

Korean-American Women in Science and Engineering



NEWSLETTER

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Message from the President



Dear KWiSE members,

It is my great privilege to serve as the 7th President of KWiSE. I would like to first thank our previous president, Dr. Hee-Yong Kim (NIAAA, NIH) for her dedication and vision as she led this organization for the last 2 years. I would like to continue on our excellent mission, and hope to bring KWiSE members closer to each other. I am happy to share with you the enthusiasm of our new administration, and grateful to all who have stepped up to serve this wonderful organization!

I am fortunate to have Dr. Suejung Huh (Ohhh!, Inc.) serving as the General Secretary and Dr. Hee-Jung Song (Univ Maryland College Park) acting as the Treasurer. In addition, we have a team of excellent Chapter presidents to lead regional chapter based activities, which have been so critical in serving our members. In alphabetical order, Great DC chapter will be led by Dr. Younsung Kim (George Mason Univ), LA chapter by Dr. Jayoung Kim (Cedars-Sinai Medical Center, UCLA), NIH chapter by Dr. Dong-Yun Kim (NHLBI, NIH), NJ/NY chapter by Dr. HeaYeon Lee (Mara Nanotech NY Inc.), SD chapter by Dr. Heekyung Chung (Samumed), Southeastern chapter by Dr. Mihyeon Jeon (WSP USA), and Texas chapter by Dr. Seung-Hee Yoo (UT Health Sci Ctr at Houston).

We will continue our efforts to invigorate various chapter activities to enhance networking and mentoring of our members, and we will partner with various organizations to promote the excellence of Korean-American women in science and engineering fields. We have a new KWiSE web page (www.kwise.org) that was developed during the 6th Administration, which I plan to vitalize to allow efficient communication of our activities. In addition, we have a new LinkedIn Group that can act as a networking and mentoring outlet as well as a venue for informal interactions between members. Some of our chapters are on Facebook and other social media outlets as well. I encourage all of you to reach out and make meaningful connections with each other. Together, we can build a stronger community!

