SRI International’s Twin Research Registry is an active registry of fraternal and identical twins of all ages and backgrounds who are interested in learning more about twins. Registered members are given the opportunity to participate in research studies to help advance science.

Registry members who refer new twins to the Registry will receive a $25 referral fee once both twins of a pair are registered. We are especially interested in twins in the San Francisco/Peninsula area. Please send them our way!

The Registry currently has 3,224 active twins. Thirty-two percent now complete their registrations online. Out-of-state membership has increased to more than 20% of the total Registry—the highest in our 15-year history.

As of July 1, the Registry has 2,780 (86%) adult members and 444 (14%) members under age 18. Sixty-six percent of the Registry is female. The zygosity (identical or fraternal) breakdown overall and by age groups are shown in the charts to the left.

The proportion of twins who are identical is much higher in the adult age group than in the under-18 group.

<table>
<thead>
<tr>
<th>Zygosity, overall</th>
<th>IDENTICAL</th>
<th>FRATERNAL</th>
<th>UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5%</td>
<td>34%</td>
<td>61%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zygosity, adult</th>
<th>IDENTICAL</th>
<th>FRATERNAL</th>
<th>UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4%</td>
<td>32%</td>
<td>64%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Zygosity, under 18</th>
<th>IDENTICAL</th>
<th>FRATERNAL</th>
<th>UNKNOWN</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>39%</td>
<td>8%</td>
<td>53%</td>
</tr>
</tbody>
</table>
Are You an Identical or Fraternal Twin?

Speaking of zygosity, if you have had a blood test to confirm whether you are an identical or fraternal twin and would be willing to share the results with us, email twin@sri.com or call 1-800-SRI-TWIN. Test results will ensure that we have the most accurate information in our database. Thanks to those who have already sent us your results!

Recent Publications/Presentations from the TRR

In November 2011, Dr. Gary Swan, our director, spoke at the Avenidas Senior Center in Palo Alto, CA. He presented information about twinning, the Twin Research Registry, and its important studies. Watch archived video of Dr. Swan’s 2010 talk on twins at Café Scientifique Silicon Valley at http://bit.ly/NoYWzY.

Asthma Study

A collaboration between the Twin Research Registry and the Stanford Medical Center laboratory of Dr. Kari Nadeau that included identical twins found 21 pairs that were discordant for asthma (meaning one has asthma, the other doesn’t). Further investigations showed that the twins who had asthma were more likely to have been recently exposed to second-hand smoke and were more likely to show some evidence that their DNA had been altered due to the exposure.

Pain Study

Three new papers related to the Pain Study at Stanford have been published. More than 100 Registry pairs participated in this groundbreaking study designed to better understand how much genetics (vs. environment) contribute to individual differences in pain sensitivity and the effects of painkillers.

- “Pain Sensitivity and Opioid Analgesia: a Pharmacogenomic Twin Study” (published in PAIN, July 2012). This paper described twin similarities and differences for cold pain tolerance and on drug-related increases in the ability to withstand pain related to heat and cold.

- “Integrative approach to pain genetics identifies pain sensitivity loci across diseases” (published in PLoS Computational Biology, June 2012). The study utilized information from our twins to confirm significant associations between several newly identified pain gene candidates and sensitivity to cold pain.

- “Aversive and Reinforcing Opioid Effects: A Pharmacogenomic Twin Study” (published in Anesthesiology, July 2012) showed that reactions to opiates (commonly prescribed painkillers) are inherited. The study showed that identical twins were more similar in their responses to opiates than were non-identical twins. Some of the shared responses included nausea, itchiness, dizziness, and slowed breathing. This type of research can help identify at-risk patients so they can avoid serious side effects to these types of medications.

Current Studies

Survey on Immunologically based Disease: Coming soon!

In collaboration with Stanford Medical Center, we will be conducting an electronic survey of the entire Registry to ask about a variety of characteristics and conditions related to the immune system. Twins will be sent an e-mail or letter providing login instructions. Twin pairs who complete the survey will be eligible to participate in a drawing for a Kindle Touch e-reader, valued at $99. Each twin of the randomly selected pair will win the prize. We are hoping for a good response rate, so please participate when invited!

Seasonal Flu Vaccines: This will be the fourth year of the Stanford University study of the body’s immune response to the seasonal flu vaccine. Twins are needed to help investigators better understand the genetic component to this response. We will begin recruiting for the study in summer 2012 for appointments in late August to December 2012. Participating twins will be compensated for their time and travel expenses, and zygosity will be determined. Identical and fraternal twins between the ages of 18-30 and 40-64, as well as identical twins over 65, are urged to participate. We especially need identical twins 18-30 and over 65. If you would like to participate, call Jill Rubin at 1-800-605-3645 and you will be added to the list of twins to be contacted.
Zoster (Shingles) Vaccine: In collaboration with Stanford, we have been recruiting identical twin pairs for two zoster-related studies. The first is for twins between 40-49 years of age who will come to Stanford for a single visit to provide a blood sample. In the other, twins age 50 and older will receive the Zostavax vaccine (approved by the FDA) to protect against an outbreak of shingles and participate in 5 study visits during one month. The information from these studies could lead to improvement in vaccine strategies and a better understanding of responses in older individuals. Recruitment for these studies is temporarily on hold and will begin again in early 2013.

