



THE NUCLEUS

Summer/September 2017

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Monthly Meeting

*A Medicinal Chemistry Symposium at Takeda Oncology
on "Enabling Technologies: Atom to Antibody"*

2017 ACS Fellows Named

Andrew H. Weinberg Symposium

A Report from the 20th Annual Symposium

NESACS Election Results



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Cover: *From the Esselen Award Meeting: (L-R) Dr. Karl Hansen, Mr. Leland Johnson, Dr. Neil Donahue, Dr. James Anderson and Mr. Gustavus John Esselen IV just after Mr. Esselen presented Dr. Donahue with the 2017 Gustavus John Esselen Award for Chemistry in the Public Interest. Photo by Joel Laino.*

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November 2017 Issue: September 22, 2017*

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2017 ACS Fellows Named

The ACS has named 65 members as ACS Fellows in the Class of 2017, who were celebrated at the National Meeting in Washington, DC, in August. Among them are four from NESACS:

Rick Danheiser

Massachusetts Institute of Technology

Contribution to the science/profession: Developed numerous innovative and elegant methodologies, including the Danheiser Annulation, the Danheiser Benzannulation, and cycloadditions of highly unsaturated conjugated molecules for the synthesis of complex carbocyclic and heterocyclic organic compounds.

Contribution to the ACS community: Through his sustained tenure as Editor-in-Chief of *Organic Syntheses*, he championed reproducible, independently validated, and practical procedures for useful synthetic transformations. Advocated compellingly for increased reproducibility in chemical research.



Arthur Greenberg

University of New Hampshire

Contribution to the science/profession: Recognized for service as journal founder/editor and college administrator and for contributions to the fields of polycyclic aromatics, focusing on analysis, hazards and metabolism, and structural chemistry, especially strained molecules and amides.

Contribution to the ACS community: Recognized as an author of books on the history and image of chemistry. Other contributions include public presentations, volunteer service on professional committees and boards, and educator and Project SEED mentor.



Katherine Lee

Pfizer, Inc.

Contribution to the science/profession: As an outstanding medicinal chemist, she has discovered four compounds that have reached Phase II clinical trials. At Pfizer, she led the chemistry team that discovered a first-in-class IRAK4 inhibitor.

Contribution to the ACS community: A leader in the Northeastern Local Section and the Division of Organic Chemistry, she introduced innovative programs to engage younger chemists and help all chemists advance their careers.



Irvin Levy

Gordon College

Contribution to the science/profession: Honored for significant contributions in advancing the field of green chemistry education, including expanding the community of green chemists, contributing scientific communications, and increasing student engagement.

Contribution to the ACS community: Recognized for excellence in service to the Division of Chemical Education (CHED), bringing in new, cross-Divisional programming to the CHED program and introducing relevant, green chemistry programming to the Division.

They join the more than 1,050 ACS members who have been named as Fellows since 2009 when the program began, including a total of 44 members of NESACS.



For a complete list of ACS Fellows, see <<http://www.acs.org/content/dam/acsorg/funding/fellows/acs-fellows-list.xlsx>> ◇

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Visit our page on ACS Network:

<https://communities.acs.org/groups/chemical-abstracts-service-committee>

or contact Michael Filosa with any suggestions at filosam@verizon.net

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

Monthly Meeting

The 971st Meeting of the Northeastern Section of the American Chemical Society organized by the Medicinal Chemistry Section

A Medicinal Chemistry Symposium
“Enabling Technologies: Atom to Antibody”

Thursday, September 14, 2017

Takeda Oncology

40 Landsdowne Street, Cambridge, MA 02139



For updated information please see the NESACS website. www.nesacs.org

5:00 pm NESACS Board Meeting (Room TBD)

Symposium Schedule

3:00 pm Refreshments

3:15 pm Welcome: Raj Rajur, MedChem Program Chair, CreaGen, Woburn, MA

3:20 pm Introductory Remarks: (Moderator), Dan Elbaum, Retrophin Inc., Cambridge, MA

Confirmed Speakers

3:30 pm Ben Askew, Scifluor Lifesciences, Cambridge, MA

4:15 pm Julie Liu, Concert Pharmaceuticals, Boston, MA

5:00 pm Andrew Roughton, Encycle Therapeutics, Toronto, ON

6:00 pm Social Hour

6:45 pm Dinner

7:30 pm Keynote Presentation

Introduction: Neal Green

Speaker: Ravi Chari, Immunogen, Cambridge, MA

“Antibody-Drug Conjugates (ADCs): A clinically validated concept in cancer therapy”

Organizing committee members: Raj Rajur, Chair, Mark Ashwell, Dan Elbaum, Andrew Scholte, Jeremy Green, Blaise Lippa, Alan Rigby, Anne Mai Wasserman, Neal Green, Mukund Chorghade.

