DivCHED Members Named 2017 Fellows
ChemSource History of Science Study Tour to Ireland 2017
DivCHED Travel Award Deadline September 15, 2017

ACS 254th National Meeting
Chemistry’s Impact on the Global Economy
August 20-24, 2017 | Washington, DC
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Reinvent? No. Reflect, Revise, and Refine!

Reinvent /rēˈin vent/ (verb) change (something) so much that it appears to be entirely new.

Reflect /rēˈflekt/ (verb) think deeply or carefully about.

Revise /rēˈviz/ (verb) reconsider and alter (something) in the light of further evidence.

Refine /rēˈfin/ (verb) improve (something) by making small changes, in particular make (an idea, theory, or method) more subtle and accurate.

(All definitions here came from Google Dictionary.)

We are a volunteer organization, no doubt about it. None of us gets paid for what we do in the ACS Division of Chemical Education. We are members of the Division because we believe we can and should make a difference in the lives of our colleagues and students who are teaching and learning chemistry.

If you read any of the research about volunteer organizations, you'll find out that a lot of them fall or at least fail to make progress. Why? They depend on the time and talents of people who already have busy lives. For that reason (and others), their leadership changes often. As a consequence, one of two things usually happens: (1) the organization gets stuck in doing things "the way they have always been done" because the leadership doesn't have enough time to both learn their jobs and encourage and support change before a new leadership group comes in or (2) the organization is constantly reinventing itself because there isn't well-established institutional memory to remind the organization of what they have already accomplished and how they can build on that foundation.

Since becoming a member of the Division's Chair Succession almost two years ago, I have been inspired by the volunteer members of the Division that have allowed us to not fall into the rut of reinventing ourselves, but to reflect on, revise, and refine the mission and activities of the Division.

There is no way that I can appropriately recognize all of the individuals and committees that are growing and improving the Division in small, but important ways; but let me mention some of them here.

Jennifer Lewis and the Committee on Personnel and Nominations constantly seek to bring in well-qualified candidates for our election slates. They also find great ways to bring new blood into our committees.

Many committee chairs, like Michelle Head, Rachel Morgan Theall, and Jo King, have taken advantage of virtual meeting capabilities to expand both their reach and their members' abilities to participate.

The Biennial Conference Committee (BCC), under the leadership of Dan Sykes, is developing a 5-year strategic plan and new materials and procedures to guide the recruitment and training of new BCCE chairs. John Michael Sophos has joined the BCC as their Meeting Planning Partner and is already working with both the BCC and the 2020 BCCE Organizing Team.

Jordan Harshman, one of the co-chairs of our Younger Chemistry Education Scholars committee, has acted as our resident parliamentarian during Executive Committee meetings.

Cathy Middlecamp, David Licata, Rick Moog, Julie Adams, and Anna Wilson have been diligently working on a plan to hire a business manager for the Division. They have also started a meaningful discussion about the purposes and procedures of the Division’s Finance Committee.

Previous members of our Executive Committee, including Renee Cole, Resa Kelley, Tom Holme, and George Bodner, met with current members of the committee this spring to revise our Division bylaws.

There are two other stalwarts that should be recognized for their long-term commitments to refining the Division and its members: Heather Johnson, our Executive Assistant, cheerfully and ably, takes care of many of the details involved in the day-to-day running of our Division and its meetings. Her efforts free the rest of us to focus on other tasks.

Anna Wilson. What can I say here? Anna has been the Treasurer of the Division for the past 17 years. SEVENTEEN years. I was still a graduate student when she started her tenure in this position! Clearly, Anna has given a significant amount of service during this period as she has taken care of our Division finances in a period of great growth. She has decided that this will be her last year as our treasurer, and she will be missed. I know that, personally, I will miss her encouragement. I have known very few people with her ability to constantly and quietly encourage and applaud the efforts of those around her. Thank you, Anna.

Honestly, I could go on and on about the number of great things that these folks and so many others do willingly and voluntarily to refine the Division and the ways that it serves its membership and its stakeholders. I am honored to serve with such amazing people. Thank you. Each of you, listed or not, inspires me.

MaryKay Orgill
University of Nevada, Las Vegas
2017 DivCHED Chair
Students who are new to chemistry can be overwhelmed by its complexity and struggle to find ways to learn. As chemical educators we know that chemistry is beautiful, logical, and understandable, but that strategies and effort are required to catalyze each person’s learning process. In some ways, the work of the Chemical Education Division is similar. New members may be surprised to learn about the many aspects of CHED – from online conferences to young chemical education researchers, from travel grants to safety. CHED only seems like a well-oiled machine because of the hard work of our many volunteers.

The CHED Bylaw revision process should be complete by the end of 2017. As we approach 2018 we will turn to consider our Operations Manual, which is posted on our website under the tab “About CHED”, http://www.divched.org. Please take a look at the Operations Manual descriptions of the parts of CHED in which you are involved. Does the text reflect what your committee is doing? One of two things may need to happen if the answer is “no”. Either your committee should attend to its responsibilities, or the Operations Manual can be revised. We will attempt to sort out, update, and set in place a plan to regularly review the Operations Manual. The CHED member-at-large, Deanna Cullen, will be assisting with this process into 2018.

As a division of ACS, we are asked to provide feedback on the latest version of the ACS Strategic Plan. We are Goal 3: “Support Excellence in Education”. Visit http://strategy.acs.org and learn more about all of the proposed strategic plan. If you have comments, please send them to me at cfrech@uco.edu.

Are you interested in learning more about CHED? Please come to the social at the Washington ACS meeting on Sunday evening, August 20 at 5:30 pm in the Convention Center. And here’s to a fantastic fall semester for all chemistry educators.

Cheryl Frech, PhD
ACS DivCHED Chair-Elect
University of Central Oklahoma

Greetings to all. I hope you have been enjoying the Summer. The Fall election is fast approaching. Soon you will receive ballots for the following positions: Chair-elect, Treasurer and Councilor/Alternate Councilor. As has been done in the past, voting will be conducted electronically. You will receive an invitation to vote via email towards the end of August, with voting open during the month of September. The ballots will contain statements from each candidate. The candidates for the upcoming election are:

Chair-elect: Irvin J. Levy and Scott Donnelly
Treasurer: William J. “Bill” Donovan and David P. Licata
Councilor/Alternate Councilor: Jack Barbera, Patrick L. Daubenmire, Roxie Allen and Thomas Pentecost

Best of luck and thanks to all of the candidates for volunteering to serve the Division.

Congratulations to all of the Division members who have been named as ACS Fellows. You can find a list of them on the Division website: http://www.divched.org/content/congratulations-divched-members-who-have-been-named-acs-fellows-2017.

I’m pleased to report that the Division received two Innovative Project Grants (IPG) from ACS. The two proposals are entitled: “A Plan-of-Action to Revitalize the Biennial Conference Committee” and “Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health”. Many people have been hard at work revising the Division Bylaws, in coordination with mandatory changes required by ACS. Early next year we will be holding a separate election to ratify the many changes to the Bylaws, so keep your eye out for that communication.

If you are coming to the Fall Meeting in Washington, DC, I hope to see you at the Division Social on Sunday evening. I wish everyone a productive academic year and remind you to let me know if you have any suggestions as to how to improve the Division.

Daniel King, PhD
Secretary/Councilor
Drexel University
Letters from the Executive Committee

The age of technology brings the benefit of a wealth of new tools that can support the mission of our division. The Division has purchased a Zoom license. This has already made governance more accessible to those members who cannot always attend the spring and fall ACS meetings. Several committees have also taken advantage of the platform to meet more frequently. Social media has also grown because of technology and many members think that DivCHED should be using it to improve communication, facilitate collaboration and draw new membership. At the spring meeting, a task force was formed to draft a strategic plan for a public relations committee for DivCHED. We will hear from the task force in Washington, DC.

As much as we can see the benefits of technology, it also brings challenges. The ACS Exams operations are running well financially but the prevalence of digital modes of communication has increased the level of vigilance that exam proctors must rise to in order to maintain the integrity of the exams. Kristen Murphy and the Board of Trustees have spent much of this year dealing with this growing problem.

The High School Committee recommends a name change to become the Pre-College Committee. The Journal of Chemical Education, BCCE and AACT already use the designation to be more inclusive of the K-12 community. The name change will be voted on in Washington, DC. DivCHED ExComm continues to support AACT. In her final meeting as the liaison for AACT, Roxie Allen announced that AACT is shooting for 5000 members for 2017 and that they now have regional ambassadors giving presentations about AACT at many conferences. Amiee Modic, of Texas, has been appointed as the new AACT liaison.

In preparation for 2018 BCCE at Notre Dame, DivCHED will host and archive the conference website, the MAPS system will be used for abstract submission and an event planner has been hired. The Biennial Conference Committee (BCC) is documenting how to organize and run a BCCE for future host sites. The BCC is planning a retreat to complete that work and also create a 5-year plan and a mission statement. This work will help to sustain this important conference.

Thanks largely to the work of our ExComm Chair – MaryKay Orgill, Chair Elect – Cheryl Frech, and Past Chair – Cathy Middlecamp, a group of current and former members of DivCHED ExComm arrived a day early for the San Francisco meeting to do the work of updating the legally binding DivCHED bylaws in an efficient manner. This work is in response to changes in the bylaw language used by ACS.

From the Member-At-Large, Deanna Cullen [dcullen@jce.acs.org]

Being new to this position, I learned a great deal about how our Division functions and how some of the changes proposed will improve the effectiveness of DivCHED. Since the spring meeting, the bylaws were submitted to the ACS Constitution and Bylaws (C&B) office. The C&B approved bylaws will be discussed at the Fall meeting. If approved by ExComm, they will eventually be submitted to the CHED membership for a vote.

While the bylaws are legally binding and describe who we are as a division and what our goals are, the operations manual is not legally binding but describes how we achieve tasks set up in those bylaws. We are in the beginning phase of ensuring that the Ops Manual accurately represents the work being done by the division. We will make changes required to improve the effectiveness of the division.

The Board of Publications reports that the Journal of Chemical Education (JCE) is in good shape thanks to Editor in Chief, Norb Pienta. They also appointed Jon Holmes as Editor in Chief of Chemical Education Xchange (www.ChemEdX.org). Jon has served as the Managing Editor of the Journal of Chemical Education for many years, but is stepping down from that role as he moves into semi-retirement. Norb Pienta has also announced he will leave his role with JCE in the next two years and a search for his replacement has begun.

As I mentioned at the beginning of this post, technology will make committee work more accessible to all members. Becoming more active in your division may be more appealing for you. Please feel free to reach out to me or any other member of the Executive Committee. If you are attending the national meeting in DC, I hope you will attend the CHED Social on Sunday evening and introduce yourself!

Wishing all of you the best for this new school year.

Deanna Cullen
Member at Large
Editor, Chemical Education Xchange
Whitehall High School Chemistry
View from the Program Chair, Irv Levy [irv.levy@gordon.edu]

It’s a beautiful summer day in New England as I compose this note in anticipation of the next national meeting. It will be a pleasure to assemble with many of you as we come together for the 254th national meeting in Washington, D.C. this August.

Your meeting co-chairs, Denyce Wicht and Beatriz Rios-McKee, have been working for nearly a year to assemble all of the details for this meeting. We are delighted that Sherri Rukes is now taking the lead on the High School program after several years of outstanding programming by Sally Mitchell. As has been our recent practice, Sherri has partnered with a local organizer, Michael Mury. While in D.C., please take the time to personally thank Denyce, Beatriz, Sherri, and Michael for their work on your behalf. As this is my last meeting as your Program Chair I wanted to pull out all the stops. I’ve even scheduled a solar eclipse to make a brief appearance! Hope you’ll be there to join us.

There are a number of people behind the scenes who provide direct and indirect support for our programming at a national meeting. Many thanks to the ACS staff who are the ones who help us bring it all together. Special thanks are due to our ACS staff partner, Robin Green, and her team, our meeting planner, Vernar Beatty, and the Undergraduate Programs Office staff, led by Nicole DiFabio. As always Heather Johnson attends to a host of details that make the job of organizing a meeting so much more convenient. Many thanks are due to all the folks in the Division and ACS who work with our committee to produce a quality meeting.

Our meeting will be held at the Grand Hyatt in Washington. The hotel is an easy 10-minute walk from the Convention Center so we will be able to easily access all of the ACS meeting from our venue.

Any day now you will see that ACS has opened the abstract submission for the spring 2018 national meeting in New Orleans. Nicole Snyder and Carmen Valdez Gauthier have assembled a large group of exciting sessions and spring meetings in NOLA tend to be among our highest attendance meetings. It’s not too late to submit your own ideas for a symposium, so if you’ve got one – especially one that works with the meeting theme Nexus of Food, Energy, and Water – then please let one of us know. We could use a FEW more. Get it? Food Energy Water? F.E.W.?

The deadline for submission of abstracts to New Orleans is October 23. Mole Day!

Last, but surely not least, it is my distinct pleasure to introduce Anderson Marsh as our Division’s next Program Chair beginning this January. Andy will work with us as we ride the City of New Orleans this coming spring. It’s been great fun working with all of you (you know who you are) for this, my thirteenth meeting as Program Chair. I know that Andy has an enjoyable task ahead as he takes my place and has the chance to get to work with you in the future. See you in D.C.

