Clinical & Translational Science Institute
of Southeast Wisconsin

CTS*Insider*

NEWS FOR YOU

A quarterly newsletter brought to you by the Clinical & Translational Science Institute of SE WI (CTSI)
Quarter One 2022

"Advancing Health Through Research and Discovery"

Visit our CTSI Website to Learn More https://ctsi.mcw.edu	*The CTSI is an innovative infrastructure to support and advance education, collaboration, and research in clinical and translational science*	Become a CTSI Member https://ctsi.mcw.edu/about/join-ctsi/

CTSI & YOU

CTSI is here to serve you! We offer a variety of resources and opportunities via our robust infrastructure that are available to you, our research enterprise; healthcare enterprise, and the communities we serve (Tri-lateral Mutually Learning Ecosystem) that stretches across CTSI partner institutions. Visit the CTSI website for more information.
https://ctsi.mcw.edu

Top Story Headline: CTSI Translational Workforce Development, Education and Training

START (TL1) Mentored Research Training Program award provides full-time research training support for one to two years for a.) pre-doctoral students (i.e. MD/PhD or PhD students) and b.) post-doctoral students conducting clinical and translational research and concurrently enrolled in a research degree program. The overall goal of START TL1 Program award is to increase the number of well-trained clinician-scientists who can lead the design and oversight of future clinical investigations critical to transforming the translational process so that new treatments and cures for disease can be delivered to patients faster. During the year of research, trainees will participate in workshops that teach grant writing, manuscript writing, and other professional development skills, including best practice strategies to optimize communication skills.

The MCW CTSI START TL1 training program is part of the NIH Ruth L. Kirschstein National Research Service Award (NRSA) program, the goal of which is to help ensure that a diverse pool of highly trained scientists is available in appropriate scientific disciplines to address the Nation's biomedical, behavioral, and clinical research needs. It is funded through a grant from the National Center for Clinical and Translational Science (NCATS). Additional Information can be found at https://ctsi.mcw.edu/education/post-doc/start-tl1/

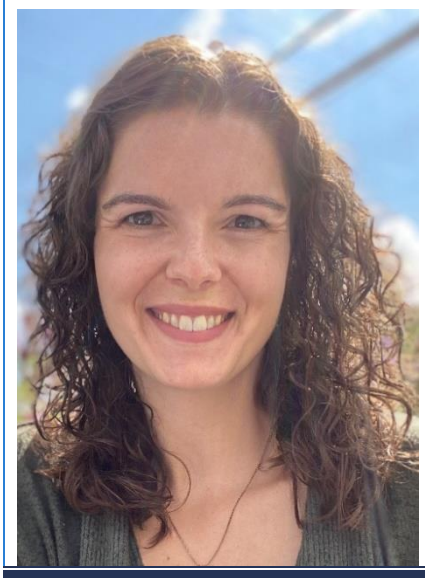
Spotlight on TL1 Scholars

Dr. Katie Carlton

In July 2020, I joined the Neonatal-Perinatal Medicine fellowship program at the Medical College of Wisconsin (MCW). As a fellow, I devote my time to academics, clinical medicine, and research initiatives. My clinical time is spent caring for premature and high-risk infants in the Children's Wisconsin Level IV Neonatal Intensive Care Unit (NICU). I am currently completing my second of three years in the program. Prior to becoming a neonatology fellow, I received a Bachelor of Science in Bioengineering from the University of Pennsylvania. I returned to Wisconsin to attend medical school at MCW, where I graduated in 2016 as a member of Alpha Omega Alpha Honors Society. I then completed pediatric residency through MCW and Children's Wisconsin in 2019 and went on to serve as a 2019-2020 Pediatric Chief Resident. Throughout my medical training, I have explored translational research within the fields of bioengineering and emergency medicine prior to focusing my interests on the care of at-risk and premature infants in the NICU.

