



March 3, 2015

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Awards Dinner

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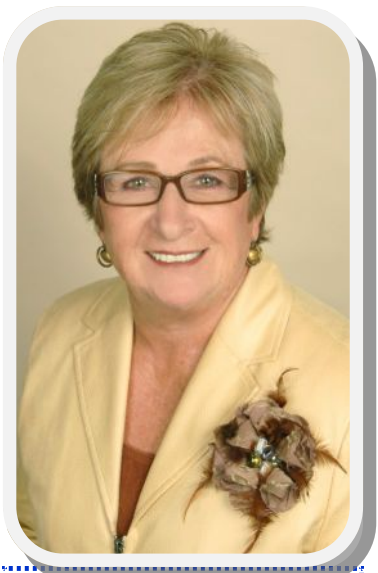
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## pH Reading From The President

As the birds begin to sing in the early morning, flowers begin to bud and we move the clock forward an hour; we know that spring is upon us. Spring is the season in which we hold our annual Scholar Award Event. The 15th Annual Scholar Awards Dinner will be held March 11, 2015 at the Arnold and Mabel Beckman Center in Irvine. This event is the Chapter's most exciting evening because we will be honoring 17 ARCS Graduate and Undergraduate Scholars for their outstanding contributions to science. As Chapter President, I hope you all will be present for this special evening.

In this issue of the pH Reading, we have included information related to the impact ARCS has had on society. It is impressive due to the generosity of many individuals, foundations, and corporations. Also, I refer you the National ARCS website, [https://www.arcsfoundation.org/files/default/images/user1/arcs\\_in\\_wsj\\_5\\_feb\\_2015\\_amf.pdf](https://www.arcsfoundation.org/files/default/images/user1/arcs_in_wsj_5_feb_2015_amf.pdf) where an article from the Wall Street Journal that was recently published entitled "The Disappearing Young Scientists" is posted and acknowledges the role of ARCS Awards in support of young scientists.



Ellen M. Lewis, MSN, RN, FAAN

Orange County Chapter  
President, 2014-2015

## Upcoming Events

- Scholar Awards Dinner 3/11/2015
- BOD Meeting 3-4:30 PM 3/18/15
- 4/22/15 Upcoming Field Trip to City of Hope (Please look for details on this event to be forthcoming via e-mail)
- ARCS All Members Conference 9/30/15 - 10/3/15 in Chicago



**ORANGE COUNTY  
ARCS® Foundation, Inc.**

**LUNCH WITH A SCIENTIST**

**FRIDAY, FEBRUARY 13, 2015**

**11:30 AM**

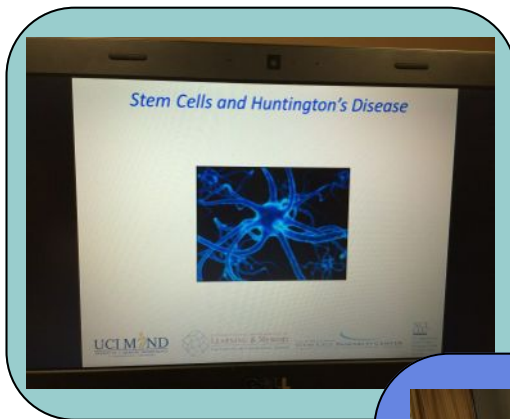
**UCI UNIVERSITY CLUB, ROOM C**

**DR. LESLIE M. THOMPSON**

**PROFESSOR, PSYCHIATRY & HUMAN BEHAVIOR  
AND NEUROBIOLOGY & BEHAVIOR**

**"STEM CELLS AND HUNTINGTON'S DISEASE"**

*Huntington's disease is a genetic neurodegenerative disease that typically strikes individuals in the prime of life. There is no treatment to change the course of disease. Stem cells offer an unprecedented opportunity to both study and potentially treat neurodegenerative diseases such as Huntington's disease, Parkinson's and other similar disorders.*



# Scholar Highlight

## Suzi Klaus



Suzi Klaus, the ARCS Founding President/Beckman Coulter Scholar (2014-2015), graduated with honors from the University of Iowa with a B.S in Biochemistry. She then taught high school in American Samoa as an AmeriCorps volunteer before joining UCI's Medical Scientist Training Program in 2009.

