

Prof. Robert McGorin

Food Science and Technology, Department Head and Jacobs-Root Professor
Oregon State University

presents a talk entitled

Chemical approaches for characterization and measurement of food flavors

Thurs. March 9

Reed College Vollum Lounge
3203 SE Woodstock Blvd, Portland, OR 97202

map https://www.reed.edu/facilities_services/downloads/MapPrintColor.pdf

Dinner reservations

Schedule: 6:00 pm social; 6:45 pm buffet dinner; 7:45 pm talk

Contact [Jean Eames](#) if you have questions

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Bio: Robert J. McGorin, PhD, CFS¹



Robert McGorin, PhD, CFS is Department Head and Jacobs-Root Professor in the Department of Food Science & Technology at Oregon State University, a position he has held since 2000. He served as Interim Superintendent of OSU's Food Innovation Cen-

ter in Portland in 2006. Dr. McGorin received his Ph.D. degree from the University of Illinois – Urbana/Champaign in organic/medicinal chemistry, and his B.S. from Northwestern University in chemistry. Prior to OSU, Dr. McGorin managed strategic research at Kraft Foods Research & Development for 19 years and was a flavor chemist at the Quaker Oats Research Laboratory for 3 years, both in the Chicago area. At Oregon State University, Prof. McGorin has taught courses in Flavor Chemistry and Food Chemistry.

Dr. McGorin's research focus is flavor chemistry and trace volatile analyses, including the identification of key aroma compounds in dairy foods and cereal products, the chemistry and interactions among flavors and food components, and the effects of processing and packaging on flavor generation and deterioration. He has co-edited four ACS Symposium Series books on Flavor-Food Interactions, Dairy Flavor Chemistry, and Thermally Generated Flavors and Aromas. In his industry career, Dr. McGorin pioneered the first comprehensive identifications of key flavor chemicals in oats, and subsequently focused on Cheddar cheese flavor analysis and the development of fat-free flavor systems for new product launches in ice cream, salad dressing, processed cheese and cultured dairy products. He led problem-solving teams to solve off-flavors in cheese powders and peppermint oil, and his technical accomplishments were recognized with six achievement awards from the Kraft R&D division.

Dr. McGorin is a Fellow of the American Chem-

¹ Certified Food Scientist (CFS) credential is the only global certification for food science professionals.

ical Society and a recipient of the ACS Distinguished Service Award. He is a past-Chair of the Agricultural & Food Chemistry Division, Chair-elect of the Chicago Section ACS, and twice-elected President of the Chicago Chemists' Club. He is also a Fellow of the Institute of Food Technologists (IFT), and currently serves on the IFT Board of Directors.

Abstract: Chemical approaches for characterization and measurement of food flavors

Identifications of volatile flavor compounds in foods and beverages have been the subject of active flavor research over the past several decades. The ultimate goal of flavor chemistry research is to identify and classify unique aroma chemicals which contribute to the characteristic odor and flavor of foods. In recent studies, potent aroma compounds have been identified using gas chromatography-mass spectrometry in combination with various gas chromatography-olfactometry (GCO) techniques, and aroma extract dilution analysis (AEDA). The total concentration of these naturally-occurring mixtures varies from a few parts-per-million (ppm) to approximately 100 ppm, with the concentration of individual compounds ranging from parts-per-billion to parts-per-trillion.

A majority of food volatile compounds do not provide significant flavor impact. But the key flavor compounds which are identified by these methods are significant contributors to the sensory profile. In some cases, these sensory-directed analytical techniques have enabled the discovery of new character-impact flavor compounds. This knowledge provides targets for food scientists to produce optimum flavor quality through plant breeding, fermentation, or thermal generation pathways. As analytical techniques improve in sensitivity, flavor researchers continue their quest to discover new character-impact flavors which will enable them to formulate the next generation of improved flavor systems. Examples will be used from my research and others to show how chemistry has been applied to identify new flavor compounds and to solve flavor problems.

Hello, fellow ACS members:

I'd like to invite you to the second annual Oregon Science Startup Forum. It's a one-day conference for those considering entrepreneurship as a potential career.

We've gathered scientists of all ages and education levels who own their science-based businesses. We also will have intellectual property lawyers and other experts on starting successful science-based businesses. There will be built-in networking times, allowing for your questions and to meet and network with attendees.

When: April 22, 2017, 9 AM to 7 PM

Where: Collaborative Life Sciences Building, Portland, OR

Website: bit.ly/OSSFwebsite

Speakers: bit.ly/2017OSSFspeak

Cost:

- Student/postdoc/unemployed [registration](#) (before 3/1): \$25
- General registration (before March 1): \$50

We hope you will join us on April 22! Questions? I invite you to e-mail me.

Best wishes,

Jim Tung

jimtung@gmail.com

ACS Portland immediate past chair

OSSF steering committee



Chair's Glass Gavel

From the Chair: Message to the Portland Section March 2017

This year the Portland Section celebrates its 56th year – it was formed in 1961. From the beginning the Section supported students and early in its existence the scholarship program was established. Again this year, three scholarships will be awarded to three deserving undergraduate students entering their final undergraduate year in college. The scholarship committee chaired by Prof. Louis Kuo, Lewis & Clark College, will announce their candidates for approval by the Portland Section Executive Committee (EC) during the March EC meeting. Scholarships normally are awarded at the April Section meeting along with recognizing Intel Northwest Science Expo (NWSE) Portland Section Special Award winners; this year a tour has been planned for April, which will delay scholarship awards and NWSE recognition until May.

