

Portland Section Meeting Notice

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Burning Questions: Measuring the impact of wildfires on the air we breathe

a talk by

Professor Lynne Gratz

Reed College

Thursday January 8, 2026, 6-9pm

Leikam Brewing 5812 E Burnside St Portland, OR 97215

Dinner Reservations

Reserve your dinner for \$25/person (\$15 for undergraduate students, high school teachers, unemployed members). \$5 added for tickets purchased at the event.

Schedule: 6pm social—6:45 pm buffet dinner—7:45 pm program

Please contact Rob Jensen < robert.p.jensen@gmail.com for any questions.

Abstract and bio next page.

Looking Ahead: Join us on Thursday, February 12th to hear from Elizabeth Flannery, Director of the Oregon State Police Portland-Metro Crime Lab!

2026 Election Results

Congratulations to our L620 Portland Section newly elected officers!

Chair Elect: Natasja SwartzCouncilor 1: Andrew Baggett

• Alternate Councilor 1: Hannah Boxberger

Alternate Councilor 2: Larry Furan

Elected candidates take office January 1, 2026. Marcie Merritt, Alternate Councilor 2, announced her resignation as of December 31, 2025. In accordance with Bylaws, the Executive Committee appointed Larry Furan to the vacated position. He will serve one year until the next scheduled Section election.

Rob Jensen, Chair Natasja Swartz, Chair-Elect Irving Rettig, Past Chair

Dave Reingold, Secretary Jordan Devereaux, Treasurer Andrew Baggett, Councilor 1 Jim Tung, Councilor 2 Hannah Boxberger, Alt. Councilor 1 Larry Furan, Alt. Councilor 2 Wilbes Mbiya, Director At Large Hannah Boxberger, Webmaster Martha Dibblee, Email, Newsletter

Burning Questions: Measuring the impact of wildfires on the air we breathe

My environmental chemistry research is broadly motivated by the consequences that anthropogenic activities can have for human and ecosystem health. I am broadly interested in characterizing pollutant emissions, chemical reactions, and transport pathways that occur in the environment, processes which critically govern the fate of harmful toxins. In this talk I will primarily focus on my work in the field of atmospheric chemistry. My scholarly career launched in the industrial parts of the U.S. Midwest, where I used field measurements as well as statistical and meteorological models to explore the sources of heavy metals, such as mercury, to ambient air and precipitation. In more recent years, while relocating to the western U.S. and as climate change has continued to alter the environment around us, my research has increasingly shifted toward the impacts that wildfire smoke has on air quality. Research shows that wildfires are changing in terms of frequency, severity, and community-level impacts. Health effects from wildland fires are felt strongly in the western U.S., particularly in northern California and central Oregon. My research group uses continuous field- based measurements of trace gases and aerosols from high-elevation mountaintop research stations, as well as in urban environments, to investigate the chemical composition and evolution of wildfire smoke. I will highlight recent work involving Reed undergraduates to measure ozone and nitrogen oxides from the Mount Bachelor Observatory, as well as from an urban monitoring location in Portland, and discuss future objectives of this research program. Our overall goal is that these measurements can help constrain air quality models, and be informative to decision-makers for the protection of public health and the environment.

Bio

Lynne was born and raised in Lansing, MI. Defying her family's college sports alliances, she went to the University of Michigan for her bachelors, masters, and doctoral degrees in Atmospheric and Space Science. While there she collaborated across multiple departments, including Earth and Environmental Sciences, and Public Health. From 2010-12 Lynne was a post-doctoral researcher at the Italian National Research Council's Institute of Atmospheric Pollution Research in Rende, Italy where she helped develop a global monitoring network for atmospheric mercury. From 2012-2015 she was a Research Associate at the University of Washington-Bothell where she studied atmospheric mercury oxidation pathways using airborne measurements over the southeastern U.S. She held her first faculty position in Environmental Studies at Colorado College from 2015-2023 before joining the Chemistry and Environmental Studies faculty at Reed College. She is excited to be back in the Pacific Northwest near her extended family. She lives in Portland with her husband Tyler (visiting professor in the Honors College at Portland State University) and their two children, Oscar and Alma.

Member Profile: Mohana Sengupta



Mohana Septgupta

Mohana Sengupta came from India in September 2022 to pursue her PhD in Chemistry at Portland State University with Dr. Robert Strongin. Her research focuses on the chemistry and toxicity of e-cigarette vaping. She recently published her first first-author paper in <u>Chemical Research in Toxicology</u> (ACS journal) on nicotine analog chemistry used by e-cigarette companies to bypass FDA regulations.

Before coming to the U.S., Mohana completed her bachelor's and master's degrees in Chemistry at Jadavpur University in Kolkata. After that, she worked full-time as a professional chess coach in a school (she's a tournament player and placed 6th in the Oregon State Chess Tournament in 2023).

Mohana regularly participates in the ACS dinner lectures. At PSU, she serves as president of two clubs at the Rec Center, the SKY Breathing and Meditation Club, and the Bollywood-Tollywood Dance Club. "Meditation and dance are both very important to me; they give me energy, balance, and motivation throughout my PhD journey."