October News and Activities

- **Rachel Ndonye** participated in the Global Innovation Exchange forum titled ‘Diasporas in Development’ on October 13, 2016 in Washington DC. The forum was organized by United States Agency for International Development (USAID) and highlighted successful Diaspora Practitioners and Programs.

- **Chemistry Department Presentation, Oct 21.** Rachel Ndonye gave a presentation “Co-curriculum Development and Mentorship in Kenya” highlighting her project goals accomplished during her Summer 2016 fellowship at the Technical University of Kenya. This presentation was also an approved Multicultural/Diversity event.

- **National Chemistry Week, Oct 16 – 22nd.** The Department celebrated with an informational table highlighting this year’s theme “Forensic Chemistry.”

- **Chemistry Advising Open House event, Oct 19 and Oct 24th.** Tom Chen and Laura Anna held Chemistry Advising Open Houses as a component of our Program Advising plan. Chemistry/Biochemistry degree program students were invited to receive chemistry advising and registration information.

- **CHEM131 class visit to Udar-Hazy Smithsonian museum,** Tues, October 25. **Virginia Miller’s** CHEM131 class had the opportunity to visit the Smithsonian Steven F. Udvar-Hazy Center where they met two of the museum’s curators. Dr. Cathleen Lewis, curator of International Space Programs and Spacesuits, gave them a fascinating tour of the spacesuit collection. Students learned about the evolution of spacesuit design and the various materials used in the construction of the suits. They
even had a chance to feel the different fabrics used in modern spacesuits! And Dr. Valerie Neal, curator and chair of the Space History Department, gave them a captivating tour of the space shuttle *Discovery*. She discussed the chemistry involved in the shuttle’s engines and the reusable thermal tiles, and she brought samples of the thermal tiles for students to handle!

• **Congratulations to Dr. Jeanita Pritchett** – recipient of the 2016 *Henry McBay Outstanding Teacher Award* from the National Organization of Black Chemists and Chemical Engineers (NOBCChE)! This award recognizes STEM educators for demonstrating outstanding contributions to the education and mentorship of young scientists and engineers. Jeanita traveled to the NOBCChE conference in December to receive her award. [http://www.nobcche.org/henry-c--mcbay-award](http://www.nobcche.org/henry-c--mcbay-award)
• **Spring 2017 Registration Table** – The Chemistry Department set up an information table to inform and assist students in registering for chemistry courses for the Spring 2017 term.

• **Frontiers in Science and Medicine, Friday, Oct 28.** **Nevart Tahmazian** and **Virginia Miller** and MC student volunteers participated in the 8th Annual Frontiers in Science and Medicine Day at the Montgomery County campus of John Hopkins University. Approximately 475 local MCPS students from Martin Luther King Middle School and Montgomery Village Middle School participated in this event. Our exhibit featured “Slime: An Interesting Polymer” and “Acid-Base Chemistry and Dry Ice”. We had 4 wonderful MC student volunteers who were vital to the success of this event. Our amazing student volunteers were: Manase Wilson, Linda Noumedem, Bharat Gupta and Krissia Ortiz.
• **STEM Open House, October 31, 2016** - Virginia Miller and Laura Anna participated in the Rockville STEM Registration Open House to assist STEM students with course selection and registration.

• **Anette Casiano-Negroni (PT faculty)** was interviewed in the Forest Hills Connection, a local e-magazine covering the Wakefield, North Cleveland Park and Van Ness neighborhoods in the District of Columbia. In the article, Casiano-Negroni shows how her work as a chemistry professor led to the creation of a helpful product: http://www.foresthillsconnection.com/news/meet-your-farmers-market-vendors-aromabyanette/#

• Congratulations to Alycia Palmer and Orna Kutai for completing the Hershey Half Marathon on October 16!
November News and Activities

- **CHEM131 class trip to Smithsonian Air and Space Museum** – Thursday, Nov 3. Virginia Miller’s My CHEM131 class embarked on a class trip to the Smithsonian National Air and Space. Students explored a variety of exhibits, including *Space Race, Moving Beyond Earth* and *Apollo to the Moon*, and analyzed the different types of spacecraft and spacesuits they encountered. This museum visit supplemented the course theme of “Sometimes it is Rocket Science: Exploring the Chemical Connections and Innovations in American Space Flight”.

