Monthly Meeting
A Panel Discussion on Intellectual Property to be held at Biogen, Cambridge, MA

NESACS Election Results
Raj Rajur to serve as 2020 Chair-Elect

Catalyst: A Networking Series Featuring Women in Chemistry
By Carol Mulrooney

Science and Beer at the Pint of Science Festival
By Christine Caputo
Announcements

Grants-in-Aid to Undergraduates to Attend the 259th ACS National Meeting & Exposition, March 22-March 26, 2020, in Philadelphia, PA.

The Northeastern Section of the American Chemical Society (NESACS) will provide Grants-in-Aid of $350 to each of four undergraduates to attend the 259th ACS National Meeting in Philadelphia, PA, 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 4, 2019. 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; email: Matthew_Gage@uml.edu

Notification: Applicants will be notified of the results by e-mail on October 7, 2019. The deadline for electronic submission of abstracts to the American Chemical Society in Washington, D.C. is October 14, 2019, 11:59 PM.

Call for Nominations

The Gustavus John Esselen Award for Chemistry in the Public Interest

The Northeastern Section of the American Chemical Society (NESACS) is inviting nominations for the 29th Gustavus John Esselen Award for Chemistry in the Public Interest. This prestigious annual award is given to a chemical scientist whose scientific and technical work has contributed significantly to the public well-being thereby communicating the positive values of the chemical profession. The awardee shall be a living resident of the United States or Canada at the time of nomination and the public impact of the work should have become apparent within the five years preceding the nomination.

There is no limitation to the field of chemistry. The selection committee focuses on the general public recognition of the work, as well as its scientific/technical significance.

The Award consists of a bronze medal and the sum of $5,000. Travel expenses incidental to the conferring of the award will be reimbursed. The award will be presented at the April 2020 meeting of the Section. The Awardee is expected to deliver an address on the subject of the work for which the honor is conferred, or for work in progress which is also directed toward chemistry in the public interest.

Nominations should be submitted as a single pdf file including: 1) a letter signed by the primary sponsor with a description of the nominee’s work recognized as making a major contribution to the public welfare and as communicating positive values of the chemical profession, plus the names of two co-sponsors; 2) short supporting co-sponsor statements; 3) the nominee’s professional biography including a list of no more than ten of the nominee’s publications selected for their pertinence to the work nominated for recognition; and 4) copies of popular and technical press news or feature articles indicative of public benefit and interest. Further information is available at www.nesacs.org.

Nominations are due October 18, 2019 to John.Macor@Sanofi.com with cc to JPiperGrady@gmail.com. Award recipients will be notified by January 31, 2020. Inquiries may be directed to the above or to Dr. John Macor, Tel. (781) 464-3970 or Jeananne Piper Grady, Tel. (617) 620-8315. Address: 11 Thaxter St., Hingham, MA 02043.

NESACS Election Results

The candidates selected in the 2019 NESACS Election are listed below. Congratulations, on their election to these positions. We offer our congratulations on their election to these positions.

Chair-Elect:
Raj Rajur

Secretary:
Michael Singer

Trustee:
Dorothy Phillips

Councilor:
Tom Gilbert
Malika Jeffries-EL
Lisa Marcaurelle
Sofia Santos
Mary Jane Shultz
Sonja Strah-Pleyenet

Alternate Councilor:
Jens Breffke
Hicham Fenniri
Mary Mahaney
Michael Singer
Ashis Saha
Kap-Sun Yeung

Director-at-Large
David Harris
Mark Tebbe

Nominating Committee
Elizabeth Draganova
Brian D’Amico

Richards Medal Committee:
Mary Jane Shultz
Mingdi Yan

Esselen Award Committee
Karen Allen
Katherine Mirica

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**Cover:** Dr. Carolyn R. Bertozzi (2019 Awardee, Gustavus John Esselen Award for Chemistry in the Public Interest) with Gustavus John (Jack) Esselen IV (Grandson of the Award’s namesake) on her right and Prof. David Walt (2019 Chair, Esselen Award Committee) on her left. (Photo by Joel Laino)

**Editorial Deadlines:** November Issue: September 22, 2019

December Issue: October 22, 2019

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**THE NUCLEUS**

The Nucleus is published monthly, except June and August, by the Northeastern Section of the American Chemical Society, Inc. Forms close for advertising on the 1st of the month of the preceding issue. Text must be received by the editor six weeks before the date of issue.

