Letter from the President

Dear AWIS-SD Members and Friends,

Congratulations AWIS-SD! We received the AWIS National Star Award for 2018, as well as the Shooting Star Award for member recruitment. This is an honor recognized by National AWIS as one of six AWIS chapters to receive the new Shooting Star Award.

Summer is just around the corner! As the semester and fiscal year winds down, I encourage you to think about joining an AWIS-SD committee. We are looking for new members as well as leaders for our committees. Some of these committees include the Events Committee that hosts happy hours, networking and social events for AWIS-SD, Strategy Sessions Committee that organizes career building workshops, and Public Relations Committee that promotes our online presence, creates new AWIS-SD promotional goodies, and communicates with members and non-members. We have various other committees, so if you are interested, please go to www.awissd.org to browse the committees under “About Us.”

One of the largest events that we organize is our WIST conference, which will happen this Fall. This will be a great opportunity for career development and for engaging with incredible mentors in STEM. We are still looking for volunteers to join the various WIST committees. Feel free to email me at president@awissd.org or WIST 2019 chair Robyn Wygal at wist@awissd.org for more information.

We have already had numerous great events this year. I would like to especially thank and congratulate our Outreach Committee for organizing so many fantastic events in the spring. The amazing work that our Outreach Committee does in our community is what initially brought me to AWIS-SD and makes me proud to be a part of such a great organization. I would also like to thank our volunteers that enable AWIS-SD to run so smoothly. Without everyone on our Board, Committees, and our Corporate Sponsors, our organization would not thrive like it does. Thank you.

Sincerest wishes,

Courtney

Courtney Benson
President, AWIS-SD
president@awissd.org
AWIS-SD participates at the 2019 San Diego Science and Engineering Festival Expo Day
by Chistina Grobin

An intrepid band of volunteers led by AWIS-SD Outreach Committee members Bridget Kohlnhofer and Chistina Grobin met at a rainy Petco Park on Saturday morning, March 2nd. The event organizers were quick to handle the off-loading and delivered all the OOBLECK materials to the booth. Copious amounts of cornstarch were soon flying as volunteers stirred and kneaded the growing goop. Sturdy banners that have served AWIS-SD well were hung in the booth and none the worse for the weather! The same could not be said for OOBLECK information sheets which melted in the rain. Our booth placement near the main stage and on a grassy slope was perfect for the mess we created and optimum for being “in the thick of things”.

Soon, EXPO Day participants streamed into the stadium area. Children were fascinated by the plastic dinosaurs trapped in the OOBLECK. Older kids took turns smacking the liquid into a hard solid, and learning about this peculiar property of OOBLECK. Parents smiled and squealed with their children’s delight. Some adults took on the challenge of being strong enough to keep the OOBLECK as a ball shape and then have it melt in their palms. Highlights of the day included a rousing rap about studying DNA from the main stage and lengthy conversations about studying science. Thank you so much to our volunteers: Katherine, Corine, Alyson, Kellie, Britney, Fahad, Vanessa, Danielle, Hitomi and Rosana. It was a great day for all!

REGULATORY AFFAIRS ESSENTIALS ONLINE CERTIFICATE
Launch your career in regulatory affairs in a little over one year!

extension.ucsd.edu/regulatory-affairs-essentials
2019 Greater San Diego Science & Engineering Fair Judging
by Alyson Smith

The 65th annual Greater San Diego Science & Engineering Fair (GSDSEF) was held on March 13, 2019, at the Balboa Park Activity Center. The main science fair judging took place in the morning. After lunch, local professional societies had the opportunity to award additional projects. As in past years, AWIS-SD recognized outstanding projects by female students. A team of 20 volunteer judges from diverse scientific backgrounds and professions (led by Alyson Smith, Pam Bhattacharya, and Maddy Yeh) judged projects for AWIS-SD.

This year, AWIS-SD volunteers interviewed and evaluated 50 female students in the Senior Division (9th-12th graders) and nearly 300 female students in the Junior Division (7th and 8th graders). New and returning judges alike noted high levels of creativity, enthusiasm, and quality of research from students of all backgrounds. This year’s projects aimed to answer interesting questions in Animal Sciences, Plant Sciences, Microbiology, Chemistry, and many other fields of science and engineering. Many judges reported learning something new from the student’s innovative research.