Irvin J. Levy
2017 DivCHED Program Chair
Gordon College

Know Your Way Around the Division

If you need to pay membership dues, want to make a contribution to the DivCHED Service Award fund, or want to know about money, budgets, etc., contact the Treasurer.

If you want to change your mailing address, want a Division publication, or want to know about official Division actions, etc., contact the Secretary. If you want to receive this DivCHED Newsletter (or not receive it), contact the Secretary.

If you want to bring an idea before the Executive Committee or want to make an opinion known, contact the Member-at-Large.

If you want to contribute something to DivCHED News, contact Heather Johnson.
CANDIDATES FOR THE 2017 DIVCHED OFFICER ELECTION

The DivCHED Election for the 2018 Executive Committee officers will be held in Fall 2017. Statements from candidates are listed here for the following positions: Chair-elect, Treasurer, and Councilor/Alternate Councilor. Eligible Division members will receive an invitation to vote via email towards the end of August, with voting open during the month of September.

Chair-elect

Irvin J. Levy - During his 32-year career at Gordon College Irv has taught almost every course in the department’s curriculum at least once; however, Organic Chemistry is his alone. Thanks to a long-term adjunct position at nearby Salem State University, he has taught the full-year sequence of Organic Chemistry nearly 100 times and he still enjoys it! Irv is faculty mentor of Gordon’s award-winning ACS Student Chapter.

During the past 15 years, Green Chemistry education has become the focus of Irv’s professional life. Indeed, his first volunteer effort for DivCHED was to organize the Division’s first national meeting symposium on Green Chemistry (2005). Since then he has served as meeting co-chair for two national meetings (2009, 2017) and as the Program Chair for 12 national meetings (2011-2016). In addition to 10 years on the Program Committee, Irv’s other volunteer service includes his recent appointments to SOCED (2017, Associate Member) and the Division’s Biennial Conference Committee (2017-2019). He has served on the ad hoc Abstracts Replacement System Advisory Board (that replaced PACS with MAPS) and SOCED Undergraduate Program Advisory Board. Additionally, Irv frequently supports projects from the ACS Green Chemistry Institute.

Irv has been an ACS member for 37 years and in 2017 was elected as an ACS Fellow. He is also a Fellow of the Royal Society of Chemistry, Associate Editor of Green Chemistry Letters & Reviews, and a member of the Governing Board of Beyond Benign. Irv is the author of 39 peer-reviewed articles and chapters in various journals and books. He is the co-editor of two ACS Symposium books. Over the past 20 years Irv, or his research students, have presented over 100 lectures, workshops, and posters at a wide range of venues. His novel outreach program has empowered hundreds of his students to educate thousands of children, and the public, about green chemistry. Irv is a frequent speaker on campuses, encouraging departments to commit to green chemistry education.

Irv loves working with his DivCHED colleagues and would be delighted to have the opportunity to be of service through this leadership position.

Scott Donnelly - An ACS member for 23 years I am honored to be a candidate for the Division of Chemical Education Chair-Elect office. A long-time participant in the chemistry education community, I recently served as Chair of the ACS 2YC3 (Two-Year College Chemistry Consortium) organization and now serve as the Future Conference Coordinator. In addition, I served on the ACS Society Committee on Education (SOCED) Task Force on Two-Year College Activities.

For over two decades I have preached with missionary zeal the “gospel” of chemistry at Arizona Western College, a two-year (community) college in rural southwest Arizona. A practitioner of an interdisciplinary approach to teaching, my experience stresses the need for constant modifications, experimentation. Any teaching method, even the highly criticized lecture approach, when done properly and well, will be, for most motivated students, effective in accomplishing its intended outcomes. The past three years I have received an AWC Excellence in Assessment medallion for assessment of student learning in organic chemistry.

The Chair-Elect must work with different people from different backgrounds. I have served in a variety of faculty and administrative positions which required communicating with people with a broad range of interests. As Lead Science Faculty, I was an advocate for science faculty about issues germane to curriculum and departmental budgets. As faculty senate vice president, I worked with all faculty and the college president on issues specific to faculty and to the college’s general welfare. As Director of the Center for Teaching Effectiveness, I assisted in assessment of courses and student learning outcomes, oversaw faculty professional development, developed an orientation program for new faculty, revised the Faculty Mentor-Mentee program, and helped implement the Faculty Course Appraisal/Evaluation software system.

Beyond my professional work, I am an avid woodworker, an outdoor enthusiast, a lover of maps, and Scoutmaster for a Boy Scout troop.
Treasurer

William J. “Bill” Donovan - I have served the Division of Chemical Education as a member of the Exams Institute Board of Trustees (2014-16) and the Passer Portfolio Committee (2017-). I am the General Papers Chair for the 2018 Biennial Conference, and have organized symposia and presented papers at the BCCEs since 1998. Since 2004, I have served on six ACS Exam committees, chairing two. I attended the Division’s Fiduciary Workshop at the ACS Meeting in San Diego in 2016, where I learned much about the important considerations for duties of leaders of the Division and its committees and boards.

As a member of the Board of Trustees, I was part of the leadership of the Exams Institute through great changes, including all of the operations moving from Iowa to the current model with business and fulfillment operations based in Colorado and the intellectual operation and organization being based in Wisconsin. Also during my term, the Board selected a new Director for the Institute and dealt with numerous legal and financial issues, including budgets and the purchase of property in Colorado for the new offices of the Institute. As 2016 Secretary of the Board, I was responsible for correspondence with Bank of the West, which manages the Institute’s bank and wealth management accounts.

Outside the Division, I have served the local ACS section as Chemical Education chair and Project SEED chair and coordinator, and on my campus I have served as the director of the regional center of excellence for math and science teaching, funded by the state board of regents.

I would be happy to contribute and expand my experience and effort serving the Division and the chemical education community by serving as Treasurer of the Division.

David P. Licata - I am honored to be considered for Division Treasurer. I am Board of Publication Treasurer, and have contributed to helping the Division be more professional, and improve management and performance of its fiduciary duties. I look forward to continuing those activities by serving in a Division-wide office.

I have experience in finance, accounting, budgeting, and management. My education and experience include:

- BS (chemistry, 1976), MS (business, 1983), UC, Irvine.
- High School Teacher (various schools, 28 years),
- Corporate Treasurer, World Organic Corp. (Fountain Valley, CA, 1980–).
- ACS Manager of Precollege Programs (1986–1990)
- Manager of Education Programs, Chevron Petroleum Technology Company (1991–2001). Organized and ran a three-day program for middle and high school teachers with hands-on work to relate the oil and gas industry to their everyday lessons. We distributed $37,000 of materials each year to 30 teachers.
- High School Day Chair (Spring 2004).
- Board of Publication (member 2010–2018), Treasurer (2012–).

I am now retired, though I own and operate my own education services business.

For the Division, I was on the team that investigated and selected NetSuite for the Division integrated accounting system, and led the effort to develop a proposal for Division accountant and assist with the selection. As a NetSuite administrator, I know Division accounting and reporting, and have worked closely with the current Treasurer to assure that the Division is on track in meeting its fiduciary responsibilities to our members.

I believe the wide experience summarized above, and close association with Division finances over the past four years demonstrate my qualifications to serve as your Treasurer. I ask for your vote.
**Councilor/Alternate Councilor**

**Jack Barbera** - I have been a member of the American Chemical Society and the Division of Chemical Education since 2005 and have been serving the Division in a variety of capacities since 2008. My past service included being a board member of the Computers in Chemical Education committee, reviewing manuscripts for the Journal of Chemical Education (JCE), and as a ‘friend’ of the Chemical Education Research committee, organizing Chemical Education Research symposia at ACS National meetings and at Biennial Conference on Chemical Education meetings. Currently, I serve the Division as a regular reviewer of JCE manuscripts, as an Examinations Institute exam writing committee member, and as the chair and 5-year member of the Chemical Education Research (CER) committee.

While I have a long and consistent history of serving the Division, my contributions to the CER committee best demonstrate my suitability for the Councilor/Alternate position. As a highly organized individual, I sought to instill greater structure to how the committee functioned, such that agendas were met in a timely manner. With two meetings per year (at National ACS meetings) and numerous committee ‘friends’ contributing to tackling action items, it is often difficult to consistently meet goals. In 2016, as committee co-chair, I initiated official sub-committee assignments for all members and the use of virtual meetings. Having members assigned to specific action items within their sub-committee and having more frequent meetings, where sub-committees are responsible for reporting out, has allowed the CER committee to be more task-oriented and meet more goals. While members run each sub-committee, the structure still allows for vital contributions from committee ‘friends’. As the chair, I believe this structure allows the CER committee to better serve the Division members and greater chemical education community. It is this same productivity and passion that I hope to bring to the Councilor/Alternate position.

**Patrick L. Dabenmire, Ph.D.** began his work in chemistry education as high school teacher. Following graduate school, he began work at Loyola University Chicago, where he eventually became the first tenure track chemistry education research professor in Loyola’s Department of Chemistry and Biochemistry. He is currently fulfilling that role as a tenured associate professor with research interests in analyzing dynamics and effects of cooperative, inquiry-based instructional approaches (e.g. POGIL and SWH), building effective professional and leadership development programs for secondary school teachers, analyzing contexts as media for developing understanding of chemistry concepts, and seeking ways to blur the lines between formal and informal learning environments in order to educate the whole student. On the chemistry education practice side of his work, Patrick participates in fostering and developing innovative, research-based curricula, which includes acting as a co-author on the 9th edition of Chemistry in Context, and acting as co-author for Healing Earth, a free, online text that integrates key principles of environmental science with related issues in ethics and spirituality.

To the potential role as Councilor/Alternate, Patrick brings a history of successful partnerships with others both inside and outside the field of chemistry education. He has been a member of the DivCHED Program Committee for the past several years and co-led the technical program in the Division for the 252nd ACS National Meeting and will do so again for the 256th ACS National Meeting. He welcomes the opportunity to serve the Division in a new capacity by communicating between and representing the Division as a Councilor or Alternate Councilor.
Roxie Allen - Roxie graduated with a BS in Biochemistry from Texas A & M University and she earned her MS in Chemistry from the University of Houston. Roxie was recognized as an ACS Fellow in 2017 for sustained service as a leader in chemical education.

Roxie is involved in her local ACS where she served as coordinator for National Chemistry Week and co-coordinator for Project SEED and she serves as a liaison between the local section and high school teachers in the community. She hosts section meetings to provide the opportunity for students, teachers and scientists to network.

Roxie served as a mentor for the United States Chemistry Olympiad program from 2003-2006. Following her tenure as a mentor, Roxie served as High School Program Chair for the SWRM in 2006. She served on the HACH Foundation National Board and the Guidelines for High School Chemistry Committee. She also served as the National Meeting High School Program Chair in 2014 and she was appointed to a teacher internship through the Project SEED.

After receiving the Conant Award, Roxie served on the board overseeing the formation of AACT and became involved in DivCHED through an appointment to CPN, where she has served since 2014. In 2015, Roxie was appointed as the DivCHED representative to the AACT Governing Board. Roxie has also been a regular attendee, presenter and symposium organizer at BCCE and she is currently serving as Pre-College Co-Chair for BCCE 2018. She has been appointed to the DivCHED High School Committee, which is looking for ways to increase its exposure through AACT.

Roxie promotes ACS and AACT programs and activities through presentations at the local, state, and national level. She is an ACS cheerleader who feels precollege teachers need to be made aware of the resources available from ACS, DivCHED and AACT.

