



science news



may/june 2019



tackling today's world of environmental and medical challenges

OCIS 5th Annual U19 Meeting



Oak Crest hosted its 5th Annual U19 Integrated Preclinical Clinical Program (NIAID NIH Award Number U19AI113048) meeting on April 24th and 25th 2019.

The grant brings together collaborators across ten organization with the lofty goal of rationally developing and assessing an intravaginal ring (IVR) for HIV prevention. Colleagues and friends from the Centers for Disease Control and Prevention, Johns Hopkins Medical Institute, the Miriam Hospital, the Oak Crest Institute of Science, the Universities of California, in San Diego and Los Angeles, University of Texas Medical Branch (UTMB) and Vanderbilt University arrived on Tuesday April 23rd to attend the welcome reception and dinner at the 38 Degrees Ale House in Monrovia, CA. At the Los Angeles Arboretum on Wednesday the day was spent discussing scientific progress over the past grant year and photographing the ubiquitous peacocks. In the evening the Tropic Truck provided a wide selection of Cali-Caribbean gourmet dishes, which we ate outside at Oak Crest, accompanied by Jim Jedeikin's jazz quartet.

The meeting moved to the Santa Anita Park and Race Track on Thursday, where the main focus of discussion was the on-going phase 1 clinical trial of a lead candidate IVR at UTMB. Lunch was served at Clockers Corner and the lunch break gave attendees plenty of time to admire the panoramic views from the stands, explore the grounds of the track, and visit the Shire horses in their stables and continue scientific discourse.

The meeting was highly successful, allowing colleagues and friends to renew the *esprit de corp* generated by this award, assess the progress made over the last year, and plan for the future development of the IVR to enable at-risk women to protect themselves from HIV infection.

Introducing the Rose Hills Fellows

Our last cohort of The Rose Hills Foundation Interns began working at Oak Crest at the beginning of 2019. They have been balancing their time between classes and their Oak Crest projects and will soon be showing off the results of their efforts at our "[Innovation Through Research: Inaugural Symposium](#)" on June 20th.

Intern projects:

Mapping the Chemistry of the Carbon Dioxide Radical Anion to Produce Valuable Organic Compounds: Cassandra Decosto & Aryan Tan

News & Events

Oak Crest Host an Open House for the Monrovia Chamber of Commerce

On Tuesday April 30th, the Oak Crest Institute of Science opened its doors to welcome members of the Monrovia Chamber of Commerce. The laboratories were open from 8.00 am to 9.00 am and again from 4.30 to 5.30 pm. Organized by Korinne Ramirez and Sari Canales at the Monrovia Chamber of Commerce, Oak Crest members met with Chamber members curious to know what is going on behind the doors at 132 West Chestnut. Monrovia Chamber of Commerce President Mr. Bob Helbing accompanied the groups of visitors from Monrovia businesses and the local school board. The Oak Crest staff were impressed by the extensive science and math knowledge of our visitors. Thank you Korinne and Sari for organizing this event for us, and thanks to all the visiting Chamber members.

Monrovia High School Photography Class Visit Oak Crest

The ninth grade photography class at Monrovia High School visited Oak Crest on April 17th with their teacher Ann Battle. Bringing their cameras, the students took pictures of the special instrumentation and Oak Crest staff as they toured the laboratories.

Mr. Terry Miller, staff photographer

Assessing the Toxicity of Natural Products from Genus Euphorbia Using Mammalian Cell Culture: Yarenni Reyes & Carlos Rojas

Pseudomonas putida's Production of Crystal-like Structures in Culture: Jean Sabety & Dani (Patricia) Rodriguez

Examination and Comparison of Vaginal Fluid Samples Using AFM, TEM, SEM: Jaime Oh & Christina (Xinfei) Miao

Bridge to the Geosciences



On May 3rd Oak Crest hosted the Citrus College-JPL "Bridge to the Geosciences" group visit. Funded by a grant awarded to Citrus College in 2015 by the National Science Foundation, the program is designed for all STEM majors at Citrus College. Students enrolled on the program participate in four "geomodules" designed to explore career opportunities in the environmental, atmospheric, planetary and ocean sciences.

Visiting Oak Crest, the students were accompanied by Dr Marianne Smith (Citrus) and Dr Laurie Barge (JPL), the grant PI's and organizers of the geomodules. At Oak Crest, the students spent the day touring the laboratories and talking with our staff and student interns. Lectures by Dr Chris Buser (Oak Crest) and Dr David VanderVelder (Caltech) were supplemented by informal discussions on STEM careers and the applications of the different instrumentation encountered during the tour.

