

THE CORE REPORT

News from the Pediatric Research Alliance Cores



Renowned physicist Lise Meitner once said “Science makes people reach unselfishly for truth and objectivity.” While 2020 has been a tumultuous year leaving us to navigate uncharted territory, the members of our pediatric research family have uniformly responded to these challenges in this trademark unselfish fashion to continue the overarching quest for truth.

Our Pediatric Cores are at the center of much of this work and throughout the coronavirus pandemic, the Pediatric Cores have remained dedicated to our customers and their important COVID-related and other essential research efforts. Core staff have adjusted quickly and effectively to all local guidelines to ensure pediatric researchers are able to access these valuable services and expertise in a safe and useful manner.

I am proud to work with such an amazing group of people who show this steadfast commitment to accomplishing outstanding child health related research!

Stacy Heilman, PhD

Assistant Professor

Director for Pediatric Research Operations, Grants Education & Cores
Emory University Dept of Pediatrics & Children’s Healthcare of
Atlanta

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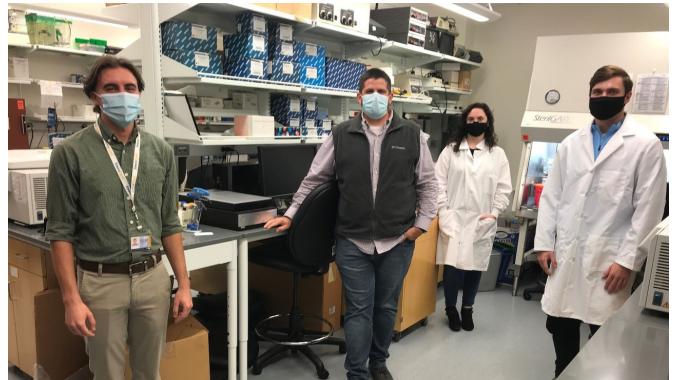
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HIGHLIGHTS FROM CTDC

Clinical Translational Discovery Core

In fall of 2020, the Clinical Translational Discovery Core (CTDC) celebrated five years of operation. Throughout the past five years, the CTDC has continued to expand in the areas of clinical trial support, correlative biology research, and banking of biological samples for future distribution. During the pandemic, when most of the labs largely slowed down or ceased operations due to the research activity ramp-down policy, CTDC reached its peak season in history by strongly supporting two large-scale COVID-related projects.



“
We remained proactive and realized the importance of having a biorepository, so we already had the infrastructure in place to bank more samples than we currently did.
”

Left picture: (L to R): Jonathan Patton and Brad Hanberry

Right picture: (L to R): Jonathan Patton, Brad Hanberry, Katelyn Hambrick and Zachary Ellison at the CTDC Main Lab

The first project, Rapid Acceleration of Diagnostics (RADx), sponsored by the NIH, is one of the key initiatives in the United States to increase testing capability for SARS-CoV-2, the etiologic agent for COVID. The project is headed by Emory/CHOA pediatric hematologist/oncologist Dr. Wilbur Lam, who also runs the Atlanta Center for Microsystems Engineered Point-of-Care Technologies (ACME-POCT). The second project, led by Drs. Claudia Morris and Miriam Vos, aims to determine if pediatric health workers have a high prevalence of antibodies and if true, offers an important epidemiologic cohort to study further and may represent a unique cohort for convalescent serum donation to treat the new coronavirus.

"We remained proactive and realized the importance of having a biorepository, so we already had the infrastructure in place to bank more samples than we currently did" said Brad Hanberry, PhD, the technical director of CTDC. Since the infrastructure, led by Hanberry, had been developed in the past, the increased sample volume was easily managed when RADx and the COVID projects began.

On average, the Core received sixteen patient samples a day, five days a week, and worked at full capacity to process, aliquot, and catalogue the samples for the biorepository, all within strict protocols. When pathologists, virologists, and microbiologists needed to evaluate specific sample types, CTDC served as a catalog of sorts, so these experts could easily acquire the correct samples with complete information and excellent integrity.

CTDC continued.

In addition to sample banking, the entire core staff are adept at interfacing with other labs for a myriad of testing needs and help distribute samples to other outside groups for testing. "Working over-time is common. At peak time, we find that we don't have too many 8-hour days, but a lot of 10- hour days", says Brad.