**Editor:** Michael P. Filosa, Ph.D., 18 Tamarack Road, Medfield, MA 02052 Email: mpf1952@gmail.com; Tel: 508-843-9070

**Associate Editors:** Myron S. Simon, 60 Seminary Ave, apt 272, Auburndale, MA 02466

Morton Z. Hoffman, 23 Williams Rd., Norton, MA 02766

**Board of Publications:** Ajay Purohit (Chair), Mary Mahaney, Ken Drew, Katherine Lee, Katherine Rubino

**Business Manager:** Vacant: contact Michael Filosa at mpf1952@gmail.com

**Advertising Manager:** Vacant: contact Michael Filosa at mpf1952@gmail.com

**Calendar Coordinator:** Samurdhi Wijesundera, Email: samu.amameth@gmail.com

**Photographers:** Brian D’Amico, Morton Z. Hoffman

**Proofreaders:** Donald O. Rickter, Morton Z. Hoffman

**Webmaster:** Roy Hagen, Email: webmaster@nesacs.org

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CAFC Affirms Invalidation of Oxycodone Patent for Lack of Written Description


On April 19th, 2019 the Court of Appeals of the Federal Circuit (CAFC) affirmed the decision reached at the Patent Trial and Appeal Board (PTAB) in the case of Purdue Pharma L.P., P.F. Laboratories, Inc. and Purdue Pharmaceuticals L.P. (“Purdue”) v. Andrei Iancu (“Iancu”). The case first began when an inter partes review (IPR) at the PTAB against Purdue’s patent 9,034,376 (‘376) titled “Pharmaceutical Formulation Containing Gelling Agent” was filed. The ‘376 patent describes an abuse deterrent extended release version of oxycodone. Oxycodone is a semi-synthetic opioid with agonist activity on mu, kappa, and delta receptors. The principal therapeutic action of oxycodone is analgesia. Oxycodone can be an addictive substance, that is crushed and either snorted or injected, producing a high. The abuse deterrent extended release version of oxycodone prevents the tablet from being used in this fashion.

The ‘376 patent describes two gelling agents that deter potential opioid abuse by making it unsuitable for parenteral and nasal administration when exposed to an aqueous solution. Amneal Pharmaceuticals LLC (“Amneal”) filed two petitions for IPR of claims 1-13 and 16-19 of the ‘376 patent. Amneal asserted the ‘376 patent was not valid on grounds of obviousness. One of the references asserted by Amneal, as support for obviousness, was Patent US 2002/0187192 A1 (“Joshi”), which was published on December 12, 2002 based on an application filed April 30th, 2001. Amneal asserted that Joshi was valid prior art under § 102(e).

During the IPR, Purdue argued that Joshi was not prior art under § 102(e) because the ‘376 was entitled to an earlier priority date than Joshi’s priority date, which claimed priority to a provisional application filed April 30, 2001. However, the PTAB failed to allow Purdue’s arguments as to the Joshi patent being prior art to be relitigated, because of a district court case involving Purdue, that derived from the same provisional application as the ‘376 patent which was subsequently invalidated using Joshi. The PTAB reasoned that based on the legal doctrine of collateral estoppel, Purdue was estopped from challenging Joshi’s status as prior art. Further, the PTAB recognized that Purdue had never previously argued that Joshi did not qualify as prior art and collateral estoppel applies “to issues that were or could have been raised.”

In addition, the PTAB held that even if collateral estoppel did not apply, Joshi qualifies as prior art under § 102(e) because Purdue failed to show that the ‘376 patent was entitled to a filing date that predated Joshi’s priority date. The earliest filing date the ‘376 patent could claim priority was August 6, 2002, which was after Joshi, as Joshi had a priority date of April 30, 2001. Further, the PTAB held that the ‘376 patent did not have support in an earlier draft or in the provisional application disclosing the exact formulation as described in the ‘376 patent. The PTAB reasoned that the earlier draft and the provisional included a “laundry list” of possible gelling agents and neither document “specifically named or mentioned the combination in any manner.”

