

The Academic Year Begins in Earnest

Volume 75 No. 9 - September 2014

Outstanding! ChemLuminary Award Winners!!! Check it out News Briefs (Pg. 4) YCC Flying Chemists! Summer ends - Let the fun begin!!!!!!



The Puget Sound Chemist

Newsletter of the Puget Sound Section of the American Chemical Society

From the Editor



THE PUGET SOUND CHEMIST

Newsletter of the Puget Sound Section of the American Chemical Society

American Chemical Society Website

http://acs.org

Puget Sound Section Website

http://pugetsound.sites.acs.org

Please address all email correspondence to: <

Summer is almost done – Bring on the fall!!

As I sit down to prepare the kick-off edition of 'The Chemist' I can't help but get stoked about all the events that are coming up. As the local section's newsletter editor, I get to hear about all of the ACS activities that are being planned. It truly excites me to see all of the things that the Puget Sound Section has in store for this year!

The ACS End of Summer Family Picnic will happen once again at Lake Tapps. I'll be there. It starts at 1:00pm on September 6th, 2014. The Executive Committee will hold its first monthly meeting since June at the ACS Summer Family Picnic at Lake Tapps. See the <u>Calendar</u> and the <u>News Briefs</u> sections for further details.

<u>Call for Nominations</u>: Are you interested in serving the Puget Sound section of the ACS by holding an office? Want to learn more? Check out all the info on <u>page 4</u>.

There will be some major events occurring in Oct/Nov 2014. The WCCTA Conference, the Pauling Award, a PNNL speaker at the Evergreen State College, our local section elections and a Climate Change event top the list.

The YCC (Younger Chemists Committee) had a small outing to go indoor skydiving in August. It was lots of fun! The YCC will meet on September 18th, 2014 at the usual location. For details, check the <u>Calendar</u> (Page 3) or the <u>YCC page</u> (Page 10).

Certainly not least among the honors our section has received; our section was awarded a <u>ChemLuminary Award</u> at the 248th American Chemical Society National Meeting in San Francisco in mid-August! Read about it on page 7.

Cheers!



onathan Clark

Jonathan Clark Newsletter Editor

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Calendar – September 2014

Calendar of Events - http://pugetsound.sites.acs.org/apps/calendar/

2 September 2014 - Queen Anne Science Café

Time:7:30pmLocation:T.S. McHugh's - 21 Mercer Street, Seattle, WA 98109

6 September 2014 - ACS Family Picnic and Executive Committee Meeting

Time:1:00pm – Late(Executive Committee Meeting at 3:00pm)Location:Lake Tapps - Tacoma Point - 2414 186th Ave. E. Lake Tapps, WA 98391

8 September 2014 - Eastside Science Café

Time:7:00pmLocation:Wilde Rover - 111 Central Way, Kirkland, WA 98033

9 September 2014 - Olympia Science Café

Time:7:00pmLocation:Orca Books - 509 East 4th Avenue, Olympia, WA 98501

9 September 2014 - Tacoma Science Café

Time:6:30pmLocation:The Swiss Restaurant & Pub - 1904 Jefferson Avenue, Tacoma, WA 98402

17 September 2014 - Association of Women in Science (AWIS) Meeting

Time: 6:00pm – 8:00pm

Location: The Fred Hutchinson Cancer Research Center - 1100 Fairview Ave. N., Seattle, WA 98109 Pelton Auditorium (Weintraub Building)

17 September 2014 - "The Science and Politics of Motor Vehicle Emissions"

Time: 7:00pmLocation: Pacific Lutheran University (in Leraas Hall) in Tacoma, WASpeaker: Prof. Donald Stedman of the University of Denver

18 September 2014 - "The Science and Politics of Motor Vehicle Emissions"

Time: 7:00pm

Location: St. Martins University (in HH110) in Olympia, WA

Speaker: Prof. Donald Stedman of the University of Denver

18 September 2014 - Younger Chemists Committee Meeting

Time: 6:30pm – 7:30pm

Location: Specialty's Café & Bakery in U-Village - 2690 NE Village Ln, Seattle, WA 98105



Call for Nominations for the 2015 ACS Puget Sound Section Executive Offices

The ACS Puget Sound Section is calling for nominations for its executive committee elections for offices starting in 2015. We have seven positions up for election and we would love your contributions to the continued success of our section. A brief description of the duties for each position is provided.

