

Young Chemists Continuing to Build International Relationships:

Reflections from the Annual GDCh-NESACS German Exchange Program

Compiled by Felicia Lucci

The deadline for applying for this year's exchange is Nov. 1st. You can find details on Page 6 of the Summer-September issue of the Nucleus or on the NESACS Web site. You can also contact the selection committee directly at GEX@nesacs.org.

Twelve students from NESACS recently explored the science and culture of Kiel, a maritime city in Germany, as part of the annual Gesellschaft Deutsche Chemiker (GDCh)-NESACS German Exchange Program in conjunction with the Jungchemikerforum (JCF). The focus of the trip was a student-organized conference at Christiana Albertina University of Kiel, where graduate and undergraduate students presented their research to international colleagues. With tours of local scientific facilities such as Shell Technology Center, Geomar Helmholtz Centre for Ocean Research, and Leibniz Institute for Science and Mathematics Education, this program gave students a unique appreciation for German industry, academia, and culture. Below are the students' impressions of the program highlighting personal intellectual growth, admiration of German industry, and formation of lasting friendships.



NESACS Exchange Delegates touring the Geomar Helmholtz Centre for Ocean Research in Kiel, Germany. Photo courtesy of Felicia Lucci.

“As a 4th year Ph.D. student, I can say quite confidently that this trip to Germany will be one of the best memories of my doctorate studies. It was so refreshing to get out of the lab for a week and explore what being a chemist means outside of my own research. For the first few days in Kiel, we did a bit of sightseeing and toured large academic and

industrial labs. The last 4 days of the trip were focused on the JCF-Fruehjahrssymposium, which is a conference attracting researchers from all over the world. At this conference I had the pleasure of presenting my own research to a general audience of chemists, as opposed to a specialized audience like I'm used to."

Andrew Therrien, Graduate Student, Tufts University

"When I found out I was selected to participate in the exchange program, I was thrilled. Not only was this a chance to travel to a new country, but the chance to present my research at an international conference and interact with my peers from all over the world....After being involved with the NSYCC for 3 years now, I have felt a great sense of community here in Boston and in our section. As a result, I have been empowered to expand my horizons and my network even further. Rarely do these chances come about and I am glad I took it. I look forward to seeing this program continue to grow and change lives!"

Catherine Rawlins, Graduate Student, Northeastern University

"Overall, this was an excellent program for me: First, it provided a platform for young chemists from different continents to communicate with each other; we all made new friends and these relationships are very valuable. Second, our visits to scientific institutions and our participation in the JCF conference expanded our view of other modes of research as we got to know what's chemists are thinking in another country. Third, beyond the science, the visits to local industries and cities allowed us to learn about the German way of living and its culture."

Chen Bai, Graduate Student, Brandeis University



NESACS Exchange Delegates after touring AgroLab Group in Kiel, Germany. Photo courtesy of Leland Johnson.

“Our gracious hosts, including Elisabeth Kapatsina (GDCh) and several JCF members, ensured that we experienced the culture and history of the city of Kiel, as well as the impact the cities of Kiel and Hamburg have had and continue to have on the scientific community. We had some amazing visits, including tours of the Geomar, Shell, and the Agrolab facilities. I think I can speak for the entire group when I say we are so appreciative of the hospitality we received at every facility we visited.”

Emily Nicotera, Graduate Student, Tufts University

“As a 5th year graduate student in the field of chemistry, I have noticed throughout my years at the University of New Hampshire that it is easy to fall into a pattern and routine. This is good for some things; however, when it comes to innovating and networking within your field, this is not the ideal situation. Deciding to apply to the German Exchange Program was a profound opportunity. Not only would this be an awesome cultural and sightseeing opportunity, but this would be a great forum to have fresh new innovative ideas and meet people within my field of research that might otherwise be impossible to do. The valuable experience that I was able to gain from this trip was immeasurable and I truly consider this to have been an experience of a lifetime. I believe that all of my fellow travelers and scientists had this type of experience in mind.”

Casey Grenier, Graduate Student, University of New Hampshire

“Originally I was under the impression that we would all go to Germany and present our research at a conference, and when we had time, we would see some sights. This last statement could not be further from the truth. This exchange was filled with visits to various academic and industrial sites; we were always on the move. Visiting the University in Kiel was very exciting because we got to see a lot of great science and instrumentation that I would never have been exposed to without the exchange. We met with graduate students from different labs who talked about their research on photo-switchable molecules and how the various labs were incorporating these molecules in different ways. The industry tours we went on were also amazing. We had the opportunity to tour different labs around Kiel, such as Shell, AgroLab, and the Geomar Institute. Visiting all of these places got me excited about the various types of chemistry research from fuel additives at Shell to ocean acidification at the Geomar. This experience has gotten me to think about different ways that we use chemistry, as well as possible career options.”

