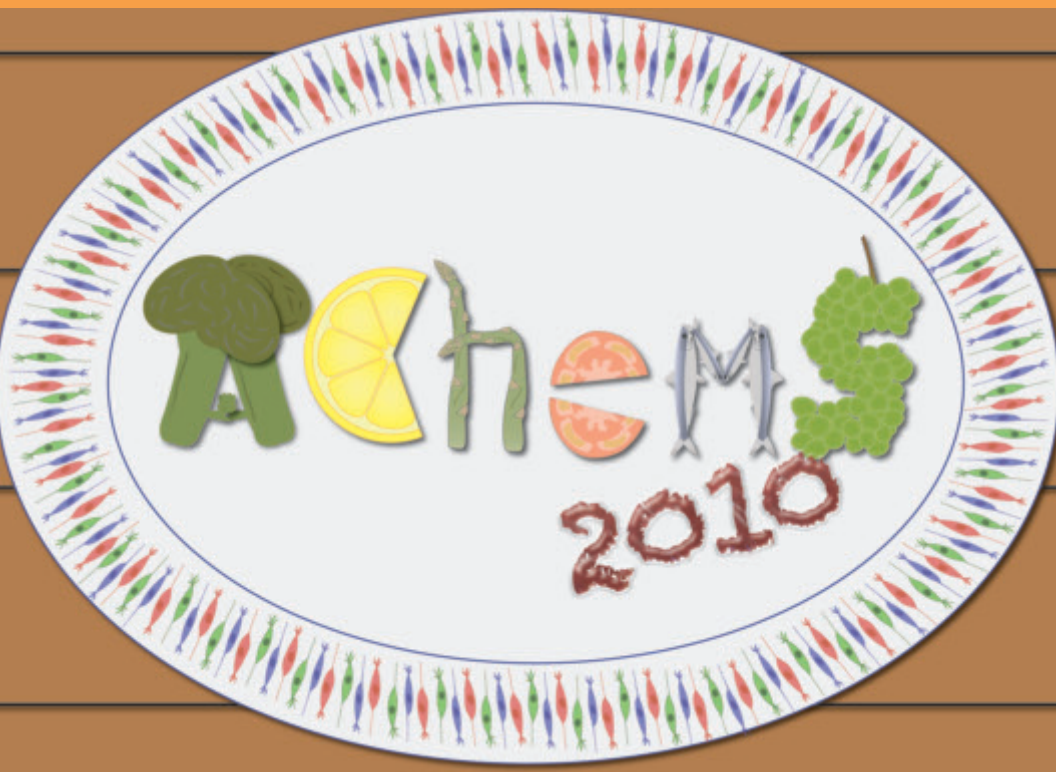
AChemS
Association for Chemoreception Sciences

ACHEMS 2010 ANNUAL MEETING

PROGRAM



APRIL 21-25, 2010
TRADEWINDS ISLAND GRAND
ST. PETE BEACH, FLORIDA

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Association for Chemoreception Sciences

AChemS extends special thanks and appreciation for grant support from:

The National Institute on Deafness and Other Communications Disorders
and the
National Institute on Aging, NIH

The Association for Chemoreception Sciences is also grateful for the generous support of its Corporate Sponsors:

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A taste of the future. AJINOMOTO.

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A special thank you to **Ghislaine Polak** and the late **Ernest Polak** for supporting the **Polak Young Investigator Awards** and the **Junior Scientist Travel Awards**.

The Association for Chemoreception Sciences thanks our Corporate Members for their support:

A taste of the future. AJINOMOTO. IFF International Flavors & Fragrances Inc. TAKASAGO baholdings

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2010 Annual Meeting Exhibitors

Oxford University Press
Oxford Journals, part of Oxford University Press, publishes Chemical Senses, which is sponsored by AChemS, ECRO and JASTS.
Company representative: Jennifer Boyd

Osmic Enterprises, Inc.
Osmic Enterprises, Inc. produces and distributes the OLFACT™ Test Battery, a series of computerized tests to assess olfactory function. Tests include a threshold test, and identification test, a discrimination test, and an odor memory test. Stimuli are generated via a miniature olfactometer, with administration of the tests and recording of responses under computer control.
Company representatives: Bruce Johnson and Tracy Wilson

Sensonics, Inc
Sensonics, Inc., manufactures and distributes quantitative smell and taste tests. The Smell Identification Test™, has been translated into several languages and is the standard means for assessing olfactory function throughout the world. Visit www.sensonics.com for more information about our products and services.
Company representatives: Paul Marone and Dr. Richard L. Doty

Springer
Springer is the proud publisher of Chemosensory Perception, now in its third year of publication. The journal will have its first impact factor in June. Please stop by our booth to pick up a sample copy, as well as browse our books (available at the conference discount) and other journals. Susan Safren will be available to answer any questions about publishing with Springer.
Company representative: Susan Springer

Tucker-Davis Technologies
TDT provides integrated hardware/software solutions for psychoacoustics, evoked potentials and sensory neuroscience. Stop by our exhibit to preview the latest additions to the System 3 platform, including our next generation Multi-I/O Processor.
Company representative: Victor Rush, PhD

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2010 Awardees

32rd Annual Givaudan Lectureship - Givaudan Corporation
Robert A. Weinberg, Whitehead Institute for Biomedical Research

