



A Publication for
Seattle AWIS
Fall 2013

Women in Science



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Welcome to the 2013-2014 AWIS Year!

Our first event was a networking event at IDRI. There was an outstanding turnout with nearly 120 people in attendance. It was a great way to start the year! We have a new Events committee this year headed up by Shino Shimoji-Krishnan and Mai Bailey. They are hard at work recruiting stimulating speakers. They have some great ideas and I am looking forward to another good year.

Girls in Engineering Math and Science (GEMS) will be opening a second site this year in South Seattle. They are trying to provide easier access to young girls that are traditionally underrepresented in science. Transportation to the monthly meetings can be an obstacle preventing broader participation. We are looking for creative ways to overcome that barrier. We may need to raise funds to address this problem in future years, but we are looking at creative solutions. The South Seattle site will be recruiting new mentors.

Our Mentoring program is starting its fifth year. The Mentoring committee is lead by Frances Chu and Zhuojin Xu. There are nine peer mentoring groups this year. The group size is a little larger than in previous years in response to feedback from the program. The peer mentoring groups will meet monthly to discuss career development and promote individual goal planning. The mentoring program is a great resource available to all members. We are always recruiting women in mid-level to senior positions to lead the peer mentoring groups adding perspective and guidance. It is another way that you can give back to your community.

As you are aware, National increased the dues in June. We have asked for greater transparency and a more thorough explanation for how they will spend the money. They are committed to expanding advocacy for women in science on the National stage and determined that the increased fees are on par with other professional organizations. They have also committed to providing members with tangible benefits like improved and expanded online learning and career development tools. If you feel strongly about this issue, let National know your thoughts about it. We hope that you will remain a member as your involvement is crucial to the success of our Chapter. Seattle chapter always encourages participation from women in our community irrespective of membership status.

We are always looking for ways to engage our members and community. Newsletter welcomes writers and editors. The Awards committee is looking for help planning next year's event. GEMS is seeking new mentors at their South Seattle site. Mentoring is recruiting new mentors for our peer mentoring program. If you want to volunteer, please contact me or anyone of the board members to find out ways to contribute.

I look forward to seeing you at the next event!

Melissa Lerch

President, Seattle AWIS

president@seattleawis.org

My entrepreneurial venture: a long and winding road. An interview of Dr. Carla Grandori, founder of Cure First

By Graciela Matrajt

Carla Grandori grew up in Italy and was attracted to science from a very young age. Inspired by her grandmother, who was herself a scientist, Dr. Grandori started studying physics but wasn't entirely convinced that this was what she wanted to pursue for her future career. When she was 19, in the midst of her existential doubts about her career, her grandmother was diagnosed with stomach cancer and soon after passed away. During the last days of the grandmother's life, both grandmother and granddaughter conversed about science and Dr. Grandori's future career. Her grandmother's vision was clear: molecular biology was the future for medical research. This event and the conversations with her grandmother profoundly marked Dr. Grandori's choice, who decided to drop physics and switch to medical school with the idea to become an oncologist.

When Dr. Grandori was finalizing her medical studies, she realized that the available treatment for cancer was highly toxic, often unaffordable, and strongly affecting the patient's quality of life. With the choice of either doing a specialty or starting research to find new treatment choices, Dr. Grandori decided for the latter. At that time cancer genes (oncogenes) were just being discovered and targeting those genes was a major goal. "Every cancer cell contains a crucial set of genes that we can think of as locks—they lock and unlock the cancer's ability to kill. I wanted to identify those locks and make chemical keys to fit them. This could destroy cancer cells with extraordinary precision, leaving the rest of the body unharmed. This would be better than chemotherapy, whose toxicity ultimately killed my grandmother" says Dr. Grandori.

As a medical student, Dr. Grandori came to the US as an intern and worked as a volunteer in research laboratories. She tasted the way research was being done in America and at the end of her medical school years, Dr. Grandori started looking for post-doctoral research opportunities in the US and found one at the National Cancer Institute. After one year, she felt she needed to go to grad school to be able to learn, more hands-on, the secrets of doing research. She remembered her grandmother's words as she joined the Molecular Biology and Biochemistry Graduate Program at the Rockefeller University, after which she continued as a post-doctoral fellow at MIT.