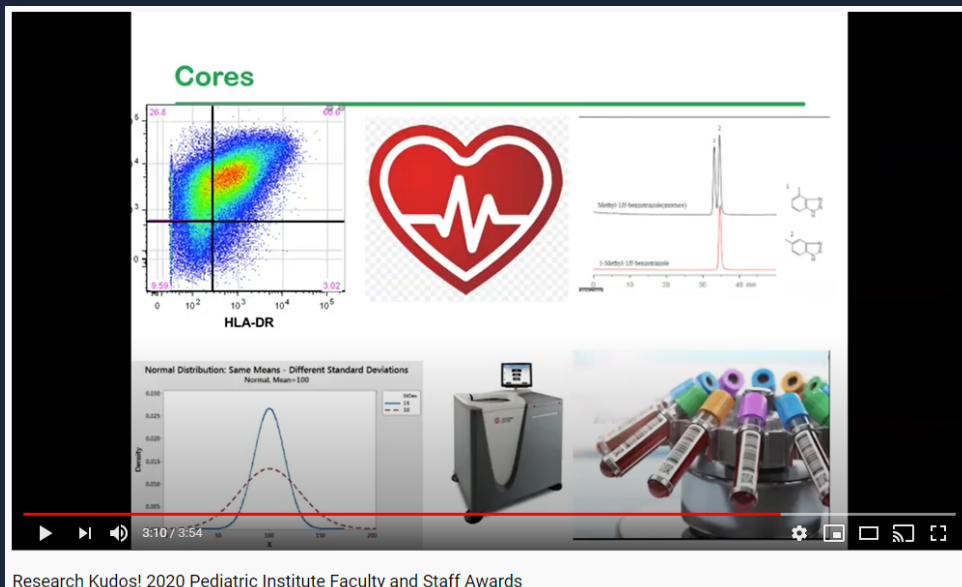
The fruitfulness of CTDC is largely attributed to the great team led by Hanberry, which experienced significant personnel change right before the pandemic. Brad had to operate the core with its newfound growth while training new personnel remotely, which became a challenge in itself. The team is made up of Zachary Ellison, Jonathan Patton and Katelyn Hambrick. With his strong leadership and nimble management, Katelyn quickly became familiar with the overall core operations, while Jonathan and Zach rapidly took on ownership of the RADx and COVID projects.

The excellent performance of CTDC shown in the execution of the RADx and COVID projects showcases its competence in providing quality data while managing a large workload. Through the pandemic, this core has shown its ability to rise to the occasion with expanded capabilities. CTDC welcomes all investigators at Emory, Children's Healthcare of Atlanta, and collaborators within and outside of Emory to utilize their services.

The Pediatrics Research Team offers our sincere appreciation to the expertise and devoted efforts of the CTDC for their contribution to the RADx and COVID projects.

*Editor's Note** At the time of publishing, Dr. Hanberry accepted another position at an outside company. We are grateful for his contribution to the development of the CTDC. On January 4th, 2021, Dr. Mimi Le, will be joining the CTDC as the technical director. Welcome aboard Dr. Le and we look forward to hearing more about you in the future!*

KUDOS TO OUR RESEARCHERS & RESEARCH TEAMS!



Recently, the 2020 Pediatric Institute Faculty and Staff Awards were announced and included a "Thank You" to all the researchers for making the "magic" happen.

Kudos were given to all of our researchers and specifically highlighted the labs and Research Cores. If you haven't had a chance to view the video you can by clicking on the picture to the left.

Many thanks for all that you do!

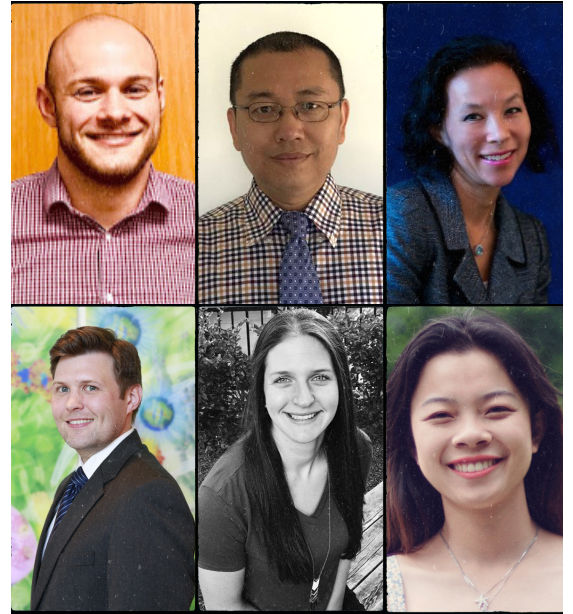
Thank You!

Highlights of the Pediatric Biostats Core

Pediatric Biostats Core

The COVID-19 pandemic has brought together the scientific community, health care professionals, and public health officials, all working toward stopping the spread of this highly infectious disease.

