



# DIVISION OF CHEMISTRY

# NEWSLETTER

SEPTEMBER 2014

Issue No. 21



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# Farewell from the CHE Division Director

Jacquelyn Gervay-Hague

Dear Colleagues,

It has been an eventful year as the Chemistry Division Director. In response to the Committee of Visitors (COV) report, establishing leadership within each of the nine CHE research programs emerged as a high priority. To that end, permanent NSF program officers assumed lead responsibilities for each program and rotators were divided among the programs to assure the needed scientific expertise was in place. The COV suggested this approach in order to assure continuity within the programs. CHE also issued a Dear Colleague Letter (<http://www.nsf.gov/pubs/2013/che13001/che13001.jsp?org=NSF>) to recruit new rotators and implemented a plan for continuous recruitment. As a consequence, several new program officers will be joining the Division of Chemistry in Fall 2014. Recruiting program officers is arguably one of the most important responsibilities of the Division Director and I'm delighted that CHE was able to attract the talents of the 2015 Class of Program Officer Rotators.

The Chemistry Division has two windows for proposal submissions: September 1-30 and October 1-31, depending upon the program. Last October, the Federal Government shut down for 18 days, which had significant consequences in terms of proposal submission and review. Nevertheless, the NSF CHE Team found a way to quickly get things back on track and the chemistry community rallied, generously contributing countless hours of their time. It has been said that last winter brought the worst weather that DC has experienced in a long time. In many cases, panels had to be rescheduled. Other times, CHE staff conducted virtual panels from home in order to avert having to reschedule. As a principal investigator, I had firsthand knowledge of the dedication of NSF program officers. As division director, I have learned that their commitment to serving the chemistry community is equally matched by the CHE administrative professionals. I also witnessed the extent to which the chemistry community contributes to the merit review process. Our community's willingness to serve the National Science Foundation in this important mission is heartening.

The CHE Division's budget for FY14 (\$236M) was slightly higher than FY13 (\$229M) and pre-sequestration FY12 (\$234M). More than 83% of this budget has been allocated to individual investigator awards and a success rate of approximately 24% over all applications in FY14 is anticipated. In the current economic climate, it is increasingly important to identify mechanisms for leveraging research opportunities. Dr. Luis Echegoyen had the foresight to create integrated research programs within the CHE Division, which has increased collaborative efforts. Dr. Matthew Platz endeavored to position CHE as a major investor in sustainable chemistry. These efforts were visionary and are largely responsible for the steady CHE funding scenario. Over the past year, I focused on meeting industrial stakeholders to share ideas for increasing Government, Academic and Industrial partnerships. Workforce preparation emerged as a common, high priority objective with emphasis on developing sustainable research training models in scientifically integrated learning environments. CHE has several workshops planned in the coming year to help define partnership opportunities and research priorities. CHE sought to increase international collaborations by encouraging current grantees to apply for supplements. The response from the community was compelling and positioned the division to strategically invest in projects that contribute to preparing a globally engaged workforce.

It has been an honor to serve the National Science Foundation and I thank all who have made this year a genuinely enriching and educational experience.

Warm regards,

**Jackie Gervay-Hague**  
CHE Division Director



# Update from the Deputy Division Director

Tanja Pietraß

Dear Colleagues,

First and foremost I want to thank Dr. Jacquelyn Gervay-Hague for her dedicated service as CHE Division Director. She is a tireless advocate for the community and a visionary leader in understanding the future chemistry landscape. She has had an exceptionally productive year at NSF and I am thankful that I had the opportunity to work alongside her. Jackie is sorely missed, and we all wish her the best.

I also want to take this opportunity to announce that in mid-August I will assume the position as Director of the Division of Chemical Sciences, Geosciences and Biosciences at the Department of Energy. While I am greatly looking forward to this new challenge, I am sad to part from my exceptional colleagues at the National Science Foundation. Their support and camaraderie and their tremendous dedication to public service have been an inspiration.

