AWIS Gulf Coast-Houston Chapter Newsletter

Spring 2014

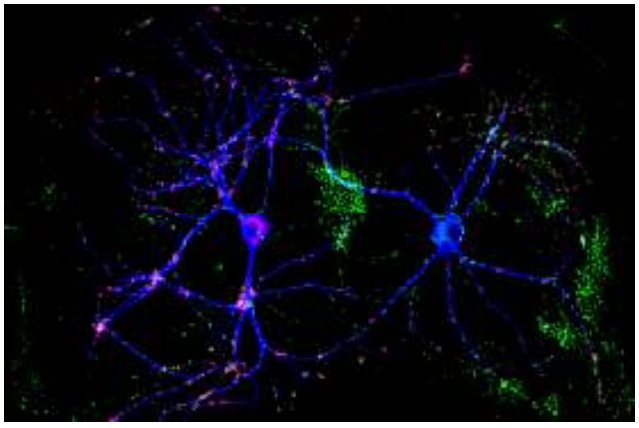
AWIS Star Chapter 2013

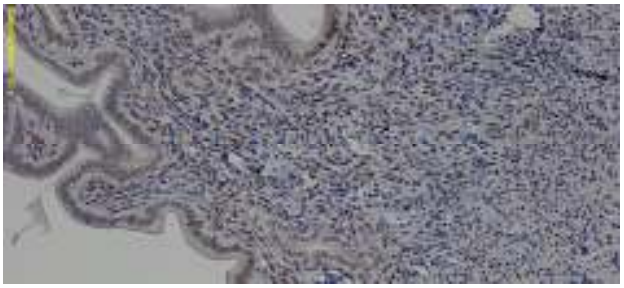
AWIS

ASSOCIATION FOR WOMEN IN SCIENCE

Gulf Coast Houston

Insider





Editorial Staff

Cover Photos

Clockwise from top left:

1. Hima Vangapandu, a second year graduate student at UT Graduate School of Biomedical Sciences in Houston, at her bench. Photo by Hima Vanagapandu

2. MS Biotechnology student from University of Houston-Clear Lake collecting soft corals for stress experiments in Summerland Key, FL. Photo by Lory Santiago-Vazquez, PhD.

3. MS Biotechnology students from University of Houston-Clear Lake preparing bacterial cultures at Mote Tropical Marine Lab. Photo by Lory Santiago-Vazquez, PhD.

4. Hematoxylin- and eosin-staining of normal cervix tissue. Photo by Ayesha Khan.

5. Cultured hippocampal neurons immunofluorescence – labeled with the dendritic marker MAP2 (blue), and amino acid transporters VGLUT1 and VIAAT (red and green). Photo by Chia-ling Chang, PhD.

Letter from the President

Greetings AWIS Gulf Coast Houston Chapter Members!

It has been two years since I've assumed the position of president of the AWIS GCH chapter. This opportunity has truly been an honor, witnessing first-hand the significant growth and benefits of this organization both locally and nationally. During this time, our AWIS GCH executive board has grown to include 11 members when we initially began with two (president and first vice president). Our approach to revitalize the chapter has been to set and achieve small, attainable goals in order to establish a foundation from which to build upon for our chapter. This strategy has proven to be successful as within a short period of time, we…

1. Recruited and filled AWIS GCH executive board positions; this resulted in a growth in effort that is reflected in the increase of chapter activities and events
2. Increased chapter visibility via programming, web presence and community participation in our chapter events
3. Increased chapter outreach within the local community to encourage young girls to pursue STEMM careers
4. Increased chapter membership significantly
5. Encouraged and/or facilitated local Houston academic institutions (UT Graduate School of Biomedical Sciences at Houston, University of Houston, University of Houston – Clear Lake) official partnerships with AWIS Nationals
6. Established protocols for chapter programs and events in order to set a foundation from which to grow upon
7. Revised the chapter constitution and bylaws to enhance chapter operations and to better ensure chapter continuity

With strong leadership and vigorous behind-the-scenes efforts, our chapter is steadily rebuilding and providing support for women in STEMM within the Gulf Coast Houston area. And our hard work is paying off in several ways. Our biggest reward is having the help and support of you, our members, and the community interest and participation in our events. I'd like to take the opportunity to thank all who support the chapter through commitment to serve as an officer, a committee member, a financial supporter, and/or attend and participant in our events. Our mission could only be met through combined efforts, strengths, volunteered time and talents.