On appeal to the CAFC, Purdue challenged the Board’s conclusion that Joshi qualifies as prior art, arguing that the PTAB improperly invoked collateral

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Monthly Meeting

The 989th Meeting of the Northeastern Section of the American Chemical Society

Protecting Intellectual Property in Pharmaceuticals
Sponsored by Biogen and Finnegan LLP

Thursday – September 26, 2019

Biogen
300 Binney Street, Cambridge, MA 02142

4:30 pm  Monthly NESACS Board Meeting
5:30 pm  Social Hour
6:30 pm  Dinner
7:30 pm  Presentation of 50, 60, and 70 year member awards and Discussion Panel on Intellectual Property:
- Moderated by Sofia Santos, Pharma, Ph.D., Finnegan LLP, Boston, MA
- Emilie Braun, PharmD, Associate Director, Licensing, Partners Healthcare Innovation
- Sara Leiman, Ph.D., Associate, Finnegan LLP, Boston, MA
- Jennifer Sieczkiewicz Zarutskie, Ph.D., Vice-President, Chief Intellectual Property Counsel, Wave Life Sciences
- To be named (Biogen)

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

- For those who would like to join us for dinner, register by noon, Thursday, September 19, at https://intellectual_property_2019.eventbrite.com. Cost: Members, $30; Non-members, $35; Retirees, $20; Students, $10. Dinner 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 eat dinner, please register by noon, Thursday, September 19, at https://intellectual_property_2019.eventbrite.com. Select “Seminar only”.
- Directions to Biogen from I-90 west: 1. From Route 90 take exit 18 to Cambridge Street (0.6m). 2. Merge onto Cambridge Street (0.1m). 3. Turn right onto Memorial Drive (0.8m). 4. Turn left onto Vassar Street (1.1 m). 5. Take slight left onto Galileo Galilei Way (0.2m) 6. Continue straight (0.2 m). 7. Continue onto Binney Street (213 ft). 8. Turn right into driveway; building is in the right.
- From east (Boston): 1. Take Storrow Drive west to Government Center/Kendall Square exit. 2. Take Longfellow Bridge (0.2m). 3. Follow Broadway (0.3m). 4. Turn right onto Galileo Galilei Way (0.1 m). 5. Continue onto Binney St (213 ft). 6. Turn right onto driveway; building is on the right.
- Directions to Biogen - 300 Binney Street – BLDG 9, Cambridge, MA 02142; (617) 679-2000. Please park in “Blue” parking lot.

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

Oxycodone Patent
Continued from page 4

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estoppel. The CAFC dismissed Purdue’s argument, reasoning that the doctrine of collateral estoppel was properly applied.

Further, in regards to the issues regarding the lack of support in the provisional patent that the ‘376 patent claimed priority to, the CAFC affirmed that ruling of the PTAB as well. The CAFC reasoned that “simply describing a large genus of compounds is not sufficient to satisfy the written description requirement as to particular species or sub-genuses.” Further, the CAFC reasoned that such “laundry list” disclosures do not provide support as to written description requirements necessary to Purdue’s claim of priority. Based on this, the CAFC affirmed that claims 1-13 and 16-19 of the ‘376 patent were unpatentable for obviousness.

In conclusion, this case highlights the importance of well drafted provisional patent applications that explicitly described the claimed invention with adequate specificity. Absence of such explicit details contained within a provisional patent may cause a subsequent nonprovisional application to lose the ability to claim priority to the provisional patent filing date. Further, the nonprovisional patent can become susceptible to invalidation based on lack of written description and obviousness challenges in later filed post grant proceedings.
Dubbing it the “Peter Pan effect,” the presenter of the 22nd annual Andrew H. Weinberg Memorial Lecture described how genetic mutations can stall the development of certain brain cells and leave them in a state of perpetual immaturity. The result can be high grade glioma (HGG), one of the most lethal and disabling forms of brain cancer in children and young adults.