Section Chair-Elect/Chair/Past-Chair

(1 Year Term per Position – One open position for 2015-2018)
 This is a three year commitment serving one year as Chair-Elect, Chair, and Past-Chair. The duties vary slightly with each.

As Chair-Elect, you will

- attend executive committee meetings and facilitate meetings in the chair's absence
- head the speakers' bureau committee
- attend the Leadership Institute training sponsored by ACS

As Section Chair, you will

- lead executive committee meetings and provide leadership
- appoint committee chairs
- ensure timely completion of business tasks

As Past-Chair, you will

- attend executive committee meetings
- provide support to the Chair, Chair-Elect, and the executive committee
- complete annual report for previous year
- lead the nominating committee

Secretary

- (1 Year Term One open position for 2015)
 The Secretary's primary duties include
 - taking and distributing notes at executive committee meetings
 - creating and managing the election ballot and working with election Tellers to validate election results
 - submitting the election results and committee nominations to the national office.

Treasurer

- (1 Year Term One open position for 2015)
 The Treasurer's primary duties include
 - preparing a monthly budget and managing the section's accounts
 - managing cash inflows and outflows
 - working with the finance committee to review the section's finances and prepare the annual budget

NOMINATION

• completing the financial section of the annual report.

Councilor

- (3 Year Term Two open positions for 2015 -2018)
 The Councilor's primary duties include
 - representing the section at the two National meetings and serving on national committees
 - advising the chair, the executive committee and other committee chairs
 - volunteering or being assigned to serve on section committees and subcommittees

Alternate Councilor

- (3 Year Term Two open positions for 2015-2018)
 Alternate Councilor's primary duties include
 - fulfilling the role of a councilor when the councilor is not available
 - attending the regional NORM meeting
 - volunteering or being assigned to serve on section committees and subcommittees.

Nominations and Elections Timeline

Call for Nominations Nominations Due Voting (mail and online) Election Validated April 1st – September 15th, 2014 September 15th, 2014 October 1st – October 21st, 2014 November 15th, 2014

Nominating Committee

Nick Milanovich, Nominating Committee Chair Despina Strong Robbyn Perdue-Anand

Nominations or Questions?

Would you like to nominate yourself or someone else for an officer role with the Puget Sound Section of the ACS? Do you have questions about the various roles or the election process? Please email your nominations and questions to: Nick Milanovich (elections@pugetsound.sites.acs.org)

* ALL NOMINATIONS ARE DUE BY SEPTEMBER 15th 2014 *



You Are Invited to The End of Summer ACS Family Picnic!

Saturday, September 6, 2014, 1:00pm until late Lake Tapps - Tacoma Point - 2414 186th Ave. E. Lake Tapps, WA 98391

Boating, swimming, riding seadoos, hot tubbing

Please bring something for your family to barbecue, a salad or dessert to share and don't forget your swimsuits!!!! House to change in, barbecue and deck for mountain viewing are all available.

RSVP (and ask questions of Carole Berg): <u>cberg@bellevuecollege.edu</u> or call 425-226-0690

Big News!! - ChemLuminary Award Winner!!

Robbyn Perdue-Anand received the ChemLuminary Award for Retention of Women in the Chemical Sciences on behalf of the Puget Sound Section! Congratulations!! We are proud of her and everyone else that made this happen!

16th Annual ChemLuminary Awards Celebration

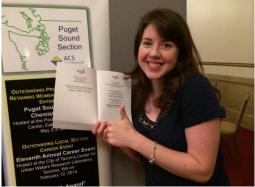
ChemLuminary Award Winners

<u>Photos</u>

"The Puget Sound Section received the ChemLuminary Award for an Outstanding Program Aimed at the Retention of Women in the Chemical Sciences in recognition of the Puget Sound Women Chemists Retreat. The Retreat was held at the Pack Forest Conference Center in Eatonville, WA in May 2013 and again at the University of British Columbia Vancouver campus in May 2014. At the Retreat, graduate, postdoctoral and early-career chemists connect with mentors and career training in presentation and negotiation skills."

