

News and Announcements

Musings from the Director.....



Last month was an especially busy one for our chemical senses community, with five closely-spaced seminars of interest. This month we return to our normal monthly schedule with a talk by Dr. Elissa Hallem (see item 3). Dr. Hallem has been involved in chemical senses research since her days as a graduate student studying olfaction with Dr. John Carlson at Yale, and was the recent recipient of a MacArthur 'Genius' Award, so we're really looking forward to her visit.

Speaking of insect olfaction, we are very fortunate to have a large branch of the US Department of Agriculture/Agricultural Research Service located on the UF campus. Twelve of their scientists actively study the chemical senses of vector and pest insects and are members of the Center. To help showcase this important scientific connection, we present one of their scientists, Dr. Al Handler, as this month's featured member (see item 2).

Finally, just a reminder to begin planning to attend and participate in the annual chemical senses (AChemS) meeting, which is being held next April in Ft. Meyers, FL (see item 6). I mention it now since the abstract deadline for this meeting falls immediately after the Holidays and always seems to catch one by surprise so it's good to plan well in advance.

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Featured Member

Dr. Alfred Handler

**Research Geneticist
Insect Behavior and Bio-control Research Unit
Center for Medical, Agricultural, and Veterinary Entomology
Agricultural Research Service
US Department of Agriculture
Gainesville, FL**



Contact:

al.handler@ars.usda.gov

This month we're pleased to feature one of our chemical senses colleagues from the USDA/ARS facility here in Gainesville. Dr. Handler is a Research Geneticist who has made numerous fundamental contributions to understanding and manipulating the genes of tephritid fruit flies, a group of invasive pests of great agricultural importance both in terms crop loss and the establishment of trade barriers.

After studies indicated that the *P* element transformation vector was non-functional beyond drosophilid species, he utilized the *piggyBac* transposon to transform several tephritid pest species including the caribfly (*Anastrepha suspensa*), medfly (*Ceratitis capitata*) and oriental fruit fly (*Bactrocera dorsalis*). He has since tested new conditional autocidal techniques that promise to replace the irradiation of males, a means of inducing sterility that can seriously degrade the sexual performance of insects destined for SIT mass-releases. More recently, Dr. Handler has turned his attention to eliminating the possibility of inadvertent horizontal transfer of exotic genes into non-target populations and species. This environmental risk has been a principal obstacle to the more widespread use of genetically modified insects in biologically-based control programs and its removal could contribute to a genetic-transformation renaissance in the field of entomology. He and colleagues have been awarded a patent for this system of vector immobilization that can be implemented with a novel method of targeting transgenes into pre-evaluated genomic insertion sites ("Systems for gene targeting and producing stable genomic transgene insertions"). Dr. Handler is also the consortium leader for the Medfly Whole Genome Sequencing Project whose first manual annotations have been just completed, which includes binding proteins and/or receptors for odorant, gustatory and ionotropic molecules.

We are most pleased to have Dr. Handler and all the USDA scientists as members of our active and growing chemical senses research community.

This Month's Chemical Senses' Seminar tomorrow! Wednesday, November 5, 2014

'Odor-driven host seeking in skin-penetrating parasitic nematodes'

Dr. Elissa Hallem, PhD

Assistant Professor, Department of Microbiology
Immunology and Molecular Genetics
University of California, Los Angeles
Los Angeles, CA

Wednesday, November 5, 2014
12 Noon, DeWeese Auditorium
Rm. LG-101A, McKnight Brain Institute, University of Florida



Skin-penetrating parasitic nematodes infect approximately one billion people worldwide and are responsible for some of the most common neglected tropical diseases. The infective larvae search for hosts using sensory cues, yet their host-seeking behavior is poorly understood. Dr. Hallem is conducting an in-depth analysis of host seeking in the skin-penetrating human threadworm *Strongyloides stercoralis*, and comparing its behavior to that of other parasitic nematodes. It displays robust attraction to a diverse array of human skin and sweat odorants, many of which interestingly also attract mosquitoes. Dr. Hallem also investigates the neural basis of host-seeking behavior for insight into how sensory neural circuits differ in free-living vs. parasitic species of nematodes to enable the development of new strategies for combating harmful nematode infections.

LUNCH WITH THE
SPEAKERS
IMMEDIATELY
FOLLOWS THE
SEMINAR

Faculty are reminded to encourage their postdocs and grad students (sorry, no faculty) to take advantage of the opportunity to meet with each of our speakers immediately following their seminar.

These luncheons are provided at no charge and are held just upstairs from the seminar room in the MBI conference room, Rm L5-101B. Take the elevator to the 5th floor and turn right immediately on exiting the elevator.