Thomas Pentecost - I am honored to be considered for a councilor/alternate councilor position. I offer a brief review of my background as my qualifications for this role. I taught high school chemistry for three years before returning to graduate school for my PhD in chemistry education. I spent ten years as a fulltime community college faculty member, the last three as department chair. I am currently an associate professor of chemistry and faculty fellow in my university’s center for faculty teaching and learning. I am a longtime member of ACS and the Division of Chemical Education. My service to the division includes two terms on the New Member Committee, a member of the GVSU planning committee for the 2014 BCCE, serving on two and chairing an ACS-EI exam committees, and I am currently serving on the Chemistry Education Research Committee. My diverse background gives me a unique perspective and the ability to represent many different constituencies in the division high school teachers, community faculty, and faculty at PUI institutions. I have a passion for improving instruction in first-year courses and will work to make sure the division supports faculty teaching these vital courses.
254th ACS Meeting & Exposition, Washington, DC

August 20-24, 2017
Theme: Chemistry’s Impact on the Global Economy
Meeting Co-Chairs:
Denyce Wicht, Suffolk University, 41 Temple St, Boston, MA 02114-4241, (617)573-8252, dwicht@suffolk.edu
Beatriz Rios McKee, beatriz.rios-mckee@nokia.com

High School Program Chair:
Sally Button Mitchell, Pine Grove Middle School, 6318 Fremont Rd, East Syracuse, NY 13057, (315)637-9837, sbmitchell2@gmail.com
Sherri Rukes, Libertyville High School, 708 W Park Ave., Libertyville, IL 60048-2604, (847)327-7603, scrukes@comcast.net

Undergraduate Poster Chair:
Nicole DiFabio, Undergraduate Programs Office, American Chemical Society, 1155 Sixteenth St NW, Washington, DC 20036, (800) ACS-5558, ext. 8010, N_DiFabio@acs.org

CHED Program Co-Chair:
Irvin J. Levy, Gordon College, 255 Grapevine Road, Wenham, MA 01984, 978-867-4877, irv.levy@gordon.edu

GSSPC Organizers:
Ryan Mondschein and Chad Powell, Virginia Polytechnic and State University, “Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health”

Program Synopsis
DivCHED abstracts can be found at https://ep70.eventpilotadmin.com/web/page.php?page=Sessions&project=ACS17FALL&id=2017-08-20&filterUrn=urn%3Aeventpilot%3Aall%3Aagenda%3Afilter%3Acategoryid%3DCHED+Division+of+Chemical+Education

SUNDAY MORNING

CHED: High School Program
Independence D/E - Grand Hyatt Washington
Organizers: Michael Mury, Sherri Rukes
Presiders: Sherri Rukes
Cosponsored by: SOCED

CHED: Advancing Graduate Education: Opportunities & Challenges
Independence C - Grand Hyatt Washington
Organizers: Nancy Goroff, Bassam Shakhashiri
Presiders: Bassam Shakhashiri
Cosponsored by: PRES

CHED: Research in Chemistry Education
Independence B - Grand Hyatt Washington
Organizers: Samuel Pazicni, Stephanie Ryan, Sonia Underwood
Presiders: Samuel Pazicni, Stephanie Ryan, Sonia Underwood
Financially supported by: ACS DivCHED Committee on Chemistry Education Research

SUNDAY AFTERNOON

CHED: High School Program
Independence D/E - Grand Hyatt Washington
Organizers: Michael Mury, Sherri Rukes
Presiders: Sherri Rukes
Cosponsored by: SOCED

CHED: Advancing Graduate Education: Opportunities & Challenges
Independence C - Grand Hyatt Washington
Organizers: Nancy Goroff, Bassam Shakhashiri
Presiders: Nancy Goroff
Cosponsored by: PRES

CHED: Undergraduate Research Papers
Independence B - Grand Hyatt Washington
Organizers: Carmen Gauthier, Joshua Ruppel, Nicole Snyder
Presiders: Carmen Gauthier, Nicole Snyder
Cosponsored by: SOCED
Financially supported by: CUR: Council on Undergraduate Research

SUNDAY EVENING

CHED: General Posters
Hall D - Walter E. Washington Convention Center
Organizers: Tyson Miller

MONDAY MORNING

CHED: General Papers
Independence C - Grand Hyatt Washington
Organizers: Steven Fleming
Presiders: Courtney Meyet

CHED: Putting CER into Practice: Using Chemistry Education Research to Inform Teaching Strategies
Independence B - Grand Hyatt Washington
Organizers: Renee Cole, Jessica Vandenplas
Presiders: Renee Cole
CHED: Using Computational Methods to Teach Chemical Principles
Arlington/Cabin John - Grand Hyatt Washington
Organizers: Alexander Grushow, Melissa Reeves
Presiders: Alexander Grushow

MONDAY AFTERNOON
CHED: Engaging Undergraduates with Raman Spectroscopy
Independence C - Grand Hyatt Washington
Organizers: Matthew Sonntag
Presiders: Matthew Sonntag

CHED: Materials that Impact our Daily Lives & the Global Economy: Bring Practical Applications into the Chemistry Classroom
Lafayette Park - Grand Hyatt Washington
Organizers: Sherri Rukes
Presiders: Sherri Rukes
Cosponsored by: CHED, PMSE, POLY and RUBB
Financially supported by: IPEC

CHED: Putting CER into Practice: Using Chemistry Education Research to Inform Teaching Strategies
Independence B - Grand Hyatt Washington
Organizers: Renee Cole, Jessica Vandenplas
Presiders: Kelly Neiles

CHED: Using Computational Methods to Teach Chemical Principles
Arlington/Cabin John - Grand Hyatt Washington
Organizers: Alexander Grushow, Melissa Reeves
Presiders: Melissa Reeves

CHED: Undergraduate Research Posters
Hall D - Walter E. Washington Convention Center
Organizers: Nicole Di Fabio
Agricultural & Food Chemistry
Cosponsored by: AGFD and SOCED
Analytical Chemistry
Cosponsored by: ANYL and SOCED
Biochemistry
Cosponsored by: BIOL and SOCED
Biotechnology
Cosponsored by: BIOT and SOCED
Chemical Education
Cosponsored by: SOCED
Computational Chemistry
Cosponsored by: COMP and SOCED
Environmental Chemistry
Cosponsored by: ENVR and SOCED
Green Chemistry & Sustainability
Cosponsored by: CEI and SOCED
Financially supported by: IEC Green Chemistry Institute

CHED: Engaging Undergraduates with Raman Spectroscopy
Independence C - Grand Hyatt Washington
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Cosponsored by: SOCED
Computational Chemistry
Cosponsored by: COMP and SOCED
Environmental Chemistry
Cosponsored by: ENVR and SOCED
Green Chemistry & Sustainability
Cosponsored by: CEI and SOCED
Financially supported by: IEC Green Chemistry Institute

CHED: Successful Student Chapters
Halls D/E - Walter E. Washington Convention Center
Organizers: Nicole Di Fabio

TUESDAY MORNING
CHED: Increasing Retention of Under-Represented Students in Chemistry
Independence C - Grand Hyatt Washington
Organizers: Stephen Cessna, Tara Kishbaugh
Presiders: Tara Kishbaugh
Cosponsored by: CHED

CHED: Innovations in Undergraduate Biochemistry Education
Independence B - Grand Hyatt Washington
Organizers: Charles Abrams, Patrick Daubenmire
Presiders: Charles Abrams, Patrick Daubenmire

CHED*: GSSPC: Standing on the Shoulders of Giants: Developing Chemistries for Improved Global Health
Independence D/E - Marriott Marquis Washington, DC
Organizers: Ryan Mondschein, Chad Powell
Presiders: Brittany Nichols, Chad Powell, Samantha Talley
Cosponsored by: ANYL, BIOT, BMGT, CARB, CELL, COLL, MEDI, POLY and PRES
Financially supported by: ACS Publications
ACS DAC IPG
GEAB/GPSA
POLY Industrial Advisory Board (IAB)
Accounts of Chemical Research (ACS Journal)
Bioconjugate Chemistry (ACS Journal)
ACS Central Science (ACS Journal)
Acta Biomaterialia (ACS Journal)
National Institutes of Health (NIH)
Virginia Tech (Institute for Critical Technology and Applied Sciences (ICTAS); College of Natural Resources and Environment; Department of Chemistry; College of Science; Materials Science & Engineering Department)
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Bioconjugate Chemistry (ACS Journal)
ACS Central Science (ACS Journal)
Acta Biomaterialia (ACS Journal)
National Institutes of Health (NIH)
Virginia Tech (Institute for Critical Technology and Applied
Sciences (ICTAS); College of Natural Resources and
Environment; Department of Chemistry; College of Science;
Materials Science & Engineering Department)
CHED: Advances in E-Learning
Independence C - Grand Hyatt Washington
Organizers: Candice Foley
Presiders: Candice Foley
CHED: Metacognition in Chemistry Education:
Connecting Research & Practice
Independence B - Grand Hyatt Washington
Organizers: Seth Anthony, Michael Dianovsky
Presiders: Seth Anthony, Michael Dianovsky
Cosponsored by: CHED

WEDNESDAY MORNING
CHED*: Green Chemistry: Theory & Practice
Independence D/E - Grand Hyatt Washington
Organizers: Edward Brush, Jane Wissinger
Presiders: Michael Berger, Lindsey Welch
Cosponsored by: CEI and ENVR
CHED: General Papers
Independence B - Grand Hyatt Washington
Organizers: Steven Fleming
Presiders: David Katz
CHED: Integration of STEM & the Liberal Arts
Independence C - Grand Hyatt Washington
Organizers: Candice Foley
Presiders: Candice Foley

WEDNESDAY AFTERNOON
CHED: Games & Active Learning Techniques to Help
Students Understand Chemistry
Independence C - Grand Hyatt Washington
Organizers: Kishore Bagga, Daniel King
Presiders: Kishore Bagga, Daniel King
CHED: General Papers
Independence B - Grand Hyatt Washington
Organizers: Steven Fleming
Presiders: Steven Fleming
CHED: Process Oriented Guided Inquiry Learning (POGIL)
Independence D/E - Grand Hyatt Washington
Organizers: Richard Moog
Presiders: Richard Moog

THURSDAY MORNING
CHED: Assessment Instruments for the ACS-Accredited
Degree Program
Independence C - Grand Hyatt Washington
Organizers: Shirley Lin, Melonie Teichert
Presiders: Shirley Lin, Melonie Teichert
CHED: Chemistry in the Age of Cheap Computing
Independence B - Grand Hyatt Washington
Organizers: Raychelle Burks, Jeramia Ory
Presiders: Raychelle Burks, Jeramia Ory, Clarissa Sorensen-Unruh
Cosponsored by: ANYL
CHED: Citizens First!
Independence D/E - Grand Hyatt Washington
Organizers: Cynthia Maguire, Richard Sheardy
Presiders: Cynthia Maguire, Richard Sheardy
Cosponsored by: CEI
### Schedule of CHED Committee Meetings and Social Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
<th>Location</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>FRIDAY AUGUST 18, 2017</td>
<td><strong>Finance Committee (closed)</strong> Room 102B W. E. Washington Convention Center</td>
<td>Room 102B W. E. Washington Convention Center</td>
<td>3:00 PM - 6:00 PM</td>
</tr>
<tr>
<td>SATURDAY, AUGUST 19, 2017</td>
<td><strong>ACS Exams Institute, Board of Trustees (open)</strong> Bulfinch, Grand Hyatt</td>
<td>Bulfinch, Grand Hyatt</td>
<td>7:30AM – 12:00PM</td>
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<td></td>
<td><strong>JCE, Board of Publications (open)</strong> Washington, Grand Hyatt</td>
<td>Washington, Grand Hyatt</td>
<td>7:30AM – 12:00PM</td>
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<td></td>
<td><strong>Program Committee (open)</strong> Declaration B, Grand Hyatt</td>
<td>Declaration B, Grand Hyatt</td>
<td>10:30AM – 12:00PM</td>
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<tr>
<td></td>
<td><strong>New Member Committee (open)</strong> Washington, Grand Hyatt</td>
<td>Washington, Grand Hyatt</td>
<td>2:00 PM – 3:00PM</td>
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<td></td>
<td><strong>Executive Committee</strong> Studio I &amp; II, W Washington</td>
<td>Studio I &amp; II, W Washington</td>
<td>1:00PM – 1:30PM (closed)</td>
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<td></td>
<td>1:30PM – 4:00PM (open)</td>
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<td></td>
<td>4:00PM – 5:30PM (closed)</td>
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<tr>
<td>SUNDAY, AUGUST 20, 2017</td>
<td><strong>International Activities Committee (open)</strong> Renwich, Grand Hyatt</td>
<td>Renwich, Grand Hyatt</td>
<td>8:00AM – 9:30AM</td>
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<tr>
<td></td>
<td><strong>Regional Meetings (open)</strong> Renwich, Grand Hyatt</td>
<td>Renwich, Grand Hyatt</td>
<td>12:00PM – 2:00PM</td>
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<tr>
<td></td>
<td><strong>Long Range Planning Committee (open)</strong> Washington, Grand Hyatt</td>
<td>Washington, Grand Hyatt</td>
<td>2:30PM – 4:30PM</td>
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<td><strong>Safety Committee (open)</strong> McPherson Square, Grand Hyatt</td>
<td>McPherson Square, Grand Hyatt</td>
<td>4:00PM – 5:30PM</td>
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<td></td>
<td><strong>DivCHED Social Reception (open)</strong> Room 207 A, W. E. Washington Convention Center</td>
<td>Room 207 A, W. E. Washington Convention Center</td>
<td>5:30PM – 7:00PM</td>
</tr>
</tbody>
</table>
AGENDA – Executive Committee (Open)
Division of Chemical Education
Saturday, August 19, 2017
1:30PM – 4:00PM
Studio I & II rooms at the W Hotel

Notes:
1. The agenda packet is available on the Division web site: http://www.divched.org/
2. The Executive Committee (ExComm) consists of 19 members, 13 elected members, plus the Chair of the Board of Publication, Editor-in-Chief, J. Chem. Educ., the Chair of the Board of Trustees, the Director, Examinations Institute and the Chair, Division Program Committee (Chair and Chair Elect). Only ExComm members are present in Executive Session. Input is welcomed from all in attendance at the Open Session, but ExComm members are the only persons who may vote on actions before the Executive Committee.
3. Reimbursement forms for ExComm members will be provided via interactive form on the Division’s website – Under the tab - Meetings. http://www.divched.org

