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DIRECTORS

Craig Powell, MD, PhD
Director

Vicki Hixon, BS
Managing Director



Winter 2021

Happy Holidays From the CIVITAN INTERNATIONAL RESEARCH CENTER

www.uab.edu/medicine/circ



*We hope you have a
wonderful Holiday Season
filled with
Laughter, Joy, Cheer
and
Good Health!*



Members of the Research Civitan Club, the Birmingham Civitan Club, and Hearts of Horizons Civitan Club worked together to decorate the lobby of the Research Center. To show appreciation for all the hard work, everyone went home with a bag of goodies compliments of the CIRC.

[Horizons Decorates - School of Medicine - Civitan International Research Center | UAB](#)



Students worked together to make all the trees equally beautiful!



Mike and Joanie Brown hung ornaments on the memory tree in memory of their parents.



Students celebrated a job well done with a few songs to celebrate the season!



Browns.mp4



UAB and UA join NIH-funded national consortium to study factors influencing healthy child brain development

Media Contact: Hannah Echols
205-704-2939 or echolsh@uab.edu

BIRMINGHAM, Ala. – A diverse and multidisciplinary team of researchers at the [University of Alabama at Birmingham](#) and the [University of Alabama](#) were awarded a grant over 5 years and selected to join a 25-site national consortium to conduct a comprehensive study of risk and protective factors for healthy brain development. Participants will be enrolled from a diverse urban and rural population across the state of Alabama.

The [HEALthy Brain and Child Development \(HBCD\) Study](#) will establish a large cohort of pregnant people and follow them and their children for at least 10 years. Findings from this cohort will provide a template of system roles in normative neurodevelopment to assess how prenatal and perinatal exposures to substances and environments may alter developmental trajectories. This research infrastructure can also be leveraged for urgent health needs, such as the current impact of the COVID-19 pandemic on development, or future health and environmental crises.

This longitudinal study will collect data on pregnancy and fetal development; infant and early childhood structural and functional brain imaging; anthropometrics; medical history; family history; bio specimens; and social, emotional, and cognitive development. Knowledge gained from this research will help identify factors that confer risk or resilience for known developmental effects of prenatal and postnatal exposure to certain drugs and environmental exposures, including risk for future substance use, mental disorders, and other behavioral and developmental problems.

“The early years are a period of rapid brain growth and environmental exposures can have a significant impact. This study is key for understanding the neurodevelopment of children in the state of Alabama, so we can intervene early and optimize the outcome for mothers and their children,” said by [Dr. Myriam Peralta-Carcelen](#), Principal Investigator (PI) for the study, Professor of UAB Pediatrics, Division of Neonatology, Director of the [Newborn Follow-Up](#) program at UAB, and CIRC scientist.

“We are focused on making participation as beneficial as possible for the mother and child. We are planning to provide resources, services and support during pregnancy and as the child develops,” said [Dr. Lea Yerby](#), University of Alabama study lead, Associate Professor in the UA Department of Community Medicine and Population Health and the Institute for Rural Health Research at the UA College of Community Health Sciences.

UAB will recruit participants through the [Comprehensive Addiction in Pregnancy Program](#), which is led by Professor of UAB Pediatrics, Division of Maternal Fetal Medicine and Co-I [Dr. Brian Casey](#). Additional recruitment efforts will occur through the Obstetrics Complication Clinic, Jefferson and Blount County Departments of Health, and a variety of affiliated neighborhood health centers. University of Alabama will rely on its

University Medical Center locations in Tuscaloosa County and rural healthcare clinics in surrounding counties for recruitment, which serve the state's historically disenfranchised communities in the Black Belt. The project is one of the [strategic themes](#) of the [Alabama Life Research Institute](#), led by Co-I [Dr. Sharlene Newman](#), and will use the [new MRI](#) facility coming to the UA campus. Co-I [Dr. Caitlin Hudac](#), UA Assistant Professor of Psychology and a developmental cognitive neuroscientist, will direct the collection of infant electroencephalograms (EEG). EEG are a method of measuring the brain's electrical activity and can identify markers of learning and development. Co-I, [Dr. Namasiyanan Ambalavanan](#), UAB Professor of Neonatology in the Department of Pediatrics and Director of the [TReNDD](#) program, will oversee the collection of a wide range of biospecimens from parent and child.