After two to three hours of interviews and deliberation, 10 winning projects (2 senior and 8 junior) were selected. Congratulations to Arushi Dogra and Emily Tianshi of the Senior Division and Soleil Matsumoto, Maura Roberts, Noorah Dhamim, Melia Crimaldi, Lilli Lawrenz, Victoria Ehsan, Roeszele Nieves Ellis, Priyanka Soe, and Kristen Noriega of the Junior Division. Thank you to the volunteers who gave their time, energy, and expertise to judge the large number of projects. Congratulations to all the 2019 GSDSEF AWIS-SD winners!

We hope to have even more volunteers to judge science fair projects next year. The more judges that participate, the more attention we can give to each student. Please help us spread the word about this opportunity to meet, mentor, and recognize the next generation of San Diego women in STEM!
AWIS-SD Speed Mentoring Event
by Ray Seraydarian

On Monday March 11th, AWIS-SD held our perennially popular Speed Mentoring event at National University on Torrey Pines Road, just a bit north of UCSD. Mentees sat at tables with a mentor to learn more about career-advancing topics in academia and industry such as clinical research, marketing, project leadership, regulatory affairs, and others. Attendees preregistered online, selecting their preferred mentoring topics, and the Events Committee matched them up in advance such that for any of the four 15-minute sessions a reasonably small number of people were sitting with a mentor. After the last mentoring session, a light dinner was served, and mentors and mentees could freely network and talk one-on-one.

The Events Committee thank all our mentors: Laura Bordone (GNF), Simone Brandalise (Aerotek), Barbara Calabrese (UCSD), Suni L. Dungan (CTK Biotech), Stephanie Leyva (Clinical Operations), Kristina Manvelian (Nabriva Therapeutics), Yvonne Oden (BioSurplus), and Juliati Rahajeng (Cato Research).

The author (RS) thanks the other three Events Committee members — Adina Gerson-Gurwitz, Ksenya Cohen-Katsenelson, and Valeria Viscardi, for their hard work identifying and recruiting the mentors, performing the pre-event mentor-mentee matching, and other arrangements for this successful event.
PhD Career Connect Bootcamp by The Known Experience
by Angela Macia and Alison Huang

Overview of the event

On Saturday, February 2, 2019, The Known Experience held a PhD Connect Bootcamp for graduate students, postdoctoral scholars, and advanced-degree graduates at Canyon Vista, UC San Diego. Joe Cribari, the founder of The Known Experience, hosted this event to help attendees develop the strategy to smoothly transition from an academic profession to an industry career. The half-day event included small group discussions led by industry professionals, covering three major topics including career exploration, development of self-competitive advantage, and creating a personal value pitch. Each topic was moderated by an industry expert. Participants received immediate feedback from the lead and had in-depth discussions with other attendees. During the discussion session and breakfast mixer, participants networked with industry professionals with diverse backgrounds, including a consultant, industry scientist, product manager and technical support manager from companies like McKinsey, Thermo Fisher, and Illumina.

Perspective from a Cancer Biology PhD Student

I found the program to be very well-structured and engaging. Joe led us through three major topics, and during each section, we were able to take time to brainstorm and self-reflect on our career desires. In addition, the handout we were given provided valuable instructions. During the discussion, I was able to further understand and validate my skill sets and abilities which are transferable to the biotech industry. More importantly, I learned to present these qualities in a more impressive way. Joe also provided tips on how to perform an effective informational interview and to clear the knowledge fog of a particular position. I have been wanting to work on this but did not know how to get started. The instructions of how to set up an informational interview and the question list Joe provided are very helpful to me. The opportunity to network and connect with so many industry professionals from diverse companies in one morning was also extremely beneficial. They were engaged in the discussion, genuinely shared their career navigation process, offered practical tips, and helped participants form actionable plans. I particularly benefited from talking to Matthew from Thermo Fisher and Stacy from Illumina. I have been interested in particular positions in these two specific companies and attempted to do research online by myself. However, nothing is more effective and critical than talking to the insiders directly. I gained more confidence to transition to industry. In particular, I am now equipped with more knowledge and tools after attending the PhD Connect Boot Camp.