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My entrepreneurial venture— *Continued*

Aside from her professional life, Dr. Grandori's private life was also developing in a positive direction. She got married, and her husband decided to move to Seattle. With the intent to follow him, she shortened her post doc contract and departed to Seattle leaving behind experiments, data, and results, which would never be published. Unfortunately, this move strongly affected her career. But the perseverance and curiosity of Dr. Grandori took her through new, undiscovered roads. Once in Seattle, Dr. Grandori found another post doc opportunity at the Fred Hutchinson Cancer Research Center (FHCRC), where she stayed for 12 years doing very basic research on oncogenes. As her career continued to grow, so did her private life. Dr. Grandori had two kids and, to keep her work-life balance, which for a working parent is always a challenge, she chose to stay in the same lab doing basic science rather than adventuring to start her own clinical research lab and become a Principal Investigator.

But life is obstinate sometimes. With the goal to be closer to the clinical applications, she decided to move from basic sciences to another lab within the FHCRC. Dr. Grandori then had a chance to feel more valuable as she started mentoring women graduate students, and learned new valuable research techniques such as culturing cells directly from human tissues. Her career was getting a new lift when she got divorced. With two kids in charge, the small salary of a scientist forced her to look for another job, so Dr. Grandori turned her sight toward industry. Despite having obtained a very prestigious NIH award (RO1), Dr. Grandori departed the FHCRC to join the company Rosetta, which was part of the oncology franchise of Merck, leaving behind her renowned RO1 award and her newly acquired responsibilities. In spite of these sacrifices, Dr. Grandori thinks that moving to industry and particularly to Rosetta was the best move she has ever made. Not only she started earning a salary reflecting her caliber, but she was also valued more than ever, and obtained simple but important things such as her own office, and amazing re-

sources and tools to establish her research and herself as a prominent scientist. It was a dream job, but like any dream, this one also came to an end, when Rosetta announced their closure and a year later Dr. Grandori was laid off.

Dr. Grandori had then the choice between either remaining in industry and moving to the east coast where Merck was offering her to continue her job, or remaining in Seattle and going back to academia where she was guaranteed the freedom to pursue the discovery of novel drug targets for cancer. While at Rosetta, Dr. Grandori learned to use a new technology referred to as High Throughput Screening. This technology, based on robotic equipment, enables the testing of hundreds of genes; it can also be employed to test thousands of drugs. "I soon realized that I could adapt this screening technology to pinpoint in patient cancer samples, genes or drugs that could be used to treat cancer in a personalized way" Dr. Grandori says.

Because Rosetta had been recognized as pioneering this approach and Dr. Grandori had experience with it, she was offered by the University of Washington a position to open and develop a facility that would offer this technology to the broad Seattle academic community. This is how Dr. Grandori became the director of the UW High Throughput Screening Facility. She established the facility and reached out to researchers and former colleagues both in academia and industry to make use of it.

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My entrepreneurial venture— *Continued*

The success of the establishment and the entrepreneurial actions of Dr. Grandori permitted the opening of a new state-of-the-art facility at the UW in 2009, and rewarded her with a UW entrepreneurial award in 2011.

As Dr. Grandori and colleagues gained encouraging data showing the feasibility of this new approach, both her professional and private life were paving new roads. Dr. Grandori decided to return to the FHCRCTo open her own lab and where she could focus all her time on pioneering the application of this new approach. She became the Principal Investigator of her research and she met a new partner for both her scientific projects and life.

Driven by her primary inspiration, back when she was 19, of finding new and less toxic ways to cure cancer, and by her persistent will to make finding the cure of cancer accessible to all, she started a foundation which would pay for the screenings: *Cure First*. “Unfortunately, few today can take advantage of this technology. It is expensive and the expertise to use it is rare. *Cure First* wishes, through people's gifts and generosity, to finance the technology and provide the necessary resources to develop potentially less-toxic and personalized cancer therapies” Dr. Grandori says.

Cure First will support this approach and help taking the first steps toward what is known as personalized medicine.

Big efforts come with satisfying rewards. In 2013, Dr. Carla Grandori, along with her colleague and partner Dr. Christopher Kemp also at the FHCRCTo, were awarded for their novel screening approach a prestigious grant as part of the Cancer Target Discovery and Development program of the National Cancer Institute.

