

THE NUCLEUS

November 2019

Vol. XCVIII, No. 3



Monthly Meeting

*The Norris Award Meeting at Northeastern University
Neil K. Garg, UCLA, to Receive Award*

2019 Chemical Biology in the Hub Symposium

By Steve Canham

NESACS Receives Two ChemLuminary Awards

James Phillips to Receive 2019 Henry A. Hill Award

2019 Chemical Biology in the Hub Symposium

By Steve Canham



The 3rd Chemical Biology in the Hub Symposium, held at Merck Research Labs, Boston, drew over 230 participants

The 3rd annual Chemical Biology in the Hub Symposium was held at Merck Research Labs in Boston, MA on Sept 19, 2019.

The event aimed to highlight cutting-edge chemical biology research happening in both academia and industry. The speaker line up featured: Milka Kostic (Dana-Farber Cancer Institute), Regina Barzilay (MIT), Pat Walters (Relay Therapeutics), Carolyn Bertozzi (Stanford University), Niyi Fadeyi and Rob Oslund (Merck), Chris am Ende (Pfizer), Angela Koehler (MIT), Mary Matyskiela (Celgene), Yumana Krishnan (U of Chicago), Mark Bunnage (Vertex), and 32 poster presenters.

The strong interest in the event led to a quick sellout of tickets in <15 minutes!!! The event drew over 230 participants from 45+ academic and industrial organizations. The luncheon, reception and poster session enabled the networking of chemical biology professionals across several disciplines and further discussion of the exciting presentations in targeted protein degradation, chemical proteomics, drugging RNA, imaging, AI/machine learning, and translational chemical biology were presented throughout the day.

This event was a huge success with many thanks to the support of NESACS and the sponsorship of ACS Central Science, ACS Chemical Biology, Arrakis Therapeutics, Astra Zeneca, Biogen, C4 Therapeutics, Celgene, Jnana Therapeutics, Kymera Therapeutics, Merck, Millipore Sigma, New England Biolabs, Novartis, Pelago Bioscience, Pfizer, Sanofi, and Vertex.

The now quite popular local event will be held at next year at Pfizer (Date TBD) with what will sure to be another all-star lineup. Please check out the website for more details: <https://chembiointhehub.org/>

On page 8 are a few photos that capture the speakers and participants of the event: \diamond *symposium photos continued on page 8*

NESACS Receives Two ChemLuminary Awards

The Northeastern Local Section was presented with two ChemLuminary Awards at the 21st Annual Ceremony (*ACS Volunteers: The Essential Elements of Our Success*) on August 27, 2019, at the ACS national meeting in San Diego.

NESACS received the Global Engagement Award for Local Sections from the International Activities Committee (IAC) and the Outstanding Community Involvement Award from the Committee on Community Activities (CCA).

NESACS was also a finalist for five other awards for its activities in 2018 based on self-nominations in its annual report.

- Outstanding Collaboration Between a Local Section and Technical Division (Committee on Local Section Activities and Committee on Divisional Activities), won by the New York Local Section and the Division of Polymeric Materials, Science, and Engineering (PMSE).
- Fostering Interactions Between Local Sections and Student Chapters (Society Committee on Education), won by the Georgia Local Section.
- Outstanding Sustainability Activities (Committee on Environmental Improvement), won by the Central New York Local Section.
- Outstanding Ongoing National Chemistry Week Event (Committee on Community Activities), won by the Princeton Local Section.
- Outstanding Performance by a Local Section – Very Large Size Category (Committee on Local Section Activities), won by the New York Local Section. \diamond



NESACS receiving the ChemLuminary Award for Outstanding Community Involvement Award. (L-R) Holly Davis (CCA Chair), David Sittenfeld (Boston Museum of Science), Jayashree Ranga (Salem State), Andrew Scholte (NESACS Chair), Ruth Tanner (UMass-Lowell, NESACS Board), Luis Echegoyan (ACS President-Elect). (Courtesy of the American Chemical Society).

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Cover: NESACS receives the Global Engagement Award for Local Sections from the International Activities Committee. Pictured (L-R) are David Wu (IAC), Andrew Scholte (NESACS Chair), Mariam Ismail (Simmons University), Tom Gilbert (Northeastern University), Ruth Tanner (Mass-Lowell), Peter Dorhout (Immediate Past Chair, American Chemical Society). (Photo courtesy of the American Chemical Society).