In addition to my clinical duties as a neonatology fellow, my training program has afforded me the opportunity to explore my passion for clinical research. This year, I was awarded a position as a mentee in the CTSI Scientific Teams Advancing Research Translations (START) TL1 Mentored Clinical Research Training Program. This position has offered dedicated clinical research training and supports my professional development as a future clinician-scientist. As a CTSI TL1 Scholar, I work with research mentors (Drs. Susan Cohen and Erwin Cabacungan) to understand preschool age neurodevelopmental outcomes of at-risk infants in the NICU. This research aims to improve long-term NICU neurodevelopmental outcomes by identifying those infants at particularly high-risk while in infancy and initiating developmental interventions as soon as possible.

The TL1 program has provided me with invaluable mentorship and educational support throughout this year. Specifically, as a CTSI TL1 Scholar, I can pursue a Master's in Clinical and Translational Science at MCW. In addition, the TL1 support has allowed me to continue my career development through networking and collaboration across MCW specialties. Overall, the integrated translational research training through the CSTI TL1 Scholar program has been instrumental along my path to becoming a clinician-scientist in the field of neonatology.



Elizabeth Paitel

My research primarily aims to advance early prediction of Alzheimer's disease risk in healthy, asymptomatic adults using widely available and non-invasive EEG and event-related potential (ERP) approaches. An interdisciplinary and clinical-translational approach is essential to the success of these research goals and is supported by my training in clinical neuropsychology (M.S.) and behavioral and cognitive neuroscience (Ph.D., ongoing).

The START TL1 Program's integrated training in research skills, grant and manuscript writing, and mentoring have provided valuable resources as a developing scholar. The multi-faceted and clinical-translational approach have also fostered my ability to integrate and communicate research goals with clinical and community applications. Ultimately, selection as a CTSI TL1 Fellow has enabled me to devote this year to pursuing novel and clinically impactful cognitive neuroscience research.

Gregory Simandl

The CTSI TL1 scholar program has provided me the opportunity to focus my development as a scientist on becoming a more well-rounded translational researcher.

As a third-year doctoral student in Marquette University's Interdisciplinary Neuroscience Program, I have experience in utilizing pre-clinical models to investigate various aspects of behavioral control, including, but not limited to, drug addiction. My research incorporates tools that permit direct pre-clinical to clinical application to help bridge the disconnect between pre-clinical and clinical findings. The TL1 program has opened doors for my research, offering the time and resources necessary to further explore the biological basis for cognitive control of behavior.

Being a TL1 scholar has also offered interactions with other translational researchers from various backgrounds. This exposure not only benefits vital scientific communication skills, but also helps expand my scientific network for potential future mentoring or collaboration.

Tara E. Jenson, MPH

I am a CTSI TL1 scholar focused on investigating the neurological impact of chronic environmental cadmium and lead exposures on later-life cognitive function and development of Alzheimer's disease and related dementias. My intention is that this research will have translational benefits towards decreasing the burden of dementia-related cognitive decline in older adults by providing targets for prevention through environmental exposure mitigation. I am also focused on understanding how higher dementia prevalence in marginalized racial groups may be due in part to higher risk for heightened environmental pollutant exposures these populations have experienced due to historic and continuing discrimination and segregation. Being a TL1 scholar is empowering me to focus on developing my expertise in the complex epidemiological methods required for study in this area. Additionally, the TL1 program is providing me key training to communicate my research and results more effectively to broader audiences. This is particularly important for communities and groups most impacted by environmental exposures and health disparities as they are often least able to access such information or findings.

500 Stars

Click on the link to learn more about the CTSI 500 Stars Initiative, and its vision, mission, goals, and leadership.

CTSI 500 Stars Scholar Spotlight on Khadijah Dhoondia

As a CTSI 500 Stars Scholar, I had the opportunity to work in the virtual Entrepreneurship, Technology and Medicine program led by MSOE. After completing base work in value proposition modeling and artificial intelligence, I was assigned a client to create a solution to a real-world problem. My client was Yahara Software, a software company that produces data analysis tools and dashboards for scientific purposes, such as tools for epidemiologists and health officials working in collaboration with the CDC. Ultimately, my team proposed a visual design of an electronic web-based dashboard which incorporated innovative ways of visualizing data. Ultimately, our designs would aid epidemiologists and health officials in determining which viral strains are currently prominent and which strains appear to be emerging as future threats. Overall, through this project, I developed my creativity, collaboration, and communication skills as well as learned more about epidemiology and the importance of data visualization.