YOU MUST REGISTER IN ADVANCE TO ATTEND THE SYMPOSIUM: THERE IS NO REGISTRATION FEE. TO ATTEND THE SYMPOSIUM; DINNER RESERVATIONS ARE REQUIRED. PUBLIC IS INVITED
<https://nesacs-september-2017-atom-to-antibody.eventbrite.com/>

Dinner reservations should be made no later than noon, Thursday, September 7, 2017. Reservations are to be made using Eventbrite: Members, \$30; Non-members, \$35; Retirees, \$20; Students, \$10. Reservations for new members and for additional information contact the Administrative Coordinator, Anna Singer, at (781) 272-1966 between 9am and 5pm or e-mail at secretary@nesacs.org. Reservations not cancelled at least 24 hours in advance must be paid.

Directions to Takeda: Use the following address for your GPS: 40 Landsdowne St, Cambridge, MA 02139

Visitor Parking: All visitors to Takeda Boston facilities in University Park may park at the 55 Franklin Street Garage, located in the Star Market building; the Franklin Street Garage is a public parking garage and visitors will be charged for parking on an hourly basis.

Visitors parking is also available at the 30 Pilgrim or 80 Landsdowne Street

continued on page 14

NESACS Election Results

*Elected

**Elected Alternate Councilor

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Andrew Scholte 175 *
Raj (SB) Rajur 112

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June Lum 95
Raymond E. Borg 66
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Ralph T. Scannell 126 *
John M. Burke 121
Jens Breffke 103

Nominating Committee

Thomas R. Gilbert 195 *
Caitlyn Mills 172 *
Sonja Strah-Pleynet 134

Richards Award Committee

Doris I. Lewis 186 *
Jerry P. Jasinski 149 *
Malika Jeffries-El 112
Ravi Sharma 57

Esselen Award Committee

John E. Macor 178 *
Prakash Rai 146 *
Robert Hanson 102
Jeffrey I. Steinfeld 73 ◊

Announcements

NESACS and the 2017 ACS Awards

Members of NESACS and former recipients of NESACS awards were recognized at the General Meeting of the ACS on Tuesday, April 4, 2017, during the 253rd National Meeting in San Francisco. Allison Campbell, ACS President, presented the awards with the assistance of other distinguished ACS leaders.

Kathryn C. Hach Award for Entrepreneurial Success sponsored by the Kathryn C. Hach Award Fund to **David R. Walt**, Tufts University: “*For inventing and commercializing microwell arrays that benefit research, Medicine, and agriculture with tremendous impact on the economy through job and value creation.*” Laura Pence, ACS Board of Directors, assisted with the presentation.

ACS Award in Surface Chemistry sponsored by the ACS Division of Colloid and Surface Chemistry to **Cynthia Friend**, Harvard University: “*For her paradigmatic developments in the mechanistic understanding of oxygen-assisted*

catalytic cycles on gold surfaces and their implementation to nanoporous gold catalysts under realistic conditions.” Howard Fairbrother, ACS Division of Colloid and Surface Chemistry, assisted with the presentation.

In addition, the **James Flack Norris Award in Physical Organic Chemistry** sponsored by the ACS Northeastern Section was presented to Robert A. Moss, Rutgers University: “*For pioneering research on carbenes, carbocations, diazirines, and reactive intermediates in general, coupled with sustained pedagogical contributions to physical organic chemistry.*” Leland Johnson, Jr., NESACS Chair, assisted with the presentation.

The recipient of the 2012 Theodore William Richards Medal for Conspicuous Achievement in Chemistry from NESACS, **Tobin J. Marks**, Northwestern University, received the **Priestley Medal** sponsored by the American Chemical Society: “*For his dedicated service to the chemistry enterprise and pioneering research in catalytic poly-*

continued on page 14

Grants-in-Aid to Undergraduates to Attend the 255th ACS National Meeting & Exposition, March 18-22, 2018, in New Orleans, LA

The Northeastern Section of the American Chemical Society (NESACS) will provide Grants-in Aid of \$350 to each of four undergraduates to attend the 255th ACS National Meeting in New Orleans, LA, and to present a paper at the Undergraduate Research Poster Session in the Division of Chemical Education. The institutions of the successful applicants are expected to match the award.

Eligibility: Applications will be accepted from students at colleges and universities within the Northeastern Section of the ACS. The undergraduate student must be a chemistry, biochemistry, chemical engineering, or molecular biology major in good standing with at least junior status, and must be currently engaged in undergraduate research.

