

PRESIDENT'S MESSAGE...



Holly Heaton

I *t was the best of times; it was the worst of times.* Little did we know that this famous phrase by Charles Dickens would resonate so profoundly in 2020. Yet when we reflect back over the past year-and-a-half, we recognize just how much the coronavirus pandemic has shocked our world. For many of us, it has truly been the most disruptive and challenging time in our lives, and our hearts go out to all those who have lost jobs, family members and friends, and suffered other hardships.

On the other hand, this has been a time of unexpected silver linings, both in general and in specific for ARCS. Although the physical distancing forced us to stay home, it also allowed us to live a simpler life. It reinforced our priorities: health, family and friends. It enabled us to save money, as options for spending were drastically reduced: travel, shopping, and dining out, to name a few. And...how great was it to wear pants with elastic waists or work-out clothes and not get dressed up for over a year!!

From our standpoint at ARCS, we not only survived; we thrived! When we last met in person, on January 27, 2020, we had no idea that our next in-person event would be roughly 18 months later!! So, what did we do? We did a quick pivot, learned to zoom and do much more on our computers. We held our first, and recently our second, virtual Scientist of the Year Event, with each being more successful than past SOY events in terms of dollars raised. We were able to honor two outstanding scientists, **Paul Schimmel** and **Erica Ollmann Sapphire**, showcase our Scholars with short vignettes, and bring back extraordinary Scholar alumni to be part of our evenings. And, because of our format, we were able to share our event with other ARCS members across the country, as well as with alumni and friends.

Similarly, we hosted four marvelous, virtual field trips this year. Here again, thanks to the online format, we were able to share these events with others outside of ARCS, thus raising awareness about our organization well beyond San Diego. We were also thrilled to see many of our Scholar alum tune in for these

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zoom presentations. Our efforts to update their contact information and reconnect with them by email - all 633 of them - were paying off in spades!

We did the same thing with our general meetings and have just held our fourth one via zoom. We celebrated our Light (**June Chocheles**), our Scholars (videos) and chapter information. We instituted our Weekly Update via email to keep members aware of news and events and also offered weekly kudos, quotes and jokes. (Hope no one was offended!)

Finally, we jumped into the social media environment and began connecting with ARCS Scholars, members, and friends across the nation, and even the world. As we approach one year we have 102 followers on Twitter, 179 followers on Facebook, and 87 members in our LinkedIn group. This has really helped raise the profile of our chapter within the ARCS community and beyond.

Our Membership Committee also got creative during this year of mask-wearing and social distancing. They reached out and touched everyone by actively involving many members in distributing rosters and annual reports, poinsettia plants at the holidays, and candy at Valentine's Day. Stay tuned as they have another surprise coming your way soon. These efforts were so appreciated by the receivers and even the delivery teams had fun!

In spite of the difficulties of the last year, our fundraising has hit an all-time high with Member Giving and SOY bringing in more than \$220,000! And, at the same time, we came in under budget. Did I mention we increased the Scholar awards from \$7,500 to \$10,000 at three of our universities? And we didn't even raise our dues!! While it may sound too good to be true, it isn't! We really did it! We worked hard but we had fun, as our SOY Committee liked to say!

As we close out our fiscal year and start a new one on July 1, 2021, I am filled with gratitude for all of you and for what we have lived through and accomplished together. I am proud of our resilience in not only meeting these challenges but going beyond and actually thriving. I am excited to begin our new year and know that the best is yet to come.

So, let's get started!

Holly Heaton, President
ARCS Foundation, San Diego Chapter



Please Welcome our New San Diego Chapter Member



Sharon Bauer
Lerner, LMFT

Sharon Lerner has been a Licensed Marriage and Family Therapist for over 35 years providing psychotherapy to individuals, couples and families specializing in couples and relationships. She also focused on counseling chronically and terminally ill patients and those who were experiencing issues related to loss, grief and bereavement.

Serving as the Director of Education and Training for the St. Francis Center in Washington, D.C., Sharon provided education and training to hospitals, schools, corporations, churches and private organizations in the areas of thanatology, grief and bereavement. She also served at The Center for Attitudinal Healing in Tiburon, California as Parent Coordinator for programs helping children diagnosed with life threatening illness and their families as well as programs for adults experiencing life threatening illness.

