



## AWIS San Diego Newsletter

Winter 2018 Volume 26 Issue 1

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### Letter from the President

Dear AWIS-SD Members and Friends,

The theme of this letter is simple: Step Up.

If you are not yet a member, step up and join.

If you are a member and not yet on a committee, step up.

If you are on a committee and not yet a co-chair, step up.

If you are a co-Chair and not yet on the board, step up.

Membership in AWIS-San Diego opens up almost all the local chapter events to you for free.

AWIS-San Diego has a very generous definition of a student. Our chapter-only, student memberships are only \$25. Follow this [link](#) to join.

Joining an AWIS-San Diego committee involves you more with the planning and implementation of our various events. For example, the Outreach Committee will give you opportunities to share your passion for science with the greater San Diego community. The Newsletter Committee will improve your writing and editing skills. The Public Relations Committee will make you familiar with the tools for promotions. Here is the full list to choose from:

<http://www.awissd.org/index.php/about/committees>

Moving to a leadership position within a committee permits you to develop leadership and organizational skills. We welcome those with new ideas and visions. Co-Chairs regularly attend the board meetings.

Finally, by serving on the board you get a real idea how all the parts of AWIS-San Diego come together to form a vibrant community.

So, step up!

Best,

*DeeAnn*

DeeAnn Visk, President AWIS-SD

[president@awissd.org](mailto:president@awissd.org)

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## 1. Academia to Industry (A2I) coffee club - A Visit with Irit Rappley, PhD

by Takako Noguchi and Juliati Rahajeng

### Overview

A2I coffee club held on Friday, November 6, 2017, had 13 attendees which was the most since the start of this group in January 2016. Average attendees of our group is about 5 in these 2 years, but new recruits from two company tours (Vertex and Dart Neuroscience) and Open House in October boosted the number of attendees. We had a guest speaker, Dr. Irit Rappley at Celgene, for this meeting.

### Background

Rappley received her B.S. in Brain and Cognitive Sciences at Massachusetts Institute of Technology, PhD in Neuroscience at Harvard University, and has done postdoctoral training in Dr. Jeffery Kelly's laboratory at The Scripps Research Institute (TSRI). In Dr. Kelly's group, she studied protein folding/misfolding causing protein aggregation and degenerative diseases.

### Transition into the Industry

During her PhD training, Rappley felt that she did not want to pursue a career in academia. She started looking into what was a good area to study to transit into the industry and found the trends that many companies focus on protein misfolding as a cause of diseases. So, she contacted Dr. Jeffery Kelly, who is one of the few experts in this field.

At TSRI, Rappley joined Network for Women in Science, and was actively engaged in networking events. When she found a job opportunity that was a good match for her, she connected to scientists in the department of the company through LinkedIn and requested for an informational interview. Rappley met a researcher at Celgene through the informational interview. Although the position she was interested in initially was filled, the researcher later contacted her for a contract job.



### Career at Celgene

Rappley started working at Celgene as a contract bench scientist in 2014. She worked as a member of a Discovery Biology team that focused on novel therapeutics for hematologic

cancers. The field was not an exact match to her background, but her background in protein homeostasis helped position her to contribute to her team. In addition, she took advantages of opportunities that became available at Celgene, such as developing high-throughput screens for several projects. After a while, she was hired for a regular position that opened up at Celgene.

In early 2016, Rappley joined Celgene's Neuroscience Working Group. In this newly formed group, she helped the company to develop strategies to target neurodegenerative diseases and communicated with the preclinical and clinical teams in the company. She no longer works in the laboratory, but she appreciates the exceptional professional development provided by the company and enjoyed her responsibilities.

### **Advice to A2I members**

Rappley emphasized the importance of networking. When we find a job that matches our qualifications, we should not hesitate to connect with people in the company through LinkedIn and request for informational interviews. She pointed out that it is important to find a job that matches one's career level. She also recommended industrial postdoc as a good bridge to the industry. Rappley also encouraged A2I members to maintain a positive attitude during the job search, in spite of the slow process and frequent obstacles.