CTSI has also developed my professionalism in other health related endeavors, such as my role as the student leadership chair for the Leukemia and Lymphoma Society in Milwaukee and my internship with Froedtert Hospital. In addition, as I engaged in the application process for the CTSI Scholars program, I was also introduced to the Students Understanding Principles of Research Education through Medicine, Engineering, and Science (SUPREMES). During the 2021-2022 school year, I will be trained in research skills, such as scientific scholarly writing and laboratory techniques, as well as professional skills. I will then practice these skills in a semester-long Laboratory Practicum. I truly believe the experience I have gained with CTSI will support my performance in this program.

Overall, CTSI 500 Stars has helped to strengthen my passion for health sciences by allowing me to explore a variety of different careers in this field. I am also very grateful for the connections I have made with my mentors and other students interested in health-related fields, and I believe the skills I have gained will support me in all future endeavors.

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Community Corner: “In the Community, for the Community, by the Community”

Science Café Program

The CTSI Community Science Café Program, led by Dr. Orsolya Garrison, DrPH, MPH, is an essential part of CTSI’s Trilateral Mutually Learning Ecosystem (healthcare system, research enterprise, and the community), with the community participating as equal partners from onset and throughout the translational research process. The overall purpose of the Program is to engage community members, clinical and translational scientists, and other stakeholders in an informal setting to participate in bi-directional dialogue of current clinical and translational research efforts and medical issues of interest selected by the community. In concert with numerous additional CTSI community engagement efforts, the Science Cafés pave the way for our “Community Clinical and Translational Research Pathway” that facilitates health and research literacy for community members towards the goal of involvement and subsequent participation in clinical and translational research; and in so doing, facilitates and supports investigators research efforts (e.g., grant submissions, research participant enrollment and retention, community engagement efforts, etc.). Collectively, all our CTSI Community Engagement (CE) efforts work together to advance the health and well-being of our citizens through research and discovery. We will feature additional CE efforts in the future.

Goals and Objectives of our CTSI Science Café Program:

1. Establish a “Community Clinical and Translational Research Pathway” that is bi-directional
2. Establish a “Hub” in the community for health and research education
3. Break down the silos and misperceptions of clinical and translational research (C&TR) among community members
4. Strengthen Health and Research Literacy in the communities we serve
5. Transfer knowledge between clinical and translational researchers and community members
6. Demonstrate the important role C&TR plays in society, and the importance of community involvement, guidance, and participation (i.e., community ‘rights and responsibilities’ in C&TR)
7. Increase the participation of the community in C&TR across the research translational spectrum (T0-T5)
8. Create opportunities for Faculty, staff, students, and community members to engage one another on health and research related issues in an environment outside an academic setting
9. Inspire the community to be more comfortable interacting with C&TR and medical experts
10. Inspire scientific and/or medical experts to be more comfortable discussing research and health issues with the public

Click on the link to learn more about the CTSI Science Café program, listen to Podcasts, and review a list of past events.

Please contact Angie Holtz with any questions regarding the Science Café program at aholtz@mcw.edu.

To register for upcoming CTSI Science Cafes at the General Baptist State Convention (GBSC) churches, visit: https://generalbaptistwi.org/wp/events/.

To register for upcoming Science Cafes at Word of Hope Ministries (WOHM) churches, https://science-cafe.eventbrite.com.

CTSI Discovery Radio

Click on the link to learn more about the CTSI Discovery Radio Program, review past shows, and find out ways to listen.

CTSI Discovery Radio airs the third Friday of every month at 12pm noon (CST) on 91.7 FM WMSE or may be streamed on the WMSE website. Immediately following its airing, a podcast of the show is posted on our CTSI website or wherever you listen to your other favorite podcasts, such as Amazon Podcasts, Apple Podcasts, Google Podcasts, iHeart Radio Podcasts, SoundCloud, and more.