Application: Application forms may be obtained from the NESACS web site at <http://www.nesacs.org>. The deadline for **receipt** of completed applications by Professor Matthew Gage, Chair of the Grants-in-Aid Committee, is October 2, 2017. Completed applications are to be sent to: Professor Matthew Gage, Department of Chemistry, University of Massachusetts Lowell, 1 University Avenue, Lowell, MA 01854 Phone: 978/934-3683 Fax: 978/934-3013; e-mail: Matthew_Gage@uml.edu

Notification: Applicants will be notified of the results by e-mail on October 9, 2017. The deadline for electronic submission of abstracts to the American Chemical Society in Washington, D.C. is October 16, 2017, 11:59 PM. ◇



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Chemists Celebrate Earth Day at the Museum of Science:

A Fun-filled STEM Outreach Event through NESACS & MoS

by Dr. Jayashree Ranga, Salem State University and David Sittenfeld, Museum of Science

Chemists Celebrate Earth Day (CCED) event, a STEM outreach event, was organized at the Blue Wing of Museum of Science, Boston on Sunday, April 23, 2017 from 12 - 4 pm by the Northeastern Section of American Chemical Society and Museum of Science (MoS). About 75 enthusiastic guest educators from 11 organizations engaged young visitors with ~15 hands-on activities related to chemistry and this year's theme "Chemistry Helps Feed the World". About 500 visitors participated in these fun-filled CCED activities at the event. Activities presented to visitors included making dye, testing food for starch and sugar, chemistry of gum, chemistry of milk and soap, M&M E-factor, cabbage juice indicator, gummy capsules, candy chromatography, conductivity of various liquids, and making plastics out of mushrooms.

Most of the guest educators were either undergraduates or high school students. The guest educators did an amazing job of engaging young audience with food related hands-on science activities. Special thanks to our guest educators from Beyond Benign, Gordon College, Malden High School, Malden Catholic High School, Massachusetts Maritime Academy, Museum of Science, Northeastern University, NESACS, Salem State University, Simmons University, and Suffolk University.

NESACS also participated in the CCED-2017 Illustrated Poem contest. The student received a \$25 gift card from amazon.com and the teacher received a \$25 gift card from teacher www.teachersource.com.

Congratulations to the winners!

Student: Ashmita Prajapati (3-5 Category), School or Sponsoring group: Graham and Park

Teacher: Karen Engels



CCED guest educators at the MoS on April 23, 2017. Photo by Dr. Jayashree Ranga.

Thank you CCED guest educators!*

Beyond Benign: Mollie Enright, Nephaelia Nichols, Loren Po, Joe Romeo, Mathew Winward

Gordon College: Lian Atlas, Quincy Dougherty, Victoria Ganss, Sara Lareau, Mirielle Nauman, Ivy Ngo, Rachel Olugbemi

Malden Catholic High School: Jason Feng, Harri Han, Terri Li, William Liu, Diane Perito, Alex Qun, Sam Shen, Jianwei Wang

Malden High School: Martin Berryman, Kawing Cheung, Vivian Du, Amy Fong, Audrey Goon, Pete Jinapin, Wojciech Kochanczyk, Kaytlin Kwong, Hien Lau, Christina Luc, Brandon Nguyen, Lynn Nguyen, Arsema Paulos, Joanna Tan, Tim Tso, Kelly Weng, Susan Wong, Meghan Yip, Tiffany Yu, Yu Wei Zeng, Yan Zheng, Wu Zheng, Tiffany Yu, Susan Wong

Massachusetts Maritime Academy: Ray Lam

Museum of Science: Emily Hostetler, Meghan Wrenn

NESACS: Cosmo Sabatino, Himanshu C Shah

Northeastern University: Biruck Abreha, Courtney Bell, Jill Coghlan, Travis DeLano, Emma Langdon, Madeline MacDonnell, Sunandhaa Narasimhan, Sanjana Phatak, Cameron Rederscheid

Salem State University: Ellen Acheampong, Prince Acheampong, Benjamin Bergstrom, Amanda Cesero, Chanmony Chap, Sunatib Choudhry, Sabrina Mohammed, Evelin Reyes, Lily Sanfilippo, Natasha Schmelte, Vivian Tam, Claudia Tangu, Jon Weaver

Simmons College: Elaine Baulsir Mancini, Luz Corrales, Chyenne Yeager

Suffolk University: Allen Alfadhel, Ysabella Batista, Janice Bautista, Julie Bautista, Aziz Biyari, Kaitlyn Jenkins, Meri Kalashyan, Kubra Umit

*I apologize if your name is not on this list.

NESACS will be organizing National Chemistry Week (NCW) in October. The 2017 theme for NCW is "Chemistry Rocks": Exploring the chemistry of rocks and minerals. ◇



Ms. Ashmita Prajapati with her certificate from NESACS CCED-2017 Illustrated Poem contest. Photo by Ms. Karen Engels.