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## **2. Member profile: Dorota Skowronska-Krawczyk, Ph.D.**

**Assistant adjunct professor at UCSD, AWIS-SD Scholarship co-chair, and co-creator of Project Visions.**

by Corine Lau

*Corine (C): Tell us a little about yourself.*

Dorota (D): I was born in Lodz, Poland. I studied at the University of Warsaw where I got my Master's Degree in Molecular Biology and then moved to Geneva, Switzerland to get my PhD degree in Biochemistry. Following graduate school, I made the long move to San Diego to work on nuclear organization and regulation of transcription for my postdoctoral training. There, I published several papers allowing me to write a grant proposal for my own laboratory and research. In 2017, I received my first R01 and started my new lab at UCSD in the Ophthalmology department.

*(C): During your rise to professorship, did you experience any setbacks as a woman in academia? If so, how did you overcome gender bias? What was/were the breakthrough moment(s)?*

(D): The gender bias in science nowadays is quite subtle. There are a lot of women in laboratories; therefore, we think that we all have equal access to everything. However, when I started applying for professorships, writing grants, looking for support, I realized that I was expected to deliver much more than my male colleagues. It sounds cliché, but I was asked to do 110% and prove myself again and again, whereas my male colleagues were consistently

receiving the benefit of the doubt. It is extremely frustrating and hard to work through. However, I had one thought in my mind: if I ever want to change anything, I must first obtain a faculty position and be “inside the system”, so my voice will be heard. Fortunately, I had a huge support system from many women in my life. I had endless discussions from the members of AWIS, great support from my husband, and encouragement from other scientists who liked my work and supported my pursuit. Having said that, this is just my first step in overcoming the gender bias in science. Hopefully, by joining the leadership ranks at AWIS-SD, it will help spread the message.

*(C): What is your advice to inspiring women scientists pursuing a professorship?*

(D): My major advice is to find the group of people that will support you “no matter what”, and go for it! If you truly love what you do, you will get there.



caption: Dorota Skowronska-Krawczyk, Ph.D., assistant adjunct professor at UCSD

*(C): Tell us about your latest creation, Project Visions. What is it and what is the goal of Project Visions?*

(D): Project Visions is a new initiative that I decided to put together in order to tell people about my science. I noticed that today everyone wants to be well informed. The audience is more and more educated, but there is still very little knowledge about how basic science can advance our understanding of the diseases and help in designing new approaches for cure.

*(C): How did Project Visions come about?*

(D): The project started serendipitously. I was talking to my artist friend Eva Henry about my work, and I was showed her images I obtained with microscope. She loved the story that came with the colorful images so much that she painted the images! I was amazed by the talent of my friend and realized that those images were much easier to “digest” than my microscopic images. I used her images in my talk for the first time in the Downtown San Diego Library and was blown away by the audience’s reaction. Even before I began to speak about the science, everyone was already captivated by the story. This is how Project Visions came about. We have our first presentation of the project on January 28, and we cannot wait to see how will be received.

*(C): Where can we find out more about Project Visions?*

(D): You can visit project Visions website at <http://www.the-visions.com/>

(C): Thank you Dorota for sharing your experience!

*p.s. On January 28, Dorota presented her research and Project Visions in the beautiful setting of the Leichtag Family Foundation Biomedical Research Building at UCSD. The presentation of both Dorota's research and Eva's artwork were captivating and educational for over 50 non-scientists and scientists. We hope you will spread your words to an even bigger audience in future events!*

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### 3. December Strategy Session - What is *Your* Leadership Spirit Animal?

by Leslie A.Crews

Last month, at AWIS-San Diego's final Strategy Session of 2017, I learned that my personal leadership survival strategy is that of an "Enterprising Crocodile." You might be wondering, why a crocodile, and how might this information help anyone become a better leader? Well, as we learned from our very own past-president of AWIS-SD and special guest speaker of the evening, Dr. Grace Nakayama, a key step to "Creating Powerful Leadership Skills" for yourself is to first *know yourself*.

