AChemS
Association for
Chemoreception Sciences
Fostering Chemical Senses Research and Understanding Smell and Taste in Health and Disease

NEWSLETTER

Spring 2006

Message from the President

Charles Derby (cderby@gsu.com)

AChemS' strongest asset is its members, and this is no more evident than over this past year. The members of the Executive Committee – Christine Byrd, Pam Dalton, Debi Fadool, Mimi Halpern, Mike Michel, John Scott, Leslie Tolbert, Matt Wachowiak, and Don Wilson – have acted on behalf of AChemS in many ways. In addition, several new standing committees were formed last year as the Executive Committee and the Long-Range Planning Committee recognized a need for special attention. The new Industrial Relations Committee, chaired by Mike Meredith, has worked to bring industrial interests and groups more fully into the AChemS fold. The new Publications Committee, chaired by Charlie Greer, is considering ways to make Chemical Senses, the official journal of AChemS, an even more effective venue for presenting our research in the chemical senses. Speaking of Chemical Senses, I would like to recognize Barry Ache and David Smith, our current AChemS-affiliated Editors, and Leslie Tolbert, Michael Leon, Alan Gelperin, Alan Spector, Matthew Ennis, Paul Breslin, Diego Restrepo, Randall Reed, Linda Bartoshuk, Barbara Trask, and Robert Margolskee, our current AChemS representatives on the Editorial Board. Other new committees include the Clinical Relations Committee, chaired by Claire Murphy and Education Committee, chaired by Gina Nelson. These are in addition to our existing ommittees, and some of their activities over this past year are described elsewhere in this newsletter.

Our annual meeting is a major focus for most AChemS members, and with this in mind, I want to mention three items. First, we all have much to look forward to in April. Debi Fadool, Program Chair, is working feverishly with the Program Committee to produce a wonderful program; please check the web site for more information about the meeting. Second, I am pleased to announce that the 2008 ISOT meeting will be held in San Francisco, at the Hyatt Embarcadero. We believe that the venue, conveniently located for our west coast AChemS members and Asian colleagues, will be an exciting location for all, and will be at a very affordable price. I want to personally thank Tom Finger, Program Chair of ISOT 2008, and Tisha Kehn, Associate Executive Director of AChemS for their work in making this selection. They considered many options, made site visits, and spent much time during this process. Their thorough report made it easy for the Executive Committee to unanimously endorse their recommendation. Third, I would like to comment on our usual venue for our annual AChemS meetings – the Sarasota Hyatt. Each year, our annual meeting grows – we have new people, great events, wonderful presentations, and more attendees. Our growth is a grand testament to the vitality of our field, but it also challenges us in our current venue. Program chairs have had to be more creative each year in handling the ever-increasing number of presentations, and large events such as our opening Givaudan lecture. Our major talks are, as you have experienced, literally bursting at the seams. Additionally, most of us are daily commuters to the meeting site, since only about one-third of meeting attendees have rooms at the Hyatt. We have a signed contract with the Sarasota Hyatt for 2007, and our 2008 meeting will be in San Francisco with ISOT. For 2009 and beyond, we will face even greater space challenges, so I present a challenge to the Executive Committee and the Long-Range Planning Committee to find solutions to this problem.

Returning to the present – I look forward to seeing all of you in the warmth and sun of Sarasota in April. ❖

2006 Newly Elected AChemS Officers

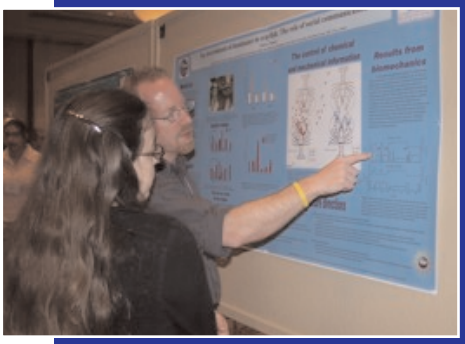
Diego Restrepo, President-elect
Linda Barlow, Counsilor
Scott Herness, Secretary
Nancy Rawson, Membership Chair

177 Total votes were counted.

THIS ISSUE INCLUDES

A Look Back at AChemS XXVII

Photos by Debi Fadool



Preview of AChemS XXVIII

Debi Fadool

Dear Colleagues:
Hope you are having a wonderful spring season. We have been preparing the upcoming sessions for the AChemS 28th Annual Meeting that will be held April 26-30, 2006 in Sarasota, Florida. Planned special symposia and travel information are posted on the Society web site. Abstract Submissions closed on January 12 as usual. We look forward to your participation in this year's conference!