Open Session - 1:30PM to 4:00PM

<table>
<thead>
<tr>
<th>Action</th>
<th>Time</th>
<th>Items</th>
<th>Page</th>
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</thead>
<tbody>
<tr>
<td>Call to order</td>
<td>1:30</td>
<td>X Approve meeting agenda and consent agenda reports</td>
<td>1-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>X Approval of the Spring 2017 ExComm Meeting Minutes, Open Session</td>
<td>3-8</td>
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<td><strong>Introductions</strong></td>
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<td>Chair’s Announcements – M. Orgill</td>
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<td>• Welcome to new members of ExComm, Bylaw review update</td>
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<td>Past Chair’s Announcements – C. Middlecamp</td>
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<td>Chair Elect’s Announcements – C. Frech</td>
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<td>• Upcoming revisions of the DivCHED Operations Manual</td>
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<td>Secretary’s Announcements – D. King</td>
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<td><strong>Discussion</strong></td>
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<td>2:15</td>
<td>Finance Committee Updates – C. Middlecamp</td>
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<td>X Name change for the High School Chemistry Committee – R. Allen</td>
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<td>Biennial Conference Committee Update – D. Sykes</td>
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<td>BCC/ExComm Representation – M. Orgill</td>
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<td>3:00</td>
<td>Break</td>
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<td>3:15</td>
<td>Public Relations Committee Task Force Report – T. Holme</td>
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<td>X Program Committee Report - I. Levy</td>
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<td>Program Committee Meeting Report – B. Rios-McKee</td>
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<td>Treasurer’s General Report - A. Wilson</td>
<td>1</td>
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<td>• Review of 2016 Audit</td>
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<td>Board of Publication Oral Report – E. Yeziorski</td>
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<td>Board of Trustees of the ACS Exams Institute Oral Report – A. Grushow</td>
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<td>3:45</td>
<td>Open Discussion/Input to the Executive Committee</td>
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<td>AACT Representative – A. Modic</td>
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<td>ACS Education Division Highlights – K. McCue</td>
<td>54-59</td>
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<td>X Recognition of Division Award Winners – M. Orgill</td>
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<tr>
<td></td>
<td>4:00</td>
<td>Adjourn Open Session</td>
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</tr>
</tbody>
</table>
• Only $110 for pre-college (high & middle school) teachers!
• All day Sunday & Monday afternoon programming for teachers
• Full access to the chemistry teacher program AND the entire ACS meeting AND the exposition!
• Experience hands-on activities during the Sunday and Monday programs
• Networking opportunities with other chemistry teachers
• Earn Professional Development hours

Visit [www.acs.org/chemistryteacherprogram](http://www.acs.org/chemistryteacherprogram) for up-to-date information

Follow #ACSTeacherDay on Twitter
HOURS OF OPERATION

SUNDAY, August 20
7:00 AM - 10:00 AM ...... 15 minute intervals
10:00 AM - 4:00 PM ...... 30 minute intervals
4:00 PM - 7:00 PM ...... 15 minute intervals
7:00 PM - 11:00 PM ...... 30 minute intervals

MONDAY, August 21
7:00 AM - 10:00 AM ...... 15 minute intervals
10:00 AM - 4:00 PM ...... 30 minute intervals
4:00 PM - 11:00 PM ...... 15 minute intervals

TUESDAY, August 22
7:00 AM - 10:00 AM ...... 15 minute intervals
10:00 AM - 4:00 PM ...... 30 minute intervals
4:00 PM - 11:00 PM ...... 15 minute intervals

WEDNESDAY, August 23
6:30 AM - 11:00 PM ...... 30 minute intervals

THURSDAY, August 24
7:00 AM - 6:00 PM ......... 60 minute intervals
### Upcoming Meeting Information

**255th ACS National Meeting, New Orleans, LA**

March 18-22, 2017

**Theme:** The Food, Energy, Water Nexus

**Meeting Co-Chairs:**
Carmen Gauthier Valdez, cgauthier@flsouthern.edu
Nicole Snyder, nsnyder@snyderglycosciencegroup.org

**Symposia**

- ACS Award for Achievement in Research for the Teaching and Learning of Chemistry
- ACS-CEI Award for Incorporating Sustainability into Chemical Education
- Active Learning in the General Chemistry Curriculum
- Advancing Undergraduate Research in Chemistry: Best Practices and New Innovations
- Assessing safety knowledge, skills, and attitudes
- Chemistry Education Research: Graduate Student Research Forum
- Chemistry Learning and Math Learning: Which is the cart and which is the horse?
- Chemistry safety in the classroom: best practices and learning experience
- Citizen's First
- Engaging Students in Physical Chemistry
- Fundamentals of Chemistry Outreach Education: From Program Design to Assessment
- General Papers
- George C. Pimentel Award in Chemical Education
- Graduate Student Symposium: Finding Our Place at the Bottom: A Symposium in Memory of Richard Feynman
- Green Chemistry Theory and Practice: Food, Energy, and Water Sustainability
- High School Program
- International Perspectives of Chemistry Education Teaching and Practice
- NMR Spectroscopy in the Undergraduate Curriculum
- Online & Upward: Improving Online Education to Increase Chemistry's Global Reach
- Persistence in STEM: What can we do to support students?
- Process-Oriented Guided Inquiry Learning (POGIL)
- Research in Chemistry Education
- Research in Chemistry Education: New & Noteworthy
- Research on Learning in the Laboratory

Science Communication: Engaging science students, scientists and nonscientists through modern communication modes

State of the Art: Two Decades Advancing the 12 Principles of Green Chemistry

Statistics and Data Management in the Chemistry Curriculum

Strategies Promoting Success of Two-year College Students

Successful Strategies for Assessing Undergraduate Research

Successful Student Chapters

Undergraduate Research Papers

Undergraduate Research Posters: Agricultural and Food Chemistry

Undergraduate Research Posters: Analytical Chemistry

Undergraduate Research Posters: Biochemistry

Undergraduate Research Posters: Biotechnology

Undergraduate Research Posters: Chemical Education

Undergraduate Research Posters: Computational Chemistry

Undergraduate Research Posters: Environmental Chemistry

Undergraduate Research Posters: Geochemistry

Undergraduate Research Posters: Green Chemistry & Sustainability

Undergraduate Research Posters: Inorganic Chemistry

Undergraduate Research Posters: Medicinal Chemistry

Undergraduate Research Posters: Nanochemistry

Undergraduate Research Posters: Organic Chemistry

Undergraduate Research Posters: Physical Chemistry

Undergraduate Research Posters: Polymer Chemistry

US-Cuba Collaborations in Chemical Education

Using CURES to Teach and Reinforce Core Concepts in Biochemistry

Using Light, Color, and Spectroscopy to Increase Student Engagement in the Laboratory

Videos to Enhance Instruction

Abstract deadline for the Spring 2018 ACS Meeting is October 23, 2017.
ConfChem Online Conferences

**Fall 2017 Online ConfChem: Mathematics in Undergraduate Chemistry Instruction**

10/26/2017 - 11/27/2017

How can we improve student success in introductory chemistry courses?

Chemistry is a quantitative science. In recent years, many instructors have noted increased deficits in the math background of students enrolling in undergraduate courses. Recent research in cognitive science points to the importance of “automated” background knowledge in arithmetic and algebra as a foundation for solving scientific calculations. Experiments by chemistry instructors have seen gains in student achievement by adding to their department offerings and/or courses additional review of the math needed for chemistry.

From October 26 to November 27, 2017, the ACS DivCHED Committee on Computers in Chemical Education (CCCE) will sponsor an online conference (a “ConfChem”) on “Chem-Math.” Two papers will be presented each week from instructors who have collected data on their efforts to strengthen quantitative problem solving. Then, over a 3 to 4 day period for each paper, authors will answer questions submitted online. Conference participants will also discuss (and occasionally debate!) issues raised in each article.

2YGs Conferences

**Fall Conference 2017**
November 3-4, 2017
218th Conference
Durham Technical Community College
Durham, NC
Conference Website
Program Chair
Mark Matthews: matthewsm@durhamtech.edu
Local Arrangements
Olga Hogrefe: hogrefeo@durhamtech.edu
Exhibits Chair
Oliver Just: justo@durhamtech.edu

**Early Spring Conference 2018**
March 2018 (dates TBD)
219th Conference
Delgado Community College
New Orleans, LA

**Fall Conference 2018**
October 2018 (dates TBD)
University of New Mexico-Valencia
Los Lunas, NM
Program Chair
Tracy Terry: tjterry@unm.edu

25th Biennial Conference on Chemical Education

**July 29-August 2, 2018 | University of Notre Dame**

**Theme:** Chemical Education is Golden

**General Chair:** Steve Wietstock, Notre Dame

**Program Co-Chairs:** Cate Reck, Indiana University; Jim Parise, Notre Dame

Sympoisia and Workshop proposals will be accepted through December 1, 2017. Criteria for submission are available on the conference website. Abstracts for presentations and posters will be accepted through February 20, 2018. Both submission sites can be found at [http://bcce2018.org](http://bcce2018.org) under the Presenting tab. The preliminary list of symposia includes:

- 3D printing in chemistry education
- Active Learning in Organic Chemistry
- Chemistry Education Research about Multiple Representations
- Chemistry Education Research: Graduate Student Research Symposium
- Collaborative and Cooperative Learning
- Course-embedded research experiences in the first and second year curriculum
- Creativity in the Classroom: Games and Manipulatives that Encourage Learning
• Enhancing student learning and retention in introductory “gatekeeping” chemistry courses
• George R. Hague, Jr. Advanced Placement Chemistry Symposium
• Interdisciplinary Collaboration in Chemistry Courses: Practices and Challenges
• Learning About Quantitative Research in Chemistry Education Research
• Learning About Theoretical Frameworks in Chemistry Education Research
• Peer instruction across the postsecondary curriculum
• Problem Solving as a Pedagogical Method (PSPm) in Chemistry
• Qualitative Research in Chemical Education: In Pursuit of Whys and Hows

• Supporting Under-Represented Minorities to Increase Undergraduate Retention and Success
• Teaching Chemistry at Minority-Serving Institutions
• The 3 Ps of Student Engagement in the Flipped General Chemistry Classroom: Preparation, Participation, and Performance
• Using Science Fiction to Teach Chemistry

Early registration will begin on February 16, 2018 through the 25th BCCE website. Estimated registration fees are $325 for general registrants, $175 for secondary educators, and $175 for graduate students. Check the BCCE website for the latest details for on-campus and off-campus housing arrangements.


**COMMITTEE/BOARD REPORTS**

**Biennial Conference on Chemical Education Committee, Dan G. Sykes [dgs12@psu.edu], Chair**

**Biennial Conference Committee (BCC)**

The committee recently held a two-day retreat in order to develop a 5-year strategic plan, informational packets for current and prospective Biennial Conference on Chemical Education (BCCE) hosts, and a robust accessible data management infrastructure as well as discuss ideas for enhancing the social media presence of the BCCEs. Current members of the committee are Renee Cole (reneecole@uiowa.edu), Julie Henderleiter (henderlj@gvsu.edu), David Heroux (dheroux@smcvt.edu), Sally Hunnicutt (sshunnic@vcu.edu), Irv Levy (irv.levy@gordon.edu), Suzette Mooring (smooring@gsu.edu), MaryKay Orgill (marykay.orgill@unlv.edu), Clarissa Sorensen-Unruh (CSorensen@cnm.edu), Dan Sykes (dgs12@psu.edu), and Vickie Williamson (williamson@mail.chem.tamu.edu). John Michael Sophos (jsophos611@comcast.net) serves as the Meeting Program Planner to partner with the BCC and Biennial Conference on Chemical Education planning teams.

**Biennial Conference on Chemical Education (BCCE)**

The University of Notre Dame is looking forward to hosting the 25th Biennial Conference on Chemical Education (BCCE), sponsored by the ACS Division of Chemical Education, in July 2018. This biennial conference fosters collaboration and conversations among educators from all levels from middle school science teachers, high school chemistry teachers, and two-year and four-year chemistry instructors. This conference has become the largest gathering of chemical educators in the world and a thriving part of the chemical education community for 50 years now. We are celebrating our “Golden Anniversary,” and we hope you can celebrate this auspicious occasion with us.

General Chair, Steven Wietstock (University of Notre Dame), and co-Program Chairs, Cate Reck (Indiana University – Bloomington) and Jim Parise (University of Notre Dame), invite you to join us on the iconic campus of Notre Dame from July 29 – August 2, 2018. You can expect a dynamic conference with a rich number of symposia, time to network with colleagues, with ample time to explore the beauty of the campus and surrounding community. Our conference will work to emphasize the improvements of chemistry education at all levels, the modern developments in chemistry and chemical education, and is highly respected in the chemical education community.

Symposia and Workshop proposals will be accepted through December 1, 2017. Criteria for submission are available on the conference website. Abstracts for presentations and posters will be accepted through February 20, 2018. Both submission sites can be found at [http://bcce2018.org](http://bcce2018.org) under the Presenting tab. The preliminary list of symposia includes:

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- Problem Solving as a Pedagogical Method (PSPm) in Chemistry
- Qualitative Research in Chemical Education: In Pursuit of Whys and Hows
- Supporting Under-Represented Minorities to Increase Undergraduate Retention and Success
- Teaching Chemistry at Minority-Serving Institutions
- The 3 Ps of Student Engagement in the Flipped General Chemistry Classroom: Preparation, Participation, and Performance
- Using Science Fiction to Teach Chemistry

Early registration will begin on February 16, 2018 through the 25th BCCE website. Estimated registration fees are $325 for general registrants, $175 for secondary educators, and $175 for graduate students. Check the BCCE website for the latest details for on-campus and off-campus housing arrangements.

Visit and bookmark the 25th BCCE website (http://bcce2018.org) for specific information about the conference. Check out the social media channels and website for updated information pertaining to the technical program, registration, housing, and social events as the conference approaches. Any questions, program ideas, or general suggestions for any of the BCCE program chairs can be sent to the BCCE email address, BCCE2018@nd.edu.

Planning for the 26th BCCE at Oregon State is under way. Updates will be provided in subsequent newsletters. Please contact the General Chair, Richard Nafshun (richard.nafshun@oregonstate.edu), with any questions.