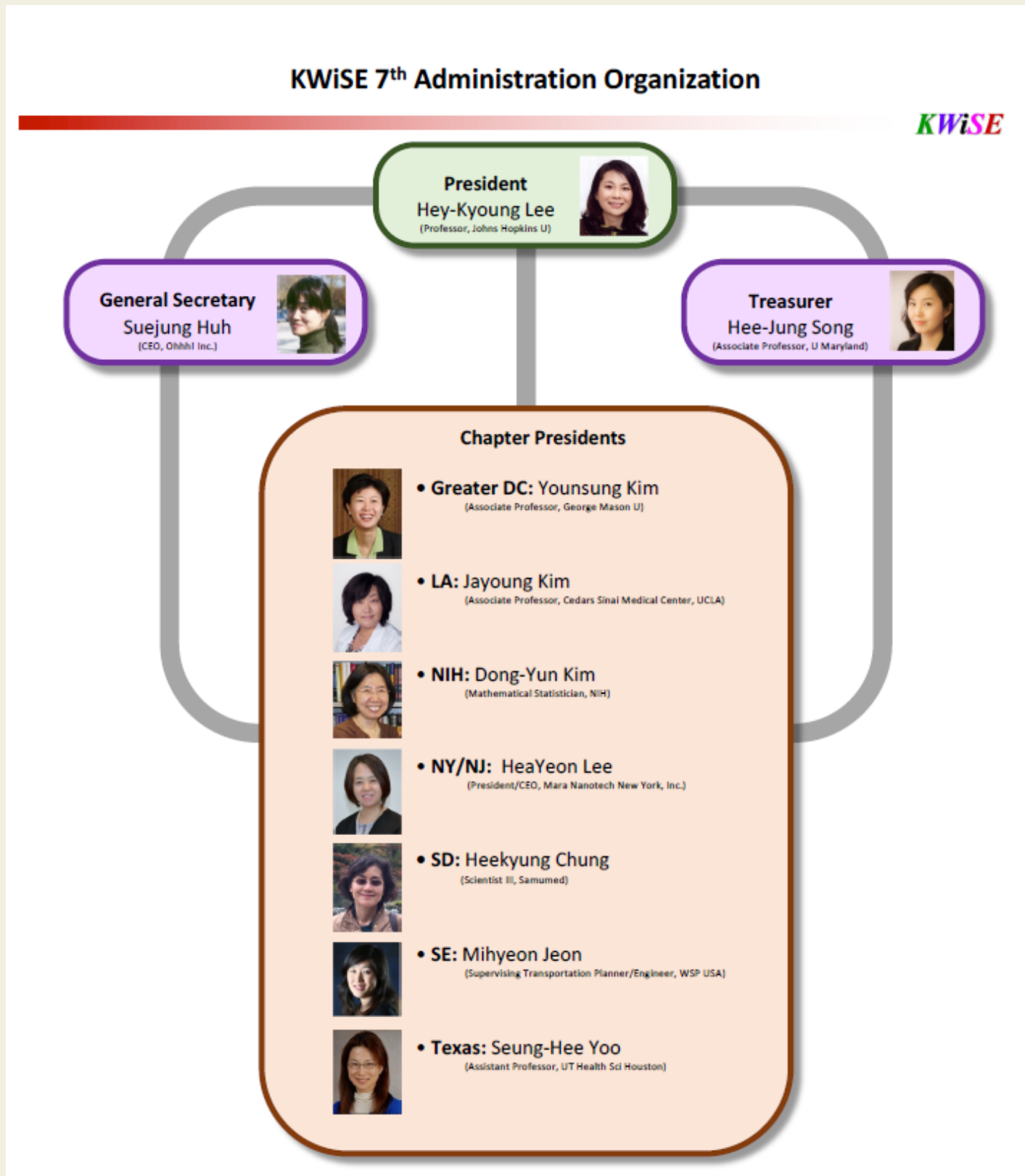
Recently, I had a great opportunity to attend the 2018 GNet Forum organized by the Korea Foundation of Women's Science & Technology Associations (KOFWST), which was held in Seoul, Korea on October 30, 2018. The main topic of the forum was "How to break the glass ceiling in STEM." Based on the presentations and discussions, I realized that there is a lot of work ahead for us to gain fair recognition of our excellence. Some of the potential solutions to the "glass ceiling" problem are things that we, as women in STEM, can work on to bring about change. One such is mentoring of our younger generation to allow them to effectively navigate through any bias set against us. I believe KWiSE can make a difference, and we as a group will work to promote and mentor each other to turn the tide to a desirable direction.

I look forward to serving everyone and hope you will continue to support our mission and actively participate in our activities.

Sincerely Yours,
Hey-Kyoung Lee
KWiSE President

KWiSE

KWiSE 7th Administration Organization



In addition to the KWiSE Steering Committee above, KWiSE headquarter (HQ) activities are advised by the KWiSE Advisory Committee, which is comprised of the past KWiSE presidents: Dr. Gye Won Han (1st), Dr. Sanghee Yoo (2nd), Dr. Haejung An (3rd), Dr. Eun-Suk Seo (4th), Dr. Jane Oh (5th), and Dr. Hee-Yong Kim (6th).

Dr. Eun Kyung Hwang (NIDA, NIH) and Dr. Yuyoung Joo (Univ. Maryland School of Medicine) are serving as Publication Officers for the 7th Administration.

