

Twin Matters

A Family Newsletter from the Mid-Atlantic Twin Registry

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Groundbreaking Brain and Cognitive Development Research Opportunity

Over the past decade, neuroimaging methods have improved dramatically, which has granted researchers unprecedented insight into brain and cognitive development. The **Adolescent Brain Cognitive Development (ABCD)** research group is poised to become forerunners in this endeavor. The MATR is pleased to invite eligible twin families to be part of this groundbreaking study. Qualifying twin families include those with same-sex twins who are 9 or 10 years old and able to come to Richmond, VA to participate in the ABCD Study.

This innovative study plans to enroll over 10,000 twin and non-twin participants across the United States, and VCU's MATR is one of only four study sites inviting twins to take part. The researchers hope to gain a deeper understanding about how the brain develops during adolescence and how that impacts health and behavior. The data from twins provides significant and unique insight into this question. The results of this research **could very well have implications concerning how we understand human health, development, and behavior.**

To learn more about this study, including background, involvement, and compensation information, please see the study advertisement in this newsletter or visit go.vcu.edu/twinstudy. You can also learn more about why the ABCD study is important to one of its Principal Investigators, Dr. James Bjork, by visiting go.vcu.edu/pibio.

Why the focus on juvenile and young adult twins?

Those of you who have been reading our newsletters and following us on Facebook for the past few years have likely noticed that much of the current research has focused on examining key developmental stages within adolescence and young adulthood. These stages include the time leading up to and just before puberty; the later adolescent years, with the social and academic pressures of high school; and the transition of leaving home that comes during young adulthood.

Researchers aren't just focusing on these developmental stages to learn more about what goes on during those time frames, although that is part of it. Their main hope is to gain a clearer picture about what happens during early and late adolescence and young adulthood that lays the foundation for overall health outcomes and behavior choices well into and through adulthood. If the researchers can identify those critical, influencing moments early on in life then they have solidified the first step in developing key therapies or interventions that might lead to improved health outcomes and behaviors into adulthood.

The MATR is excited to play a role in this type of research, and we hope our twins are equally enthusiastic to learn more about these research opportunities. In this newsletter, you'll find updates about studies hoping to answer research questions that have the potential to offer improvements to our understanding of the human condition. You can also learn more by visiting: go.vcu.edu/twinstudy.

Multiples Family Day 2017

You're invited! Join MATR staff and fellow twins, triplets, and other multiples on Saturday, June 17, 2017 for Multiples Family Day at Kings Dominion! We'll be hosting photos, contests, and MATR-style fun from 10 a.m. – 4 p.m.

Make sure you get your tickets now at go.vcu.edu/twinevent. The special \$35 pricing is only available online and will not be available at the park. Children ages 2 and younger will be admitted free.

The MATR is grateful to Kings Dominion for allowing us this opportunity to show how much we value you and appreciate your participation in the MATR. We look forward to kicking off summer with you, your family, and friends at one of our favorite events!



Virginia Commonwealth University



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Spring Greetings!

We have some very exciting studies going on right now and are delighted to see that so many of our twins are participating in this important research. Thank you for your continued support! We have also enjoyed meeting many of you at events we attended this past spring and look forward to seeing you at our annual Multiples Day at Kings Dominion this June (see the back panel for more information).

If you haven't already, please be sure to like us on Facebook at facebook.com/twinsmatr so we can keep you posted about upcoming events, study opportunities, and other twin news.

We appreciate you!

Warm Regards,

Judy Silberg, PhD
MATR Scientific Director

Twin Matters

Spring 2017 Volume XXXIII

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Enter Our Drawing!

Drawings for \$10 Gift Cards (Walmart, Target, etc.) are held throughout the year for MATR participants (must be registered with us) as a token of thanks for updating your contact information, or sharing stories or photos.

For a chance to be selected for one of the gift cards you can:

- Update your contact information at go.vcu.edu/twinupdate
- Share a twin-related story or photo(s) at go.vcu.edu/photostory

Recipients will be selected at random and notified by email, mail, or phone.

Update on the Adolescent Young Adult Twin Study (AYATS)

While study recruitment for new participants has closed, the AYATS staff is currently scheduling Wave 2 follow ups with twins who have already completed their Wave 1 study appointments. During Wave 1 visits, twins provided the research team with baseline data about potential influencers of and biological responses to factors associated with the development of anxiety and depression.

For some, the Wave 2 requests can be completed at home while others will be asked to return to VCU. Generally, the Wave 2 requests begin approximately two years following a participant's Wave 1 appointment. These requests are designed to happen during or just following the pivotal transition into adulthood. A transition which often includes potential stressors, such as moving out of a parents' home and accepting increasing levels of personal and financial responsibility. The researchers can then compare the Wave 2 data to the Wave 1 data to look for patterns which might suggest reasons why some people develop anxiety and depression while others do not. The study hopes to continue with these Wave 2 requests through the summer of 2018. If you completed Wave 1 of the study, please expect to hear from the AYATS research team soon (if you have not already).

You can learn what motivates the AYATS Principal Investigator, Dr. Roxann Roberson-Nay, to answer these important research questions by visiting go.vcu.edu/pibio.

The MATR and AYATS staff is grateful to all those who have participated in this study and look forward to a successful round of Wave 2 visits!



If you haven't already, please like our page so we can keep you up-to-date on studies, twins in the news, and exclusive twin events! You can find us at www.facebook.com/twinsmatr or by searching "The Mid-Atlantic Twin Registry of VCU."

New Study Opportunities!

FOR ADOLESCENT TWINS...

Adolescent Brain Cognitive Development (ABCD) Study

National Institutes of Health (NIH) has funded groundbreaking research being carried out by a consortium of 19 academic agencies. Virginia Commonwealth University (VCU) is ONE of only four twin sites recruiting for this study that hopes to provide unique insight into the brain and cognitive development starting in childhood.

