

NEWSLETTER

MICHIGAN STATE UNIVERSITY

TWIN REGISTRY (MSUTR)

Fun Twin Facts:

1. Nigeria holds the world record in multiple births. (There are 1 in 22 multiple births in Nigeria as opposed to 1 in 150 in Japan and 1 in 85 in the U.S.).
2. Some famous twins include: Elvis, Alanis Morissette, John Lovitz, Ed Sullivan.
3. Some famous parents of twins/triplets include: Robert Deniro, George Bush, William Shakespeare, Muhammad Ali, John Engler, Michael J. Fox, Mel Gibson, Ray Romano, Denzel Washington.
4. There are at least 125 million multiples worldwide.
5. Up to 22% of twins are left handed (the non-twin population is just under 10%).

Welcome to MSU Twin Studies!

Greetings! You received this newsletter because you are a twin pair who is eligible to participate in one of our twin studies. If you choose to participate, we will send you a newsletter periodically to provide additional information about our studies and share interesting stories related to twins. This first newsletter includes information about the MSU Twin Registry (MSUTR), our staff, the

ways in which twins can be helpful for scientific research, and some fun twin facts. When we begin to analyze data from our MSU Twin Registry, future newsletters will feature these findings.

If there is anything you would like to see in this newsletter, please let us know by e-mailing us at either Klumplab@msu.edu or Burtlab@yahoo.com. Otherwise, we hope to meet you soon!

Why use Twin Studies?

Twins are an invaluable resource for the fields of both medicine and psychology. Twin study findings have been influential in detecting and treating various diseases and psychological disorders.

How are they able to do this?

Monozygotic (MZ) or identical twins are the same sex and share 100% of their genes. In fact, DNA tests cannot tell them apart. In contrast, dizygotic (DZ) or fraternal twins can be the same- or opposite-sex and share, on average, 50% of their genes (so they are just like regular siblings, except born at the same time). Twin study researchers make use of this difference

in the percentage of genes shared to determine how genetic (and how environmental) a trait is (see Figure 1). For example, if DZ twins are as similar as MZ twins on a particular trait, then we infer that genetic factors are unlikely to be very influential. In this way, twin studies allow us to generally determine the amount of genetic and environmental contributions to a given trait.

Although this information is critical for establishing the general role of genes in human behavior, twin comparisons cannot provide information about the location of the relevant genes. To do this, scientists need to examine

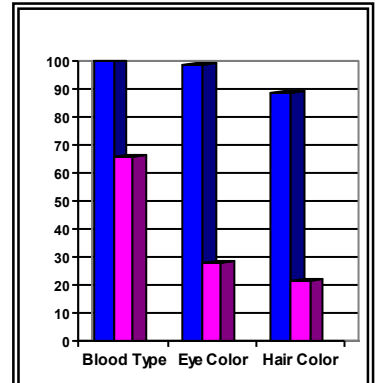


Figure 1. This chart shows the similarities in MZ (Blue) and DZ (Pink) twin siblings' physical characteristics. For example, MZ twins always share the same blood type while DZ twins only share blood type 65% of the time.

participants' DNA (collected through non-invasive saliva sampling). In this way, we can look more closely at the relationship between psychological traits and specific genes.

This information can then be used to develop better ways to prevent and treat disorders and maladaptive behaviors. Indeed, some of the most effective treatments for medical disorders (e.g., early onset breast cancer) have been developed partly as a result of twin study research.

More Fun Twin Facts...

6. Identical twins exhibit almost identical brain wave patterns.

7. There is a restaurant in NYC called "Twins." It was started by twin sisters and is staffed by 37 identical twins who work the same shifts.

8. The oldest twins on record were from Affington, VA. One died at 108, while his co-twin died at age 113.

Our Current Twin Studies

We are currently recruiting for two MSUTR twin studies that we hope you are interested in participating in.

Adolescent Twin Study: This study aims to examine relationships between hormones, mood, eating attitudes and behaviors, family relationships, and personality characteristics in same-sex adolescent male and female twins aged 10-15 years old.

If you are interested in the adolescent twin study, or know someone who is, please contact us at:

Burtlab@yahoo.com

or call: (517) 355-6878

Adult Twin Study: In addition, we are also conducting a study that examines adult opposite-sex and same-sex twins. This study examines the degree to which genetic and environmental factors influence personality characteristics and behavioral adjustment.

Twins for this study must be at least 18 years old.

If you are interested in the adult study, or know someone who is, please contact us at:

Klumplab@msu.edu

or call: (517) 432-3665

Meet Our Staff

Dr. Klump and graduate and undergraduate research assistants



Dr. Burt and graduate and undergraduate research assistants

It takes a lot of hard work and commitment to run a research study, and the MSUTR currently has several individuals on staff to make sure everything runs smoothly. This staff includes our directors Drs. S. Alexandra Burt and Kelly Klump. Drs. Burt and Klump are professors in the Department of Psychology at MSU.

The MSUTR also includes undergraduate and graduate students who work directly with twins and families who participate in our studies. The graduate students frequently manage the studies and include Kristen Culbert, Janeen DeMarte, Jennifer Slane, and Alexia Spanos.

The undergraduate research assistants are students at MSU who enjoy working with twins and families alike. These

assistants include Robert Buhs, Ashley Curtis, Kelly Curtis, Katie Douglas, Sahar Eftekhar, Bryan Garlington, Sapna Gill, Stacy Glabach, Bethany Grix, Mikhila Humbad, Joanne Johnson, Shawn Katterman, Keith Marlow, Meghan McKenzie, Amy Mikolajewski, Matt Murray, Bevin Naftel, Hannah Nuckols, Alicia Palmer, Jenna Reddell Jessica Suisman, Kenya Talton, and Kim Walter.

In future newsletters, we plan to describe findings from our twin studies. Stay tuned to hear how your participation in our twin studies contributes to science!