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Child Advancement Network (CAN) in collaboration with the Bezos Family Foundation To Host a Virtual Mind in the Making (MITM) Institute

Together We CAN

CTSI CAN and the Bezos Family Foundation hosted a virtual Mind in the Making (MITM) Institute on January 24-27 and January 31-February 3, 2022, from 8:00am to 10:30am CST.

MITM is a program of the Bezos Family Foundation that investigates the science behind brain building in children and provides a practical approach to build executive function-based life skills. The virtual course was taught by Erin Ramsey. Ms. Ramsey is the Senior Manager for MITM at the Bezos Family Foundation and is responsible for the overall implementation and development of partnerships for MITM. Erin conducts speeches and facilitates MITM Institutes to a wide range of audiences about the importance of promoting executive function life skills in early childhood.

The course was broken into 8 sessions and taught via Zoom for 2.5 hours per meeting. One of the seven essential life skills was covered each day.

THE 7 ESSENTIAL LIFE SKILLS EVERY CHILD NEEDS

7 Essential Life Skills:

- Focus And Self Control
- Perspective Taking
- Communicating
- Making Connections
- Critical Thinking
- Taking On Challenges
- Self-Directed, Engaged Learning

This was a “Train the Trainer” course, and all participants will soon be delivering Mind in the Making trainings within their respective organizations and communities.

CTSI Child Advancement Network (CAN)/Vroom/Mind in the Making (MITM)

Our Child Advancement Network/Vroom/Mind in the Making (CAN/Vroom/MITM) approach activates trusted messengers and networks that surround parents, early learning providers, and community agencies, to adopt actionable messages and integrate tools and effective educational approaches into their work with children and families, via a cross-sector systems approach represented by collaborations and partnerships within healthcare, childcare, non-profit (grass-roots community organizations and coalitions), education and faith-based organizations to advance early childhood outcomes across social dimensions of health. We aspire to the DHHS, Office of Disease Prevention and Health Promotion, Healthy People 2030 Social Determinants of Health (https://health.gov/healthypeople/objectives-and-data/social-determinants-health) in our overall approach to the work of CAN.

Child Advancement Network (CAN)

CAN/Vroom/MITM promotes the importance of early brain development and empowers parents with tools and resources, towards positive impact on a child's brain development and school readiness, along with community impact of collective ownership, knowledgeable parents who know the importance of brain building from birth though the first five years, a community that is committed to building support systems for parents to rebuild social capital; and, a positive economic impact and healthier community.