The [Civitan International Research Center](#) (CIRC) was instrumental in bringing together this impressive team of investigators across the two institutions. Co-Investigator, [Dr. Cassandra Newsom](#), Director of the Civitan Autism and Neurodevelopment Research (CANDR) Project and translational core, is working with other sites to select the tests that will be used to monitor infant development and parent and child mental health. She will oversee these infant and toddler assessments from birth through early childhood for the UAB site. Parents and their infants will visit the CIRC for repeat neurodevelopmental evaluations, observations of parent-child interactions, EEG, and MRI. Dr. Newsom will establish an infant EEG lab in the CANDR suite, and The Civitan International Neuroimaging Lab (CINL) will scan sleeping infants on a state-of-the-art Siemens Prisma 3.0T Scanner housed at UAB Highlands Hospital. The CINL and the HBCD team are collaborating to develop new protocols and purchase new equipment to accommodate these youngest research participants. Consistent with the mission of the CIRC to support research of healthy and neurodivergent brain development, the Civitan translational core will hire a new psychologist and a research assistant to support this important new project and expand the capacity to conduct clinical research. In addition to conducting study visits, the CANDR team will connect children and families who need additional support to community services and treatment programs, assuring this study benefits Alabama families as well as contributing to this national consortium's goal of mapping healthy brain development in infants and children.

This award is part of the Phase II HBCD Study, in which a fully integrated, collaborative infrastructure will support the collection of a large dataset that will enable researchers to analyze brain development in opioid-exposed and non-drug-exposed infants and children across a variety of regions and demographics.

HBCD is funded by 10 institutes and offices at the National Institutes of Health, and the [Helping to End Addiction Long-termSM Initiative, or NIH HEAL InitiativeSM](#), and is led by the National Institute on Drug Abuse.

About UAB

Known for its innovative and interdisciplinary approach to education at both the graduate and undergraduate levels, the University of Alabama at Birmingham is an internationally renowned research university and academic medical center, as well as Alabama's largest employer, with some 23,000 employees, and has an annual economic impact exceeding \$7 billion on the state. The five pillars of UAB's mission include education, research, patient care, community service and economic development. UAB is a three-time recipient of the prestigious [Center for Translational Science Award](#). Learn more at <https://www.uab.edu/home>



EDITOR'S NOTE: The University of Alabama at Birmingham is one of three doctoral research universities in the University of Alabama System. In your first reference to our institution, please use **University of Alabama at Birmingham** and **UAB** on subsequent references.

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VIDEO: www.youtube.com/uabnews

As the most recent recipient of the McNulty Scientist Award, Dr. Brandon Rocque spoke to the Foundation for Children with Intellectual Disabilities (FCIDD) on December 2, 2021. His presentation highlighted his work and what the McNulty Scientist Award will mean to his future research. Dr. Rocque is exploring the psychological effects of a lifetime of neurosurgical encounters for children with hydrocephalus. The group asked many questions which indicates a high level of interest. Feedback after the presentation included: "Dr. Rocque was wonderful. His presentation was spot on and hit the sweet spot--not too technical and not too simplistic."

Get to know Dr. Rocque:

[2021 McNulty Scientist - School of Medicine - Civitan International Research Center | UAB](#)

Videos

Check out the newest CIRC overview presentation!

<https://vimeo.com/410726907>

The Civitan International Research Center video which premiered at the Civitan Convention can be viewed on-line.

2021 CIRC Annual Video: <https://www.youtube.com/watch?v=hHsyhdzrhKc>

2019 Video: <https://civitan.org/research/>

New focus is being made to spotlight the Civitan International Research Center with brief video clips.

<https://vimeo.com/410726907>

<http://www.uab.edu/medicine/circ/test/328-civitan-convention>

<http://www.uab.edu/medicine/circ/test/324-what-is-the-circ>

<http://www.uab.edu/medicine/circ/test/316-athens-ladies-civitan-club>

<http://www.uab.edu/medicine/circ/test/303-priceville-junior-civitans-2>

<http://www.uab.edu/medicine/neurobiology/news-events/news-archive/203-neurobiology-labs>

For updates on the Civitan International Research Center visit the website at:

www.uab.edu/medicine/circ

Due to COVID restrictions, private tours are temporarily suspended.

CONTACT US

Civitan International Research Center
1719 6th Avenue South
CIRC 252D
Birmingham, AL 35294

Email

Vicki Hixon
vhixon@uab.edu

Phone

205-934-8900
1-800-UAB-CIRC