This year we will hold a **pre-meeting satellite symposium** Tuesday and Wednesday, April 25 - 26. The symposium will be held much in the same way as in 2004 and 2005. There will only be plenary presentations. The satellite symposium will most likely start at 1 pm on Tuesday and end at 1 pm on Wednesday. Approximately fifteen speakers will be invited to give oral presentations on this year's topic "Chemosensory Receptors." Please direct inquiries to Dr. Peter Mombaerts (peter@mail.rockefeller.edu), organizer of the satellite symposium.

All the best,
Debra Ann Fadool
AChemS 2006 Program Chair

(on behalf of the 2005-2006 Program Committee: Charles Derby, Richard L. Doty, Debra Ann Fadool, Timothy Gilbertson, Robert Lane, Trese Leinders-Zufall, Emily R. Liman, Michael Leon, Mary Lucero, Michael Meredith, Charlotte Mistretta, Jane Roskams, Peter W. Sorensen, Steven St. John, Richard Vogt, and Joel White) ❖

Application for and Renewal of Membership

Questions concerning membership should be addressed to Tisha Kehn.

5841 Cedar Lake Road
Suite 204
Minneapolis, MN 55416
Direct Line: 952-646-2022
Fax: 952-545-6073

A membership application form and a dues renewal for 2006 are available at the AChemS web site (http://www.achems.org).

Industry-related event at AChemS XXVIII

"Taste and Smell in Translation: Applications from basic research." A Symposium/ Tutorial exploring recent key advances in the chemical senses of interest to industry scientists, and also to basic scientists. The speakers are internationally known experts with a clear view of the cutting edge and a broad perspective. Each will focus on two or a few recent advances in basic research that have potential applications. They will take the time to explain the basic science background for an audience that cannot be expert in all relevant areas. The audience will include industry scientists and policy makers as well as basic scientists and graduate students new to the field who are interested in applications of basic research. The symposium will conclude with a round-table discussion with audience participation. Our goal is to explore how collaborations between industry and academic scientists can benefit both, but particularly how basic-science expertise can contribute.

Bob Margolskee	Mt Siniai School of Med.	Taste-molecular biology
Randy Reed	Johns Hopkins University	Olfaction-molecular biology
Rachel Herz	Brown University	Olfaction - perception/ psychophysics
Paul Breslin	Monell Chem. Senses Ctr.	Taste - perception/ psychophysics

The symposium will be followed by a reception with buffet and cash bar:
An opportunity for industry participants to network and to interact one on one with the symposium speakers and other interested basic scientists.

For more information: Contact Mike Meredith at Florida State University
(850) 644-3427 mmered@neuro.fsu.edu

GWIZ 2005 was a Resounding Success!

Gina Nelson

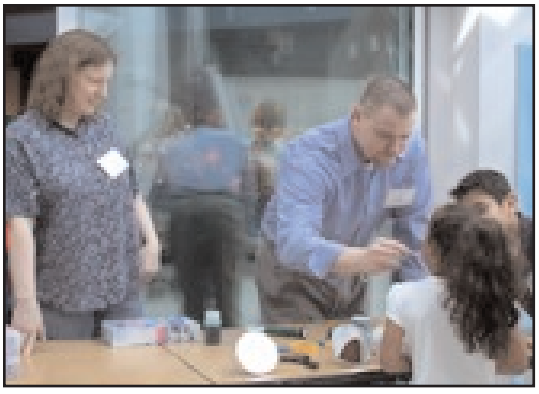
The 2005 Educational Outreach-GWIZ event was the best ever! Thanks to Aleks Splavins and the staff at GWIZ, we had nearly 500 visitors. Most were students and the rest were museum visitors. We are making a local impact in terms of educating Sarasota school children about taste and smell. Teachers were calling the museum early in the 2004-2005 school year to see if AChemS was returning so they could book field trips. WOW!

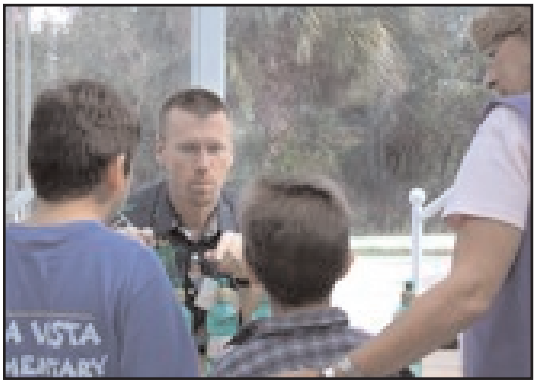
In 2005, we had nine different demonstrations covering many aspects of taste and smell for the students to participate in. The students are usually elementary kids, typically grades 3-7, although we have had high school aged kids attend. The students represent many of the Sarasota Public Schools and several area private schools as well. The demonstrations are brought by various AchemS members who provided both new demos and some of the old favorites to entice the children with. The jelly beans are always a favorite.

