ACS of Western New York

Double Bond

The Newsletter of the Western New York Section of the American Chemical Society

Volume 86 ***September 2014***

2014 SCHOELLKOPF MEDAL

The Western New York Section of the

American Chemical Society

invites you to be present

at the eighty-fourth presentation of the

Jacob F. Schoellkopf Medal

to

Dr. Janet R. Morrow

in recognition of her pioneering contributions to the development of transition metal MRI agents, her studies of metal ion complex interactions with nucleic acids, and her service and leadership to the profession.

Tuesday evening the twenty-third of September

two thousand fourteen

Cash bar with hors d'oeuvres at six o'clock

Dinner at seven o'clock

Presentation to follow dinner

Salvatore's Italian Gardens

6461 Transit Rd Depew, NY

Formal Dress Optional

R.S.V.P. by September 19, 2014

(further details are found on pages 2 and 3)

CALL FOR OFFICER NOMINATIONS

If you are interested in the goals and activities of the American Chemical Society, then get involved with the Western New York Local ACS Section. We are looking for local ACS members who can bring new ideas and energy to the Local Section Executive Committee. We will be filling a Member-at-Large position with a 2-year term, and we are seeking leaders for other positions.

If you are interested in becoming more active in our section, or wish to nominate someone, please contact a member of the current executive board listed at the end of this newsletter.

Nominations, including contact info for you and the nominee, should be sent to Dr. Timothy Gregg by email at greggt@canisius.edu or (716) 888-2259 by September 15, 2014.

Elected officers must be members of ACS.

Details concerning the election of officers for 2015 will be published in an upcoming issue of the *Double Bond.*

US OLYMPIAD TEAM TAKES GOLD AND SILVER

The US team in the 46th International Chemistry Olympiad took home one gold and 3 silver medals in this year's competition. The 2014 IChO, July 20-29, in Hanoi, Vietnam, included competing students from 75 countries. The secondary school level competitors are tested on their chemistry knowledge and skills in a five-hour laboratory practical and five-hour written theoretical examination.

Anyone interested in getting involved in the Chemistry Olympiad should get information from their chemistry teacher or from the Western New York ACS section, which sponsors the local Olympiad competition every year in March.

Go to: wny.sites.acs.org/olympiad.htm

THE 2014 JACOB F. SCHOELLKOPF MEDAL

The Schoellkopf Medal is the oldest award of the American Chemical Society (ACS) given by a local section. The Jury for the Schoellkopf Award of the ACS selected Dr. Janet R. Morrow, from the Department of Chemistry at the University at Buffalo, SUNY, as the 2014 Schoellkopf Award recipient. Dr. Morrow will be presented with the Schoellkopf Medal:

> *in recognition of her pioneering contributions to the development of transition metal MRI agents, her studies of metal ion complex interactions with nucleic acids, and her service and leadership to the profession.*

Janet R. Morrow was born in Santa Monica, California and grew up in the Los Angeles area. She received her B.S. in chemistry at the University of California, Santa Barbara. As an undergraduate, she worked in the laboratories of Professors Barbara Prezelin in marine biology and Peter Ford in inorganic chemistry. These early experiences generated her interest in metals in biology research. She earned her Ph.D. in chemistry at the University of North Carolina, Chapel Hill under the direction of Professor Joseph Templeton working on molybdenum and tungsten organometallic complexes. She received a National Science Foundation Award to work as a postdoctoral fellow at the University of Bordeaux with Professor Didier Astruc on organometallic iron chemistry. On her return to the states, she worked as a postdoctoral fellow with Professor Bill Trogler at the University of California, San Diego on copper hydrolysis catalysts. She joined the faculty at the University at Buffalo, State University of New York in 1988. She currently holds the rank of Professor and recently finished two terms as associate chair of the department.