17th Annual Ajinomoto Award for Young Investigators in Gustation
Alfredo Fontanini, SUNY Stony Brook

International Flavors and Fragrances Award for Outstanding Research on the Molecular Basis of Taste
Charles Zuker, Columbia University

Max Mozell Award for Outstanding Achievement in the Chemical Senses
Stephen Roper, University of Miami

AChemS Young Investigator Award for Research in Olfaction
Marc Spehr, RWTH-Aachen University

The Don Tucker Memorial Award (2009 Awardee)
Kristal Tucker, Florida State University

AChemS 2010 Logo Contest Award
Alison Ventura, Monell Chemical Senses Center

The Polak awards are funded by the Elsje Werner-Polak Memorial Fund in memory of our niece gassed by the Nazis in 1944 at age 7: Ghislaine Polak and the late Ernest Polak

Polak Young Investigator Award Recipients
Daniel Wesson, Boston University
Fumiaki Imamura, Yale University
Kai Cheng, NIH/NINDS
Marco Tizzano, University of Colorado Denver
Rene Barro-Soria, University of Miami
Sanne Boesveldt, Monell Chemical Senses Center

2010 Awardees, continued

We are pleased to announce that seven 2010 Polak Junior Scientist Travel Fund Awards were given for this year's Meeting.

AChemS Minority Award Recipients
Funded by a generous grant from the National Institute on Deafness and Other Communication Disorders and the National Institute on Aging, NIH

Juan Aggio, Georgia State University
Rhonda Bibbs, Alabama State University
FaMitah Buchanan, Tennessee State University
Norma Castro, San Diego State University
Wambura Fobbs, Yale University
Yaihara Fortis-Santiago, Brandeis University
Kristina Gonzalez, Clark University
Mavis Irwin, University of Utah
Isabel Perea-Martinez, Miller University of Miami
Ernesto Salcedo, University of Colorado Denver
Aleida Silva Garcia, Philadelphia College of Osteopathic Medicine
Natasha Spencer, VISTA
Tamika Wilson, Monell Chemical Senses Center

AChemS Student Housing and Travel Award Recipients
Funded by the Polak Foundation: Ghislaine Polak and the late Ernest Polak

Constanze Hartmann
Monika Frey
Sabrina Baumgart
Markus Osterloh
Valentin Schriever
Jacqueline Zimmermann
Franziska Krone
Debbie Radtke
Nicole Schoebel
Matthias Luebbert
Yaara Yeshurun
Anat Arzi
Shiori Nakano
Malin Brodin
Shahid Majeed
Lydia Maurer
Bennett Collins
Alexandra Miller
Rebecca Reddaway
Sara Dudgeon
Jennifer Chen
Dylan Barnes
Chien-Fu Chen
April Glatt
Jean Allen
Amy Gordon
Andrew Rosen
Anne Kurtz
David Aaron Dunston
Aaron Sathyanesan
Eva Alden
Kepu Chen
Shilpa Swarup
Da Fei
Yun Li
Tiffany Li
Xiaomeng Zhang
Nabanita Mukherjee
Sarah Ezzell
Paige Richards
Michelle Rebello
Amanda Klein
Taylor Paskin
David Wilson
Benjamin Sadrian
Stephen Bakos
Suraj Cherian
Michael Sinclair
Kurt Krosnowski
Chandra Cherukuri

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Committees

AChemS Executive Committee 2009-2010

President	Scott Herness, PhD	Ohio State University
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Don Wilson	Chris Lemon	Sue Kinnamon
Beverly Tepper	Minghong Ma	Susan Travers
Robin Krimm	Paul Moore	Hiro Matsunama
Noam Sobel	Steve Munger	Paul Breslin
Kazushige Touhara	Catherine Rouby	Linda Barlow

MEETING EVALUATION

The meeting evaluation is available online this year. Please visit www.achems.org to give us your feedback on the meeting. Your input helps AChemS' leadership continue to offer quality annual meetings and member services.

AChemS
Association for Chemoreception Sciences

Program at a Glance

April 21-25, 2010 • St. Pete Beach, Florida

Wednesday, April 21, 2010

12:00 pm – 3:30 pm — **ACHEMS EXECUTIVE COMMITTEE MEETING**
Snowy Egret

3:30 pm – 8:00 pm — **REGISTRATION**
Grand Palm – Colonnade West

6:00 pm – 8:00 pm — **WELCOME BANQUET** (*ticketed event*)
Partially sponsored by

Banyan Breezeway/Garden Courtyard

8:00 pm – 9:00 pm — **WELCOME/AWARDS CEREMONY**
Chair/Organizer: R. Margolskee & D. Wilson
Island Ballroom

9:00 pm – 10:00 pm — **GIVAUDAN LECTURE**
Exclusively sponsored by Givaudan

NORMAL AND CANCER STEM CELLS AND THE DEVELOPMENT OF MALIGNANCY
Chair/Organizer: R. Margolskee
Robert A. Weinberg, Whitehead Institute for Biomedical Research, Massachusetts Institute of Technology
Island Ballroom

Thursday, April 22, 2010

7:00 am – 1:00 pm
6:30 pm – 7:30 pm **REGISTRATION**
Grand Palm – Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Partially sponsored by IFF International Flavors & Fragrances Inc.
Banyan Breezeway