Missions of KWiSE

KWiSE serves Korean-American Women in Science & Engineering to promote networking for:

- *Technical excellence*
- *Career development*
- *Professional collaboration*
- *Mentoring future generation*
- *US Korea cooperation*

Interview with Past Presidents

Dr. Gye Won Han



Dear KWiSE members,

As the founding president of KWiSE, it is my great honor to share a story about the early days of KWiSE. As we all know, KWiSE was founded by only a handful Korean-American women scientists from Scripps, UCSD, Burnham, and LIAI in La Jolla, California. We first named our organization KWiSE (Korean-American Women in Science and Engineering) and our mission: to establish and strengthen the network of Korean-American women in science and engineering-related fields, to facilitate communication and cooperation between our members; to promote their career development and success; and to foster international cooperation between the US and Korea. We initially focused on strengthening our groundwork. We developed the KWiSE.org web domain, as well as the KWiSE logo, then we were ready for

action! Our first meeting was held on Oct 21, 2004 in a small seminar room at Scripps. About 20 women scientists got together, and we discussed our goals and future plans.

In 2005, the KWiSE committee decided to award KWiSE Awards to the top scoring high school girl students in the KSEA National Math Competition (NMC). The first KWiSE Awards were given by KWiSE-San Diego and KWiSE-LA. Simple and nice 1st KWiSE News Letter was published in 2005. In the summer of 2005, KWiSE received an invitation from KSEA-HQ to organize a Women's Forum at the US and Korea Conference (UKC). Dr. Sooja Kim and I co-organized the 1st Women's Forum at UKC2005. Later, the name of the Forum has been changed to the KWiSE Forum. In November, 2005, the 1st KWiSE Annual Meeting was held. It was sponsored by KOSEN (한민족과학기술자 네트워크). Many Scripps postdocs and students shared a delicious Korean meal together, and actively participated in the network meeting.

In 2006, KWiSE signed a couple of MOUs with the Women's Bioscience Forum (BFM, 여성생명과학기술포럼), as well as BRIC (생물학연구정보센터) for co-operation and collaboration with their organizations. Additionally, KWiSE received funding from KOFST (한국과총) to establish a Korean-American women scientists and engineers database for 2006-2008 period. According to the 2008 database statistics, most of the KWiSE members were living primarily on the East (41%), followed by the West (37%), the South (13%) and Midwest (9%).

In 2007, as the KWiSE proposal was accepted by KUSCO, the first KWiSE East and West Coast meetings were held simultaneously in the East and West region of the US. In addition, KWiSE instituted the KWiSE Woman Scientist Award to recognize both scientific excellence and valued contributions to KWiSE. The first KWiSE Woman Scientist Awardee was Dr. Sooja Kim (Chief, Center for Scientific Review, NIH, 2007).

In 2008, KWiSE won the Amore Pacific Award – Group Development Award (단체진홍상).

As Dr. Sanghee Yoo was elected to the 2nd term KWiSE President (2010-2011), KWiSE moved forward. Currently, KWiSE has its 7th administration with President Hey-Kyoung Lee. KWiSE now has expanded to eight chapters: Greater DC, NIH, LA, NY/NJ, NC, SD, SE, and TX. I am very proud of our KWiSE leaders, and members. KWiSE will continue to grow, and will be a leading voice for women in science and engineering.

Gye Won Han, PhD
Bridge Institute, University of Southern California

KWiSE
Korean-American Women in Science and Engineering

KWiSE 1st meeting (October 21, 2004)



재미한인여성과학기술자협회 창간
[중앙일보 2004년 10월2일 기사]

지역 한인여성 과학·기술자들이 한 자리에 모였다. 전국에서 처음으로 결성된 샌디에이고 재미한인여성과학기술자협회(KWiSE)가 최근 '발기인 대회'를 갖고 본격적인 활동에 들어갔다. 이날 모임에서 발기위원회는 발기위원장을 맡은 한계원 박사를 초대 회장에 추대했으며 창립총회를 오는 21일(목) 오후 7시 스크립스 연구소에서 갖기로 했다.