Upon my departure, Dr. Steven Bernasek from Princeton University (a former program officer with many years of service) will serve as interim Division Director for roughly 6 months, to be followed by Dr. David Berkowitz (a more recent rotator) from the University of Nebraska, Lincoln. The Directorate for Mathematical and Physical Sciences has commenced a nationwide search for a new Chemistry Division Director, and hopes to fill the position before David completes 6 months' service as interim DD. Please see [http://www.nsf.gov/mps/mps\\_webpage\\_documents/dd-ddd\\_dcl/che\\_dd\\_dcl\\_2014\\_v2.pdf](http://www.nsf.gov/mps/mps_webpage_documents/dd-ddd_dcl/che_dd_dcl_2014_v2.pdf) for more information. The community is invited to send nominations to any member of the search committee, which is chaired by Sharon Hammes-Schiffer of the University of Illinois at Urbana Champaign ([shs3@illinois.edu](mailto:shs3@illinois.edu)) and includes also Hector Abruña of Cornell University ([hda1@cornell.edu](mailto:hda1@cornell.edu)), Myriam Cotten of Hamilton College ([mcotten@hamilton.edu](mailto:mcotten@hamilton.edu)), Phil Crews of the University of California Santa Cruz ([pcrews@ucsc.edu](mailto:pcrews@ucsc.edu)), Susan Olesik of Ohio State University ([olesik.1@osu.edu](mailto:olesik.1@osu.edu)), and Matthew Platz of the University of Hawaii Hilo ([mplatz@hawaii.edu](mailto:mplatz@hawaii.edu)).

Warm regards,

**Tanja Pietraß**

CHE Deputy Division Director

The Division recognizes Dr. Carol Bessel for a recently completed detail assignment to the Mathematical and Physical Sciences (MPS) Front Office as a Budget Officer. Dr. Carol Bessel is currently on a detail assignment as the Acting Deputy Division Director in the Division of Materials Research (DMR). Dr. Kelsey Cook is currently on a detail assignment as Acting Section Head of the International Science and Engineering Section. Ms. Debbie Jones, CHE Operations Specialist, is currently on a detail assignment as the Division of Chemistry's Program Support Manager.

The Division would like to thank Dr. Zeev Rosenzweig for his service to the NSF chemistry community for the past 7 years; we wish him well in his new position as Chair of the Department of Chemistry & Biochemistry at the University of Maryland, Baltimore County.

Since publication of the last CHE Newsletter, the Division would also like to recognize the following rotators that have or will soon return to their home institutions:

#### Dr. Bruce Johnson

*Rice University, Department of Chemistry, for his service in the Chemical Theory, Models, and Computational Methods (CTMC) and Macromolecular, Supramolecular, and Nanotechnology (MSN) Programs.*

#### Dr. David Berkowitz

*University of Nebraska-Lincoln Department of Chemistry, for his service in the Chemistry of Life Processes (CLP) Program.*

#### Dr. Malcolm Forbes

*University of North Carolina at Chapel Hill, for his service in the Chemical Structure, Dynamics and Mechanisms (CSDM) program.*

#### Dr. James Lisy

*formerly University of Illinois at Urbana-Champaign, for his service in the Chemical Structure, Dynamics, and Mechanisms (CSDM) Program.*

#### Dr. Laren Tolbert

*Georgia Institute of Technology, for his service in the Chemical Synthesis (SYN) Program.*

We want to also acknowledge the support of experts for their assistance with merit review of Division proposals during this past year. Experts are former program officers who have generously served the Foundation and include:

Dr. John Gilje

Dr. Joyce Guest

Dr. Gerald Hammond

Dr. George Janini

Dr. Robert Kuczkowski

Dr. Raima Larter

Dr. James Lisy

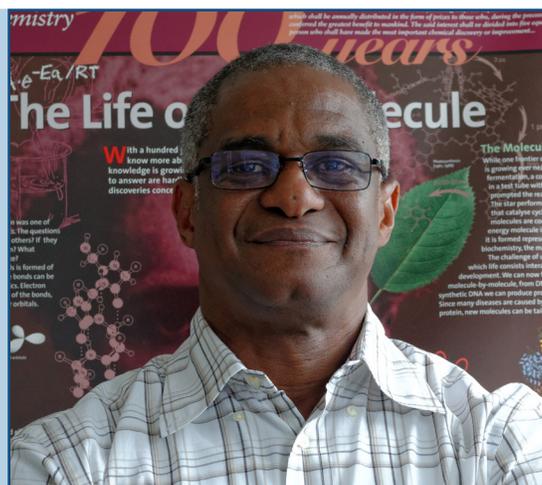
Dr. Sharon Neal

Dr. Martin Pomerantz

Dr. Tong Ren

Dr. Philip Shevlin

*The Division welcomes Dr. David Rockcliffe as a program officer in the Chemistry of Life Processes (CLP) program. Dr. Rockcliffe joins CHE from the NSF Molecular and Cellular Biosciences (MCB) Division.*