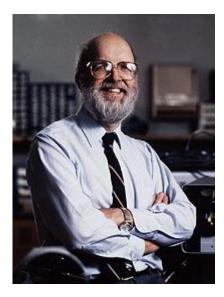
Pictured on this newsletter's cover are, from left to right, WCC (Women Chemists Committee) Chair Amber Flynn Charlebois, Puget Sound Councilor Gregory Milligan, Puget Sound WCC (Women Chemists Committee) Chair Robbyn Perdue-Anand, and ACS President Tom Barton.





The Science and Politics of Motor Vehicle Emissions

The ACS Puget Sound section's Sustainability Committee will host Prof. Donald Stedman of the University of Denver in mid-September. Stedman will be presenting a seminar on "The Science and Politics of Motor Vehicle Emissions" on two separate days at two separate locations.



"The Science and Politics of Motor Vehicle Emissions"

A basic description of the chemistry of automobile and diesel exhaust emissions leads to a description of the invention and application of the University of Denver's on-road remote sensing tool which can monitor 5000 vehicle emissions in a day's work. The results from studies of millions of vehicles, why this invention is not widely used, and how it could be used is followed by a description of our most recent invention which can do a similar, although more comprehensive, test for heavy duty trucks.

Note from the Sustainability Committee chair

Prof. Stedman has a track record of carrying out recommendations based on science. He was a member of the 1986 Academy Committee which recommended (August 20 1986) the ban on smoking in commercial airliners. Today they make airliners without ashtrays (except one in the door of each loo where the flight attendants can take smokers to snuff out). His talk should be very informative as the Washington legislature explores a carbon tax.

You have two opportunities to attend:

Wednesday, September 17th, 2014 at 7:00pm at Pacific Lutheran University (in Leraas Hall) in Tacoma, WA <u>http://www.chem.plu.edu/node/956</u>

Thursday, September 18th, 2014 at 7:00pm at St. Martins University (in HH110) in Olympia, WA

Nominations and Special Mentions

Gary Christian is now an ACS Fellow! Congrats! A well-deserved honor! http://cen.acs.org/articles/92/i28/2014-ACS-Fellows.html

Mark Wicholas has served as Councilor for 25 years! Thank you!

Did you know?

We have our own Facebook page! https://www.facebook.com/AmericanChemicalSocietyPugetSoundSection

Celebrating the Life of a Larger-Than-Life Figure

Professor Benson Rabinovitch passed away Aug 2, 2014 at the age of 95.

Seattle Times Obituary

Rabinovitch was the Puget Sound Section Chair in 1958. He was instrumental in changing the Puget Sound Award into the Pauling Medal Award as we know it today. As well as being an ACS journal editor, division chair and a physical chemistry text book author, Rabinovitch was a long-term faculty member in the UW Chemistry department. He has a lounge in the UW Chemistry department named for him.

Younger Chemists Committee

YCC Basics

We are a local section of the national Younger Chemists Committee. The YCC was chartered by the American Chemical Society to address the specific needs of younger and early-career chemists. The YCC's vision is to lead younger chemists into successful careers and active roles in the ACS and the profession.

Email any questions to Jonathan Clark (Puget Sound YCC Chair): PugetSoundYCC@gmail.com

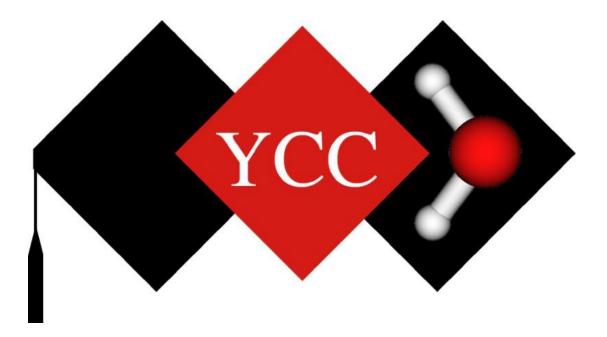
YCC Meeting

Thursday, September 18th, 2014 (6:30pm – 7:30pm)