With the aid of an engaging self-quiz called *What Animal am I?*

(<http://www.whatanimalami.com/>), based on the book *Surviving Your Serengeti* by Stefan Swanepoel, we each had the opportunity to increase awareness of our personal leadership styles. It turns out that some features of the Enterprising Crocodile include the "ability to think outside the box" and the "tendency to spend a lot of time working alone" – both characteristics that have surely served me well during the long process of obtaining a Ph.D. and continuing on the academic career track. You may instead be a "Strategic Lion," whose strengths include problem-solving and charting a course for others, or a "Communicating Elephant," skilled at listening and *hearing* what others are saying, to establish a true dialogue. Whatever your leadership spirit animal may be, understanding your own intrinsic qualities is an important step towards creating powerful leadership skills.

Through an interactive presentation and breakout session, Nakayama shared with us her past experiences as a leader in several capacities in AWIS-SD, as well as in research and development and project management fields in various pharmaceutical companies and consulting opportunities. She also imparted to us her insights on what makes an effective leader, of which communication, mutual respect, and team building emerged as common themes. We learned that, through the continuing process of knowing our own personal leadership styles, we can better understand how we can work best with others (who often have different styles themselves).

One memorable point was that the importance of soft skills and emotional intelligence cannot be overstated! Through better communication and powerful leadership, we can each create a

vision to inspire enthusiasm and bring out the best in others. As Nakayama so poignantly implied with her closing remarks of the evening, we each should be able to find our inner Daenerys Targaryen (the ultimate girl-power leader from Game of Thrones, in case anyone doesn't follow the series) if we listen to our inner survival strategy and communicate clearly with others. But please don't be disappointed that "Detail-oriented Dragon" isn't one of the options on the *What Animal Am I?* quiz. I suppose the "Enterprising Crocodile" is a close second!

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#### **4. Helen Mao Visit to AWIS-SD A2I Coffee Club**

by Juliati Rahajeng

Helen Mao, Chief Science Officer (CSO) and founder of Moradec, LLC, spoke to the Association for Women in Science, San Diego chapter on Friday, December 1, 2017. She shared her experience as an entrepreneur of a biotech company servicing the antibody-drug conjugates (ADCs).

Mao received her PhD in Biochemistry from Massachusetts Institute of Technology in 1998. During her last year of graduate school, her PhD advisor moved to The Scripps Research Institute in San Diego. Through her PI, she found her postdoctoral position at AbbVie. Since then, she has gained her industrial experience as a scientist at various biotech companies, including GNF and Biosite, and several small biotech startup companies.

About six years ago, she decided that it was no longer satisfying for her to work at either a small or large biotech company anymore. To her, working for a large company was not rewarding due to lack of impact on the final pharmaceutical products. On the other hand, there are always financial as well as management issues when working for small companies. Mao wanted to do something that makes her happy, which was to have controls of how she works, how to turn her own ideas into something useful, and be ultimately responsible for the decisions made. So she started her own company and gave herself one year to test out the ideas. Lucky for Mao, her husband is very supportive of her.

Instead of looking for outside funding, Mao used her own money to start her company. She needed a lab space to start. One of her industry connections in the past let her rent a lab space for a very reasonable price and let her use some instruments. To bring in immediate income for her company and figure out how to sell products to customers, she made competent bacterial cells (a reagent used in molecular biology cloning techniques) and looked for clients who were willing to give them a try. It was not easy for her at the beginning. She did not have any experience in selling products. However, some small companies that were on tight budget tried her cells and were very satisfied with her high quality competent cells. She found her first client one month after she founded her company.

To advance her ideas and skillsets in the ADC field, Mao worked with a local chemistry company who specialized in custom toxin-linker synthesis. In the meantime, she conducted her own research and development for the new ADC reagents. After six months, she got her reagents ready and started looking for clients. Through networking, including from LinkedIn, she was able to find clients. Within the first year she was able to start getting positive revenue.

Here are a few things she learned starting and running her own company:

- 1. Willing to forgo some security and take a risk.**
- 2. Set up a goal and give yourself a time limit to reach that goal.**
- 3. Try everything possible to survive the first year. Success comes after making every little detail work.**
- 4. Stay focus towards the initial goal.**
- 5. Reach out to the science network.**
- 6. Realize the importance of friendships and supports and have a thankful heart.**
- 7. Figure out what the most important thing is in your career and life, and embrace the decision you made.**

Being an entrepreneur is not for everybody, but if you are not happy with your current job and want to start your own company, then don't let anything or anyone to stop you.