한 초대회장은 "여성과학기술자협회는 앞으로 상호 협력체계를 구축해 인적·지적 정보 교류를 갖는 한편 지역 한인 사회가 발전할 수 있는 다양한 사업을 적극 펼쳐나갈 계획"이라고 설명했다. 이어 한 회장은 "많은 여성과학기술자들이 동참해 주기를 바란다"면서 "전국적인 단체로 성장할 수 있도록 최선을 다해 노력하겠다"고 포부를 밝혔다.

재미한인여성과학기술자협회 초대 임원 명단은 다음과 같다.

▶ 회장: 한계원 ▶ 부회장: 석지영 ▶ 총무: 전명신
▶ 재무: 최보애 ▶ 간사: 김하나, 김민주
연락처: (858)784-7189

KWiSE

Korean-American Women in Science and Engineering

Conference Report

2018 GNet Forum Report (글로벌 한인 여성 과학기술단체 네트워크 포럼)



2018 GNet Forum was organized by the Korean Federation of Women's Science & Technology Associations (KOFWST) in Seoul, Korea on October 30, 2018. The topic of this year's GNet Forum was "How to Break the Glass Ceiling in STEM." Korean Women leaders representing various STEM organizations across the globe gathered to present data from each country as well as discuss potential solutions to the "glass ceiling" problem that is so prominent in the STEM (Science, Technology, Engineering, Mathematics) fields. Dr. Hey-Kyoung Lee, the KWiSE president, represented the KWiSE at this forum.

The GNet Forum was opened by a welcome remark by Dr. Myeong-Hee Yu (유명희), the President of KOFWST. This was followed explanation of the purpose of the GNet forum by Dr. Heeyoung Paik (백희영), President of the Gender Innovation Center (젠더혁신연구소),

and a brief summary of the participation of KOFWST in foreign Korean led conferences by Dr. MiHye Kim (김미혜), Professor at Choongbuk National University (충북대학).

The session began by a presentation from Dr. Jin Won Seo (서진원), a Professor of Materials Engineering at University of Leuven in Belgium. She gave a brief introduction to the University of Leuven, and described that the university developed the Gender Action Plan in 2014. One of the things that resulted from this action plan is the establishment of Gender Vanguard, who are trained faculty members required to be present in assessment committees to enforce achievement of 50/50 men/women ratio in new appointees and to oversee gender neutrality for promotions. This plan improved the gender ratio of faculty members and promoted hiring of women in engineering fields. Dr. Seo emphasized that even with such strong plan in place there are still challenges ahead, and pointed out that one of the main long-term challenges are implicit bias which impacts evaluation processes.

The second speaker was Dr. Sunny Cho (조선희), a Professor at University of Alberta in Canada, who is currently serving as the President of Korean-Canadian Women in Science & Engineering (KCWiSE). She presented data demonstrating gender inequality in STEM fields in Canada as well as various stereotypes built-in to viewing women scientists. She shared her opinion that gender equality has to be educated to boys as well as girls at an early age to bring about changes in culture. Mentoring of men by female was another suggestion that could potentially change the perspectives of male colleagues. Dr. Cho brought up an interesting point that while gaining equal resources is important, there needs to be policies in place to achieve equity. She explained the equity is about fairness and getting access to the same opportunities. Examples of measures suggested was to increase transparency and providing flexible working environment.

The third speaker was Dr. Hey-Kyoung Lee (이혜경), Professor of Neuroscience at Johns Hopkins University and the current president of KWiSE. She presented data on the state of women in STEM fields in the USA that suggested there needs to be tailored approach to overcome the "glass ceiling" issue based on the specific fields. In the US, the proportion of women in biological sciences is equal, if not more, than men. Therefore, the problem in this field is not at the level of recruitment of women, but at the level of retention. Loss of women in biological sciences is apparent in academia as a decrease through the ranks termed the "leaky pipeline." In contrast, the proportion of women in physical sciences and engineering fields are far less than men even at the earliest stages of their career and the gap continues to grow through the ranks. Hence the solution to these fields have to be both at the level of recruitment as well as retention.

