

The Chemical Bulletin

<http://chicagoacs.org>

NOVEMBER • 2018

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY MONTHLY PROGRAM MEETING FRIDAY, NOVEMBER 16, 2018

MAIN LOCATION

University of Illinois, Chicago

TBA

Entrance at 901 S. Marshfield Ave.
Chicago, IL 60607

PARKING (\$8.50):

https://en.parkopedia.com/parking/garage/uic_west_campus_paulina_street_parking_structure/60612/chicago/?arriving=201801201700&leaving=201801201900

Also Being Streamed to Satellite Locations:

College of Lake County
Southlake Campus
Room V336-340
1120 S. Milwaukee Avenue
Vernon Hills, IL 60061-3195

North Central College
Room 356
Wentz Science Center
131 S. Loomis Street
Naperville, IL 60540

Purdue University Northwest
Gyde Building, Rm 240
2200 169th Street
Hammond, IN 46323

PARKING: Free

<http://www.clcillinois.edu/aboutclc/locations/southlake/maps>

Free

http://chicagoacs.org/images/downloads/Maps_of_venues/ncc_sciencecenter.pdf

Free

<https://www.pnw.edu/visitors-guide/maps/hammond-campus/>

REGISTRATION, POSTER SESSION & NETWORKING

5:30 PM – 6:30 PM

DINNER

6:30 PM – 7:30 PM

INTRODUCTORY REMARKS BY KEN FIVIZZANI,

CHICAGO SECTION CHAIR

7:30 PM – 7:40 PM

LECTURE BY DR. SHAHILA MEHBOOB CHRISTIE

7:40 PM – 8:40 PM



Dr. Shahila Mehboob Christie
Co-Founder and CEO at Neugenica, LLC
Co-Founder, COO, and VP of Science
at Novalex Therapeutics
“Improving Public Health through
Development of Novel Therapeutics:
My Scientific Journey from Academia
into the Startup World”

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ABSTRACT

As a research faculty member at the University of Illinois, Chicago, I was actively involved in drug discovery and development in the area of infectious diseases. During this time one of my projects resulted in the discovery of a new antibiotic scaffold and I was presented with an opportunity to venture out into the startup space. I welcomed the opportunity and helped setup Novalex Therapeutics as a spinout from the university. This experience had an enormous impact on my personal growth and helped me discover my passion of being at the intersection of science and business. I have since founded a second startup called Neugenica. This talk will focus on the scientific story of my projects as well as my personal journey.

BIOGRAPHY

Dr. Mehboob Christie obtained her Bachelor's and Master's degrees from Bangalore University, India with a focus on Physics, Chemistry and Mathematics and specialized in Biochemistry during the Master's Program. She then moved to the United States to pursue her PhD at Loyola University in Chicago. Here she worked with Dr. Leslie Fung in the Biophysical Chemistry area. During her postdoc years at the University of Illinois Chicago, College of Pharmacy, she gained expertise in Structural Biology and Enzymology and entered the area of drug discovery and development. As a Research Assistant Professor she focused on discovering new antimicrobials. She then moved into the entrepreneurial space by founding Novalex Therapeutics as a spinout from the University of Illinois, Chicago. Here she led the research and development efforts as the Vice-President of Science. She recently founded a second startup called Neugenica and is currently managing it as the CEO.

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MENU

MEAL OPTIONS - Depends on location:

MAIN SITE UIC

BUFFET: Herb Roasted Chicken, Vegetable Lasagna in Tomato Cream Sauce, Garden Tossed Salad with Dressing, Roasted Vegetable Medley, and Roasted Potatoes with Garlic and Rosemary

REMOTE SITE #1

College of Lake County (Southlake Campus)
Choice of either Panera Box Lunch Turkey Sandwich or Mediterranean Veggie Sandwich (both come with potato chips, pickle, a cookie and beverage)

REMOTE SITE #2

North Central College
Meals are not provided but if you wish to bring your own food, you are welcome to do so.

REMOTE SITE #3

Purdue University, Northwest
Meals are not provided but if you wish to bring your own food, you are welcome to do so.

RESERVATIONS:

Dinner Registration Deadline: 12:00 noon on Tuesday, November 13
Lecture-only Registration Deadline: 12:00 noon on Wednesday November 14

Please note that if we do not meet the minimum amount for delivery at a location then your meal will be substituted with a similar meal from Jimmy Johns.

The cost for dinner at the University of Illinois, Chicago and College of Lake County (Southlake campus) is \$15 to Section members who have paid their local section dues, members' families, and visiting ACS members. The cost to members who have NOT paid their local section dues and to non-members is \$17.