8:00 am – 10:00 am **PLATFORM PRESENTATIONS: TIP OF THE TONGUE**
Island Ballroom

8:00 am – 12:30 pm **POSTER SESSION I: TASTE IMAGING & PSYCHOPHYSICS; CENTRAL TASTE; MULTIPLE MODALITIES; CENTRAL & PERIPHERAL OLFACTION**
Pavilion

10:00 am – 10:30 am **BREAK**
Banyan Breezeway

10:30 am – 12:35 pm **SYMPOSIUM: GENETICS OF HUMAN OLFACTION**
Exclusively sponsored by IFF International Flavors & Fragrances Inc.
Chair/Organizer: D. Reed
Island Ballroom

12:45 pm – 2:00 pm **LUNCHEON: MINORITY TRAVEL AWARDEES**
(Invitation only) Snowy Egret

1:00 pm – 4:05 pm **INDUSTRY SYMPOSIUM**
Chair/Organizer: M. Meredith
Island Ballroom

2:10 pm – 2:25 pm **BREAK**
Grand Palm Colonnade

3:00 pm – 5:00 pm **NIH WORKSHOP: FUNDING OPPORTUNITIES FOR THE NEW INVESTIGATOR**
Chair/Organizer: B. Davis
Royal Tern

4:15 pm – 6:00 pm **INDUSTRY RECEPTION** *(Ticketed event)*
Partially sponsored by Firmenich
Breck Deck North

6:30 pm – 8:00 pm **BREAK**
Banyan Breezeway

7:00 pm – 11:00 pm **POSTER SESSION II: OLFACTORY PHYSIOLOGY & CELL BIOLOGY; TASTE MOLECULAR GENETICS; CHEMESTHESIS & TRIGEMINAL**
Pavilion

7:30 pm – 9:35 pm **PRESIDENTIAL SYMPOSIUM: NEUROTRANSMITTERS AND NEUROMODULATORS IN THE TASTE BUD**
Chair/Organizer: S. Herness
Island Ballroom

Friday, April 23, 2010

7:30 am – 1:00 pm
6:00 pm – 7:00 pm **REGISTRATION**
Grand Palm – Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Partially sponsored by kao
Banyan Breezeway

8:00 am – 10:40 am **SYMPOSIUM**
CILIA, SENSORY DYSFUNCTION AND DISEASE
Chair/Organizer: B. Davis & J. Martens
Island Ballroom

8:00 am – 12:30 pm **POSTER SESSION III: OLFACTORY PERCEPTION, HUMAN PSYCHOPHYSICS & ANIMAL BEHAVIOR; PERIPHERAL TASTE DEVELOPMENT & SIGNALING**
Pavilion

10:40 am – 11:00 am **BREAK**
Banyan Breezeway

11:00 am – 12:15 pm **PLATFORM PRESENTATIONS**
POLAK YOUNG INVESTIGATOR AWARD WINNERS
Island Ballroom

12:45 pm – 2:45 pm **ACHEMS BUSINESS MEETING**
Island Ballroom

3:00 pm – 4:00 pm **NIH WORKSHOP: THE NIH PEER REVIEW PROCESS**
Chair/Organizer: S. Sullivan
Royal Tern

5:00 pm – 7:00 pm **CHEMA SOCIAL**
Chair/Organizer: S. Sollars
Breck Deck North

7:00 pm – 8:00 pm **IFF LECTURE**
MAMMALIAN TASTE
Exclusively sponsored by IFF International Flavors & Fragrances Inc.
Charles Zuker, Columbia University
Island Ballroom

Friday, April 23, 2010, continued

7:00 pm – 11:00 pm **POSTER SESSION IV: CHEMOSENSORY TRANSDUCTION AND SIGNALING**
Pavilion

8:00 pm – 8:15 pm **BREAK**
Banyan Breezeway

8:15 pm – 10:20 pm **SYMPOSIUM**
SENSORY INTEGRATION AND COMPETITION
Partially sponsored by IFF International Flavors & Fragrances Inc.
Chair/Organizer: D. Chen & J. Gottfried
Island Ballroom

Saturday, April 24, 2010

7:30 am – 1:00 pm
6:30 pm – 7:30 pm **REGISTRATION**
Grand Palm – Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Banyan Breezeway

8:00 am – 10:05 am **SYMPOSIUM**
CHEMORECEPTION IN CONTEXT: INTERACTIONS WITH ENDOCRINE SYSTEMS AND METABOLIC STATE
Exclusively sponsored by 
Chair/Organizer: D. Fadool & S. Munger
Island Ballroom

8:00 am – 12:30 pm **POSTER SESSION V: CENTRAL OLFACTION; CHEMOSENSORY PSYCHOPHYSICS & CLINICAL STUDIES**
Pavilion

10:05 am – 10:30 am **BREAK**
Banyan Breezeway

10:30 am – 12:35 pm **SYMPOSIUM**
WIRING THE OLFACTORY SYSTEMS
Chair/Organizer: J.F. Cloutier
Island Ballroom

12:45 pm – 2:45 pm **CLINICAL LUNCHEON** *(Ticketed event)*
NEW CLINICAL TRIAL FUNDING OPPORTUNITIES AT NIDCD
Chair/Organizer: C. Murphy
Gordon B. Hughes, MD, Program Officer, Clinical Trials, NIDCD
Horizons

