

SEPTEMBER 2006 PROGRAM

“Listeria: the deadly transition from outside environment to human host”

Dr. Nancy Freitag
&
the AWIS Scholarship Program

WEDNESDAY, SEPTEMBER 20, 6:30PM

UW SOUTH LAKE UNION BUILDING



Dr. Nancy Freitag is currently an Associate Member of the Seattle Biomedical Research Institute (SBRI) and an Associate Professor at the University of Washington. Her interest in research began as an undergraduate at the University of California at Irvine and she continued on to obtain her Ph.D. in Biological Chemistry from UCLA in 1989. Nancy completed two research fellowships, served as an Assistant Member of the Public Health Research Institute in New York, and later accepted an Assistant Professor position at Wayne State University. She was recruited to the SBRI in 1999 to investigate *Listeria monocytogenes*, an important agent

of food-borne infections that serves as a useful model system for understanding the intracellular interactions between pathogen and host that lead to infectious disease.

Over the past few years, *Listeria monocytogenes* has been associated with several multi-state food-borne illnesses. The goal of Nancy’s research is to define the mechanisms used by *Listeria monocytogenes* to survive within human cells in order to determine whether similar strategies are used by other deadly pathogens. This information will help foster the development of new drugs designed to combat infectious diseases.

Directions to 815 Mercer St:

From I-5 North or South
Take Exit 167 – Mercer Street/Seattle Center
Turn right onto Republican
Park on the streets near the building as construction is currently underway

Agenda

6:30 Networking and Refreshments

7:00 Presentation

7:30 Scholarship Awards

8:00 Wrap-up and Networking

Where

UW South Lake Union Building
Blue Flame Auditorium
815 Mercer St.
Seattle, WA 98109



SEPTEMBER 2006 NEWSLETTER

Presidents' Welcome from Maralee and Libby

Welcome to the start of the 2006-2007 year of Seattle AWIS programs and events. This year, Maralee McVean and I (Libby Colasurdo) are excited to be working together as co-presidents. We are proud to be part of Seattle AWIS, which has been around for over 20 years, and part of National AWIS, which started 34 years ago to serve as a voice to shape national science policy, a resource for female scientists, and a network to provide information and mentoring.

We hope you will join us for our programs, which will generally be held the third Wednesday of each month. This past year, we have tried hard to make our programs different from "just another lecture" by encouraging our speakers to talk not just about a given topic in science but also about their careers—perhaps how they started out, successes and challenges along the way, and advice for women in science today. Our monthly program meetings also provide an excellent opportunity for networking with scientists in all areas (biology, ecology, education, chemistry, engineering, and computer science). You might find out about job openings, expand your expertise, or discover even more places to make networking contacts.

Of course, we always welcome participation in other ways: become a mentor or find a mentor, write an article for the newsletter, participate in helping middle school girls interested in science through our GEMS (Girls in Engineering, Math, and Science) program, or join the Seattle AWIS Board (we are currently seeking a secretary to write the minutes at our board meetings, and we can use extra help on various committees such as outreach, scholarship, and newsletter—just ask us at an upcoming meeting or e-mail us!). We are also open to new ideas to help support, encourage, and inform women and girls in science! We look forward to seeing you at an upcoming event.

Upcoming AWIS Programs

October 18, 2006

Joint Meeting with Association of Women in Computing and Society for Women Engineers
Colors NW Presentation of Careers Website
Career Recruiter Panel

November 15, 2006

"Elwha and Glines Canyon Dam Removals: Nearshore Restoration of Pacific Northwest Waters"
Anne Shaffer
Biologist, Washington Department of Fish and Wildlife

December 13, 2006

Dessert Potluck
With Speaker Lynn Hagerman
Executive Director, Susan G. Komen Breast Cancer Foundation, Puget Sound
"Why Washington State Has Highest Incidence Rate of Breast Cancer in Women"

January 17, 2007 - TBA

February 21, 2007

Women in Academia Panel

March 21, 2007

“FDA Approval for the New HPV Vaccine, Gardasil”

Laura Koutsky, Ph.D., MSPH

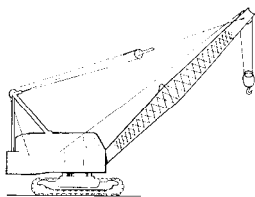
Professor of Epidemiology, University of Washington

April 18, 2007 - TBA

May 16, 2007 - TBA

June 20, 2007 – Potluck, Woodland Park

Construction Alert!!



