Division of Biological Chemistry of the ACS
December Newsletter,

"And so this is Christmas, and what have you done,
another year over, and a new one just begun..."

John Lennon

This song challenges us to reflect on how we have added value to our lives and missions in the past year. The results can be sobering. But this exercise carries an important reminder that time marches forward and we need to be intentional about its use, if we are not to get hijacked and side-tracked by the numerous competing imperatives that assail us.

Another Year Over

So what have we done?

The Division of Biological Chemistry (DBC) has a lot to be proud of. In 2019, the DBC populated two National meetings with diverse, excellent symposia that drew hundreds of people. We have had to expand to two poster sessions per meeting to stage all the posters submitted, and traffic is rising as people realize what fun these sessions are. We administered our own awards, and collaborated with Biochemistry, ACS Chemical Biology and ACS Infectious Diseases to offer others. These annual events should not be taken for granted. Each is the result of efforts on the part of many people, both the committees dedicated to them (Programming was chaired by Phil Bevilacqua in 2019), and the division officers that manage invisible but ubiquitous operations, especially our treasurer (Christy Chow) and secretary (Wayne Outten).

We have begun a process of realigning our expenditures to more closely reflect the interests of our membership, in an effort to give more of your annual dues back to you, our members.

1- The new mechanism for allocating funding to meetings explicitly prioritizes those that attract and showcase division members, as one of several criteria for funding. Crucially, the new mechanism does not target a particular brand of conference or specific meetings, but instead embraces the greatly expanded reach of modern biochemical research. We aim to support a much wider variety of meetings interesting to our members, via this new approach.

If you are the chair of an upcoming scientific meeting in the area of biological chemistry, please visit our web site for meeting support, download the instructions and rating spread sheet, and send us your application by one of the deadlines mentioned so that we can consider your meeting for DBC support. http://www.divbiolchem.org/meetings/dbc-meeting-support/

2- We have initiated assistance for travel and attendance at meetings as well. Whereas past travel assistance was awarded only to certain meetings, we are now inviting members to apply directly to the division, for assistance in attending a biochemical meeting. This competition is open to faculty at primarily undergraduate institutions, students, and postdoctoral researchers (no institutional restrictions on the latter two).

Because this competition too is funded by membership dues, it is restricted to members of the division. This is another one of our new ways to give back to our members. For travel to
a meeting other than a National ACS meeting, go to http://www.divbiolchem.org/awards/travel-awards-nonacsNM/
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3- Symposia at National ACS meetings represent a major financial commitment of the division. Therefore, we want to maximize their interest to you, the members. To that end, we invite members to suggest symposium topics. Once again, our mechanism is designed to create a level playing field for all applicants. Please download the application form from our web site http://www.divbiolchem.org/meetings/dbc-symposia/ and submit your proposal to our program committee.

Programming for National meetings gets planned an entire year in advance, so please pay attention to the deadlines of 1 March and 1 Aug. for the corresponding meeting of the following year. Also note that due to the cost of programming, symposium organizers are encouraged to secure funding to augment what the division may (or may not) be able to contribute.

Speaking of meetings....

REGISTER NOW for the spring National meeting, to occur in Philadelphia, 22-26 March 2020.

And a New One Just Begun

Our division has a number of new events planned for the spring National meeting in Philadelphia. There will be a day-long symposium on biochemistry associated with the origin of life, and a symposium featuring women at the interface area of bioconjugate chemistry. With ACS support, we will offer a special symposium showcasing biochemical research in industry. This one will conclude with a panel discussion on research and jobs in industry. Our intent is to help students and postdocs learn about opportunities, and to give them a bridge to the next stages of their careers.

Once again, we are very pleased to host the ACS Chemical Biology award symposium, and a symposium presenting the winner and science of the Murray Goodman award. Details will follow, in the next newsletter.

For 2020, ACS National awards have been bestowed on 7 biological chemists. We are especially proud of JoAnne Stubbe, who served as Division Chair but is better known for her paradigm-shifting work on redox enzymes, long-range electron transfer, radical reactions in biochemistry and more. Prof. Stubbe is receiving the special honor of the 2020 Priestley award, the highest award bestowed by the ACS. See more at https://cen.acs.org/people/awards/JoAnne-Stubbe-named-2020-Priestley-Medalist/97/i25. This one simply made my day!
Katherine Franz is a bioinorganic chemist and the 2020 winner of the ACS Award for Encouraging Women into Careers in the Chemical Sciences;
Angela Gronenborn is a biological NMR spectroscopist and the 2020 winner of the E. Bright Wilson Award in Spectroscopy.

As part of the National meeting in Philadelphia, our awards symposium will showcase four more National award winners:
Donald Hilvert, the 2020 winner of the Ronald Breslow Award for Achievement in Biomimetic Chemistry,
Alanna Schepartz, winner of the 2020 Ralph F. Hirschmann Award in Peptide Chemistry,
Paul Schimmel, the winner of the 2020 Kathryn C. Hach Award for Entrepreneurial Success,
Kevan Shokat, the winner of the 2020 Alfred Bader Award in Bioinorganic or Bioorganic Chemistry.

