

# INSIDER



Fall 2020

## ***PRESIDENT'S MESSAGE...***



Holly Heaton

**W**elcome to our new fiscal year and happy autumn! Even though coronavirus and COVID-19 upended our world seven months ago, we didn't let it stop us from our mission of supporting science and technology and our Scholars! Our hearts and thoughts are with all who have suffered because of the pandemic and we hope that 2021 will bring a vaccine and treatments that will restore a new normal. In the meantime, we plan to

continue to function virtually, reach out to members and Scholars via calls, emails and zooms and do our best to stay connected. A big thank you to all of you who have been involved in reaching out, especially Deborah and her Membership committee, and Rob Healey, who has been essential in our move to the virtual world.

As you know we did a major pivot and put together a virtual Scientist of the Year event on September 20 that was a real success and crowd-pleaser. We met our fundraising goal and also increased the footprint of ARCS. You will enjoy Kayda's wonderful story of SOY 2020! We have also made huge strides in entering the 21<sup>st</sup> century with our social media presence and efforts to reach out more to Scholars and Scholar alumni. Thank you, Ingrid for leading us in these efforts.

We are kicking off our Member Giving Campaign now and Kathe and her team have set a goal of 100% participation and reaching or exceeding our goal from last year. We have increased our Scholar awards to \$10,000 at three of our institutions, to the delight of Scholars and academic partners, and are funding 46 Scholars. Ellen and her team have really strengthened our relationships with our partners and the UR group. We are so excited to meet our new and returning Scholars via our Getting To Know You Program. Our finances, with Marla at the helm, look good, even during these strange COVID times.

Finally, we are looking forward to some interesting field trips and a special "Home For The Holidays" December event that Margaret and her team described at our general meeting.

*Continued on Page 2*

**PRESIDENT'S MESSAGE...** Continued from Page 1

Thank you everyone for all your time, talent and treasure! I am so proud to be a part of ARCS. We have a terrific team and chapter and I know we have a great year ahead!

Stay tuned, stay well and stay safe!

**Holly Heaton**, President  
ARCS Foundation, San Diego Chapter

---

**PLEASE WELCOME OUR NEW SAN DIEGO  
CHAPTER MEMBERS****ALEXA HUDNUT**

Alexa Hudnut is a Senior Engineer at Dexcom, a leader of diabetes care technology headquartered in San Diego. Alexa works within the Advanced Technology group on sensor performance and extending the lifetime of Dexcom's wearable diabetes systems (CGM). She is also developing new test methods and improved design for Dexcom's next generation of products to empower patients.

Prior positions include Graduate Research Assistant in the Department of Biomedical Engineering at the University of Southern California; Technical Solutions Consultant at Oracle in Boston; and Research Assistant at Gilead Sciences in Seattle.

While at USC, Alexa developed an optical method for measuring the mechanical behaviors of viscoelastic materials and tissues. She also developed physical (3D printed) and computational models of the extracellular matrix composition of the tissues. In addition to this work on tissue biomechanics, Alexa developed several other instruments based on biosensing and photonics.

Alexa received a Bachelor of Science (B.S.) degree and a Doctor of Philosophy (Ph.D.) in biomedical engineering, both from the University of Southern California.

When not working, Alexa is active in Engineers without Borders, Partners in College Sciences, and Letters to a Pre-Scientist. She also has served as graduate student liaison for Women in Science and Engineering at USC.

She has authored or co-authored numerous publications, and with two other colleagues, holds U.S. Patent Number 9,791,333, titled "Portable Polarimetric Fiber Stress Sensor System for Visco-Elastic and Biomedical Material Analysis."

Alexa is a resident of Solana Beach.

*Continued on Page 3*



## **PLEASE WELCOME OUR NEW SAN DIEGO CHAPTER MEMBERS...**

Continued from Page 2

### **ANNE MORRIS**



Anne Morris is a Vice President and Portfolio Manager for Northern Trust in San Diego. She has more than 20 years of investment experience and is committed to helping high net worth individuals, families and foundations meet their financial goals and objectives.