6:30 pm – 8:00 pm **BREAK**
Banyan Breezeway

7:00 pm – 11:00 pm **POSTER SESSION VI: PERIPHERAL AND CENTRAL TASTE; PERIPHERAL OLFACTION**
Pavilion

7:30 pm – 9:35 pm **SYMPOSIUM**
TRANSIENT DYNAMICS, METASTABLE STATES AND TEMPORAL CODING IN CHEMOSENSORY PROCESSING
Chair/Organizer: B. Smith & M. Bazhenov
Island Ballroom

Sunday, April 25, 2010

7:00 am – 10:30 am **REGISTRATION**
Grand Palm – Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Banyan Breezeway

8:00 am – 10:00 am **PLATFORM PRESENTATIONS THROUGH THE NOSE**
Island Ballroom

10:00 am – 10:30 am **BREAK**
Pavilion

8:00 am – 12:30 pm **POSTER SESSION VII: OLFACTORY PSYCHOPHYSICS & CLINICAL STUDIES; CENTRAL OLFACTION**
Pavilion

AChemS
Association for Chemoreception Sciences

Program in Detail

April 21–25, 2010 • St. Pete Beach, Florida

Wednesday, April 21, 2010

12:00 pm – 3:30 pm **ACHEMS EXECUTIVE COMMITTEE MEETING**
Snowy Egret

3:30 pm – 8:00 pm **REGISTRATION**
Grand Palm – Colonnade West

6:00 pm – 8:00 pm **WELCOME BANQUET** *(Ticketed Event)*
Partially sponsored by 

Banyan Breezeway/Garden Courtyard

8:00 pm – 9:00 pm **WELCOME/AWARDS CEREMONY**
Chair/Organizer: Robert Margolskee & Don Wilson
Island Ballroom

9:00 pm – 10:00 pm **GIVAUDAN LECTURE**
Exclusively sponsored by Givaudan

NORMAL AND CANCER STEM CELLS AND THE DEVELOPMENT OF MALIGNANCY
Chair/Organizer: Robert Margolskee
Island Ballroom

#1 **Normal and Cancer Stem Cells and the Development of Malignancy**
Robert A. Weinberg, Whitehead Institute for Biomedical Research, Massachusetts Institute of Technology

Thursday, April 22, 2010

7:00 am – 1:00 pm
6:30 pm – 7:30 pm **REGISTRATION**
Grand Palm – Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Partially sponsored by IFF International Flavors & Fragrances Inc.
Banyan Breezeway

8:00 am – 10:00 am **PLATFORM PRESENTATIONS – TIP OF THE TONGUE**
Island Ballroom

8:00 am #2 **Analysis of *Drosophila* TRPA1 reveals an ancient origin for human chemical nociception**
Paul A Garrity[1], Kyeongjin Kang[1], Stefan R Pulver[1,2], Vincent C Panzano[1], Leslie C Griffith[1], Douglas L Theobald[1]. *[1]Brandeis University, Waltham, MA, United States, [2]University of Cambridge, Cambridge, United Kingdom*

8:15 am #3 **A subpopulation of mouse Type II taste cells express functional voltage-gated calcium channels**
Pin Liu, Timothy A. Gilbertson. *Department of Biology and The Center for Advanced Nutrition, Utah State University, Logan, UT, United States*

8:30 am #4 **Ryanodine Receptors selectively contribute to the formation of Taste evoked-calcium signals in Mouse taste cells**
Michelle R Rebello, Kathryn F Medler. *State University of New York at Buffalo, Buffalo, NY, United States*

8:45 am #5 **Acetylcholine, released from taste buds during gustatory stimulation, enhances taste responses**
Robin Dando[1], Yijen A. Huang[1], Stephen D. Roper[1,2]. *[1]Department of Physiology and Biophysics, Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, Miller School of Medicine, University of Miami, Miami, FL, United States*

9:00 am #6 **Epithelial Sodium Channel (ENaC) is Involved in Reception of Sodium Taste: Evidence from Mice with a Tissue-Specific Conditional Targeted Mutation of the ENaC Gene**
Natalia P. Bosak[1], Masashi Inoue[2], Theodore M. Nelson[1], Edith Hummler[3], Yutaka Ishiwatari[1,4], Alexander A. Bachmanov[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Tokyo University of Pharmacy and Life Science, Tokyo, Japan, [3]University of Lausanne, Lausanne, Switzerland, [4]Institute of Life Sciences, Ajinomoto Co., Inc., Kawasaki, Japan*

9:15 am #7 **Novel proteolyzed ENaC isoforms and corresponding salt taste enhancing compounds**
Kambiz Shekdar, Jessica Langer, Purvi Shah, Joseph Gunnet, Dennis Sawchuk. *Chromocell Corporation, North Brunswick, NJ, United States*

9:30 am #8 **Recovery from Potassium Chloride (KCl) Loading Alters Amiloride-Sensitive Salt Taste in Humans**
George M Feldman[1,2], Gerard L Heck[2], Nancy L Smith[1]. *[1]Dept of Veterans Affairs, Richmond, VA, United States, [2]Virginia Commonwealth University, Richmond, VA, United States*

9:45 am #9 **Comparative Analysis of Bitter Taste Receptor Agonist Activation**
Maik Behrens[1], Stephan Born[1], Anne Brockhoff[1], Masha Y. Niv[2], Wolfgang Meyerhof[1]. *[1]German Institute of Human Nutrition Potsdam-Rehbruecke, Dept. Molecular Genetics, Nuthetal, Germany, [2]The Hebrew University of Jerusalem, Institute of Biochemistry, Food Science and Nutrition, Faculty of Agriculture, Food and Environment, Rehovot, Israel*