The Biennial Conference Committee encourages any individual or institution interested in hosting a BCCE to contact Dan Sykes (dgs12@psu.edu) or any member of the BCC (http://www.divched.org/committee/biennial-conference-chemical-education). Currently, we are identifying hosts for the 2022 and 2024 BCCEs.
Greetings from the Chemistry Education Research (CER) committee! I am happy to report on two new initiatives taking shape in the committee.

**Research methods symposia at BCCE 2018**

- The YCES and CER committees have been discussing collaborative efforts to promote professional development. The first effort will be a series of themed symposia held at the upcoming BCCE.
- The main goal for these symposia is to collectively provide researchers with an opportunity to learn the details of a method or framework.
- Each talk will be scheduled for a 40-minute block, providing speakers time to introduce their research and provide an instructional-style account of the method or framework utilized.
- Planned symposia:
  - Theoretical frameworks
  - Basic/advances statistics
  - Qualitative methods
- During the symposia, audience member feedback will be collected to evaluate the value of the presentations and to gather suggestions for additional topics of interest.

**Development of CER resource pages**

- CER committee members have been working with Jon Holmes on building resource pages to host on the ChemEd-X server.
- The pages will be similar to the PER Central (http://www.compadre.org/per/) layout.
- Several pages are under development; stay tuned for working versions soon!

In addition to these new initiatives, the CER committee continues to support the following agenda:

- Moderation of the CER listserv through the ChemEd-X server
- Organization of symposia at ACS National and BCCE meetings
  - Research in Chemistry Education
  - New & Noteworthy
  - Research to Practice
- Undergraduate CER poster judging and awards
  - In collaboration with YCES
- Encouraging a strong pool of nominations for the ACS award in Achievement in Research for the Teaching and Learning of Chemistry

Jack Barbera – CER committee chair
Portland State University

"It was wonderful to meet with so many Chemistry Educators who are passionate about teaching" is one of the many positive comments I hear from colleagues who attend the 2YC, conferences across the country. The Two Year College Chemistry Consortium, 2YC, provides a forum for chemistry educators to enhance student learning through these professional development conferences.

There have been 2 such 2YC, conferences so far in 2017, in March at Truckee Meadows Community College with the theme “Chemistry Inside and Outside the Classroom”, and in May at Bronx Community College with the theme: Creative Teaching Strategies”.

At Truckee Meadows, Conference Chair Olga Katkova lead us through seminars and workshops such as designing collaborative learning space classrooms, E-Cigarettes, Air Quality in the Mid-east, Undergraduate Research, and Learning Chemistry Outside the Classroom, Chemistry by Canoe (Wisconsin) and Capturing Interdisciplinary Teaching in Gen Chem by using a Challenge Drawing.

Current 2YC3 chair, Kathy Carrigan and former 2YC3 chair, Sonja Davison

Dr. Flaris's undergraduate students - poster session
In addition, there was a workshop using ACS Tools for Assessment in the 2 Year College.

Guests were treated to a super cool tour of the Civil Support Team Mobile Laboratory! Close to 50 college and high school Chemistry educators from the Nevada/California region but also from across the country enjoyed the hospitality of TMCC and Reno.

At the end of May, Bronx Community College host Vicki Flaris, hosted over 100 college and high school chemistry teachers through many active learning seminars, discussing flipped classrooms, undergraduate research, interdisciplinary teaching strategies, combining chemistry and biology entrepreneurship, nanotechnology, Chemistry Marketing, from Basic Materials to Commercial Products, developing and improving online chemistry learning to name a few. There was help in writing NSF grants, and a workshop on Building Bridges/Student Transfer Workshops designed to help ease student transfer from the 2 Year to the 4 year college. The team arranged an exciting walking tour of Harlem topped off with a traditional meal at the famous Sylvia's Restaurant in Harlem.

The 2YC₃ conferences provide people who may be the only chemistry teacher on a rural campus to network and collaborate with a colleague from a large urban community college. Friendships are made, joint grants are created and teachers go home inspired to try something new! Many teachers who cannot attend the National ACS meetings may find the information at the ACS Booth on ACS tools.

ACS Guidelines for Chemistry in Two Year Colleges, ACS Assessment Tool for Chemistry in Two Year Colleges, Teaching Chemistry to Students with Disabilities, Safety in Academic Laboratories. All of these tools have personally helped me in making decisions as our chemistry program has grown and evolved at Portland Community College, (Portland Oregon).

The next adventure for 2YC₃ is at Durham Technical College in Durham, NC in November, and next year we plan to be in New Orleans in the spring and New Mexico in the Fall and of course with a membership meeting and more at the BCCE at Notre Dame in summer 2018!

The Two Year College Chemistry Consortium is always looking for new members and new leaders. Come to a meeting to share your latest and greatest innovation in chemistry education or come to learn something new, to gain colleagues and make new friends.

Kathy Carrigan, Chair 2YC₃

www.2yc3.org
International Activities Committee, Resa Kelly [resa.kelly@sjsu.edu ], Chair

The IAC works to engage and connect with other networks of chemistry educators with global interests. Through these networks, we will exchange ideas about chemistry education research and practices that promote equity and diversity in chemistry education. We are very interested in learning how we can better assist our Division members to get involved with our committee, please contact Division Chair Resa Kelly if you want to learn more about our committee.

Since the IAC last met at the ACS National meeting in San Francisco, we have been active with the following items:

1) Travel award winner Dr. Mageswary Karpudewan of Malaysia presented at the ACS National Meeting in San Francisco. She gave a great talk and shared her experiences on our DivCHED IAC website http://www.divched.org/committee/international-activities.

2) An American Chemical Society(ACS)- Sociedad Cubana de Quimica(SCQ) workshop was held April 7-8th in Salt Lake City, Utah at the University of Utah. Past DivCHED IAC Chair Charles Atwood, Professor Joel Harris and DivCHED Chair Resa Kelly organized the workshop which brought together a group of Cuban chemists with US chemists to present on their research and teaching practice. Tours of labs and facilities at the University and a visit to a local high school were highlights. The workshop ended with a brainstorming session on future collaborative projects. A future workshop will be held at the University of Havana – Nov. 23rd through Nov. 25th and following the workshop is a conference in Santiago de Cuba – 22 Conferencia de Quimica – 70 años de Historia – Nov. 29th to Dec. 1st.

3) On May 3rd, nine of thirteen IAC members voted to approve the revised vision and goal statements for the committee. The approved vision and goals follow.

Vision: As the International Activities Committee of the Division of Chemical Education, our aim is to engage and connect with other networks of chemistry educators with global interests. Through these networks, we will exchange ideas about chemistry education research and practices that promote equity and diversity in chemistry education.

To accomplish these goals, we will:

Host symposia and events both in and out of the United States, wherein the co-organizers will consist of one veteran DivCHED IAC member, one new DivCHED IAC member and one international ACS DivCHED member.

Disseminate information pertaining to international events through our DivCHED website and social media.

Support global research interests by offering a yearly travel award in the amount of $2000 to support an ACS DivCHED member to attend international meetings.

Promote and arrange collaborations.

4) Our first online meeting was held July 21st using Zoom meeting, a service provided by DivCHED. Items that were discussed: Planning for a future IPG proposal, promoting the travel award application and advertising the award through social media outlets (Facebook and Twitter).

Plans for the Spring 2018 ACS National Meeting in New Orleans are underway. Charlie Cox, Wendy Schatzberg and Alexey Leontyev will be organizing a symposium titled – Chemistry Teaching Practices from International Viewpoints. This is a remodel of the traditional Multicultural Symposium. Charlie and Wendy have also been busy working on an ACS book proposal that examines international activities.

We are investigating forming joint symposia with other DivCHED committees to help these committees appeal to a global community.

Thank you for reading!

DivCHED IAC Chair Resa Kelly

From left to right ACS-SCQ Attendees: Tom Wenzel (Bates College), Joel Harris (U of U), Shelley Minteer (U of U), Resa Kelly (San Jose State University), Loreley Morejón Alonso (University of Havana), Carmen Valdez Gauthier (Florida Southern College), Ana Margarita Esteva Guas (University of Havana), Charles Atwood (U of U), Cristina Isabel Diaz Lopez (University of Havana), Manuel Alvarez Prieto (University of Havana), Lesli Yanez Gonzalez (University of Havana), Alicia Marcellina Diaz Garcia (University of Havana), Armando Augusto Palenque Quevedo (University of Havana), Margarita Villanueva Tagle (University of Havana), Susan Olesik (Ohio State University).
Committee/Board Reports

Regional Meetings Committee, Marty Perry [Marty.Perry@stlcop.edu], Chair

The Regional Meetings Committee (RMC) is charged by the Division to:

1. Provide oversight of the ACS Division of Chemical Education Region Awards, which includes the development and maintenance of Award Guidelines, participation in the selection and presentation of the Region Awards,
2. Insure that a Chemical Education Program is part of each Regional Meeting, and
3. Promote the purpose and work of the ACS Division of Chemical Education.

RMC is pleased to outline in this NEWSLETTER Report recent efforts to address its charge.

1. ACS Division of Chemical Education Region Awards:

   2017 ACS Division of Chemical Education Region Awardees for Excellence in High School Teaching, VOLUME 1:

   Eight of the ten ACS Regions will hold meetings in 2017 providing opportunities to recognize and reward excellence in the teaching of high school chemistry. RMC is pleased to report on the following five region Awards presented in Spring/Summer 2017.

   The 48th ACS Central Regional Meeting, June 6-10, 2017 Dearborn, MI

   The winner of the 2017 Division of Chemical Education Central Region Award for Excellence in High School Teaching is Jamie Beninga from The Roeper School in Birmingham, MI.

   Jamie Beninga has been a chemistry teacher for 16 years, teaching Intro and AP Chemistry, as well as electives like Organic Chemistry, Forensic Science, and the Science of Food and Cooking. He currently teaches at The Roeper School in Birmingham, MI. He has a B.S. in Chemistry (Honors) and a Masters in Teaching from Wayne State University. Jamie was a former co-chair of the AP Chemistry Test Development Committee, served on the Curriculum Development and Assessment Committee, worked as a reader for the AP Chemistry exam grading, and continues to write items for the exams. He has presented for the Flinn Scientific Foundation Summer Chemistry Workshops and eLearning series, and he currently leads training workshops for AP Chemistry teachers. He has presented at numerous conferences, including NSTA, ChemEd, and the AP Annual Conference; additionally, he has been published in the Journal of Chemical Education. He received the Teacher of Promise award from the Michigan Science Teachers Association in 2004. Outside of teaching chemistry, Jamie is a foodie and avid cook, and he worked on recipe development and food styling for the VizChef app.

   The 45th ACS Middle Atlantic Regional Meeting, June 4-6, 2017, Hershey, PA

   The winner of the 2017 Division of Chemical Education Middle Atlantic Region Award for Excellence in High School Chemistry Teaching is Catherine Zavacki from Hillsborough High School in Hillsborough, NJ.

   Cathy Zavacki has been a Chemistry teacher at Hillsborough High School in Hillsborough, NJ since 2000. She has her undergraduate degree from Bloomsburg University, a Master’s degree in education through the Regional Training Center, Gratz College and over 60 post-masters graduate credits. Cathy is also a graduate instructor for the Regional Training Center instructing courses on both Motivation and Kinesthetic learning. In 2016, Cathy was recognized as the Chemistry Teacher of the Year for the Princeton and Trenton sections of the ACS. Cathy’s focus as a teacher is on reaching students at all levels of learning and using novel teaching techniques to do so. She is an innovative teacher that is passionate about working with struggling learners. She works collaboratively with her special education co-teacher to ensure success for all of their students in the classroom. Cathy is an advocate of Kinesthetic learning and shares her expertise in Kinesthetic learning by co-presenting at the New Jersey Science Teacher’s Conference (2015) and most recently presented at the Kentucky Science Teacher’s Association Conference (2016). This summer she will be co-presenting two workshops on Kinesthetic Chemistry and Chemistry for the Struggling Learner at ChemEd17 at the University of South Dakota.

   Cathy’s principal stated, “It can be easy to be an Advanced Placement or honors teacher, but it is a true gift to be able to teach all levels, including special education students, with the same adeptness and enthusiasm. Mrs. Zavacki has always managed to find a way to appeal to her students bring them to be excited and willing participants in the scientific inquiry that occurs in her classroom.”
The 45th ACS Middle Atlantic Regional Meeting June 4-6, 2017, Hershey, PA

The winner of the 2017 Division of Chemical Education Northeast Region Award for Excellence in High School Chemistry Teaching is Maggie H. Estlinbaum from Liverpool High School in Liverpool, NY.

Maggie Estlinbaum earned her Bachelor of Arts degree in Biochemistry from Colorado College in 2000. After working for an environmental organization for a couple of years, Maggie’s interest turned to teaching. Thus in 2006 she earned a Masters of Arts in Teaching degree from the State University of New York at Cortland.

It was in 2006 that Maggie started her teaching career at Jordan-Elbridge High School in Jordan, NY. From 2006 until 2015 she taught in the Syracuse University Project Advance Chemistry program, as well as teaching AP Chemistry, Regents Chemistry, and General Chemistry. Having been recognized for her leadership skills, she served a number of years as the Science Department Chair and Team Leader.