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## **5. AWIS-SD Outreach at Chem Expo 2017: How to Solve a Mystery Using Science?**

by Laure Kayser

On Saturday, October 28, the 30<sup>th</sup> Annual ChemExpo was hosted for the third year in a row by San Diego Miramar College. The beautiful and inspiring campus welcomed hundreds of middle and high school students. More than 20 booths from local scientific companies, non-profit organizations, and universities were set-up to promote this year's central theme: Chemistry Rocks! The American Chemical Society celebrates National Chemistry Week by organizing the ChemExpo to showcase how chemistry is applied at work and in everyday life by holding hands-on demonstrations.

AWIS-SD did not miss this opportunity to share some fun chemistry with the local community. Volunteers at the AWIS-SD booth offered students the opportunity to solve a "crime" using science. Students were given both a mystery liquid and solid that had been left at the "crime scene" with the goal of identifying the mystery compounds. The students performed a series of experiments including the analysis of pH, the determination of starch content using Lugol's Iodine test, the observation of solubility, and the reactivity of solids in vinegar. Through these basic chemical tests, they scientifically determined the identity of the mystery compounds.

The volunteers also introduced the following key concepts to the students: chemical vs physical properties, acid-base reactions, and the transformation of starch into sugar. The transformation of starch into sugar was demonstrated by testing green and ripe bananas for their respective

starch content. Acid-base reactions were illustrated by making an at-home pH solution using cabbage juice. The juice changes from red to blue to indicate acidity, and from red to green to indicate basicity. The booth was very popular and AWIS-SD received excellent feedback. At the end of the demo, one high school girl said: "it was a great activity and I actually learned something!"



caption: AWIS-SD booth at the ChemExpo 2017.

The organizers of the AWIS-SD Outreach booth, Anita Pottekat and Laure Kayser, wish to thank the wonderful volunteers, without whom this event would not have been such a success: Melba Nuzen, Kamala Janiyani, Carlos Avila, Isabela Avila, Cyrus Rustomji, Jennifer Ngolab, Sue Lowery, William Strube, Bridget Kohlnhofer, Diane Retallack and all the student and staff volunteers from Miramar College. We also wish to acknowledge the American Chemical Society and Paul Bruinsma for organizing ChemExpo. We are already looking forward to next year's event!

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## 6. Ringing in the New Year at Calibanzo by Ray Seraydarian

On Wednesday, January 17, 2018, the San Diego AWIS chapter celebrated its annual New Year's event at Calibanzo, a Mediterranean/Middle Eastern family-style restaurant in Scripps Ranch. The venue was bright and friendly, the food was satisfying, plentiful, and delicious, and everyone seemed to have had a great time. The sold-out crowd of over 40 AWIS members sitting around a U-shaped arrangement of tables was a lively and cheerful group.





caption: AWIS-SD attendees enjoying dinner and conversations at New Year's celebration.

At the tables were fresh salad fixings, flat breads and hummus, and dolma (stuffed grape leaves, served cold as an appetizer). The self-serve buffet included rice, chicken kebobs, and lula kebabs (grilled ground beef or ground lamb with spices). Congratulations to the Events Committee for putting on such a successful event.

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## **7. Opening Doors to New Opportunities- Finding A Job after Getting a Ph.D. by Annie Rathore**

About 8 years ago, I started my journey as a scientist with a B.Tech. degree in biotechnology from the Indian Institute of Technology Roorkee, India. Currently, I'm a Ph.D. candidate at UC San Diego/Salk Institute.

I am coming close to the end of my Ph.D. and like every other professional, I faced this daunting question – What's Next? Traditionally, Ph.D.'s stay in academia and continue research as post-doctoral researchers before applying to faculty positions. However, in this day and age, Ph.D.'s have many opportunities beyond conducting research due to the training and specific skill set we developed as Ph.D. candidates. When I started networking and meeting new people at career conferences, on LinkedIn, or through friends, I realized that having a Ph.D. opens up numerous unconventional and extremely exciting opportunities in the non-academic job market; from management consulting, biotech startups, investment banking, market research, medical writing, medical science liaison, IP/Law and more.