Participants the study will need include:

- FULL PAIRS of Same-sex twins
- 9 or 10 years old
- Fraternal or identical

Study participation involves:

- Completing a 20 min (approx.) phone call with the MATR to hear more about the study.
- Coming to VCU to complete the study
- Compensation is provided

If Interested:

Contact the *Mid-Atlantic Twin Registry* (MATR) and let us know that you want to learn more about the **ABCD Study**. Please let us know the full names and DOB of the twin pair. Parents, please provide your full name as well. You can reach us at:

- 1-800-URA-TWIN (1-800-872-8946) toll-free
- matr@vcu.edu
- Email us the code **445566** for a return link to an online update form

FOR ADOLESCENT AND YOUNG ADULT TWINS...

Text 4 Thoughts (T4T) Study

University of Michigan's Dr. Cristina Bares is working on an innovative study investigating the impact that daily changes in mood have on driving certain behavior choices. This study is funded by the National Institutes of Health.

Participants the study will need include:

- FULL PAIRS of Female-Female MATR twins, 16 through 21 years old
- Can be identical or fraternal

Study participation involves:

- Completing a phone call with the MATR to hear more about the study.
- Complete a Consent or Assent Process: Juvenile twins—parents need to provide consent while juvenile twins provide assent. Adult twins provide their own consent.
- Completing online surveys:
 - Definitely completing one baseline data & eligibility survey that takes about 20 min.
 - If eligible, completing multiple short surveys (approx. three min each) online for a little over a week.
- Receiving text messages, which contain the links to the study surveys. Participants can use their own phones or be loaned one by the study.
- Participants receive compensation for their time.

If Interested:

Contact the *Mid-Atlantic Twin Registry* (MATR) and let us know that you want to learn more about the **Text 4 Thoughts Study**. Please let us know the full names and DOB of the twin pair. Parents of juvenile twins, please provide your full name as well. You can reach us at:

- 1-800-URA-TWIN (1-800-872-8946) toll-free
- matr@vcu.edu

Text-4-Thoughts (T4T) Study Update

The T4T study takes a closer look at twins passing through key developmental phases. This study is unique in that it plans to send surveys through text message to find out how an individual's moods throughout the day (feeling content, sad, irritated, happy) influence their behavior choices. Because of the use of texting to complete the study, many twins find it relatively easy to be part of this research. Participating in the T4T study typically includes using a cell phone to complete short (2-3 minutes) daily surveys for ten days. The MATR is currently contacting twin families that might be eligible by phone and mail to invite them to participate. This includes parents of female-female twins ages 16 & 17 years old and young adult twins ages 18 through 21 years old. Please take a moment to learn more about the study's Principal Investigator (PI), Dr. Cristina Bares and her research staff below. To learn more about participation, please see the study advertisement in this newsletter or go online to: go.vcu.edu/twinstudy.



T4T PI: Cristina Bares, PhD

"In the T4T project I am hoping to better understand the intricate daily experience of adolescent twins by tracking their behaviors during the course of a few days. Working with me are a team of talented research assistants at the University of Michigan. It is through their efforts and the kindness and generosity of our participants that we have had a successful start to our project. I look forward to sharing preliminary results as the project continues." (go.vcu.edu/pibio)



T4T Research Team: From the left: Swathi Sampath, Samantha Voss, Dr. Cristina Bares (PI), Mary Kelso, Michelle Velasquez

Twin Research Goes Cosmic

Have you ever wanted some "space" from your twin? From 2015-2016, identical twins and astronauts Scott and Mark Kelly got just that, and then some! As part of NASA's Twin Study, Scott spent one year on the International Space Station, with Russian Cosmonaut Mikhail Kornienko, while his identical twin brother Mark, remained on earth as a control subject. For their role in the study, the Kelly twins provided biological samples before, during, and after Scott's time in space to help scientists determine the effects of long-term space travel.

Although other astronauts had provided samples during previous flights, the Kelly twins gave NASA something even more valuable: two sets of identical DNA--one on earth and one in space. For every sample Scott provided from space, Mark provided an identical one for comparison. NASA used both to figure out how Scott's body changed throughout and after his year in space.

One of the most fascinating discoveries was that space travel changes an astronaut's DNA, but only temporarily. While in space, the telomeres located at the end of Scott's chromosomes expanded, which caused him to grow two inches taller. To Mark's delight, now that he's back on earth, Scott has returned to his normal height.

NASA's scientists also looked closely at how the long-term isolation and confinement of a year in space impacted Scott's moods and emotions. The researchers are now using that data not only to prepare for long-term exploration of Mars, but also to radically shift the way healthcare is delivered here and now. This NASA data has aided researchers in broadening their understanding of "Omics"—which refers to the combined body of knowledge concerning genetics (genomics), proteins (proteomics), and metabolites (metabolomics). These insights support the idea that doctors should use an individual's Omics profiles to adopt a prevention-based, highly personalized approach to medical plans in order to help patients get and stay healthy. The data the Kelly twins provided NASA offers exciting insight into this progressive approach to health care.

The Kelly brothers made a tremendous sacrifice when they volunteered to serve their country—and all of humanity—through this mission. NASA is quick to point out the cost the Kelly twins and their families have paid and to honor them for their service. We join NASA in honoring the Kelly twins, and we thank them for making twin research something that is literally out of this world! If you find the Kelly's story as fascinating as we do, you can read more at nasa.gov/twins-study.

The MATR provides equally important twin research opportunities that don't require space travel! Details about the MATR's "earth-based" studies are provided in this newsletter and on our website (go.vcu.edu/matrstudies).