Approved Oncologic Drugs for Pediatric Use 2015-2017

By James S. Weinberg, Ph.D., Biophysics Assay Laboratory

The good news - the FDA has approved 4 new drugs with indications for pediatric oncological use and added them to the original list of 25 drugs published in October 2015 NESACS The Nucleus. (See) http://www.nesacs.org/curr_events/other-sym/symp/weinberg_symp/andrew_weinberg_symp1995-2015.pdf

Regulatory Approved Oncologic Drugs for Pediatric Use with Pediatric Dosing 2015-2017

Drug	Oncology Drugs Approved - Indication
Dinutuximab (tradename Unituxin)	Neuroblastoma in combination with GM-CSF and IL-2 and 13-cis retinoic acid
Blinatumomab (tradename Blincyto)	Relapsed/refractory acute lymphoblastic leukemia
Pembrolizumab (tradename Kaytruda)	Microsatellite instability-high solid tumors
Avelumab (tradename Bavencio)	Children 12 years of age and older with Merkel cell carcinoma
Source: Gregory H. Reaman, M.D., Associate Director, Oncology Sciences, U.S. Food and Drug Administration	

This brings the total in the last 64 years (since 1953) to 29 drugs approved (about one every two years). In the last two years the rate has improved to two drugs a year. All four new drugs are monoclonal antibodies: Dinutuximab is a monoclonal antibody that targets glycolipid disialoganglioside (GD2), expressed on neuroblastoma cells. Blinatumomab specifically targets the CD19 antigen present on B cells. Pembrolizumab targets the programmed cell death 1 (PD-1) receptor. Avelumab targets the protein programmed death-ligand 1 (PD-L1).

Our 2016 Weinberg Symposium speaker Mignon Loh was deeply involved in the successful pediatric clinical trials of Blinatumomab.

Thanks to major support from Members, contributors to Team Andrew Weinberg Boston Marathon Jimmy Fund Walk, and two major donations from Epizyme®, Inc., and Tufts' Physician Assistants Class of 2018, we are proud to announce: James E. Bradner, MD, President of the Novartis Institutes for BioMedical Research will give the 21st Andrew H. Weinberg Memorial Lecture on Wednesday, November 1, 2017 at 4:00

Approved Oncologic Drugs for Pediatric Use 2015-2017



Steven DuBois (back center) receiving \$2,000 from the Tufts' Physician Assistants Class
Photo by Sam Ogden

pm – 5:00 pm which will be simultaneously web streamed at: <http://video.dfcionline.org/accordent/WeinbergSymposium110117>

Final information will be in the October issue of *The Nucleus*, online at MassBio's event page and online in Whitehead Institute's Biology Week.

Donations are gratefully accepted at: <http://www.jimmyfundwalk.org/2017/teamandrewweinberg>

The Symposium Committee:

James S. Weinberg, Ph.D., Biophysics Assay Laboratory;
Julie S. Weinberg, B.A., Tufts PA Class of 2018;
Glenn Bublely, M.D., Beth Israel Deaconess Medical Center;
Holcombe Grier, M.D., Dana-Farber Cancer Institute;
Peter Ho, M.D., Ph.D., Epizyme, Inc.;
Cigall Kadoch, Ph.D., Dana-Farber Cancer Institute;
Steven DuBois, M.D., M.S., Dana-Farber Cancer Institute;
Tracey Cook, M.A., Dana-Farber Cancer Institute. ◇

Save the date!

The 21st Andrew H. Weinberg Symposium

November 1, 2017

Featuring James E. Bradner, MD
President-Novartis Institutes for BioMedical Research

20th Annual Weinberg Symposium

Speaker: Mignon Loh, MD, the Benioff Professor of Clinical Pediatrics and Chief of Pediatric Hematology/Oncology at the University of California, San Francisco Benioff Children's Hospital

By Steven DuBois, MD, MS, Director, Experimental Therapeutics Dana-Farber/Boston Children's Cancer and Blood Disorders Center and chair of the Weinberg Symposium Committee



Mignon Loh

Photo by Sam Ogden.

The Weinberg Symposium was created in honor of Andrew H. Weinberg, who died of cancer before his third birthday. The Weinberg family, with support from family and friends, as well as the Medicinal Chemistry Group of the Northeastern section of the American Chemical Society, created a fund in 1995 to support the lecture. Through this symposium, the Andrew H. Weinberg Memorial Endowment Fund brings together researchers from the field of cancer drug development and those in the biomedical research and clinical care communities at large, helping to foster an environment for synergy in advancing the care of children with cancer.

"The Weinberg Symposium plays a vital role in the oncology drug development landscape. Bringing together researchers from Universities, Medical Centers and Industry, it allows for creative discussion among guests which is atypical at traditional meetings. It also serves to inspire our next generation of thought leaders- the students who intend to pursue careers in this rapidly evolving field."

—Graham Jones, PhD, Tufts Clinical and Translational Science Institute (Tufts CTSI); Associate Director and Director of Research Collaborations Tufts CTSI.

"I am grateful for the opportunities the Weinberg symposium has provided as a forum for interaction and collaboration between my research program and some of the most prominent physicians and scientists in the field."

— Alejandro Gutierrez, MD, Division of Hematology/Oncology at Children's Hospital Boston and the Department of Pediatric Oncology at Dana-Farber Cancer Institute.