Additionally, AWIS recently awarded our chapter the AWIS Star Chapter Award! This award honors AWIS chapters who have accomplished many of the key objectives outlined in the National AWIS Strategic Plan that is designed to ensure that women in STEM fields are able to achieve their full potential. We are grateful for this recognition.

With the success of our first event of the 2014 year organized by Brittany Parker, Outstanding Women in Science Seminar Series Chair, in which we honored Dr. Naomi Halas of Rice University as an outstanding woman in science, we hope that you are as excited as we are about what's happening within AWIS GCH. Our aim is to also extend our efforts into the community. We strive to increase public engagement in STEMM education through our partnership with local programs such as the Houston Mayor's After School Program, where we presented information to Houston area youth about various scientific career options, and the RailsGirls Houston's Ruby on Rails Workshop, which provided women the opportunity to learn the basics of computer programming. In addition, we also participated in the Houston Girls On The Run Program and the Young Women's College Preparatory Academy College and Career Fair, where we encouraged young women and girls to pursue STEMM careers.

Recently, the AWIS GCH Chapter awarded the Johnson Space Center (JSC) Space Health Innovation Challenge "Most Outstanding Female Entrepreneur" award to Christine Gebara, a student NASA intern at the (JSC) who participated as part of a team in the challenge. Christine received a $50 cash award, a certificate of achievement, and FREE AWIS GCH chapter membership for one year. Through recognition of the successes of women in science, we hope to promote the mission of our organization.

Lastly, we would love your involvement in chapter leadership! AWIS GCH chapter elections will be held soon for all positions. We encourage any member who is interested in serving a one-year term to nominate herself when we open nominations. Serving in this capacity is great opportunity to build upon your leadership skills and network. Future emails will provide more information about elections. Also, if you're interested in participating within one of our committees, please feel free to contact any officer with your questions and your interest in serving.

Again, thanks for your willingness to help and participate! We look forward to seeing you at our upcoming financial planning event on March 25th!

Amber Mathews

AWIS GCH President

The 2014 AWIS GCH Executive Committee

Meet the women behind the scenes

Amber Mathews (President)
Ph.D. Candidate, GSBS Immunology Program, UT MD Anderson Cancer Center

Amber received her M.S. in Biology with a focus in immunology from Louisiana State University in 2010. Afterward, she began the Immunology Ph.D. Program at UTHealth and UT M.D. Anderson Cancer Center Graduate School for Biomedical Sciences. Her current research focus is investigating the signaling mechanisms within intestinal epithelial cells that regulate intestinal inflammation and tumorigenesis. She is passionate about biomedical investigation and promoting better understanding of science to the youth. Amber has been involved in AWIS since 2008 and was a featured writer in the national AWIS Magazine from 2008-2010. She enjoys volunteering and learning new languages and cultures.

Amy Hurwitz (First Vice President & Programming Chair)
Ph.D. Candidate, Translational Biology & Molecular Medicine Program
Baylor College of Medicine

Amy is a predoctoral fellow at Baylor College of Medicine in the Translational Biology and Molecular Biology Ph.D. program. She earned her B.S. in Biochemistry at the University of Southern California with a minor in business law, and worked as a Research Associate at the University of California, Los Angeles before moving to Houston. She is a founder of Enventure, a nonprofit community for Houston's medical & life science entrepreneurs, and has been a member of the AWIS GCH chapter since 2011.

Elaine Chan, Ph.D. (Second Vice President & Membership Chair)
Technical Project Manager
Medical Metrics, Inc.

Elaine received her B.S. in Bioengineering at Rice University and her M.S and Ph.D. in Bioengineering at the University of California – San Diego. She currently works as a Technical Project Manager for an imaging core lab dedicated to clinical trials of medical devices, drugs, and biologics. She is passionate about science and engineering information flow and education, and has been involved in AWIS since 2007. In her free time, she enjoys traveling, painting, and volunteering at museums.

Anna Pietarila Graham, Ph.D. (Treasurer)
Open Geophysical, Inc.

