



SRI International

The Northern California Twin Registry Newsletter



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1-800-SRI-Twin (774-8946)

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Twin Registry Milestone

It doesn't seem possible, but over **10 years** have elapsed since the SRI Northern California Twin Registry (NCTR) was formed. Since that time, not only has the membership grown, but **468** NCTR twin pairs have participated in **eight** NIH- or commercially-funded research studies offered through SRI.

Membership Statistics. The Registry currently has 2,265 active members; 77% are adults and 22% are under age 18.

Adult members:

- 64% are identical; 31% are fraternal, and 5% are unsure
- 70% are female; 30% are male

Under age 18 members:

- 40% are identical; 52% are fraternal; and 8% are unsure
- 58% are female; 42% are male

Eighty-four percent of all members live in California and 15% in other US states, but we also have twins living in Australia, Canada, France, Holland, Italy, and Singapore.

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Maintaining the Registry membership is a full time job. We have three staff members who devote time every day to locating twins and updating the database. Ruth Krasnow, Dee Campbell, and Jill Rubin share these challenging tasks. Our thanks to Ruth, Dee, and Jill for their ongoing efforts and also to all of the twins who email or call us with name changes and new phone numbers and addresses.

Thank You for Your Referrals

One reason for the growth and active membership of the Registry is due to the referral of twins by many of you. We have learned over the last 10 years that the best advertisement is *word of mouth*. Our referral reward program is still in effect—\$25 for each set of twins who join the Registry.

If you would like information on how to refer twins to the Registry, please call Jill at **1-800-605-3645**

SRI Interviewed by Twins Magazine

We were honored to be interviewed by Patricia Malmstrom of the Twins Magazine. The article, published in the Nov/Dec 2004 issue, discussed the benefits of being involved in a twin registry and how twin research contributes to our understanding of ourselves.

Twins Magazine has been a resource to parents of multiples since 1984. Many parents consider it to be the "bible of parenting multiples." To learn more about Twins Magazine, visit their website:

www.twinsmagazine.com

Why are Twin Studies Important?

It is hoped that the study of health behaviors in twins will help identify the extent to which health is influenced by genetics vs. environment. Identification of the genetic component to health will help researchers accurately target efforts to improve public health. Twin studies have provided scientific insights into such health issues as diabetes, heart disease, obesity, and alcohol and tobacco use. By identifying a genetic component to these and other health issues, early prevention and treatment efforts can be targeted.

In the twin studies conducted thus far, SRI has identified genetic influences on a variety of health-related issues. Key findings include:

- Obesity over the life span is determined, in part, by different genetic factors as people get older.
- Tobacco smoking is determined partly by genetic factors, some of which may also underlie alcohol use.
- Change in memory function in aging adults is influenced partly by genetic factors; in identical twins who were different on memory change, middle-aged blood pressure appeared as a significant determinant of this change.

As a result of our twin research here at SRI, we have published numerous findings in professional journals. A partial list of publications is presented on Page 3.

Did You Know . . .

- Fraternal twins are more common than identical twins,
- Fifty percent of all fraternal twins are boy-girl pairs, 25% are boy-boy, and 25% are girl-girl pairs,
- Twins Days in Twinsberg, Ohio, is the world's largest annual gathering of twins, according to the Guinness Book of World Records.

- Cirque Du Soleil employs nine sets of twins, an impressive number for any corporation.
- Identical twins do not have identical fingerprints. This is because the ultimate shapes of fingerprints are believed to be influenced by environmental factors during pregnancy (like nutrition, blood pressure, position in the womb). Therefore, you will find similar patterns of whorls and ridges in the fingerprints of identical twins, but there will also be differences.
- Not all identical twins look identical. While they have the same exact DNA, they can look a little different due to weight and height differences. Identical twins also have their own individual personalities and preferences.

off the mark

by Mark Parisi

www.offthemark.com



Selected Publications from SRI Twin Research

Benowitz NL, Lessov-Schlaggar CN, Swan GE, Jacob P, III. Female sex and oral contraceptive use accelerate nicotine metabolism. *Clinical Pharmacology and Therapeutics* (in press).

Swan GE, Benowitz NL, Lessov CN, Jacob P, III, Tyndale RF, Wilhelmsen K (2005). Nicotine metabolism: The impact of CYP2A6 on estimates of additive genetic influence. *Pharmacogenetics and Genomics*.

Swan GE, Benowitz NL, Jacob P, III, Lessov CN, Tyndale RF, Wilhelmsen K, Krasnow RE, McElroy MR, Moore SE, Wambach M. (2004). Pharmacogenetics of nicotine metabolism in twins: Methods and procedures. *Twin Research*, 7(5), 435-448.

Lessov-Schlaggar CN, Reed T, Swan GE, Krasnow RE, DeCarli C, Marcus R, Holloway L, Wolf PA, Carmelli D (2005). Association of sex hormones with brain morphology and cognition in healthy elderly men. *Neurology* 65:1591-1596

Li MD, Cheng R, Ma JZ, Swan GE. A meta-analysis of estimated genetic and environmental effects on smoking behavior in male and female adult twins. *Addiction*, 98(1):23-31, 2003.

Swan GE. Smoking in twins: Implications for understanding nicotine addiction. Invited address at the University of Southern California Transcultural Perspectives on Tobacco Use and Health Promotion Conference, Los Angeles, 2002.

Swan GE, Benowitz NL, Carmelli D, Jacob P, III, Karan L. Genetic influences on heart rate responsiveness to nicotine infusion. Paper presented at the annual meeting of the Society for Research on Nicotine and Tobacco, Savannah, GA, February 20-23, 2002. Abstract published in *Nicotine & Tobacco Research*, 2002.

Are You A Smoker Who Would Like to Quit?

We are currently conducting a study investigating the impact of smoking cessation on sleep. The study involves the use of bupropion (Zyban) and the nicotine patch and requires spending several nights and days in SRI's sleep lab.

If you are a smoker who would like to quit (or know someone who would like to quit) and would like more information, please call **Jill at 800/605-3645 or 925/687-2468**. You can participate on your own or as a twin pair.

How to Contact Us

- ❖ You can visit our Website at <http://www.sri.com/twin/> to learn about what we're doing. Adult twins interested in registering can do so on this website.
- ❖ You can email us at sri.twin@sri.com to ask questions, update us with a new address or telephone number, or just to check in with us.
- ❖ You can call **1-800-SRI-TWIN (1-800-774-8946)**
- ❖ We check for messages daily, and we will do our best to return your call as soon as possible.
- ❖ If you would like information about study opportunities, you can call our twin line at **1-800-774-8946** or you can call Jill at **1-800-605-3645**.