At the Sept. 6, 2018 event in the Yawkey Center, Nada Jabado, MD, PhD, of McGill University discussed her research into the fundamental causes of HGG, which led to the discovery that at the molecular level HGG is strikingly different in adults and children. She focused on research showing the disease is rooted in “epigenetic” abnormalities that occur during the process of brain development.

Mutations in certain key genes create abnormalities in proteins known as histones, which provide the spool around which DNA is wrapped within cells. Histones disfigured by such mutations are known as “oncohistones.” In the developing brain, oncohistones can disrupt the activity of genes needed for cells to mature, leading to HGG and other types of tumors.

These discoveries underscore the need for pediatric oncologists specializing in HGG to “be bold” in developing new therapies, Jabado said – potentially by combining different therapies capable of counteracting the abnormalities in oncohistones.

The Andrew H. Weinberg Memorial Endowment Fund was created with the support of family and friends of Dana-Farber patient Andrew H. Weinberg, along with the Medicinal Chemistry Group of the Northeastern section of the American Chemical Society and Dana-Farber. The fund is dedicated to bringing researchers from the field of cancer drug development together with those in the biomedical research and clinical care communities at large, helping to foster an environment for synergy and originality in cancer research, with a particular focus on pediatric oncology.

Comments by the Committee Chair:
“Dr. Jabado delivered an inspiring lecture detailing the molecular underpinnings of some of the most aggressive cancers we see in children. By unraveling the causes of these high-grade gliomas, her work is pointing us to potential new epigenetic therapies to be considered in future clinical trials.” — Steven DuBois, MD MS, Chair, Weinberg Symposium Committee

To learn more, please see some of Dr. Jabado’s recent high-impact publications:

Please note past lectures have been reformatted and can be viewed at new websites see below:

The 18th Annual Andrew H. Weinberg Annual Memorial Lecture June 19, 2014
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
https://externalmediasite.partners.org/Mediasite/Play/0e42889cd1ae46759420c67da8413ad1d

The 19th Annual Andrew H. Weinberg Annual Memorial Lecture October 29, 2015
Gregory Reaman, M.D., Associate Director 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”
https://externalmediasite.partners.org/Mediasite/Play/fa7edef4f3e746d280be370ec8023191d

The 20th Annual Andrew H. Weinberg Annual Memorial Lecture September 28, 2016
Mignon Lee-Cheun Loh, MD. The Benioff Professor of Clinical Pediatrics and Chief of Pediatric Hematology/Oncology, The University of California, San Francisco Benioff Children’s Hospital, “New Genomic and Immunotherapeutic Approaches to Childhood, Adolescent, and Young Adult ALL—What’s Next”
https://externalmediasite.partners.org/Mediasite/Play/fdabb0b15d2244358ee9151cb6ad52801d

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22nd Annual Weinberg Lecture
Continued from page 6

The 21th Annual Andrew H. Weinberg Annual Memo- 
rial Lecture November 1, 2017
James E. Bradner, M.D., President of the Novartis Institutes 
for BioMedical Research, New Paths to the Waterfall: Rethink- 
ing the Science of Therapeutics for Pediatric Malignancies 
https://externalmediasite.partners.org/Mediasite/Play/a58c3e9 
4dfb845f69734ac1de0135c361d

The 22nd Annual Andrew H. Weinberg Annual Memo- 
rial Lecture September 6, 2018
Nada Jabado, M.D., Ph.D.Professor of Pediatrics and Human 
Genetics, McGill University,The Research Institute of the 
McGill University Health Center, “Oncohistones: Exquisite 
Opportunities and Therapeutic Vulnerabilities” 
https://externalmediasite.partners.org/Mediasite/Play/790e8af 
d12b64e0b981d279911e447171d

Preliminary announcement!
The 23rd Annual Andrew H. Weinberg Memorial Lecture
More details will be in the October issue of The Nucleus.