Anna received her Ph.D. at University of Oslo in astrophysics after earning her M.S. degree in Physics and Environmental Science from Lund University. She is currently working as a research geophysicist for a company developing seismic data processing software. She only recently switched from astro- to geophysics. Prior to moving to Houston in December 2012, she worked as a solar astrophysicist at the National Solar Observatory in Tucson, AZ.

Brittany Parker (Chair, Outstanding Women in Science Seminar Series)
PhD Candidate, GSBS Neuroscience Program
UT MD Anderson Cancer Center

Brittany is a doctoral candidate in the department of Pathology at MD Anderson Cancer Center. She received her bachelor's of science in Biology from the University of California, Irvine. At Irvine, Brittany became increasingly interested in neuroscience while she performed Huntington Disease research in the laboratory of the respected neuroscientist, Dr. Gary Lynch. She began her PhD research at UT MD Anderson in 2009, where she studies molecular pathologies behind formation of high-grade brain tumor. Brittany is passionate about encouraging young women to pursue a career in the STEM fields, and is very excited to take on the role of OWIS chair. In her free time, she enjoys horseback riding, cooking, and spending time with her family.

Amanda Chadee, Ph.D. (Chair, Fundraising)
Adjunct Faculty, Lone Star College

Amanda is a biology faculty member at Lone Star College in Houston, TX where she lectures and guides students in lab techniques. She earned a Ph.D. in Cellular and Molecular Biology at the University of Texas Austin. She next carried out her post-doctoral work at UT Health Science Center in Houston. She is passionate about science education, science policy and improving the retention of women in science.

Simran Madan (Co-Chair, Career Development)
Ph.D. Candidate, Translational Biology & Molecular Medicine Program,
Baylor College of Medicine

Simran is a doctoral candidate in the Translational Biology and Molecular Medicine graduate program at Baylor College of Medicine and a University of Texas Austin Alum. Her primary research focus is metabolic disorders and cancer cell metabolism. She attends to pediatric patients at Texas Children's Hospital in a weekly metabolic clinic with her mentor and is on the organizing committee for the annual research symposium for her graduate program. Outside of research, Simran enjoys cooking, traveling, DIY projects, latin and swing dancing. Simran has immense admiration for women entrepreneurs and would someday like to start a non-profit organization.

AWIS Executive Committee, continued.

Lory Santiago-Vázquez, Ph.D. (Co-Chair, Career Development)
Assistant Professor of Biology and Biotechnology, University of Houston-Clear Lake

Lory is an Assistant Professor at the University of Houston-Clear Lake in the Biology and Biotechnology Programs. Her research in Marine Biotechnology focuses on how stressors affect soft corals and their associated bacterial symbionts. She also has an interest in the microbial influence corrosion of oil field pipelines. She holds a B.S. in Marine Biology from the University of Puerto Rico-Humacao and a Ph.D. in Ecology, Evolution and Marine Biology with a focus on Marine Pharmacology from the University of Houston-Clear Lake. She has been a member of AWIS since 2010. In her free time, she enjoys traveling, scuba

Ayesha Khan (Chair, Newsletter)
Ph.D. Candidate, Cell and Molecular Biology, University of Houston

Ayesha is a doctoral candidate in the Cell and Molecular biology graduate program at the University of Houston. She received her M.S in Bioengineering at Rice University under the Fulbright scholarship program. Ayesha is passionate about women's education in science and engineering and presented a commitment to action at the Clinton Global Initiative University 2012 for a non-profit organization dedicated to raising young girl's self-esteem. She joined AWIS in the summer of 2013 and has served on several event planning and publishing committees throughout her undergraduate and graduate career. In her free time, she likes exploring new places, biking, and participating in community service projects.

Melissa Lopez (Chair, Community Outreach)
Professional Science Master's Student, Bioscience and Health Policy Program, Rice University

Melissa is a second year graduate student in the Professional Science Master's (PSM) in Bioscience and Health Policy Program at Rice University. She is very interested in developing her leadership skills to improve the quality of healthcare of our nation. She realized early in her career the importance and responsibility of being an excellent bioscience leader, especially with the current economic constraints. Last summer, Melissa completed her internship with the Science and Technology department of the Rice's Baker Institute for Public Policy. Melissa is very passionate about brainstorming with other women about our current policies for science and thinking of new alternatives to bring equality to our discussion. During her free time, she enjoys spending time with family, cooking and traveling to Colombia.