Management consulting firms utilize the problem-solving skills Ph.D.'s develop to work on solving the toughest scientific problems in the world. Banking offers several positions to Ph.D.'s;

Ph.D.'s can work as equity research analysts and investment banking associates, both of which require strong data analytical skills and an ability to ask right questions under pressure. Business investors without a scientific background may need a subject matter expert to consult with regarding companies performing similar research before investing his or her venture capital. As most people in the industry have told me, "We can teach business to a Ph.D., but can't really teach a Ph.D. to a person with a business background." As more and more Ph.D.'s have made a successful transition into similar roles in the past and contributed immensely to the companies, firms are getting more comfortable recruiting and investing in more Ph.D.'s.

I am excited about management consulting as a profession for multiple reasons. I would like to share the three critical things that I learned throughout the entire process of networking, preparing, interviewing, and meeting people from firms.

### ***1. Build a strong resume***

It's strange but true; you will be judged by that one sheet of paper. Having a good GPA and a degree from a good university will not be enough. Most of your peers who are applying for the same position will also be a Ph.D., M.B.A., or Masters students from top universities. How to make sure you stand out then? It is important to start building a strong resume as early as possible. It might take an hour or two to write and edit your resume but it takes from one to two years to build one. To differentiate yourself from other applicants, you must have experience holding positions of responsibility outside of research and academia. For example, consider working with a top pharmaceutical firm or biotech startup in a business development role. You could take up pro bono consulting projects, start or lead clubs on campus, write opinion articles on industry, venture capital/startup news, attend consulting workshops and competitions, etc. These activities do not just look great on a resume, but more importantly, they help you gain an understanding of the industry from a broader perspective and develop skills essential for the transition.

### ***2. Learn to pitch yourself***

The acceptance rate into a top management consulting firm in the highly competitive job market is less than 5%. It is crucial to differentiate yourself from the other highly accomplished peers. Being smart and having a strong resume helps, but unfortunately it is not enough. You have to learn to pitch yourself. As Ph.D. students, we do not do this often and I too believe in letting our work and experience talk for itself. We have to train to pitch for ourselves. When you meet someone, think of what would excite them to learn about and why they should remember you. Leave an impression that you could add value to the team in the brief conversation you have by emphasizing the well-rounded experiences you have, and the ability to complement the existing skill set of the group. Another important thing for Ph.D.'s to learn is how to explain their research to a non-scientist and get the audience excited about the future application of your research. So the next time you are with your siblings or parents, practice by telling them what you are working on and make it interesting.

### ***3. Network extensively***

Since most firms do not recruit Ph.D. students from campus job fairs especially in the life sciences, networking extensively is the key to land a job at your dream firm. Start by researching the firm via their company website or using websites like Vault.com, Glassdoor, etc. Next, reach out to people at the firm through networking events, friends, or LinkedIn. In the first few conversations, try to familiarize yourself with the firm, the work culture, type of projects, their day to day work routine, and seek their advice. The purpose should not be to ask for a job, but to honestly understand if you'd like to work at the firm in a similar role. After you have identified

the places you are interested in, it's best to have your resume forwarded to the company recruiter by an employee. Recruiters receive thousands of application for each job posting and it is highly likely that your resume will not be read unless you are referred by an employee. Also, remember to evaluate the company as much as the company is evaluating you. Determining the right fit for you is crucial to finding the right position that will help you realize your career goals.

Finally, I would like to end by saying that taking a step outside research into an unconventional job market for a Ph.D. can be intimidating, but start one step at a time. Take the initiative to develop an edge in your field of interest and it will prove to be the best strategy for transitioning.

Wishing everyone all the best for the next steps in your career!