The AChemS educational outreach activity at GWIZ is an opportunity for Sarasota school kids to experience hands-on (the format of the entire museum) various aspects of taste and smell, and other senses too. Kids come by the various demonstrations in small groups and actively participate in each activity. Students have learned how taste differs from smell via jelly beans, how much salt has to be in the water before you can taste it, how a moth antennae perceives odors, and a whole lot more.

How do I participate in this lively activity, you may ask? Easy! Pick your favorite taste, smell, or other sense/neurobiology activity and email the activity coordinator (gnelson@nrc.uab.edu). We can also make suggestions if you just can't decide on what you would like to show. We can also make suggestions, if you need them, on how to prepare your demo for kids. Then, bring it with you to the AChemS annual meeting in April 2006! We do our demos at the GWIZ museum, across the street from the Hyatt hotel, on Wednesday, just prior to the start of the meeting. A typical schedule involves setting up around 9:00, and kids finish coming through about 12:30. Yes, this is a big event. If you like teaching kids, and that includes saying the same thing over and over, at least 100 times, this activity is for you!

Trivia question for this issue: What does GWIZ stand for anyway? (I was surprised.) Come by on April 26th, 2006 for the answer.

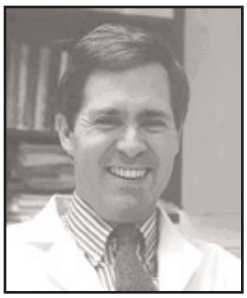




Recipients of the 2005 AChemS Awards

(Profiles of the 2006 AChemS award winners will appear in the next newsletter.)

Max Mozell Award for Outstanding Achievement in the Chemical Senses



Dr. Richard Doty
University of Pennsylvania

Research Focus: Dr. Doty has been Director of the NIH-supported University of Pennsylvania Smell and Taste Center since its founding in 1980. His 1968 M.S. thesis, done in conjunction with NASA, studied angular acceleration thresholds in humans. His 1971 Ph.D. dissertation focused on how olfaction is used in mate selection, sexual isolation, and speciation in rodents. This work led to his discovery of a midventral sebaceous gland in the mouse genus Peromyscus and to his classic review entitled, "A Cry for the Liberation of the Female Rodent," a critique of male-oriented research in animal sexual behavior that drew a parallel between courtship behavior in birds and courtship behavior in mammals. Included among his more than 300 publications are six edited books and 170 peer-reviewed papers, including studies on (a) hormonal influences on volunteering behavior in women, (b) the role of human excretions and secretions in communicating biological information, (c) the influence of the menstrual cycle on olfactory function, (d) the effects of drugs on animal odor perception, (e) the effects of age and age-related neurodegenerative diseases on olfactory function, and (f) methods for assessing olfactory and gustatory function. In regards to the latter, he is perhaps best known for the development of the University of Pennsylvania Smell Identification Test, a test that has been administered to hundreds of thousands of persons throughout the world. This test provided standardization to the field of human olfactory psychophysics, breaking from the tradition of using odorant concentration as the metric for assessing function. Among his current research interests are the factors that alter olfaction in neurodegenerative diseases.

Acknowledgments: I have been fortunate to have outstanding mentors, colleagues, employees, and students throughout my career. I am particularly indebted to Brant Clark, Jack King, David Moulton, Morley Kare, and James B. Snow, Jr., for providing me with guidance and career opportunities, and to the National Institutes of Health for their support over the last quarter century.

Key References:

1. Doty, R.L. 1974. A cry for the liberation of the female rodent. Psychological Bulletin 81:159-172.

2. Doty, R.L. and Silverthorne, C. 1975. Menstrual cycle: Influences upon volunteering behavior. Nature 254:139-140.

3. Doty, R.L., Ford, M., Preti, G., and Huggins, G. 1975. Human vaginal odors change in pleasantness and intensity during the menstrual cycle. Science 190:1316-1318.

4. Doty, R.L., Shaman, P., Applebaum, S.L., Giberson, R., Sikorsky, L., and Rosenberg, L. 1984. Smell identification ability: Changes with age. Science 226:1441-1443.

5. Doty, R.L., Deems, D. and Stellar, S. 1988. Olfactory dysfunction in Parkinson's disease: A general deficit unrelated to neurologic signs, disease stage, or disease duration. Neurology 38:1237-1244.