Don't be surprised by the massive construction effort going on at 815 Mercer St. Although the entire parking lot is being converted into a new addition for the South Lake Union Campus, the building is open for business and AWIS meetings! There is ample street parking in the blocks around the building. So please brave the construction and join us for our next meeting.

SCHOLARSHIP WINNERS 2006-2007

by Fran Solomon

Seattle AWIS is pleased to award scholarships to the following eight outstanding future scientists. They were selected on the basis of academic achievement, financial need, and motivation to pursue a science-based career. The Scholarship Committee appreciates the contributions to the scholarship fund from Seattle AWIS members, King County and Microsoft employees, and Seattle area companies. Special thanks go to ZymoGenetics and Rosetta/Merck for their generous contributions of \$3000 each to the scholarship fund.

Yunsi (Janice) Chen is entering her senior year at the University of Washington (UW), where she is majoring in biology. Two and one half years ago, she emigrated to the U.S. from Inner Mongolia, one of the five autonomous regions of China. During her short time in the U.S., her accomplishments have been amazing. She has become proficient in English, graduated from Bellevue Community College, and successfully completed her junior year at UW with a heavy course load and a 3.91 GPA. Yunsi is totally supporting herself through college with part-time work, grants, and loans. After graduating from UW, Yunsi plans to attend dental school and become an orthodontist. To gain experience relevant to her future career, she has volunteered at a private dental practice and at a Harborview Hospital dental clinic.

Sarah Goldenkranz is entering her senior year at UW, where she is majoring in neurobiology. She is totally supporting herself through college. For her senior thesis, she is combining her interests in neurobiology and public health by designing a pilot study to determine the latency between HIV

infection and onset of HIV dementia, and to better characterize the cognitive deficits associated with this dementia. She is conducting this research in Zimbabwe, where she held a volunteer internship last summer with the Zimbabwe Community Health Intervention Research Project. This is a behavioral intervention program working to curb the spread of HIV throughout rural Zimbabwe. After graduating from UW, Sarah plans to pursue a master's degree in international public health, possibly through the Peace Corps Masters International Program at UW. She is also interested in obtaining a PhD in epidemiology.

Jeannie Kim Nguyen is entering her senior year at UW, where she is majoring in both neurobiology and biochemistry. Jeannie is the first in her family to be born in the U.S. (her parents emigrated from Vietnam) and appreciates the opportunities that she has in this country. Jeannie covers most of her college expenses through part-time work, scholarships, and loans; her parents are supporting extended family in Vietnam and therefore are not able to pay for much of Jeannie's college education. Jeannie aspires to become a pediatrician and to provide health care to under-served populations in the U.S. and Vietnam. She wants to enter an MD/PhD program so that she will include a research component in her career.

Shujun (June) Peng is entering her junior year at UW, where is majoring in chemistry and biochemistry and minoring in math. Shujun emigrated with her family from China to the U.S. when she was in second grade. She supports herself through college with part-time work and scholarships, while maintaining a near-perfect (3.99!) GPA and volunteering at Harborview Medical Center and in AmeriCorps' Students in Service Program. Shujun is currently doing lab research on the kinetics of DNA-modified gold nanoparticle aggregation. She is especially interested in how molecules interact with each other in the human body, and in mechanisms for repair from diseases and injuries. After graduating from UW, Shujun aspires to earn a Ph.D. and pursue a research career that focuses on developing new medicines or streamlining the synthesis process that is currently used.