We are delighted to welcome the 2014/2015 class of Program Officer rotators who will be joining the Division in the Fall of 2014:



**Michelle Bushey**  
*Trinity University  
Chemical Measurement &  
Imaging Program (CMI)*



**Lin He**  
*North Carolina State University  
Chemical Measurement &  
Imaging Program (CMI)*



**Richard Johnson**  
*University of New Hampshire  
Chemical Structure, Dynamics  
& Mechanism Program (CSDM)*



**Marjorie Langell**  
*University of Nebraska  
Chemical Catalysis  
Program (CAT)*

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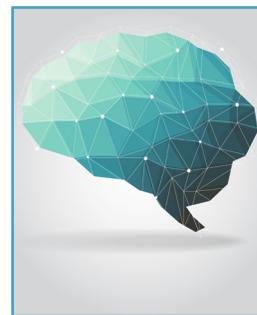
The Division of Chemistry is proud to announce the election of Dr. Katharine Covert as a 2013 Fellow of the American Association for the Advancement of Science (AAAS) for “outstanding leadership in the development and promotion of interdisciplinary research programs overlapping with the field of chemistry, and in particular sustainability.” New AAAS Fellows were honored at the AAAS Fellows Forum during the AAAS Annual Meeting in Chicago last February. They each received a certificate and rosette as a symbol of their distinguished accomplishments. Dr. Covert joined the division in 2001 as a program officer and has worked for many programs, including the former Inorganic Program, Collaboratives, Environmental Molecular Science Institutes, Discovery Corps Fellows, and Research Experience for Undergraduates. Most recently, Dr. Covert has served as the primary program officer for the Centers for Chemical Innovation (CCI) program from its inception. Kathy completed her undergraduate work at the College of William and Mary (B.S., 1985) and her graduate work at Cornell University (Ph.D., 1991) and then went to the University of Oregon for a postdoctoral position. She taught at West Virginia University and Bates College before moving to NSF.

**Interested in joining us?**

Learn more about opportunities to join the NSF Division of Chemistry as a Program Officer at:

<http://www.nsf.gov/pubs/2013/che13001/che13001.jsp?org=NSF>

The Brain Research through Advancing Innovative Neurotechnologies (BRAIN) Initiative was announced in April 2013 by the White House. It supports and coordinates research on how the brain functions. The Initiative is intended to accelerate the development of experimental and theoretical approaches and novel neurotechnologies essential for understanding the dynamics and principles of brain structure and function. The NSF commitment to the BRAIN Initiative in FY 2014 is \$20 million. NSF is also proposing additional funds for this area in FY 2015.



NSF's investments in the BRAIN Initiative emphasize integration across scales and disciplines to establish quantitative and predictive theories of brain structure and function, and the use of these theories to help maintain and restore the healthy brain.

#### The NSF Thematic Areas are:

##### **Multi-scale Integration of the Dynamic Activity & Structure of the Brain**

To elucidate and link dynamics of the brain and neural circuits with brain function, including its real-time physiological, behavioral and cognitive outputs

##### **Neurotechnology & Research Infrastructure**

To create tools to image, sense, record and affect real-time brain function and complex behavior, and develop theories and tools to collect, visualize, analyze, model, store, and distribute BRAIN data

##### **Quantitative Theory & Modeling of Brain Function**

To reveal emergent properties of the brain and provide predictive theoretical frameworks to guide future research

##### **Brain-Inspired Concepts & Designs**

To strategically capitalize on insights gained from BRAIN to inspire novel conceptual paradigms and innovative technologies and designs that will benefit society

##### **BRAIN Workforce Development**

To educate a BRAIN workforce and create new career opportunities for BRAIN discovery and innovation

#### Areas of interest related to the BRAIN initiative in the Division of Chemistry include:

The understanding of the chemical principles that govern the activity of the brain and underlie the molecular mechanism of the brain function under normal, stress, and disease conditions

The development of molecular-scale probes and methods that sense, record, and affect in controlled ways the activity of the brain

The development of computational and theoretical methods for modelling the chemistry of molecule- and ion-sensing and transport

The training of the workforce for current and future work in neuroscience

#### To date, NSF funds research under the BRAIN Initiative via its existing funding mechanisms, which are flexible and accommodate evolving research priorities.

Directorates' core programs.

Early-concept Grants for Exploratory Research (EAGERs), which support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.