News

Dr. Naomi J. Halas honored at 2014 OWIS Seminar

by Marife Arancillo

An Outstanding Women in Science Seminar was held on February 4, 2014 at the United Way Community Center in honor of Dr. Naomi J. Halas. Dr. Halas is the Stanley C. Moore Chair of Electrical and Computer Engineering at Rice University, and she also holds joint appointments in the Departments of Physics and Astronomy, Chemistry, and Bioengineering. She gave a seminar about her work on metal-based nanoparticles, which was entitled "Optics at the Nanoscale". The attendees, composed of both women and men, were captivated as she described how her research group diversely applied nanoparticle technology to the fields of plasmonics, cancer therapy, biofuel production, and solar thermal energy. After the talk, she entertained questions from the audience.

The OWIS Seminar series at the Gulf Coast-Houston area is held annually to celebrate stellar achievements of women in STEM. Organization of the event is led by OWIS Chair and AWIS-GCH officer Brittany Parker. *Photo by OWIS committee.*

News

Houston scientists come together at AWIS networking mixer

by Marife Arancillo

The AWIS Gulf Coast-Houston chapter hosted a networking mixer on September 5, 2013 at the Berryhill Baja Grill on Westheimer Avenue. Over fifty women, both members and non-members, came to the event.

Most of the attendees were graduate students, postdoctoral associates, and faculty from biomedical research institutions in Houston and surrounding areas, while some were from the industrial sector. Though many came without company, a casual, friendly atmosphere can be felt throughout the party as guests mingled over Tex-Mex appetizers and refreshments.

It was the first mixer that the chapter has hosted in several years. The officers, all of whom were present for the event, welcomed everybody and took turns introducing themselves. In addition, they gave a brief history and talked about the benefits of participating in the chapter. As the evening went on, conversation and laughter flowed among new acquaintances.

The mixer also benefitted the charity Girls on the Run, which empowers young girls with a 24-week curriculum that combines psychological development and physical activity. Cards and markers were laid out for women who wished to write inspiring messages to the girls participating in the program. *Photo by Ayesha Khan.*

AWIS-GCH hosts Panel Discussion with prominent Houston area scientists

by Ayesha Khan

AWIS-GCH career development committee hosted "Career Paths for PhD", a discussion panel and networking event on November 6, 2013. The event was held at the Bioscience Research Collaborative (BRC) at Rice University. The panelists included Dr. Kathryn Peek, President /CEO KEP Consulting; Dr. Ivone Bruno, Director Regenerative Cell Research, InGeneron; Dr. Patricia Yarbough, Senior Scientist,USRA. The panel was moderated by Dr. Dorothy Kirkman, Assistant professor of Business and Biotech Management, UH Clearlake.

The event was free for both members and non-members and was attended by graduate students, post-docs, early career academics and some people from the industry. The panelists shared both industry and academia related experiences and provided invaluable advice to the participants. After the initial panel discussion, the floor was left open for further questions by participants. This was followed by refreshments and networking session where participants could freely mingle with the panelists and talk to them one on one. *Photo by Ayesha Khan*

Career Profile

Dr. Patrice O. Yarbough (right) with Ayesha Khan (left). Photo by Ayesha Khan

An interview with Dr. Patrice O. Yarbough

by Ayesha Khan

This past fall, the AWIS-GCH Communications team had a unique opportunity to sit down and have a heart to heart with Dr. Patrice O. Yarbough. Dr. Yarbough currently holds a position as Deputy Project Scientist for the Flight Analogs Project at NASA Johnson Space Center. She has been a member of AWIS for more than 25 years! She is co-inventor on eight U.S. patents and has published over 40 papers on her research on the Hepatitis E virus. Read on for a chance to learn about her journey and her adventures in the scientific world.

Can you give us some background on where you grew up and what motivated you to be a scientist?

I am a bit of a rare breed in the sense that I am a native Houstonian. I grew up in the inner city part of Houston that is known as the historic third ward. There were no scientists in my family so people are always curious to know about my decision to become one. I think sometimes people are just driven by who they innately are. Everybody in my family tells me I was a very curious kid. In other words, the 'why child of my family'; always asking questions. By eighth grade, I had decided I wanted to be a scientist but I didn't know anybody who had the job that I wanted when I grew up. That is a little sad, but remember we are talking about 1971 on the cusp of the civil rights movement. At the end of eleventh grade, my school

selected me as one of the academically talented students to go to the University of Houston and work in a laboratory during the summer. It was so phenomenal that I still remember the project that I worked on. It was a project to study the salt concentration of halophytes. I was just amazed by that. That's when I knew I was on the right path. I was hooked on science.