Dinner reservations are required and should be received in the Section Office via phone (847-391-9091), email (chicagoacs@ameritech.net) or website (<https://chicagoacs.org/meetinginfo.php?id=135&ts=1539892291>). PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

RESULTS FOR CHICAGO ACS 2018 ELECTION

Congratulations to the winners of the 2018 election of the Chicago Section of the ACS! The Tellers Committee met on Friday, October 26, 2018. 490 ballots were received as of noon on October 27, 2017. Of these, 460 ballots were counted. Thank you to all the candidates who ran, helping keep our Section a lively focal point of the Chicagoland chemistry community. The officers will assume their post in January 2019.

<i>Office</i>	<i>Office Holder</i>	<i>Term</i>
Chair-Elect	Paul Brandt	2019-2021 (Chair-Elect, Chair, Past Chair)
Vice Chair	Josh Kurutz	2019
Secretary	Rebecca Weiner	2019
Treasurer	Amber Arzadon	2019
Director	Aleks Baranczak	2019-2020
	Fran Kravitz	
	Margaret Levenberg	
	Milt Levenberg	
	Oluseye (Kenny) Onajole	
	Andrea Twiss Brooks	
Councilor	David Crumrine	2019-2021
	Margaret Levenberg	
	Milt Levenberg	
	Inessa Miller	
	Susan Shih	
Alternate Councilor	Katie Leach	2019-2021
	Tim Marin	
	Rebecca Weiner	

THE MYSTERY OF THE CHICAGO TIGER

It just appeared one day. It could have been erased at any time, but instead it stayed for over 30 years. The gorgeous tiger drawing on a chalkboard in Searle Chemistry Laboratory classroom at the University of Chicago appears to have been created on a whim. But we can't know for sure because we don't know who drew it.

Amazingly, neither the University nor the Chicago ACS has significant documentation on the artwork's provenance. Maybe you know or maybe you know someone who has a clue. If you have any information regarding the University of Chicago Tiger, please email historian@chicagoacs.org, and we will share it with the University.

Laura Demanski, Editor of the University of Chicago Magazine, wrote about the Tiger in 2011. The ongoing investigations by her and Laura Baker, Assistant to the Chair and Dept. Administrator for Chemistry, have yielded limited information:

- The piece was probably created in the late 1970's, but the precise year is not documented.
- The creator was probably a graduate student, but that is not certain.
- It is not known whether he or she graduated, or even if their focus of study was Chemistry
- The Tiger is made entirely of orange and white chalk. All the black features in the tiger are the chalkboard surface, and it does not appear that they were created by erasure.
- Over time, the informal evening seminars held in the tiger's room became known as "Tiger Talks," and that seminar series continues today.

From its creation through approximately 2007, the Tiger remained unbesmirched, protected only by simple declarations around it on the chalkboard, "Do not wash. Save. Save. Save." Shortly before the Searle building renovation, someone noticed part of it had been smudged, and the Department decided to restore and preserve it before further damage was done. That section of chalkboard was cut out, and the chalk drawing painstakingly restored and preserved by the Chicago Conservation Center. Now it resides in a display case next to the Department Chair's office, where everyone may appreciate it.

Demanski noted one curious feature of the drawing:

"...a possible clue, cleverly embedded—like a whimsy piece in a jigsaw puzzle—in the cat's forehead. It's the Chinese wang character, meaning "king." Was the artist a Chinese national or a student of

the language? Is the character supposed to be the name of the tiger, or its creator? No one knows."

Any insights about the tiger would be welcome. In particular, it would be helpful to know:

- Any aspects of the creator's identity — name, major, status (grad student, postdoc, friend of someone in the department, etc.), nationality, physical features for comparison to images in Department archives, etc.
- Any estimates of the creation date, e.g., "I started there in 1980, and it was there." or "I left in 1974, and it was not there before then."
- When did the informal seminars start being known as "Tiger Talks"?
- Why a tiger?
- Does the Chinese character have any

王

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significance? Is it really there?

- Did you witness its creation? Did it really appear suddenly, or was it constructed gradually?
- Do you have any stories about notable or fun Tiger Talks? Have you given or attended one?

Anyone solving the mystery will earn the gratitude of the University of Chicago and the Chicago ACS. Let us know what you know!

Josh Kurutz, Section Historian



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WHO IS THIS? – GIBBS AWARD CEREMONY 1987 (?)

The Chicago Section has a moderate-sized set of photographs from a Willard Gibbs Award ceremony, and we need your help to identify people in them. If you know ANY of the people shown here, please email historian@chicagoacs.org.