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Recipients of the James Flack Norris Award 1951–2019

1951	George Shannon Forbes	1986	Glenn A. Crosby
1953	John Xan	1987	Joseph B. Lambert
1955	Harry Nicholls Holmes	1988	Dana W. Mayo & Ronald M. Pike
1956	Norris Watson Rakestraw	1989	Jerry R. Mohrig
1957	Emma Perry Carr & Mary Lura Sherrill	1990	Joseph A. Schwarcz
1957	Farrington Daniels	1991	John W. Moore
1959	Herman Irving Schlesinger	1992	Jerry A. Bell
1959	Louis Frederick Fieser	1993	Arthur C. Breyer
1960	Louis Plack Hammett	1994	Samuel P. Massie
1961	Joel Henry Hildebrand	1995	Michael P. Doyle
1962	Ralph Lloyd Shriner	1996	Mary Virginia Orna
1963	Avery Allen Ashdown	1997	A. Truman Schwartz
1964	James Arthur Campbell & Lawrence Edward Strong	1998	Angelica M. Stacy
1965	Walter John Moore	1999	Joseph J. Lagowski
1966	John Arrend Timm & Edgar Bright Wilson	2000	Billy Joe Evans
1967	Edward Lauth Haenisch	2001	Dennis G. Peters
1968	Samuel Edward Kamerling & William Campbell Root	2002	Zafra Lerman
1969	Joseph Edward Mayer	2003	David N. Harpp
1970	Hubert Newcombe Alyea	2004	Richard N. Zare
1971	Charles Lester Bickel	2005	Morton Z. Hoffman
1972	Saul Gerald Cohen	2006	Brian P. Coppola
1973	Eugene George Rochow	2007	Diane M. Bunce
1974	Grant Hopkins Harnest	2008	David K. Gosser, Jr.; Jack A. Kampmeier, Pratihba Varma-Nelson
1975	Leonard Kollender Nash	2009	William F. Polik
1976	Malcolm Mackenzie Renfrew	2010	George M. Bodner
1977	Anna Jane Harrison	2011	Peter Mahaffy
1978	Paul Doughty Bartlett & Henry C. McBay	2012	Vicente Talanquer
1979	Harry Hall Sisler	2013	Melanie M. Cooper
1980	Robert C. Brasted	2014	Thomas Greenbowe
1981	Fred Basolo	2015	Frank J. Creegan, Richard S. Moog, James Spencer
1982	William Thomas Lippincott	2016	Thomas Holme
1983	Bassam Z. Shakhshiri	2017	Marcy H. Townes
1984	Henry A. Bent	2018	Gerard Parkin
1985	Derek A. Davenport	2019	Neil K. Garg ◇

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Monthly Meeting

The 991st Meeting of the Northeastern Section of the American Chemical Society

Presentation of the 2019 James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry

Wednesday, November 20, 2019

Northeastern University, Egan Research Center
120 Forsyth St, Boston, MA 02215

Meeting Agenda

- 4:30 pm Monthly NESACS Board Meeting (Egan 306)
- 5:30 pm Social Hour-Raytheon Amphitheater (Egan 240)
- 6:30 pm Dinner- Raytheon Amphitheater (Egan 240)
- 7:30 pm Presentation of Volunteer of the Year Award to Jayashree Ranga
Presentation of the 2019 James Flack Norris Award for Excellence in the Teaching of Chemistry to:
Neil K. Garg, Kenneth N. Trueblood Professor of Chemistry and Biochemistry, University of California, Los Angeles
Title: *How Organic Chemistry Became One of UCLA's Most Popular Classes*

**YOU MUST REGISTER IN ADVANCE TO ATTEND THE MEETING
THERE IS NO REGISTRATION FEE TO ATTEND ONLY THE MEETING
DINNER RESERVATIONS ARE REQUIRED
THE PUBLIC IS INVITED**

For those who would like to join us for dinner, register by 5pm, Monday, November 4, at <https://Norris-Award-2019.eventbrite.com>. Cost: Members, \$30; Non-members, \$35; Retirees, \$20; Students, \$10. Meal reservations not cancelled at least 24 hours in advance will not be refunded. For additional information, contact the Administrative Coordinator, Anna Singer, via e-mail at secretary@nesacs.org.

