

# The Case Chemist

NEWS FROM CASE WESTERN RESERVE UNIVERSITY'S DEPARTMENT OF CHEMISTRY

## From the Corner Office

### AROUND CAMPUS

The campus grows ever more beautiful with each stunning new building. The Tinkham Veale University Center opened at the beginning of the Fall 2014 semester.

The Tink, as it is called, is the latest addition; it includes a ballroom, space for various student organizations, and a food court. It also houses the Michelson & Morley Café, an excellent restaurant and bar which immediately became our favorite eating place. (To see more, visit [case.edu/universitycenter/about/](http://case.edu/universitycenter/about/).) Coming in Fall 2015 will be The Milton and Tamar Maltz Performing Arts Center at the Temple–Tifereth Israel.



Mary Barkley,  
Department Chair

A new campus master plan is underway, which features an expanded healthcare education campus that includes medicine, dentistry and nursing. A collaboration between the University and Cleveland Clinic located between Euclid and Chester Avenues, this unified campus will allow students to learn team-based healthcare together.

The University continues to set fund-raising records. The *Forward Thinking* campaign achieved its \$1 billion goal 2.5 years ahead of schedule. Thank you for your generosity!

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#### Special thanks to College of Arts and Sciences staff

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## From the Corner Office

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Because of the enthusiastic support, the campaign was expanded to \$1.5 billion, prioritizing scholarships, endowed professorships, and capital projects. Restoration of Mather Quad and a new state-of-the-art science and engineering building on Case Quad are on the drawing board for the College of Arts and Sciences.

### IN THE DEPARTMENT

The expanded campaign is also coming to the chemistry department. Development staff from the College and central administration are teaming with **Mary Barkley, Emily Pentzer, Dan Scherson, and Blanton Tolbert** to identify opportunities for our alumni to support projects in the department directly.

The new 500 MHz NMR, funded by the National Science Foundation with 25% matching funds from the Ohio Board of Regents and the College of Arts & Sciences, has been installed in the Chemistry NMR Facility. The instrument is easy enough to use that the students in our organic and inorganic chemistry lab courses will be able to take their own NMR spectra of their samples.

**The Chemical Biology major** is in its second year with 29 declared majors. Enrollment in our Introductory

Biochemistry course has surged to 100 students, and we now offer the course all three semesters (Fall, Spring, Summer).

Several years ago, the department started accepting graduate students for the MS degree. In 2014–2015, 17 students were enrolled in the Chemistry MS program. We are planning to expand and enhance our MS program with opportunities for career development, networking, and internships. Stay tuned and keep us in mind if you need a student intern.

### SPECIAL GRANTS

**Carlos Crespo** received his 6th American Chemical Society Project SEED grant for summer research internships for economically disadvantaged high school students. Nine high school students from the Cleveland area spent 8 weeks in Summer 2014 performing chemistry experiments in research labs. Four of these students returned for a second research internship in Summer 2015, along with 7 new students.

**Jim Burgess** received a Research Experiences for Undergraduates (REU) grant from the National Science Foundation. The REU grant provides summer research opportunities in Energy & Materials and Chemical Biology for 6 undergraduate students, who work for 10 weeks in chemistry faculty labs.

### COMINGS/GOINGS

The department welcomed a new lecturer this year. **Kenneth Adair** replaced **Richard West** to teach our first- and second-year chemistry lab courses. Dr. Adair was previously assistant professor of chemistry at Defiance College. Dr. West moved on to a position as assistant professor of chemistry at Lake Erie College. **Prashansa Agrawal**, PhD, replaced **Dale Ray**, PhD, as director of our NMR facility. **Shareese Bradley** replaced **Darlene Hill-Khalid** as a secretary in our office. Shareese worked previously at JumpStart Inc., a non-profit in Cleveland. **Brian Brauchler** left our office after 12 years at CWRU for a job with Onix Networking Corp.

