

10th Anniversary of the NESACS-YCC/GDCh-JCF Exchange: Celebrating a Decade of Friendships and Science

By Raeanne L. Napoleon

The Northeastern Section of the ACS (NESACS), the Northeastern Section Younger Chemists Committee (NSYCC), and the NESACS Education Committee are delighted to host a group of 13 graduate-student representatives from the Young Chemists Forum (*Jungchemikerforum*, JCF) of the German Chemical Society (*Gesellschaft Deutscher Chemiker*, GDCh); a representative from the European Young Chemists Network (EYCN), Sergej Toews; a German high-school teacher, Dr. Jörg Saborowski; and the Deputy Executive Director and Director of Education and Professional Affairs, Dr. Kurt Begitt, in Boston August 21-28 during the ACS National Meeting.

This visit marks the 10th exchange between the NESACS-NSYCC and GDCh-JCF and will highlight ACS international efforts, as well as demonstrate the close ties between NESACS and the GDCh. The visit to Boston will allow the German graduate students to attend the national meeting and present their work, visit local industrial sites, and to have fun with representatives of NSYCC and experience Boston and its surrounding areas.

Where it All Began

In March of 2000, Dr. Michael Strem (Strem Chemicals, Inc), a member of the ACS Board of Directors from District I (1997-2000) and a member of the NESACS Board of Directors, traveled to Germany for the *Chemiedozententagung* meeting to exhibit his company's products by invitation from Dr. Kurt Begitt, with whom he had been in contact because of a growing connection between NESACS and the GDCh. The JCF had an exhibit at this conference, and Strem realized that this group and its young members had similar interests and organization to a group he was very familiar with, the NSYCC.

During the meeting, Strem and Begitt discussed the possibility of each of the groups hosting the other on an annual basis. Having the young chemists interact socially and present their work at conferences, in addition to visits to academic and industrial sites in the geographic areas that the groups were visiting, would be the focus of the weeklong stays. Strem returned to Boston with the ideas that he and Begitt developed and presented them to the NESACS Education Committee, NSYCC, and the Board of Directors. He also informed the group that a delegation of German graduate students would be visiting Boston in 2001 for the Northeast Student Chemistry Research Conference (NSCRC), an annual conference organized by the NSYCC that provides an opportunity for undergraduate and graduate students, and postdoctoral fellows to present their research work. NESACS took immediate action and organized a committee to plan the events for their future guests. The committee included Michael Strem, Chair; Ruth Tanner (UMass, Lowell), NESACS Education Committee Chair; Morton Hoffman (Boston University), NESACS Chair-Elect; Amy Tapper (Boston University), NSYCC Chair; Tim Frigo (Advanced Magnetics, Inc.), NESACS Chair; and Doris Lewis (Suffolk University), NESACS Immediate Past-Chair. The NESACS Board provided funds to allow for comfortable lodging, local transportation, meals, and entertainment for the JCF visitors.

History and Details of Each Exchange

Since this initial meeting in 2001, the GDCh-JCF and NESACS-NSYCC have been fortunate enough to have 9 additional meetings, with 2010 marking the 10th Exchange. A brief history of the exchange trips follows.

2001 Exchange (April 27-May 4)

Nine graduate students from across Germany, along with Begitt and three faculty members from different universities, visited Boston and attended the Third Annual NSCRC. In 2001 Dr. Robert Langer (M.I.T.) provided the keynote address. There were more than 60 posters, six oral presentations, and more than 100 attendees. Two of the oral presentations were delivered by visiting German students.

In addition to the NSCRC, the group attended a concert by the Boston Symphony Orchestra at Symphony Hall; visited laboratories at Harvard University, M.I.T., and Waters Associates; attended the Kistiakowski Lecture at Harvard University given by Ahmed Zewail; attended a Red Sox game at Fenway Park; and enjoyed a farewell dinner banquet.

2002 Exchange (March 9-16)

Eleven graduate students and one undergraduate student from the Northeastern Section traveled to Germany accompanied by Strem, Tanner, Hoffman, and Tapper. They visited Cologne, Universität Köln, attended a GDCh-NESACS symposium, toured the facilities of Bayer and Jülich Research Centers, and then moved on to Aachen, where the students presented their work at the two-day GDCh-JCF spring symposium (*Euregionale*). Monica Rixman (M.I.T.), a graduate student with the NESACS group, won an award for giving an outstanding oral presentation.