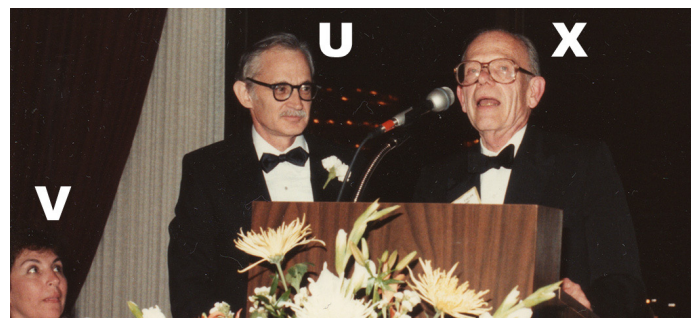
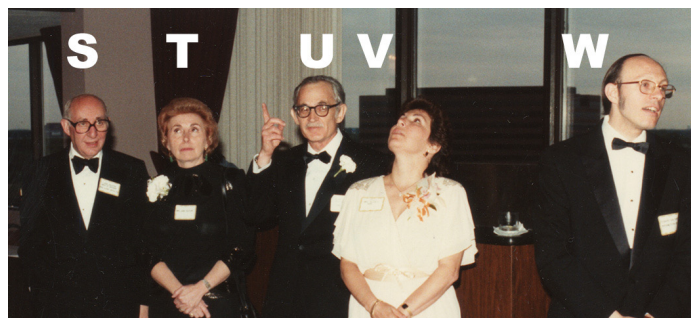
The Kodak processing marks on most of these photos indicate they were taken in May 1987, suggesting the event was the Gibbs ceremony for Allen J. Bard, who won the award...

"For his research in the application of electrochemical methods to the study of chemical problems. Included are investigations in electro-analytical chemistry, electron spin resonance, electro-organic chemistry, electrogenerated chemiluminescence and photo-electrochemistry."

Context suggests the person labeled "U" is Prof. Bard and person "V" is his spouse, but we would appreciate independent evaluation. Additional information: Person "A" is Jim Shoffner. The Chair of the Chicago Section at the time was either Adele L. Rozek or Seymour H. Patinkin, who may be in these photos. Person "S" is probably Prof. Jack Halpern, and person "T" is probably his spouse; we would appreciate if someone could confirm or deny that identification and/or provide the name of person "T".

Thank you for your help.

Josh Kurutz, Section Historian



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Bookmark this today! When you make purchases from Amazon.com, you can now give a free donation to the Chicago Section every time you shop on Amazon.com. Simply shop at Amazon using the following link:

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SOMEONE YOU SHOULD KNOW



Rebecca Sanders joined the Chicago Section Board as a Director last January. She has been an active participant at Board meetings, especially at the October Board meeting, voicing her views on the discussion of changes to the Bylaws and Policy Statements. Becky became a member 15 years ago as a student at Bradley University. I met Becky at several Marie S. Curie Girl Scout Chemistry Day programs at North Central College. She was a lunchtime mentor discussing careers in chemistry over lunch with a group of Girl Scouts. I got to know her a little better this summer at the Illinois Sections of the ACS tent at the Illinois State Fair. She came down to help with setting up. Becky is probably one of the most organized individuals that I have ever met, and she is an extremely hard worker, never slowing down even with the heat at the State Fair. She has such energy and enthusiasm which she gives to her students, the Section and her family. The Section is very lucky to have her on the Board as she will certainly be an asset to the Section for years to come.

Becky was born in Burlington, Iowa. Her family moved to Peoria, Illinois when she was seven. Her father was a CPA and her mom has worked in banking and engineering in a variety of administrative roles. Becky has one younger brother who works in web design. She is the first in her family to go into chemistry although she has several family members who are in the health care and engineering fields.

Dr. Sanders has always enjoyed math and puzzles. She was pre-med chemistry

when she entered college. Her goal was to help people using her problem-solving skills. She learned after taking a few too many biology classes at Bradley University that med school wasn't for her. Instead she served as a teaching assistant for the labs at Bradley University and later as a lab technician at the nearby USDA research facility where she investigated the cold-flow properties of biodiesel. Becky also did an NSF (National Science Foundation) REU (Research Experience for Undergraduates) at the University of Kansas. This solidified the decision to pursue graduate school in chemistry and eventually teach at a primarily undergraduate institution.

After earning her B.S. in Chemistry in 2006 from Bradley University, Becky went to Pennsylvania State University. She studied "Clay Mineral Reactivity Across Scales Utilizing Solid-State Nuclear Magnetic Resonance" under Karl Mueller. Dr. Sanders earned her Ph.D. in Chemistry in 2011. She enjoyed working with an interdisciplinary group of scientists interested in understanding geochemical kinetics at Penn State and decided to pursue postdoctoral work in Geosciences at Princeton University under Satish Myneni for the next three years. Becky worked on several projects exploring biogeochemical cycling of elements in a variety of environments including polar and temperate soils, lakes, streams, and oceans. She traveled frequently to national laboratories where she used x-ray beamlines for experiments to identify the speciation of various elements in natural samples.