- If you wish to join us for this meeting and not dinner, please register by 5pm, Monday, November 4, at <https://Norris-Award-2019.eventbrite.com>. Select "Seminar only."
- Directions to NEU Egan Research Center: from I-90 west: 1. From Route 90 take exit 22 toward Copley Square/Prudential Center (0.3 mi). 2. Keep left, follow signs for Prudential Ctr, merge onto Huntington Ave. (0.1 mi). 3. Turn slightly left to stay on Huntington Ave. (0.5 mi). 4. Turn left onto Forsyth St. (0.2 mi).
- From west on Storrow: 1. Take Storrow Drive west to Fenway exit (0.1 mi) 2. Continue on Charlesgate (0.2 mi) 3. Continue onto Boylston St. (482 ft) 4. Turn right onto Fenway (0.2 mi); Fenway turns slightly left and becomes Westland Ave. (262 ft) 5. Turn right onto Hemenway St. (0.2 mi). 6. Turn left onto Forsyth St. (0.2 mi).
- From east (Boston): 1. Take Storrow Drive west to Fenway exit. 2. Take Charlesgate (0.2 mi). 3. Continue onto Boylston St. (482 ft) 4. Turn right onto Fenway (0.2 mi); Fenway turns slightly left and becomes Westland Ave. (262 ft) 5. Turn right onto Hemenway St. (0.2 mi). 6. Turn left onto Forsyth St. (0.2 mi).
- Parking (for a fee) is available in the Renaissance Park Garage, 835 Columbus Ave. From the garage, cross the train tracks via Ruggles Station and exit to street level on the other side, Egan Research Center is about 30 feet to the right.

If you have any questions or require additional information, contact the Administrative Coordinator, Anna Singer, via email at secretary@nesacs.org. ◇

Biography:



Neil Garg received a B.S. in Chemistry from New York University where he performed undergraduate research with Professor Marc Walters. He obtained his Ph.D. in 2005 from Caltech studying under the direction of Professor Brian Stoltz. Garg then joined Professor Larry Overman's laboratory at the University of California, Irvine as an NIH Postdoctoral Scholar. Garg joined the faculty at UCLA in 2007. He was promoted to Associate Professor in 2012, and then to Full Professor in 2013. He has served as Vice Chair for the Department of Chemistry and Biochemistry (2012-2016) and currently serves as Faculty-in-Residence

in the UCLA undergraduate community. In 2018, Garg was appointed as the inaugural holder of the Kenneth N. Trueblood Endowed Chair in Chemistry and Biochemistry.

Garg cherishes the opportunity to teach at the graduate and undergraduate levels. He has received several recognitions for his educational contributions, including the Carnegie Foundation for the Advancement of Teaching's California's Professor of the Year Award and the Higher Education Award from the Royal Society of Chemistry. Recently, he competed for and won the 2018 Robert Foster Cherry Award for Great Teaching, which is the largest University teaching prize in the world.

Garg's laboratory develops synthetic strategies and methodologies that enable the synthesis of complex bioactive molecules. His recent research-related honors include a Guggenheim Fellowship, the Thieme-IUPAC Prize, the Royal Society of Chemistry's Merck Award, and the Elias J. Corey Award from the American Chemical Society. Garg is a Fellow of the American Chemical Society, the Royal Society of Chemistry, and the American Association for the Advancement of Science. ◇

Abstract:

"How Organic Chemistry Became One of UCLA's Most Popular Classes"

Organic chemistry has a bad reputation, despite having a tremendous impact on our everyday lives. It has remained a notorious "weed-out" class for decades – striking fear in the hearts of students – and has long been viewed as a gatekeeper course for those interested in pursuing a career in medicine. This presentation will examine the underlying teaching philosophies that transformed organic chemistry into one of the most popular classes on the UCLA campus. Educational initiatives, including organic chemistry music videos, qrchem.net, The Organic Coloring Book, and BACON (Biology And Chemistry Online Notes) tutorials, will be discussed. ◇

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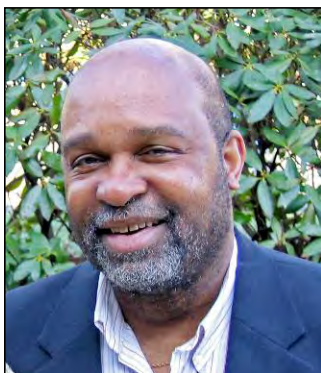
A Cartoon by Sidney Harris

Cartoons often have many possible levels of interpretation and extrapolation. As I look at this Sidney Harris cartoon, I see many possibilities. One is as follows: The cartoon shows a department chair (far right) accompanying the university provost (far left) of international fame for his analysis of the humor in Anton Chekhov's short stories, presenting a plaque to a chemistry professor in recognition of her election to the National Academy of Sciences. The citation reads "In recognition of her seminal computational studies on the rheological properties of elastic polymers under stress: Why bubblegum bubbles break." The department chair wonders if he will ever be recognized for the elaborate custom apparatus that he designed to confirm the computational studies.