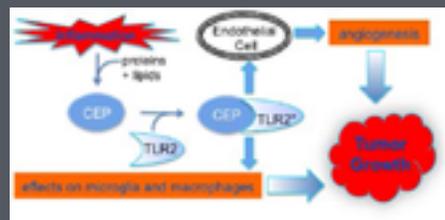
## Save the Date

**Save the date** for our first annual Chemistry Open House during Homecoming Weekend 2015 from 2–5 pm on Friday, October 9. All chemistry alumni from the College and its predecessor schools are invited to reconnect with fellow alumni and to meet and network with our current students and faculty. No registration necessary. Please see the link for information about the Homecoming & Reunion Celebration on October 8–11, 2015. [cwru.edu/alumni/homecoming/](http://cwru.edu/alumni/homecoming/). We look forward to seeing you here!

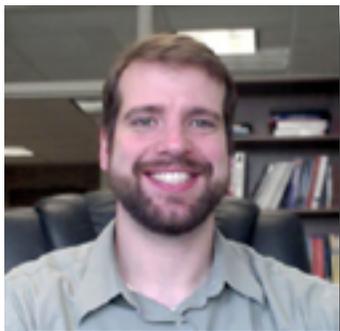
## Research Spotlight: Robert Salomon

Research in **Robert Salomon's** group focuses on understanding the roles of lipid oxidation in human health and disease. They discovered lipid-derived oxidative protein modifications, known as CEPs, which promote vascularization in retina, tumors and wounds causing blindness in age-related macular degeneration, tumor growth and wound healing respectively. They developed an anti-CEP drug that suppresses tumor growth. The group is currently focusing

on: (1) understanding how CEP is formed, how its formation is prevented, and why it is eliminated during wound healing but accumulates in tumors, and (2) testing the hypothesis that anti-CEP blocks tumor progression by inhibiting activation by CEP of TLR2 receptors and thereby alters the tumor environment from one that promotes chronic inflammation, cancer cell proliferation and invasion to one that does not. Current studies focus on glioblastoma, the most common and most aggressive malignant primary brain tumor in humans, because available therapies have minimal efficacy for this type of cancer, and because the lipid precursor of CEP is especially abundant in the brain.



## A New Face



Drew Meyer

**Drew Meyer** joined the chemistry department as the John Teagle Professorial Fellow in Chemistry and instructor in July 2013. He earned his BS in chemistry from Baldwin-Wallace College and his PhD from Stanford University where he studied resonant x-ray emission spectroscopy working with advisor Kelly Gaffney at the Stanford Linear Accelerator Laboratory. After earning his PhD in 2010, Drew went on to serve as a visiting assistant professor at Oberlin College for two years and at Franklin & Marshall College for one year. Drew continues his research on x-ray spectroscopy at CWRU, now focusing on extended x-ray absorption spectroscopy on environmentally relevant transition metal systems. He works diligently to incorporate active learning approaches into his general chemistry classrooms.

## Faculty Honors and Awards

**Geneviève Sauvé** was appointed to the Frank Hovorka Assistant Professorship in Chemistry.

**Clemens Burda** was appointed to the Chemical Professorship.

**Mary Barkley** received the 2015 Stanley C. Israel Regional Award for Advancing Diversity in the Chemical Sciences sponsored by the American Chemical Society Committee on Minority Affairs.

**Rekha Srinivasan** was named Faculty Advisor of the Year by the Women in Science and Engineering Roundtable (WISER) in the CWRU Flora Stone Mather Center for Women.

## Alumni Updates

**Alan Allgeier** [BS '92] moved from Amgen to DuPont Central Research in 2011 (Particle and Surface Science). In 2014 he received the Malz Award for Service to Catalysis from the Organic Reactions Catalysis Society.

**Sheldon Bastacky** [BS '82, MD '87] recently marked his 20th year as a pathologist at the University of Pittsburgh Medical Center.

**Jean Brinich** [BA '69] is considering retirement after 35 years in Alaska

as a Family Nurse Practitioner with the Yukon Kuskokwim Health Corporation, providing health care to the mainly Yupik Eskimo population.