A year later, I enrolled at the University of Houston and majored in biochemistry. At the end of my freshman year I talked to the chair of my department to see if I could get an unpaid laboratory position. It was a little while later that I realized that what I had asked for was not customary at the time. I was 19 years old and making the first of many career choices. Choices that would give me some control over my destiny. For the next three years, I did lab rotations and summer internships and I learned everything I could, from washing dishes, autoclaving, preparing solutions, streaking Petri dishes…..everything. The project that I started working on at the end of my fourth year was what I decided to pursue for my graduate program.

Why is it that you decided to stay at UH for your graduate degree as well?

The recommendation for me was to leave UH and expand my horizons. But it was very clear to me that I had not even come close to exhausting the options that were available to me. Plus I liked being close to my family; I still do. My parents and my older sister have been great supporters and so has my husband. I met my husband at the beginning of my sophomore year and we married at the end of my first year of graduate study. We have been married 32 years and he has been the greatest advocate of my career.

Your story is very interesting specifically in the sense that you went from academia directly into industry. How hard or easy was that transition?

Very easy! What private industry is looking for is the same thing that academia is looking for. They are looking for somebody who can drive an independent research program, communicate effectively, and secure their own funding. The latter was a surprise for me since I didn't expect having to write grants. Nevertheless, I applied for SBIR money and was awarded funding twice.

Was your graduate (PhD) advisor happy with your decision?

Initially, my advisor Dr. Ralph Hecht was disappointed at my decision to go into private industry because he had visions that I would stay in academia and inspire more students. But I was with my advisor for six years and I saw him struggle with the balance of teaching and research and I wasn't going to like having to do that. I wanted a career primarily doing research. My grad advisor was a jewel; he still is a jewel. He is retired and I visit him once a year and we talk and I still listen. I am so fortunate to have had his guidance. Many of the lessons that I learned about the conduct of good science and being a good scientist, that I applied to private industry and government positions, are frankly lessons I learned from him.

Before launching my industry career, I did take good advice from him and to this day I give this same advice to all graduate doctoral students. His advice was "if you want to go into private industry, understand this. It will be easy to go from academia to industry but it will be hard to move from industry back into academia because academic scientists are evaluated by their body of independent work and by their publication record. He urged me to pursue a traditional post-doc after getting my doctorate so that I could establish a publication record on independent research.

In 1980s, much of the industry was large pharmaceutical companies protecting their intellectual property and creating products. Their scientists did not publish until the patents were filed. I on the other hand chose a career in the developing biotechnology industry in the San Francisco Bay Area. Genelabs Technology was 5 years old when I joined it in 1989; I was there for 11 years. It was the best time in my career. For the first couple of years, I was a bench scientist in exploratory research. I co-published 30+ papers, was one of several inventors on multiple patents, traveled internationally and was even able to

do community outreach and inspire students to pursue science careers. It was my dream job. I was able to do all of that because I took my graduate advisor's advice and I did a traditional post-doc at UT Southwestern.

You transitioned from private industry back into academia for a short time when you worked at UTMB. How did the position at NASA come about after that?

It was an unexpected path. I had program management experience from my last years at Genelabs. After 9 years in one research project, I moved into program management for several of the exploratory and discovery projects. I had learned to do elevator pitches because I had worked closely with our company lawyers and business personnel. When I relocated to Houston and worked for Tanox I was hired into research administration to develop project objectives and strategies. Also when I was recruited at UTMB, the primary focus of the program was going to be with NASA because they were eventually going to develop a center for space life sciences. I absolutely loved it but it only lasted about 5 years. Due to budgetary issues they decided to close the office and to use some of those dollars toward the clinical program. That decision I wasn't happy with, but I understood. I started looking around for another position in the Houston area. I absolutely knew I wasn't moving away. My son was in his final year of high school; my daughter had just started her middle school and loved it, and my husband wanted to continue working for a NASA contractor. We weren't going to move. The job market was poor and my search was not going well. One of my colleagues suggested that I look online at Monster.com. Surprisingly, there was a contract position at USRA for a scientist to support the NASA bed rest studies. I applied and interviewed and was offered the job. I've been with USRA/NASA for 5 years now. .