Prior to joining Northern Trust, Anne worked in Financial Planning and Investment Management. Anne was a Senior Portfolio Manager at Brandes Investment Partners for 10 years. During her tenure, she was devoted to her high-net-worth private clients. She helped structure and build the Portfolio Management Department, while the firm grew assets from \$1 Billion to over \$100 Billion. Later, Anne worked at The Gensler Group and Manning Wealth Management as a Wealth Advisor and at Fidelity Investments as an Investment Consultant.

Currently, Anne serves on a Legacy Giving/Naming Rights Committee for the Coronado Schools Foundation. She has volunteered and helped raise funds for her local school district for 18 years. Anne is also an active member of National Charity League with her daughter, Kelli. Anne is passionate about empowering women to deal effectively with money. She has enjoyed teaching financial education classes for women in transition and she is an advocate for women's issues.

Anne has lived in Coronado, CA for 17 years. She resides with her husband and their teenage children. She enjoys swimming, biking and family travel.

### **NANCY RUDOLPH**



Nancy Taylor Rudolph grew up in a village along the Niagara River near Lake Ontario - sailing and water skiing in the summer and figure skating across the river in Canada in the winter. She studied art history at Wellesley College followed by nursing at Columbia University.

Nancy and her husband Ross Rudolph spent two years working at the Public Health Service hospital in Gallup New Mexico on the edge of the Navajo reservation serving Navajo, Hopi, and Zuni Native Americans. They moved to La Jolla in 1975 where Ross helped set up the Plastic Surgery Department at U.C.S.D. Medical School and then became the Head of Plastic Surgery at Scripps Clinic. Nancy spent several years working as a full time

*Continued on Page 4*



## ***PLEASE WELCOME OUR NEW SAN DIEGO CHAPTER MEMBERS...*** Continued from Page 3

mom to four children, volunteering for community organizations, and filling in for vacationing nurses in physicians' offices. She then worked in her husband's office, and as a medical litigation analyst for a large law firm. Nancy spent the final 23 years of her nursing practice in her favorite nursing job - as a school nurse serving students and their families in a low-income, inner-city neighborhood and the school nurse was the only link to health care for many of the students and their families.

## ***PLEASE WELCOME OUR NEW 2020-2021 ARCS SCHOLARS***



SAN DIEGO STATE  
UNIVERSITY



Amanda Alker



Theresa Burnham



Roslynn King



Tiffany Luong



Kyle Malter



Amelia Stone-  
Johnstone



Nathalia  
Gazaniga



Tucker Huffman



Nelson Wu

 Scripps Research



Channing Prend



Samantha Sison

UC San Diego



Pedro Colio



Ann Lawani

(Click on the image above to read "Introducing the New Scholars" booklet)



## *Just for Fun Party Goes Virtual*

by Ann Hill, Co-Director of Field Trips

On August 17<sup>th</sup>, from 4-5:30 pm, we held our first virtual Just for Fun Party. It truly was wonderful to see everyone, if only on screen. And we were more than ready to have some fun! In fact, “fun” was the key ingredient in all of our brainstorming sessions with fellow members.



At one of the initial committee meetings, I offered the idea of a little skit or slapstick kind of thing to encourage our membership to purchase tickets to the Scientist of the Year Virtual Event.

It was my great good fortune that Ellen Moxham agreed to work with me on this idea. (This was lucky for our chapter too! Whew - we dodged a very corny bullet). Ellen deftly steered me toward additional ideas for our event, and it was a joy to spend so many creative hours with her. What evolved was our “script” for the “Just for Fun” event, complete with “sizzle reel” created by Rob.

We loved implementing a bit of “virtual magic” to present our inaugural “ARCS Golden Thinker Awards” from one screen to another, and had such fun honoring wonderful Rob and Georgia, our founders, our hard-working members, and our chapter's 35<sup>th</sup> anniversary!

Creating such a program is an undertaking, but we felt it was important to maintain the tradition of a summertime “Just For Fun” party that we have all enjoyed so much through the years. While putting our shoulders to the wheel, it was a great joy to get to know our committee members better, and for me that truly sums up ARCS.