In 2015 Maggie moved to Liverpool High School in Liverpool, NY. There she continues as a Master Teacher for STEM, a recognition accorded by the State of New York to Ms. Estlinbaum since 2013. Maggie has rounded out her excellent contributions in the teaching and administration of chemistry by extramural involvement in the teaching profession. Of the many professional involvements, in 2017 alone she has contributed to scholarly presentations with the titles of “Differentiating Instruction in the High School Chemistry Classroom”, “Getting Started in the High School Chemistry Lab: A Hands-On Workshop for New and Pre-Service Chemistry Teachers”, and “Developing Collaborations between Math and Science through a Sustainability Curriculum”.

Ms. Estlinbaum has been active in many volunteer activities; it is fitting that many of these are under the mantle of the American Chemical Society (ACS), with the award being sponsored by the chemists’ professional organization. Maggie serves as Liverpool High School’s ACS ChemClub Advisor, as she had been at Jordan-Elbridge since 2013. Two other contributions of note are her 10-year tenure as Science Olympiad Advisor, and her volunteer work as an ACS Science Coach.

The 72nd ACS Northwest Regional Meeting June 25-28, 2017, Corvallis, OR

The winner of the 2017 Division of Chemical Education Glenn & Jane Crosby Northwest Region Award for Excellence in High School Chemistry Teaching is Patty Weston from Mercer Island High School in Mercer Island, WA.

Patricia (Patty) Weston has worked as a teacher of Earth Science, chemistry, physics and biology at the K-12 level for over a decade, and has also taught a course in geomorphology at Highline Community College.

Patty is a Northwest native, having graduated from Bellevue High School, and attended Carleton College, earning a BA in geology. She has also earned a Master’s of Science in geology at UCLA, studying the thermochemistry of vein formation in deep ocean rocks from the East Pacific Rise and Oman. And ALSO a Masters in Teaching from Seattle University - her path to teaching high school is an interesting one.

Patty has worked in the Mercer Island School District as a high school science teacher since 2009. She has taught chemistry, earth science, and physics from introductory to college-level courses. Vicki Puckett, her principal a Mercer Island High School says, “Patty Weston is an amazing teacher! She is very relational with her students, who are highly motivated to do their best in chemistry. In addition, Patty is a strong collaborative teacher who works with her colleagues to improve the chemistry curriculum.”
The 42nd ACS Great Lakes Regional Meeting June 27-30, 2017, Fargo, ND

The winner of the 2017 Division of Chemical Education Great Lakes Region Award for Excellence in High School Chemistry Teaching is Sherri Rukes from Libertyville High School in Libertyville, IL.

Sherri Conn Rukes started her career at Wheaton Warrenville South High School and has been a member of the science department of Libertyville High School for over 20 years. She has been teaching various levels of chemistry and physics. While Sherri loves teaching chemistry, her passion is to educate. Sherri spends weekends, evenings, and summers by volunteering in outreach programs for elementary and middle school age children, as well as in professional development for teachers. She has gone around the country giving presentations at various state and national conferences, including NSTA conferences, iSTEM, STAYNS, STEM conferences, and ACS meetings. In 2007, Sherri became a polymer ambassador, and in 2009, the chairperson for the group. At the same time, she was selected as a Master Teacher for ASM Materials Science Teachers Camp Program. In these roles, Sherri travels to various academic institutions across the U.S. during the summer to teach week-long, professional development programs for high school science teachers. Sherri has also done research at Northwestern University and the Chicago Art Institute. Her work on George Seurat’s artwork and solid oxide fuel cells has been published. Sherri was named a Presidential Award for Excellence in Mathematics and Science Teaching- Illinois State Finalist in 2015, and in 2016, she was elected as the High School Ambassador for AACT (American Association of Chemistry Teachers) and a Golden Apple Teacher of Distinction in Illinois. In addition, Sherri is the High School Director – Physical Science for ISTA (Illinois State Science Teachers Association). Just this past May, Sherri was elected as the AACT President.

Finalists for the Spring 2017 ACS Division of Chemical Education Region Awards for Excellence in High School Teaching:

In 2014 RMC began the practice of using the CHED Newsletter to recognize all nominees for the Region Award for Excellence in High School Teaching and the schools at which they teach. In the tables below we list each Region Award, the 2017 Recipient, and all those whose complete nomination portfolios came before the Region Awards Committees.

### 2017 ACS Division of Chemical Education Central Region Award for Excellence in High School Teaching

**AWARDEE**

Jamie Beninga  
The Roeper School  
Birmingham, MI 48009

**FINALISTS**

Kathryn Blakenship  
Highlands High School  
Fort Thomas, KY 41075

Dr. David Lineman  
Hickory High School  
Hermitage, PA 16148

Terese Mortemore  
Maumee High School  
Maumee, OH 43437

### 2017 ACS Division of Chemical Education Middle Atlantic Region Award for Excellence in High School Teaching

**AWARDEE**

Catherine Zavacki  
Hillsborough High School  
Hillsborough, NJ 08844

**FINALISTS**

Claudia Angle  
Bridgeton High School  
Bridgeton, NJ 08302

Karolina Fraczkowska  
Stuart Country Day School of the Sacred Heart  
Princeton, NJ 08540
2017 ACS Division of Chemical Education Northeast Region
Award for Excellence in High School Teaching

**AWARDEE**

Maggie Estlinbaum  
Liverpool High School  
Liverpool, NY 13090

**FINALISTS**

Judith Ashworth  
Manchester Memorial HS  
Manchester, NH 03103

Amy Matts  
Spackenville High School  
Poughkeepsie, NY 12603

Deborah Day  
Amity Regional HS  
Woodbridge, CT 06525

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2017 ACS Division of Chemical Education Glenn and Jane Crosby Northwest Region Award for Excellence in High School Teaching

**AWARDEE**

Patty Weston  
Mercer Island High School  
Mercer Island, WA 9840

**FINALISTS**

Brian Butcher  
Jesuit HS  
Portland, OR 97225

Lee K. Jones  
Dallas High School  
Dallas, OR 97338

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2017 ACS Division of Chemical Education Great Lakes Region Award for Excellence in High School Teaching

**AWARDEE**

Sherri Rukes  
Libertyville High School  
Libertyville, IL 60048

**FINALISTS**

Patric Meloy  
Reobert M. La Follette HS  
Madison, WI 53716

David Schultz  
Davies High School  
Fargo, ND 58104

2. **Chemical Education Programming at Regional Meetings:**

RMC continues to work with organizing committees for Regional Meetings early on in the planning process to not only encourage Chemical Education programming but to also volunteer to organize symposia, general sessions, or poster sessions. Recent efforts have led to additional programming at CERM-2017, NORM-2017, and MARM-2017. Attention is now directed toward expansion of the Chemical Education programming at the regional meetings planned for 2018.

3. **Promotion of ACS Division of Chemical Education through Regional Meetings:**

RMC continues its joint project with the New Members Committee involving the design, preparation, and display of a poster that describes, using text and images, the mission and activities of the Division of Chemical Education. The poster is displayed by the DivCHED Representative, at each of the Regional Meetings, in a formal poster session and/or in the Registration area. The poster serves as a device to disseminate information about Division and to recruit new members to the Division. The new poster for 2017 includes new text and images highlighting Division activities, resources, and ways for members to become involved.
Greetings to all from ACS Exams.

2016 was a great year for ACS Exams in many respects. During the summer of 2016, the annual winners of the National Awards particularly important (and sponsored by) the Division of Chemical Education were announced. This group of winners is notable on their own merits, but in addition, at ACS Exams, we were especially proud as this group has been part of the ACS Exams family. Marcy H. Towns of Purdue University will be receiving the ACS Award for Achievement in Research for the Teaching and Learning of Chemistry; an award sponsored by ACS Exams. Laura Slocum of Heathwood Hall Episcopal School in South Carolina will be receiving the James Bryant Conant Award in High School Chemistry Teaching; an award sponsored by the Journal of Chemical Education and ChemEd X. Marcy and Laura have served ACS Exams in numerous ways including serving on the Board of Trustees and serving on exam committees and chairing exam committees. Finally, our own past Director, Thomas Holme of Iowa State University, will be receiving the George C. Pimentel Award in Chemical Education; an award sponsored by Cengage Learning and the ACS Division of Chemical Education. The awards ceremony on April 4th held at the spring ACS National Meeting will be a moment of great pride for chemical education!

Exam development in 2016 was also tremendous and tremendously busy! In early 2017, we will release the newest versions of the general chemistry (full year) exam, analytical chemistry exam, and instrumental analysis exam; in late spring, we will release the newest versions of the first-term general chemistry paired questions exam, second-term general chemistry paired questions exam, and organic chemistry (first-term) exam. We are in development on many exams also. In trial testing this spring are the biochemistry exam, diagnostic of undergraduate chemical knowledge (DUCK) exam, organic chemistry (full year) exam, and general chemistry (second-term) exam. We also expect to start field testing a full year general chemistry exam in a new electronic environment. If you are interested in participating in field testing, please let us know. As always, there is no cost to you as we provide all test booklets and answer sheets. We do request that you return student performances to us to assist us in the final stage of exam development. Finally, we are in development (with expected field testing in 2017 or early 2018) of the general-organic-biochemistry exam, general chemistry (full year) exam, general chemistry (first-term) exam, high school (first year) exam and physical chemistry exam (likely to be thermodynamics first). We are very appreciative of the vast number of faculty and instructors who serve on these exam committees and the chairs who lead these groups. If you are interested in serving on future exam committees, please let us know. We are regularly starting new committees, particularly in general and organic chemistry.

We would also like to specially thank all faculty and instructors who participated in trial testing in Fall, 2016. We were so pleased at the fantastic response to the request to field-test exams with 97 institutions participating. Over 8,300 trial tests were distributed for field testing providing the critical data to committees for producing the high-quality assessments aligned with the reputation of ACS Exams.

The business continues to be strong with 2016 finishing as an excellent year. Under the outstanding leadership of our Business Operations Manager, Julie Adams, our sales have been strong and our continued stability will enable the continued operations of ACS Exams far into the future.

Unfortunately, 2016 also saw the continuation of challenges in maintaining the security and integrity of the intellectual property of our exams and study materials. Sadly, we have fully recalled two exams: General Chemistry First Term Exam 2012 and Analytical Chemistry Exam 2007. We were also required to remove from sales and replace the Instrumental Analysis Exam 2009. All users of these exams were immediately contacted once the recalls began with a remedy of replacement exams (free of charge) or reduced prices in the case of the Instrumental Analysis Exam. New exams for Analytical Chemistry and Instrumental Analysis will be available this spring and the newest General Chemistry First Term Exam (2015) has preliminary norms which will be finalized later this spring. Additionally, a new General Chemistry First Term Exam is under development. These recalls were required given the illegal posting of exam material, compromising the integrity of the exam and the exam norms. We would like to continue to stress to everyone in the community how important it is to work together to maintain the integrity of secure exams and impress on our colleagues and students the gravity of illegally posting or distributing copyrighted material.

Unfortunately, we also continue to deal with illegal posting of scans of the study guides online with the newest threat through posting of items from the study guide in an online practice exam or study format. We take very seriously the trust the community has in the integrity of our exams and appreciate the support by the community to assist in maintaining this.

As always, ACS Exams would not function without the numerous and dedicated board members, exam committee chairs and members, trial testing faculty and instructors, and the focus group participants. The highest quality work that ACS Exams has the honor of producing is only possible due to the many, many people who contribute to this work. It continues to be a humbling and extraordinary experience working with you all. And, if you are interested in working with us on exam committees or through development projects, please let us know. For this and all other concerns or matters related to ACS Exams, please feel free to contact me at kmurphy@uwm.edu.

We thank you all for your continued support of ACS Exams!

Best to you all,

Kristen Murphy

Committee/Board Reports
Congratulations to DivCHED members named 2017 ACS Fellows

We are fortunate to include the following 2017 ACS Fellows in the DivCHED membership:

**Allen, Roxie V., St. John’s School**

**Contribution to the science/profession:** Recognized for sustained service as a leader in chemical education for facilitating professional development for teachers of chemistry, encouraging new teachers and students, and serving in many leadership roles.

**Contribution to the ACS community:** Recognized for contributions to the Division of Chemical Education through service as a mentor for students and teachers alike in roles promoting chemical education excellence and equity in K-12.

**Baysinger, Grace, Stanford Libraries**

**Contribution to the science/profession:** Recognized for significant contributions to the fields of chemical information education and chemistry librarianship, service on boards of scientific publishers, and as a mentor to other chemical information professionals.

**Contribution to the ACS community:** Recognized for service to the Division of Chemical Information; to the Committees on Chemical Abstracts Service, Community Activities, and Publications; and on special ACS task forces, and for organizing symposia.

**Corfield, Peter W. R., Fordham Univ.**

**Contribution to the science/profession:** Recognized for his research, extensive work with teachers and students in science education, and his impact on diversity in the science workforce through work with minority and economically disadvantaged students.

**Contribution to the ACS community:** Honored for service in the New York Local Section for over 40 years, including his ongoing support and direction for the educational programs of the Westchester Subsection that he developed.

**Goode, Regis Ann, Ridge View H.S.**

**Contribution to the science/profession:** Recognized as a leader in secondary school chemical education as a teacher of Advanced Placement Chemistry and Chemistry in the Community, and for educating and mentoring others in the profession.