10:00 am – 10:30 am **BREAK**
Banyan Breezeway

10:30 am – 12:35 pm **SYMPOSIUM – GENETICS OF HUMAN OLFACTION**
Exclusively sponsored by IFF International Flavors & Fragrances Inc.
Chair/Organizer: Danielle Reed
Island Ballroom

The contribution of genetic effects to human olfactory perception in humans is largely unknown. Genetic modeling studies using twins suggest both genetic and environmental effects influence olfactory perception but the research is relatively sparse and does not fully take into account the wide diversity of odorants and the possibility that the genetic architecture of odor perception may differ by odorant type or other features of the stimulus. Data do, however, support the notion that individual differences in olfaction are heritable and studies of genotype-phenotype relationships have begun. Genetic variation in odorant receptors is a logical first choice to examine for alleles that affect perception. Thus olfactory receptor segregating pseudogenes, cSNPs and SNPs in regulatory regions, copy number variants and other chromosomal structural variants are candidates that may underlie individual differences in olfactory sensitivity. In this symposium the nature of these differences in human olfactory perceptions and their associations with underlying genotypes will be explored.

10:30 am #10 **Environmental and Genetic Effects on Human Odor Perception**
Markus Perola[1]. *[1]National Institute for Health and Welfare, Helsinki, Finland, [2]University of Helsinki & FIMM, Helsinki, Finland*

10:55 am #11 **Phenotype/Genotype Associations in Human Olfaction**
Charles J. Wysocki[1], Danielle R. Reed[1], Doron Lancet[2], Yehudit Hasin[2], Antti Knaapila[1], Jennifer Louie[1], Fujiko Duke[1], Lisa Oriolo[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Weizmann Institute of Science, Rehovot, Israel*

11:20 am #12 **A genome-wide perspective on the perception of musk-like odorants**
Antti Knaapila[1], Gu Zhu[2], Danielle R. Reed[1], Charles J. Wysocki[1], Hely Tuorila[3], Markus Perola[4], Nicholas G. Martin[2], Margaret J. Wright[2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Queensland Institute of Medical Research, Brisbane, Australia, [3]University of Helsinki, Helsinki, Finland, [4]National Institute for Health and Welfare, Helsinki, Finland*

11:45 am #13 **Next generation genomics of human olfactory variation**
Doron Lancet[1], Yehudit Hasin[1], Sebastian Waszak[2], Ifat Keydar[1], Miriam Khen[1], Charles J. Wysocki[3], Edna Ben-Asher[1], Yoav Gilad[4], Jan O. Korbel[2], Tsviya Olender[1]. *[1]The Weizmann Institute of Science, Rehovot, Israel, [2]European Molecular Biology Laboratory, Heidelberg, Germany, [3]Monell Chemical Senses Center, Philadelphia, PA, United States, [4]University of Chicago, Chicago, IL, United States*

12:10 pm #14 **Genetics of Olfactory Perception in Humans**
Leslie B Vosshall[1, 2]. *[1]The Rockefeller University, New York, NY, United States, [2]Howard Hughes Medical Institute, New York, NY, United States*

12:45 pm – 2:00 pm **LUNCHEON: Minority Travel Awardees** *(Invitation only)*
The Minority Travel Awards are funded by a generous grant from the NIDCD
Snowy Egret

1:00 pm – 4:05 pm **INDUSTRY SYMPOSIUM**
Chair/Organizer: Mike Meredith
Island Ballroom

An exploration of recent key advances in the chemical senses of interest to industry scientists and basic scientists. The speakers will focus on two or a few recent advances in basic research that have potential applications. The speakers will explain the basic science background behind their examples 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 students new to the field, 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.

1:00 pm **Introduction: Taste and Smell in Translation**
Michael Meredith. *Neuroscience, Florida State University, Tallahassee, FL, USA*

1:03 pm **Recent Advances in Understanding Molecular Mechanisms: Salt Taste**
Alexander Bachmanov. *Monell Chemical Senses Center, Philadelphia PA USA*

1:36 pm **Common Modes of Odorant-Specific Signaling in Insects and Mammals**
Barry Ache. *University of Florida, Center for Smell and Taste, Gainesville, FL, USA*

2:10 pm – 2:25 pm **BREAK**
Grand Palm Colonnade

2:25 pm **Recent Advances in Understanding Taste-Metabolism Interactions**
Ivan de Araujo. *Pierce Laboratory, Yale University, New Haven, CT USA*

2:58 pm **Recent Advances in Understanding Olfactory Perceptual Mechanisms**
Donald Wilson. *New York University, New York, NY USA*

3:35 pm – 4:05 pm **Round Table Discussion**
All speakers and audience participation

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.

3:00 pm – 5:00 pm **NIH WORKSHOP: FUNDING OPPORTUNITIES FOR THE NEW INVESTIGATOR**
Chair/Organizer: Barry Davis
Royal Tern
Come learn or get a refresher on how to compete for NIH funding.

4:15 pm – 6:00 pm **INDUSTRY RECEPTION** *(Ticketed event)*
Partially sponsored by Firmenich

Chair/Organizer: Mike Meredith
Breck Deck North
An opportunity for industry attendees to network with basic scientists including the distinguished speakers from the symposium.