Suzi's Ph.D. research in Dr. Manuela Raffatellu's laboratory focuses on neutrophil recruitment and function during *Salmonella* infection. Specifically, she is interested in characterizing intestinal neutrophils and understanding their role in expression of antimicrobial proteins during *Salmonella* infection. Using a mouse model of infection, Suzi has shown that neutrophils expressing the chemokine receptor CXCR2 are preferentially recruited to the intestine during *Salmonella* infection and are important for restricting the spread of *Salmonella* to the rest of the body. Additionally, she has uncovered a previously unrecognized role for CXCR2 on B cells in intestinal immune tissues.

Suzi anticipates that the information gained by studying neutrophil recruitment and bacterial killing during *Salmonella* infection will not only help combat *Salmonella* infections, but will also be applicable to other intestinal pathogens. Ultimately, she hopes therapies will be developed to promote neutrophil migration and bacterial killing in immunocompromised people, who are more likely to suffer life-threatening complications from infections like *Salmonella*. Suzi's work on this project was rewarded with a two-year training fellowship from the American Heart Association. She was invited to give a presentation showcasing her progress at the Society for Leukocyte Biology Conference in October 2014. Her efforts during her graduate work have contributed to three publications so far.

In addition to her thesis research, Suzi is also part of the leadership team of an ultrasound research study that screens high school and college athletes for hypertrophic cardiomyopathy, the leading cause of sudden cardiac death in adolescents. She has helped collect cardiac ultrasounds for over 2,000 students in Orange County, resulting in several diagnoses by a cardiologist analyzing the ultrasound images. Suzi's experiences with ultrasound at UC Irvine have resulted in three oral presentations and numerous additional poster presentations at conferences all over the country.

Suzi's research projects have provided numerous opportunities for teaching and mentorship. Over the past three years, she has taught over 50 medical students to collect cardiac ultrasound scans, tutored several medical students, and mentored six undergraduate students to assist her with the experiments in the Raffatellu lab. These experiences have helped prepare Suzi for her future teaching and mentoring responsibilities as an independent researcher. After she completes her education, Suzi would like to continue research in immunology, complemented by a medical practice to care for patients with autoimmune or immunodeficiency disorders.

Support from ARCS Foundation has allowed Suzi to join numerous professional societies, attend conferences, and update her laptop computer to aid in her research data analysis. She greatly appreciates the encouragement and advice from the women of ARCS and other people she has met through the numerous ARCS events over the last two years.

## Second Year Scholar Making a Significant Impact

**Jed Brubaker**, 2nd Year ARCS Orange County Scholar, recently reached out to Marie Richman, Director of University & Scholar Relations for ARCS Orange County, to share a great opportunity he was given. Here is his message:

"It is finally here. Today Facebook introduced Legacy Contacts and updated memorialized profiles. During my six years of research on death and social network sites I have seen the powerful ways that post-mortem profiles can be places for communities to gather and support each other, but until now they were often unmanaged. Legacy contacts changes this. So much work has gone into this product, but it is finally here.

I feel really strongly about my research serving the communities I work with, so when Facebook reached out to ask if I would be willing to help them take this step I couldn't say no. I have worked with many people during some of the most difficult parts of their lives. It's great that my research is having an impact, but mostly I'm grateful to the people who were willing to share their experiences. The most gratifying aspect of these new features is knowing that these changes will make Facebook a more supportive space for people during challenging times.

Please pass on my deep gratitude to everyone at ARCS for their support.

If you want, read more about today's release here:

<http://news.uci.edu/features/overseeing-your-online-afterlife/>

<http://newsroom.fb.com/news/2015/02/adding-a-legacy-contact/>

<http://www.wsj.com/articles/facebook-heir-time-to-choose-who-manages-your-account-when-you-die-1423738802>

Best, Jed"

February 12, 2015

Congratulations Jed!!!