Science and Technology Centers, where research is conducted through partnerships among academic institutions, national laboratories, industrial organizations.

Research Coordination Networks (RCN), which provide opportunities to foster new collaborations, including international partnerships, and address interdisciplinary and trans-disciplinary topics.

Ideas Labs, which are designed to address targeted problems and create innovative solutions.

Collaborative Research in Computational Neuroscience (CRCNS), an interagency competition jointly administered by NSF, NIH and the German Federal Ministry of Education.

For current information, please check the website [http://www.nsf.gov/news/special\\_reports/brain/](http://www.nsf.gov/news/special_reports/brain/)  
If you have any questions, please contact Catalina Achim, [cachim@nsf.gov](mailto:cachim@nsf.gov).

When researchers opt for a career in science or engineering, most likely the drive to do so wasn't for fame, riches or stints on the Today Show. In fact, the idea of publicizing one's research can feel almost opposite to the process of advancing science for science's sake.

However, in today's environment where research dollars are increasingly competitive, science can benefit from even a small spotlight that draws attention to your hard work and progress made. But, while you may have little time and perhaps even less inclination to promote your achievements, here are five fairly easy tips for helping your research get noticed:

### 1. Befriend your institution's Public Information Officer (PIO).

If you want publicity and don't have time promote your work yourself, your best friend should be your institution's PIO. Sometimes, it's not easy to figure out who that person is, but, if you ask those who have been at your organization for a while, they should be able to put you in touch with your communications director/public relations pro/science writer who has a great virtual rolodex and a tool box of ways to promote your interesting research without much work from you! This person will tweet when you publish a paper, post on Facebook when you have won an award or been recognized, write a Web article just because your research sounds unique and interesting. S/he will stand by your side if reporters call and want to know more about you and your science. This is the person

who will work with the public affairs team of NSF, other funding agencies and professional societies to ensure that what started as a single news release turns into a multi-organization promotion effort. S/he tells NSF public affairs (me!), who tasks Twitter, Facebook and our Web site to promulgate more attention, which is seen by other organizations, the public and reporters who expand the story further. All you have to do is get to know your PIO and forward them that email you received from your favorite chemistry journal that said your paper had been accepted for publication. (Hint: Most PIOs are ALWAYS on the lookout for good stories.)

### 2. Chirp about it.

If you are going to make one single investment in social media, go with Twitter. It's easy. It's immediate gratification. And it spreads like a brush fire. Nearly every professional society, university, Federal agency and miscellaneous organization has a Twitter account. We're talking 140 characters of text (120, if a picture is included) that can quickly be heard around the world and even start discussions. That means if you post:

**Carly Chemist @carlychemist May 01**  
**Featured in @C&EN in article re:**  
**#NSFfunded research in #sustainable**  
**chemistry w/ @Clemson @OhioState & @**  
**UMass may turn #H2O into #fuel.**  
**[short URL link]**

#### PRIMER:

**"@" is known as a handle for things of permanence (e.g., an institution, a person, a store).**

**"#" is known as a hashtag and is for things that are more like topics (e.g., #chemistry, #sustainable chemistry, #fuel, #NationalChemistryWeek, #Ihadtoomuchcoffeeatbreakfast). People use hashtags to track all the tweets related to a given subject easily; the same is true for handles.**

The nice thing about that tweet is this: C&EN, Clemson, Ohio State and UMass will all see it and like the fact that they've been mentioned. They can "retweet" the tweet, AND there's a good chance that they may start "following" you. Their lists of followers will probably be bigger than your list, and more people will be able to see the news about you!

Additionally, all who search for things related to #sustainable chemistry or #fuel or even #H2O see your news and potentially read your article. They, too, may choose to follow you.

Lastly, that #NSFfunded reaches NSF, and we will retweet your tweet. As a government agency, we can only "follow" other government agencies and subsidiaries, so we cannot follow you. HOWEVER, our retweet does get you a lot of reach...including some journalists, and that may be true with the universities' followers or C&EN, too. Those journalists may find the issue so compelling that they want to reach out to you and write their own story about your research. Now, they contact you...or your PIO. (Did I mention you should really befriend your PIO?)

**TIP:** The best Twitter accounts are active accounts—that means tweeting daily on your Twitter account. But don't be scared. Find organizations and people to follow and retweet their tweets that are similar to the kinds of science you do. Your followers will respond by continuing to stick with you and look for more news. It takes only a few minutes to find a tweet or two daily to keep your TwitterFeed fresh.

