie Francis, M.D.**

"While physicians get plenty of training in how to take care of patients, they rarely get training in the dozens of other skills necessary to run an academic research team. Our goal is to provide trainees and junior faculty with these skills and set them up for success."

Anthony Sung, M.D.

33

Attendees

10

Expert Faculty
Presenters

3

Days

18

Sessions



"The Midwest Research Skills Development Workshop was an incredibly valuable experience, providing an excellent opportunity for personal and professional growth. The workshop's mix of expert-led sessions, hands-on workshops, and ample networking opportunities made it an invaluable resource for advancing my research career."

Aaron Smith, Ph.D., TL1 Postdoctoral Trainee



"I was excited to participate ... I was amazed by the practical skills presented at the workshop for starting junior clinical investigators – I wished I had them when I started."

Mario Castro, M.D., MPH

BUILDING THE PATHWAY



Sidney Johnson

Frontiers CTSI Intern

Undergraduate Student

University of Missouri - Kansas City

In Year 3, the Frontiers CTSI Administrative team had our first intern. Sidney Johnson, then a student at UMKC, was an intern with Maggie Padek Kalman, MPH, MSW, our director of Evaluation and Implementation Science. As a sociology major, Johnson was interested in how society and culture impact an individual's response to an intervention. Johnson worked with Padek Kalman on a publication content project, looking at Frontiers CTSI investigators' publications and their impact.

Early Career Investigators

- **44%** of members are New Investigators, Post-doctoral Researchers, or Residents/Fellows.
- **12%** of members are medical or graduate students.

EARLY CAREER GRANT SUPPORT

Mock Study Section

KANSAS STATE
UNIVERSITY

Fall 2024

KU

Spring 2025

75%

Grants from Early Career
Investigators

16

Grants Reviewed



usefulness, according to participants

"Submitting my application to the study section and then seeing kind of the inner workings of what goes on during this discussion really helped get me in the right frame of mind to write a better grant application."

MSS Participant

"Reviewers were thoughtful, constructive, thorough. Incredibly helpful and no doubt led to an improved proposal."

MSS Participant

Frontiers Grant Library

19

R-Series
Awards

14

K-Series
Awards

5

F-Series
Awards



Access the Grant
Library here



Modeled on similar repositories at other CTSA's, our Grant Library includes examples of successfully funded proposals from across Frontiers CTSI partner institutions. Our grant intake workflow includes redaction of sensitive information and other measures designed to promote confidentiality and security. Additionally, we track who accesses each grant.

In its first six months, 52 members have perused the Grant Library index, with 27 members requesting access to grants. There are currently 50 grants in the Library and we are continually updating the repository. We have examples of NIH R-, K-, and F-series grants as well as examples of our internal funding awards such as the LSA Pilot Award.

If you'd like to access the Grant Library or contribute to it, contact our Biomedical Writer, Heather Fielding-Gebhardt, Ph.D., hfieldinggebhardt@kumc.edu.

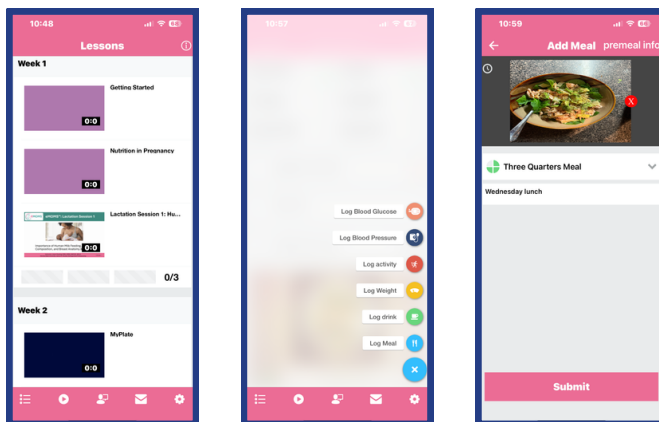
INVESTIGATOR SPOTLIGHT

Lisette Jacobson, Ph.D., MPA, MA, CBS

Associate Professor
Department of Population Health
Department of Obstetrics and Gynecology
University of Kansas School of Medicine-Wichita
President, ChildCare Aware of Kansas
2014 LSA Pilot Awardee



Since her 2014 LSA Pilot award, Lisette Jacobson, Ph.D. has been busy. Currently, her Electronic Monitoring of Mom's Schedule (eMOMS) study supports healthy weight and breastfeeding after pregnancy. Participants are provided with a mobile health app (screenshots shown below) to help them develop healthy eating habits, be more active and lose weight after delivery, and receive other postpartum support such as education on breastfeeding.



"I really did enjoy learning, especially about dieting and what was good ways to get out and exercise. I liked that the app was super easy to use."

Study Participant

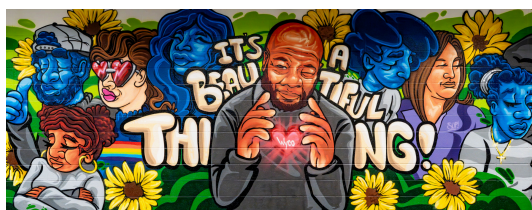
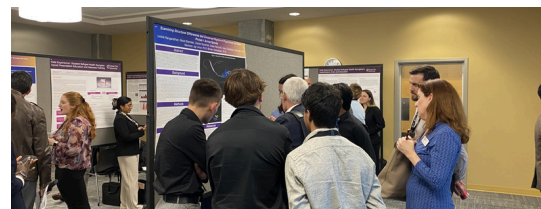


FRONTIERS

CLINICAL & TRANSLATIONAL SCIENCE INSTITUTE

AT THE UNIVERSITY OF KANSAS

Become a
member



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Don't forget to cite us:

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TL1TR002368

Listen to our new podcast!

