



# ACS Hawaii Local Section Newsletter

## Winter 2017

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## National Chemistry Week Recognized by Congress

On October 24, 2017 the US Senate passed a resolution to recognize National Chemistry Week (NCW) that was sponsored by sponsored by Senator Coons (D-DE) and Toomey (R-PA). The resolution commended ACS for organizing the NCW events during the week of October 24-28, 2017. We thank Dr. Katelynn Perrault for organizing NCW events by overseeing the judging of the NCW Illustrated Poem Contest and "organizing the Chemistry at Kahala Mall event.

**National Chemistry Week Illustrated Poem Contest** excerpts were taken from an article by Jack Stater Chaminade University.

National Chemistry Week is an event that is hosted by the American Chemical Society. It happens every year, it's a week long, and it is usually the third week of October. The goal of this event is to promote chemistry in the community, make better connections with our local communities, and show them why chemistry is interesting. They also encourage American Chemical Society and science enthusiasts to build awareness of chemistry at the local level inviting schools, businesses, and individuals to organize or participate in events in their communities with the goal being: to promote the value of chemistry in everyday life. The theme this year was "Chemistry Rocks!" (geochemistry). The theme for next year was announced to be outer space "Chemistry is Out of This World."

This year Dr. Katelynn Perrault, Assistant Professor of Forensic Sciences and Chemistry at Chaminade University, was the National Chemistry Week coordinator for the Hawaii Local Section. Dr. Perrault orchestrated two different events; one of them was an illustrated poem contest for K-12 students and the other was an interactive hands-on day at Kahala Mall on Oct. 28, 2017.

Mahalo to the DOE teachers who encouraged their students to enter the National Chemistry Week (NCW) Illustrated Poem Contest. There were 59 entries for K-12<sup>th</sup> grade.

This year there were nearly 60 entries from all over Hawaii that the judges had to go through. The judging panel consisted of Chaminade faculty members, including Professor of Chemistry Dr. Joel Kawakami, Assistant Professor of English Dr. Brooke Carlson, Professor of Fine Arts Dr. Yukio Ozaki, and Director of 'I Am A Scientist' Lori Shimoda.

Congratulations to the winners! 1st place prize was awarded \$50, 2nd place \$25, and Honorable Mention \$10. Mahalo to the Hawaii Section of the American Chemical Society for sponsoring the cash awards.

Winning posters were displayed at the NCW event at Kahala Mall on Saturday Oct. 28<sup>th</sup>. The work of the first place winners of Illustrated Poem Posters for the different categories were displayed at the event and were sent to the National ACS level competition.

### **K-12<sup>th</sup> grade State Winners**

Grades K-2

1st place: Cole Aragaki, Grade 2, Waiakeawaena Elementary School

Grades 6-8

1st place: Camilla Nguyen, Grade 8, Kapolei Middle School

2nd place: Camille Quindica, Grade 8, Kapolei Middle School

Honorable Mention: Jasmine Quach, Grade 7, Highlands Intermediate School

Grades 9-12

1st place: Brianna Chan, Grade 10, Mililani High School

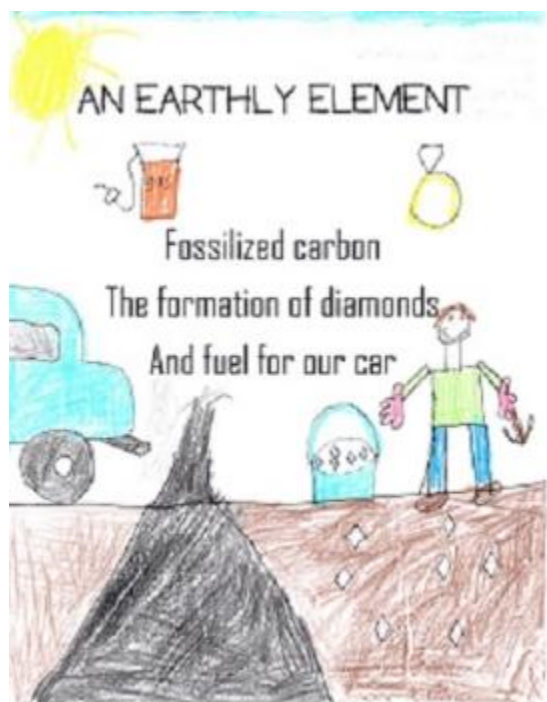
2nd place: Meagan Funasaki, Grade 12, Mililani High School

Honorable mention: Min Hua Tsou, Grade 11, Mililani High School

Honorable mention: Jordyn Arakaki, Grade 11, Mililani High School

The posters of the 1st place winners were entered into the 2017 NCW Illustrated Poem Contest! Three students from Hawaii swept the three out of four awards at the National Competition! Check out this year's first- and second-place winning entries at the NCW Illustrated Poem Contest Winners on ACS webpage. Winning poems will be featured in an upcoming C&EN article about the NCW program.