6. Patel, S. J., Bollhoefer, A. and Doty, R.L. 2004. Influences of ethanol ingestion on olfactory function in humans. Psychopharmacology 171: 429-434.

7. Macknin, J.B, Higuchi, M., Lee, V. M.-Y., Trojanowski, J. and Doty, R.L. 2004 Olfactory dysfunction occurs in transgenic mice overexpressing human tau protein. Brain Research 1000: 174-178.

Ajinomoto Award for Young Investigators in Gustation

Dr. Robin Krimm
University of Louisville

Research Focus: During development, gustatory innervation is a tightly regulated process in which specific numbers of primary taste afferents project to discrete regions of the oral cavity. My laboratory has two long terms goals: 1) to determine the cellular and molecular mechanisms that allow gustatory neurons to innervate the correct target (taste buds) with a specific amount of innervation, and 2) to determine if and/or how these connections are important for central gustatory development or taste function. Our current research focuses on the role of neurotrophins in regulating gustatory neuron number and peripheral and central targeting during development. We plan to 1) determine when and where the embryonic taste system is exposed to the neurotrophins brain-derived neurotrophic factor (BDNF) and neurotrophin 4 (NT4), 2) determine when BDNF and NT4 regulate gustatory neuron number and whether this regulation is accomplished by reducing proliferation or by increasing cell death, 3) determine whether BDNF and/or NT4 is required for initial target invasion, and 4) determine if BDNF and/or NT4 regulate the central distribution of tongue and palatal sensory afferents. Ultimately, we plan to extend these findings to understand how these developmental processes contribute to adult taste system function and the role of neurotrophins in adult gustatory plasticity.

Acknowledgments: I am grateful to Dr. David Hill for his outstanding mentorship. He has continued to be my advisor to this day, although I am sure he is looking forward to my eventual graduation. I thank Dr. Kathryn Albers for an excellent postdoctoral experience and Dr. Charlotte Mistretta for supporting my career. I received early training from Dr. James Smith and Dr. Inglis Miller; their influence is still with me. I am grateful to my AChemS colleagues who have provided me with many fruitful interactions. Most of all, I thank my current laboratory members, who do all the real work now.

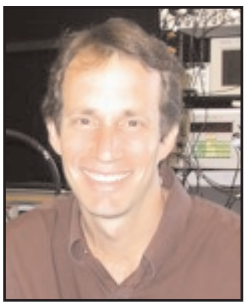
Key References:

1. Shuler, M.G., Krimm, R. F., and Hill, D.L. 2004. Neuron/target plasticity in the peripheral gustatory system. J. Comp. Neurol. 472: 183-192.

2. Krimm, R.F., Miller, K.K., Kitzman, P.H., Davis, B.M., and Albers, K..M. 2001. Epithelial overexpression of BDNF or NT-4 disrupts targeting of taste neurons innervating the anterior tongue. Devel. Biology 232: 508-521.

3. Krimm, R.F. and Hill, D.L. 1998. Innervation of single fungiform taste buds during development in rat. J. Comp. Neurol. 398: 13-24.

AChemS Award for Young Investigator in Olfactory Research



Dr. Matt Wachowiak
Boston University

Research Focus:
Dr. Wachowiak's work has focused on understanding how odors are represented and how olfactory information is processed early in the olfactory pathway – at the level of olfactory receptor neurons and their input to glomeruli of the olfactory bulb. In collaboration with a number of colleagues listed below, he developed methods for selectively imaging the activation of olfactory receptor neurons at their axon terminals within olfactory bulb glomeruli. These methods, which rely on calcium-sensitive dyes or a genetically-encoded indicator of transmitter release, allow sensory input to glomeruli of the olfactory bulb to be monitored noninvasively and selectively in the intact animal. Dr. Wachowiak and his colleagues used this approach to visualize how odor information is represented at this critical first stage of the convergence of receptor neurons onto glomeruli. They characterized the relationship between odorant identity and intensity on multiglomerular odorant representations. They demonstrated, using in vivo 2-photon imaging, that receptor neuron input to a single glomerulus is functionally uniform. Dr. Wachowiak and colleagues have also used these imaging methods in reduced slice preparations to investigate the modulation of olfactory input to the CNS by presynaptic inhibition at the receptor neuron terminal, providing a direct demonstration of olfactory presynaptic inhibition in lobsters, turtles, and mice and characterizing the cellular mechanisms underlying that inhibition.

