



Paul Hopkins, Chair

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Dear Friend of Chemistry,

Greetings from Seattle where persistent winter rain is giving way to occasional sunshine. I hope this edition of the *ChemLetter* finds you and yours well.

In this last week of winter quarter, our faculty have begun to assemble the final examinations that our students will sweat over next week. These exams will be administered in record numbers. Year-over-year enrollment figures for our program have risen almost every year since 1987. The total number of student credit hours we generate annually has more than doubled since that time. These rising enrollment figures have their origin in a combination of more students on our Seattle campus and a higher fraction of these students taking more years of coursework with us. It is gratifying that our classes are popular, but it does present logistical challenges given financial constraints.

In this edition, you will find an article describing the activities of a graduate student organization, Women in the Chemical Sciences at the University of Washington. Though I hope you are not surprised that women are present in significant numbers in our program, it is a reality that many of us remember a time when females were deeply underrepresented in departments of chemistry nationally. I remember just a few women who were my classmates as an undergraduate, and an even smaller fraction in my graduate class. Today, among the UW Chemistry bachelor's degree recipients, about 40% are female. Females gravitate more toward our biochemistry than chemistry degrees. At the graduate level, an even higher fraction of our student population—about 45%—is female. And our data indicate that the Ph.D. graduation rate is independent of gender. We've come a long way. The progress of our field in populating tenure track faculty jobs with females has been somewhat less impressive. About 16% of tenure track jobs at top-ranked programs in chemistry are today occupied by females. This number is rising more slowly than would be desirable. Let's hope a future chair can report progress on this front. I hope you enjoy reading about the Women in the Chemical Sciences at the UW.

A recurring theme in my messages (particularly since late 2008) has been the impact of declining public investment in public higher education, and the attendant rise in tuition rates for undergraduates. I am sorry to report another "first" in this regard. Historically our campus has been populated by academic buildings built using public funds—allocations from our state legislature. It has now been many years since our legislature paid fully to construct a new major academic building on our campus. This month, our Board of Regents will consider a proposal to secure the funds to build a new academic science building by issuing bonds repaid using student tuition dollars. This is a rational source of funding, given that students will be the beneficiaries of the new building. But it is a disappointment that this revenue stream will be diverted from the traditional uses of paying the salaries of faculty, teaching assistants, and staff, as well as buying the supplies and equipment needed to run our labs. It is just one more example of the long-term trend of students paying a larger fraction of the cost of their education.

Let me close with the reminder that not all is glum: in the next edition I will report on new additions to our faculty, awards won by our faculty and students, and perhaps even great new scientific discoveries. Please stay tuned and stay in touch.

Sincerely,

Paul B. Hopkins
Professor and Chair



WOMEN IN THE CHEMICAL SCIENCES

Brings Speakers, Workshops, and Volunteerism to the Department

—Sarah Vorpahl, Second-Year Graduate Student, Ginger Research Group

Over the past year and a half, I have had the great pleasure to serve as the president of Women in the Chemical Sciences at the University of Washington (WCS-UW). Our mission is to educate and empower women in science, as well as their supporters, by providing a safe and open space for dialogue, mentorship, collaboration, camaraderie, and skill building through a variety of activities.

After a big boost of encouragement from Professor Sarah Keller, the organization started in 2012 when about half a dozen students met in the minutes before a first-year seminar to discuss the need for a group like this in the Department. None of us had an exact idea of what would develop. However, together with the mentorship of faculty advisor Assistant Professor Brandi Cossairt, we developed the group into a thriving registered student organization (RSO) with more than 50 members.

In our short tenure as a group, WCS-UW has organized an impressive number of events. Among them were: talks by seven guest speakers, including UW professors and a Seattle-area patent lawyer; student-facilitated discussions and workshops geared at professional development and other issues important to graduate and postdoctoral students; and outreach to a variety of institutions. Our most exciting event to date was hosting Amy Cuddy, Harvard associate professor of business administration and TED talker extraordinaire, to a sold-out crowd last November as part of the Jessie and John Danz endowed public lectures. As a co-sponsor of this event, we have the distinction of being the first RSO to be involved with the Graduate School public lecture series.

Last month, also in conjunction with the Graduate School, WCS-UW hosted a panel discussion titled, “Managing Up: How to Get the Most from Your P.I.”

In very exciting outreach news, we facilitated an educational seminar at Seattle Expanding Your Horizons (SEYH) on March 15. Hosted at Seattle University, SEYH is an annual day-long conference of hands-on workshops that encourages middle school aged girls to explore STEM careers. For details and more photos, visit www.students.washington.edu/wcsuw/.