## Categories and Winners



Grades K-2 First Place in  
the National Competition:  
Cole Agaraki, 2nd Grade  
Teacher: Nani Yanagi  
Waiakeawaena Elementary



Grades 6-8 1st Place in the National Competition:  
 Camilla Nguyen, 8th Grade  
 Teacher: Daryle Mishina  
 Kapolei Middle School



Grades 9-12 1st Place in the National Competition:  
 Brianna Chan, 10th Grade  
 Teacher: Dr. Namthip Sitachitta  
 Mililani High School

## Chemistry at Kahala Mall

The culmination of the NCW week was the interactive demonstrations at Kahala Mall on Saturday Oct. 28<sup>th</sup> from 10:00 am to 2:00 pm. The Kahala Mall event consisted of exhibits brought by educators, students, and community representatives from the Chaminade University of Honolulu (CUH) Chemistry Club, the CUH Forensic Science Club, the Hawaii Agriculture Research Center, the Honolulu Zoo, Kapi'olani CC, Honolulu Pacific University, Leeward CC, Hawaii State Department of Health, Brigham Young University, and University of Hawaii at Manoa. All these people came and put up an exhibitor booth with activities going on all day with hundreds of kids and adults participating and having fun. We hope that events like this will inspire the next generation of scientists as shown in the pictures below.



Photos are a courtesy of Dr. Katelynn Perrault



## What is happening around the Islands?

### Brigham Young University | Dr. Daniel Scott

BYU Hawaii Biochemistry program has been trying to move forward with and improve upon its emphasis on undergraduate research. We recently helped organize and participated in our campus undergraduate research conference. Dozens of undergraduates in biochemistry, marine biology, psychology, exercise science, and mathematics presented on their research projects in poster format. Then a small committee of science faculty chose the best projects from each discipline and invited those chosen to present their research in the Awards Session (oral presentations). Awards were then given based on the quality of the research as well as the quality of the student's presentations. This turned out to be an outstanding opportunity and experience for the students and the next step in a continued effort to improve the local undergraduate research experience.

We have also streamlined our research courses to make them more tailorable to pre-professional students or to those who have little interest in or sufficient aptitude toward research. The course follows this general pattern

1. Students select an interesting and promising project.
2. They write a research proposal on their project convincing the faculty of their preparation and aptitude.
3. If accepted by a faculty member they will work at least one semester on that project (most work more than that).
4. Then they report their results in poster, oral, and written reports given to the department or at the undergraduate research conference.

Students who are not chosen to move forward with their research project after their proposal, have the opportunity to take an equivalent credit course that will prepare them for scientific writing.

This is an example of our recent efforts to provide for our students an outstanding and tailor fit research experience. We have also had conversations with other universities about the possibility of making this undergraduate research conference open to the island to allow our students exposure to more research that will enlighten their minds even further without having to go off island to a larger conference. Perhaps in the future this type of an undergraduate research conference could be hosted by different universities and provide valuable experiences without magnifying faculty workload.

Needs

### Chaminade University | Dr. Bulent Terem and Katelynn Perrault

The illustrated poem contest consisted of four grade categories: K-2, 3-5, 6-8, and 9-12. The 1st place winner receives \$50 and the 2nd place winner receives \$25. The participants were encouraged to explore topics related to but not limited to: various types of rocks, fossil fuels, the rock cycle, and the impact on human activity. The entries were judged on relevance and incorporation of theme, colorful artwork, word choice and imagery, adherence to poem style, originality and creativity, and overall presentation. The poems had to be no more than 40 words and in one of the following poetic styles: Haiku, Limerick, Ode, ABC Poem, Free Verse, End Rhyme or Blank Verse.