Acknowledgments: Many excellent collaborators have helped to make this work possible, including Rainer Friedrich, Michael Shipley, Phil Heyward, Peter Mombaerts and Tom Bozza. I am grateful to two primary mentors, Barry Ache and Larry Cohen, each of whom taught me essential lessons in science. I would also like to thank my first scientific mentor, Dan Rittschof, for getting me into this mess in the first place. Ongoing research in the lab depends on the efforts of John McGann, Justus Verhagen and Nicolas Pirez. All of this work has been supported by the NIDCD. Finally, I thank my wife and most valued colleague, Ayako Yamaguchi, who is never impressed.

Key References:

1. Wachowiak M., Denk W., and Friedrich R.W. 2004. Functional organization of sensory input to the olfactory bulb glomerulus analyzed by two-photon calcium imaging. Proc. Nat Acad. Sci. USA 101: 9097-9102.

2. Bozza T., McGann, J.P., Mombaerts P., and Wachowiak M. 2004. In vivo imaging of neuronal activity by targeted expression of a genetically encoded probe in the mouse. Neuron 42: 9-21.

3. Wachowiak M., and Cohen L.B. 2001. Representation of odorants by receptor neuron input to the mouse olfactory bulb. Neuron 32:725-737.

4. Wachowiak M., and Cohen L.B. 1999. Presynaptic inhibition of primary olfactory afferents mediated by different mechanisms in lobster and turtle. J. Neurosci. 19:8808-8817.

Moskowitz Jacobs Award for Research Excellence in the Psychophysics of Taste and Smell

Dr. Dana Small
J.B. Pierce Laboratory

Research Focus:
Taste perception has four primary dimensions: intensity, familiarity, pleasantness, and quality. A major focus of this research is to identify the human brain regions coding for each of these perceptual dimensions. In addition, several characteristics of the gustatory system make it an excellent model for understanding sensory and affective interactions. First, the primary cortical representation of taste is within paralimbic cortex. Second, taste perception is thought to be an unlearned or primarily reinforcing, yet the reward value must be flexible to reflect fluctuations of internal state as well as changes in external contingencies. The second goal of this work is to understand how changing the reward value of taste may alter its neural representation. Finally, several projects are aimed at understanding how flavor is represented in the human brain. The lab is testing the hypotheses that taste/smell integration is dependent upon a network of structures including the insula, orbitofrontal cortex, amygdala and anterior cingulate cortex; 2) is dependent upon experience, 3) is dependent upon mode of olfactory perception; and 4) is altered by attentional allocation. To accomplish these goals taste perception is examined in patients with discrete brain lesions and brain activation is evaluated during perception of chemosensory stimuli using functional neuroimaging techniques in healthy subjects.

Acknowledgments: I have been very fortunate to have had the opportunity to learn from a series of brilliant and supportive mentors including Marilyn Jones-Gotman, Linda Bartoshuk, Larry Marks and Barry Green. Thank you my dear friends! I would also like to acknowledge the outstanding contribution from the members of my lab, Genevieve Bender, Erica Mak, Katharine Simmons Lisa Bagurdes, Michael Gregory and Joel Voss. Thank you to Unilever Research and NIDCD/NIH for grant support.

Key References:

1. Small, D.M, Jones-Gotman, M., Zatorre, R.J., Petrides, M., and Evans, A.C. 1997. A role for the human right anterior temporal lobe in taste quality recognition. J. Neurosci. 17: 5136-5142.

2. Small, D.M., Zatorre, R.J., Dagher, A., and Jones-Gotman, M. 2001. Brain activity related to eating chocolate: from pleasure to aversion. Brain 124: 1720-1733.

3. Small, D.M., Gregory, M.D., Mak, Y.E., Gitelman, D.R., Mesulam, M.M., and Parrish, T. 2003. Dissociation of neural representation of intensity and affective valuation in human gustation. Neuron 39: 701-711.

4. Small, D.M., Voss, J., Mak, Y.E., Simmons, K., Parrish, T., and Gitelman, D.R. 2004. Experience-dependent integration of taste and smell in the human brain. J. Neurophysiol. 92: 1892-1903.

5. Small, D.M., Bernasconi, N., Bernasconi, A., Sziklas, V., and Jones-Gotman, M. 2005. Gustatory agnosia. Neurology 64: 311-317.

2005 Don Tucker Award for Outstanding Graduate Student Presentation

Yiling Nie
University of Maryland

T1R3 Binds Sweet Ligands at Physiological Concentrations

Nie, Y.[1], Hobbs J.R.[2], Vigues, S.[1], Conn, G.L.[2], and Munger, S.D.[1]
[1]Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD; [2]Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom.