Terry J. Fry, MD,
Children’s Hospital Colorado, Co-Director of the Human Immunology 
and Immunotherapy Initiative
Thursday, October 24, 2019
4:00 pm – 5:00 pm.
Yawkey Conference Center, 3rd Floor, Y306 and Y307, 
Dana-Farber Cancer Institute, 450 Brookline Ave, Boston, MA 02215

Dr. Fry was among the first scientists to investigate the potential to insert modified genes into a child’s own 
T-cells to target CD19, a surface protein found on nearly all cells affected by acute lymphoblastic leukemia 
(ALL). The first product using this technology was approved by the FDA for pediatric use in August 2017, 
achieved an astonishing 80% remission rate in children with leukemia previously resistant to all other 
therapies including conventional bone marrow transplant. 

A Cartoon by Sidney Harris

“Many of the select few who receive that call from 
Stockholm are, by that time in our lives, little more 
than spokesmen and women. We start off on our 
life’s journey as research scientists striving to catch 
hold of the coattails of the great and good, only to 
come to the realization, before too long, that we 
have reached our sell-by-date. In this Sidney Harris 
cartoon, the likes of me finds oneself at the podium, 
acting as the mouthpiece for a long line of accom- 
plished young whippersnappers who have sustained 
and promoted my reputation - to the point where I 
am left holding a hot potato, thanks to all of them.”

— Fraser Stoddart, Northwestern University 
[Shared the 2016 Nobel Prize in Chemistry with 
Jean-Pierre Sauvage and Bernard L. Feringa]
Blueprint Medicines, a precision therapy company focused on cancers and rare diseases, and the NESACS Women Chemists Committee have partnered to host a series of events with the goal of connecting and highlighting women in chemistry. These events, which include seminar speakers, panel discussions, and networking sessions, are aimed toward achieving our shared goals of empowering and promoting women leaders in STEM.

The first event, “Catalyst: Innovation,” was held at Blueprint Medicines on April 24th of this year. Following welcome remarks from Dr. Marion Dorsch, Blueprint Medicines’ Chief Scientific Officer, we were privileged to feature two keynote speakers who have performed groundbreaking research in organic and medicinal chemistry.

Dr. Corinna Schindler, Assistant Professor at the University of Michigan, has won numerous awards including the C&E News Talented Twelve for her work developing innovative strategies for synthesis and catalysis. She presented her work toward Lewis acid catalyzed carbonyl olefin metathesis, including the use and optimization of environmentally benign Lewis acid catalysts and the innovative use of iron(III) dimers as superelectrophiles enabling the metathesis of aliphatic ketones. The audience was very engaged with questions and had the opportunity to continue to speak to Professor Schindler during a networking break right after her talk.

After this break, our second speaker was Dr. Geraldine Harriman, co-founder and CSO of HotSpot Therapeutics and formerly VP at Nimbus Therapeutics. Dr. Harriman has successfully delivered multiple first-in-class compounds against novel targets into clinical development. In her talk, she described her work toward targeting regulatory hotspots, allosteric sites that the body uses to regulate protein function, during her leadership of the Nimbus Apollo program and then presented her current plans for harnessing her expertise in these regulatory hotspots to continue drug discovery research at HotSpot. Once again, the audience was very engaged and had the opportunity to continue the conversations with Dr. Harriman during a second networking session.

Based on the success and positive feedback received after this first event, we are excited to plan our next in this series, “Catalyst II: Navigating the Career Path”! This event will be held at Blueprint Medicines in Cambridge, MA on September 26th, 2019. To continue our goal of fostering relationships in the scientific community, we will feature a panel of women leaders in chemistry to discuss their experiences as they have progressed through their careers. In the second part of the event, we are inviting chemistry graduate students and postdocs to give lightning talks on their research. The intent of these quick, five-minute talks is to elicit feedback on the research, demonstrate new tools or techniques, and spark discussion. Stay tuned for updates on this and future Catalyst events by visiting the current events page at the NESACS website, www.NESACS.org.