**Margaret Sunday Christoph** [MS '49] is retired as a science teacher in Elkton, MD.

**Harry Dietrick** [BS '48, MS '50, PhD '51] is retired from B. F. Goodrich, and has settled in sunny Dublin, CA.

**Eugene C. Dinovo** [BS '67] retired in Simi Valley CA from his position as Director of Clinical Consulting with Cal D Consulting.

**Steven Ferguson** [BS '75] is Deputy Director for Licensing and Entrepreneurship at NIH in Bethesda, MD, and serves Department Chair for Technology Transfer at FAES Graduate School at NIH

**J. Lindsley Foote** [PhD '60] retired as a professor at Western Michigan Univ., with about 30 publications.

**Donald M. Frankel** [BS '52] retired 23 years ago from his company, Dana Scientific Inc. He holds Emeritus status from the Society for Applied Spectroscopy and is a 50-year ACS member.

**Jeremy Gorman** [MS '52], a self-employed writer and environmental nut, has published 4 books, with 2 more on the way.

**Robert R. Gruetzmacher** [PhD '73] retired from DuPont and is an associate of Intellectual Assets in Saratoga, CA, as well as a consultant, founder and principal of TechIAConnect in Pennsylvania.

**Katelyn Haas** [BA '10] is currently pursuing a Masters of Public Administration at University of Pittsburgh Graduate School of Public and International Affairs.

**David Hamilton** [BS '52] is retired in Mount Gilead, OH, and has recently published a book, "Evolution in the Universe: The Solar System and Beyond."

**Margaret Powell Hetrick** [BA '46] has been honored by the dedication of "Margaret (Peg) Hetrick Meadow Reserve" in Russell Township, OH, in thanks for her volunteer service for conservation.

**Howard Hu** [BA '12] will be a first-year chemistry teacher at William Jones College Prep High School in Chicago this fall.

**Monique V. King** [BA '54, MS '55, PhD '59, MD '65] is retired in Tucson, AZ (writing, teaching, organizing chamber music) after starting her career in research at Union Carbide, then receiving her MD and practicing medicine until 2003.

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### We want to hear from you!

We are proud of the accomplishments of our faculty, students and alumni. Let us know about job changes, awards, honors and life events. Please email your news and contact information updates to [chem-updates@case.edu](mailto:chem-updates@case.edu) or use the enclosed envelope.

## Alumni Updates

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**Michael Kurz** [PhD '67] retired after 35 years as a professor at Illinois State Univ., followed by 10 years at U. of Texas San Antonio. He now lives in San Antonio, with summer teaching at U. of Hawaii.

**Michael I. McElroy** [PhD '73] is retired, doing part-time work with Pepperl + Fuchs, Inc. in Mayfield Heights., OH.

**Mary Manson McManamy** [PhD '11] will start teaching full time (general chemistry and kitchen chemistry) at Elon Univ. in Chapel Hill, NC.

**Martin Mittleman** [MS '65] retired as an analytical chemist from Sohio and Sherwin Williams, and divides time between Ohio and Florida where he substitute-teaches elementary/middle school.

**John A. Negulesco** [BA '60] retired in 2005 to Portland, OR, from his position as Professor and Chair, Division of Anatomy, College of Medicine, Ohio State Univ.

**Stephen R. November** [BA '74] is a physician and Colonel – Medical Corps, US Army, working in West Point, NY, in ob/gyn medicine.

**Dale R. Petrill** [BA '64] is a self employed dentist in Wellington, OH.

**Peter W. Rabideau** [PhD '68] retired from Mississippi State University and became an ACS fellow in 2014.

**Philip Rakita** [BS '66] is retired in Henderson, NC, and now serves as a member and Secretary to the Board of the Fulbright Association. In 2014, he was appointed to the Heritage Council of the Chemical Heritage Foundation in Philadelphia.