Acting as a liaison to public and private health organizations regarding staff development, leadership, team building and crisis response, Sharon was a clinical consultant to The Children's Inn at The National Institutes of Health, worked with the American Hospice Foundation, assisting in the development of "Grief at Work: A Guide for Employees and Managers" and participated in the critical incident response team to the Oklahoma City bombing and a responder to 9/11 in the Washington, DC. area.

Earlier in her work with loss and illness, Sharon was on the Board of The Santa Monica Health Screening Clinic for the Elderly and the California State Representative to the National Tuberosclerosis Association. She was also on staff at the Center for Mind-Body Studies in Washington, D.C. facilitating groups for the chronically ill.

Sharon recently made San Diego her home after moving from Lander, Wyoming and Colorado Springs, where she enjoyed spending time with her daughter, Holly, and her twin granddaughters, hiking, biking, and camping in the beautiful mountains of those regions. Sharon also spends time in the Bay Area with her son, Mark.

Summer General Meeting (June 8, 2021)

ARCS San Diego closed out the fiscal year with a full business agenda and a healthy dose of science...via Zoom, of course! **Laurie Roeder** began the meeting with a warm introduction of our three new members: **Sue Dramm, Sharon Lerner, India Mittag**. Holly then presented the proposed slate of officers for 2021-2022 and called for a vote. It was unanimous. Congratulations to next year's executive team! (To see their names and faces, go to the ARCS website.)

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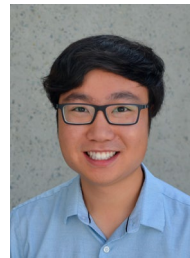
Summer General Meeting... Continued from Page 3

Next on the agenda were two wonderful presentations from an ARCS alum and current Scholar, both at Scripps Research:



Travis Young, PhD

Travis Young, VP of Biologics at Calibr (California Institute for Biomedical Research) at Scripps Research, and 2009-2010 ARCS Scholar at SR, gave a 1/2-hour talk entitled "Bench to Bedside Immunotherapy."



Leonard Yoon

Leonard Yoon, 2020-2021 ARCS Scholar at Scripps Research, followed up with a 10-minute talk on "Autophagy: What Is It and Why Do We Care About It?"

We closed out the meeting with several updates on past activities, including the incredibly successful SOY Event, Membership Giving Campaign, and Scholar Picnic. Holly reiterated how proud she was of all that was accomplished during this exceptionally challenging year. Congratulations, all around!

If you who missed the meeting, you can still view the Scholar presentations on our website under [PAST EVENTS](https://san-diego.arcsfoundation.org/past-events): <https://san-diego.arcsfoundation.org/past-events>

A Virtual Visit to NASA's Jet Propulsion Laboratory (May 20, 2021)



Curtis Padgett, PhD

Dr. Curtis Padgett, Supervisor for the Perception Systems Group at NASA's Jet Propulsion Laboratory (JPL), and ARCS Scholar at UC San Diego back in 1992, guided us on our final virtual field trip of the year. He provided a wonderful overview of recent research in the Perception Area of the Robotics Section at JPL, including technology development for aerial, sea surface, and future sensing applications. After 1/2-hr Q&A, moderated by Holly Heaton, our time was up and we all went away feeling awed and inspired by the advanced technology at JPL.

Altogether 33 individuals attended the Zoom presentation, including several ARCS members from other chapters, 2 current Scholars, and several friends of ARCS members. Unfortunately, NASA would not allow us to record Dr. Padgett's talk, so we hope to invite him back for an encore so that others can learn about the exciting R&D at JPL.



A Virtual Visit to Sharp Hip Preservation Center (May 13, 2021)



Richard Santore, MD

On May 13th, ARCS San Diego hosted a special virtual presentation on “Hypermobility: The High Price of Being Very Flexible,” by **Dr. Richard Santore**, an esteemed orthopedic surgeon affiliated with Sharp Memorial Hospital in San Diego. Dr. Santore told us about the often misunderstood and misdiagnosed condition of hypermobility. He explained how this seemingly innocuous ability dramatically impacts lives for better and for worse, while discussing strategies he has been developing for resuming a normal life. We also heard from two of Dr. Santore’s patients, who literally “got their lives back” thanks to Dr. Santore’s ground-breaking treatment.

