

Summer, 2009

Newsletter #4

# NEWSLETTER

## MICHIGAN STATE UNIVERSITY

### TWIN REGISTRY (MSUTR)



#### Famous Twins

Our society is fascinated by the unique experience of being a twin. Twins have frequently become famous by obtaining major movie or television deals. For example, twins James and Oliver Phelps acted as Fred and George Weasley in "Harry Potter." Tia and Tamara Mowry are identical twins who acted in the popular TV show "Sister, Sister." Twins have even been included in cartoon shows, such as Phil and Lil in "Rugrats" and Patty and Selma in "The Simpsons."

The following famous people are also twins:

1. Vin Diesel has a fraternal twin brother named Paul Vincent.
2. Justin Timberlake had a fraternal twin sister named Laura Katherine who, unfortunately, died after birth. He has referred to her in song lyrics.
3. Scarlett Johansson has a fraternal twin brother named Hunter.
4. Supermodel Gisele Bundchen has a fraternal twin sister named Patricia.
5. Jon Heder, from the movie "Napoleon Dynamite", has an identical twin brother named Dan.

## Introduction

Hello, from the Michigan State University Twin Registry (MSUTR)! First and foremost, thank you for your participation in our twin research, as it continues to contribute to our understanding of genetic and environmental influences on a range of behaviors.

This fourth edition of the Newsletter has many exciting features. First, we describe some results from our male adolescent twin study. Second, we highlight the extent to

which twins run in the families of our staff members. Finally, we have included information about **college scholarships available for twins**.

As always, please feel free to contact us about anything in this Newsletter or about our twin studies in general. We are always eager to hear from past participants and welcome any suggestions for improving the Newsletter.

Sincerely,

Drs. Alex Burt and Kelly Klump  
(Directors of the MSUTR)



Picture 1: Dr. Klump and research assistants



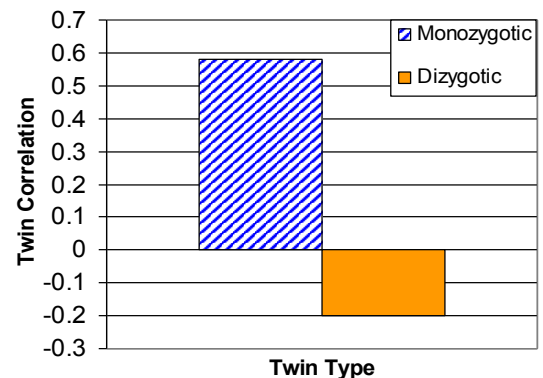
Picture 2: Dr. Burt and research assistants

## Research Findings from Our Studies!

Drs. Burt and Klump recently examined data from the adolescent male twins to determine the extent to which shyness is influenced by genes and environmental factors. Findings indicated that shyness in males seems to be influenced primarily by genes. This is evident because, as shown in Figure 1, identical twins (monozygotic: MZ) were significantly more similar to each other than fraternal twins (dizygotic: DZ) on levels of shyness. Because MZ twins share 100% of their genes, while DZ twins share 50% (on average), increased MZ twin similarity for shyness is likely due to the larger number of genes that they have in common relative to DZ twins. Environmental influences, by contrast, would be implied if MZ and DZ twins were equally similar on shyness. Although findings indicate that genes are contributing to shyness, follow-up studies are needed to better understand which genes, in particular, are contributing to this trait.

Our results confirm many anecdotal stories that we have heard from MSUTR parents about their twins. That is, parents with shy or more sociable children often indicate that their children have been that way since they were very young, suggesting a strong genetic influence.

Figure 1. Similarity for Shyness by Twin Type

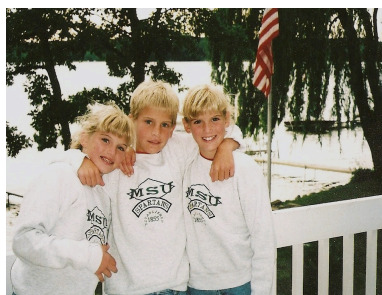


## We Don't Just Study Multiples... It Runs In Our Families!

The MSUTR studies twins as a valuable resource for understanding genetic and environmental influences on a range of attitudes and behaviors. However, we not only study twins - many of our staff members have multiples in their families!