—Yvonne Connolly Martin, Abbott (retired) ◇



James Phillips to Receive 2019 Henry A. Hill Award



The 2019 Henry A. Hill Award for Conspicuous Service to the Northeastern Section of the American Chemical Society will be awarded posthumously to James Phillips as announced by Andrew Scholte and the Henry A. Hill Award Committee.

James was a long-time contributor to NESACS. In recent years he was Chair of the Board of Publications and a Director-at-Large. He had a passion for photography and provided many photos to *the Nucleus* and the website. He also ran for Chair of NESACS in 2013.

The award will be presented at a future NESACS Meeting which has not been determined at this time. To read more about James please see the September 2018 issue of *the Nucleus*. ◇

Q. Exactly, how many awards and scholarships does NESACS sponsor?

A) One b) Two c) Many

www.nesacs.org

Historical Note

Rose Reguera Simon
1924 – May 2, 2019



Rose Simon with Sofia Su and the late Vivian Walworth at the 2013 Esselen Award Meeting
Photo by Joel Laino

Long a fixture with her husband, Myron (Myke) Simon, at NESACS functions, Rose Simon passed away at the age of 94 years 11 months on May 2, 2019.

Rose is survived by her husband of 68 years Myke, her children, Laurel Bo-

browich (John), Amy Berg (the late Eric Berg), and Ethan Simon (Marcy), six grandchildren and her sister Dolores Blumstein.

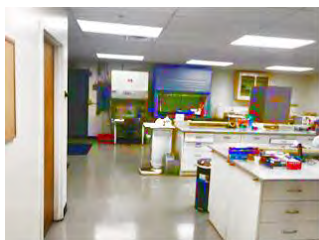
Rose graduated from Simmons College in 1945 with a degree in biology. She worked at Merck and then at Boston University Medical Center.

She was involved in many pursuits including advocating for environmental and political issues with the League of Women Voters. She taught ESL, participated in the Newton Reading Club and worked as a realtor.

In memory of Rose, donations can be made to Simmons College, the Newton Library Fund, or to the Lasell Village Benevolent Fund. ◇

www.nesacs.org/news • News You Can Use

Available for Lease in Norwood, MA: Well-built laboratory space with Basic Lab Equipment and amenities.



A 1500 sq. Ft area of modern commercial/industrial space with an attached office and two bathrooms is available for lease. The space comes with several benches, fume hoods, incubator, ovens, sinks, biosafety cabinet, autoclave included). **Brand new HVAC/sprinkler system/ Overhead Door.** Office furniture, cabinets and printer included with Fios connection with a phone line. Ideally located, close to the Norwood car mile on Rte1 and major highways and train stations. (\$2900/per month; gas, water, electricity not included)



Contact shantha@icetinc.com or text to 781-883-6427 to inquire or arrange for a visit.

2019 Chemical Biology in the Hub Symposium

Continued from page 2



ChemBio in the Hub poster session with 32 industry and academia posters



2019 Speakers (from left to right): Yamuna Krishnan (U of Chicago), Rob Oslund (Merck), Carolyn Bertozzi (Stanford), Milka Kostic (DFCI), Chris Am Ende (Pfizer), Mary Matyskiela (Celgene), Niyi Fadeyi (Merck), and Angela Koehler (MIT).



2019 ChemBio in the Hub Organizing committee (front): Jeremy Barzya (Vertex), Paola Castaldi (Astra Zeneca), Erik Hett (Merck), Justin Rettenmaier (Jnana), Rhamy Zeid (C4 Therapeutics); (back): Kriti Sharma (Kymera), unknown, Andrew Scholte (NESACS), Leland Johnson (NESACS), Olivier Bedel (Sanofi), Sue Swalley (Biogen), John Tallarico (Novartis), Steve Canham (Novartis), Jaimeen Majmudar (Pfizer), Bob Kyne (Celgene), Kerrie Spencer (Merck), Donovan Chin (Arrakis).