The entire presentation, including the Q&A, was recorded and posted on our website under [PAST EVENTS](#). Click [HERE](#) to view the Zoom recording:

<https://www.youtube.com/watch?v=GWy-yOBXmEg>

Scholar Virtual Picnic (May 7, 2021)

On Friday, May 7, the University Relations committee hosted a Virtual Scholar Picnic in lieu of our annual outdoor picnic. Thirty-four out of 46 Scholars participated in addition to eight UR members and four donors. Pat Judd, Peggy Hanley and Ellen Moxham coordinated the event and filled the gift bags.

The program began with a talk about practical financial matters by **Matt Adams** and **Aria Krumwiede**, Lead Advisors from Dowling and Yahnke Wealth Advisors in Encinitas. Aria serves as the ARCS endowment advisor and delivers our checks to our University partners. Scholars were eager to ask questions following their talk and we ran out of time and will plan for more time next year.

We then broke into four “Chat Rooms” where Scholars from different schools mixed with UR members and donors. After participants introduced themselves and Scholars spoke briefly about their areas of study, the conversation became friendly and informal with Scholars talking about interests outside of their studies. We learned about their pets, one of which was a Carolina Dingo dog, their athletic interests, that one Scholar accepted a Post-Doctoral Fellowship that day at the University of Pennsylvania and that everyone found something in nature that grounded them in the midst of challenging times this past year.

A highlight of the event was gift bags created by **Lois Kenneally** and her friend **Stephanie Thornton**, who donated her time and talent. The bag decorations included the ARCS logo, a picnic table, a raspberry pie representing the Raspberry π computers and a row of ants to add authenticity! The gift bags included a mug with the

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Scholar Virtual Picnic... Continued from Page 5

ARCS logo, an ARCS sticker, coffee and snacks, plus the pièce de résistance cookie handcrafted by Rachel Collins (SDSU liaison) with the ARCS logo.

The bags were distributed to Scholars participating in the event by our volunteer Scholars **Laura Chipman** (UCSD), **Lucas Luna** (SDSU), and **Leonard Yoon** (Scripps) and delivered to those who couldn't participate by **Lois Kenneally**, **Tami Strachan** and **Catie Madani**. The chat box filled with Scholar notes of appreciation during the virtual event while text messages of thanks and appreciation poured in from those who could not attend but who received the bags.



Catie Madani, a previous ARCS scholar and our next USD Liaison noted, "I have fond memories of attending picnics with the taco truck and mingling (in person) with nascent scientists in different fields. This year's virtual picnic was a pleasant surprise filled with equally enjoyable connections, normalcy, and hope for the year ahead. It was a pleasant surprise to engage with others

in quality virtual conversations. Our scholars this year have shown that COVID has not affected their ability to engage with their community or each other. I am honored to be part of an organization that supports such stellar individuals and look forward to next year's picnic."

One Scholar received a special welcome by the group of his mates and some of us who have been following his incredible recovery. **Andrew Kleinschmidt** was in a horrific ski injury this past winter with multiple injuries. He was flown to Loma Linda hospital,



remained in coma for weeks and then turned a corner and continues to improve daily. He transferred to rehab there for 6 weeks and then returned to San Diego, participating in the Scripps' traumatic brain injury program. He is completing that this month. His advisor says he is as sharp as ever, has had his wonderful sense of humor return and is now back in the lab working. It has been miraculous. Andrew is especially appreciative of the "ARCS ladies" in that we kept in touch, sent a goody basket and spoke to his advisor and family regularly. Many of the UCSD Scholars at the picnic had not seen him since the accident so their looks of surprise and delight were wonderful. We are a family.