Perspective from a Molecular Biology Postdoctoral Scholar

This PhD career boot camp was a dynamic and efficient way to learn about the most important topics on career transitioning. Joe provided us with a simplified guide where we would start by self-reflecting ideas to then communicating them with the rest of the group. With this method, we were not only getting great tools to thrive in each of the steps on the career transitioning journey, but also keeping everyone engaged, participative, and open to constructive assessment among peers. With this boot camp, I learned about my own motivation and goals, as well as other people’s objectives and passions. Additionally, networking and interacting with experts in their field, gave us the opportunity to know more about the where, the why and the how from their own perspectives. I was very satisfied with this training, and I would definitely recommend it to someone interested in transitioning from academia to industry.
Paging the Ghostbusters—
Logan Heights Branch Library
by Maddy Yeh

March 5, 2019, was marked by rain but that did not stop families from coming to Logan Heights Branch Library to learn about different topics of Science, Technology, Engineering and Math at the STEM in Your Backyard Event. Attendees filtered into a large room complete with tables with various demonstrations. AWIS-SD Outreach captivated the families with - you guessed it - Slime. This activity caught young peoples’ attention, and soon a crowd formed around the table. Excited faces and pleas were met with one of two reactions from parents: "go ahead" or "absolutely not"! One can hardly blame the parents whose children are begging to play with the messiest thing around. The women scientists dazzled families by helping the children make and understand this gooey phenomenon.

Thanks to AWIS-SD Outreach committee members Maddy and Kina who organized this events and volunteers Gema, Hitomi, Kendra, and Yessica, who helped make this event so much fun! When the crowds had cleared out, the goopy mess clinging to every surface left AWIS-SD with one question... Who you gonna call (to clean this up)?
Outreach at Expanding Your Horizons Conference
by Jessica Cassin

The AWIS-SD Outreach Committee organized an activity for the February 2019 Expanding Your Horizons (EYH) event. The EYH conference, which draws over 600 girls between 6th-10th grades, offers an opportunity for them to take part in hands-on workshops to foster their enthusiasm for STEM and to meet women leaders in STEM. Over the course of the day we had three groups of around 15 sixth grade girls visit the AWIS workshop. We put together a “crime scene” activity in which the girls learned about fingerprinting, identified an unknown solid, and performed ink chromatography and DNA fingerprinting at each of four stations to determine who had committed a crime.

At each of the stations, volunteers demonstrated the science behind crime scene identification. At the solid analysis station, girls learned about the properties of solids and how to identify them by observing physical state, chemical structures, color, smell, pH and the unknown solid’s reaction with various liquids. The girls were fascinated to see that starch reacts with iodine to form a dark blue paste while baking soda and vinegar form a bubbly fizzy reaction.

At the DNA fingerprinting station, the girls had great success identifying subjects. The girls practiced using pipettes and loading DNA gels. During the fingerprint activity, girls learned about the shapes found in fingerprints (whorls, arches, loops). Finally, the girls used special paper to separate the component pigments in ink samples. In all three stations, the girls compared the sample found at the crime scene to the “suspect” samples and identified which “suspect” had left the sample.

In addition to a fun exposure to science, the girls also got the opportunity to interact with female scientists active in research. Any free moment was spent asking the volunteers what they did, why they liked science, and how the girls could continue in the field. The girls who participated in our workshop were very enthusiastic and curious. Their enthusiasm was matched by that of the fabulous group of women who volunteered their Saturday to mentor these girls! During the periods between workshops, the volunteers had the opportunity to share about their career, what it means to be a woman in science, and even offer technical advice to each other on experiments! The day was a success not just in terms of mentorship, but also for the volunteers who were able to meet and interact with other women who share their love for science and mentorship.

AWIS SD Outreach committee member Jessica Cassin was the point person for this event. Fellow AWIS members and members of the science community, Kristen Breit, Cristina Rodriguez, Mikella Nuzen, Kendra Hailey, and Veronica Gomez volunteered their time to lead the four workshops. We would also like to thank the AWIS community who rallied behind the event, filling a few last minute vacancies to make sure this event was a success!
Academia to Industry (A2I) coffee club – An evening with Stephanie Verbrugghe
by Qiong Song

In a heavily regulated industry, pharma companies, big or small, cannot overlook the importance of good practice guidelines (GxPs). On February 13, 2019, the A2I coffee club enjoyed an active learning session about GxP in the pharma industry with Stephanie Verbrugghe. In this coffee chat, club members gained insights into the pharmaceutical industry’s regulations, workflow, as well as insights about career possibilities available to an employee, entrepreneur and GxP Quality Assurance consultant.