It was a long and winding road that ended at the doors of *Cure First*, an organization that will support cancer screening and precision treatment for all.

Grazie and bravissimo Carla!

Dr. Carla Grandori is a physician by training and a PhD scientist currently working at the Fred Hutchinson Cancer Research Center. She is an experimentalist who enjoys working at the bench and who likes pioneering new techniques. She has also recently founded a non-profit organization, Cure First, aiming to raise funds to develop new technologies for screening genes related to cancer, to make these technologies available to any scientist, healthcare provider, and patients, and to identify less toxic and more effective cancer treatments than chemotherapy. More about Cure First can be found at www.curefirst.org and at the Facebook page of Cure First.

Graciela Matrajt is a research scientist in the Astrobiology Program of the University of Washington and a volunteer technical writer and science writer at the Fred Hutchinson Cancer Research Center. She enjoys translating science for the general public and writing about breakthrough science and people involved in science.



Welcome new and returning AWIS board members!!

Prerana Ranjitkar received her PhD from the University of Washington MCB program in 2011. Her thesis work was focused on understanding mechanisms of chromosome segregation. Currently, she is a post-doctoral fellow at UW studying ways to improve yield and purity of pancreatic progenitors generated by differentiating embryonic stem cells for potential use in cell based replacement therapy for type I diabetes. Prerana is excited to serve as the Chair of the Scientific Advancement Award Committee. She likes to spend her free time exploring the outdoors.

Victoria Lofdahl (webmaster) received a Bachelor of Science in Biochemistry from Arizona State University in May 2012, where she interned for the Southwest Autism Research and Resource Center doing work in database management. She also worked in public health outreach and education through Vox: Voices for Planned Parenthood at Arizona State University. Currently Victoria is working as Quality Control Technician at Ocean Beauty. She is also a Washington state certified Home Care Aide. Victoria joined AWIS while in school and finds it to be a vital support system for women as they go through their careers. When she's not working she enjoys reading sci-fi, playing volleyball and ice hockey, and attending concerts or playing music with friends.

Frances Chu earned her Ph.D. from Harvard University in the Department of Molecular and Cellular Biology where she studied how bacteria interact with each other to create complex communities called biofilms. She then transitioned into studying how bacteria interact with their hosts during infection during her post-doc at the University of Washington. She is now a lab manager/research scientist in the department of Chemical Engineering at the University of Washington where she combines doing research, running day-to-day lab oper-

ations, and doing a little project management on the side. In her spare time, Frances likes to run/hike/ski so she can use the rest of her time to explore Seattle's food scene.

Fran Solomon is a founder of the Seattle chapter of AWIS, a Past-President of the chapter, a mentor to many young female scientists, and a long-time chair of the chapter's Scholarship Committee. She is enthusiastic about continuing in this role during 2013-2014 because awarding scholarships to outstanding future scientists is very rewarding for her. Please contact her (fran@enviroteach.com) if you want to learn more about the Scholarship Committee or volunteer for it.

When she is not involved in women in science advocacy, Fran is teaching current and future environmental scientists and environmentally aware global citizens. Her major academic home is The Evergreen State College's Tacoma campus. She also teaches at Western Washington University, Huxley

College of the Environment on the Peninsulas, and gives short courses and lectures for environmental and health care professionals and the general public in Washington State, Alaska, Canada, and Japan. Her specialty is the effects of toxic chemicals on human health and aquatic biota. Fran brings to her current work a bachelor's degree in biology from the University of Rochester, a master's degree in environmental health and a Ph.D. in fisheries from the University of Washington, and 25 years of experience as a government agency environmental biologist.

Outside of professional and AWIS activities, Fran enjoys spending time with her husband and friends, and is an enthusiastic hiker, bicyclist, swimmer, and international traveler.

AWIS September event at IDRI

By Jessica White

In September Seattle AWIS was pleased to kick off the year with a large panel discussion event hosted by the Infectious Disease Research Institute (IDRI). Over 100 people attended to learn about IDRI and tour their new space. With so many attendees there were a lot of opportunities for networking both before and after the panel discussion.