Minutes from the October NESACS Board Meeting

Ajay Purohit (Chair, Board of Publications) on the future plans for the Nucleus

Ø Update on the plan to go 'digital': In February 2019, the BOP put forward a plan to go digital. As part of this plan, printing and mailing of Nucleus would cease and a downloadable and archivable PDF version of the Nucleus would be published. This has now been accomplished starting with the September issue. This web version is accessible on our website (www.nesacs.org).

Ø The next phase of this plan involves adopting the Nucleus to a 'newsletter' format (see two examples: MIT Chemformation

o(http://web.mit.edu/robertsilbey/biography/obituaries/Chemformation_2011_11_09.pdf) or ACS Global Chemistry Newsletter,

ohttps://www.magnetmail.net/Actions/email_web_version.cfm?publish=newsletter&user_id=ACS1&message_id=17153232.

Ø Mike Filosa, our current editor of the Nucleus has expressed his total lack of interest to implement this format.

Ø As such implementation of the Newsletter is no trivial task. The BOP will have to find a new and dedicated person willing to take on the duties of putting together a 'newsletter' i.e., come up with an appealing format for the Newsletter, gather content, post links (directing readers to the NESACS website for full article) while working with the various sections, the secretary (Anna) and Roy (webmaster) etc. The Newsletter format will allow us to communicate and engage with the membership of the NESACS more effectively. Members will be able to quickly learn of the activities of the section in a single view and read articles of most interest driving traffic to the NESACS website.

In my humble opinion, the Newsletter will not only allow us to continue the legacy established by the Nucleus but grow it. In addition, we can also use the Newsletter to bring in advertisement revenue by placing ads – a short and simple branding message (w/link) from the advertiser. ◇

For late breaking news, job postings and the latest meeting and event information please visit us at

WWW.NESACS.ORG

James Flack Norris: The Man and the Award

The James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry pays tribute to outstanding contributions to the field of chemical education and in so doing honors the memory of a distinguished teacher of chemistry: James Flack Norris.

The Award: The Norris Award is one of the oldest national awards of the American Chemical Society and is presented annually by the Northeastern Section. The recipient is selected from an international list of nominees who have served with special distinction as teachers of chemistry at any level and whose efforts have had a wide-ranging effect on chemical education. The award has been given for a wide variety of achievements: for outstandingly effective textbooks, lecture demonstrations, or laboratory experiments, for editing the Journal of Chemical Education, for developing the Chemical Educational Material Study Project, or for new ways to teach laboratory courses in chemistry. Always, and this is of the utmost importance, the specific achievement must be coupled with dedicated teaching of chemistry at the graduate, undergraduate, or high school level. The award consists of a citation and an honorarium.

The Man: James Norris was born in 1871 in Baltimore. He was the fifth of nine children and attended schools in that city and in Washington, D.C. His collegiate career started at Johns Hopkins University, from which he graduated with an A.B. degree, Phi Beta Kappa, in 1892. He was strongly attracted by the great Ira Remsen and consequently decided to carry out his graduate studies at Johns Hopkins where he investigated complex compounds of selenium and tellurium. In 1895 he obtained his Ph.D. After graduation, Professor Norris served in the Chemistry Department of M.I.T. In 1904 he then moved to the newly founded Simmons College to become its first Professor of Chemistry and to head its School of Science. He remained at Simmons until

1915 except for 1910-11 when, feeling the need for more physical chemistry, he spent a sabbatical with Fritz Haber at Karlsruhe. After one year at Vanderbilt University, Norris returned to M.I.T. where he remained for the next 24 years as an enthusiastic and successful teacher of chemistry. On February 4, 1902 he was married in Washington, D.C. to Anne Bent Chamberlin, daughter of an Army Captain. They had no children. Professor Norris died in Cambridge, Massachusetts on August 4, 1940.

In 1916 Norris was a member of the Naval Consulting Board and during World War I he served as a Lt. Colonel in the Chemical Warfare Service. After the war, he served for ten years as vice chairman and chairman of the Division of Chemistry and Chemical Technology of the National Research Council.

Although serious when the occasion called for it, the debonair Norris was known as "Sunny Jim" to a host of friends who found him a jovial companion.