From left to right, Dr. Carol Mulrooney (NESACS); Dr. Aysegul Ozen (Blueprint Medicines); Dr. Corinna Schindler; Dr. Marion Dorsch (Blueprint Medicines); Dr. Geraldine Harriman; Dr. Meredith Eno (Blueprint Medicines)

Networking at Catalyst: Innovation
Before the 20th century, new scientific discoveries were often discussed and presented to the public in pubs and coffee shops.1 This practice has diminished over time, but a new science festival has revived this concept. Pint of Science was started by research scientists at Imperial College, London, UK in 2012. During the first Pint of Science Festival, there were events held in 3 UK cities. The concept is to bring local researchers to pubs to communicate their cutting-edge scientific research to the public in a relaxed and accessible atmosphere. No prior scientific expertise is required. Since 2013, the popularity of Pint of Science has grown exponentially, bringing events to 300 cities in 21 countries worldwide. It is currently the largest science festival held globally but has thus far gained little foothold in the US.

Three nights of talks were held in the New Hampshire and Maine seacoast during the Pint of Science Festival, which is the main event that takes place annually in mid-May. Themes this year included “From Atoms to Galaxies (and everything in between)”, “Planet Earth”, and “Our Bodies: Infectious Diseases” featuring speakers from The University of New Hampshire, Chemistry, Physics, Molecular and Cellular Biology, Space Science, Ocean, Civil and Chemical Engineering departments. Approximately 180 people attended the events here in NH this year; all three nights of the festival were sold out! Other Pint events were held in nine cities across the US and the event is gradually gaining steam, but it relies on grassroots organization by local scientists.

We are grateful for financial support from the Northeastern Section of the American Chemical Society (NESACS) and the University of New Hampshire, Department of Chemistry. We also had two brewery hosts, Garrison City Beeworks in Dover, NH, and Tributary Brewery in Kittery, ME, who were thrilled to partner with us and host the events. Several graduate students volunteered their time to run the events, distribute flyers, act as online social media influencers and sell tickets. Interest in the festival coincides with a surge in interest in local brewpubs. That means that there are many possible venues across the Northeast that would be great locations for Pint of Science events. Pint also provides a wonderful opportunity for students to engage in science communication with the public, which is essential as they become highly qualified scientists in the workforce and in our communities.

If you are interested in hosting a Pint of Science event in your community, please email us us@pintofscience.com. For more information about Pint, please check out the website https://pintofscience.us We hope to see you at #Pint20!

Esselen Awards
Continued from page 10

The 2019 Gustavus John Esselen Award for Chemistry in the Public Interest medal.

Gustavus John Esselen IV and Dr. Carolyn R. Bertozzi shortly after the award presentation.

Jack Esselen catches up with Dr. Martin Idelson and Mrs. Irene Vouros both longtime supporters of the Award and this event.

Dr. Carolyn Bertozzi with Dr. Lisa Marcaurelle (Bertozzi Post-Doc, NESACS Councilor and Glaxo SmithKline) Dr. Cathy Costello (NESACS Councilor and Boston University), and Dr. Dorothy Phillips (ACS Director-at-large, and NESACS Trustee).

Dr. Dingchang Lin with Dr. Elizabeth Draganova (Chair, YCC) and Brian D’Amico (NESACS Board) and Dr. Doris Lewis (NESACS, past-Chair).

Dr. Sivam Subburaju (McLean Hospital and Harvard Medical School), Dr. Clive Baveghems (Boston University), and Dr. Kyle Cole (Therapeutics, Inc.).
Esselen Awards
Continued from page 11

Dr. Ralph Scannell (NESACS Director-at-Large), Dr. David Harris (NESACS Director-at-Large and Genzyme), Dr. Lynne Sole (X4 Pharmaceuticals).

Dr. Mindy Levine (Immediate past chair, NESACS), Dr. Doris Lewis (Past chair, NESACS), Dr. J. Donald Smith, Dr. Robert Umans, and Dr. Martin Idelson (past Chair, Esselen Committee).