### 3. A picture (or video) is worth WAY more than a thousand words.

Good tweets are made infinitely better with pictures. Beyond that, having pictures or video on hand makes you more likely to have your research ready for promotion. Whether they are cell phone photos of the team working in the lab or at a meeting, close ups of chemicals or illustrations of chemical bonds—these all help tell stories. If your research is relevant to a bigger issue, such as sustainable energy, clean water, etc.—pictures that convey that broader context will be far more compelling to your PIO or journalists.

Additionally, if you do any field work, take lots of pictures. A photo or video of you or your research team collecting water samples is truly invaluable in the public affairs world. A series of photos from that field work turned over to your PIO quickly is simply a treasure. Likewise, raw video footage in a trained professional PIO's hands can be turned into a finished piece for YouTube dissemination with your guidance, of course. All of these posts can be publicized through social media channels to expand reach, too.

### 4. Know your song and dance routine

No one likes to have their research oversimplified to the masses. Let your PIO provide you with media training that helps you distill your science into understandable, yet meaningful messages that YOU still recognize as being accurate. Don't

leave it to the rest of the world to explain your research. They will get it wrong. This task can be very daunting, but work with your PIO to figure out the best way to tell your research story broadly and when new findings occur.

### 5. Lastly, success breeds success. Be ready for it.

In much the same way that you list your academic articles within your CV, make sure you list mainstream articles about your research on your Web site. It can be very helpful to reporters. Likewise, when reporters are

looking for subject matter experts, they want someone who is tried and true. If, at any point, interview requests become bothersome, you can easily decline them.

Bottom line, a lot of chemists do great research and want legislators, funders and the public to understand why their research is important, while avoiding misinformation and oversimplification. The best way to do so is to communicate your science to mainstream audiences yourself, with the help of people like me ([ikupec@nsf.gov](mailto:ikupec@nsf.gov)) and your PIO. Recipients of NSF support should consult the Research Terms and Conditions (RTC) identified in their grant award letters and also the NSF Proposal & Award Policies and Procedures Guide Chapter VI. Other Post Award Requirements & Considerations E. Publication/Distribution of Grant Materials, [http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/nsf14\\_1.pdf](http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/nsf14_1.pdf).

## Food Systems

At its July 2014 meeting, the NSF Advisory Committee for Mathematical and Physical Sciences (MPS AC) accepted the report of its Subcommittee on Food Systems, which identifies several research areas with potential to contribute new breakthrough-enabling knowledge. Many of these can engage the Chemistry community, and resonate with current funding priorities. Upon its acceptance by the MPS AC, the report became a public document. It is posted on the MPS AC web site:

[http://www.nsf.gov/attachments/130169/public/nsf\\_food\\_security\\_report\\_review\\_final\\_rev2.pdf](http://www.nsf.gov/attachments/130169/public/nsf_food_security_report_review_final_rev2.pdf)



### CLP Collaborates on MCB Workshop

The Division of Chemistry's Chemistry of Life Processes (CLP) Program co-sponsored a Molecular and Cellular Biosciences (MCB) Division workshop, "Design, Engineering and Selection of Novel Proteins" which was held at the Arlington Westin on May 12-13, 2014. Scientists with a broad range of expertise from computational design to evolutionary and combinatorial methods for protein selection and optimization participated. The aims of the workshop were as follows:

Describe how contributions from different disciplines have enabled enormous recent advances in our ability to devise novel proteins that fold and function in targeted ways.

Discuss the potential for future developments in the field of protein engineering and how cross-fertilization between disciplines can enhance progress.

Explicitly discuss challenges and roadblocks that might impede progress, and propose a way to overcome these obstacles.

**Additional details** about the workshop may be found at: <http://novelproteins.org/home.html>

Please contact Michael Hecht for inquiries: [hecht@princeton.edu](mailto:hecht@princeton.edu)

### NSF CHE Townhall at ACS Meeting

Together with staff from the National Institutes of Health, Department of Energy, and other Federal agencies, ACS meeting met with Federal agency representatives at the joint Federal Funders Town Hall and Speed Coaching Meeting. This annual outreach event took place at the fall American Chemical Society meeting on Monday August 11, 2014 at the Moscone Center in San Francisco, California. Participants learned about Federal programs, funding opportunities, and other activities from a panel of Federal managers. Many participants signed up for "speed coaching" to meet with program officers one-on-one to discuss grant opportunities and tips for success.