Possible Future Study on Smoking and Twins
SRI and Stanford investigators have collaborated on two NIH grant submissions proposing to study the effects of smoking and second-hand smoke exposure in twins. Should either of these studies be funded, we will announce plans for recruiting twins who can travel to Stanford University for study visits.

PHOTOS FROM OUR TWINS

Growing up as an identical mirror twin, my sister and I shared many mirror image traits. Jenn’s a lefty, I’m a righty, she’s nearsighted, and I’m farsighted. One of the most unique mirror traits we have shared is that Jenn had identical twin boys, and I had identical twin girls. My sister and I never imagined that we would both be moms to our own set of twins, but it has been amazing!

— Christian
Martha and Mary were born on August 1, 1937, in Huntington Park, California. At that time, identical twins were quite rare. They would put their heads together and communicate in their own private little world in their own “twin” language.

The twins were married just two weeks apart in 1955. Shortly afterwards, Martha and Norman had two girls and Mary and Wayne had three boys! The five kids were raised with “two sets of parents” and were more like brothers and sisters than cousins. Mary and Wayne had moved to Lake of the Pines, Auburn, California, in 1980. In 2000, Norm and Martha bought a house just a mile away, and after retiring moved there in 2006. Martha and Mary had a double 50th wedding anniversary celebration on September 10, 2005.

The twins have been waterskiing since they were 27 and soon started the tradition of double-skiing each year to celebrate their birthday. Their story has been published in the Lake of the Pines News and the Auburn Journal. Now 74, they continue to waterski, each using one ski! When asked if they use two skis, Martha replies, “Yes ... one for Mary and one for me!” Interestingly, they are “mirror twins” when it comes to skiing, as Mary puts her right leg in front and Martha her left. They hope to continue waterskiing at least until they’re 80... maybe even 90 or 100!

Approximately 15 years ago, Martha and Mary became involved with the Registry and have participated in several MRI brain studies.
We have similar laughs but different personalities,” says Rosy. Vicki notes, “Our maternal grandmother had twins. We complement each other in a unique and positive way, like yin/yang. We’ve both worked in high tech, non-profit and government industries. The incidence of natural born Chinese twins is 1 in 250 (White/European is 1 in 69, Black/African is 1 in 60) in America.

From Lloyd and Larry:

After Larry took me to the eye doctor (1-4-2011) at Sunnyside, we were riding back and we were chatting. I mentioned in the conversation that the names of the railroads sure are boring today…i.e. BNSF, etc. I told him that in Dad’s day the names were much more romantic, such as the Great Northern, etc. In fact, our grandpa had worked for the Great Northern. I told Larry that the name Great Northern conjures up a photo in my mind of a mountain goat on a rock. (Of course I knew the railroad symbol was the mountain goat). A big smile came onto Larry’s face and he started tugging at his over-shirt…while driving. Guess what was on the shirt that he had on?

Books by Twins

Rita and Amy have written a book (unpublished) about being twins. A few lines from one of their poems:

My Twin

She’s love and life and laughter
—And ‘my twin’.
She’s now and yet and after
—And what’s been.
We have twenty years of memory
But now we have to part
To take our lives’ tour separately
With memory in our hearts.

A Movie About Twins

“The Power of Two” — a film by Marc Smolowitz — offers an intimate portrayal of the bond between half-Japanese twin sisters Anabel Stenzel and Isabel Stenzel Byrnes (members of the Twin Research Registry), their lifelong battle with the fatal genetic disease cystic fibrosis (CF), survival through miraculous double lung transplants, and improbable emergence as authors, athletes, and advocates for organ donation and those suffering from CF in the U.S. and Japan. Available everywhere (iTunes, Amazon.com, Comcast, Time Warner Cable, DirectTV, and Dish Network).

Web Links of Interest

Article about the increase in U.S. twin births:
http://reut.rs/A0SAhK

Why identical twins aren’t totally identical:

Local Twin Research Registry twins interviewed:
http://bit.ly/mdtT5q

Gorgeous photos of twins:

Twins for the flu vaccine advertisements:
http://nydn.us/vD3zD9

New way to identify identical twins:

Twins help protect marine environment:

Psychic twins:
http://abcn.ws/1HyGjs

Fraternal twins and rare disease:

Feedback

Tell us your twin story!

If you have an interesting, fun story about being a twin, email it to twin@sri.com and you may be featured in our next newsletter! Please include permission for us to share your story.

We’re Thinking Green

Would you prefer to receive our newsletter via email? Email us at twin@sri.com. All information is kept confidential and not shared with anyone else. Many twins have already shared their email addresses with us — thank you!

You can see all of our newsletters on our website at
Be sure we have the most up-to-date contact information for you and your twin. If you have moved or changed your phone number or your e-mail, please let us know! When recruiting for studies we want to make sure the information we have is current. Thank you!

How to Contact Us

Visit our website at www.sri.com/twin for more information. Adult twins interested in registering can do so on this website. Twins 17 and under can be registered by their parents by calling 1.800.SRI.TWIN (1.800.774.8946).

Check out the SRI Twin Research Registry page on Facebook at https://www.facebook.com/TwinSRI.

Follow us on Twitter: @twinSRI

Email us at 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 will return your call as soon as possible.

For information about study opportunities, call Jill Rubin at 1.800.605.3645.

Research opportunities are only available to twin pairs. If your twin has not yet registered, have him/her call our recruiter Jill Rubin at 1.800.605.3645 for a brief 3-minute phone chat.