Poster Numbering Key:
The first number indicates the poster board number
The second number (#Pxxx) indicates the poster abstract number

8:00 am – 12:30 pm **POSTER SESSION I: TASTE IMAGING & PSYCHOPHYSICS; CENTRAL TASTE; MULTIPLE MODALITIES; CENTRAL & PERIPHERAL OLFACTION**
Pavilion

1 #P1 **Bitter Taste can Induce Nausea**
Catherine Peyrot des Gachons[1], Gary K. Beauchamp[1], Kenneth L. Koch[2], Robert M. Stern[3], Paul A.S. Breslin[1].
[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Wake Forest University, Winston-Salem, NC, United States, [3]Pennsylvania State University, University Park, PA, United States

2 #P2 **NIH Toolbox: Proposed Assessment of Taste Function and Phenotype**
Shristi Rawal[1], Linda M. Bartoshuk[2], Susan E. Coldwell[3], John E. Hayes[4], Howard J. Hoffman[5], Katyrna R. Minski[1], Gregory S. Smutzer[6], Valerie B. Duffy[1]. *[1]Allied Health Sciences, University of Connecticut, Storrs, CT, United States, [2]UF Center for Smell and Taste, Gainesville, FL, United States, [3]Dental Public Health Sciences, University of Washington, Seattle, WA, United States, [4]Food Science, Penn State University, State College, PA, United States, [5]National Institute on Deafness and Other Communication Disorders, NIH, Bethesda, MD, United States, [6]Biology, Temple University, Philadelphia, PA, United States*

3 #P3 **Effects of BMI on fMRI Activation to a Pleasant Taste During Hedonic Evaluation in Older Adults**
Erin R Green[1], Aaron Jacobson[2], Lori Haase[1], Claire Murphy[1,2,3]. *[1]SDSU/UCSD Joint Doctoral Program in Clinical Psychology, San Diego, CA, United States, [2]San Diego State University, San Diego, CA, United States, [3]UCSD School of Medicine, Department of Head and Neck Surgery, San Diego, CA, United States*

 Abstracts are printed as submitted by the author(s)

Poster Numbering Key:
The first number indicates the poster board number
The second number (#Pxxx) indicates the poster abstract number

4 #P4 **Neuroanatomical correlates: psychophysical evaluation of different taste qualities during hunger and satiety**
Lori Haase[1,2], Barbara Cerf-Ducastel[2], Erin Green[1,2], Aaron Jacobson[2], Claire Murphy[1,2,3]. *[1]SDSU/UCSD JDP Clinical Psychology, San Diego, CA, United States, [2]SDSU Psychology Department, San Diego, CA, United States, [3]Division of Head and Neck Surgery, UCSD, School of Medicine, San Diego, CA, United States*

5 #P5 **Validation of PROP Taste Strips for the NIH Toolbox Initiative**
Hetvi Desai[1], Susan E. Coldwell[2], James W. Griffith[3], Lloyd Hastings[4], Gregory S. Smutzer[1]. *[1]Biology Department, Temple University, Philadelphia, PA, United States, [2]Dental Public Health Sciences, University of Washington, Seattle, WA, United States, [3]Department of Medical Social Sciences, Northwestern University, Chicago, IL, United States, [4]Osmic Enterprises, Inc., Cincinnati, OH, United States*

6 #P6 **Differences in endogenous bitterness of Rebaudioside A do not appear to impact psychophysical compression of the sweetness power function.**
Ellen D Mahan, Julie A Peterson, John E Hayes. *Department of Food Science, College of Agricultural Sciences, Penn State, University Park, PA, United States*

7 #P7 **Neural Correlates of Self-Initiated Tasting in Humans**
Danielle M Douglas[1], Maria G Veldhuizen[1,2], John Buckley[1], Micheal Fritz[1], Dana Small[1,2,3]. *[1]John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale University School of Medicine, New Haven, CT, United States, [3]Department of Psychology, Yale University, New Haven, CT, United States*

8 #P8 **Valid comparisons of food preferences**
Linda M. Bartoshuk[1], Jaclyn J. Kalva[1], Lorenzo A. Puentes[1], Derek J. Snyder[1,2], Charles A. Sims[1]. *[1]UF Center for Smell & Taste, Gainesville, FL, United States, [2]Yale University, New Haven, CT, United States*

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9 #P9 **NIH Toolbox: Proposed Food Liking Survey**
Katryna R. Minski[1], Linda M. Bartoshuk[2], John E. Hayes[3], Howard J. Hoffman[4], Shristi Rawal[1], Valerie B. Duffy[1]. *[1]Allied Health Sciences, University of Connecticut, Storrs, CT, United States, [2]UF Center for Smell and Taste, Gainesville, FL, United States, [3]Food Science, Penn State University, State College, PA, United States, [4]National Institute on Deafness and Other Communication Disorders, NIH, Bethesda, MD, United States*

10 #P10 **Experience with Na-cyclamate induces increased human taste sensitivity for glucose, fructose and maltose, but not for sucrose**
Bennett R Collins, Linda L Kennedy, Alison N Le, Mike L Epstein, Julia S Newmiller, Afza Safeer, Mike S Zemel, Sumita Chatterjee, Katherine Krevolin, Alexa T Navasero, Elizabeth T Rosen, Sarah Sherpo, Todd P Livdahl, Linda M Kennedy. *Clark University, Worcester, MA, United States*