T1Rs are Class C G protein-coupled receptors (GPCRs) important for sweet and umami taste. The native sweet taste receptor contains two subunits, T1R2 and T1R3, both of which are required for normal stimulus sensitivity and selectivity. It has been suggested that T1R3 plays no direct role in ligand binding in part because it also pairs with T1R1 to form an umami taste receptor. To test whether T1R3 can bind taste stimuli at physiological concentrations, we have developed an in vitro system for measuring ligand binding to the N-terminal domain of T1R3. We expressed and purified mouse T1R3 NTD protein from bacterial expression systems. Circular dichroism (CD) spectroscopy showed the proteins to be folded, with a secondary structure content consistent with that predicted in silico. Fluorescence spectroscopy of T1R3 NTD showed that sweet ligands (e.g., glucose, sucrose, glycine, and sucralose) changed the intrinsic fluorescence intensity of the protein, with EC50s from 3-10 mM; cyclamate, which is not preferred by mice, had no effect. Ligands also induce a consistent shift in CD spectra of T1R3 NTD, indicating a change in receptor structure upon ligand binding. Our results show that T1R3 NTD is competent to bind sweet stimuli at physiological concentrations, and suggest that, in contrast to other heteromeric Class C GPCRs (e.g., GABAB receptors), both T1R subunits may play a role in ligand interactions in vivo.

Support: NIDCD, MSLS/BNL (SDM); The Wellcome Trust, CCLRC (GLC).

2006 AChemS Awards Recipients

Max Mozell Award for Outstanding Achievement in the Chemical Senses:
William Cain, University of California San Diego

Ajinomoto Award for Young Investigators in Gustation:
Lynnette Phillips McCluskey, Medical College of Georgia

AChemS Award for Young Investigator in Olfactory Research:
Abdallah Hayar, University of Arkansas for Medical Sciences

Moskowitz Jacobs Award for Research Excellence in the Psychophysics of Taste and Smell:
Paul Wise, University of California San Diego

Additional Awards Granted to AChemS Members

Dr. Robin Krimm (University of Louisville) was one of the twelve recipients of the 2004 Presidential Early Career Award for Science and Engineers, the nation's highest honor for professionals at the outset of their independent research careers.

Dr. John Carlson (Yale University) was selected as the 2005 winner of the Frank Allison Linville's R.H. Wright Award in Olfactory Research. The $30,000 award is made annually to an individual with outstanding research achievement in olfaction. Dr. Carlson was honored for his studies in the molecular and cellular basis of olfaction and taste in insects.

Job Postings

Check the AChemS website for additional information on position offerings.

Neuroscientist Faculty Position

The Department of Anatomy and Cell Biology at Downstate Medical Center invites applications for a tenure-track ASSISTANT PROFESSOR position. The successful candidate is expected to develop an independent, extramurally-funded research program in the neurosciences and to participate in teaching medical students as well as training graduate students. Preference will be given to candidates with current extramural funding and prior teaching experience or training in neuroanatomy. Curriculum vitae, a brief description of previous and anticipated research, and the names of three references should be sent to: Dr. M.A.Q. Siddiqui, Professor and Chair, Department of Anatomy and Cell Biology, State University of New York Downstate Medical Center, 450 Clarkson Avenue, Box 5, Brooklyn, NY 11203.
FAX: 718-270-3732;
E-mail: MAQ.Siddiqui@Downstate.edu.

Neuroscience Faculty Positions

The Program in Neuroscience at the Florida State University seeks to fill six new tenured or tenure-track faculty positions over the next two years as part of a major university initiative to expand neuroscience research across campus. The initiative includes the development of a major basic science quadrangle, already home of the newly established College of Medicine, and the construction of two new research buildings for the Departments of Biological Science and Psychology. When completed, these three projects will collectively add about 490,000 gross square feet of new space and 120 new research laboratories dedicated to biomedical and behavioral research.

The Program in Neuroscience (http://www.neuro.fsu.edu) is a highly interactive and interdisciplinary program that encompasses 25 faculty members in 8 departments. Current research strengths include motivated behaviors, sensory systems, biological rhythms, learning and plasticity, development, ingestion and metabolism, neuroendocrinology, and computational neuroscience. We seek applications from noted scholars with a track-record of productivity and independent support who will enhance our current strengths or expand the program in novel directions. We invite applications for faculty positions at the rank of assistant, associate, and full professor. Appointments will be in relevant departments. Senior investigators are encouraged to contact Rob Contreras, the Program Director,
(contreras@neuro.fsu.edu) to discuss the possibility of multiple hires to form a specific research cluster. Review of applications will begin on 1 December 2005, but the search process will remain active until the positions are filled. Please send a cover letter, curriculum vitae, representative papers, a 2 to 4 page research plan, and the names and contact information of 3 references. Application materials can be sent electronically to search@neuro.fsu.edu, or by mail to: Janice Parker, Administrator, Program in Neuroscience, Room 18, LON-1280, Florida State University, Tallahassee FL 32306-1280,
Phone: (850) 644-3076,
FAX: (850) 644-0349. Florida State University is an Equal Opportunity /Affirmative Action employer, committed to diversity in hiring, and a Public Records Agency.