Verbrugghe is a Belgian industrial pharmacist who moved to the US in 2017, founded her own company: Farbridge Pharma Consulting. Her company focuses on GxP quality assurance in the areas of manufacturing, distribution, pharmacovigilance, and clinical trials. She was able to leverage specific skills and exceptional knowledge learned through years of GxP experience in Europe to ease the US companies’ access to the EU clinical trials and market (and vice versa).

In the US, GxPs were established by the US Food and Drug Administration, and have equivalents worldwide in an effort to ensure the safety of medical related products. The “x” stands for various aspects, such as GLP for Good Laboratory Practices, GMP for Good Manufactory Practices, GCP for Good Clinical Practices, GDP for Good Distribution Practices and GVP (or GPvP) for Good Pharmacovigilance Practices. GxPs are generally complex to interpret and difficult to put into practice, thus professionals experienced in GxPs are highly desirable. Despite their complexity, GxPs have a defined structure and can be broken down to several elements. Verbrugghe used a flip chart with hand-drawn diagrams, and explained in detail the main elements and workflow in the practice.

We all felt her passion in the life sciences and quality management sectors, and enjoyed her warm and engaging lecture. She said founding her own company was her dream and she is very happy to have fulfilled it. She also pointed out that networking is a key element to be known as an entrepreneur and a professional. A happy client is the best advertisement. Moreover, well established channels of communication with health authorities are essential in regulatory affairs. This echoes the idea that transferable skills (communication, project leadership) are valuable in the transition from academia to industry for our club members (who typically have Masters or PhDs), along with knowledge and technical skills.
• Jessica Meir, astronaut and assistant professor of anesthesia at Harvard Medical School, will spend six months on board the International Space Station starting in September. Meir, who earned a PhD studying comparative diving physiology at the Scripps Institution of Oceanography, joins a long tradition of UCSD alumnae and female faculty to travel to space.

• Salk Institute emeritus professor Sydney Brenner died at age 92 on April 5th. In a decades-long career, Brenner helped to found modern molecular biology and genetics by cracking the genetic code, discovering messenger RNA, developing next-generation sequencing, and establishing the nematode Caenorhabditis elegans as a model organism. Brenner joined Salk Institute in 1976 and also served on the faculty of Scripps Research.

• The TED Audacious Project has awarded the Salk Institute over $35 million to genetically engineer crops to absorb more carbon dioxide from the atmosphere. Salk plant biologist Joanne Chory will lead the initiative, which aims to create plants that can together remove up to 25 percent of human-produced carbon dioxide.

• To celebrate Pi day, San Diego Gas & Electric has pledged up to $314,159 to fund classroom projects in science, technology, engineering, and math in San Diego County K-12 public schools. The utility company will match funds raised by local teachers on DonorsChoose.org.

• Animal Planet has announced a new series that will introduce viewers to the San Diego Zoo and Safari Park, featuring individual animals and the keepers who care for them. The series will air later this year.

• UC San Diego and Caltech seismologists have developed new algorithms to identify low-magnitude earthquakes in southern California seismometer readings. They found that the region experienced ten times more earthquakes between 2008 and 2017 than previously thought. The scientists hope to use this new information to study fault activity and predict major earthquakes.

• Using data from NASA’s Kepler telescope, San Diego State University astronomers have discovered a third planet in the Kepler-47 solar system, 3,340 light-years from Earth. Kepler-47 is the only known system that has multiple planets orbiting two stars.