"The Weinberg Symposium has been a unique venue that has brought together a wide breadth of basic and clinical researchers from diverse settings ranging from academia, government and the pharmaceutical industry to promote the discovery and development of new cancer therapeutics for children. While there exist many conferences that focus on similar objectives in adult malignancies, especially the ones most common, it is rare for this to occur in the setting of childhood cancers. It is for this reason that I look forward to hearing from the invited speaker each year."

— Peter Ho, MD, PhD, Chief Medical Officer, Epizyme, Inc.

"I have been fortunate to be involved with the Weinberg Symposium since its inception. There are several ways in which the event has brought meaning to me and to the field: James Weinberg has taken a tragedy in his life and turned it into a personal mission to improve the care of children with cancer. He has utilized his own expertise (medicinal chemistry) to put together a symposium that combines industry, academia and government speakers. The speakers, to a one, understand this mandate, and bring new ideas to the symposium allowing a better understanding over the years of how cancer treatment for children comes about. Our trainees meet with the speaker each year, allowing them personal insight into cancer drug development."

— Holcombe Grier, MD, Professor of Pediatrics, Clinical Oncology at Dana-Farber/Children's Hospital Cancer Care

With advances in treatment and discoveries in basic science, about 90 percent of children with acute lymphocytic leukemia (ALL) are now long-term sur-

vivors. But that is no cause for complacency, an expert in the disease told an audience at Dana-Farber on Sept. 28, 2016.

Delivering the 20th Annual Weinberg Symposium, Mignon Loh, MD, chief of Pediatric Hematology/Oncology at the University of California, San Francisco, discussed how researchers are translating recent discoveries into new therapies for children, adolescents, and young adults with ALL.

"The mission for all of us is to identify which patients can be cured with our current therapies, and what 21st century methodologies we can use to improve the prospects for those at high risk of treatment failure," she said.

Strategies for improving treatment are proceeding along four routes, she remarked: 1.) identifying patients who may benefit from targeted therapies; 2.) modifying therapy for patients who do not metabolize – or break down – certain drugs normally; 3.) adjusting therapies to prevent or deter drug resistance; 4.) determining which patients might benefit from immunotherapies. Three major trials are underway nationwide to test these approaches.

This lecture webcast can be viewed at: <http://video.dfcionline.org/accordent/WeinbergSymposium092816/>

Recent Weinberg Symposium lectures can be viewed at:

The 18th Annual Andrew H. Weinberg Annual Memorial Lecture

Luis Alberto Diaz, Jr., M.D Associate Professor, Oncology, Johns Hopkins Sidney Kimmel Comprehensive Cancer Center and the Ludwig Center for Cancer Genetics and Therapeutics, Novel clinical applications of cancer genomics <http://video.dfcionline.org/accordent/Weinberg061914>

The 19th Annual Andrew H. Weinberg Annual Memorial Lecture

Gregory Reaman, M.D., Associate Di-

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Education Night Awards

Photos by Morton Z. Hoffman

A123 Systems, Waltham, MA - May 11, 2017

The Board of Directors of NESACS would like to thank A123 Systems for the opportunity to hold our Education Night Event at A123 Systems this year.



Chris Campion (L), Senior Research Scientist at A123 Systems, welcomes the attendees to A123 Systems. Sarah McCord (R), Associate professor at MCPHS University gave the keynote talk on data management in chemistry.

HIGH SCHOOL AWARDS

FIFTY-SIXTH ANNUAL AVERY A. ASHDOWN HIGH SCHOOL EXAMINATION CONTEST

Student	School	Teacher
First Place - The Simmons College Award		
Joshua Park	Lexington HS	Janice Compton
Second Place		
Evan Zeng	Newton South HS	Alan Crosby, Suzy Drurey
Third Place		
Peter Wilson	Acton Boxborough	Eleni Kakaliou, David Baumritter
Honorable Mention First Year		
Henry J. Heffan	Brookline HS	Meaghan Cells, Alexis Murphy
Brian Xiao	Groton School	Sandra Kelly
Benjamin Choi	Lexington HS	Janice Compton
Chris Q. Yang	Winchester HS	Xiaojie Zhou, David Baumritter
Nathan Elbaum	Newton South HS	Alan Crosby, Marianne McChesney
Honorable Mention Second Year		
Eric You	Phillips Academy	Kevin Cardozo, Brian Faulk
Gautam Ramesh	Phillips Exeter Academy	Michael H. McLaughlin, Alison Hobbie
Andrew Tsakiris	Acton-Boxborough,	Mrs. Kakaliou, Mr. Baumritter
Samuel He	Phillips Academy, Andover	Kevin Cardozo, Brian Faulk
Alexandra Hoey	Concord - Carlisle	Betsy Meeks, Cricket McCaffrey