ARCS has been a great gift in my life for more than 20 years now (thank you again to my thoughtful sponsors, Jean Thompson and Nancy Anderson). What a joy to have learned new skills (such as when I was Foundation Grants Chair 15 years ago or so), learned more about all that takes place in San Diego to advance science and engineering, enjoyed unique field trips and behind the scenes tours, and attended four national meetings. The national meeting in Washington D.C. at which Doris Ellsworth was honored as our ARCS Light in April 2018 was unforgettable, including dinner inside the U.S. Supreme Court building with my daughter as my guest. Most treasured of all, however, are the many new friendships I have enjoyed through ARCS.





## *Just for Fun Party Goes Virtual...* Continued from Page 5

I'm so glad that the 2020 "Just For Fun" party was well-attended and enjoyed, and I send every good wish to our ARCS San Diego Chapter for the next 35 years and beyond!

For those of you who missed this party, and, therefore, the "sizzle reel" created by Rob, and for those of you who would like to view it again, it is now posted on our Chapter's YouTube page. Simply click [HERE](#) and it will take you to the 3-minute PREVIEW of the virtual SOY event.

---

### ***SOY 2020.....The Story***

by Kayda Johnson (VP, Administration and SOY Co-Chair)



It was early June of 2019 when Holly Heaton, our President, invited a few of us to discuss the 2020 Scientist of the Year (SOY) event. We were excited to get the ball rolling. Not only would

this be our annual Scientist of the Year fundraiser, but it would also be a celebration of ARCS San Diego Chapter 35<sup>th</sup> anniversary. This would indeed be a grand event! Shortly thereafter a larger group met at Rachel Collins' house and we coined the venture "ARCS 2020". At this meeting, comprised of ARCS members of many years as well as newer members, we discussed different options. Should we attempt to solicit food and beverage donations from vendors like some charitable organizations have done, and thus raise more money for Scholars, or should we do the traditional fully catered dinner? Where should the event be held, etc.? Assignments were given for information gathering.

After a busy month of information gathering, August 13<sup>th</sup> was our kick-off meeting at Holly's house. From our field visits we selected San Diego Natural History Museum (the NAT) for our celebration and determined April 25, 2020 would be the date. Continental Catering was selected for the dinner and cocktail hour food. A panel comprised of 4 past Scientists of the Year was selected to nominate the 2020 SOY. Co-Chairs for the event were selected and each of us would select members to work on our respective committees. Past SOY's raised close to \$50,000 for our scholars but Holly and I set our goal at \$100,000....shoot for the stars!

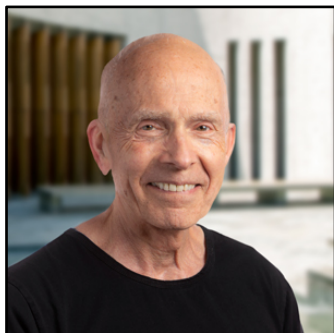
Like every SOY event before this one, the following many months were very busy as committees worked on selection of the 2020 SOY, planning all details of the cocktail

*Continued on Page 7*



## SOY 2020.....The Story... Continued from Page 6

hour and dinner, the program, decorations, scholar poster presentations, invitations, seating, and the list goes on. I can speak for my committee when I say we met every other week at Humphrey's at The Sheraton La Jolla. When I would call for a reservation, we were so well known, the dining room manager would ask if we were having breakfast or lunch!



Dr. Paul Schimmel  
2020 Scientist of the Year

On December 15<sup>th</sup> the Save the Date Notices went out. We began design of the invitations and publicity for the April 25<sup>th</sup> event. Alas, as the saying goes, the best laid plans can go astray. Dr. Schimmel advised that he was being honored with a most prestigious award and could not make the April date! Stop the presses....we contacted the NAT and found they could accommodate us the following weekend, but not on Saturday; we could have Sunday. We discussed this and felt Sunday May 3<sup>rd</sup> would be fine. So, off to the races once again...new Save the Date notices, new invitations, notification of everyone, and the list goes on. Work continued and everything was proceeding nicely. The invitations were beautiful and a "mailing party" was set for March 18<sup>th</sup>.