A Cartoon by Sidney Harris

"Polymers are fundamental to every part of our society, and they have all kinds of amazing properties. This cartoon depicts a merger of chemicals being discussed by two businessman (at least they look like businessman since there are vests and ties; no lab coats) to create a polymer. The timing for this cartoon couldn’t be more appropriate given the recent merger of Dow and DuPont, two of the oldest and largest polymer companies in the world. Polymers are a great example of this — given all they have done for the world. But then again, DowDuPont merged with the intention to separate into three new entities. Just like chemistry, we may ask, “What will the (perhaps unstable) equilibrium look like?”

— Robert Langer, MIT
May Meeting – Education Night Awards

Photos by Brian D’Amico.

At the Registration Desk

Anna Singer (NESACS Administrative Coordinator), at left, with Sandy Hoffman. (Photo by M.Z. Hoffman)

Welcoming Remarks

Andrew Scholte (Sanofi, NESACS Chair) delivers welcoming remarks at the 2019 NESACS Education Awards Night at Nova Biomedical in Waltham MA

Welcoming Remarks (Cont)

Jack Driscoll (PID Analyzers, NESACS Board of Directors) welcomes attendees at the 2019 NESACS Education Awards Night at Nova Biomedical in Waltham MA

(L-R) Jens Breffke (Boston Electronics Corporation, American Chemical Society), Morton Hoffman (Boston University, NESACS), Thomas Gilbert (Northeastern University, NESACS) at the 2019 NESACS Education Awards Dinner.

Jens Breffke (Boston Electronics Corporation, American Chemical Society) delivers a lecture on the worldwide celebration of the 2019 International Year of the Periodic Table (IYPT) at the NESACS Education Awards Dinner.

A full house of nearly 80 attended the NESACS Education Awards Dinner and listened to the lecture from Jens Breffke on the celebration of the International Year of the Periodic Table (IYPT), continued on page 14.
May Meeting  Continued from page 13

Chemists Celebrating Earth Week
Poetry Contest Award

(L-R) Jayashree Ranga (Salem State, NESACS) with Ashmita Prajapati, winner of the 2018 National Chemistry Week (NCW) Illustrated Poetry Contest for grades 6-8. Ashmita was the first place winner of the contest both within NESACS as well as in the national ACS contest.

Meiru An (Boston College), recipient of a James Flack Norris and Theodore William Richards Undergraduate Research Scholarship, at right, with Ruth Tanner.

Francesca Barucci (University of New Hampshire) recipient of a James Flack Norris and Theodore William Richards Undergraduate Research Scholarship, at right, with Ruth Tanner.

Ruth Tanner (University of Massachusetts Lowell, NESACS Chemical Education Committee Acting Chair).

JiangJi Chen (Boston College), recipient of a James Flack Norris and Theodore William Richards Undergraduate Research Scholarship, at right, with Ruth Tanner.

Shannon McCallan (Northeastern University), recipient of a James Flack Norris and Theodore William Richards Undergraduate Research Scholarship, at right, with Ruth Tanner.

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Continued from page 14

College and University Awards (Cont)

Julie Pieslak (University of Massachusetts Lowell), recipient of a NE-SACS Undergraduate Grant-in-Aid, at right, with Ruth Tanner.

Maurice Windley (Brandeis University), recipient of the Dr. Phyllis A. Brauner Memorial Book Award for best undergraduate oral presentation at the Northeast Student Chemistry Research Conference (NSCRC), at center, with Doris Lewis (Suffolk University, NESACS), at right, and Ruth Tanner.

High School Teacher Awards

Steve Lantos (Brookline High School, Chair, NESACS High School Education Committee) introduces the High School Education awards.

David Baumritter (Acton Boxborough High School), recipient of the Theodore William Richards Award for Excellence in Secondary School Chemistry, at right, with Steve Lantos.

Induction into the Aula Laudis Society, of Raksmy Derival (Innovation Academy Charter School), at right, with Ann Lambert (King Philip High School).

Induction into the Aula Laudis Society, of Mary Angione (Brookline High School), at right, with Ann Lambert (King Philip High School).
May Meeting  Continued from page 15

Avery A. Ashdown Examination Awards

Brandon Li (Lexington High School), Honorable Mention, First Year, in the Avery A. Ashdown Examination, at right, with Alan Crosby (Newton South High School; Chair, Ashdown Examination)

Christopher Wang (Acton-Boxborough High School), Fourth Place in the Avery A. Ashdown Examination, at right, with Alan Crosby.