**Gene Salesin** [MS '60, PhD '62] having retired in 1997 from Kodak, now works as a Research Assistant at Rochester Institute of Technology, NY, researching the permanence of digitally-printed materials.

**Brenda Buckhold Shank** [BA '61, PhD '66] is retired as a radiation oncologist, but still works at Doctors Medical Center in San Pablo, CA when needed.

**Mary Wolf Sheldon** [BA '53, PhD '57] is enjoying private practice in psychiatry in Lincoln, MA.

**Qing Wang** [MS '11] is a project consultant at ENVIRON Co., Ltd. (Shanghai, PRC) Project Consultant, working on environmental concerns.

**John V. Wilson** [BA '75, MS '81] is a senior research scientist at Baxter Bioscience, Moorpark, CA, Senior Research Scientist.

**Herbert L. Winograd** [BA '49] is a retired pediatrician in Scottsdale, CA. Founding Chief of Staff of Phoenix Childrens Hospital.

## Alumni In Memoriam

Joseph A. Marquisee [PhD '66]  
Irvin M. Krieger [BS '44, MS '48]  
Donald R. Whitman [BS '53]

## 2014 Distinguished Alumnus

### Roger Hsu

**Roger Hsu** was born in China and received his BS in Chemistry at St. John's University, Shanghai in 1948. With his wife Evangeline at the department awards ceremony, he described his journey from China, through his studies first in Organic Chemistry (MS at U. Mass., 1950, PhD with Prof. Reid Shelton at Case Institute, 1953) and then in Law (JD, CWRU, 1964), to a greatly successful and satisfying career

with Lubrizol. At Lubrizol, his positions included Senior Vice President, Chief Global Legal Officer and Chief Ethics Officer.



## Faculty In Memoriam

**Irvin M. Krieger**, Emeritus Professor of Chemistry, of Beachwood, Ohio, died on October 4, 2014, at the age of 91. Having received his BS ('44) and MS ('48) at Case Institute of Technology, with an interruption to serve in the US navy during World War II, he earned his PhD in physical chemistry at Cornell in '51. He returned to the Case Institute of Technology as a member of the Chemistry faculty. He served as acting Chair of the Chemistry Department in 1977. Dr. Krieger inspired the creation of the Center for Adhesives, Sealants and Coatings, and remained its director until he retired in 1988.

**Gilles Klopman**, Mabery Professor Emeritus of Chemistry, died on January 10, 2015, at the age of 81. Gilles earned his Bachelor's ('56) and PhD ('60) in theoretical organic chemistry at the University of Brussels. Following a stint in industry, and a post-doctoral position in Texas, he came to the faculty of CWRU in 1967. He served as Chair of Chemistry (1981-87, 1988-95) and Dean of Mathematical and Natural Sciences (1986-88). His research collaborations with the medical school led to appointments as Professor of Environmental Health Sciences and Professor of Medical Sciences (1987). He brought his research in computational toxicity and bio-activity prediction to industrial applications through founding the successful company MultiCASE in 1996. He retired in 2003.

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**Donald R. Whitman**, Professor Emeritus, passed away April 22, 2014, at the age of 82. He earned a BS ('53) from Case Institute of Technology, and went on to Yale University for a PhD ('57) in theoretical chemistry, studying with Lars Onsager (Chemistry Nobel Prize, 1968). He then returned to join the Chemistry faculty of CWRU. In 1971, Dr. Whitman was appointed Assistant to the President, and became Associate Vice President in 1972. In 1983, he returned to his faculty position in Chemistry until he retired in 1993.

**William M. Ritchey**, Professor Emeritus, died in Cleveland on June 1, 2014, at the age of 89. Dr. Ritchey obtained his BS ('50), MS ('53) and PhD ('55) from The Ohio State University. In 1968, Bill came to CWRU from Sohio as a Professor of Chemistry and Macromolecular Science, and continued until his retirement in 1995, researching polymers mainly by solid-state NMR. He served as Executive Officer of the Department and as a member of the Steering Committee of the Major Analytical Instruments Facility.



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