IDRI is a global health nonprofit established in 1993 by Steven Reed. IDRI focuses on developing vaccines, diagnostics, and therapeutics that target infections of global importance. Current disease targets include tuberculosis, leishmaniasis, leprosy, malaria, and Chagas Disease. Approximately 125 people work at IDRI in Seattle. IDRI recently moved to south lake union in May and was excited to share their new space with Seattle AWIS.

IDRI assembled a panel of female scientists to discuss their work, inspirations, life at IDRI, career transitions, and path to working at IDRI. After the lively discussion with the panel short tours of IDRI's new facility were given.

Thanks to IDRI for hosting such a great event and helping Seattle AWIS get the year off to such a good start!



GEMS

The GEMS (Girls in Engineering, Math, and Science) program is currently accepting applications for the 2013/14 school year.

GEMS is a science enrichment program for 7th and 8th grade girls currently attending a Seattle Public Middle School. The goal of the program is to encourage girls to maintain and broaden their interest in STEM subjects by providing mentoring, hands-on activities, field trips, and information pertaining to a variety of scientific fields. The program is free for students and is funded by the Seattle Chapter of the Association for Women in Science (AWIS).

GEMS meets one evening per month and hosts various field trips throughout the school year. There are two locations: one at the Fred Hutchinson Cancer Research Center in South Lake Union, and one at South Seattle Community College in West Seattle.

Application submissions are due by October 24th. A link to the application and more information about the program is available at:

<http://seattleawis.org/programs/gems>

Michelle Wahlin

Naomi Bogenschutz

Co-chairs, GEMS program

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Good news for AWIS members!!

Fran Solomon was invited to teach a workshop for young female scientists at Hokkaido University, other universities, and technical companies in Sapporo, Japan in late November. The workshop focuses on preparing and presenting posters and oral papers for international science conferences. Fran taught a similar workshop in Sapporo in 2010, and is thrilled to have the opportunity to return and coach more women there!

Share your news in the next newsletter, newsletter@seattleawis.org



SAVE THE DATES! Buy Your Ticket!

Science on Stage – a creative pairing of science and theater presented by Northwest Association for Biomedical Research (NWABR)!

Professional play readings of “*The Sequence*” at the Bathhouse Theater at Green Lake.

The strong personalities of Francis Collins and Craig Venter made the race to sequence the human genome a personal war - with public consequences.

Readings at Bathhouse Theater at Green Lake:

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| Oct. 5 - Saturday , 2pm | with post-play discussion NWABR members only |
| Oct. 12 - Saturday , 2pm | with post-play discussion for the public |
| Oct. 13 - Sunday , 7pm | with pre-play discussion for NWABR donors only |

Tickets: \$20.00 NWABR members
\$22.00 All others

More information and online ticket information are available at <http://nwabr.org/science-on-stage> or contact Reitha Weeks at rweeks@nwabr.org. Proceeds support Northwest Association for Biomedical Research (NWABR) programs.

Life Sciences Research Weekend

Nov. 1-3 - at Pacific Science Center

Friday, 10am-2pm and **Saturday, Sunday**, 10am-6pm

FREE with Pacific Science Center General Admission

Three days of engaging, hands-on science activities presented by life science companies and research institutions from around the state. This 7th annual event showcases the great research and talented scientists in our community and presents creative activities for visitors of all ages! The Weekend provides an opportunity for the public to learn more about the world of life sciences research, meet scientists and experience the fun of science.

For more information and the list of companies that have confirmed their participation, view <http://nwabr.org/life-sciences-research-weekend>.

Life sciences companies and research institutions are invited to host an activity table, gain visibility and share their research. Contact Reitha Weeks at rweeks@nwabr.org for more information.

Co-presented by Pacific Science Center and Northwest Association for Biomedical Research (NWABR).

AWIS 2013 Scientific Awards Banquet— Thanks for making our first event one to remember!



A special thanks to our sponsors:

- ◇ IDT
- ◇ Fred Hutchinson Cancer Research Center
- ◇ UW Department of Global Health
- ◇ K & L Gates
- ◇ Seattle Biomed
- ◇ PATH
- ◇ Dendreon
- ◇ Mary Ann Nadler

Nominate a scientist that inspires you for next year!