11 #P11 **Sweet taste intensity is enhanced by temporal fluctuation of odor and taste, and depends on phase shift**
Kerstin MM Burseg[1, 2], Sara M Rodrigues Camacho[1,2,3], Janine Knoop[1, 2], Johannes HF Bult[1,2]. *[1]NIZO food research B.V., Ede, Netherlands, [2]TI Food & Nutrition, Wageningen, Netherlands, [3]Instituto Superior Téchnico, Lisboa, Portugal*

12 #P12 **Responses to Different Temporal Patterns of Electrical Stimulation of the Chorda Tympani and Glossopharyngeal Nerves in the Nucleus of the Solitary Tract**
Andrew M. Rosen, Patricia M. Di Lorenzo. *Dept. Psychology, Binghamton University, Binghamton, NY, United States*

13 #P13 **Lick-evoked Taste Responses in the Nucleus of the Solitary Tract of Awake Rats**
Andre T. Roussin[1], Jonathan D. Victor[2], Patricia M. Di Lorenzo[1]. *[1]Dept. Psychology, Binghamton Unversity, Binghamton, NY, United States, [2]Neurology and NeuroscienceiWeill Cornell Medical College, New York City, NY, United States*

14 #P14 **Somatostatin modulates GABAergic neuron activity in the rostral nucleus of solitary tract (rNST)**
Min Wang, Robert M. Bradley. *School of Dentistry, University of Michigan, Ann Arbor, MI, United States*

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15 #P15 **Receptive Field Mapping of the Oral Cavity in the Rostral Nucleus of the Solitary Tract**
James A. Corson, Alev Erisir, David Hill. *University of Virginia, Charlottesville, VA, United States*

16 #P16 **Sucrose-best cells in the parabrachial nuclei preferentially project to the nucleus accumbens in the hamster**
Cheng-Shu Li. *Southern Illinois University School of Medicine, Carbondale, IL, United States*

17 #P17 **Parabrachial taste responses to sucrose, fructose and Polycose in the rat**
Carolyn E. Pritchett, Peter Kovacs, Andras Hajnal. *Department of Neural & Behavioral Sciences, Penn State University, College of Medicine, Hershey, PA, United States*

18 #P18 **The Role of Amygdala-Cortical Cooperation in Taste Processing**
Caitlin E Piette[1,3], Donald B Katz[2,3]. *[1]Department of Biology, Waltham, MA, United States, [2]Department of Psychology, Waltham, MA, United States, [3]Volen National Center for Complex Systems, Waltham, MA, United States*

19 #P19 **Roles of Gustatory Cortex and Central Amygdala in Processing Taste Concentration**
Brian F Sadacca, Donald B Katz. *Brandeis University, Waltham, MA, United States*

20 #P20 **Influence of the *Soa* Genetic Locus on Responses to Bitter Stimuli in Mouse Central Gustatory Neurons**
David M. Wilson[1], John D. Boughter, Jr.[2], Christian H. Lemon[1]. *[1]Saint Louis University School of Medicine, Saint Louis, MO, United States, [2]University of Tennessee Health Science Center, Memphis, TN, United States*

21 #P21 **Signal Detection Analysis of Oral Sensory Responses to Fat in Mouse Central Gustatory Neurons**
Christian H. Lemon, David M. Wilson. *Saint Louis University School of Medicine, Saint Louis, MO, United States*

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22 #P22 **Trigeminal input may compensate for taste loss during flavor perception**
Jennifer J. Stamps, Linda M. Bartoshuk. *UF Center for Smell and Taste, Gainesville, FL, United States*

23 #P23 ***The thermal grill illusion*: an investigation comparing responses on the hand and the tongue**
Carole Tournier, Claire Boucon, Nelly v-d Meer, Garmt Dijksterhuis. *Unilever R&D, Vlaardingen, Netherlands*

24 #P24 **Flavor Integration of MSG and Citral: Response Time Measurement**
Timothy G. Shepard[1], Maria G. Veldhuizen[1,2], Adam Y. Shavit[1,3], Lawrence E. Marks[1,3]. *[1]John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale University School of Medicine, New Haven, CT, United States, [3]Yale School of Public Health, New Haven, CT, United States*

25 #P25 **Gustatory-Olfactory Interactions in Favor Perception?**
Adam Y. Shavit[1,2], Timothy G. Shepard[1], Maria G. Veldhuizen[1,3], Kelly Burger[1], Lawrence E. Marks[1,2]. *[1]John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale School of Public Health, New Haven, CT, United States, [3]Yale University School of Medicine, New Haven, CT, United States*

26 #P26 **Taste-odor interactions: Enhancement of odor or taste?**
Danielle J Nachtigal[1], Barry Green[1,2], Samuel Hammond[3], Juyun Lim[3]. *[1]The John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale School of Medicine, New Haven, CT, United States, [3]Department of Food Science and Technology, Oregon State University, Corvallis, OR, United States*

27 #P27 **The Crucial Role of Familiarity in Cross-modal Enhancement on Lotion Quality Perception**
Anne J. Kurtz[1], Brian Wansink[2], Terry E. Acree[1]. *[1]Cornell Institute of Food Science, Cornell University, Geneva, NY, United States, [2]Applied Economics and Management, Cornell University, Ithaca, NY, United States*