Courtenay Anne Ray is entering her junior year at UW, where she is majoring in Ecology and Evolutionary Biology. This accomplished young woman combined her last two years of high school with her first two years of college by successfully completing the Ocean Research College Academy (ORCA), an early college program that focuses on marine biology at Everett Community College. During this program, she conducted independent research on bacteria transportation in seagull feces to determine the extent to which seagulls contribute to the spread of bacteria such as E. coli. She is the youngest person ever admitted into a prestigious Dartmouth University internship, which took place this past spring. After graduating from the UW, Courtenay plans to earn a PhD and pursue a research career that focuses on avian ecology.

Emily Stefansson is entering her junior year at Western Washington University, where she is majoring in marine ecology. She is another remarkable young woman who successfully completed ORCA at Everett Community College, thereby combining her last two years of high school with her first two years of college. During this program, she conducted independent research on the daily movements of two common intertidal sea star species and on the effects of creosote (a toxic wood preservative) on marine life. After graduating from UW, Emily will attend graduate school to obtain a Master's degree and possibly a Ph.D. in marine biology. She enthusiastically looks forward to a career in marine biology research and conservation.

Kylie Vadnais is entering her junior year at Gonzaga University, where she is majoring in biochemistry. Kylie is totally supporting herself through college with part-time work, scholarships, grants, and loans. During the school year, she is a teaching assistant for chemistry classes at Gonzaga. This summer, she conducted research in her chemistry professor's laboratory. Another example of her proactive nature was her organizing a lacrosse team for girls at her high school, persuading the school administrators to give the team a field, raising money for the team, and then coaching the team for two

years. After graduating from Gonzaga University, Kylie plans to earn a Ph.D. in molecular biology and pursue a career that combines stem cell research with university teaching.

Lily Wong is entering her senior year at Seattle University, where she is majoring in biochemistry. The daughter of Chinese immigrants, Lily is the first in her family to attend college in the U.S. She is totally supporting herself through college with part-time work, grants, and loans. Lily took the initiative to learn about AWIS and has a mentor through our Mentor-Protégée Program. She enjoyed a research internship at the University of Wisconsin this past summer and looks forward to continuing research in the lab of one of her chemistry professors during the school year. Performing this research, which focuses on developing a yeast model system to study the role of oxidative stress in diabetes, confirmed Lily's passion to pursue a career in biomedical research. After graduating from Seattle University, she will work in a lab to further develop her skills as a researcher while applying for graduate school. After earning a Ph.D., Lily looks forward to an academic career that combines being a research scientist and professor.

Hot topic: Article about gender bias in scientific careers appears in Nature

by Libby Colasurdo

In the July 13, 2006 issue of Nature, Dr. Ben Barres writes about science and gender bias from a unique perspective: he is a transgendered person. He is a man in science, a professor of neurobiology at Stanford who has a degree in biology from M.I.T. and a doctorate in neurobiology from Harvard. And he was a woman in science before he had his surgery about ten years ago.

In his Nature commentary, Dr. Barres refutes what he calls the "Larry Summers Hypothesis" (Summers, former president of Harvard, provoked outrage among many female scientist last year when he asserted in a speech that one of the main reasons women in "high end scientific professions" are underrepresented is because they just aren't as intelligent as men in engineering, math, and science). Dr. Barres argues that women aren't advancing in these areas not as a result of inferior innate abilities but because of discrimination. He goes on to explain "why I believe that the Larry Summers Hypothesis amounts to nothing more than blaming the victim, why it is so harmful to women, and what can and should be done to help women advance in science."

He points to data that show little difference in math scores between genders in children aged 4 to 18. He also refers to another study which found that female research grant applicants needed to be 2.5

times as productive as men in order to be considered as competent. And he writes that there is no scientific support for the idea that women are naturally less competitive than men or that they are more emotional than men (and he reminds us that it is "men who commit the most violent crimes in anger—for example 25 times more murders than women").

The article is informative as well as inspirational. "Self-confidence is crucial in advancing and enjoying a research career," Barres states, and more must be done to cultivate this in girls "Again and again, self confidence has been pointed to as a factor influencing why women 'choose' to leave science and engineering programs." He says that mentors need to help women become more proactive, become better presenters, and make themselves known at meetings. Thus, there must be a concerted effort to change the status quo.

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