You have been a member of AWIS for so long. What motivated you to join in the first place?

My graduate advisor! He came into the lab and showed me an article about AWIS, advocating women in science. He said to me, this is you Pat; you are a young woman in science! So I joined as a graduate in the mid 80's and renewed my membership every time I moved. Then one day in 2007 when I was at UTMB, AWIS past President Phoebe Leboy phoned me. She was forming a Diversity Task Force and asked me to join. With my personal and professional interest in.the paucity of under-represented minority women in science, I was very interested. I joined and a year later, chaired the task force for two years.

So you have supported AWIS quite a bit. What do you think *you* have gained from your experience with AWIS?

As a first-year biochemistry undergraduate, I started to reach out to young kids to encourage careers in science. My hope was that a young student would see me and see someone 'with a job that they might like to have one day'. Through AWIS, I was able to join with other women to promote mentoring and education programs. And not just mentoring 'up' but peer mentoring where we learn from each other.

You have had a stellar career. Yet it seems like you have been able to perfectly balance work and family? How did you achieve that?

I think by most people's standards and certainly by mine I had a career in private industry that I can totally be proud of. I am proud that I was able to balance being a mom, being a wife, being a daughter and a sister, and a friend, all while researching a virus that was little known about. At Genelabs, I was a part of a multi-disciplinary team that worked crazy hard to discover proteins for diagnostics and to develop a prototype vaccine for prevention of one form of hepatitis. It was a great time and a time of great reward for me. In 1996 in Rome, I received a young investigator award at the age of 38 years and very pregnant with my second child. I was living my dream of having a career, having a family, and having a life. I learned that I could do it all but I had to figure out how to balance all these roles. I tell people it is about making choices. I didn't have to give up the career to have a family or give up the family to have a career. I did however have to give up sleep routinely.

Was there any time that you had to choose family over career?

"We need to engage and immerse our students in the joy of science."

There was only one time where I was asked to attend a meeting but I couldn't make it because of a prior commitment to my parents and my sister. This was while I was in California at Genelabs and was at a time when my mom was ill. The company provided me a travel package and I travelled home to Houston every 8 weeks for 2 business days for scheduled doctor's appointments. On one occasion, a team meeting was scheduled in conflict with my travel schedule. I was either going to be at the meeting or going to an important doctor's appointment with my mom. There was just no way to do both. I anguished over it and at the end I went to my supervisor and told him I couldn't make it. I know I did right by my mom because I was able to sleep that night. But I didn't leave the company hanging either. What I said is that there are two scientists in my group that know this material as well as I do and I created the opportunity for the junior scientist to attend the meeting in my absence; he later thanked me for the opportunity. This is how it works because believe me I have thanked a few people here and there for creating great opportunities for me too. I had a good working relationship at Genelabs. I like to think that I repaid them by my work ethic.

How would you describe your male colleagues over the course of your career? Were they supportive? What about women colleagues?

I have two perspectives on that; one when I was a young scientist and now as a senior scientist. Most of the groups that I have worked in have been dominated by male scientists. My graduate advisor and pos-doc advisor were males. The small group that I am part of right now is actually the first group that I have been in that is predominately women. Either way, it has never been much of an issue for me. In most cases, the parties are so focused on the work that most people don't care about where the ideas come from if they are good ideas. I can probably pick out on one hand the number of occasions in my entire career where I was aware of someone hinting that my gender or my ethnicity were factors of outcomes or success.

Women colleagues were very few until recently. Prior to my current position in research administration,, only once did I have a female supervisor but there were no female peers in our larger group. There were women, in different research groups so we tried to cross-utilize resources and we did not compete with each other. Currently, we are a small group of three female scientists that work cooperatively. We have different science backgrounds, different working styles, and different family demands so we created a division of labor that allows us collectively to get all jobs done in a timely manner. Together, the three of us have been able to provide complete coverage for each other during unexpected situations. We are all quality planners so we get the job done. .

What is your greatest success as a scientist and what's your biggest disappointment?