Iris Yang (Brookline High School), Honorable Mention, Second Year, in the Avery A. Ashdown Examination, at center, with Lexi Murphy (Brookline High School), at right, and Alan Crosby.

Michael Liu (Wayland High School), Second Place in the Avery A. Ashdown Examination, at right, with Alan Crosby.

Julian Liao (Newton North High School), Third Place in the Avery A. Ashdown Examination, at right, with Alan Crosby.

Alec Zhu (Lexington High School), First Place in the Avery A. Ashdown Examination, at right, with Michael Berger (Simmons University).

continued on page <None>
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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
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http://www.umassd.edu/cas/chemistry/
http://www.unh.edu/chemistry/events
https://www.wpi.edu/academics/departments/chemistry-biochemistry

September 4
Prof. Steve Sucheck (Univ. Toledo)  
Synthesis of natural and designed compounds with antibacterial and immunological activities  
Tufts, Pearson, P-106 12:00 pm

Prof. Jose Arguello (WPI)  
Copper in Pseudomonas aeruginosa: Inorganic chemistry system biology  
WPI, Rm GP1002 12:00 pm

September 5
Prof. Drew Adams (Case Western)  
Harvard, Pfizer Lecture Hall 4:15 pm

September 6
Prof. Paul Whitford (Northeastern)  
Boston College, Merkert 130 4:00 pm

September 9
Prof. Jimmy Wu (Dartmouth)  
Brandeis, Edison-Lecks Science Building 3:40 pm

September 10
Prof. Hosea Nelson (UCLA)  
Boston College, Merkert 130 4:00 pm

September 11
Prof. Aravind Asokan (Duke)  
Boston College, Merkert 130 4:00 pm

September 16
Prof. Darrell Irvin (MIT)  
Brandeis, Edison-Lecks Science Building 3:40 pm

Prof. Stuart Schreiber (Harvard)  
Broad Institute 4:00 pm

September 17
Prof. Laurent Webb (Univ. Texas-Austin)  
MIT, Building 6-120 4:00 pm

September 18
Prof. Matteo Cargnello (Stanford)  
Understanding and tuning catalytic materials using nanocrystal precursors  
Tufts, Pearson, P-106 12:00 pm

September 19
Prof. David Powers (Texas A&M)  
Boston College, Merkert 130 4:00 pm

September 20
Prof. Ellen Yeh (Stanford)  
1+1=1: targeting endosymbiosis for antimalarial drug discovery  
MIT, Building 56-614 4:00 pm

September 23
Prof. Peng Wu (TSRI)  
Application of click chemistry: From PET to cancer immunology  
MIT, Building 4-270 4:00 pm

September 24
Prof. Peng Wu (Scripps Research Institute)  
Research Summary  
Boston College, Merkert 130 4:00 pm

Prof. Paul Thompson (UMass Medical School)  
The role of protein citrullination in autoimmunity  
Tufts, Pearson, P-106 12:00 pm

Prof. Thomas Knowles (Cambridge)  
MIT, Building 6-120 4:00 pm

September 25
Prof. David Baker (Univ. Washington)  
Harvard, Pfizer Lecture Hall 4:15 pm

Prof. Matthew T. White (Carton College)  
New Mechanisms for corporative (and uncoopera tive reactions): Stoichiometric and catalytic processes featuring metal-silicon bonds  
MIT, Building 4-370 4:15 pm

Prof. Paul Thompson (UMass Medical School)  
The role of protein citrullination in autoimmunity  
Tufts, Pearson, P-106 12:00 pm

Prof. Michael D. Best (Univ. Tennessee Knoxville)  
Synthetic lipid analogues with application to disease-related biological processes  
WPI, Rm GP1002 12:00 pm

September 30
Prof. Leonid Mirny (MIT)  
Harvard, Pfizer Lecture Hall 4:15 pm

Prof. Dorothy Kern (Brandeis)  
MIT, Building 4-270 4:00 pm

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