**Contribution to the ACS community:** Honored for over three decades of involvement in ACS chemical education projects, such as Chemistry in the Community, AACT, ChemMatters, and the Task Force for Safety Education Guidelines.

**Gravely, Etta C., North Carolina Agricultural and Technical State Univ.**

**Contribution to the science/profession:** Recognized for 50 years of contributing to innovative chemistry pedagogy for precollege and college students. Facilitated positive quality change in chemical education at many institutions through the College Chemistry Consultant Services.

**Contribution to the ACS community:** Served in four elected Local Section offices, co-chairing two regional undergraduate research meetings-in-miniature, and chairing a national task force. Led the Local Section to win the outstanding section award.

**Hogue, Lynn, Miami Univ. (Retired)**

**Contribution to the science/profession:** Recognized as a leader, mentor, and role model in outreach and teacher education; her students are using the “Lynn Hogue” model of encouragement, excitement, and inspiration for the next generation.

**Contribution to the ACS community:** Recognized for her excitement, enthusiasm, and innovation of chemistry outreach through her service on the Committee on Community Activities as Chair and the Committee on Public Relations and Communications.

**Levy, Irvin J., 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.

**Peters, Dennis G., Indiana Univ., Bloomington**

**Contribution to the science/profession:** Recognized for outstanding mentorship and classroom teaching of graduate and undergraduate students, colleagues, and visitors. Known internationally for excellence in research involving organic electrochemistry.

**Contribution to the ACS community:** Recognized for Local Section activities and sponsorship of undergraduate and graduate students, and for service on ACS award committees and in the Divisions of Analytical Chemistry and Chemical Education.

**Varma-Nelson, Pratibha, Indiana University–Purdue University Indianapolis**

**Contribution to the science/profession:** Work on face-to-face and cyber versions of Peer Led Team Learning has facilitated understanding of learning chemistry in small groups in the two environments and effective dissemination of innovations.

**Contribution to the ACS community:** Recognized for providing fundamental support to chemists implementing peer teaching methods, serving in multiple capacities within the Division of Chemical Education, and providing national service to C&EN.
**Dr. Thomas A Holme, recipient of the 2017 Award for Outstanding Service to the Division of Chemical Education, Inc.**

For more than 20 years, Tom's contributions to the Division are numerous and exemplary. Tom has made enormous contributions to the Division through his leadership at the ACS Examinations Institute (ACS-EI) that he directed from 2002-2014. During his tenure, Tom orchestrated the release of 64 exams affecting every chemistry course taught at the university and college levels.

Tom's leadership challenged chemistry faculty to move past measuring what is easily measured (plug-n-chug calculations) to measuring what is more valuable to know (conceptual understanding). Exams have kept pace with new frontiers in chemistry (e.g., nanochemistry) and been translated into Spanish. Tom's leadership has catalyzed assessment to move beyond individual chemistry courses to measuring the outcomes of departments and programs through the development of an exit exam known as the “Diagnostic for Undergraduate Chemistry Knowledge” (the DUCK). He charged and guided this committee towards developing scenario-based questions for the examinations that was a departure in format for the examinations institute. The DUCK exam has 15 scenarios with 4 questions each. Each scenario has chemistry questions spanning the curriculum requiring that students be able to transfer their knowledge from a specific course to a broader context. The DUCK is now in its second edition.

Tom led the way for the ACS-EI to bring electronic testing to chemistry. More than a decade ago the ACS-EI had no electronic testing and no plans to move into the arena of electronic testing. Tom’s leadership changed that dynamic. He partnered with U-Mass Amherst to develop of electronic testing for the ACS-EI. In this arena he has led the development of an enormously innovative and creative online laboratory assessment that contains embedded video as a method of assessing students’ laboratory skills. This effort highlights the impact of his leadership on chemical education and the assessment of student learning.

Additionally, Tom has been a tireless advocate for the professional development and leadership development of many members of the division by providing opportunities for them to contribute through examinations committees and through working with the Board of Trustees. Tom led more than two dozen workshops across the nation for over 500 chemistry faculty to consider the core content of the undergraduate curriculum and their assessment practices from general chemistry to advanced undergraduate courses. Tom petitioned the Board to ensure that travel reimbursement policies were identical for committee members and Board members, resulting in broader participation of CHED members on committees and at workshops as they no longer needed to personally finance their service.

Lastly, Tom’s vision of the intellectual property, fiscal, and legal challenges that the Division needed to face was truly transformative. Tom led, prodded, and in some cases, dragged along kicking, other DivCHED Executive Committee members to a series of multiple “Friday night fiduciary workshops” that preceded each national meeting. He organized at least one division retreat. Tom had the vision to see that the Division needed to professionalize its operations, not continue to rely on well-meaning volunteers to handle fiscal issues such as investments. We needed permanent staff and legal advice — those things happened in large part due to Tom’s diligence and selfless commitment to the Division. Tom is a leader and scholar whose service and engagement has initiated and sustained wide-ranging impacts on the Division. Recognition of Tom’s accomplishments and impact on assessment practices through his leadership of the ACS-EI and his vision of the intellectual property, fiduciary, and legal challenges that he helped the division face would be an outstanding addition to the group of Division members recognized for their leadership in service.

Congratulations, Thomas A. Holme on receiving the 2017 Award for Outstanding Service to the Division of Chemical Education, Inc.

**New Edition of SACL Available**

The ACS Committee on Chemical Safety has recently revised the popular “Safety in Academic Chemistry Laboratories,” now in the 8th edition. The PDF of this booklet is at [www.acs.org/SACL](http://www.acs.org/SACL) and it can be purchased in hard copy here. A synopsis of the contents and changes from the 7th edition are located on the purchase webpage.
Attention New DivCHED Members!

The Division would like to welcome all new members of ACS Division of Chemical Education. Many of you may have joined this Division to network and become more involved. An easy way to get involved may be joining a committee. To do so, fill out the form on the Divisions webpage to self-nominate yourself for participation in one of the 15 committees. Visit here for the nominations form: [http://www.divched.org/content/nominations-ched-committees-elected-positions](http://www.divched.org/content/nominations-ched-committees-elected-positions). You can also find a copy of this form in this section of the newsletter.

The Dorothy and Moses Passer Education Fund, Deadline September 1, 2017

Applications Being Accepted for The Dorothy and Moses Passer Education Fund.

This Fund was established by a generous donation of Dorothy and Moses Passer. Moses (Mike) Passer was for many years the head of the ACS Education Division. The Fund grants for teachers at two- and four-year colleges or universities that do not have any advanced degree programs in the chemical sciences.

The awards support continuing education activities that must be directly related to the applicant’s teaching and must take them away from their campus.

The applicant must be a full time faculty member at his or her institution. The applications are reviewed by a committee. There is no application form but the application must include a description of the proposed activity and how it relates to his/her teaching with dates, locations, titles and contacts; a brief description of the applicant’s institution and department; a short curriculum vita; an itemized estimate of expenses, amount of aid requested and sources of all supplemental funds. No support will be given for general attendance at national, regional or local ACS meetings or for any sabbatical support.

Closing dates are three times each year: January 1, April 1, and September 1. Applications may be submitted online [http://www.divched.org/content/passer-education-grant-application-form](http://www.divched.org/content/passer-education-grant-application-form) or emailed in pdf format to the Chair of the Passer Education Grant Review Committee, Catherine MacGowan, [catherine.macgowan@armstrong.edu](mailto:catherine.macgowan@armstrong.edu).

Division of Chemical Education Travel Award, Application Deadline is September 15, 2017

DivCHED provides this service to members to grant financial support for travel to meetings. Up to 12 members will receive the award each year. The DivCHED Travel Award provides up to 80% of travel expenses for one meeting with a limit of $1,000 for the Spring National ACS Meeting. To be considered for this award, you must be in at least your third year as a member of the Division of Chemical Education at the time of application. The award application deadline is September 15, 2017. Visit [http://divched.org/content/division-chemical-education-travel-award-application](http://divched.org/content/division-chemical-education-travel-award-application) for more information and to apply.

ACS Division of Chemical Education International Travel Award

The Division of Chemical Education funds a Travel Award each year in support of a division member who presents and fully participates in an international chemical education conference held outside the U. S. The awardee will have the responsibility to communicate information and insights gained at the conference to the membership through available CHED publications and by postings on the DivCHED Website.

At the New Orleans meeting, the Executive Committee adopted guidelines developed by the International Activities Committee (IAC); these are described below. Questions as well as completed applications can be sent electronically on or before November 30, 2017, to Resa Kelly, current chair of CHED IAC. She can be reached at resa.kelly@sjsu.edu.

Eligibility:
The applicant must be a member of the Division of Chemical Education and be a full-time college, university, or high school faculty member. Preference will be given to junior and/or under-represented faculty members who have not had the opportunity to attend an international meeting in chemical education.

Selection Process:
1. An announcement about the availability of this Award for the following year will be submitted for publication in the Fall CHED Newsletter, appropriate issues of JCE, and to C&EN News. The announcement will also be posted on the CHED website.
2. The application package is due November 30 each year. It should be sent to the Chair of CHED-IAC. The award, presently $2000.00, is made for the following year.
3. CHED-IAC members serving on the Awards sub-committee appointed by the CHED-IAC Chair will review the applications.
4. The selected applicant will be announced by January 15 each year. An alternate will be selected in case the original awardee is not able to attend.

Application Package (Electronic applications are preferred): There is no formal application form. However, the application package must include:

- Description of the conference - provide the pertinent URL.
- Description of proposed participation in the conference.
- Statement of how attendance at the conference relates to professional responsibilities.
- Plan for dissemination of information from the conference to CHED members, including submission of a report to the CHED IAC Chair within three months of attendance at the conference. The report should be suitable for publication in the CHED Newsletter and for posting on the CHED website. Applicant’s Curriculum Vitae (no more than three pages). One letter of endorsement from a supervisor (for example: department chair, dean, principal, headmaster).
- An itemized estimate of expenses giving the amount of aid requested and sources of all supplemental funds.
DivCHED provides this service to members to grant financial support for travel to meetings. Up to 12 members receive the award each year. The DivCHED Travel Award provides up to 80% of travel expenses for one meeting with a limit of $1,000 for the Spring National ACS Meeting. To be considered for this award, you must be in at least your third year as a member of the Division of Chemical Education at the time of application.

From the 2016 Awardees....

“One of my goals for this meeting was to network with other chemists. Many times the most valuable information is gleaned from informal discussions with other attendees.”

“At the 2016 BCCE I was able to discuss my desire to find another position with colleagues and also explore opportunities with businesses surrounding the poster sessions.”

“Attending the ACS National Meeting in San Diego in March provided a variety of experiences that will benefit my career as a teacher, researcher, and member of the division.”

“I successfully presented my work to a large audience, learned about other researchers’ work in symposiums and poster sessions, discussed research and teaching with practitioners and researchers, participated YCES committee activities, and became a YCES member afterwards.”

“The first impact of conference attendance was encouragement – I am not alone and there are other educators that are seeking to hone their craft in order to enrich the lives of students.”

“It was truly remarkable to be surrounded by so many enthusiastic colleagues who share my passion for chemical education and research!”

Visit http://divched.org/content/division-chemical-education-travel-award-application for more information and to apply.
ChemEd X: An Online Community for Chemistry Teachers

**Who We Are**

Chemical Education Xchange (ChemEd X, www.chemedx.org) provides a welcoming place for high school and college chemistry teachers to collaborate globally, to communicate experiences, and to share pedagogical ideas and tips. All ChemEd X content is moderated and includes articles and activities, which are peer-reviewed by high school and college-level chemistry teachers, as well as blogs, “picks,” and event announcements. Registered users (sign up for free) can enjoy interactive features by asking questions and providing comments. New and experienced teachers alike have contributed curriculum resources and ideas they have used successfully in their own classrooms. Among the topics considered are Modeling Instruction, project-based learning, technology applications, and standards-based grading.

**Our Mission**

To provide an online platform that allows readers and contributors to:

- **Xplore** resources and activities related to the central science
- **Xperience** with one another the profession of teaching chemistry
- **Xtend** outside the boundaries of traditional chemistry
- **Xchange** knowledge, ideas, and instructional materials

**Our History**

ChemEd X has a long association with the *Journal of Chemical Education* (JCE). For many years, JCE offered chemistry teachers resources beyond the scope of the journal itself via JCE Online. JCE Online included software collections, assessment resources, and other materials specifically of interest to the chemistry teaching community.

In 2009, the Division of Chemical Education of the American Chemical Society and ACS Publications entered into an agreement to co-publish JCE. The shared publishing agreement did not include many JCE Online resources. Given the popularity and usefulness of those resources, now called “legacy material,” chemedx.org was created in 2012 to host the

“ChemEd X is like the ultimate teacher staff room. Every teacher there is passionate, kind, and great at what they do. They are always willing to help and share, and I always come away as a better educator. It is a huge bonus for my students.”

Chad Husting
Sycamore High School
resources. However, ChemEd X offers much more than the JCE Online resources and has become a virtual home for members of the high school chemical education community.

Since its inception, ChemEd X has not only continued to host legacy material, but has expanded to become a dynamic space for collaboration and community building. Recognizing its significance to the high school community as well as its application to other communities of practice within chemical education, the ACS Division of Chemical Education Board of Publication has established Chemical Education Xchange as an independent entity operating separately from JCE with its own Editor-in-Chief and staff. Jon Holmes, former editor of JCE Software and JCE Online and currently Managing Editor for JCE, has been selected by the Board of Publication to serve as Editor-in-Chief for ChemEd X. Although JCE and ChemEd X are now separate entities and feature different kinds of content, they continue to share similar goals and to support each other in advancing teaching and learning in chemistry.