And then the Pandemic hit! On March 16<sup>th</sup> Holly called a meeting and we decided to postpone the SOY event until September. So, off to the races once again, as we notified the NAT, caterer, Dr. Schimmel, our Sponsors, the members, our vendors, and more. We were now in the world of uncertainty. On April 24<sup>th</sup>, we formed the CORE SOY group. We discussed the possibility of a virtual SOY. This would be a first for all of us. Would we do it live with an emcee? Should it be taped in advance? How would we manage to do this? Time to begin learning this new world!

Once again, back to the NAT, the caterer, our vendors, etc. to inform them the event would not occur in person.

At our May meeting we agreed we would hold the SOY event virtually on September 13<sup>th</sup>. Off to the races once again! Now we had to plan a virtual event which none of us had prior experience doing! Most fortunately, our title sponsor Scripps Research (SR) provided us with hope. They have been producing virtual Front Row productions which are excellent. Holly approached SR and they were happy to use part of their sponsorship as an in-kind donation and help us produce our virtual presentation! I should also add how fortunate we were to have Rob Healey, our Program Contractor. He is masterful at production work and we could not have done this without him. So, we started all over again with a new SOY event, this time virtual, new date, new content, new media and marketing plan, new everything!

*Continued on Page 8*



## *SOY 2020.....The Story...* Continued from Page 7

Off to the races again as we worked with SR to produce the program, film the speakers, edit content, and execute a myriad of other activities. We worked on getting new sponsors, selling tickets, keeping registrants engaged and updated on the upcoming event, and on and on.

The final week before Sunday September 13<sup>th</sup> show time arrived. We lost count of the number of “tests” and “retests” we did of the program. It was a week to remember.

Sunday September 13<sup>th</sup> arrived, and we were very excited, and of course nervous. But, we had done everything we possibly could to assure a flawless production. At 5:15pm the 10-minute preview tape began playing for those who might tune in early. 6pm Show Time arrived. Oh, no, the preview tape continued to play, and the program could be heard in the background! Yes, a nightmare before our very eyes. Sadly, we stopped the show and emailed all attendees an apology and a notice that the presentation would be rescheduled.

Early Monday morning our group met. Although we were sad and disappointed, we were heartened by our wonderful ARCS members and friends of ARCS who either emailed or called us offering support and encouragement. This meant so much to all of us. So, off to the races once again! We rescheduled the SOY event for the following Sunday September 20<sup>th</sup>. The week was spent reviewing and testing and making changes to the presentation platform.

The big night arrived once again. I am sure everyone was holding their breath when the 6pm Show Time arrived. At the dot of 6pm the show did start, and a lovely program ensued.

I believe this “story” is a true reflection of the spirit and dedication of the ARCS women who march onward undeterred by bumps in the road. I am happy to report we hit our financial goal, raising approximately \$106,000 for our Scholars.

To view the complete video recording of the SOY Event, click [HERE](#).



ARCS San Diego Chapter Founders raising a toast to our 35<sup>th</sup> Anniversary Year.  
Pattie Wellborn, Barbara McColl, and Karen Bowden





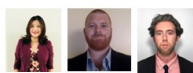
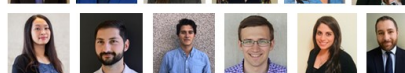
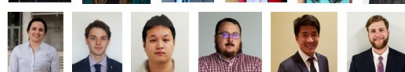
## 2019-2020 ARCS San Diego Chapter SCHOLARS



University of San Diego



Scripps Research

San Diego State  
University

University of California, San Diego



Several of the 2019-2020 ARCS Chapter Scholars shared their heartfelt gratitude during the Virtual SOY Event and the two ARCS Alumni speakers, SDSU Dean and Professor **Jeffrey T. Roberts** and astronaut, marine biologist and physiologist **Jessica Meir** were inspiring with their personal stories.

### *Updates from 2019-2020 Scholars*



Emil Karshalev

**Emil Karshalev** (UCSD) successfully defended his thesis online via Zoom in August. The audience and the committee were impressed and very positive. Emil will be staying in the lab a few more months to help out with the incoming graduate students and to finish up a few projects, especially an all-encompassing review of the future of microscale robots for a highly cited research journal. Meanwhile, he's also applying for positions in industry. He'd like to find work at a local biotech company, ideally one devoted to microscale manufacturing, and there are many in San Diego and Orange County.