2021 ARCS Scientist of the Year Virtual Event (April 25, 2021)

Major kudos to **Paulette Roberts**, chair of the 2021 SOY committee, and her team, **Ingrid Benirschke-Perkins, Rachel Collins, Holly Heaton, Kayda Johnson, Kimberly Miller** and **Janet Roemer** for their hard work, creativity and determination in making our annual SOY an event to remember! We also want to thank all our members who attended, contributed to our Scholars and who invited others to join us. We so appreciate everyone's efforts and could not have done it without you! We raised over \$120,000 for our Scholars!

Extra-special kudos to **Rob Healey**, our executive director and producer, for his hard work, vision, expertise and good humor in making this the most successful SOY ever!

This congratulatory note from ARCS Member **Marti Panarisi** summed it up beautifully:

THE 2021 SCIENTIST OF THE YEAR WAS FABULOUS!

Many thanks to the Committee & all who made this event so successful!

Frank & I were truly impressed! It was very professional, well planned & the program flowed smoothly. We believe it told the story of ARCS & our commitment to science education that is making a difference.

The ARCS Scholars spoke clearly & made us all proud ~ love those young people! The alumni were unique in their presentations as they share their ARCS experiences. Our Scientist of the Year, Dr. Erica Ollmann Saphire's presentation was fabulous ~ she may have been ARCS best speaker ever! No doubt everyone was impressed with her important research & collaboration. What a brilliant woman scientist!

A special thanks to Holly, as the program host, for a wonderful job & to the Committee & Rob for the excellent narrative & videos. WELL DONE! We know how much time & effort it took to produce this program.....you're the Best!



THANK YOU! THANK YOU!

In gratitude from a proud ARCS member

Marti Panarisi

If you missed the live stream or would like to see it again, please click the image to the right:

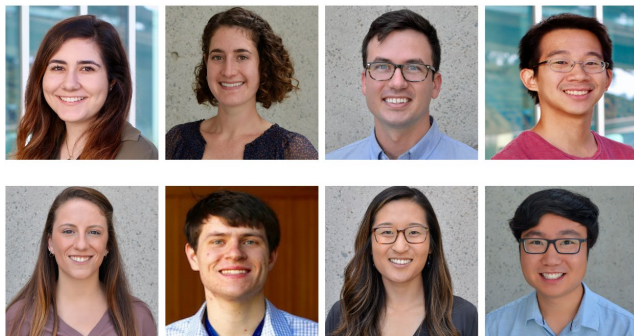
<https://san-diego.arcsfoundation.org/2021-scientist-year-virtual-event>



Honoring
Dr. Erica Ollmann Saphire
Professor of the La Jolla Institute for Immunology, Center for Infectious Diseases and Vaccine Research
Director of the Coronavirus Immunotherapy Consortium (CoVIC)



Scripps Research Check Presentation (March 4, 2021)



This academic year, ARCS San Diego was honored to bestow 8 Scholar awards to graduate students at Scripps Research. With this year's funding of \$40,000, ARCS San Diego's cumulative support of scholars at Scripps Research now exceeds \$1 million. In past years, Scripps Research has hosted the ARCS University Relations team and

2020-2021 Scripps Research ARCS Scholars additional ARCS members on campus to visit labs and participate in a formal check presentation. However due to ongoing restrictions for on campus gatherings, the event was held virtually on March 4. With 11 ARCS members in attendance, the group heard from key leadership throughout the institution. **Meredith Johnston**, Vice President of Philanthropy kicked off the meeting by expressing the institute's deep appreciation for their ongoing partnership with ARCS. She also expanded on ARCS philanthropic impact at Scripps Research, remarking on the amazing career trajectory of many of Scripps

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Updates from ARCS Members



Our esteemed new member, **Alexa Hudnut**, participated in a virtual Ph.D. and Postdoctoral Career Conference on March 24th organized by the USC Career Center. Alexa earned a B.S., M.S., and Ph.D., all in Biomedical Engineering, at USC. She was delighted to represent Dexcom, her current employer, at this "Beyond the Ph.D." event, which is designed to inspire the USC doctoral community to pursue fulfilling, innovative, entrepreneurial careers in academia and industry.