Like many other research teams at Emory University, the Pediatrics Biostatistics Core is engaged in fighting against the COVID-19 pandemic by supporting NIH's RADx (Rapid Acceleration of Diagnostics) initiative and other COVID-related studies. Biostats Core members have been on duty every day, to provide biostatistics support on protocol development, study design, sample size calculations, data collection tool development, and statistical analysis for nearly a dozen COVID-19 related projects involving both pediatric and adult patients. The hard work and expertise of the Biostats team has resulted in a number of high-quality research publications.



Top (L to R): Scott Gillespie, MS, Associate Director; Chao Zhang, PhD, Associate Director; Traci Leong, PhD, Assistant Research Professor. Bottom (L to R): Michael Scott Kelleman, MSPH, Senior Biostatistician; Amanda Thomas, MSPH, Assistant Epidemiologist/Biostatistician; Yijin Xiang, MPH, Biostatistician



Left: Janet Figueroa, MPH, Senior Biostatistician
Right: Anna Wood, MPH, Biostatistician

“
Work in the RADx team involves a very fast-paced environment with quick deadlines, but it has been super rewarding to contribute to this important nationwide effort
”

We recently caught up with one core member, biostatistician Janet Figueroa, who told us that these days she finds herself spending most of her time supporting the RADx initiative to ‘test the COVID-19 device tests’ used for rapid point-of-care diagnosis. This involves providing support of the RADx REDCap databases, evaluating candidate device results against gold standard tests, and synthesizing results into reports presented to NIH and device companies. Janet is also currently analyzing data that will assess the level of diagnostic agreement across different biospecimens (i.e. saliva, nasal swabs, nasopharyngeal).

Anna Wood, another biostatistician on the RADx team, is engaged in weekly reporting that helps dictate where COVID-19 study testing should go based on changing positivity rates and is working on a manuscript comparing characteristics of positive and negative COVID-19 cases.

In addition to these recent COVID-related projects, the Core is available to partner with all child-health researchers. To request a consultation, please submit a request form [here](#).

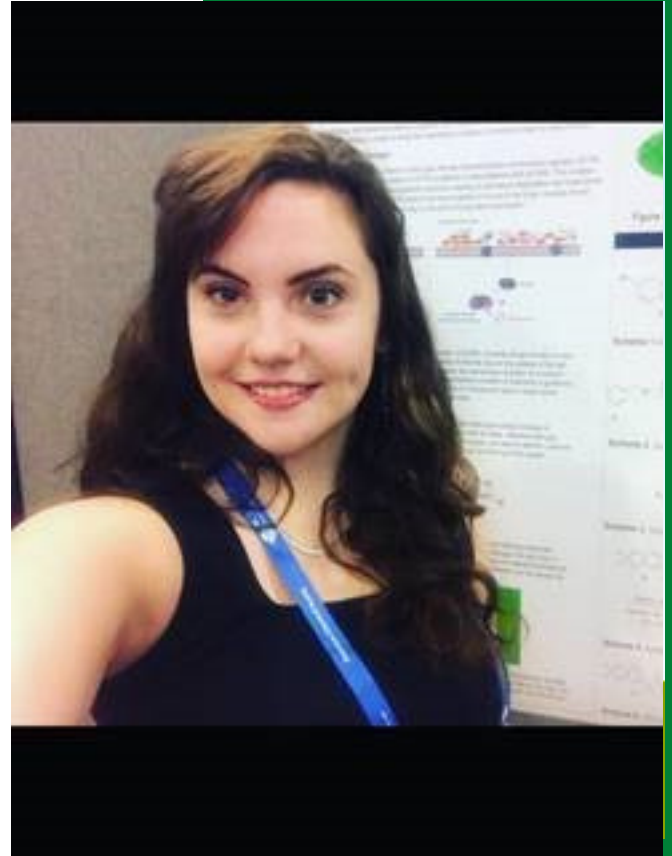
The Cores Staff Report

Meet the new faces of the Cores

KATIE HAMBRICK

My name is Katie Hambrick and I started work as a joint research specialist in the CTDC and the Pediatric/Winship Flow Cytometry Core back in March of this year. I graduated with a Bachelor of Science honors in chemistry from Berry College in May of 2018. After that, I completed a year of a doctorate program in chemistry at University of Tennessee before I decided that I would be better served working in the science industry while I decided on my graduate degree plans.

Since my focus was chemistry before this job, I am learning a lot about how clinical biology and human specimen processing works, as well as about the principals and instrumentation of flow cytometry. I am currently in the process of applying for the doctorate programs in both chemistry and pharmacology at Emory.