2003 Exchange (Feb 22-Mar 1)

After the 2002 exchange, the GDCh and NESACS agreed that future exchanges would take place on the basis of two NESACS visits for each GDCh visit. Thus, in 2003, representatives from within the NESACS region

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returned to Germany. Ten graduate students and two undergraduates, accompanied by Patrick Gordon (NESACS Alternate Councilor), Tapper, Tanner, Hoffman, and Strem, returned to Germany for a visit to Munich and Dresden. In Munich, the group toured the city and visited Ludwig-Maximilians University, Technical University Munich (TUM), Deutsches Museum, and Hofbräuhaus, in addition to participating in a symposium on international careers. Additionally, the group visited Burghausen, where they toured the research and production facilities of Wacker Chemie. The group then went to Dresden and visited the Technical University Dresden (TUD), where the *Euregionale* was held. There were representatives from many countries in attendance and NESACS students earned nominations in three of the four award categories for oral and poster presentations.

2004 Exchange (April 18-25)

Fifteen graduate students representing different universities in Germany, together with Begitt, visited Boston and attended the Sixth Annual NSCRC and YCC Career Fair. The Career Fair, which preceded the conference, provided attendees with resumé-writing sessions, interviewing skills workshops, and the chance to talk with recruiters. The NSCRC featured welcoming remarks by Charles Casey (ACS President) and a keynote address by Dr. Stephen Lippard (M.I.T.). One of the visiting German students won a cash prize for delivering an outstanding oral presentation.

In addition to the conference, the German delegation enjoyed the 360° view from the top of the Prudential Building, feasted on a traditional New England dinner at Durgin Park, watched the Red Sox play at Fenway Park on Patriot's Day, and subsequently became spectators of the runners of the Boston Marathon in Kenmore Square, toured research facilities at Harvard University, M.I.T., and Pfizer in Groton, CT, and enjoyed a dinner in Newport, RI. They spent an evening

attending a performance by the Boston Symphony Orchestra in Symphony Hall and concluded the week with a farewell dinner.

2005 Exchange (April 3-10)

A new NESACS delegation traveled to Germany, along with Lauren Wolf, (YCC Immediate Past-Chair), Strem, Tanner, and Hoffman. Two undergraduate and 10 graduate students representing different NESACS-area universities attended the *Frühjahrssymposium*, which was held at Humboldt University in Berlin. Sarah Chobot, a graduating senior from Boston University, delivered an oral presentation at the conference and won the top award, a € 250 cash prize and a flight ticket to attend another science conference anywhere in the world the following year. Additionally, at the farewell dinner Dr. Michael Strem was awarded the GDCh Golden Pin, which recognizes outstanding service to chemistry and the chemistry society, for his contributions to the NESACS-YCC and GDCh-JCF exchange.

2006 Exchange (March 12-19)

The *Frühjahrssymposium* was held at the University of Konstanz, and a group of eight graduate students and four undergraduates representing NESACS traveled to Germany for the conference, along with Ivan Korendovych (YCC Chair), Strem, Hoffman, and Tanner. Three students from the NESACS delegation won awards at the conference: Dan Killelea (Tufts University) won the third-place cash award for his oral presentation, and Vikki Tsefrikas (Boston College) and Leland Johnson (Boston University) were both recognized for their research posters. In addition to the conference, the group visited the Max Planck Institute for Materials Research, took a tour of the old medieval section of Konstanz, toured the industrial site of Altana Pharma, and enjoyed a boat ride on Lake Constance.

2007 Exchange (August 18-25)

A delegation of 14 graduate students from Germany visited the Boston area during the national meeting, together with a German high-school teacher, Dr. Marianne Sgoff, and Begitt. Each of



2007 German Delegation with Dr. Kurt Begitt, Director of Education and Professional Affairs of the GDCh.

Photo by Morton Z. Hoffman

the graduate students presented posters in their respective ACS Divisions and at the Sci-Mix, which took place on Monday night during the conference; Sgoff gave an oral presentation in the CHED High-School program about teaching chemistry in Germany. Three of the graduate students, as well as Begitt, gave oral presentations in a CHED symposium on research and chemical education in German, which was organized by Hoffman and cosponsored by the GDCh, ACS International Activities Committee, the CHED International Activities Committee, NESACS, the Graduate Student Symposium Planning Committee, and other groups. The group also enjoyed tours of university laboratories, a reception in their honor at the Seaport Hotel, a day at the Cape, where they had a clam bake and played wiffle ball, and a farewell dinner.



2008 American Delegation together with German student hosts, Dow Chemicals Tour guides, and Dr. Robert Lichter and Dr. Ruth Tanner.