Kayda Johnson has a new address to share with everyone:

7430 Little Lane #202
Naples, FL 34105
760-845-2286
Kaydajohnson80@gmail.com

Thanks for keeping in touch, Kayda!



Scripps Research Check Presentation...

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Research's ARCS Scholar alumni and noting that gratitude for ARCS is felt throughout every lab on campus. Next **Phil Dawson**, Dean of the Skaggs Graduate School of Chemical and Biological Sciences provided an update on the current state of the graduate program, which went through a rigorous reaccreditation last year and was subsequently awarded the maximum renewal period of 10 years. **Jamie Williamson**, Scripps Research Executive Vice President shared an overview of the institute's recent progress and response to COVID-19. He discussed how structural biologists at Scripps developed the first detailed images of the coronavirus spike protein last year and then created a way to stabilize the protein for vaccines. This important contribution was the critical basis for the coronavirus vaccines distributed today. ARCS President **Holly Heaton** and Scripps Research ARCS University Relations Liaison **Tamia Strachan** also spoke at the event, reiterating their enthusiasm to partner with Scripps Research and introducing the ARCS members in attendance.

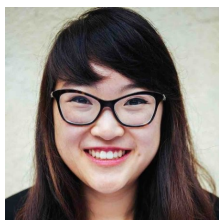
Updates from ARCS Scholars



John Allen, PhD (2018-2019 ARCS Scholar, SDSU) successfully defended his thesis in early June on stem cell regulation and regeneration in planaria. He is thrilled to be joining the lab of Dr. Elizabeth Duncan, Assistant Professor of Biology at the University of Kentucky, this summer.



Matthew Stone, PhD (2020-2021 ARCS Scholar, UC San Diego/SDSU) announced on Twitter that he will be starting a Postdoctoral Fellowship at the University of Pennsylvania with Drs. Janet Audrain-McGovern and Andrew Strasser in the Fall! He is "beyond humbled and thrilled" to soon contribute to the wonderful tobacco regulatory efforts at the UPenn/Rutgers TCORS (Tobacco Center of Regulatory Science)!



Tiffany Luong (2020-2021 ARCS Scholar, SDSU) - In early May, we learned that Tiffany had submitted a review article to *Clinical Therapeutics* about the last 15 years of clinical bacteriophage therapy, a major focus of her thesis project. The content was condensed into a kid-friendly teachable version by the *Science Journal for Kids*, which can be viewed [here: https://sciencejournalforkids.org/wp-content/uploads/2021/04/phage_article.pdf](https://sciencejournalforkids.org/wp-content/uploads/2021/04/phage_article.pdf)

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Mariah Meek, PhD (2005-2006 ARCS Scholar, SDSU) presented a talk in early April at the 11th Biennial Bay-Delta Science Conference, which was virtual due to the coronavirus pandemic. Her talk was entitled "Every Cog and Wheel: The Importance of Understanding Genomic Diversity in Central Valley Chinook Salmon," which is the focus of her lab's work.

Dr. Meek received a prestigious 2020 Early Career Conservationist Award from the Society for Conservation Biology last May for her outstanding contributions to the conservation of marine and freshwater ecosystems using genomic data. Congratulations, Dr. Meek!



Chelsea Rochman, PhD (2012-2014 ARCS Scholar, SDSU) - When ecologist Chelsea Rochman was beginning her career, the study of plastic pollution was in its infancy. Today, plastic pollution is one of the most pressing ecological problems we face and Rochman is regarded as a pioneer and global leader in its study: where it comes from, what damage it is doing and how we can mitigate its effects.

For this work, Rochman received a 2021 President's Impact Award — given by the University of Toronto to faculty members whose research has had significant impact beyond academia — as well as the Carolyn Tuohy Impact on Public Policy Award in March 2021. Chelsea was featured in the April issue of ARCS National's e-newsletter, in celebration of Earth Month. You can view the article [here](https://www.arcsfoundation.org/news/drowning-sea-plastic):
<https://www.arcsfoundation.org/news/drowning-sea-plastic>



Mark Kalaj (2020-2021 ARCS Scholar, UC San Diego) - The Dept of Chemistry and Biochemistry at UC San Diego announced on March 29th that Mark Kalaj (Cohen Lab) was the recipient of the 2021 ACS Division of Inorganic Chemistry Young Investigator Award. Mark is expected to participate in the DIC Young Investigator Symposium held during the Fall 2021 ACS (American Chemical Society) meeting.