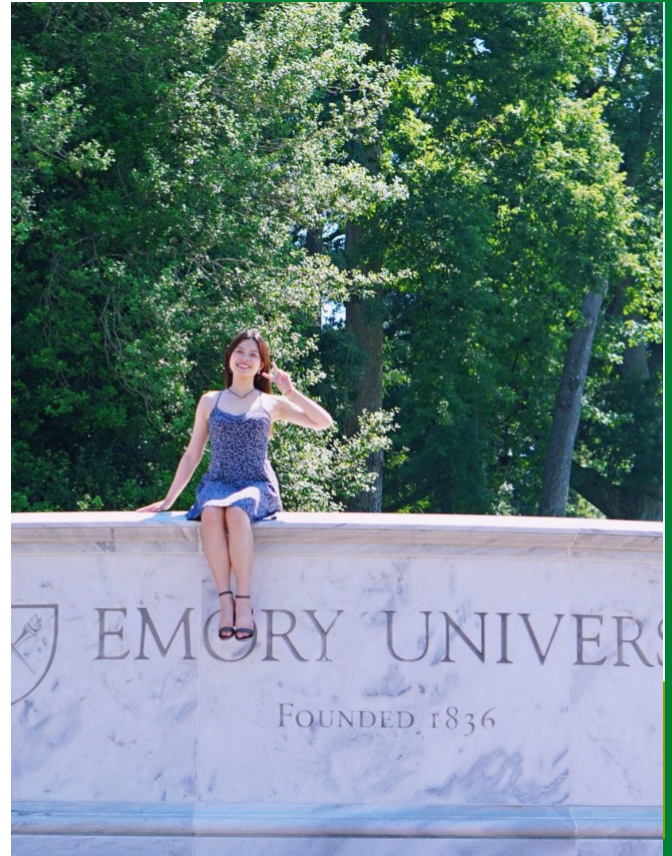


"BEFORE I GRADUATED FROM COLLEGE, I WAS A GYMNASTICS COACH FOR KIDS. IN MY FREE TIME, I STILL FREQUENT THE GYM I USED TO TEACH AT TO WORK ON MY TUMBLING SKILLS. OUTSIDE OF THAT, I LOVE TO GO ON RUNS WITH MY DOGS, EXPLORE THE CITY'S BEST THRIFT SHOPS, AND STALK NETFLIX FOR NEW SCI-FI SHOWS AND MOVIES TO WATCH."

YIJIN XIANG, MPH

Hi, my name is Yijin, and I just joined the Pediatric Biostatistics core this July, right after I gained my Master's of Public Health in Epidemiology from Emory. As a Biostatistician, I help investigators design studies, manage and analyze data, and tell a story. I work with investigators from various departments and institutions. My favorite part of the job is working with all children's data, as well as people willing to devote their energy to children, who are really lovely!

Before pursuing my master's degree, I was a nursing student, and my clinical rotation in Shanghai Children's Medical Center lead me to decide to continue my academic and career path in Pediatrics, as working with kids really makes me happy.



"IN MY SPARE TIME, I LIKE COOKING, PLAYING TENNIS, WATCHING MOVIES, HIKING, AND TRAVELING. MAKING AND EATING A CAKE WITH FRESH CREAM CAN ALWAYS MAKE ME FEEL CURED."

CHAO ZHANG, PHD

Hello, my name is Chao, and I joined the Pediatric Biostatistics Core in June of 2020 as an associate director. I work closely with clinical and basic science investigators and provide statistical expertise in study design, data management, data analysis, preparation proposal, manuscript, addressing reviewer's comments, and in grant applications. I am interested in clinical trials, survival analysis, longitudinal data analysis, and user-friendly software enabling rigorous statistical approaches.

"IN MY FREE TIME, I LIKE COOKING AND WALKING IN PARKS WITH MY FAMILY AND FRIENDS."



Happy Holidays

THANK YOU FOR ALL THAT YOU DO. WE LOOK FORWARD TO SEEING YOU IN 2021!

PEDS CORES CONTACT INFORMATION

These cores are generously supported by Children's Healthcare of Atlanta and Emory University. When presenting or publishing work completed using the core, please include "Children's Healthcare of Atlanta and Emory University [insert core name]" in the acknowledgments.

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For more information on Peds Cores, please visit:
<https://www.pedsresearch.org/research/cores/>

This newsletter serves to highlight the activities of the cores supported by Emory University's Department of Pediatrics and Children's Healthcare of Atlanta. If you have a story idea for a future edition, please contact: Jianing Li @ jianing.li@emory.edu