The K-2 category winner was 2nd grader Cole Agaraki from Waikeawaena Elementary School on Big Island. The 6-8 category winner was 8th grader Camilla Nguyen from Kapolei Middle School. And the 9-

12 category winner was 10th grader Brianna Chan from Mililani High School. The winners posters were all on display during the National Chemistry Week event at the Kahala Mall and went on to win first place prizes in their respective categories at the national contest level.

During this year's National Chemistry Week, the U.S. Senate recognized National Chemistry Week after two Senate members brought it to attention. "A Resolution by the United States Senate recognizing National Chemistry Week passed. It was sponsored by Senator Coons (D-Del.) and Toomey (R-Pa.) and not only highlights the importance of chemistry, but specifically commends the American Chemical Society and our Partners for organizing and convening events and activities surrounding National Chemistry Week" said David Horwitz, Program Manager from the Office of Science Outreach.

The above article are excerpts from an article written by: Jack Stater, Chaminade University of Honolulu

### Honolulu CC | Brent Rubio

- Sustainability Related (SR) Designations in Chemistry. We have been given the SR Designation on some of our courses, notably Chem 100 (Chemistry and Society) and Chem 105 (Environmental Chemistry). These courses include topics that focus on sustainability in water and air cycles and pollution and teach our students on the benefits and struggles of creating a sustainable program.

- Globally Harmonized System (GHS) Labels. After bringing our entire Chemistry stockroom into compliance with the new GHS system in May 2015, the chemistry department is continuing to help different trades and technical shops around the campus in updating their systems.

- STEM Center at HonCC. Partnering with our Transportation and Trades programs, HonCC is planning and building a new STEM Center where students can gather to collaborate and utilize different technologies provided in the center (3D printer, computers, projectors, etc).

### Kapiolani CC | Kathleen Ogata

Chemistry Club: The Ungraduated Cylinders was chartered in February of this year procured a grant from Board of Student Activities to host in Program in a Box- "Chemistry Rocks". Food and prizes drew 22 people including students from a geology class.

Ms. Louisa Yang will present at the Emerging Researchers National Conference on her work, "A Sustainable Initiative: Island Feedstocks for Biodiesel Production" (advisor: Kathleen Ogata) in February 2018.

### Kauai CC | Michael Hannawald

Science Olympiad:

The event is held once a year where high school and middle school students compete in scientifically motivated challenges. The event has been growing over the years, and it has become a community magnet and a platform to foster STEM education at the high school level.

The challenge/ event has to be designed and judged using the outlines of the nationwide oversight Science Olympiad committee. Some of the events are chemistry related, like Food-chemistry, making ice-cream, "gunk" challenge, where students had to make rubber out of glue, salt and starch.

In 2016 we added a second event per year. For this event we targeted elementary schools. The event is organized in the same way as the original Science Olympiad; the only difference is that the challenges are simpler and more playful because of the younger age group. The community welcomed this new Science Olympiad and we had 4-5 elementary schools participating in the first two years.

#### Science Fair:

High-school students present their research work to the public and get judged by science faculty. Many have chemistry related topics, like creating hydrogen from water as a means to store solar energy. Water quality topics are often chosen, one student looked at various brands of water available in the store and found most were highly acidic - not as good. Two out of the three neutral / alkali waters the student found were interestingly bottled in Hawaii.

#### Chemistry workshops for Japanese students:

These workshops aimed to support the Japanese students in learning English. They are engineering majors from maritime colleges who already know the science part, but would like to have more international work possibilities that require a good knowledge of English. Japanese students were paired with KCC students from my chemistry class (those who volunteer) to be forced to discuss the given labs and topics in English. They learn how the scientific key words are used and sound, since those words are usually not covered in a regular English class. My observation is consistent each time: students arrive very shy and don't speak the first few days, but after a while they open up and participate with a lot of enjoyment in the program and start speaking to our KCC students. Over time usually a friendship evolves that goes beyond just the science program itself. The program developed a very close collaboration with KCC and the Maritime Colleges of Toyama and Kagoshima and I stay in contact personally with the faculty. It is more than just a science project, but rather a cultural exchange program that enriches everybody involved.