The NSF Division of Chemistry also participated in the ACS Exposition with an expo booth providing information about NSF research and education programs.



Photo by: NSF Staff



Photo by: NSF Staff

Photo by: NSF Staff

Visit the NSF Events page for a list of all upcoming events:

<http://nsf.gov/events/>

The 2013 Chemical Catalysis Workshop Report on Base Metals Catalysis has been published and is available at:

<http://chemistry.princeton.edu/chirik/content/nsf-report/>

Visit the Division of Chemistry webpage for a listing of NSF-supported workshop reports:

[http://www.nsf.gov/mps/chelc\\_newsletters\\_and\\_workshops.jsp](http://www.nsf.gov/mps/chelc_newsletters_and_workshops.jsp)

Principal investigators of Division of Chemistry awards are encouraged to submit award Highlights that describe outcomes of NSF-supported research and education activities. These “Highlights” provide at-a-glance snapshots of Chemistry’s investments, are shared through various media, and serve multiple purposes for informing Foundation stakeholders about our progress in advancing discovery, innovation, and education beyond the frontiers of current knowledge. Of particular interest are the notable outcomes and accomplishments of the project, including those related to project personnel, outreach activities, and scientific and educational advances directly supported by the project.

See the Chemistry website for a Highlight template and directions on submitting a Highlight:

<http://www.nsf.gov/mps/che/Highlights/HighlightWebpages/highlights.jsp>

Many Chemistry award Highlights are featured on the Research.gov SEE Innovation web portal. An interactive map allows viewers to explore NSF research facilities, award highlights and topics by geographical location.

<http://www.research.gov/seeinnovation>

**Want to make sure you don't miss a beat about Research.gov or FastLane?**

In March, NSF launched the System Updates listserv to keep awardees and program staff up-to-date on everything related to Research.gov and FastLane. Subscribers of the listserv will be informed of system updates, outages, and events that are happening across Research.gov and/or FastLane that may impact the way they do business.

To subscribe, simply email [system\\_updates-subscribe-request@listserv.nsf.gov](mailto:system_updates-subscribe-request@listserv.nsf.gov) and you will be automatically enrolled.



**Chemiscope: Center for Chemistry at the Space-Time Limit (CaSTL) develops new tool that could revolutionize chemistry.**

Ground-breaking research from this Center for Chemical Innovation (award CHE-0802913), led by Ara Apkarian, Professor, University of California Irvine, was recently featured on Science Nation. Science Nation is an online NSF magazine aimed at making science accessible to the general public. Veteran, independent journalist Miles O'Brien narrated the featured video. The video clip highlighted recent recordings of: the motion of one electron inside one molecule; the quantum mechanical motion of a single chemical bond in an ensemble and in solo; and the hula hoop-like orbiting of an orbital, breaking and making of designated single bonds on a single molecule. CaSTL represents a "nexus" of the multidisciplinary expertise required to develop the enabling science and technology to make the chemiscope a reality.

[http://www.nsf.gov/news/special\\_reports/science\\_nation/chemiscope.jsp](http://www.nsf.gov/news/special_reports/science_nation/chemiscope.jsp)

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**CHE Recognizes Wolf Foundation Awardee**

Chi-Huey Wong, Professor, The Scripps Research Institute, was recently awarded the Wolf Prize. Dr. Wong, an early recipient of the PYI (Presidential Young Investigator) award, credits his NSF support as instrumental in his career; the support from NSF and industry combined allowed him to pursue risky ideas, leading him to pioneering work in enzyme-assisted synthesis. The Wolf Foundation recognized Wong for having pioneered the development of chemical and enzymatic syntheses "that enable the previously impossible or infeasible synthesis and study of... complex carbohydrates, glycoproteins, and related substances."

<http://cen.acs.org/articles/92/i4/Wolf-Prize-Goes-Chi-Huey.html>

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**MPS Awardee Takes Places in the 2013 S&E Visualization Challenge**

Chad Mirkin, Professor, Northwestern University, in collaboration with others, has been chosen as "People's Choice" in the Video category of *2013 International Science & Engineering Visualization Challenge*. This video describes the chemical and physical properties of spherical nucleic acids, which are densely-packed nucleic acids bound to the surface of a nanoparticle.