His activities in the ACS were many: Chairman of the Northeastern Section in 1904 and President of the National Society in 1925 and 1926. As President of the Society, he did much to improve and clarify the finances of the society. He was also active in the National Research Council and in IUPAC, serving as vice president of the latter from 1925-28. He was an honorary member of the Rumanian Chemical Society and of the Royal Institute of Chemistry in Great Britain. In 1937, he received the gold medal of the American Institute of Chemists for "outstanding service as a teacher and as an investigator."

Norris was one of the first chemists to study the structure-reactivity relationship of organic compounds on a systematic basis. Between 1912 and 1922 he authored four influential textbooks in inorganic and organic chemistry. The income from those texts, at least in part, formed the foundation of the bequest from Mrs. Norris to the Northeastern

Section in 1948. The purpose of this bequest, to quote the will of Mrs. Norris, is "to keep green the memory of James Flack Norris."

The Norris Fund has grown over the years with judicious management by the Trustees of the Northeastern Section. From its income the Section sponsors two James Flack Norris Awards: the James Flack Norris Award in Physical Organic Chemistry, administered by the National ACS, and the James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry. Tonight's recipient joins a distinguished group of predecessors.

**Taken from the biographical memoir of James Flack Norris by John D. Roberts and from the biography of James Flack Norris given by Joseph Bornstein at the presentation of the James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry. ◇*

CAREER DEVELOPMENT

Being an active participant in NESACS activities will enable you to network with major institutions and corporations in our area and can open up new career opportunities.

The NESACS Board of Publications, which is responsible for both the *Nucleus* newsletter and the NESACS website, is looking to increase its activities in this arena.

We would like to expand our capabilities for keeping our membership informed on what is happening in our field and how to adapt to changing times and new technologies.

You can help us do that. All we ask of you is a few hours a month and a smile.

Call or email to see what opportunities are available.

contact -- Michael Filosa
NESACS Board of Publications
Phone - 508-843-9070

Email filosam@gmail.com

19th Annual Sukant Tripathy Memorial Symposium

Date: Friday, December 6, 2019

Time: 8 a.m. to 4 p.m.

Place: **UMass Lowell Inn and Conference Center (ICC)**
50 Warren St., Lowell, MA 01854

Program Agenda

Time	Event / Speaker
8 – 8:30 a.m.	Registration and Coffee
8:30 – 8:45 a.m.	Opening Remarks / Presentation of Tripathy Fellowship Award
8:45 – 9:30 a.m.	James Reuther , University of MA Lowell <i>Controlling Dynamic Behaviors in Biomimetic Materials: From Switching to Self-Assembly</i>
9:30 – 10:15 a.m.	Pradeep Dhal , Sanofi Global R&D, Waltham, MA <i>Engineered Biomaterials as Scaffolds for Immunotherapy</i>
10:15 – 10:30 a.m.	Coffee Break
10:30 – 11:15 a.m.	Sharath C. Mahavadi , Schlumberger-Doll Research, Cambridge, MA <i>Molecular Behavior at the Interfaces, An Insight into Crude Oil Chemistry</i>
11:15 a.m. – Noon	Thomas Scheibel , University of Bayreuth, Germany <i>Processing and Applications of Biomimetic Spider Silk</i>
Noon – 1:30 p.m.	Lunch Poster Session
1:30 – 2:15 p.m.	Todd Emrick , University of MA Amherst <i>Nature-Inspired Synthesis: From Monomers to Macromolecules to Mesoscale Materials</i>
2:15 – 3 p.m.	Pratap Rao , Worcester Polytechnic Institute <i>Nanostructured Photo-electrochemical Materials</i>
3:15 – 4 p.m.	Speaker #7 TBA TBA
4:00 – 4:15 p.m.	Closing Remarks

Registration

Pre-Registration (FREE) is required by November 25, 2019.

Symposium Online Registration

Accommodations

UMass Lowell Inn and Conference Center, 50 Warren St., Lowell, MA. For reservations, please call 978-934-6917 and request the *UMass Lowell rate*.

Directions can be found in the **ICC's website**. You can also use UMass Lowell's **interactive Google maps**.

Parking

Garage gate right of ICC surface lot (student parking) will be open. If there are no spots available in the surface lot, you may use the city owned Lower Locks Parking Garage. The entrance is just off Warren Street, to the left exiting the ICC driveway. Parking rate is \$8/day maximum. Shuttle buses to the ICC are available from all UMass Lowell campuses.