Morrow's research interests are in the field of bioinorganic chemistry. Current projects include the development of transition metal magnetic resonance imaging (MRI) contrast agents. Her group has recently published the first examples of paraCEST (paramagnetic chemical exchange saturation transfer) MRI contrast agents based on divalent iron, cobalt and nickel. These contrast agents are responsive to pH and are being developed for registering pH changes in tissue. Additional agents undergo changes in oxidation state to switch on/off contrast based on redox status. A second and long standing interest is in metal ion complex interactions with nucleic acids. Recent work in this area describes the selective binding of divalent zinc complexes to non-canonical thymines in bulges, loops and in G-quadruplex DNA. Additional research interests are in optical sensing using luminescent trivalent lanthanide complexes and optical sensors for the detection of iron in cells. Morrow is the author of over 100 journal articles and book chapters. She has five patents or patent applications filed. She has given numerous presentations on her research, including a tutorial on MRI contrast agents at the International Society for Magnetic Resonance in Medicine 2014 meeting in Milan, Italy, the Virtual Inorganic Pedagogical Electronic Resource workshop 2014 at Northwestern University, and the Metals in Medicine Gordon Research Conference 2014. Morrow's research has been recognized by the National Science Foundation Special Award for Creativity (2009). She was an Alfred P. Sloan Fellow (1995), and a National Science Foundation Visiting Professor at the University of Rochester (1997) working with Professor Doug Turner.

Morrow has supervised 11 postdoctoral fellows and visiting scholars, 26 Ph.D. students, 9 master's students, and 83 undergraduates in her laboratory. As a proponent of research at the undergraduate level, she directs a National Science Foundation Research Experiences for Undergraduates (NSF-REU) program in the chemistry department at the University at Buffalo. This program has run for eight summers to date.

Morrow has served on the editorial boards of Inorganic Chemistry, the Journal of Biological Inorganic Chemistry, the Journal of Inorganic Biochemistry, and Main Group Chemistry News. She recently served a three-year term as a Council member for the Society of Biological Inorganic Chemistry. Morrow has been active in the American Chemical Society since graduate school. She has served on the American Chemical Society canvassing committee for the Alfred Bader Award in Bioorganic or Bioinorganic Chemistry, and was Chair of the Bioinorganic Chemistry section of the Inorganic Division of the ACS. She has chaired the education committee of the Western New York ACS section. She has organized symposia at local and national ACS meetings. She has also organized symposia at the Metals in Medicine Gordon Research Conference, and at Pacifichem. Morrow was the co-chair of the National Science Foundation Workshop in Inorganic Chemistry 2010.

2014 SCHOELLKOPF AWARD BANQUET

Tuesday, September 23, 2014

Salvatore's Italian Gardens

6461 Transit Rd Depew, NY

For reservations, please call Alice Steltermann at the Canisius College Department of Chemistry and Biochemistry (716) 888-2340

Dinner Selections:

Prime Rib

Chicken Milanese

Fresh Salmon

Roasted Vegetables
with Mediterranean Orzo

Wine served with meal

$40 per person ($20 per student)

Please respond by September 19, 2014.

Make checks payable to
Western New York Section – American Chemical Society.

75 YEARS AGO IN *THE DOUBLE BOND*

excerpts from June/July, 1939

The Double Bond's midsummer quiz for practical chemists--*with answers...*

1. Element No. 85, Alabamine, is
   (a) a rare earth
   (b) an alkali
   (c) a halogen
   (d) a metalloid

"Alabamine" was the first name assigned to element 85 in a string of failed attempts to characterize the element below iodine between 1931 and 1940. Experiments led to "Alabamine", "Dakin" and "Helvetium" as possible names, but these could not be reproduced. "Astatine" was finally assigned when Corson, MacKenzie and Segrè isolated radioactive isotopes of element 85 in cyclotron experiments in 1940. Element 85 also occurs in decay chains of natural radionuclides.
(http://en.wikipedia.org/wiki/Astatine)

2. Pyrethrum is used for
   (a) extinguishing fires
   (b) embalming cadavers
   (c) exterminating rats
   (d) killing flies
   (e) anaesthetizing humans.

9. A polarograph is
   (a) a recording polariscope
   (b) a sun compass
   (c) a polar planimeter
   (d) a marvelous electrical device which performs chemical analyses.

12. Translate the following: NaOH CP, *79%* Na_20 NY&L, quoted at 13 s. 6d. per cwt. in bbls., l.c.l., c.i.f., f.o.b. dock, U.K.

"Chemically pure caustic soda containing 79% sodium oxide, New York and Liverpool scale, is quoted at 13 shillings 6 pence per hundred pounds, packed in barrels, in less than carload lots, cost of insurance and freight included, free on board dock, in the United Kingdom..."

14. You would call in a rheologist to
   (a) repair a Rheo truck
   (b) wire up a rheostat
   (c) make a study of flood control of a river
   (d) calculate the rate of flow of concrete mix
   (e) conduct a class in sur-realism.

WNYACS Officers & Staff

ISSUE COPY DEADLINE: FIRST OF MONTH PRIOR TO PUBLICATION

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