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## 8. Academia to Industry Coffee Club Visit to Dart Neuroscience

by Juliati Rahajeng

AWIS-SD visited Dart Neuroscience, LLC on Friday, October 27, 2017. Thirteen AWIS-SD Academia to Industry (A2I) coffee club members attended the tour organized by Karsten Baumgartel, Ph.D., a scientist at Dart Neuroscience, and the A2I coffee club. Five scientists, including Baumgartel and Nicola Broadbent, Ph.D., hosted the tour. Each one of them took turn in talking to tour attendees about how they transitioned into industry and their roles in the company. Below we highlight one of the scientists.



caption: A2I members visiting Dart NeuroScience

Broadbent is a Scientist II in the Behavioral Pharmacology group at Dart Neuroscience. She received her Ph.D. in Psychology/Behavioral Neuroscience from the University of Otago in New Zealand where she investigated the function of the hippocampus in memory. Then, she received her postdoctoral training with Drs. Larry Squire and Robert Clark at the University of California San Diego (UCSD) in the field of learning and memory. She continued this work as an Assistant Project Scientist at UCSD. Broadbent's first industry position was with Helicon Therapeutics where she was hired for her expertise in the neurobiology of memory. At Dart

Neuroscience, Broadbent designs and validates complex behavioral assays with the goal to provide better translation of preclinical results to clinical trials. Broadbent also serves as the lead Behavioral Pharmacologist for a several drug discovery teams. She enjoys working for Dart Neuroscience because it allows her to collaborate with scientists from variety of disciplines and because of the opportunity for continued training and professional development.

Thank you, Dart Neuroscience for the inspiring and educational tour!

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## **9. Academia to Industry (A2I) coffee club - An evening with Karen Sylvester**

by Juliati Rahajeng, Takako Noguchi and Aime Lopez Aguilar

### **Overview**

The first A2I coffee club of the year was held on Friday, January 12, 2018, testing a new location at the Corner Coffee Bakery of the UTC Westfield mall. We had 14 attendees ranging from senior students to experienced professionals. Our guest speaker was Ms. Karen Sylvester from Vertex Pharmaceuticals.

### **Background**

Sylvester is the Director in Human Resources at Vertex Pharmaceuticals, a rapidly growing pharmaceutical company focusing on speciality drug development. Sylvester, a graduate from San Diego State University, has been with Vertex Pharmaceuticals for 20 years and therefore has a wealth of experience with hiring practices, and the transition from academia to industry from the employer's perspective.

### **General job hunting advice**

Sylvester mentioned that San Diego is one of the big biotech/pharma hubs in the USA, and therefore there are lots of potential employers. Jobs are usually posted on websites such as LinkedIn or Indeed, however there are other resources such as Biospace.com and Biocom.org that in addition to job postings provide lists of employers in the area. Directly checking an employer's career website can also provide information about open positions.

Sylvester also mentioned that the use of recruiting agencies has become common practice for the biotech/pharma industry. While it is understandable most people want a permanent full-time job, short-term contracts or part-time jobs can be useful to gauge a company's culture and our own interest in a particular job. Furthermore these contracts can provide valuable industry experience and contacts for future job searches, and in occasion they can serve as a foot-in-the-door for more permanent contracts. Sylvester mentioned that recruiting agencies such as Biophase, Aerotek, or Kelly often work with different employers and therefore it can be useful to join the talent pool of more than one recruiting agency.

### **Resume and Cover letter advice**

Sylvester mentioned that she can receive hundreds of applications for a single opening, and therefore an initial screen of an application can take as little as 30 sec, therefore it is important

to be concise and careful with details. Cover letters should be customized for each position, proof-read to be free of typos and grammar errors. Any contacts within the company or recommendations should be mentioned, as well as a description of why you fit the job description. Regarding resumes, Sylvester recommended keeping the length to 2 pages, and mentioning your best assets first. For example, for early career scientists, education might be at the top of their resume but more established professionals might want to move their work experience to the top. Ms. Sylvester also mentioned that she personally is indifferent to being addressed by name on a cover letter, or including detailed addresses in resumes or cover letters, and that she appreciates when a personal detail, such as a hobby or interest, is mentioned in the cover letter, however these are subjective issues that might bear different weight with other hiring managers.

### **The hiring process**

Sylvester described the general hiring process at Vertex Pharmaceuticals, stating that while some elements might be translatable to other companies, each company maintains their own particular policies and practices. For example, while Vertex considers applications of Ph.D.s for Associate positions (as long as they are happy doing the work), other companies might not.