The last speaker of the forum was Dr. Soonja Yeom (염순자), Professor of Information & Communication Technology at University of Tasmania in Australia. She gave a brief introduction to the University of Tasmania, and described the low percentage of women in the Information Technology (IoT) field (about 22%). She described a policy called Athena Scientific Women's Academic Network (SWAN), which is in place to advance gender equality in academia. She suggested her view that changing the way we present STEM careers may have positive outcomes. She gave an example that if internet, which is only possible through IoT, is presented as something that connects people it may gain an added value to attract female students.

Presentations were then followed by an open panel discussion. The overall theme of the discussion was that there are clearly gender inequality present in STEM fields regardless of the country, and that one of the major challenges to overcome the "glass ceiling" problem is breaking the innate implicit bias that negatively impacts the hiring and promotion processes of women scientists. There was a general agreement that there also needs to be structural support for providing flexible work schedule for women, support for maternity leave/childcare, as well as developing fair evaluation processes that considers specific needs of women scientists. In addition, mentoring of women scientists to work against set biases and to train them on leadership roles was deemed important.

Report summary by Dr. Hey-Kyoung Lee

Community Outreach Report

2018 KSEA-KWiSE STEM Fair

<http://www.ksea-smec.org/STEM/>

On Dec. 1, 2018, KWiSE LA chapter co-hosted the STEM Fair with KSEA. KWiSE is proud of 3 young female awardees from the contest!



H. Thomas Hahn, PhD
Chair, Small/Medium Enterprise Committee
Prof Emeritus
UCLA

The KSEA-KWiSE STEM Fair is a synergistic platform where K-12 students can develop their interest in STEM through hand-on challenges, and STEM businesses can introduce their new products through experiential marketing. In partnership with businesses the Fair strives to offer gamified labs in various STEM areas.

This Fair is designed to be one of the community service events held jointly by the Korean-American Scientists and Engineers Association (KSEA) and the Korean-American Women in Science and Engineering (KWiSE) through their local chapters at different locations across the country. The KSEA Small/Medium Enterprise Committee is mainly responsible for overall planning and administration.

The first KSEA-KWiSE STEM Fair was held on Santa Monica College (CA) campus on December 1, 2018, hosted by KSEA and KWiSE Southern California Chapters. The Fair was a successful result of a synergistic partnership effort with ROBOTIS, UCLA RoMeLa, Santa Monica College, and STEAM CUP USA. Generous local sponsors included Lee & Ro, US Education Consulting, Korean Life, MedQia, Karen Moon, and KSEA Seniors Club, making the event financially self-supporting.



Grace Hyun Kim, PhD
Chair
STEM Fair
Assoc Prof in Residence
UCLA

The Fair comprised three STEM Labs in robotics for the K-12 students to choose from depending on their ages in parallel with a parent program focused on education and health. Each lab was led by ROBOTIS staff using their robotic kits, and college students volunteered as teaching assistants. The parent program featured speakers to address college admissions and STEM careers. After competitions for STEAM CUP medals, both students and parents had a chance to be entertained by interesting science talks on macro and micro robots.

A total of 52 K-12 students participated in the STEM labs supported by more than 50 volunteers and teaching assistants. All in all, more than 150 students, parents and speakers enjoyed a full day of STEM activities. Some testimonials from participants are presented below.