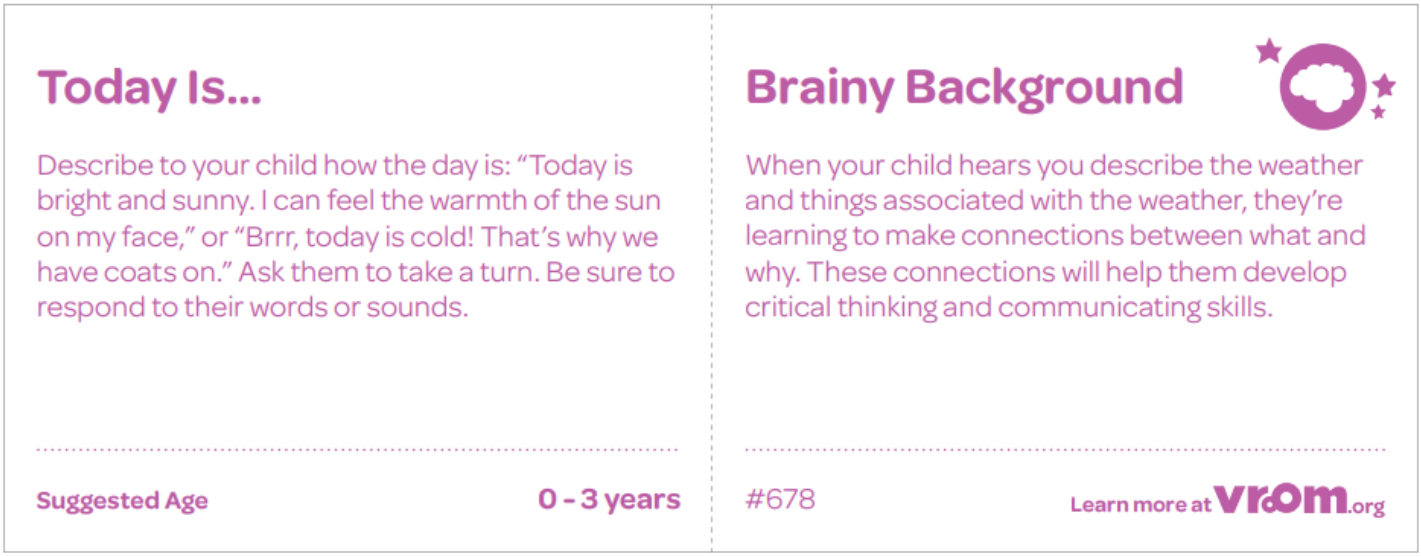
The framework for CAN/Vroom/MITM initiative is comprised of six E's: Engage, Educate, Enrich, Empower, Elevate, and Enable. CAN seeks to reduce competitiveness and silos that seek to divide and as such, we work with organizations to collaborate, share information/best practices, increase strategies and opportunities for cooperation to contribute towards increasing the success rate of children ready for school, as well as advancing the overall health and wellbeing of children and their families.

Vroom

CTSI collaborates with the Bezos Family Foundation to offer Vroom. Vroom is a global program of the Bezos Family Foundation. Vroom believes that all parents have the potential to create a bright future for their children. Vroom offers free, science-based tips and tools help parents and caregivers give children a great start in life today and an even better future.

Research shows there is no better time to create a strong foundation for lifelong learning than the first five years of life. It’s during this period that the brain develops most rapidly. And the things that matter most for healthy brain development, like talking and playing, don’t require more time, money, or stuff.

Vroom can be easily downloaded to your smartphone or tablet from Vroom.org. Free Vroom tips can be customized as well as searched by topics and/or age group. Below is an example of a Vroom Tip demonstrating the tip, on the left, and associated science, on the right.



Mind in the Making (MITM)

The overall goal of Mind in the Making (MITM) is to use the knowledge from developmental research to promote engaged learning and executive function-based life skills in adults and children. In close to a decade of reviewing the research, interviewing researchers and filming their research in action, five key findings stand out. It is important to:

- Foster positive predictable relationships with caring adults;
- Foster back and forth interactions where adults build on and extend children's learning;
- Promote life skills that build on executive functions of the brain;
- Promote Autonomy Supportive caregiving and teaching; and
- Begin early but continue to promote children's skills and engaged learning as children grow.

Click here to learn more about the Child Advancement Network (CAN).

CTSI Community Partners Working Together for You – Our Tri-lateral Mutually Learning Ecosystem (Community, Healthcare System, Research Enterprise)

Over the past 4-5 years, with significant groundwork, Dr. Ward developed the "CTSI Community Care Initiative", a novel and innovative framework towards accomplishing our long-term goals and contributions in 'Eliminating Health Disparities in Southeast Wisconsin'. This framework reflects our participatory, CTSI "Tri-lateral Mutually Learning Ecosystem" in action model (Community, Healthcare System, Research Enterprise). Importantly, the model has served to initiate our 'Community Clinical and Translational Research and Education Pathway'. Such efforts fit within our CTSI "All in Together" model, developed by CTSI Director, Dr. Reza Shaker. The initiative has been leveraged by research investigators for successful grant submissions and acquisitions, research study participant recruitment efforts, various consultative services, and much more.