If you have a student or postdoc who would like to take advantage of this opportunity, please have them contact Cheri Brown (browncl@ufl.edu) to reserve a spot since seating is limited.

UFCST's

Chemical Senses Fall Seminar Series

In case you haven't already done so, be sure to save the dates for the remainder of our Fall seminar series. All seminars are held at Noon in the Deweese Auditorium in the McKnight Brain Institute, 1149 Newell Dr. Don't forget, the seminars are followed immediately by a meet-the-speaker luncheon for graduate students and postdocs who sign up in advance (browcl@ufl.edu).

Wednesday, December 3rd – Dr. Jay Gottfreid (Associate Professor of Neurology, Northwestern University)

Dr. Gottfreid is an emerging leader in clinical aspects of olfaction who uses high-resolution functional magnetic imaging computational techniques and psychophysiological paradigms to better understand the profound impairment in the sense of smell associated with Alzheimer's disease.

NIH Announcements

- NIDCD Small Grant Program (R03)
[\(PAR-13-057\)](#)
National Institute on Deafness and Other Communication Disorders
Application Receipt/Submission Date(s): February 26, 2013; June 26, 2013; October 18, 2013; February 26, 2014; June 26, 2014; October 28, 2014; February 26, 2015; June 26, 2015; October 28, 2015
- NIDCD Clinical Research Center Grant (P50)
[\(PAR-13-062\)](#)
National Institute on Deafness and Other Communication Disorders
Application Receipt/Submission Date(s): February, 22, 2013; May 30, 2013; October 1, 2013; January 30, 2014; June 2, 2014; October 1, 2014; February 2, 2015; June 6, 2015; October, 1, 2015
- NIDCD Research Grants for Translating Basic Research into Clinical Tools (R01)
[\(PAR-14-009\)](#)
National Institute on Deafness and Other Communication Disorders
Application Receipt/Submission Date(s): June 23, 2014, February 23, 2015, October 23, 2015, June 23, 2016, February 23, 2017
- Notice of Participation of NIDCD in RFA-NS-13-013 Collaborative Research on Chronic Traumatic Encephalopathy and Delayed Effects of Traumatic Brain Injury: Neuropathology and Neuroimaging Correlation (U01)
[\(NOT-DC-13-004\)](#)
National Institute on Deafness and Other Communication Disorders
- Notice of Participation of NIDCD in RFA-NS-13-014 Pilot Projects on Sports-Related Brain and Spinal Cord Injury Research (R21)
[\(NOT-DC-13-005\)](#)
National Institute on Deafness and Other Communication Disorders
- Notice of Participation of NIDCD in RFA-NS-13-015 Pilot Projects on Sports-Related Brain and Spinal Cord Injury Research (R03)
[\(NOT-DC-13-006\)](#)
National Institute on Deafness and Other Communication Disorders
- NIDCD Research Grants for Translating Basic Research into Clinical Tools (R01)
[\(PAR-14-009\)](#)
National Institute on Deafness and Other Communication Disorders
Application Receipt/Submission Date(s): June 23, 2014, February 23, 2015, **October 23, 2015, June 23, 2016, February 23, 2017**



Upcoming Chemical Senses Meetings

~~~~~ **UFCST Travel graduate students and postdocs** ~~~~~

The Center provides travel awards for graduate students and postdocs at the University of Florida on an ongoing basis. We encourage applications from young scientists whose main area of interest is not the chemical senses, but who would benefit from exposure to the field. We will also consider requests from graduate students and postdocs actively working in the chemical senses to attend the AChemS annual meeting or other scientific meetings of relevance to chemical senses research. Please submit requests for support in the form of a letter to the Center office at ufcst@ufl.edu at least one month before the start of the meeting. Please include in the request the estimated cost of travel, registration, and housing while at the meeting, and whether or not you intend to make a scientific presentation. Graduate students should submit letters that are countersigned or otherwise supported by their mentor. UFCST Travel Awards will be governed by the University of Florida travel guidelines.

November 20-21, 2014

Smell and Taste 06

Dresden, Germany

<http://goo.gl/HbrJcU>

November 21-23, 2014

Clinical CHEMOSENSATION 2014

Dresden, Germany

<http://goo.gl/5STBhS>

December 8-9, 2014

Digital Olfaction Society 2014

Tokyo Institute of Technology
Japan

www.olfaction-site.com

April 22-25, 2015

AChemS 37th Annual Meeting

Hyatt Regency Coconut Point
Bonita Springs, FL

<http://www.achems.org/i4a/pages/index.cfm?pageid=3962>

June 5-9, 2016

ISOT 2016 – 17th International Symposium on Olfaction and Taste

Yokohama, Japan

<http://www.isot2016.com/>