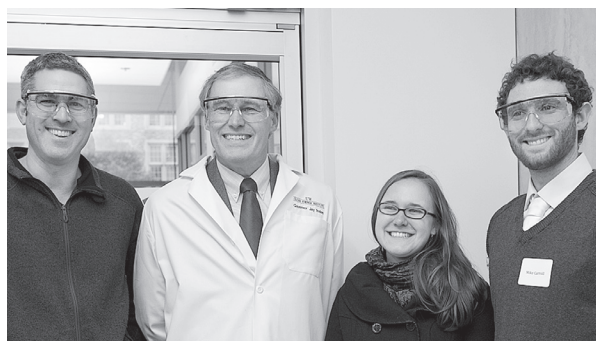
We have many exciting events planned for the future, not least of which is our symposium for the 248th ACS National Meeting in San Francisco: “International Collaborations with International Impact: Chemistry for Global Change.” WCS-UW was chosen as this year’s Graduate Student Symposium Planning Committee and bestowed with full autonomy in planning an ACS national meeting symposium. In partnership with the Department of Chemistry and the Chemical Education Division of ACS, we are currently organizing and fundraising for this symposium, which will take place in August (for details, visit www.depts.washington.edu/gsspc/).

The most amazing part of being involved with WCS-UW has been the level of enthusiasm from within the Department. We are extremely thankful to Chair Paul Hopkins for providing funding to help with outreach and event supplies. On a personal level, the conversations and networking that result from each event continually reinforce how important a group like WCS-UW is to any graduate program. I am truly proud to be a part of this incredibly thoughtful group of women and men and I look forward to our continued growth and involvement within the University and beyond. ■

WCS-UW volunteering at the Seattle Expanding Your Horizons Conference. I to r: Kimberly Hartstein, Jennifer Peper, Sarah Vorpahl, Madhumitha Balasubramanian, Brooke Reaser, Kimberly Davidson, and Heidi Nelson

Courtesy of WCS-UW





Mary Levin

NEW STATE-FUNDED CLEAN ENERGY INSTITUTE Will Focus on Solar, Battery Technology

—Michelle Ma

On December 12, the new UW Clean Energy Institute (CEI) launched with an event attended by UW President Michael K. Young, Governor Jay Inslee, and renewable energy researchers, industry experts, and policy leaders. Faculty and students presented their research and guests toured the laboratory facilities. Speakers included Bullitt Foundation President Denis Hayes and Technology Alliance Executive Director Susannah Malarkey.

CEI formed when Washington's governor and state legislators allocated \$6 million last summer to create a research center to develop efficient, cost-effective solar power and better energy storage systems. CEI will be an interdisciplinary hub connecting several dozen UW faculty members as well as university, federal, and state partners, including Pacific Northwest National Laboratory, the UW's Center for Commercialization, and the Molecular Engineering & Sciences Institute.

The funding will support CEI's first two years, helping to hire four new faculty members; provide fellowships to recruit six new graduate students and support about 20 graduate students pursuing out-of-the-box research in solar energy, batteries, and smart grids; and develop lab space and provide new instrumentation in the recently completed Molecular Engineering & Sciences Building.

"The Institute will really accelerate the pace of both scientific discovery and technology transfer at the UW while educating the next generation of clean energy leaders," said David Ginger, CEI

photos above:

left: Governor Jay Inslee congratulates graduate student Durmus Karatay on being awarded a Clean Energy Institute Exploratory Fellowship.
right: Professor Daniel Gamelin, Governor Inslee, and graduate students Alina Schimpf and G. Mike Carroll.

associate director and professor of chemistry.

"Discovery is very important to innovation and the state funding will allow us to take risks to find real breakthroughs."

The Institute will also support engineering research on how solar energy production, battery storage, and smart-grid technology can work together to accelerate the scale-up of clean energy. As the state aims to meet ambitious greenhouse gas emissions reduction goals over the next decades, Washington can't expect its reliable hydroelectric power sources to grow with the economy, said Daniel Schwartz, CEI director and professor of chemical engineering.

"Solar energy is the one resource that can truly scale-up going forward, but we need to be smart about the whole energy system to help it happen," Schwartz said.

Inslee said that he is pleased to see this institute at the UW. "This is the culmination of a multi-decadal dream I've had and to see it come to pass is just a huge delight." ■

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UWCFD Rookies of the Year: Ashley Zigler and Diana Knight

Kudos to Ashley Zigler, graduate program coordinator (right), and Diana Knight, assistant to the chair (left), departmental co-coordinators of the UW Combined Fund Drive (UWCFD), for their selection as “Rookies of the Year” by the UWCFD. Due to their ingenuity and creativity organizing departmental UWCFD events and their persistent, warm reminders, departmental faculty and staff participation more than doubled over the previous year, from 12% to 26%. The UW’s participation rate as a whole is 14%. Due to Diana and Ashley’s efforts, the Department of Chemistry is far above average in yet another area. The UWCFD ran from October 16–November 29, 2013. For more information on the UWCFD, visit <http://depts.washington.edu/uwcfid/>. ■

Elizabeth Lee



Call for Help— Find the Postdocs!



Postdoctoral researchers tend to be an invisible community and it can be difficult for them to find their place in the greater scheme of the university. They come and go, and although they have a strong connection to their research group, the department as a whole doesn’t integrate them well into its body of faculty and staff or its circle of friends and alumni. We want to keep in touch with all of the Department of Chemistry’s former postdoctoral research associates! We would appreciate hearing from you if you know the whereabouts or current employment of any former UW Chemistry postdoctoral research associate. E-mail us at chemdept@uw.edu and spread the word! ■