#### Leeward CC | Luca Preziati

There were two major events on campus:

Lacy Veach Day - October the 28th:

<http://www.spacegrant.hawaii.edu/Day-of-discovery/index.html>

Leeward Discovery Fair - November the 4th:

<http://www.leeward.hawaii.edu/Fair>

#### University of Hawaii at Manoa | Joseph Jarrett and Philip Williams

ChemClub Highlights: The ChemClub represented the Chemistry Department at the annual Manoa Experience. We offered insights and advice to potential majors and delicious Periodic Table of Elements delicious Periodic Table of Elements Cookies and ice cream made with liquid nitrogen at the Chemistry at Kahala Mall. For more details on the activities of the chemistry club at UH Manoa contact: Eileen Chen [esrchen@hawaii.edu](mailto:esrchen@hawaii.edu)





This photo is a courtesy of Eileen Chen.

Cain Lab Featured in C&E News! Miura-Akagi, P.M.; Nakashige, M.L.; Maile, C.K.; Oshiro, S.M.; Gurr, J.R.; Yoshida, W.Y.; Royappa, A.T.; Krause, C.E.; Rheingold, A.L.; Hughes, R.P.; Cain, M.F. Synthesis of a Tris(phosphaalkene)phosphine Ligand and Fundamental Organometallic Reactions on Its Sterically Shielded Metal Complexes. *Organometallics* 2016, 35, 2224-2231. This article was highlighted in the July 18, 2016 issue of *Chemical & Engineering News*.

[Windward CC | Leticia Colmenares](#)

COMMUNITY FORUM IN CHEMISTRY AT WINDWARD COMMUNITY COLLEGE

The link below is the website. The forums are listed by semester.

[https://windward.hawaii.edu/chemistry\\_forum/](https://windward.hawaii.edu/chemistry_forum/)

## Dale Hammond, 1933 – 2017

We are sorry to hear about his unexpected passing of Dr. Dale A. Hammond in December 2018. Dr. Hammond was the chair of the local section in 1980.

He was instrumental in the setting up of the Microlab initiative at BYUH (Computers in Chemistry Laboratory Initiative). You can read more about this here: <http://microlabinfo.com/we-provide/team>

Our deepest condolences go to Dr. Hammond's family.



Photo is a courtesy of Dr. Blake Vance

## Mahalo Nui Loa to the 2017 Outgoing Officers

We would like to acknowledge the tremendous work that the following officers contributed to the success of the 2017 events. It was a pleasure working with such professionals.

Dr. Gabor Mocz (past-chair) provided guidance on the timeline for the Awards Banquet and Elections Banquet. He and Dr. Mori contacted the many campuses across the state and compiled the names of the awardees from that were represented at the Awards Banquet. He also contributed to the information on people featured in the newsletter and was valuable in providing the history of the Section when we were making decisions on what action the Section should take.

Mr. Matthew Abplanalp is near completion of his doctorate. Despite his busy schedule he promptly responded to the tasks assigned him, the keeping of minutes, and the records sent to the National Office. He also designed and maintained the ACS Hawaii Section Website. He will continue in this capacity in 2018. We wish him the best in his post-doc.

Dr. Jinxia Fu for setting up the new account, quick turnaround of reimbursement and cash awards. She was enthusiastic and did research on the costs of items that the Section purchased. Her suggestions and that of the other officers were helpful in deciding on the course of action of the executive committee.

## 2018 Local Section Officers

Mahalo for those who voted in the local elections!!! The votes were tallied at the annual Elections Banquet in November. The executive Committee for 2018 is:

Chair: Dr. Daniel Scott, [daniel.scott@byuh.edu](mailto:daniel.scott@byuh.edu)

Chair-Elect: Dr. Mario Mediati, [mediati@hawaii.edu](mailto:mediati@hawaii.edu)

Past Chair: Dr. Kathleen Ogata, [ogatakat@hawaii.edu](mailto:ogatakat@hawaii.edu)

Secretary: Dr. Domonkos Feher, [domonkos@hawaii.edu](mailto:domonkos@hawaii.edu)

Treasurer: Dr. Richard Cornwall, [richard.cornwall@byuh.edu](mailto:richard.cornwall@byuh.edu)

Councilor: Dr. Blake Vance, [bvance@harc-hspa.com](mailto:bvance@harc-hspa.com)

Alt. Councilor: Dr. David Cunningham, [david.himb@gmail.com](mailto:david.himb@gmail.com)

Elections Committee: Dr. Arthur Mori, [amori@chaminade.edu](mailto:amori@chaminade.edu) and Dr. Gabor Mocz, [gmocz@hawaii.edu](mailto:gmocz@hawaii.edu)

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