Specialty's Café and Bakery in U-Village

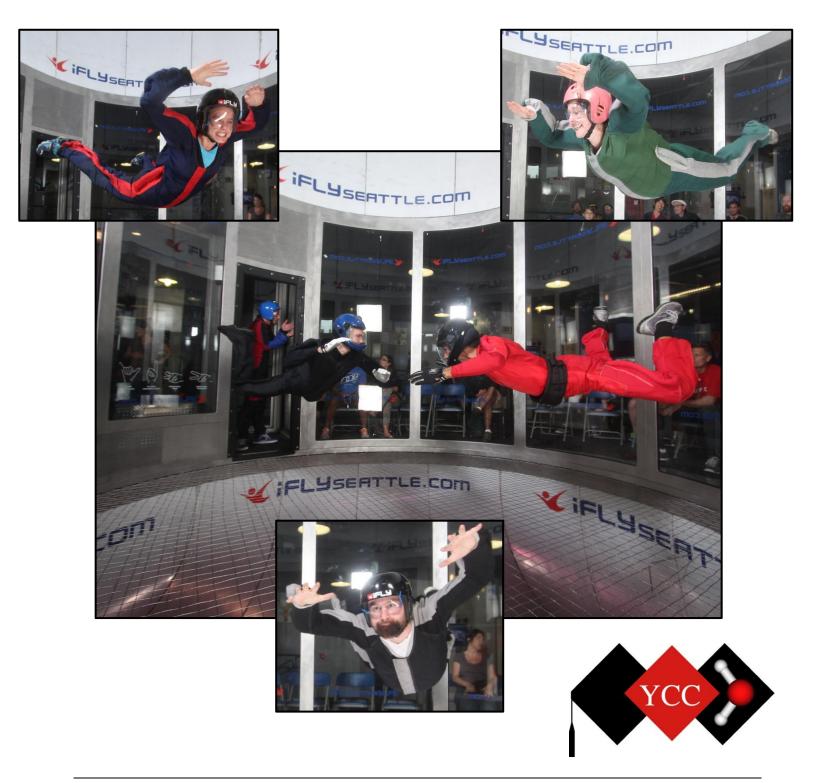
Address: 2690 NE Village Ln, Seattle, WA 98105

Topics: Fall Events, Strategic Planning, Goals



Younger Chemists Committee

Flying Chemists!! In a small summer event on August 14th, 2014, a few of our YCC members got together to go indoor skydiving!



Science Cafés

These Science Cafés are free and are open to all ages.

Queen Anne Science Café

"Engineering Empathy: The Potential Role of Engineering in Developing Life and Work Skills in Children"

Tuesday, 2 September, 2014 - 7:30pm - T.S. McHugh's

Dr. Ann McMahon, Pacific Science Center's VP of Science & Education and Engineer, explores "Engineering Empathy: The Potential Role of Engineering in Developing Life and Work Skills in Children."

- T.S. McHugh's is located at 21 Mercer Street, Seattle, WA 98109.

Eastside Science Café

"The Science of Beer and Brewing"

Monday, 8 September, 2014 - 7:00pm - Wilde Rover

Odin Brewing Company's Nick Heppenstall shares "The Science of Beer and Brewing."

- Wilde Rover is located at 111 Central Way, Kirkland, WA 98033.

Tacoma Science Café

"Multiple Sclerosis in the Pacific Northwest"

Tuesday, 9 September, 2014 - 6:30pm - Swiss Restaurant & Pub

"Multiple Sclerosis in the Pacific Northwest" by James Bowen, M.D. of the Multiple Sclerosis Center, Swedish Neuroscience Institute.

- The Swiss Restaurant & Pub is located at 1904 Jefferson Avenue, Tacoma, WA 98402.