At Vertex, Sylvester and her team at the HR department review every incoming application and forward candidates meeting the criteria to the hiring manager. The hiring manager then selects possible candidates, which are then given a phone interview with someone from the HR department (~30 mins). Successful candidates are then invited for an on-site interview (often ~3 candidates/ position are invited) which is often a panel, area-focus style interview with people from different levels and positions. Interviewees are often asked a mix of behavioral questions to determine whether they are a cultural fit for the position, team, and company. At Vertex, Sylvester tries to schedule on-site interviewees within 1-2 weeks, however she mentioned that some positions can be hard to fill and postings remain open for months at a time.

She highlighted that researching a company and job description is key for being successful, especially at the interview stage. And that sometimes, excellent candidates are not selected because of external factors such as timing, specific profiles being sought, or even a different cultural balance within the group. Finally, Sylvester emphasized that while job hunting can be a grueling process, everything is in place to find the best match for each opening, benefiting both the employers and employees.

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**Member News:**

Wendy Knowlton announced the arrival of her first child, Hannah Elaine Tsuji, on December 23, 2017. Mom, dad, and baby are all doing well.

A recent study co-authored by board member Leslie Crews (Assistant Professor in the Division of Regenerative Medicine at UC San Diego) was published in Nature Communications in December 2017. In this paper, co-senior author Crews and colleagues identified a previously unknown role for the RNA-recoding enzyme ADAR1 in promoting disease progression and drug resistance in the second most common blood cancer in the US, multiple myeloma.

<https://www.nature.com/articles/s41467-017-01890-w>

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**Upcoming Events:****Scholarship 2018**

Applications due Sunday, Feb 27, 2018

Open to female students actively engaged in a degree program in the 2017-2018 academic year.

<http://www.awissd.org/index.php/opportunities/scholarships>

**Speed Mentoring 2018**

Tuesday, March 13, 2018 05:30 PM - 07:30 PM

at National University, register [here](#)

**STRATEGY SESSIONS: Decoding the Resume**

Monday, April 02, 2018 06:00 PM - 08:00 PM

at Hera Hub, register [here](#)

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**News Ticker**

by Alyson Smith

The National Cancer Institute has awarded San Diego's Aethlon Medical a contract to adapt the Hemopurifier, its blood-filtering device, to detect cancer. Aethlon plans to use the Hemopurifier (originally developed to filter viruses from Ebola patient blood) to detect oncosomes: small particles shed by cancer cells. Because oncosomes may aid cancer cells by suppressing the immune system, the company ultimately plans to use the device in cancer immunotherapy.

The Salk Institute has appointed geneticist Rusty Gage as its interim president following the retirement of Elizabeth Blackburn. Gage, who also served as interim president during the medical leave of former president William Brody, will continue to run his laboratory while the

Institute searches for a new president. Following her retirement, Blackburn will serve the Institute as a paid consultant for strategic planning.

A team of researchers including UC San Diego scientists have genetically engineered CAR T cells to attack cancer cells when activated by the mechanical force of an ultrasound. This technology allows for targeted CAR T cell activation deep within the body (up to four inches), avoiding the need for risky global activation of these potent – and sometimes deadly – immune cells. In the future, scientists could apply this method to activate other disease-involved cell types.

Last fall, four Jamaican iguanas hatched at the San Diego Zoo Safari Park, bringing the total successful hatchings of this critically endangered reptile at the park to 11. Once thought to be extinct due to predation by invasive species, the iguanas were rediscovered in 1990. San Diego Zoo Global is working to maintain an assurance colony with healthy, strong genetic lines protected from threats faced in the wild.

Ozanimod, a multiple sclerosis drug invented by scientists at The Scripps Research Institute, has proven more effective in reducing relapse rate than the current standard of care in two large Phase 3 clinical trials. The biopharmaceutical company Celgene will soon apply to sell the drug in the U.S. and the European Union. Ozanimod is also being developed to treat other autoimmune disorders, including ulcerative colitis and Crohn's disease.