My greatest success was the research years I spent at Genelabs Technologies. It just doesn't get any better than that for me. All of the basic research that I did in the lab led to the discovery of a piece of a protein that we could put in a diagnostic kit that would help us prove that the incidence of infection of the virus was far greater than anybody ever anticipated. That research was then used as a basis to launch an effort to identify a recombinant vaccine via a three-way partnership between our small biotech company, a large biopharma and two federal labs. It was the right collaboration, the right agreement between parties with the right division of labor based on expertise. It was this experience that convinced me that collaborative partnerships could work. Our triple-blinded study was carried out in a non-human primate animal model. When the code was revealed, we could see that the test animals showed no indication of disease. That was my eureka moment. Together our team, had designed an efficacious vaccine candidate.

My only disappointment is somewhat related to it. We had to let it go because we were a small biotech

company. We were involved in identifying the best vaccine candidate but not developing it. That needed to be done by a large pharma and it was disappointing to see another group come in and make a stronger candidate with a small modification. A personal disappointment for me was leaving UTMB.. When I made the transition from private industry into academia in 2004, it was something that I could not have anticipated 15 years before. But academia had transformed in those years and I really thought that was where I was going to retire. But it didn't happen that way. Life is full of surprises and new opportunities if you are open to it.

Would you ever encourage your daughter to be a scientist?

I have always wanted my children to have choices and for them to prepare for careers that they would be passionate about. But I did insist that they build a strong foundation in math and the sciences because they would need it if they chose a career in science. Many kids these days are not prepared for careers in science. I wanted to be sure that my kids were prepared. So I required them to do science fair. My son did science fair for 8 years! He is a student in the College of Architecture at my alma mater University of Houston ,majoring in Industrial Design. My daughter loves science mainly because of its application to animal medicine. She just completed her 12th science fair .She aspires to be a veterinarian. She decided that when she was in first grade. She will major in Animal Science when she starts college in the Fall.

Lastly what advice would you give to women that are in science or are aspiring to be scientists?

If you are an aspiring scientist, you need to prepare. It's hard to stay in science if you are not well prepared. If you look at the numbers, and this is especially true for under-represented minorities, half of them leave the degree path (in science) within 18 months. We lose them quickly often because they realize they do not have the strength in many of the foundation courses needed to progress to the higher level courses.. We have a broken education system at the high school level and I have seen it break further in the past 3 years. Even in advanced classes, it's the same for HISD and Clear Creek ISD because science fair participation is no longer required! How are you going to grow a body of students that are hungry for science? Sure there is more focus on integrative online courses but for me I think the eureka moment comes when you see something under the microscope or on a petri dish or when you look at a set of data and understand the solution to your problem. We need to engage and immerse our students in the joy of science.

For women in science, you must have a buddy! My buddy is my husband. You need to have a buddy that you can call on and depend on to help you when that experiment runs long or that critical meeting is rescheduled.

Are you supposed to have that buddy who is also in science?

You need a live-in buddy preferably. Somebody that you can go to because there is always going to be that meeting that's called at 7 am when you need to drop your kids off. You need to be able to call your buddy and say I need to be in that meeting, help me. You know it's that one meeting at 7am that you missed and 6 months later you are going to wish you had been there. My kids were always the first ones to be dropped off at daycare and the last ones to be picked up. My husband and I were married 10 years before we had our first child. That was by design because I wanted to be at a certain point in my career before I had kids, so that I could have better control over my work time.

Any advice you would like to give AWIS-GCH as a group?

Reach out to the older, more seasoned women scientists in the Houston area to join AWIS-GC. It great for the operations to be managend by the young energetic graduate students and post-docs but you need seasoned women that are not as likely to move in a few year to help anchor the chapter. This is important for sustainability.

The AWIS-GCH communications team thanks Dr. Yarbough for her time and words of encouragement for our team.

Career Development

Connecting the Dots of Your Career through Networking

by Marife Arancillo

Career opportunities for women with advanced degrees in science, technology, engineering, and mathematics (STEM) fields has never been more challenging. The job market is becoming more diverse; more than seventy percent of men and women with doctoral degrees in the biomedical sciences obtain jobs other than tenure-track faculty[1]. Moreover, male and female PhD graduates are almost equal in ratio, yet only a third of tenured faculty positions in academia are occupied by women[2]. Since various personal and systemic hurdles often hinder career development, it is therefore becoming more imperative for women to expand their job opportunities and build relationships with career mentors. This can be accomplished effectively with networking.