Photo provided by Robert Lichter

2008 Exchange (March 26-April 2)

Twelve graduate students and two undergraduates from NESACS along with Strem, Hoffman, Tanner and Robert Lichter (Merrimack Consultants, LLC) attended the 10th *Früh-*

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jahrssymposium, which was held in Rostock, Germany. In addition, the group visited many local sites in Hamburg, attended a performance of “Don Giovanni” at the State Opera House, and had a tour of Dow Chemical and Beiersdorf. Two NESACS students participating in the trip won awards for their presentations; Patrick Cappillino (Boston University) won an award for the oral report on his Ph.D. work and graduating senior Shuyu Wang (Harvard University) won an award for her poster presentation.



(l-r) Brian Steinberg (Boston College), Igor Shapiro (Chairperson of the 11th JCF Frühjahrssymposium), Erin Iski (Tufts University): Erin and Brian were two recipients of the 2009 Frühjahrssymposium Poster Awards. Igor visited Boston in 2007 as a member of the German delegation.

Photo by Morton Z. Hoffman

2009 Exchange (March 8-15)

Together with Strem, Hoffman, and Tanner, a group of 10 graduate students and three undergraduates from NESACS attended the 11th *Frühjahrssymposium*, in Essen, Germany. The group also enjoyed city tours of Essen and Cologne, tours of the industrial sites of Bayer and Evonik and the research labs at Max Planck Institute for Coal Research and the Max Planck Institute for Bioinorganic Chemistry, and spent a very exciting afternoon inside a working coal mine. Two NESACS graduate students participating in the trip won awards for their poster presentations: Erin Iski (Tufts University) and Brian Steinberg (Boston College).

Details of the Current, 2010 Exchange (August 21-28):

Following is a list of the German graduate students, their institutions, the titles of their research posters and talks in the CHED symposium, and the ACS Division for their presentations. Check the ACS website <www.acs.org> or in C&EN for the times and locations of these sessions. Raeanne L. Napoleon (Boston University), YCC Chair, traveled to Germany in March 2010 to attend the *Frühjahrssymposium* in Göttingen, where she met many of the German delegation.

German Delegation:

• Matthias Beyer

Fraunhofer-Institute for Silicate Research, Würzburg
ORGN: “Biodegradable hybrid polymers for regenerative medicine.”

• Judith Delius

Technical University of Munich.
ENVR: “Chemistry in the earth’s atmosphere: Investigating ester formation in secondary organic aerosols by mass spectrometry.”

• Prisca Eckert

Technical University Dortmund
INOR: “Stereogenic nitrogen centers with specific configuration: Coordination of chiral diamines to transition metals.”

• Markus Jegelka

University of Stuttgart
ORGN: “Regioselective, iron-catalyzed allylic sulfonation of allylic carbonates.”

• Christiane Knappke

University of Cologne
ORGN: “New N-heterocyclic carbene-derived alkylidene imidazolines.”

• Andreas Lill

Johann Wolfgang Goethe University, Frankfurt am Main
MEDI: “Fluorescence-Labeled Celecoxib Derivatives as Novel Pharmacological Tools.”

• Tim Peppel

University of Rostock
INOR: “Syntheses, Structures, and Properties of Co(II)-Based Ionic

Liquids.”

• Nina Schützenmeister

Georg-August-University, Göttingen
ORGN: “Total synthesis of spinosyn analogues,” CHED: “Ecologically benign and economically useful transformations: Research and education at the Georg-August-University Göttingen/Germany.”

• Kevin Stella

University of Duisburg-Essen
PHYS: “Surface chemistry with photo-sensitive stepped metal-insulator-semiconductor heterosystems,” CHED: “Chemical experiments with pulsed atomic and molecular beams on the catalytic active surfaces of semiconductor heterosystems.”

• Shanshan Wang

Max Planck Institute for Coal Research, Mülheim an der Ruhr
CATL: “Copper colloid based catalysts in methanol synthesis,” CHED: “Catalysis as a key technology for a sustainable development.”

• Johannes W. Wehner

Christiana Albertina University of Kiel
CARB: “Evaluation of different thioesters for glycocluster synthesis applying native chemical ligation.”

• Evelyn Wuttke

University of Konstanz
CATL: “Allenylidene Complexes of Group 10 transition metals: Synthesis and Catalytic Properties.”

• Christian H. Küchenthal

Justus-Liebig-University Gießen,
MEDI: “Synthesis of novel carboxypeptidase ligands for tumor imaging,” CHED: “Developing the Promise of Young Chemists: Projects of the German Younger Chemists’ Forum.”