The Division of Chemistry established a formal program for international collaboration among science funding agencies in 2006, which has since evolved to become the International Collaboration in Chemistry (ICC). ICC was established to foster opportunities for U.S. researchers and their international collaborators to conduct joint research whereby both partners received support from their respective funding agencies.

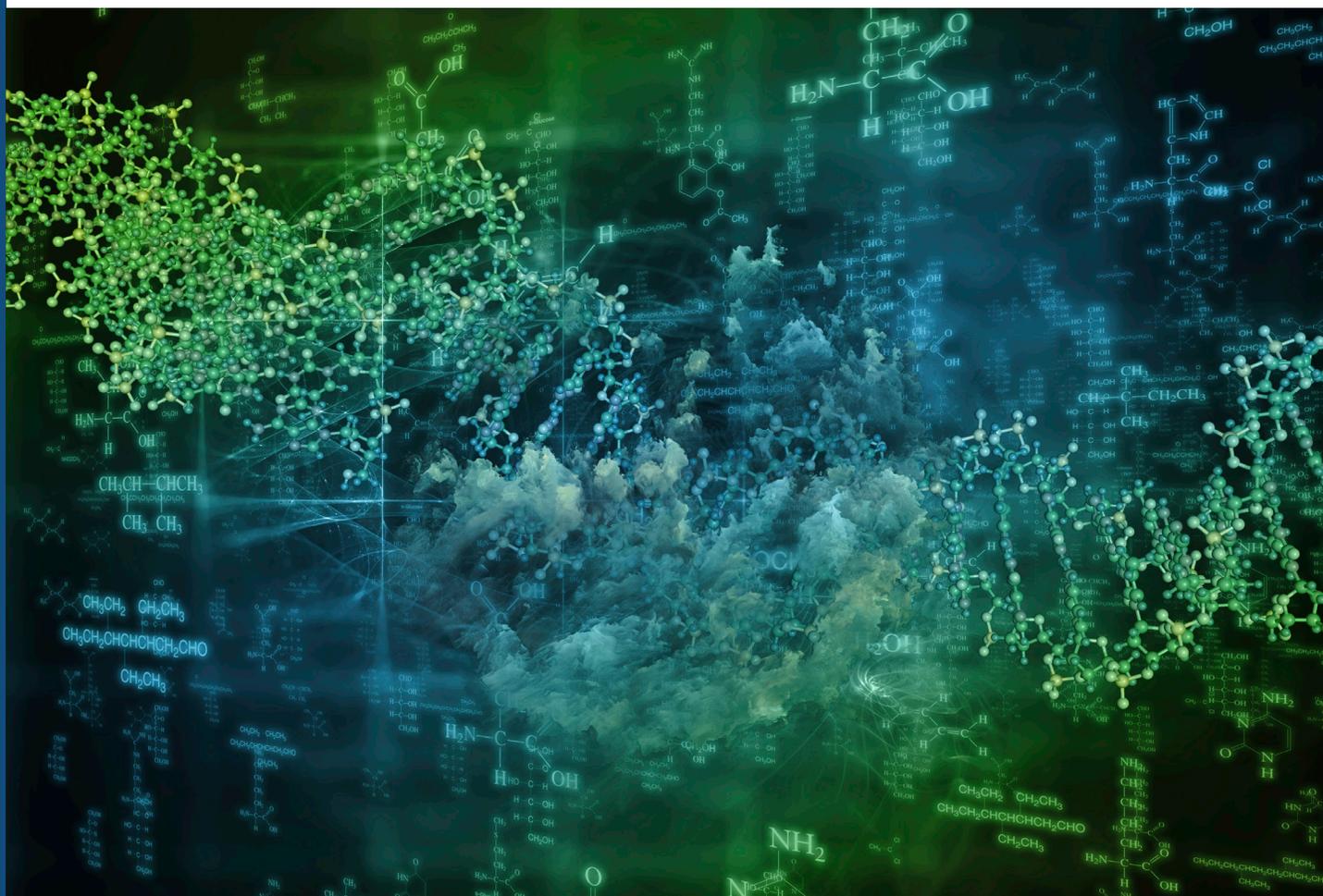
With an evolving landscape for global research collaborations and partnerships between science funding agencies, the Division of Chemistry is taking an opportunity to assess and prioritize its bilateral and multilateral partnership goals in order to best serve the U.S. research community. While we conduct this internal assessment and prioritization, we will suspend NSF's ICC Program, [http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=13627&org=CHE&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=13627&org=CHE&from=home). Funding obligations for all existing awards made under the ICC program will be honored, according to NSF policy guidelines, but the program will not accept proposals for the upcoming year, 2014-2015.