Association of Women in Science (AWIS)

"Understanding the role of myeloid-derived suppressor cells (MDSC) in infant immunity"

Wednesday, 17 September, 2014 - 6:00pm - Fred Hutchinson Cancer Research Center

Flyer: <u>http://seattleawis.org/wp-content/uploads/2014/08/Seatle-AWIS-September-2014-Flyer.pdf</u> AWIS event page: <u>http://seattleawis.org/awis-events/</u>

AWIS holds monthly meetings Sept-June at 6:00pm at the Fred Hutchinson Cancer Research Center. This month's meeting will be in the Pelton Auditorium in the Weintraub Building. FHCRC Campus Map: http://www.fhcrc.org/en/contact-us/visit-us.html

- The Fred Hutchinson Cancer Research Center is located at 1100 Fairview Ave. N., Seattle, WA 98109.

Science Cafés

These Science Cafés are free and are open to all ages.

Olympia Science Café

"Sounds of the Amazon Pink River Dolphins"

Tuesday, 9 September, 2014 - 7:00pm - Orca Books

The Amazon pink river dolphins (Inia geoffrensis) are under ever increasing pressures from many human activities that impact their habitat. Sensitive to environmental changes, the Amazon pink river dolphin has become a threatened species. Found at the top of the aquatic food chain throughout the Amazon Basin, it is also considered an indicator species.

Since 2007 David Bonnett and his wife, Dottie, have recorded the underwater sounds of Inia geoffrensis. Over their seven recording trips into the Peruvian Amazon, they accumulated a large acoustic database of these dolphins' sounds. Their aim was to collect and use the "voice prints" to count these animals and establish a baseline census to study population trends. The two results that emerged from this work were that the sounds the pink dolphins make are much more complex than anticipated and that they appear to communicate using an amazing range of emitted sounds.

Collaborative research with scientists from a variety of backgrounds is now underway to investigate features in the recorded dolphin sounds using powerful computers. The aim is to extract details to study whether the sounds made by these dolphins form what we consider to be true language. If this can be demonstrated, the implications are potentially enormous.

This presentation will include a brief review of underwater acoustics and the natural history of Inia geoffrensis. Dave will discuss their current work, including how the recorded data are processed and analyzed.

Our speaker Dave Bonnett retired from the Naval Submarine service in 1979 and has subsequently worked in a variety of technology related jobs including collecting underwater sounds from marine mammals. Dottie Bonnett is a marine biologist by training and a retired science teacher.

- Orca Books is located at 509 East 4th Avenue, Olympia, WA 98501.

Science on Tap

Science on Tap is another science café that meets in Seattle, WA. Information regarding the next Science on Tap event can be found on their website: <u>http://www.scienceontap.org</u>

October 2014 - WCCTA Conference

2014 Annual Meeting of the Washington College Chemistry Teachers' Association October 9th-11th 2014 at the Sleeping Lady Resort in Leavenworth, WA

The WCCTA brings together chemistry educators from around the state of Washington and some from Oregon. They share ideas about best practices in teaching chemistry, teaching pedagogy, innovative chemistry labs, and engage in conversations on topics relevant to the WCCTA members in the beautifully relaxing atmosphere of the Sleeping Lady Conference Center. It is a great place to meet new colleagues, make friends, and network with community college and college chemistry faculty. Please plan to attend!

To register and submit abstracts, please visit: <u>http://www.wccta.org/</u> To check out all of the conference info, visit: <u>http://www.wccta.org/2014_Conference</u>

October 2014 - Pauling Award Ceremony

This is an event to attend! Every year an outstanding chemist is selected to receive this award. Read about it at: <u>http://www.chem.wwu.edu/dept/pauling/Pauling2014_about_Pauling.htm</u>



For outstanding contributions to chemistry meriting national and international recognition, the

2014 Linus Pauling Medal

is awarded to

Stephen L. Buchwald, Ph.D.

Massachusetts Institute of Technology

by the Oregon, Portland and Puget Sound Sections of the American Chemical Society.