*Continued on Page 10*



## Updates from 2019-2020 Scholars...

Continued from Page 9

**Megan Monsanto** (SDSU) developed a bioengineering technique called CardioCluster, while working with Prof. Mark Sussman at the SDSU Heart Institute. CardioClusters use three types of cells to reduce scar tissue and improve function by integrating into and persisting within damaged heart tissue. The study was published in *Nature Communications* in August.



Megan Monsanto



Melissa Ward

**Melissa Ward** (SDSU) was asked to join the Blue Carbon Lab in Australia to work on various blue carbon projects, under the title “Blue Carbon: An International Approach to Climate Change Mitigation.” However, due to the pandemic, this postdoc position was postponed until sometime in 2021. Meanwhile, Dr. Ward will begin work on a National Oceanic and Atmospheric Administration (NOAA) project with Dr. Arielle Levine at SDSU, and other collaborators, studying the impacts of ocean acidification on aquaculture.

**Joi LaGrace Weeks** (SDSU) passed away Monday, September 14, from complications related to breast cancer. After her diagnosis this summer, one month after successfully defending her PhD, she faced cancer as she did all of life’s challenges – with a sharp analytical mind, steadfast determination and persistence, grace and humor, and a preference to focus on the well-being and needs of others. She leaves behind a husband, Kirk Griffin, two children, Sun and Trinity, and a host of family, friends, and colleagues, who are still in shock from this tragic loss. You can learn more about Joi’s life and legacy from the tribute written by Joi’s mentor, Dr. Christal Sohl, which you can find [HERE](#).



Joi Weeks



## *Scholar Alumni... Where Are They Now?*



Lakshmi Chilukuri

**Lakshmi Chilukuri** (1993-1996 UCSD/SIO) – Dr. Chilukuri is currently Provost of Sixth College at UC San Diego, and proud to be a long time member of the UC San Diego community. Beginning as a part time student through UC Extension, she proceeded to complete a Masters and PhD in Marine Biology at the Scripps Institution of Oceanography. She taught in the Division of Biology for more than nineteen years, most recently as the Coordinator of the Undergraduate Microbiology teaching labs. She is a creative and dynamic educator with experience using evidence-based teaching tools and creating innovative online study and teaching tools.



Helen Kemp

**Helen Kemp** (2000-2002 SDSU) – Dr. Kemp earned her PhD in Physical Chemistry at SDSU in 2002. She then took a job as an Engineer at Procter & Gamble and moved to Cincinnati, Ohio. Eighteen years later, she has worked her way up to Section Head of Research & Development. The Cincinnati Chamber recently announced that Dr. Kemp was accepted into the 2020-2021 WE Lead Class 15, which includes leaders from a diverse group of industries and backgrounds, comprised of 36 women representing 32 organizations. In its 14-year history, more than 700 women have graduated from WE Lead, which is a 10-month executive leadership development experience for high-potential, goal-oriented women, who are actively preparing for the next level of their careers. Participants are high achieving women who are being assigned increasing levels of responsibility within their organization and are on track for future advancement.



## ***Scholar Alumni... Where Are They Now?...***

Continued from Page 11



Christopher Volpe

**Christopher Volpe** (1992-1995 UCSD/SIO) - Dr.

Christopher Volpe is the executive director and a founding board member of ScienceCounts. With an academic background in physical chemistry and two decades of private sector experience in marketing and branding, Dr. Volpe is a leading voice in developing data-driven social marketing strategies to foster stronger connections between the scientific community and the general public. Previously, he was the president and co-founder of Prismatic Laser Programs LLC, the nation's leading provider of STEM-based assembly programs to elementary and middle schools. In his free time, Dr. Volpe is a demonstration pilot of various types of historically significant WW2 aircraft.

### **ARCS Calendar of Events (all virtual)**

#### **November**

- Monday, November 16 (10 am – 12 noon) – Field Trip to Institute for Conservation Research (Disease Investigations Team) at SD Zoo Global
- Tuesday, November 17 – Board Meeting

#### **December**

- Tuesday, December 15 – Board Meeting
- Friday, December 18 – Member Holiday Event