## Wall Street Journal Features ARCS Foundation

Excerpts from the article *The Disappearing Young Scientists* by Michael S. Malone:

"Since its founding in 1958, ARCS has awarded nearly \$90 million to some 9,000 ARCS Scholars in more than 50 U.S. universities. This year's recipients are researching everything from ways to store and process the variations in the genomes of thousands of people to discovering how algae does a better job than land plants at fixing carbon to improve farm yields. It was a reminder that young scientists, seeing with fresh eyes, are more likely to make the truly great discoveries."

"The financial need is far greater than any foundation could meet, yet organizations such as ARCS may offer at least a temporary solution until robust economic growth returns. The foundation's work shows there is a widespread interest, particularly among the wealthy, in supporting science—especially research that may one day save lives or lead to a new technology around which they might build a business."

Read the rest of this article at [https://www.arcsfoundation.org/files/default/images/user1/arcs\\_in\\_ws\\_j\\_5\\_feb\\_2015\\_amf.pdf](https://www.arcsfoundation.org/files/default/images/user1/arcs_in_ws_j_5_feb_2015_amf.pdf)



# IMPACT of ARCS Foundation Scholar Awards

ARCS Foundation is a national organization of women committed to advancing science in America through raising funds for scholar awards. These awards go to promising graduate and undergraduate students who are pursuing degrees in science, engineering and medical research.

With 17 Chapters nationwide and 1500 volunteer members, we have awarded over \$87 million to 8900 scholars since 1958. We have 54 Partner Universities with 587 University Departments. Our Chapter Endowments total over \$17 million to help



## Support Research

- 7500 ARCS Scholars have conducted scientific research during their careers
- 75,000 articles published in refereed journals by ARCS Scholars
- 65,000 papers and major presentations made
- \$1.5 billion in grant funding from NIH, NSF, other agencies and foundations awarded

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## Foster Innovation

- 6800 scientific awards have been received by ARCS Scholars
- 3600 patents are registered by 1000 scholars



## Contribute to Economic Development

- 1800 science-related company start-ups have been founded by ARCS Scholars
- \$10 billion in annual revenue generated by these companies to date



## Build the STEM Pipeline

- **6200 ARCS Scholars help teach/mentor K-12 students to-day**
  - **3.2 million K-12 students have been taught and mentored by ARCS Scholars**
  - **9 out of 10 ARCS Scholars complete their degrees and work in their funded fields**
- More than 5000 ARCS Scholars are currently working to advance science in America**

(Above information is derived from 2013 Scholar Survey)



We are on the web

[https://www.arcsfoundation.org/orange\\_county/](https://www.arcsfoundation.org/orange_county/)

## Contact Info

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If your personal interests align with ARCS' Mission and you would like information about membership, please email **Linda Crans** at [LLcrans@yahoo.com](mailto:LLcrans@yahoo.com)



## Mission Statement

**ARCS- Achievement Rewards for College Scientists**

The ARCS Foundation advances science and technology in the United States by providing financial awards to academically outstanding U.S. citizens studying to complete degrees in science, engineering, and medical research.

## Acknowledgements

Thank you Marie Richman, Barbara Hamkalo, and Suzi Klaus for contributing content featured in this newsletter edition.

ARCS Foundation, INC.

Orange County Chapter Presents

**The 15th Annual**

**Scholar Awards Dinner**

***Wednesday, March 11, 2015***

6PM Reception

7PM Program (Dinner Following)

The Arnold Beckman Center of  
the National Academies of  
Sciences and Engineering

100 Academy Dr.

Irvine, CA 92617

Donate to ARCS Foundation

Orange County

Why Give?

A gift to ARCS Foundation is an opportunity to contribute to America's scientific and economic future by supporting the best of our nation's science and engineering graduate students. For corporations, foundations and individuals, ARCS Foundation provides a unique and cost-effective method to provide direct support for the most promising scholars at **UC Irvine**.