AULA LAUDIS SOCIETY

Lorraine Zanini	Algonquin Regional High School
David Belmarsh	Newton North High School
Rosemary White	Boston University Academy

Theodore William Richards Award for Excellence in Teaching Secondary School Chemistry

Jay Chandler	Wayland High School
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Remaining USNCO Qualifiers

Hasan M. Khan	Sharon High School
Alex H. Zhong	Wayland High School
Andrew N. Garber	Cambridge Rindge and Latin School
Alex Y. Zhu	Wayland High School
Andrew Mulholland	Masconomet High School
Caleb Trotz	Acton - Boxborough
Cheng W. Jin	Winchester High School
Inyoung Choi	St. Paul's School
Soo Hyun Kim	St. Paul's School
Jillian O'Neil	Concord - Carlisle High School
Elizabeth Qian-Wang	Dover - Sherborn High School
Yuxuan (Tom) Zhang	Boston University High School
Beth LaMacchia	Andover High School
Juliana Katz	Masconomet High School

COLLEGE AND UNIVERSITY AWARDS

2017 UNDERGRADUATE RESEARCH SCHOLARS, JAMES FLACK NORRIS And THEODORE WILLIAM RICHARDS SCHOLARS

Abraham Bayer	Tufts University
Rebecca Scheck, Advisor	
William Coreas	Stonehill College
Deno Del Sesto, Advisor	
Sewon Oh	Boston College
Jeffrey A. Byers, Advisor	
Rachael Howland	UMass - Dartmouth
Patrick Cappillino, Advisor	

DR. PHYLLIS A BRAUNER MEMORIAL BOOK AWARD

Yimin Zhang	Tufts University
Samuel W. Thomas III, Advisor	◇

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

A) One b) Two c) Many

www.nesacs.org/awards

19th Annual Northeast Student Chemistry Research Conference (NSCRC)

By Sofia Santos, PhD, 2016-2017 Career Chair of NSYCC, Photos by Brian D'Amico

The NSCRC took place on April 8th 2017 in the Chemistry Building at Harvard University. We had 137 people registered for the day from 23 different universities and colleges. One of the measurements of our success this year was establishing a point of contact at each university in the Northeastern Section. This allowed us to cast a wider net and spread the word about the conference and other great events organized by the NSYCC to a wide range of schools. Another important aspect of our conference this year was welcoming students from diverse chemistry backgrounds. The day was comprised of 6 talks, 66 posters and 7 elevator pitches. Judges voted on six different prestigious awards including best talk and best poster for undergraduate and graduate students. At the end of the day our sponsored monetary awards were given to those selected:

Oral Presentation Awards:

Xuyu Tan, Northeastern University - Outstanding Oral Presentation Award sponsored by Strem Chemicals

John de la Parra, Northeastern University - Excellent Elevator Pitch Award sponsored by JEOL USA, Inc.

Poster Awards:

Bilyana Koleva, Northeastern University - Outstanding Graduate Student Poster sponsored by Strem Chemicals

Jasper Du, Tufts University - Outstanding Undergraduate Student Poster sponsored by JEOL USA, Inc.

Other Awards:

Reem Telmesani, Boston University - Most Promising Female Scientist Award sponsored by Graduate Women in Science

Yimin Zhang, Tufts University - The Phyllis A. Brauner Memorial Book Award sponsored by the Northeastern Section of the American Chemical Society Committee on Chemistry Education



The judges of the NSCRC (L-R) Mindy Levine, Tian He, Sofia Santos, Carol Mulrooney and Thomas Gilbert.

Many thanks to our judges Dr. Mindy Levine, Dr. Thomas Gilbert, Dr. Carol Mulrooney and Dr. Sofia Santos from NE-SACS, as well as Dr. Tian He from Harvard University, for their participation and hard work!

Due to the current political climate and the increased interest of young chemists in science policy as well as their desire to get more involved in government affairs and have the power to make a difference outside of the lab, we invited Dr. Laura E. Pence from the University of Hartford as our keynote speaker. Dr. Pence, a Professor of Chemistry and an elected member of the American Chemical Society Board of Directors from District I, spent a year as an ACS/American Association for the Advancement of Science (AAAS) Congressional Science Policy Fellow in the office of Sen. Michael Bennet (D-CO), where her policy portfolio featured natural resources, energy, and environmental issues, with a particular emphasis in the areas of water and forestry. Dr. Pence's keynote address on "Science Policy in a Post-Fact World" was very engaging and sparked a productive interaction with the audience.



Award winners from the NSCRC conference held at Harvard University: (L-R) Reem Telmesani (Boston University), Jasper Du (Tufts University), Yimin Zhang (Tufts University), Bilyana Koleva (Northeastern University), John de la Parra (Northeastern University), Xuyu Tan (Northeastern University).