Dr. Sanders began her career at North Central College in 2014. She is an Assistant Professor of Chemistry. A typical day involves prepping for teaching, and grading for one or more classes and labs; formal and informal meetings with students and faculty and doing research with undergraduate collaborators. She loves getting to know individual students and watching them grow. Becky enjoys teaching all of her chemistry classes, but she especially enjoys teaching the Science of Climate Change. It's a non-majors science course at North Central but she says it is very rewarding and allows her to use her geochemistry background. She is also the faculty advisor for North Central's Chemistry Club, SMACS. This is her third year as SMACS advisor and they host a wide variety of social and professional development events such as a welcome dinner, a ski trip, and lots of events for National Chemistry Week. In 2016-2017, North Central's SMACS was honored as a Commendable Student Chapter by the ACS. This year, North Central's SMACS won an Outstanding Student Chapter Award by the ACS. Congratulations to North Central's SMACS and Becky!

Becky is married. She met her husband

in 2007 while they were both in grad school at Penn State. Her husband is an architectural engineer in Chicago and focuses on building enclosure consulting. She has a one-year old daughter, Ella. Currently, she enjoys watching her daughter learn and grow at the park, museum, zoo, and library. She is a big fan of football and roots for the Penn State Nittany Lions and the Indianapolis Colts. One fact that most of us don't know about Becky is that she plays fantasy football with a group of friends from grad school. They even have a traveling trophy that they mail to the winner each year. She loves to cook and regularly exercises at the Bar Method in Naperville. She has a 7-year old Havanese dog named Louie, who spends his days lounging at home and barking at anyone that walks by their house.

Dr. Sanders' final words of wisdom to all of us is embrace interdisciplinarity. The more scientists of different disciplines can communicate with one another, the more problems we can solve.

Fran Kravitz

EDUCATORS CAUTIONED ABOUT CLASSROOM DEMONSTRATIONS INVOLVING FIRE

WASHINGTON, July 26, 2018 — The risks of classroom demonstrations that involve lighting solvents on fire are outlined in an article in the American Chemical Society's Journal of Chemical Education. Over the past 20 years, 164 children and educators have been reported as injured by flash fires, flame jets and projectiles after the presenter lost control of the experiment. The most problematic of these has been the "rainbow demonstration."

The article, "Playing with Fire: Chemical Safety Expertise Required," discusses why such experiments continue to be performed and encourages safer practices. Free access is available for a limited time here: <https://pubs.acs.org/stoken/campaign/playwithfire/full/10.1021/acs.jchemed.8b00152>.

The series "Guidelines for Chemical Laboratory Safety" and other resources about chemical and laboratory safety are available at <https://www.acs.org/content/acs/en/chemical-safety.html>.

For more research news, journalists and public information officers are encouraged to apply for complimentary press registration for the American Chemical Society's 256th National Meeting & Exposition, Aug. 19-23 in Boston.

The American Chemical Society, the world's largest scientific society, is a not-for-profit organization chartered by the

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U.S. Congress. ACS is a global leader in providing access to chemistry-related information and research through its multiple databases, peer-reviewed journals and scientific conferences. ACS does not conduct research, but publishes and publicizes peer-reviewed scientific studies. Its main offices are in Washington, D.C., and Columbus, Ohio.

To automatically receive press releases from the American Chemical Society, contact newsroom@acs.org.

The mission of the Chicago Section of the ACS is to advance the chemical sciences and their practitioners for the benefit of Earth and its people

CALENDAR

November 17: Chicago Section Dinner Meeting with **Dr. Shahila Mehboob Christie** of Novalex Therapeutics speaking on entrepreneurship.

December 14: Chicago Section Dinner Meeting; **Dwight Chasar** of the Cleveland Local Section on Chemistry is for the Birds at North Central College.

January 29: The Annual IIT Bridge Competition at IIT's Main Campus (Herman Hall). You can find information on the Bridge Competition at <http://bridge-contest.phys.iit.edu/public/chicago/index>

February 10: Family Open House at the Lederman Science Center from 1-5 pm. Children must be accompanied by an adult (There's plenty for the grown-ups too). Most appropriate for children in grades 3 and up. <http://ed.fnal.gov/events/openhouse/>

February 23: DuPage Area STEM Expo at the Illinois Institute of Technology - Rice Campus at 201 East Loop Drive, Wheaton (10:30 – 3:30) "Engineering New Horizons" <https://appliedtech.iit.edu/stemexpo>

March 17 – 21: Pittcon 2018 will be in Philadelphia, PA. <http://pittcon.org/>

April 11 – 14: 67th Annual NSTA's National Conference on Science Education, St. Louis, MO. <http://s6.goeshow.com/nsta/national/2019/overview.cfm>

March 31 – April 4: 255th American Chemical Society National Meeting and Exposition "Chemistry for New Frontiers", Orlando, FL. <https://www.acs.org/content/acs/en/meetings/national-meeting.html>

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