Our Future

ChemEd X intends to serve communities of practice within chemical education. Other than the pre-college community where we currently concentrate, look for ChemEd X to provide services to the two-year college and the chemical education research communities starting this year. ChemEd X Conferences, a virtual conference service at conference.chemedx.org, is currently organizing its first conference and we expect to offer this service to other chemical education communities. ChemEd X strives to serve as a virtual home for its communities of practice and as its communities expand and identify desired online services, we will endeavor to provide those services.
How To Get Involved

In order to thrive, ChemEd X depends on content contributed by members of the chemical education community. To review the types of content you might contribute to ChemEd X, please go to www.chemedx.org. To submit content, go to "Request to contribute."

Interactive features (such as posting comments) are available to registered users and registration is free. Registered users may choose to receive monthly newsletters highlighting recent content and may also request their own personal blog to informally share ideas.

A paid subscription provides critical support for ChemEd X. Paid subscribers gain access to premium ChemEd X content, which includes legacy material formerly available at JCE Online with the “Chemistry Comes Alive!” video and image collection, the “ChemEd X video collection,” and other instructional web-based software.

ChemEd X is maintained by chemistry teachers as a service to their peers. Deanna Cullen, a high school chemistry teacher from Michigan, serves as the Editor for the pre-college community. Twelve “lead contributors,” representing a wide variety of expertise in the field, serve as advisors and most contribute content on a regular basis.

Readers can follow ChemEd X on Facebook or on Twitter @ChemEdX.

For Further Information

The following Journal of Chemical Education articles provide more information:

JCE Chemical Education Xchange
Jon L. Holmes DOI: 10.1021/ed3007617

JCE Chemical Education Xchange: X Marks the Spot for Finding Quality Chemistry Education Resources
Deanna M. Cullen DOI: 10.1021/ed300790q

Direct inquiries and questions to:

Jon Holmes
jon.holmes@chemedx.org
Editor-in-Chief

Deanna Cullen
deanna.cullen@chemedx.org
Editor

"As a teacher, my best ideas, inspiration, and encouragement come from other teachers. ChemEd X provides a platform for me to share my best practices, learn from others, and engage in the chemistry education community. I find myself posting more to ChemEd X than my own blog because I know my posts will be seen by more people, and I will receive meaningful feedback from fellow educators."

Lauren Stewart
Sylvania Northview High School
ChemSource History of Science Study Tour to Ireland 2017

ChemSource Study Tours will be visiting the “auld Sod,” Ireland north and south, in June 2018. So polish up your Gaelic and come join us on this custom-designed two-week trip that will begin on either 3 or 17 June (there are two trips back to back) with departure from the U.S. and arrival in Belfast on either 4 or 18 June, and will end in Cork on either 16 or 30 June, depending upon which tour you opt for.

Our accommodations will be in centrally-located three-star hotels with all the amenities. We will start in Belfast with a city tour and a visit to the fabulous Titanic Museum, then visit the UNESCO World Heritage site, the Giant’s Causeway, a geological wonder, Bushmill’s distillery, Dunluce Castle, the Lisburn Irish Linen Centre, and on to the Republic of Ireland. There we will visit the Valley of the Boyne, the Newgrange Passage Tomb, an archaeological marvel, and spend three full days in Dublin. We will have guided tours of Trinity College, Dublin (Book of Kells), visits to Dunsink Observatory, workplace of William Rowan Hamilton (of the Hamiltonian fame), Maynooth College Scientific Instrument Museum, National Museum of Ireland Archaeological Department, and the Guinness Storehouse. Moving out into the countryside, we will make stops at the Irish National Stud in Kildare, Birr Castle and Science Centre, home of the Giant Telescope, the Cliffs of Moher, Galway City, and Caherconnell Stone Fort where we will have an Irish sheepdog demonstration. We will do the full Ring of Kerry, kiss the Blarney stone at Blarney Castle, visit Saint Patrick’s Rock of Cashel, Lismore Castle (birthplace of Robert Boyle), the Boyle Family Monument in Youghal, and the city of Cork, including the Radio Museum (Marconi was half-Irish, in case you did not know) and Cork City Gaol.

The cost of the trip has not yet been determined, but it is estimated to be in the low-$3000s. It will include 12 nights of accommodation in three-star hotels right in the hearts of the city centers, transportation by luxury motor coach, all breakfasts, seventeen additional meals, all beverages, all entrance fees, lectures, guided tours, all tips, and airport transfer at the end of the tour. It does not include transatlantic airfare, transfer from Belfast airport to city center, trip insurance, luggage handling, or optional excursions or items.

ChemSource History of Science Tours is a not-for-profit organization that provides educational materials for teachers and other interested persons. Non-scientist traveling companions will find much to interest them.

Many people have already expressed their interest in joining the trip, but space is strictly limited, so please let us know early – applications will be accepted on a first-come, first-served basis. The maximum group size will be about 25 people. For an application, please email Mary Virginia Orna at maryvirginiaorna@gmail.com.

These study tours have been collected in a book called “Science History: A Traveler’s Guide,” an ACS Symposium Series Volume published by Oxford University Press in 2014. The tours have been lauded for their camaraderie of the group, superb planning and preparation, uniqueness of places visited, educational aspects and pre-trip materials that expand/enrich one’s knowledge, excellent venues for lodging and dining, and bang for the buck.

COMING SOON to www.divched.org
information on the upcoming search for the new editor of the Journal of Chemical Education!
Nomination Form for CHED Committees & Elected Positions

Below are listed the various committees or elected positions of the CHED Division. If you are interested in serving, or if you know of division members who are willing to become involved please fill out this form. For more information, please visit the Division of Chemical Education website at <www.acs.org> or contact the individuals listed below.

Committees
Biennial Conference Committee (BCC)
Chemistry Education Research Committee (CER)
Chemistry in the Two Year College (COCTYC)
Computers in Chemical Education (CCCE)
Finance (FC)
High School Chemistry (HSCC)
International Activities (CIA)
Long-Range Planning (LRPC)
New Member (NMC)
Passer Portfolio (PPC)
Personnel & Nominations (CPN)
Program (PC)
Recognition (RC)
Regional Meetings (RMC)
Safety (SC)
Younger Chemistry Education Scholars (YCES)

Elected Positions (3 year terms)
Chair-Elect (Chair, Immediate Past Chair)
Secretary/Councilor
Treasurer
Member-at-Large (3 positions)
Alternate Councilor (4 positions)

Boards
Board of Publications (J. Chem. Ed.)
Board of Trustees (Exams Institute)

Name __________________________________________________________

Institution ______________________________________________________

E-Mail __________________________________________________________

Committee or Position __________________________________________

Name __________________________________________________________

Institution ______________________________________________________

E-Mail __________________________________________________________

Committee or Position __________________________________________

Jennifer Lewis, Chair, Personnel & Nominations
University of South Florida
Department of Chemistry/
Department of Women’s & Gender Studies
4202 East Fowler Avenue FAO 011
Tampa, Florida 33620
jennifer@usf.edu

MaryKay Orgill, 2017 Executive Committee Chair
Department of Chemistry
Mail Stop 4003
University of Nevada, Las Vegas
4505 S. Maryland Parkway
Las Vegas, NV 89154-4003
marykay.orgill@unlv.edu
**Division of Chemical Education Teaching Excellence Endowment**

Why are you a chemist? Many of us would agree with Eli Pearce, Past President of the American Chemical Society (ACS), when he said “my excellent high school teacher was definitely responsible for my choosing chemistry as a career.” And now you can join the effort to ensure that the great teachers who launch so many scientific careers are recognized and rewarded by their professional society!

The ACS Division of Chemical Education has stepped forward to establish an endowment that will support awards for high school science teachers in every Region of the ACS. By establishing an effort to solicit funds for the Division of Chemical Education Teaching Excellence Endowment, the Division is making a firm financial commitment to high school science teaching, ACS Regions, and the profession of chemistry. But the project will not be successful without your help.

Our goal is not just a financial one; we are anxious to assemble a lengthy list of donors containing names, of both individuals and collective entities, that will demonstrate to the secondary education community that there is a large number of science professionals who appreciate the value of good science teaching in the Nation's high schools and who are willing to reward it.

Join other individuals and organizations that have already contributed to the. Most of all join what will be thousands of people who know, without that special teacher, their future would look very different.

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**DivCHED Publications**

Division Members are involved in a wide variety of activities that lead to publications in the area of chemical education.

The Journal of Chemical Education is the main publication outlet for the division.

DivCHED is also responsible for the publication of the ACS Exams via the Examinations Institute.

Other journals in which Members publish scholarly articles include:

- The Chemical Educator
- Education in Chemistry
- Science Education
- Journal of Research in Science Teaching
- International Journal of Science Education
- Journal of College Science Teaching
- The Science Teacher
- ChemMatters
- Chemistry Education Research and Practice
Division of Chemical Education Teaching Excellence Endowment!

I want to help ensure that our great teachers are recognized and rewarded!

I am donating $________________ to the Endowment.

Select category:

- **Lead** up to $99
- **Tin** $100-249
- **Iron** $250-499
- **Nickel** $500-999
- **Copper** $1000-2499
- **Silver** $2500-4999
- **Gold** $5000-9999
- **Platinum** $10000 or more

NAME(S) to appear on donor's list: ___________________________________________________________

(PLEASE PRINT)

Address ___________________________________________________________________________________

__________________________________________________________________________________

(city)     (state)   (zip)

Phone __________________________ Email __________________________

Date __________________________

- My gift is given in honor of ___________________________________________________________
- My gift is given in memory of __________________________________________________________

Select method of payment:

- Check:
  Payable to: The American Chemical Society Division of Chemical Education Teaching Excellence Endowment

- Credit card (select one):
  - Visa
  - MasterCard
  - American Express

  Card number __________________________ Expiration date ____________
  Cardholder name __________________________
  Signature __________________________

- Stock transfer (call 800-227-5558 ext. 8092 for instructions)

Mail to: The Department of Meetings and Expositions Services/CHED HS Fund
American Chemical Society
1155 16th Street NW
Washington, DC 20036

Thank you for your contribution. All gifts of $250 or more will be acknowledged in writing. Acknowledgment will be sent to others upon request.
Membership Form

Introduce a friend, colleague, or student to the Division of Chemical Education!

I wish to join DivCHED: _____ as a Member, $20/year (for ACS members only)
_____ as an Affiliate, $20/year (for non-ACS members).
Affiliates have all membership privileges except voting for
CHED Councilors and holding elective office.

New members will receive information about CHED in general and about its major activities such as the Exams Institute, the *Journal of Chemical Education/JCE Software/JCE Online*, and 2YC3.

**General Information**

Your Name: _____________________________________________

Home Address: ❑ Send mailings here
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

Work Address: ❑ Send mailings here
________________________________________________________
________________________________________________________
________________________________________________________
________________________________________________________

email: _________________________________________________
email: _________________________________________________

❑ Send me an ACS Membership Application Form—this form is also available online:
    https://center.acs.org/applications/acsmembership/join.cfm

Did anyone encourage you to become a DivCHED member? ❑ Yes ❑ No
If yes, who? __________________________________________

**Payment Information**

Payment ($20) must be made in U.S. funds on a U.S. bank—by draft or credit card. Purchase orders not accepted. There is a $30 charge for all returned checks.

___ Check or money order enclosed, payable to Division of Chemical Education, Inc.
___ MasterCard     ___ VISA     ___ American Express     ___ Discover

Credit Card Number

Expiration Date Month: _____ Year: _____

Signature of Card Holder: ________________________________

**Return This Form**

Anna Wilson
Treasurer, ACS Division of Chemical Education  765/474-6553
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Lafayette, IN 47905
**EXECUTIVE COMMITTEE**

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Fax. 414.229.5866  
kmurphy@uwm.edu

**Other Useful Information**  
Division Office  
Heather Johnson  
Tel. 937.248.1998  
Johnsoh2@miamioh.edu

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Note: The Executive Committee (ExCom) has 16 members; all are elected except the Editor, *Journal of Chemical Education*, the Director, Examinations Institute and the Program Chair. Only these 16 members have a vote on issues before or actions pending before the Executive Committee in its semiannual meetings.
2017 DivCHED Committee Chairs

**Executive Committee (ExComm)**
MaryKay Orgill  
(Address Page)

**Board of Publication (PUB)**
Ellen Yezierski  
(Address Page)

**Board of Trustees, ACS Exams Institute (EXAM)**
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chair@2yc3.org

**Committee on Computers in Chem Ed (CCCE)**
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**Finance Committee (FC)**
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**High School Chemistry Committee (HSCC)**
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Rachel Morgan Theall  
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**Committee on International Activities (CIA)**
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**Long Range Planning Committee (LRPC)**
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**New Member Committee (NMC)**
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**Passer Portfolio Committee (PP)**
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**Committee on Personnel & Nominations (CPN)**
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**Program Committee (PC)**
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(Address Page)

**Recognition Committee (RC)**
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**Young Chemists (YCC)**
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sryan@ryaneducationconsulting.com

Jordan Harshman  
University of Iowa  
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