Award Symposium and Banquet

1:00 PM Saturday, October 11, 2014 Western Washington University 516 High Street Bellingham, WA 98225 Viking Union Multipurpose Room and 565 A,B,C

Symposium Speakers:

Melanie Sanford, Ph.D. University of Michigan Phil Baran, Ph.D. The Scripps Research Institute David Nicewicz, Ph.D. University of North Carolina at Chapel Hill Stephen L. Bushwald, Ph.D. Recipient of the 2014 Linus Pauling Medal Award

The symposium, sponsored by these ACS sections, and hosted by the Puget Sound Section and Western Washington University, is free and open to the public (no registration required). The Award Banquet requires purchase of a banquet ticket. For further information, including banquet reservations, visit http://www.wwu.edu/ee/Pauling.html

October 2014 - PNNL Speaker at Evergreen State College

Dr. Dayle Smith - Senior Research Scientist at the Pacific Northwest National Laboratory will speak on

Unraveling complex structure-function relationships underlying metalloenzymatic catalysts for energy applications: learning from nature using a computational chemistry approach

Date: October 22, 2014 at 5:00pm Location: The Evergreen State College, SEM II A1105 Free and open to the public

Dinner with the speaker following the talk at the Budd Bay Café in Olympia (www.buddbaycafe.com)

Abstract: Metal-containing proteins play a central role in the activation of energy-relevant small molecules by biological systems. This talk will describe current synergistic research at Pacific Northwest National Laboratory in collaboration with academic institutions that aims to unravel how metal proteins regulate catalytic aspects of metalloenzymatic systems, specifically hydrogenase for conversion of protons and electrons into dihydrogen, methyl coenzyme M reductase for production of methanol from methane, and nitrogenase for synthesis of ammonia from dinitrogen. Evolution has optimized these enzymes to maximize reactant specificity and stabilize reaction intermediates while operating under ambient conditions of temperature and pressure. Our ultimate aim is to learn from nature to design bio-inspired molecular catalysts to replace the energy-intensive processes used today by leveraging biochemical characterization, inorganic synthesis and computational chemistry. This talk will focus on the latter, describing multi-scale computational chemistry applications that resolve key scientific questions about the role of protein structure and dynamics underlying biological catalytic mechanisms with regards to electron, proton and substrate delivery, protein dynamics, and reaction thermodynamics using state-of-the art applications of quantum, classical and statistical physics and high-performance computing.

RSVP for dinner reservations only by 10/15/2014 to Dharshi Bopegedera at: bopegedd@evergreen.edu or (360) 867-6620

Park in Lot C for easy access to the Seminar II (SEM II) Building (cost is \$2) Driving directions to Evergreen is available at www.evergreen.edu/tour/gethere.htm

Sponsored by: Academic Programs at Evergreen (Introduction to Natural Science, Environmental Analysis, Physical Systems, Introduction to Environmental Studies), The Evergreen Chemistry Club, and Puget Sound Section of the ACS

November 2014 – Climate Change Event

Dear Chemistry student clubs!

Are you interested in helping students develop new ideas for outreach activities? Do your students want to learn more about climate change? Would your students be interested in providing advice for the next generation of students?

The Sustainability Committee of the American Chemical Society, Puget Sound Section is organizing an event with the Pacific Science Center for Chemistry Clubs. Chemistry Clubs will develop a demo that illustrates some concept of climate change science and 2-4 representatives will present their demo to high schools students (Discovery Corp Fellows) at the **Pacific Science Center on November 1st, 2014**. The sustainability committee will share resources to help your students develop the demo. It does not have to perfect, it just has to exist.

Discovery Corp Fellows are high school students who have been trained to demonstrate science concepts at the Pacific Science Center. They have 6 months to 3 years of experience in communicating science to the general public, so they are very good at helping people develop a message. The Discovery Corp Fellows will provide feedback for the demos and then will lead the Chem Club members through various exhibits at the Science Center.

In return for the feedback from the Discovery Corps fellows, college students may be asked to participate in an informal panel. Your students share their experiences in college and discuss how they chose to major in chemistry. Your students advice may help inspire the next great chemist!