Please check back for changes and updates. For further information/assistance, please email:

Susan_Damore@uml.edu or Michele_Vercellin@uml.edu or call: 978-934-3695. ◇

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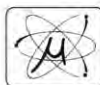
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Calendar

Check the NESACS home page for late Calendar additions:
<http://www.NESACS.org>

Note also the Chemistry Department web pages for travel directions and updates.

November 1

Prof. Eugene Chen (Colorado State Univ.)
Towards A Circular Materials Economy: Methodology and Design for Polymers with Robust Properties and Chemical Circularity
Boston College, Merkert 130, 4:00 pm

November 4

Prof. Thomas Hoye (U. Minnesota)
Boston University, Hariri Building, Rm 208, 11:00 am

Prof. Garnet Chan (Caltech)
Harvard, Pfizer Lecture Hall, 4:15 pm

Prof. Emily Balskus (Harvard)
Broad Inst., Rm 1154, 4:00 pm

November 5

Prof. John Groves (Princeton)
Boston College, Merkert 130, 4:00 pm

Prof. Yale Goldman (UPenn)
Ultra-fast single molecule mechanics resolve the earliest events in force generation by cardiac myosin
MIT, Rm 34-401, 12:00 pm

Prof. Jeffrey Reimer (UC-Berkeley)
NMR and the Grand Challenges of Metal-Organic Frameworks
MIT, Rm 6-120, 4:00 pm

Prof. Robert J. Hondal (Vermont)
U. New Hampshire, Parsons N104, 11:10 am

November 6

Prof. Nozomi Ando (Cornell)
MIT, Ragon Inst., NE46, 4:00 pm

Prof. Jillian Dempsey (North Carolina)
Elucidating Proton-Coupled Electron Transfer Mechanisms Underpinning the Catalytic Generation of Renewable Fuels
Tufts, Pearson, Rm P106, 12:00 pm

November 7

Prof. Karin Oberg (Harvard)
Harvard, Pfizer Lecture Hall, 4:15 pm

November 8

Prof. Ben Cravatt (Scripps)
Boston College, Merkert 130, 4:00 pm
Prof. Heather Clark (Northeastern)
UMass Lowell, Olney 218, 3:30 pm

November 11

Prof. Graham Cooks (Purdue)
Boston University, Hariri Building, Rm 208, 11:00 am

November 12

Dr. Paul DeSario (US Naval Research Lab)
U. New Hampshire, Parsons N104, 11:10 am

November 13

Prof. Cameron Jones (Monash)
MIT, Rm 4-370, 4:15 pm

November 15

Prof. Peter R. Schreiner (Justus Liebig University, Giessen)
Sweet Life: Prebiotic Sugar Formation in the Absence of Biosynthesis
Dr. Steve Han (Boehringer-Ingelheim)
Practical Asymmetric Synthesis of P-Stereogenic Chiral Phosphines and Complex Drug Substances
Boston College, Merkert 127, 4:00 pm

November 16

Prof. Peter R. Schreiner (Justus Liebig Univ.-Giessen)

London Dispersion Effects in Molecular Chemistry – Reconsidering Steric Effects
Boston College, Merkert 127, 11:15 am

November 18

Prof. Mei Hong (MIT)
Boston University, Hariri Building, Rm 208, 11:00 am

Prof. James Petersson (UPenn)
MIT, Rm 4-270, 4:00 pm

November 19

Prof. Marcus Cicerone (Georgia Tech)
MIT, Rm 34-401, 12:00 pm
Prof. James Petersson (UPenn)
Visualizing α -Synuclein in Parkinson's Disease: From All-Atom Models to in vivo Imaging
Tufts, Pearson, Rm P106, 12:00 pm
Prof. Paul Baures (Keene State Univ.)
U. New Hampshire, Parsons N104, 11:10 am

November 20

Prof. James Petersson (UPenn)
Boston College, Merkert 130, 4:00 pm
Prof. Julien Bechmann (Friedrich Alexander Univ.)
MIT, Rm 6-120, 4:15 pm

November 21

Prof. Gilbert Lemnoff (Ben Gurion Univ.)
Boston College, Merkert 130, 4:00 pm

November 22

Prof. Jeremiah Johnson (MIT)
UMass-Lowell, Olney 218, 3:30 pm

November 26

Prof. David Norris (ETH-Zurich)
MIT, Rm 34-401, 12:00 pm

Notices for The Nucleus Calendar of Seminars should be sent to:
Samurdhi Wijesundera, Email: samu.amameth@gmail.com ♦