Jayoung Kim, PhD
President
KWiSE LA Chapter
Assoc Prof
Cedars-Sinai Medical Center, UCLA

“Thank you for hosting the STEM fair. I very much enjoyed working with other members of my division. I liked building the robot because it was a new experience for me. After the STEM fair, I thought about my future in STEM. I liked hearing Dr. Dennis Hong’s talk about his robots and how they made the robots. I had an amazing experience at the STEM fair.” – Rachel (student)

“Thank you for hosting the STEM fair. I enjoyed building the robot and very much enjoyed programming the robot. The part I most liked was competing in the competitions. I also liked the speeches of Dennis Hong. I believe by at the most by 2040, robots will take over human jobs. I had a great time and a lot of experience at the STEM fair. Thank you.” - Alex (student)

“안녕하세요. STEM fair 를 만들어주셔서 너무감사하고 그날 교수님들과의 세미나를 통해서 stem과 아이들의 교육에 대해서 다시 한번 생각하는 좋은시간이었습니다. 저는 이런 기회가 지나 아이들에게 더 자주 있었으면 좋겠어요. 한번이 아닌 이런걸 계기로 뭔가가 꾸준히 연결이 되서 아이들이 배우고. 배운아이들은 나중에 봉사같은프로그램도 만들어 도와주고 캠프나 주말클래스같은걸 꾸준히 만들면 등록할거같아요. 그리고 교수님들과의 대화시간도 아이들에게 너무좋은 경험일거같습니다. 모두 정말 대단하신분들인데.커뮤니티를 위해 애써주신다는게 대단한 일입니다. 너무 감사드립니다. 수고하셨습니다.” – 학부모

KSEA-KWiSE STEM FAIR
for K-12 Students and Parents

Saturday, December 1, 2018
8:30 am – 5:00 pm
Santa Monica College, CA
Humanities & Social Sciences (HSS) Building

8:30 Registration	153	Parents Program	165
9:00 STEM Lab I: Robotics for K-3	150	Welcome Prof. Howard A Stahl	
STEM Lab II: Robotics for 4-7	151	“CS & IS at Santa Monica College” Dr. Min Yang, US Edu Consulting	
STEM Lab III: Robotics for 8-12	152	“Success in college entrance” Prof. Nosang Myung, UCR	
		“Introduction to UC system” Prof. Jayoung Kim, CSMC, UCLA	
		“Seven steps for cancer prevention”	
12:00 Lunch	Outside		
1:00 STEAM CUP Competitions	150-152		
2:30 Prof. Dennis Hong, UCLA, “Robotics & mechanisms”	165		
3:30 Prof. CJ Kim, UCLA, “Micro & nano manufacturing”	165		
4:30 Awards (KSEA, KWiSE, ROBOTIS)	165		
5:00 End			

General Admission: free
STEM Labs: \$60/student
Register at: <http://ksea-smec.org>
Sponsor/Exhibitor Info: contact@ksea-smec.org
<http://ksea-smec.org>



Community Outreach Report

**KSEA-KWiSE STEM Fair:
KWiSE side of the story**

By Hey-Kyoung Lee

The first KSEA-KWiSE STEM Fair was a success. KWiSE LA chapter members partnered with KSEA for the event, which was spearheaded by Dr. Thomas Hahn who is serving as the chair of Small/Medium Enterprise committee at the KSEA. In addition to the KWiSE LA chapter members and KSEA members, several UCLA students and local high school students volunteered for the event making this a concerted effort of the local community.

In particular, KWiSE LA chapter members were actively involved in promotion, registration, organizing lunch and operating the snack bar, as well as recruiting volunteers. Also, KWiSE members arranged a venue to provide health consultation to parents accompanying the students.

KWiSE gave out several awards to female student participants to encourage and promote their role in STEM. Congratulations to Gwyneth Lee, Sharon Kim, and Rachel Her for their excellent participation!

KWiSE has officially partnered with KSEA to make the STEM Fair a nationwide event, which will allow us to reach out to a larger community across the country to promote interest in the STEM fields and to motivate our next generation of women scientists. We strongly encourage each KWiSE chapter to partner with local KSEA chapter to continue on with this exciting outreach opportunity.

Proposals to hold the KSEA-KWiSE STEM Fair at your chapter are welcome. Contact Dr. H. Thomas Hahn, Chair of SMEC, at hahn@sea.ucla.edu or Dr. Hey-Kyoung Lee, President of KWiSE, at heykyounglee@jhu.edu for details.