Our experience has documented a distinct roadmap with the journey towards community involvement in CTSI Community Engagement programs and activities, and of note, community member participation in clinical and translational research projects. Overall, the journey reflects, in order: Building Community Trust ↔Community

Engagement (Mutual Activities) ↔ Mutual Learning ↔Mutual Ownership (Rights and Responsibilities) ↔ Partnerships (Shared, Synergistic, Clearly Defined goals with Responsible Parties) ↔Mutual Participation in Education and Research (CTSI and Community Programs and Activities) ↔Collective Impact. The roadmap reflects an intentional, supportive environment where community, healthcare system, and research enterprise operate as equal partners in the Tri-lateral, Mutually Learning Ecosystem to advance health through research and discovery, to get more treatments to more patients, more quickly.

Launching the CTSI Community Care Initiative

On Thursday, November 18, 2021, CTSI and Word of Hope Ministries, along with community members and stakeholders, gathered for the public signing of a Memorandum of Understanding. The memorandum solidifies their commitment to the collaborative development of shared programming that promotes community health and wellness. This includes the establishment of community service efforts, including health screenings, educational offerings, childhood health and well-being activities, as well as opportunities for hands-on experiences for caregivers, trainees, and students in a community setting, within the Holy Cathedral Church of God in Christ facilities in Milwaukee. Through this partnership, CTSI and Word of Hope Ministries are committed to mutually identifying unmet community health and related needs and working collaboratively to enhance community trust; expand community outreach, engagement, and mutual learning; and create community ownership through partnerships towards collective impact. CTSI aims to create, provide, and disseminate innovative education and research programs via partnerships across institutions and communities to address health disparities and deliver the benefits of translational science and research to our communities of service in Southeast Wisconsin. This partnership also provides opportunities for community member participation in CTSI/MCW research efforts.

Dr. Doriel Ward and Bishop McClelland

CTSI Facts: Did You Know?

As of November 2021:

- 51 attendees completed Bootcamp; an additional 15 people partially attended Bootcamp but did not complete both sessions. Since March 2017 when Bootcamp began, 366 people have attended Bootcamp, and 328 of those completed both sessions.
- Financial Management Workshop: In 2021, 52 people completed the workshop. Since Aug. 2019 when the workshop began, 158 people have completed the workshop.
- Consenting Workshop: In 2021, 21 attendees completed the launch of the workshop. The next session will be held in Nov. 2021.
- Since the inception of the course in 2011 we have had 314 participants complete the course, of which 44 participants completed the Grant Writing course in Spring 2021. The next course will be offered Spring 2022 (January 5-March 30).