UC San Diego and Scripps Memorial Hospital recently participated in a nationwide trial using imaging data to build computational models of blood flow in stroke patients' brains. These models helped surgeons make educated guesses about the location and extent of brain damage in newly admitted stroke patients, which guided treatment decisions. The quantitative data produced by these models will allow doctors to help some patients more than six hours after the onset of symptoms, which is otherwise risky.

UC San Diego Health has joined 11 other centers across the country in piloting a new iPhone-based medical records access system developed by Apple. The new system can store medical records from different health care providers, send medication reminders, and allow other iPhone apps to access select medication data.

Scientists at the Birch Aquarium and UC San Diego used a 3D-printed piece of plastic to fill a gap in the shell of a young, rescued loggerhead sea turtle. As the turtle grew, the shell gap began to cause spinal curvature, which the scientists hope the plastic brace will correct. Until the turtle reaches full size at about 250 pounds, they will continue to print larger and larger pieces of plastic.

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## About the Authors:



**Takako Noguchi** received her PhD in Biological Science from Osaka University. She is a Project Scientist at the Center for Circadian Biology at UCSD, studying cellular and neuronal mechanisms of circadian rhythm using innovative bioluminescence imaging technology. She joined AWIS-SD in 2017 and is currently serving as co-chair of Academia to Industry Coffee Club. She hopes to transition into the biotech and pharmaceutical industry.



**Juliati Rahajeng** received her PhD in Biochemistry and Molecular Biology from the University of Nebraska, Medical Center in 2011. She joined UCSD School of Medicine as a postdoctoral researcher one month after her graduation. Juliati has been a member of AWIS-SD for the past 3 years. She is currently the co-chairs for the Newsletter committee and the Academia 2 Industry Coffee Club. She is also an active member of the Scholarship committee and she was a member of the AWIS-SD Open House 2015 committee.



**Corine Lau** received her Ph.D. in Molecular, Cellular, and Developmental Biology from the University of Colorado, Boulder, and her B.S. in Biochemistry from the University of Washington, Seattle. She pursued her post-doctoral training at the University of California, San Diego. She is currently a cancer genomics scientist at Human Longevity Inc. Corine has been involved with AWIS-SD since 2006, and held various AWIS-SD leadership roles including Treasurer, Board member, and Website Committee co-chair. She currently serves as Newsletter co-chair.





**Laure Kayser** is a post-doc in the department of NanoEngineering at the University of California San Diego. After completing her undergraduate studies at the University of Strasbourg, she obtained a PhD degree in Chemistry from McGill University in Canada. She is currently an active member of the AWIS-SD Outreach Committee and the NanoEngineering representative for the UC San Diego Post-Doctoral Association.



**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 area 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.



**Annie Rathore** is a Ph.D. candidate at Salk Institute and UC San Diego. She was awarded the AWIS-SD Scholarship 2017 honoree mention and Salk Women in Science 2017 award for her high impact research in uncovering the role of microproteins in human biology and disease conditions. Prior to this, she completed her B.Tech. degree in Biotechnology from Indian Institute of Technology (IIT) and research at University of Iowa as a Khorana Program Scholar. Annie is a global traveler, enjoys running and cooking innovative dishes that combine different cuisines. After completing her Ph.D., she plans to transition to life science management consulting in New York.



**Aime Lopez Aguilar** is currently finishing a post-doctoral researcher position at The Scripps Research Institute in the Department of Molecular Medicine, where she focuses on developing chemoenzymatic tools for the detection and engineering of glycans in clinically-relevant environments. While originally from Mexico City, Aime obtained her BSc in Biotechnology from Brock University, Canada and later received her DPhil from Oxford University in the UK. Aime joined AWIS in 2017, and is currently a co-chair for the Academia to Industry Coffee Club.

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## 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](mailto: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 Apr 10, 2018.

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## AWIS-SD Newsletter Committee

[Newsletter@awissd.org](mailto:Newsletter@awissd.org)

Corine Lau (co-chair)

Juliati Rahajeng (co-chair)

Pat Rarus

Alyson Smith

Mai Khuong

Jean Spence

Joanna Redfern

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## 2018 AWIS-SD Board Members

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