Awards

**Dr. Yeon Bai received 2018
KWiSE Woman Scientist Award.**



During UKC 2018 at St. Johns University in New York, Dr. Yeon Bai received the 2018 KWiSE Woman Scientist Award in recognition of outstanding services to the betterment of the KWiSE. Dr. Bai founded the New York and New Jersey (NY/NJ) chapter in 2013 and steadily grew its membership and network.



KWiSE LA Chapter Volunteers



Lab 1: Gwyneth Lee (3G)



Lab 2: Sharon Kim (7G)



Lab 3: Rachel Her (8G)



Support us! @ www.kwise.org



Donate to KWiSE

Contributions are tax deductible and help us further our mission and support our community.

[Give Now →](#)



Amazon Smile

Select KWiSE as your charity when you shop on smile.amazon.com and we'll get .5% at no cost to you!

[Get Started →](#)

Greater DC Chapter news

Open Workshop Ways to Increase the Competitiveness of a Grant Proposal

The KWiSE Greater Washington DC Chapter has our fall gathering event on Friday, November 16, 5:00-9:00pm.

Drs. HyoJin Kim (Catholic University) and Tam-Chang (NSF) offered very informative presentations about how to win and secure research grant.

After Dr. Kim’s presentation “Lessons From Experiences in Securing Research Grant” and Dr. Tam-Chang’s presentation “Ways to Increase the Competitiveness of a Grant Proposal,” the GW chapter members had discussed the practical tips of developing grant proposal. We also discussed about the ways to promote research for future grant opportunities.



NIH-DC chapter End of Year Party: December 14th, 2018

NIH-DC Chapter held a joint Year End Dinner Event in partnership with KAPAL on December 14, 2018



Los Angeles Chapter news

LA chapter End of Year Party: December 8th, 2018



Southeastern Chapter news

SE Chapter End of Year Party: December 2nd, 2018

The KW i SE SE Chapter had a Year-End Party at Dr. Mihyeon Jeon's house on Sunday, December 2nd. Along with good food and music, we discussed upcoming activities of the Chapter and had a wonderful time networking each other. Dr. Sohyun Park (CDC) also demonstrated how much sugar is actually included in a variety of beverages including fruit juice and other soft drinks which attracted a great attention not only from the members but also from their kids



KWiSE 2018 Group Picture



Sugary Beverage Experiment (How much sugar is in your drink?)

San Diego Chapter news

SD Chapter End of Year Party: December 15th, 2018

SD chapter end of year party at professor Hoh's house in December 15, 2018. Drs. Jayoung Kim and Gye Won Han from LA chapter joined us.



We had a great time together with good food, presents and LOL

Why KWiSE?

Most fields in Science, Technology, Engineering & Mathematics (STEM) have seen growth in women over the years, however, there are still problems.

- While the ratio of women in Biological Sciences and Mathematics is close to 50%, there is considerably lower proportion of women in higher level positions. This is called the “leaky pipeline” or the “glass ceiling” problem.
- In Physical Sciences, Computer/Information Technology, and Engineering, the ratio of women is only about a quarter, which indicates a severe problem of recruitment into those fields of study.

*KWiSE aims to help address & solve these issues.
Together, we can make a difference!*

Announcement

2019 KWiSE Annual conferences

KWiSE Annual conferences will be held:

- West coast conference (LA-SD joint): May 4, 2019 (Sat)
- East coast conference (NIH-DC joint): May 4, 2019 (Sat)
- NJ/NY chapter conference: May 4, 2019 (Sat)
- Texas chapter conference: May 11, 2019 (Sat)
- Southeastern chapter conference: May 18, 2019 (Sat)

Please check each chapter website for details.

Announcement

2019 US-Korea Conference (UKC)

Save the date!

2019 US-Korea Conference (UKC) will be held in Chicago from August 14-17, 2019 at Hyatt Regency O'Hare.