Dr. Laura Pence Q&A

continued on page 14

Education Night Awards

Continued from page 10



Rachael Howland (University of Massachusetts Dartmouth), recipient of a James Flack Norris and Theodore William Richards Scholarship, flanked by her research advisor, Patrick Cappillino, at right, and Ruth Tanner (University of Massachusetts Lowell), Acting Chair, NESACS Education Committee.



Initiation into the Aula Laudis Society: Lorraine Zanini (Algonquin Regional High School), at left, and Rosemary White (Boston University Academy), second from the right, with Ann Lambert (King Phillip Regional High School, Chair, Aula Laudis Society, and Steve Lantos, at right.



Remaining Qualifiers for the United States National Chemistry Olympiad Team: (l-r) Andrew Mulholland (Masconomet High School), Andrew Garber (Cambridge Rindge and Latin School), Juliana Katz (Masconomet High School), Hasan Khan (Sharon High School), Beth LaMacchia (Andover High School)



Third Place in the Ashdown Exam: Peter Wilson (Acton-Boxborough Regional High School), at left, with Steve Lantos



Second Place in the Ashdown Exam: Evan Zeng (Newton South High School), at right, with Steve Lantos (Brookline High School), Chair, NESACS High School Education Committee, at right.



Sewon Oh (Boston College), recipient of a James Flack Norris and Theodore William Richards Scholarship, flanked by his research advisor, Jeffrey Byers, at left, and Ruth Tanner

Historical Note

Jean-Pierre Anselme 1936–July 12, 2017

I knew J.-P. through my earlier years at Polaroid. He was very good friends with Research Director Lloyd Taylor and Lloyd hired many of his students. The best known is John Warner, hired after John received his Ph. D. from Ted Taylor at Princeton. But I also worked and in one case supervised a former student of his, the irrepressible, Bill Collibee, of Everett who bounced between chemistry and pharmacy but ended up back at

his roots as a bench chemist after returning to J.-P. to get a master's degree. One of my first labmates at Polaroid was Charlie Hammond, another of J.P.'s students, as well as Cathy (Keane) Palumbo who became our NMR spectroscopist. His legacy at Polaroid was substantial and he was loved and respected by those who knew him. There is a wonderful obituary at the Roberts-Mitchell Funeral Home in Medfield, MA.

<https://obitree.com/obituary/us/massachusetts/.../jean-pierre-anselme/2981218/index.php>

Some excerpts from that obituary:

Professor Emeritus Jean-Pierre Anselme was born in Port-Au-Prince, Haiti in 1936. While growing up in Haiti

he lost his mother at the age of 12, but despite his loss he persevered to immigrate to the United States in 1955 to study Chemistry at Fordham University and later earn his Ph.D. from Brooklyn Polytechnic Institute of New York in 1961. J.-P. was a Professor of Chemistry at the University of Massachusetts at Boston for over 43 years. He founded *Organic Preparations and Procedures International* and was Executive Editor until his passing.

J.-P. was a mentor and an inspiration to many students who went on to successful careers in Chemistry and in other sciences including medicine. In 1980, he was awarded the Distinguished Immigrant Award from President Rea-

continued on page 14

Esselen Award Photos

by Joel Laino



Head Table (l to r): Dr. Karl Hansen of Amgen and Chair of the 2017 Esselen Award Committee, Leland Johnson Chair of NESACS, Dr. James Anderson of Harvard University and 1991 Esselen Awardee, Dr. Neil M. Donahue of Carnegie Mellon and the 2017 Awardee, Dr. Donahue's wife Dr. Maren Donahue and their daughter Ms. Kielan Donahue



Representing the Esselen family standing (L-R): Mr. Malcolm Bell and his wife Mrs. Nancy Bell and Mrs. Joanna Hanson Stengle. Seated l to r: Mrs. Joan Esselen Foot and her husband Mr. Silas B. Foot III, Mrs. Catherine Esselen and her husband Mr. Gustavus John Esselen IV, the presenter of the award. He and his sister, Mrs. Joan Foot, are the children of the founder of the award.



Standing (L-R): Dr. Paul Vouros, Dr. Martin Idelson, Dr. Paulette Idelson, Mrs. Irene Vouros and Dr. Anna Sromek. Seated l to r: Dr. John Neumeyer, Mrs. Rose Simon and Dr. Myron Simon. All are past chairs of the Esselen Award Committee and dedicated supporters of the award.



Representing the Esselen family standing l to r: Mr. G. McKenzie Gordon and his wife Mrs. Dorothy Bachrach Gordon and seated l to r: Dr. Laura Bachrach, Mr. Peter Gamble and Dr. William Bachrach.

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Call or email to see what opportunities are available.