2019 AWIS-SD Board Members

<table>
<thead>
<tr>
<th>Name</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>Courtney Benson</td>
</tr>
<tr>
<td>Secretary</td>
<td>Juliati Rahajeng</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Ana Laura Guerrero</td>
</tr>
<tr>
<td>Members at Large</td>
<td>Alex Clark</td>
</tr>
<tr>
<td></td>
<td>Varykina Thackray</td>
</tr>
<tr>
<td></td>
<td>Wendy Ochoa</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:president@awissd.org">president@awissd.org</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:secretary@awissd.org">secretary@awissd.org</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:treasurer@awissd.org">treasurer@awissd.org</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:aclark@awissd.org">aclark@awissd.org</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:vthackray@awissd.org">vthackray@awissd.org</a></td>
</tr>
<tr>
<td></td>
<td><a href="mailto:wocha@awissd.org">wocha@awissd.org</a></td>
</tr>
</tbody>
</table>
AWIS-SD Scholarships 2019
by Dorota Skowronska-Krawczyk

The AWIS-San Diego Scholarship Program, now in its 19th year, strives to encourage and reward outstanding women pursuing degrees in science, technology, engineering and mathematics (STEM) fields at San Diego colleges and universities.

On April 6th, 2019, the Scholarship Committee met for several hours to choose the 2019 Scholars. Out of 67 outstanding applications, the committee selected five for the $1000 award and seven for Honorable Mentions and one-year San Diego chapter membership.

Congratulations to the selected remarkable students! Stay tuned for the next issue of newsletter for us to share their personal stories of accomplishment!

2019 Awardees:
Kim Kelley, Mira Costa College
Desirae Mellor, UCSD
Barbara Perez, Mesa College
Sofia Sanchez, USD
My Tran, SDSU

Honorable Mentions:
Anamika Agrawal, UCSD
Cecilia Barnhill, USD
Jeongin Choi, San Diego City College
Claudia Palomino La-torre, UCSD
Hannah Rutledge, UCSD
Aurian Seleh, UCSD
Sabrina Younan, SDSU
Upcoming AWIS-SD Events

1) AWIS-SD Happy Hour
Date: Monday, June 03, 2019 05:45 PM - 08:00 PM
When: Monday June 3rd. 5:45-8pm
Where: New English Brewing (11545 Sorrento Valley Rd. Suite 305)

Free for AWIS SD members, $5 for non-members. Register at https://www.awissd.org/index.php/all-events/events-calendar/382-happy-hour

2) STRATEGY SESSIONS: How to Manage Future Plans & Prepare for the Unexpected
Date: Thursday, June 06, 2019 06:00 PM
Venue: Hera Hub, 4010 Sorrento Valley Blvd, Suite 400, San Diego, CA 92121

Click on following link for more information and to register https://www.awissd.org/index.php/all-events/events-calendar/384-strategy-sessions-how-to-start-a-consulting-business-2

3) Academia to Industry Coffee Club June Meeting
Date: Wednesday, June 05, 2019 05:00 PM
Venue: Bella Vista Social Club and Caffe

Click on following link for more information and to register https://www.awissd.org/index.php/all-events/events-calendar/383-academia-to-industry-coffee-club-june-meeting?date=2019-06-05-17-00

AWIS San Diego Sponsors
AWIS-SD thanks our corporate sponsors for their generous support. Donations from corporate sponsors help us fund scholarship awards, monthly events and Strategy Sessions, community outreach efforts, the Newsletter and the website.

GOLD

UCSD Extension
Thermo Fisher Scientific
Hologic

SILVER

Beckman Coulter Foundation
Celgene
Hera Hub

BRONZE

Quidel
Vertex
General Atomics
Inovio
TriLink
Takeda
BioLegend
About The Authors

**Chistina Grobin** was introduced to AWIS through the Back-to-Work Initiative and currently serves on the Outreach Committee. Chistina is an adjunct instructor of chemistry for Mesa College. She had a research career at the University of North Carolina at Chapel Hill but is seeking new opportunities in California hiking country.

**Alyson Smith** recently earned her Ph.D. in cell biology from The Scripps Research Institute, studying the role of structural and motor proteins in maintaining the shape and durability of red blood cells in the lab of Velia Fowler. Prior to her graduate work, she earned a B.A. in molecular, cellular, and developmental biology from the University of California, Berkeley. Alyson is currently pursuing a career in biotech intellectual property law. An interest in science communication and outreach motivated Alyson to join AWIS-SD shortly after she began her Ph.D., and she is now an active member of the Outreach and Newsletter Committees. Outside of AWIS-SD, Alyson enjoys baking, reading, writing, and running.