At the January 25 Executive Committee meeting I received the “glass gavel” that was crafted by a local scientific glassblower 40 or more years ago. I will admire it for a year, after which it is passed on to the 2018 chair, Scott Vanderwerf. It is made entirely of Pyrex glass.

Fellows Nomination

Do you know a Member who has made an impact on the Society or in your life? If so, consider nominating that person as an ACS Fellow. Detailed guidelines and instructions for submitting nominations are at www.acs.org/fellows. The deadline for nominations is April 6, 2017 [11:59 PDT]. Criteria include

- Documented excellence and leadership that has an impact in the science, the profession, education, and/or management; and
- Documented excellence and leadership in volunteer service, based on specific results achieved, in service to the ACS and its membership and community.

The Annual Report: What is it?

Each chair is required to set goals and objectives in the Section's [Annual Report](#). Each of the Society's 185 sections completes a comprehensive Report that results in a “report card” for that section and validates its worthiness to receive the *annual allotment*—the funds ACS provides each section for ordinary operating expenses for the upcoming year. Due Feb. 15, each report is carefully reviewed by a member of the Society's Local Sections Activities Committee (LSAC).

The Annual Report includes both unique and ordinary activities; this year's report will include reports on number of activities such as the SEED program, “Program in a Box” events for younger chemists, Women Chemists Committee (WCC) networking events, Participation in GeekGirlCom, the Puget Sound Women's Retreat, National Chemistry Week-ends, the Undergraduate Poster Symposium and Career Fair, the Oregon Science Startup Forum, and participation in the Pauling Medal Symposium in Corvallis hosted by the Oregon Section.

Special Events, especially first-time events, may prompt the Section to “self-nominate” for a “ChemLuminary Award”, which, if the Section is a “winner”, is awarded to a Section rep-

representative during the Spring Annual Meeting. Executive Committee minutes, newsletters, meeting photographs, and other relevant details showing the section's activities can be included in the [Report](#).



Pauling Medal Symposium

Coming this fall, the Pauling Medal Symposium will be hosted by the Portland Section. A call for nominations is published in [Chem & Engineering News](#) along with a deadline for submissions. The Pauling Medal Symposium will be held at PSU in the fall, usually October or November. The Pauling Medal Award recognizes outstanding achievement in chemistry and is presented annually by the Puget Sound, Oregon, and Portland Sections of the ACS. The award is named after Dr. Linus Pauling, a native of the Pacific Northwest, because of the inspiration of his example.

Upcoming events for Portland Section Members

- Thursday March 9—Portland Section meeting at Reed College; Prof. Robert J. McGorin, Dept. of Food Science and Technology, Oregon State University is speaking on “Chemical approaches for characterization and measurement of food flavors”
- [ACS National Meeting](#) in San Francisco April 2-6, 2017
- Saturday April 8 Newport OR Hatfield Marine Science Center Section field trip
- Oregon Science Startup Forum April 22 at CLSB [bit.ly/OSSFwebsite](https://sites.google.com/site/acsossf/) (<https://sites.google.com/site/acsossf/>)
- Thurs. May 11 Reed College, talk by Willy (Skip) Rochefort, Oregon State University, topic Chemical Engineering
- NORM 2017 June 25-28, 2017, Oregon Section hosts at Oregon State University LaSells Stewart Center, 875 SW 26th St, Corvallis, Oregon (<http://www.norm2017.org>)
- ACS National Meeting Washington DC August 20-24, 2017 <https://www.acs.org/content/acs/en/meetings/fall-2017.html>
- Undergraduate Poster Symposium and Career Fair Oct. 29 (or thereabouts) <https://sites.google.com/site/portlandacsposters/home>
- National Chemistry Week October 22 –28 (weekends of Oct. 21-22 and Oct. 28-29 at OMSI; contact hoffman@up.edu or dibblee@hevanet.com)
- Pauling Medal Symposium (Portland State), date TBD, typically fall (last fall <https://www.plu.edu/chemistry/pauling2016/>)

As I celebrate the Lunar New Year and participate in its extended Festivities, I want to extend a sincere welcome to Portland Section Members and I look forward to a fulfilling year as Chair of the Section.

Sincerely,

Jean Eames, Chair,
Portland Section

Schedule Portland Section Meetings 2016-17
Reed College Vollum Lounge
3203 SE Woodstock Blvd, Portland, OR 97202

Date	Speaker or event	Topic
3/9/17	Robert J. McGorin, PhD, CFS, Jacobs-Root Professor, Department Head, Food Science & Technology, Oregon State University E-mail: robert.mcgorin@oregonstate.edu	Chemical approaches for characterization and measurement of food flavors Web page: http://oregonstate.edu/foodsci
April 8	Tour	Hatfield Marine Research Center
5/11/17	Willy (Skip) Rochefort OSU Chem Engineering	http://cbee.oregonstate.edu/sites/cbee.oregonstate.edu/files/rochefortcv_march2014.pdf
June 2017	Section picnic	
Sept 2017		
Oct 2017		
Nov 2017		
Pauling Medal Symposium	at PSU	
Dec 2017		