Additional award winners are listed here: https://www.acs.org/content/acs/en/funding-and-awards/awards/national/recipients/2020-national-award-recipients.html

If you know of colleagues deserving an award, or want to organize a team to support your own nomination, visit https://www.acs.org/content/acs/en/funding-and-awards/awards/national.html for guidelines and dates. Nominations for 2021 awards closed on 1 November 2020.

And what have you done?

Members of the division have volunteered time and effort to many good causes in 2019. However in case you would be willing to help in a joint effort, the division will be very grateful for contributions of whatever size you see fit, to the following effort to revive and endow an award that recently lost its corporate sponsor. Members and friends of the division have come together with the leadership of Lizbeth Hedstrom and Karen Allen to celebrate the legacies of Professors Abeles and Jencks, by endowing the award in their name. We ask you to join us in this endeavor. Donations made before the end of the year will be tax-deductable in 2019.

From Liz Hedstrom:

Robert H. Abeles (1926-2000) and William P. Jencks (1927-2007) were pioneers at the interface of chemistry and biology and their ideas continue to influence the field that they created. Abeles' imaginative and elegant experiments defined the mechanisms of enzymes in nearly every reaction class, perhaps most importantly the unprecedented radical initiation of B12 cofactors. He also made an enormous contribution to the rational design of enzyme inhibitors, coupling immense creativity with deep chemical insights to design the first transition-state analogue and numerous mechanism-based inactivators. Where Abeles outlined enzyme mechanisms in broad strokes, Jencks focused on the details of transition state structure. His simple, rigorous kinetic experiments used small molecules to model enzymatic reactions. Jencks was particularly interested in the transition between stepwise and concerted reactions, formulating the “libido rule” to describe how pKa controls proton transfer and devising kinetic “clocks”
to determine if discrete tetrahedral intermediates formed during nucleophilic addition reactions. Jencks' clarity of thought is preserved in his classic textbook *Catalysis in Chemistry and Enzymology* and the seminal review *Binding Energy, Specificity, and Enzymic Catalysis: The Circe Effect*, the latter of which describes how enzymes harvest intrinsic binding energy to promote catalysis. With their complimentary styles and approaches, Abeles and Jencks made Brandeis University a Mecca of mechanistic enzymology, training two generations of students and postdocs, many of whom have established their own very distinguished careers.

Those trainees, together with former colleagues and fans, are now initiating a funding drive to endow the newly christened Abeles and Jencks Award for Chemistry of Biological Processes. Formerly sponsored by Repligen, the award was established in 1986 to acknowledge outstanding contributions to the understanding of the chemistry of biological processes, with particular emphasis on structure, function, and mechanism. Both Abeles (1988) and Jencks (1996) are included among the distinguished awardees. This award is a tradition worth preserving, and a fitting tribute to the Abeles and Jencks legacy.

Contributions can be made with a check made out to 'the American Chemical Society, Biological Chemistry Division', specifying the 'Abeles and Jencks Award' (note the ACS DBC is a tax-exempt nonprofit organization). If you have questions, please email our Treasurer: Christine Chow. cchow@wayne.edu.
Checks should be mailed to:

American Chemical Society Biological Chemistry Division
c/o Prof. Christine Chow
5101 Cass Ave
479 Chemistry
Wayne State University
Detroit, MI 48202

**The Old and the Young**

The end of 2019 will mark the ends of the terms of several of our division officers. These people have served the division and its members free of charge, but this is no reflection on their value. Vickie DeRose led the nominations committee in 2019; Shana Kelley led the Programming committee in 2018; Coran Watanabe and Andrew Murkin were our councillors; Rob Minto and Keri Colabroy were our alternates, Suzanne Walker and Squire Booker were on our advisory committee, and Yi Tang represented us on the MPPG.

Several of those positions entail very serious time commitments that come with immovable deadlines. On behalf of the division, I am particularly grateful to Shana Kelley for implementing a number of new approaches in our National meeting programming that improved participation and attendance. Thanks to our nominating committee (V. DeRose) we have a fresh crop of people from diverse institutions and geographic locations to replace those departing. It is my pleasure to introduce to you:

Phoebe Glazer who will join the Programming committee,
Wayne Outten who will return as Treasurer,
Laura Dassama will join the Nominating committee,
Amanda Bird and Jordan Meier who will joining the councillors,
Ming Hammond and Martina Ralle who are our new alternate councillors, Kelly Chacón and Liliya Yatsunyk who will join the advisory committee and Rachel Austin who will take over as our representative on the multidisciplinary program planning group (MPPG).

Brief bio-sketches and photos of our new officers will soon be posted on line at http://www.divbiolchem.org/officers

I note that the division welcomes suggestions and volunteers for positions. If you would be willing to give some time to our excellent causes, please contact the new chair of the nominations committee, Sarah Michel smichel@rx.umaryland.edu.

With Best Wishes for the Holiday Season

Anne-Frances