- 30 participants have completed the Manuscript Writing course (Fall 2020, 16 complete; Spring 2021, 14 completed; Fall 2021, 18 currently enrolled)
- 27 participants are currently enrolled in the Clinical Trials 101 course, launched in September 2021.
- 24 Virtual Science Cafés were held between August 26, 2020 - September 28, 2021. Out of 835 registrants, 756 individuals attended. Out of 756 attendees, 650 attended via Zoom and 106 attended via phone.
- In 2021, 286 unique PIs have used BMI services, 50 of which are new to using BMI services. Since 2014, cumulatively 842 PIs have been supported by BMI.
- The TL1 Program has had 34 graduates through June 2021. There are currently 10 TL1 Trainees- 8 Pre-Doc; 2 Post Doc (4 MCW; 4 MU; 2 UWM). The next RFA will open November 1, 2021, for the 2022-2023 cohort.
- Clinical Research Scholars: Since the inception of the program in 1999 we have had 145 graduates. There are currently 15 scholars in the program (2 CHW; 7 MCW; 4 MU; 1 UWM; 1 Texas Southern Univ).
- The Ensembles program started in 2019, there are currently 12 active. In 2019, 7 ensembles started with institutional support, while 5 ensembles were added in 2021, supported by NIH Pilot Program funding. Plans for 2022 are for 4 more ensembles to be approved through the Cardiology Initiative RFA and 6 more approved through the MCW Institutional RFA.
- The ATRU supported 13 new unique PIs in 2020, 14 new unique PIs in 2021 to date, and is currently supporting a total of 83 unique PIs, with 145 active protocols, from 17 departments and 30 Divisions.
- The number of PI's supported by CTSI Mini-Grants per year from BioStats/BERD Team includes:
    - 2016 (28)
    - 2017 (33)
    - 2018 (21)
    - 2019 (25)
    - 2020 (40)
    - 2021 (31)
- CTSI Discovery Radio will air its 90th episode on October 15, 2021, entitled "Hearing Loss and Devices to Restore Hearing". You can tune in at noon on radio station 91.7FM WMSE. The show has received multiple awards in the Annual Healthcare Ad Award National Program, the last received in 2021 for the 2020 shows, i.e., a gold award for the March 2020 podcast, episode #71, "Breathtaking: The Serious Risk of Vaping; and for the January 2020 podcast, episode #69, entitled "414Life: A Public Health Approach in Battling Gun Violence", the show won a bronze award. Also, in 2020, the October 2020 show, episode #78, entitled "the Epidemiology of Disease: Covid 19", won a gold award for Best Pandemic Story in Audio in the Milwaukee Press Club, Excellence in Wisconsin Journalism Program. Current downloads for Discovery Radio to date are 11,414 downloads worldwide since 2015. Podcasts are available through all major sources, including Apple, Google Play, Amazon, Spotify, iHeart Radio, SoundCloud, and wherever people listen to their other favorite podcasts.
- Between 2015 and September 2021, 516 CTSI supported publications were cited. Of these 62 were between January and September 2021. All time CTSI supported publications are 6599.
- KL2 Program Update: Between January 1, 2015-December 31, 2020, we had 13 graduates; 8 were AHW supported, and 5 were NIH supported.
- Between January 1, 2021-present we have had 3 candidates graduated and 2 currently candidates enrolled; 3 were AHW supported, and 2 NIH supported.
- Between July 2020 to present, CTO has supported 43 unique Investigators. have been supported by the CTO. Historically since 2017, the CTO has provided 24,700 services to 98 unique PIs.

News & Announcements for You

CTSI Master's and Certificate Programs

CTSI is accepting applications for our Master's and Certificate Programs in Clinical and Translational Science. Both programs will begin in Fall 2022.

Both program curriculums align with advances in the field of Clinical and Translational Science (C&TS); and moreover, include four emphasis tracks: Translational Science, Population Science, Health Systems Science, and Community-Based Science. These programs are designed for students from various backgrounds, including faculty and staff who are interested in enhancing their research skills and knowledge in C&TS.

The deadline to apply for both programs is July 1, 2022. To apply, please visit the Graduate School website.

If you have any questions please contact the Program Coordinator, Mary Jane LaTona, at mlatona@mcw.edu

To Learn More About our News & Events Visit: https://ctsi.mcw.edu/news-events/

Mark Your Calendars

CTSI Academy Upcoming Education and Training Sessions:

Visit the CTSI Events Calendar for regular updates on exciting course offerings and events!

Bootcamp:

- **Spring:** Monday, May 16, 2022 and Tuesday, May 24, 2022 @ 8:00 am – 1:00 pm **Register Now**
- **Fall:** Tuesday, October 25, 2022 and Tuesday, November 11, 2022 @ 8:00 am – 1:00 pm **Register Now**

Consenting Workshop:

- **Summer:** July 13, 2022 @ 8:00 am – 12:00 pm **Register Now**
- **Fall:** November 30, 2022 @ 8:00 am – 12:00 pm **Register Now**

Financial Workshop:

- **Spring:** Thursday, April 7, 2022 @ 8:00 am – 12:00 pm **Register Now**
- **Fall:** Thursday, September 15, 2022 @ 8:00 am – 12:00 pm **Register Now**

TechEd Frontiers Microcredentialing:

- **New Course**: **UWM TechEd Frontiers DATA ANALYTICS & VISUALIZATION COURSE**
- **Course Format:** This course is self-paced and on demand
- This pathway will prepare you with foundational skills for the digital economy. The data analysis and visualization skills developed by this pathway are increasingly in demand across all sectors and most professional occupations.

Become a CTSI Member

To Learn More About CTSI Membership Visit: https://ctsi.mcw.edu/about/join-ctsi/

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Our Partners