- **Chemistry for Scouts**, Sunday, Nov 6. A total of ~140 Girl Scouts, Cub Scouts and Boy Scouts participated in hands-on activities to earn chemistry-related Scout merit badges during this event organized in conjunction with the Maryland STEM Festival. Patricia Takahara, Laura Anna and many of the chemistry faculty and staff volunteered to design and assist with the hands-on chemistry activities. All scout participants earned the American Chemical Society Chemistry patch donated by the Chemical Society of Washington. The event was supported by a $2500 American Chemical Society Two-year Program Office Collaborative Activity grant. Dr. Jim Sniezek provided financial support to recognize our 10 STEM Ed Student volunteers with an MC bookstore gift card. Scout leaders and parents shared great comments and positive feedback about the event:

  “Katherine had a great time today. Your building is beautiful, your students and staff are awesome and you really put together a great event! We were so happy to be able to complete a badge. Her favorite was the blood typing. When we were leaving, Kat asked me if she could go to MC 😊.”
“Thanks so much for an awesome event yesterday! Camille couldn’t stop talking about it yesterday, and was so excited to share with her Dad and brother all the things she did and brought home! Her favorites were the blood typing and finger printing, and of course making the lip balm. She’s been saying for a long time that she wants to be a chemist one day. :) She put all her treasures from yesterday into a special box so that she can take them all out and look at them!”
• **Faculty 51 Presentation** – November 11. The Faculty 51 group, led by Virginia Miller, Nawal Benmouna and Gina Wesley, hosted Dr. Katherine Garcia-Sage from NASA Goddard and Catholic University who presented her work on how magnetic fields influence atmospheric loss into space. The presentation was followed by an informal Q&A session with Dr. Garcia-Sage and a discussion on pathways to graduate school and research opportunities.

• **Spectrum Lecture Series presentation, November.** Rachel Ndonye was an invited speaker for the 2016-17 Spectrum Lecture series at the Germantown campus. She presented “Curriculum Co-Development and Mentorship in Kenya” sharing her experiences at the Technical University of Kenya during her Summer 2016 Diaspora Fellowship.

• Congratulations to Tom Chen and Emma Liu (PT faculty) as they welcomed their son, Taliesin Powell Chen on Monday, Nov 21st.
Sonya-Kovalevsky Day, Saturday, Nov. 19 – Rachel Ndonye and Laura Anna participated in Sonya Kovalevsky Day by offering demonstrations and leading hands-on chemistry activities to 60 middle-level girls.
December News and Activities

- **CHEM109 Laboratory Curriculum Development** – Three new laboratory experiments focused on green chemistry and sustainability were successfully implemented into the CHEM109 Laboratory curriculum this semester.
  - *Solvent-free extraction of Limonene* - Students extracted limonene from orange peel by a solvent-free extraction technique using solid CO₂.
  - *Biodiesel synthesis* – Students synthesized biodiesel from waste vegetable oil.
  - *Soap synthesis from biodiesel* – Students used the biodiesel to synthesize soap.

- **CHEM109 Service Learning project** - Students in Craig Benson’s CHEM109 lecture course completed a service learning project as a requirement of the course, donating a combined 200 hours of service to the greater Montgomery County community.

- **CHEM109 Laboratory Stream clean-up project** - Dr. Craig Benson’s sections of CHEM 109L participated in a stream cleanup in place of one lab this semester. Students were able to give back to the community while also learning about the hazards of plastics, Styrofoam, and other garbage to the environment.

- **Chemistry Honors Module students, Fall 2016:**
  - **CHEM131** - Two CHEM 131 honors students completed their research projects under the mentorship of Craig Benson. Tetyana Rudenko and Cheryl Zion investigated regional water quality using atomic absorption spectrometry. Tetyana’s project focused on
comparing EPA-regulated contaminants in both the metro DC area and in Massachusetts. Cheryl looked at regional variations in water hardness.

- **CHEM203** – one CHEM203 student completed a research project under the mentorship of Patricia Takahara. A. Caroline Schweitzer’s project was analysis of α-acids in home-grown hops.
- **CHEM204** - one CHEM204 student completed a research project under the mentorship of Rachel Ndonye. The student’s project was ‘Solvent-Free Aldol Condensation Reaction’.

- **Annual Holiday party, Dec. 15.** The entire department took time to relax and celebrate the end of a busy semester and the holiday season with good food and company!

Happy Holidays and Enjoy the Winter Break!