There are many different strategies and venues for networking. For example, non-profit organizations for women host mixers, luncheons, seminars, conferences. Houston is home to several of them: The Gulf Coast-Houston chapter of the Association of Women in Science (AWIS), the Women's Energy Network for women in the oil, gas, and alternative energy industry, and BioHouston for women scientists and biomedical entrepreneurs.

In addition, networking for women does not have to be restricted to specialized organizations. At a small-scale level, activities at school or at work can serve as practice zones for bigger professional or social settings. Joining student organizations, participating in councils, and attending seminars by guest speakers are some of the ways that one can network within their academic circle. Eventually, networking skills can be expanded by attending conferences. Conferences are not only a platform for discussing the latest advances in the field, but are also an excellent venue for reaching out to potential employers and collaborators.

Nowadays, social media plays a huge role in stretching the ability of people to connect with colleagues. LinkedIn and Facebook are obvious examples of this phenomenon. In addition, Meetup.com and similar websites facilitate meetings in a casual setting among like-minded professionals that are within the same city.

It may be difficult, unsurprisingly, to make the first moves. Networking essentially involves stepping out of the comfort zone and placing some good faith in total strangers. When the situation feels very intimidating, taking a step back and building relationships first with people who work with or for that person is an alternative. For example, graduate students at a conference may first talk to students or postdoctoral researchers of a scientist for whom they want to work. Of course, networking is a two-way street. Information must go in both directions. Having a prepared speech about work and other professional interests can make conversations go more smoothly.

Finally, it is important to strengthen the connections made. Handing out business cards after an interesting conversation easily provides a new acquaintance with contact information. A follow-up email sent to the person the following day will also be appreciated.

Cultivating a list of professional acquaintances becomes easier over time. Networking requires effort, but the payoff can be life-changing. It is an effective way by which women can take charge of their professional paths.

References:

[1]Biomedical Research Workforce Working Group Report, National Institutes of Health, June 14, 2012.
[2]Inequality identified: Mind the gender gap by Helen Shen, Nature, March 6, 2013.
Building Relationships: Mentoring, Collaborating, Networking, ScienceCareers, 2010.

Announcements

1. **Elections for all 2014-2015 AWIS GCH Chapter officers will be held in April 2014 with self-nominations/nominations to be held in mid to late March.** We are forming an Election Commission to plan and conduct the election process for the Chapter. We need a minimum of two designates to serve as the Election Commission. Any AWIS GCH Chapter member may serve except for nominees. AWIS GCH chapter member Germaine Agollah will chair the Election Commission. Her email address is Germaine.D.Agollah@uth.tmc.edu. Please let us know by replying to this email if you are interested in serving the chapter in this way.

2. **An editorial position is open** for the AWIS-GCH Insider, the official chapter newsletter. Interested candidates may contact awisgchcom@yahoo.com.

3. Upcoming events:

March 25 - Financial Awareness for Scientists Workshop at the Bioscience Research Collaborative (Room 280), Rice University. This event will have speakers from Northwestern Mutual. Doors open at 6pm.

April 30 - The Spring Vortex, a mixer starting at 6:30 PM at Brightwork CoResearch, 5416 Chaucer Dr, Houston, TX 77005.

Become an AWIS Member

Participate in our mission to support the Texas Gulf Coast and greater Houston area women who work in science, technology, engineering, mathematics, and medicine (STEMM)

Who can join?

AWIS membership is open to all women and men who support equality for women in science, technology, engineering, mathematics, and medicine (STEMM).

Why join AWIS?

AWIS members have opportunities to develop skills in mentoring and leadership, to become involved in education and public policy, and to participate in professional networking activities.

How to join?

To join the local chapter, please visit the AWIS-GCH chapter website (http://awisgch.org/membership/) to fill out a form and submit to awisgch.membership@gmail.com. Chapter membership fees are $10 for students and $15 for regular members.

To join the national level, please visit the AWIS National website (http://www.awis.org/) to fill out a membership form. National membership fees start at $65 for junior members.

Membership discounts may be available to applicants affiliated with AWIS institutional partners. Please check the national website for university listings or invite your institution to join!

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