Sci-Lab at Monrovia Public Library



In April Oak Crest interns and staff worked with librarian Ms. Anush to provide laboratory experiences to families visiting the library during the week. Students and their parents learned how to isolate DNA from cells, how to make polymers, how to look at bacteria, and how to use microscopes to explore pond water from the Huntington Gardens. The Sci-Lab week is always popular with students and the parents they bring along.

Remembering Jaylene Moseley

by Marc M. Baum | May 29, 2019

In Memoriam – Jaylene Moseley, President of the [Flintridge Center](#) and local philanthropist, passed away on Saturday, May 25, one day short of her 70th birthday. Jaylene had a strong connection with the Oak Crest community, exemplified by her enthusiastic service on our Board from 2008-12. “In those four years of Board service, Jaylene could always be counted on to provide thoughtful input and I greatly appreciated her guidance. Her optimism and energy were inspirational to us all”, said Dr. Baum, Oak Crest’s President. After she vacated her Board seat, Jaylene remained involved with Oak Crest, and provided valuable advice when we purchased and renovated our Monrovia facility. Jaylene, you will be sorely missed!

Recent Publications from Oak Crest

Barge L.M., E. Flores, **M.M. Baum**, D.G. VanderVelde, M.J. Russell. Redox and pH gradients drive amino acid synthesis in iron oxyhydroxide mineral systems. Proc Natl Acad Sci U S A. 2019 Mar 12;116(11):4828-4833. doi: 10.1073/pnas.1812098116. Epub 2019 Feb 25. (<https://www.ncbi.nlm.nih.gov/pubmed/30804197>)

Russo A., P. Goel, E.J. Brace, **C. Buser**, D. Dickman, A. DiAntonio. The E3 ligase Highwire promotes synaptic transmission by targeting the NAD-synthesizing enzyme dNmnat. EMBO Rep. 2019 Mar;20(3). pii: e46975. doi: 10.15252/embr.201846975. Epub 2019 Jan 28. (<https://www.ncbi.nlm.nih.gov/pubmed/?term=10.15252%2Fembr.201846975>)

at Bacon News Media in Monrovia, was also there to meet the students and recount some of his experiences as a photographer. Terry expressed his discomfort in having fifteen camera lenses pointed at him, but recovered in time to write about the visit for the Monrovia Weekly. Thanks, Terry, for taking time out from your busy day to talk with us. Terry's article can be found here: [Monrovia Weekly](#).

Calendar: Dates to Remember



July 1 to August 9, 2019: Junior Researcher Academy: Registration still open

Session 1: July 1 – July 12

Session 2: July 15 – July 26

Session 3: July 29 – August 9

Cost is \$100 per session (some scholarships are available).

For more information and to register, contact the Monrovia Community Center at (626) 256-8246.

June 17th, 2019: Start of 8-week Summer Internship teaching Laboratory Skills

June 20th, 2019: Innovation Through Research: Inaugural Symposium

IN MEMORIAM



Jaylene Moseley, President of the Flintridge Center and local philanthropist.

Goel P., D. Dufour Bergeron, M.A. Böhme, L. Nunnelly, M. Lehmann, **C. Buser**, A.M. Walter, S.J. Sigrist, D. Dickman. Homeostatic scaling of active zone scaffolds maintains global synaptic strength. *J Cell Biol.* 2019 Mar 26. pii: jcb.201807165. doi: 10.1083/jcb.201807165.
(<https://www.ncbi.nlm.nih.gov/pubmed/30914419>)



[friend on Facebook](#) | [forward to a friend](#)

*Copyright © 2019 Oak Crest Institute of Science,
All rights reserved.*

Our mailing address is:
Oak Crest Institute of Science
132 W. Chestnut Ave., Monrovia, CA 91016
USA

|IF:REWARDS| *|HTML:REWARDS|* *|END:IF|*

Have a question? Contact our newsletter editor at
news@oak-crest.org.

[unsubscribe from this list](#) | [update subscription preferences](#)

ANNOUNCEMENTS

Submitted Grant:
**Monrovia - Oak Crest
Science and Technology
Incubator Program
(MOST-IP)**

Submitted to the EDA's Regional Innovation Strategies (RIS) Program, which awards grants that build regional capacity to translate innovations into jobs through proof-of-concept and commercialization assistance to innovators and entrepreneurs.