Phillip Compeau, PhD (2011-2015 ARCS Scholar, UC San Diego) - has been teaching computational biology at Carnegie Mellon University for the past 5 1/2 years. In March, he was admitted to the MBA program at Carnegie Mellon and shared the acceptance letter on Twitter. Congratulations, Phillip!



Updates from ARCS Scholars... Continued from Page 10



Ann Lawani, MSN, RN (2020-2021 ARCS Scholar, USD) was interviewed by NBC San Diego in March as part of Women's History Month. Ann discussed what it was like being a nurse for the past year during COVID. Here's Ann describing a typical shift on a COVID floor at Sharp Memorial: <https://www.youtube.com/watch?v=NX3Hq6SAMRk>

Scholar Alumni - Where Are They Now?

Darin L. Wright, MD (1989-1991, UC San Diego) - Darin works at Ko'olau Ear, Nose and Throat in Kailua, Hawaii, a private practice where he provides comprehensive ear, nose and throat care with a special interest in allergy, nasal and sinus surgery, treatment of snoring and sleep apnea, and the care of pediatric patients. Dr. Wright earned his medical degree from the University of California School of Medicine, San Diego. He completed his residency in Otolaryngology-Head and Neck Surgery at SUNY Health Science Center in Syracuse, New York. Dr. Wright is board-certified in head and neck surgery, and he is a fellow in the American Academy of Otolaryngic Allergy.



Michael Dorrell, PhD (2001-2003, Scripps Research) - Dr. Mike Dorrell has been at Point Loma Nazarene University since 2009. His expertise is in developmental and cell biology, although he teaches several courses, ranging from high school outreach programs and freshman cell biology and biochemistry to four upper division courses. His research interests include identifying novel methods of treating cancer that reduce the side effects associated with current treatment methods and studying the causes of, and potential treatments for, degenerative eye diseases. Students are actively involved in the cancer research, both within the summer research program and during the academic year. He also helped start a research institution in La Jolla (Lowy Medical Research Institute; 2013) dedicated to studying the eye disease, Macular Telangiectasia. He continues to guide that research on a part-time basis, in addition to his work at PLNU. Several positions have opened up for PLNU graduates through this collaboration.



A PK (preacher's kid) and MK (missionary kid), Dorrell moved all around the world during his youth, including living in Kenya and Uganda for three years. He is a die-hard soccer fan and loves to play intramurals with students each year.

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Scholar Alumni... Continued from Page 11

Cathlyn Stylinski, PhD (1995-1999, SDSU) - Cathlyn (Cat) Stylinski is a tenured research faculty at the University of Maryland Center for Environmental Science Appalachian Laboratory. She holds a Ph.D. in ecology and has over a 15 years of experience in design, research and evaluation of environmental and science education experiences for public and K-12 audiences.



Her research centers on public engagement in science and environmental stewardship and includes studies on scientific inquiry and technology use in citizen science and K-12 settings; scientists' attitudes, training and involvement in outreach; facilitation of communities of practice around climate change education; and 'stealth science' to entice broader audiences into science explorations. She has also led education programming that integrates geospatial technology into schools, immerses volunteers in citizen science projects at local and continental scales, guides elementary schools and teachers in schoolyard ecology investigations and stewardship, and enhances pedagogical practices of teachers and informal educators. She has produced peer-reviewed education and science articles, K-12 curricular materials, evaluation reports, broadcast videos, and interactive media.

She regularly collaborates with diverse partners within Maryland and across the US with support from the National Science Foundation, National Oceanic and Atmospheric Administration and others.

ARCS Calendar of Events

June

- Wednesday, June 30 – Deadline for Membership Renewal

July

- Tuesday, July 20 – Board Meeting

September

- Friday, Sept 17 – Women of Dedication (in person) honoring Ellen Moxham