Despite the ICC suspension, NSF's Division of Chemistry remains fully committed to support the U.S. chemistry community's strong desire to engage in international collaboration. Investigators interested in engaging in international collaborative research and education activities should visit the NSF website for information on available funding opportunities and/or contact a program officer in the Division of Chemistry for additional guidance. The Division of Chemistry Staff Directory is available at:

[http://www.nsf.gov/staff/staff\\_list.jsp?org=CHE&from\\_org=CHE](http://www.nsf.gov/staff/staff_list.jsp?org=CHE&from_org=CHE)

# ICC PROGRAM UPDATE

Timothy Patton / C. Renee Wilkerson



**All deadlines are 5 p.m., submitter's local time, unless otherwise noted**

**1. Software Infrastructure for Sustained Innovation – SSE & SSI (S12 – SSE&SSI) – NSF 14-520**

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=504865&org=CHE&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=504865&org=CHE&from=home)

**Full Proposal Deadlines:**

January 19, 2015 – February 2, 2015 (SSE Proposals)

**2. Catalyzing New International Collaborations (CNIC) – NSF 13-605**

[http://www.nsf.gov/funding/pgm\\_summ.jsp?pims\\_id=12815&org=CHE&from=home](http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=12815&org=CHE&from=home)

**Full Proposal Deadlines: Annually Thereafter**

October 22, 2014

January 22, 2015

**Note:** Applicants should consult the CNIC program officer if they wish to submit a proposal later than the target date for consideration in the respective round. Applicants should submit proposals before a target date at least eight months prior to the expected start date of the proposed activity.

**Submission Windows: Depending upon the program, the window will be in either September or October.**

**Principal Investigators (PIs) may submit to the following programs between September 1st and September 30th:**

Chemical Catalysis - CAT

Chemical Structure, Dynamics and Mechanisms - CSDM A

Chemical Structure, Dynamics and Mechanisms - CSDM B

Chemical Theory, Models and Computational Methods - CTMC

Chemical Synthesis - SYN

**Proposals may be submitted to the following programs between October 1st and October 31st:**

Chemical Measurement and Imaging - CMI

Chemistry of Life Processes - CLP

Environmental Chemical Sciences - ECS

Macromolecular, Supramolecular and Nanochemistry - MSN

**Note that if the last day of a submission window falls on a weekend or official federal government holiday, the deadline is always the following business day, at 5 pm local time.**

**Note:** When choosing “program announcement/solicitation/description” in preparing the cover page of your proposal in NSF Fastlane, select the correct program announcement/solicitation/description number. For example, when submitting an unsolicited proposal to the Chemical Synthesis program, select “PD 09-6878”. This code can be found in the program description web-page of the respective program. To ensure proper handling of your proposal, do not select “NSF grant proposal guide-GPG”. For solicited proposals, select the proper solicitation number (for example, for CAREER proposals use NSF 14-532, for RUI proposals use NSF 14-579, and for GOALI proposals use NSF 12-513).

For CAREER, REU, MRI and the Centers for Chemical Innovation programs and any other programs that specify the submission date, PIs should continue to visit <http://www.nsf.gov/funding/> for the deadlines of these and other programs.

CHE discourages the submission of more than one proposal from the same Principal Investigator during the proposal-submission window. Note that proposals that are a duplicate of, or substantially similar to, a proposal already under consideration by NSF from the same submitter are subject to return without review. This also applies to proposals that were previously reviewed and declined and have not been substantially revised as well as to duplicates of other proposals that were already awarded.

### Tips for Proposal Preparation

#### **CHE FAQ 1 – Do you know why references cited in all NSF submitted proposals must include titles and all authors?**

This bibliographic information is very important for reviewers and panelists of NSF proposals.

Find out more in the NSF Grant Proposal Guide – Chapter II-Proposal Preparation

[http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg\\_2.jsp](http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_2.jsp)

#### **CHE FAQ 2 – Why must collaborators be included in the Biographical Sketch (Biosketch)?**

Collaborator information is important in the merit review process of NSF proposals; it assists in managing potential conflicts of interest. Find out more in the NSF Grant Proposal Guide – Chapter II-Proposal Preparation,

[http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg\\_2.jsp](http://www.nsf.gov/pubs/policydocs/pappguide/nsf14001/gpg_2.jsp)







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