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

Email filosam@verizon.net

Historical Note

Jean-Pierre Anselme

Continued from page 13

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NSCRC

Continued from page 11

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Monthly Meeting

Continued from page 5

Garages. If a visitor parks at either of these garages he/she will need to obtain an hourly validation ticket at the 35 Landsdowne, 40 Landsdowne, 300 Mass. Ave. or 350 Mass. Ave. reception desk. **Without the hourly validation ticket, visitors and anyone not possessing a monthly parking card will be charged a flat \$40 fee no matter the duration of the visit.** ◇

Weinberg Symposium

Continued from page 9

rector of Oncology Sciences Office of Hematology and Oncology Products Center for Drug Evaluation and Research, U.S. Food and Drug Administration, and Professor of Pediatrics George Washington University School of Medicine and Health Sciences, "Drug Development for Pediatric Cancers – Turning Challenges into Opportunities: A View from the Other Side"

<http://video.dfcionline.org/accordent/2015WeinbergSymposium102915> ◇

NESACS 2017 Awards

Continued from page 6

merization, organometallic chemistry, organic opto-electronic materials, and electronically functional metal oxides."

The winner of the 2016 James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry from NESACS, **Thomas Holme**, Iowa State University, received the **George C. Pimentel Award in Chemical Education** sponsored by Cengage Learning and the ACS Division of Chemical Education: "For his pioneering work in developing curriculum materials for pre-engineering students and advancing our understanding of measurement of student learning in chemistry."

Other NESACS members who assisted with award presentations were **Katherine Lee**, Pfizer, Inc.; **Christopher Bauer**, University of New Hampshire; **Ephraim Honig**, Strem Chemicals; **Jennifer Maclachlan**, PID Analyzers; **Dorothy Phillips**, ACS Board of Directors. ◇

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Calendar

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

These include:

- <http://www.bc.edu/schools/cas/chemistry/seminars.html>
- <http://www.bu.edu/chemistry/seminars/>
- <http://www.brandeis.edu/departments/chemistry/events/index.html>
- <http://chemistry.harvard.edu/calendar/upcoming>
- <http://www.northeastern.edu/cos/chemistry/events-2/>
- <http://chemistry.mit.edu/events/all>
- <http://chem.tufts.edu/seminars.html>
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- <http://www.umassd.edu/cas/chemistry/>
- <http://www.uml.edu/Sciences/chemistry/Seminars-and-Colloquia.aspx>
- <http://www.unh.edu/chemistry/events>
- <https://www.wpi.edu/academics/departments/chemistry-biochemistry>

September 7

Prof. John R. Reynolds (Georgia Tech)
MIT, Room 6-120, 4:00 pm

Prof. Alex Dieters (Pittsburgh)
Boston College, Merkert 130, 4:00 pm

September 8

Prof. Donna Blackmond (Scripps Research Institute)
Boston College, Merkert 130, 4:00 pm

September 9

Prof. Donna Blackmond (Scripps Research Institute)
Boston College, Merkert 130, 4:00 pm

September 12

Prof. Steve Buchwald (MIT)
Harvard, Pfizer Lecture Hall, 4:15 pm
Prof. Yoshito Kishi (Harvard)
Boston College, Merkert 130, 4:00 pm

September 13

Prof. Yimon Aye (Cornell)
Boston College, Merkert 130, 4:00 pm
Prof. Anita Mattson (Worcester Polytechnic Institute)
"Catalyst Design, Method Development, and Complex Molecule Synthesis."
Northeastern, 129 Hurtig Hall, 12:00 pm

September 14

Prof. David MacMillan (Princeton)
Boston College, Merkert 130, 4:00 pm

September 15

Prof. David Liu (Harvard)
Boston College, Merkert 130, 4:00 pm

September 18

Prof. Shana Kelley (Toronto)
Harvard, Pfizer Lecture Hall, 4:15 pm

September 19

Prof. Donna Chen (South Carolina)
Tufts, Pearson, Rm. P106, 4:30 pm
Prof. Jack Norton (Columbia)
Boston College, Merkert 130, 4:00 pm

September 20

Prof. Stephen Ragsdale (Michigan)
"The Roles of Metal Ions in Biology."
Northeastern, 129 Hurtig Hall, 12:00 pm

September 21

Prof. David Tirrell (Cal Tech)
Boston College, Merkert 130, 4:00 pm

September 25

Prof. Emily Balskus (Harvard)
Harvard, Pfizer Lecture Hall, 4:15 pm

September 26

Prof. Bonnie Bassler (Princeton)
Tufts, Pearson, Rm. P106, 4:30 pm
Prof. Jeff Long (UCal-Berkeley)
Harvard, Pfizer Lecture Hall, 4:15 pm
Prof. Christine Thomas (Brandeis)
Boston College, Merkert 130, 4:00 pm

September 27

Prof. Eric Brustad (North Carolina)
Boston College, Merkert 130, 4:00 pm
Prof. Leslie Hicks (North Carolina)
"Proteomics, Post-translational Modifications, and Mass Spectrometry."
Northeastern, 129 Hurtig Hall, 12:00 pm

September 28

Prof. Tom Maimone (UCal-Berkeley)
MIT, Room 6-120, 4:00 pm

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