Psychology Faculty Position

San Diego State University invites applications for six positions in the Department of Psychology to begin in the 2006-2007 Academic year. San Diego is a rich research environment with a collaborative culture. We welcome nominations, inquiries and applications. Please share this information with interested colleagues.

Cell Biology/Physiology Faculty Position

The Department of Biological Sciences at the University at Buffalo, The State University of New York, is seeking outstanding applicants for a tenure track Assistant Professor position in Cell Biology or Physiology, with research emphasis in the area of Sensory Transduction. The applicant should show research interests within the areas of Cellular Neurobiology, Sensory Cell Biology or Signal Transduction, as related to the function, and/or development of sensory systems. This is part of several ongoing initiatives and expansions of research efforts within the Department of Biological Sciences and the University.

The department offers outstanding research facilities with opportunities for interdisciplinary interactions at the University, Roswell Park Cancer Institute, and the NYS Center of Excellence in Bioinformatics and Life Sciences. Substantial setup packages will be provided. Candidates will be expected to maintain an externally funded research program and to participate in graduate and undergraduate teaching. Applicants should have a Ph.D. (or other doctorate degree), at least two years of postdoctoral experience, a scholarly publication record and a command of spoken and written English.

To apply, please submit a curriculum vitae, description of current and future research interests, three reference letters and up to three recent or in press publications to:

Dr. Todd M. Hennessey
Chair, Cell Biology Search Committee
Department of Biological Sciences
C109 Cooke Hall
University at Buffalo, North Campus
Buffalo, NY 14260

Application review will begin immediately and continue until the position is filled. Consult our website
(http://www.biology.buffalo.edu) for further information regarding the Department, University and community

The University at Buffalo is an Equal Opportunity Employer/Recruiter.

Job Postings Continued

Postdoctoral Position in Chemosensory Research

Available immediately, funded by a NIH training grant, for training in chemosensory research with one or a combination of the following Chemosensory Training Program (CTP) mentors at Florida State University:

Dr. Robert Contreras (Psychology)
Taste physiology; Sodium/fluid intake; Hypertension.

Dr. Lisa Eckel (**Psychology**)
Taste and intake regulation; Role of estrogen

Dr. Debra-Ann Fadool
(Biology/Biophysics)
Olfaction/VNO cell physiology/ion channel structure, function

Dr. Thomas Houpt (**Biology**)
CTA learning; Taste and intake; Molecular biology

Dr. Michael Meredith (**Biology**)
Olfaction/VNO physiology; Chemical communication

Dr. Paul Trombley (**Biology**)
Olfactory synaptic physiology

Current research of these Program in Neuroscience faculty-members ranges from transduction through neuronal cell physiology, electrophysiology and neural circuit function, to learning, regulation of food and fluid intake and social behavior. More information is available at www.neuro.fsu.edu.

The FSU Neuroscience Program includes a dynamic collaborative group of faculty, postdocs and students in several departments with substantial research support facilities.

The Department of Biological Science and Department of Psychology at FSU are large departments with, in addition to Neuroscience, interdisciplinary programs in Molecular Biophysics, Computational Science and Structural Biology. The university supports fully staffed imaging DNA, microarray, hybridoma, and instrument-design core facilities. The city of Tallahassee is the State Capital, situated in the Florida panhandle in close proximity (20-45 minutes) to freshwater springs, national forest, and the ocean (but far outside the storm-surge zone!).

Candidates must be US citizens or US permanent residents. Please contact one or more of the mentors listed above via their website contacts. Please be prepared to discuss how you can contribute to the mentor's research program and how they can contribute to your training for a career in chemosensory research. In addition to contacting potential mentors, please send a CV, three letters of reference and a statement of career research interests, emphasizing chemosensory research, to Janice Parker, CTP administrator, Program in Neuroscience, Room 18, LON-1280, Florida State University, Tallahassee FL 32306-1280. Letters of reference must be sent directly by the writer not the candidate and must provide e-mail or telephone contact information. All materials may be sent electronically to parker@neuro.fsu.edu. We encourage women and members of underrepresented minority groups to apply. The Florida State University is an equal employment opportunity employer.

Funding Opportunities

New NIH submission policy

After months of intense preparation, the National Institutes of Health opened its doors in November to receive its first round of grant applications electronically through the Federal web portal of Grants.gov. Almost 2,000 small business and conference grant applications streamed in electronically to NIH for December receipt dates via Grants.gov, marking a major stride forward in NIH's ongoing electronic submission efforts.