If any of you are advisors for the Chem Club (or science club), please forward this information. If you are interested in learning more, or your students are interested in this activity, please contact Charity Flener Lovitt (lovittc@uw.edu) for more information.



Careers

Internships

Washington Conservation Corps - <u>http://www.ecy.wa.gov/wcc/index.html</u> Ecology Youth Corps - <u>http://www.ecy.wa.gov/programs/swfa/eyc/index.html</u>

ACS Job and Career Resources

Career Resources - <u>http://www.acs.org/content/acs/en/careers.html</u> Employment Dashboard - <u>http://www.acs.org/content/acs/en/careers/salaries/dashboard.html</u> Job Postings - <u>http://chemistryjobs.acs.org/jobs</u> ACS Puget Sound Job Page - <u>http://pugetsound.sites.acs.org/jobsandcareerresources.htm</u>

Online Resources for all ACS members

Explore the ACS website (http://acs.org) and look into the many resources available to you as a member. Member benefits - http://www.acs.org/content/acs/en/membership-and-networks/acs/benefits.html Publications - http://www.acs.org/content/acs/en/publications.html ACS Webinars - http://acswebinars.org/ C&EN Webinars - http://cen.acs.org/media/webinar.html Science Podcasts - http://www.acs.org/content/acs/en/pressroom/podcasts.html ACS National and regional meetings - http://www.acs.org/content/acs/en/meetings.html.html ACS Chemworx - https://pc.acschemworx.acs.org/ Presentations on Demand - http://presentations.acs.org/common/default.aspx ACS Public Policy fellowships - http://www.acs.org/content/acs/en/policy/policyfellowships.html Project Seed - http://www.acs.org/content/acs/en/education/students/highschool/seed.html National Chemistry Olympiads http://www.acs.org/content/acs/en/education/students/highschool/olympiad/process/competition.html Scholars Program - http://www.acs.org/content/acs/en/funding-and-awards/scholarships/acsscholars.html SCI Scholars Internships http://www.acs.org/content/acs/en/education/students/college/experienceopp/scischolars.html Sustainability Resources - http://www.acs.org/content/acs/en/sustainability.html Get Involved - www.acs.org/getinvolved Not a Member Yet? Join Today! - http://acswebcontent.acs.org/joinacstoday/13NEWSAD1od.html

Online Resources for the Puget Sound Section!

Check out our Local Section's website - <u>http://pugetsound.sites.acs.org</u> About us - <u>http://pugetsound.sites.acs.org/aboutthesection.htm</u> Executive Committee Meeting Minutes - <u>http://pugetsound.sites.acs.org/meetingminutes.htm</u> Leave us a message - <u>http://pugetsound.sites.acs.org/askusaquestion.htm</u> ACS Puget Sound Job Page – <u>http://pugetsound.sites.acs.org/jobsandcareerresources.htm</u> Education & Olympiads - <u>http://pugetsound.sites.acs.org/educationolympiad.htm</u> Newsletter Archives - <u>http://pugetsound.sites.acs.org/archivesofthechemist.htm</u> Facebook page - <u>https://www.facebook.com/AmericanChemicalSocietyPugetSoundSection</u> To subscribe to the section email list, visit: <u>http://www.chem.plu.edu/mailman/listinfo/pss-acs</u>

Roster

ACS Puget Sound - Executive Committee

Despina Strong
Cheryl Bick
Nick Milanovich
Robbyn Perdue-Anand
Carole Berg
Jonathan Clark
Mark Wicholas
Gregory Milligan
Craig Fryhle
Gary Christian
Jennie Mayer
Amar Yahiaoui
Neal Yakelis
Dharshi Bopegedera

Other Outstanding Volunteers

Dharshi Bopegedera
Dharshi Bopegedera
Clarita Bhat
David Munch
Nick Milanovich
David Patrick
Despina Strong
Dharshi Bopegedera
Nick Milanovich
Neal Yakelis
Carole Berg
Charity Lovitt
Craig Fryhle
Kerry Fowler
Robbyn Perdue-Anand
Jonathan Clark