One of our research assistants, Kristina Briggs is the daughter of an identical twin. Alexia Spanos, a graduate student, is the Godmother of a fraternal triplet. Matt Bona, a research assistant, has plenty of multiple births in his family, including two sets of twins and one set of triplets! Three of our research assistants, Shruthi Thiagarajasubramanian, Kylie Lannen, and Jenny Galonska are members of multiple births. Shruthi has a twin brother named Shreyas, who also attends MSU. Jenny and her identical sister are both attending college, but at different universities. Kylie is a triplet with a fraternal brother and identical twin sister, all of whom are Spartans! And it does not stop there – Kylie's maternal grandmother and cousins are twins too!

Identical and fraternal twins may also run in your families! However, did you know that identical twins only happen by chance? This means that the chances of having identical twins is random, and thus, genes have little influence. In contrast, genes do underlie the likelihood of having fraternal twins, but the likelihood only increases if there is a maternal family history of fraternal twins.



Top left: Triplets Kylie, Nick, and Courtney Lannen (at age 10). Top right: Alexia Spanos's triplet goddaughter and her co-twins. Bottom left: Matt Bona's triplet cousins. Bottom right: Kristina Briggs's mother and aunt.

## Scholarships For Twins

There are tough economic times in front of us and attending college has only become more expensive. This prompted the MSUTR to look into college scholarships that might be available to some of our twin participants. We found that several colleges in the U.S. have special twin/triplet scholarship programs, including:

- **Eastern Michigan University**, Ypsilanti, Michigan: Offers the Furlotte Twins Endowed Scholarship for upperclassmen enrolled in the College of Education Elementary Education Program.
- **Wilson College**, Chambersburg, PA: Offers a twins/triplets scholarship, which pays 45% of each multiple's annual tuition.

- **George Washington University**, Washington, DC: Offers a twin scholarship where the first twin pays full tuition and their co-twin gets a 50% tuition discount.
- **Northeastern Oklahoma A&M College**, Miami, Oklahoma: Offers the Twin/Triplet Dorm Waiver, which covers the amount of having a semi-private room for twins or triplets who attend this college together.
- **Kelley School of Business at Indiana University**, Bloomington, Indiana: Offers the Layton Frazier McKinley Scholarship for twins, although preference is given to identical twin pairs.

More information about twin/triplet scholarships can be found at: <http://www.finaid.org/scholarships/unusual.phtml>

## Our Current Twin Studies

**#1. Opposite-Sex (Male-Female) Twin Adolescent Study:** This study investigates associations between hormones, genes, mood, attentional abilities, and personality characteristics during puberty in opposite-sex adolescent, male and female twins ages 10-15 years old.

**#2. Female Twin Study of Hormones and Behavior:** This project investigates changes in ovarian hormone levels and behavior across the menstrual cycle, and whether these associations are influenced by genes, in female twins ages 16-22.

**#3 Michigan Twins Project:** This is a mail-in twin registry for twins between the ages of 3 and 25 living within lower Michigan. Families complete and return a very brief questionnaire that assesses family composition and the health status of both parents and twins.

**#4. Twin Study of Behavioral and Emotional Development - Child:** This study examines relationships among genes, mood, peers, family relationships and acting out behaviors in same-sex twins ages 6-10 years old.

If you are interested in studies #1, 2, or 3, or know someone who is, please contact us at:

[msutr@msu.edu](mailto:msutr@msu.edu) or call (517) 432-3665

If you are interested in study #4, or know someone who is, please contact us at:

[msutr@msu.edu](mailto:msutr@msu.edu) or call: (517) 355-6878