**Ray Seraydarian** earned his BS and M. Eng. degrees in Engineering Physics from Cornell University, and has spent his entire professional career in San Diego working in visible spectroscopy and areas closely involved with nuclear fusion research at General Atomics (GA) and UCSD. He is currently employed by UCLA at GA working on a microwave instrument for the large ITER fusion experiment being built by an international consortium in southern France. Outside of work, Ray enjoys theater, movies, bicycling, downhill skiing, and small boat sailing. Ray is a long standing AWIS-SD member, and he currently serves as a co-chair of the Events Committee.

**Qiong Song** is currently a postdoctoral researcher at the School of Medicine, UCSD. Her research focuses on studying pathogenesis of a group of rare genetic diseases with 3D human stem cell culture. She received her PhD in Bioprocess Engineering from the State University of New York in 2015. Qiong loves learning and problem solving. She serves as one of the Academia 2 Industry co-chairs since 2018.

**Jessica Cassin** is a postdoctoral fellow at UCSD in the lab of Dr. Pamela Mellon. She received her Ph.D. in Human Genetics from the Johns Hopkins University, School of Medicine. Her current research focuses on identifying novel genes in the hypothalamic–pituitary–gonadal axis in order to both discover new mechanisms of the pathway, as well as elucidate genetic causes of the disorder Isolated GnRH Deficiency. When she is not in the lab, she enjoys spending as much time outdoors enjoying the beauty around San Diego, hiking and kayaking. Jessica loves traveling but if she must be inside, she will be reading, cooking, or knitting.
Angela Macia is a postdoctoral researcher at UCSD working in Dr. Alysson Muotri’s laboratory. She received her Ph.D. in Biomedical Sciences from the University of Granada, Spain, in 2015. Angela has a strong background in transposable elements, and a broad range of experience in both human pluripotent and adult stem cells. Her research focuses on modeling neurological diseases, such as Autism Spectrum Disorders, investigating how transposons contribute to the disease by using patient-derived neurons and 3D organoids. She is passionate about how AWIS-SD creates opportunities for women and girls in STEM and she has been part of the Corporate Sponsorship committee since 2017. Besides volunteering for AWIS-SD, Angela enjoys traveling, reading and cooking.

Alison Yi-Jou Huang obtained her BS in Life Science at National Taiwan University, and currently she is a PhD candidate in Cancer Biology at UC San Diego Moores Cancer Center. The focus of her doctoral research is studying how different mutations contribute to leukemia development using genomic tools and murine models. Outside of work, Alison is an amateur photographer and barista. Alison joined AWIS in early 2018 and is currently serving in Public Relations and Strategy Session Committee.

Dorota Skowronska-Krawczyk is a biochemist and molecular biologist. She received her MSc in Molecular Biology at the University of Warsaw, Poland, and PhD in Biochemistry at the University of Geneva, Switzerland. She is currently an Assistant Professor at University of California San Diego, Viterbi Family Department of Ophthalmology. Her primary research interest is to understand the molecular mechanisms of aging using eye as a model system, see http://dsklab.ucsd.edu. Dorota joined AWIS in 2017 and immediately got involved in activities of Scholarship Committee. She currently serves as the chair of the Scholarship committee.

Yasan (Maddy) Yeh recently received her Ph.D. in Bioengineering from UC San Diego, where she applied nanotechnology to cancer therapy. She is currently working for a biotech startup, and is an active member of AWIS San Diego Outreach committee.

Contribute to the Newsletter
If you are an AWIS-SD member, we encourage you to contribute to the newsletter. Please send articles, photographs, and member news as MS Word attachments to newsletter@awissd.org. News articles should not exceed 250 words, event summaries should not exceed 500 words, and feature articles (special-interest stories and profiles) should not exceed 1000 words. The submission deadline for the next issue is July 10, 2019.

AWIS-SD Newsletter Committee
Co-chairs: Corine Lau and Alyson Smith
Members: Pat Rarus, Juliati Rahajeng, Jean Spence, Emily Bentley, and Swathi Hullugundi
Newsletter@awissd.org