• Sergej Toews

University of Paderborn
COLL: “Smart functionalized polymer dispersions for selective adsorption to metal oxide surfaces: New concepts for corrosion protection,” CHED: “EYCN: The European Young Chemists Network.”

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• Dr. Jörg Saborowski

University of Cologne, Institute for the Teaching of Chemistry

CHED: "How we teach chemistry in high schools in Germany."

Symposium

(Sunday, August 22, 1:15-5 pm)

"Connections to Germany and Europe: Education and Research Opportunities."

The symposium, with the sponsoring technical division, the Division of Chemical Education, has been organized by Morton Z. Hoffman (Boston University) and is designated a Presidential Event. It is cosponsored by NESACS, GDCh, the Society Committee on Education (SOCED), the ACS International Activities Committee (IAC), the CHED International Activities Committee (CHED-IAC), the Younger Chemists Committee (YCC), the Women Chemists Committee (WCC), and the Senior Chemists Task Force (SCTF). The schedule is as follows:

- 1:15 p.m. Morton Hoffman** (Presiding) – Introductory remarks
- 1:20 p.m. John McKew** (NESACS Chair) – Welcome
- 1:25 p.m. Michael Dröschner** (GDCh President) – Welcome
- 1:30 p.m. Jörg Saborowski** (Gesamtschule Rodenkirchen Cologne)
- 1:45 p.m. Nina Schützenmeister** (Georg-August-University Göttingen)
- 2:00 p.m. Kevin Stella** (University of Duisburg-Essen)
- 2:15 p.m. Shanshan Wang** (Max-Planck-Institut für Kohlenforschung)
- 2:30 p.m. Intermission**
- 2:40 p.m. Joseph Francisco** (ACS President) – Welcome
- 2:45 p.m. Miriam Hippchen** (German Academic Exchange Service)

- 3:00 p.m. Lourdes Echegoyen** (American Chemical Society)
- 3:15 p.m. Markus Behnke/Georg Bechtold** (German Research Foundation)
- 3:30 p.m. Deirdre Kelly** (Alexander von Humboldt Foundation)
- 3:45 p.m. Intermission**
- 3:55 p.m. Christian Küchenthal** (Justus-Liebig-University Giessen)
- 4:10 p.m. Raeanne Napoleon** (Boston University)
- 4:25 p.m. Jens Breffke** (Pennsylvania State University)
- 4:40 p.m. Sergej Toews** (University of Paderborn)

Looking Ahead

Both the NESACS and GDCh are preparing for the 11th exchange, when an American delegation will travel to Germany for the *Frühjahrssymposium* in the Spring of 2011. NESACS hopes that the exchange will continue for another decade and looks forward to all of the visits, career opportunities, and friendships to be made.

This article was compiled by Raeanne Napoleon with information from Morton Hoffman, Ruth Tanner, Bob Lichter, and Michael Strem, and the 2007 NUCLEUS article. Contributions to the article are gratefully acknowledged. ◇

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Historical Note

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ment, found a scholarship that hadn't existed before.

Graduate work with Bartlett as his mentor went well, producing important papers in the newly exciting field of physical organic chemistry. Among other studies, ester hydrolysis and bridgehead publications stand out. Private assistantships and war work on poison gases during World War II followed. Their close work together generated a strong relationship of respect between the two men.

The period prior to WWII was difficult for chemists with Jewish backgrounds. While industrial jobs became available due to war work, the academic positions would have to wait until after the war's ending and the need for teaching at the graduate level became acute with the pent-up demands of returning servicemen. Cohen, in spite of his National Research Fellowship, his important publications with Bartlett and by himself, could not crack the barriers to an academic position, and he accepted a position with Columbia Chemicals Division of Pittsburgh Plate Glass. Here his studies on the polymerization of styrene led to more visibility as a highly competent research scientist.

Desire for a return to the Boston area with his wife, Doris, and a growing family, and again urged by Robert B. Woodward to that he visit Edwin Land, led to Land's offer that Cohen come to Polaroid Corporation in Cambridge and work on anything he pleased. This was another relationship of two men who had deep respect for each other, and when Cohen decided after several years at Polaroid to start an academic career, Land refused to let him go, but continued paying him as a consultant-employee while he was fully employed by the fledgling college, Brandeis.

Cohen was hired by Brandeis's President Sachar simply to teach organic chemistry. Sachar quickly found in Saul a strong ally, and they worked together to ensure that Bran-

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