Kyle Cole, Graduate Student, Boston College

“So far the German Exchange has been one of the most influential and helpful experiences of my young scientific career. As an undergraduate, the opportunity to present my research at a scientific conference was a tremendous learning experience. First, I gained valuable experience communicating with other scientists. Communication skills are a critical asset for any scientist, whether manifested in poster sessions, talks, or papers. Watching others within the field present their research allowed me to reflect on how I would like to communicate my own research, which I was able to put into practice at the poster session. The conference was also valuable because it exposed me to the different types of problems people are working on. It gave me an overall sense of what people really care about, and how science can step in to potentially solve those problems.”

Jacob Ganley, Undergraduate Student, Northeastern University

“The trip to Germany was a wonderful experience educationally as well as culturally. Since it was my first time in Europe I got to experience the beautiful culture and learn about the beautiful place... Starting from the first day our schedule was full of visits to different sites... As a chemist we know how important the Diels-Alder reaction is in the field of organic chemistry, and we got the honor of visiting University of Kiel where the reaction was discovered by Otto Diels and Kurt Alder... Then we had the conference for the next four days where we attended the talks from the brilliant speakers from all over Europe who seemed very enthusiastic about sharing their work... All the memories we created in Germany will be cherished forever.”

Rekha Chhetri, Graduate Student, University of New Hampshire

“I was not expecting such an action packed trip. I appreciated being able to see science internationally and in a different setting. Before the JCF symposium, we took a trip to the Diels-Alder Institute, where we listened to students talk about the chemistry research and demonstrate their photo-activated switch compounds. We also saw their instrumentation such as their Mossbauer, EPR setup, and IR. The Geomar was one of the coolest experiences, where we were able to see all the sensors for ocean sample collection and meet chemists and engineers in this field. We also were able to see the Agrolab where they had high-throughput analysis of water samples. These trips exposed us to many interesting chemistry applications to solving very difficult scientific problems. The biggest part for me was being able to network at the JCF symposium and set up science relationships that will last. I have become a part of the NESACS community and going on this trip has allowed me to set up local collaborations as well as recognize more opportunities to become involved in the local chemistry community.”

Amanda Vo, Graduate Student, Boston University

“Every morning we would make our way through the Kiel Hauptbahnhof to catch a bus to the lecture hall at Kiel University. The lectures we listened to were very impassioned, from people who, like all of us, had chosen to devote their lives to the pursuit of science and knowledge. Their excitement was infectious, even though the majority of us were operating on next to no sleep. We saw great posters, met extraordinary professionals, exchanged contact information, and shared drinks and bonded over the scientific insanity that brought us all together. In the evenings, we would forget that we were all bound by science and go out and explore the cities, basking in the incredible culture and nightlife afforded by the German cityscape. The city of Kiel was so rich with history, yet so modern and vibrant that we all fell in love with it.”

John Paul Issa, Graduate Student, Tufts University



*NESACS Exchange Delegates and JCF Hosts
enjoying a final farewell dinner together.
Photo courtesy of Emily Nicotera.*

“The NESACS exchange delegation to Kiel was an incredible opportunity. As an undergraduate preparing for graduation, it was interesting to hear about a wide variety of research topics that I had previously been unfamiliar with. In addition, the networking opportunity allowed me to form connections with both American students in the Boston area and students from across many different countries and backgrounds. Furthermore, it allowed me to present my research in a friendly and constructive environment. I’d recommend the program to any and all who want to experience chemistry on a new light. Thanks so much for the opportunity-I’m so glad I was a part of it!”

Rebecca Sternberg, Undergraduate Student, Brandeis University

“I came into this trip with no preconceived expectations but came out of it with many memorable experiences and some truly lasting connections. My motivation for participating in the exchange was rooted in my belief that scientific discovery is

inherently coupled with communication and sharing. The opportunity to meet and to interact with other young chemists that spoke different languages and came from environments completely foreign to my own but had the same motivations for pursuing chemical knowledge was incredibly humbling and insightful.”

Long Nguyen, Graduate Student, Boston University



*GDCh-JCF hosts modeling baseball caps representing the universities of NESACS exchange delegates.
Photo courtesy of Emily Nicotera.*

“Young graduates are always told to build up a network to enhance their career. GDCh and NESACS - with the great support of their younger chemists committees (JCF & NSYCC) - breathe life into this advice via their students exchange that brought twelve students from Boston to Kiel in 2016. As one of the organizers from GDCh, it’s wonderful to see how the students from US, Germany and other countries get connected. They start talking about their research, but soon a lot more topics follow: culture, food, sports and so on. I am sure that a lot of friendships were built during the exchange and I am looking forward to meeting the American students again when GDCh/JCF visits Boston in 2018 or if they possibly come back to Germany for a PostDoc.”

Elisabeth Kapatsina, Departmental Manager Education, GDCh-office