Beginning with the December 1, 2005, submission date for SBIR/STTR applications, one by one, all competing research grant programs (mechanisms, such as R01, R03, etc.) will transition from paper submission of the PHS 398 to electronic submission through Grants.gov using the Standard Form 424 Research and Research Related (SF424 (R&R)). Applicants should take careful note of the transition schedule (timeline) to ensure they are using the appropriate mode of application transmission and application form. Applications for the transition submission date of a mechanism (even if submitted in advance of the date) and thereafter must use the SF424 (R&R) form and be submitted electronically through Grants.gov. Once a mechanism transitions, the change applies to all subsequent Requests for Applications and Program Announcements. No paper applications will be accepted for transitioned mechanisms.

Updates on the status of the transition to electronic submission and the new form set are posted on the NIH eRA Electronic Submission of Grant Applications Web site http://era.nih.gov/ElectronicReceipt/index.htm

Effective October 1, NIH will no longer email Summary Statements directly to applicants; rather, applicants are expected to retrieve them from the Commons. The official announcement for this change was published in the NIH Guide on September 8, 2005 http://grants.nih.gov/grants/guide/notice-files/NOT-OD-05-075.html

Investigators seeking NIH grant support are encouraged to register in the Commons, if they have not already done so. This will allow access to summary statements and other critical information (e.g., review assignments and priority scores) regarding the status of your application. Information about the registration process can be found at the eRA homepage (https://commons.era.nih.gov/commons/index.jsp). Frequently asked questions for the registration process are addressed in the FAQ https://commons.era.nih.gov/commons/faq.jsp and further assistance can be acquired through the Commons Helpdesk at 1-866-504-9552 or via e-mail at commons@od.nih.gov

Meeting Announcements

17 Congress of the European Chemoreception Research Organisation ECRO 2006
September, 4-8, 2006, Granada (Spain)

Plenary Opening Lecture
Linda B. Buck
Nobel Prize in Physiology or Medicine 2004

Please, visit our website and subscribe without assuming any obligation to get updated information and for submitting contributions: http://www.ecro2006.com

The first ECRO meeting to be held in Spain will bring together scientists of international reputation, young researchers, students and companies involved in a wide variety of topics covering taste, olfaction and other chemical senses. We encourage to the AChemS members to join us. Your contribution will be most welcome for the meeting to reach the highest scientific level.

International Symposium on Olfaction and Taste

AChemS proudly hosts the **International Symposium on Olfaction and Taste** (**ISOT**) in 2008. The meeting will be held in San Francisco at the Hyatt Embarcadero and is scheduled for July 21-25, 2008. Please check the AChemS website (www.achems.org) for further updates.

Memorial to Ernest Polak

AChemS mourns the loss of Mr. Ernest H. Polak on September 12. Throughout his adult life, Ernest was an enthusiastic investigator and supporter of the chemical senses, first through his family's flavors and fragrances business, PWF Inc., and later through numerous collaborations with scientists around the world. Born in 1921 in Amersfoort, Holland, he moved to New York City in 1939 to work at PFW Inc. At this time, he also attended Columbia University and Brooklyn Polytech and later earned a B.S. degree in Chemistry from NYU. Ernest earned his M.S. degree in Chemistry from Iowa State University in 1944 and then moved back to the east coast to work as a researcher at Hoffman LaRoche in NJ. He then returned to PFW Inc. and served as the Vice President for Research and Development from 1948 until 1973. In 1975, he moved to France after the merger of PFW and Hercules.

In addition to his work in industry, Ernest had many collaborations with academic basic scientists. He worked with the Sensory Neurobiology Laboratory led by Patrick McLeod near Paris from 1975 to 1985 and with Jean Leveteau at the University of Paris VI from 1985 to 1997. From 1975 until 2004, Ernest sponsored and collaborated on projects with scientists focused on olfactory quality coding in France, Great Britain, Italy, and the United States. Earlier in 2005, he and his wife Ghislaine established a major endowment for AChemS and ECRO to support young scientists, dedicated as follows: "The Elsje Werner-Polak Memorial Fund in memory of our niece, gassed by the Nazis in 1944 at age 7. Donors: Ernest and Ghislaine Polak."

Ernest had a great nose and a sharp mind. He made many significant discoveries and produced thousands of important compounds. Ernest will be greatly missed by his colleagues in the chemical senses, his loving wife Ghislaine, his two sons, Clifford Polak of Paris and Elliot Polak of London, his five grandchildren, and his friends and colleagues around the world.