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28 #P28 **Functional and Anatomical Integration of the Chemical Senses: Is there a Flavor Sense?**
Johan N Lundstrom[1,2,3], Jessica Albrecht[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Dep. of Psychology, University of Pennsylvania, Philadelphia, PA, United States, [3]Dep. of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden*

29 #P29 **Additivity of Brain Activation to Odor and Taste during Judgments of Intensity and Pleasantness**
Claire Murphy[1,2,3], Aaron Jacobson[1], Erin R. Green[3], Lori Haase[3]. *[1]San Diego State University, San Diego, CA, United States, [2]University of California, San Diego Medical Center, San Diego, CA, United States, [3]SDSU/UCSD Joint Doctoral Program, San Diego, CA, United States*

30 #P30 **The nose smells what the eyes see: Modulation of olfactory perception by vision**
Jennifer Chen[1], Wen Zhou[1,2], Denise Chen[1]. *[1]Rice University, Houston, TX, United States, [2]Chinese Academy of Sciences, Beijing, China*

31 #P31 **Stinking Consciousness!**
Benjamin D Young. *CUNY, Graduate Center, New York, NY, United States*

32 #P32 **Model of dendrodendritic synaptic clustering along mitral cell lateral dendrites**
Thomas S. McTavish[1], Michele Migliore[2], Michael L. Hines[1], Gordon M. Shepherd[1]. *[1]Dept. of Neurobiology, Yale University, New Haven, CT, United States, [2]Institute of Biophysics, National Research Council, Palermo, Italy*

33 #P33 **The structure of human olfactory space**
Alexei Koulakov[1], Brian Kolterman[1], Armen Enikolopov[1,2], Dmitry Rinberg[3]. *[1]Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, United States, [2]Columbia University, New York, NY, United States, [3]HHMI Janelia Farm Research Campus, Ashburn, VA, United States*

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34 #P34 **Spatio-temporal dynamics of olfactory processing based on event-related potential source imaging**
Thomas Hummel[1], Agustina Lascano[2], Silvain J Lacroix[3], Basile N Landis[1], Christoph M Michel[2]. *[1]Department of Otolaryngology, University of Dresden Medical School, Dresden, Germany, [2]Functional Brain Mapping Laboratory, Neurology Clinic, University Hospital, Geneva, Switzerland, [3]Unité de Rhinologie-Olfactologie, Department of Otorhinolaryngology, University Hospital, Geneva, Switzerland*

35 #P35 **Odorant-Induced BOLD Signal in the Brains of Anosmic Subjects**
Sagit Shushan[1,2], Yaara Yeshurun[1], Yehuda Roth[2], Noam Sobel[1]. *[1]Weizmann Institute of Science, Rehovot, Israel, [2]Wolfson Medical Center, Holon, Israel*

36 #P36 **Towards a Consensus Sensory Map of Perfumery Scents Based on Meaningful Psychological Dimensions of Odor Perception**
Manuel Zarzo. *Department of Applied Statistics, Universidad Politecnica de Valencia, Valencia, Spain*

37 #P37 **Androstenone Suppresses Testosterone Response To Sex Female Pheromones In Mice**
Vera V. Voznessenskaya, Maria A. Klyuchnikova. *A.N.Severtzov Institute of Ecology & Evolution RAS, Moscow, Russia*

38 #P38 **Androstadienone Modulates Attention-based Reactions in Men**
Monika C.M. Frey[1], Johan N. Lundstrom[2], Peter Weyers[1], Andreas Mühlberger[1]. *[1]Department of Psychology I, University of Wuerzburg, Wuerzburg, Germany, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

39 #P39 **Melatonin enhances olfactory bulb expression of gap junctions**
John T Corthell, Tom D Beardsley, Laura J Blakemore, Paul Q Trombley. *Florida State University, Tallahassee, FL, United States*

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40 #P40 **Odors eliciting Fear: a Conditioning Approach to Idiopathic Environmental Intolerance**
Patricia Bulsing[1], Arne Leer[2], Monique A Smeets[2], Marcel van den Hout[2]. *[1]Unilever, Vlaardingen, Netherlands, [2]Utrecht University, Utrecht, Netherlands*

41 #P41 **Species specific regulation of the olfactory bulb dopaminergic phenotype**
Kasturi Banerjee[1], Shivraj Bhosle[1], Harriet Baker[1,2], John W. Cave[1,2]. *[1]Burke Medical Research Institute, White Plains, NY, United States, [2]Weill Cornell Medical College, New York, NY, United States*

42 #P42 **The olfactory capabilities of mice with long-term unilateral naris occlusion (UNO) and contralateral bulbectomy (bulb-x)**
Cathy J Angely, David M Coppola. *Department of Biology, Randolph Macon College, Ashland, VA, United States*

43 #P43 **Olfactory Performance in Three Transgenic Alzheimer's Disease Mouse Model Strains**
Matthew E. Phillips[1], Hanna K. Osterman[1,2], Erik Boman[1,2], Hetal K. Patel[1], David H. Kim[1], Gordon M. Shepherd[1], Matthias Laska[2], David C. Willhite[1]. *[1]Yale University, New Haven, CT, United States, [2]Linkoping University, Linkoping, Sweden*

44 #P44 **GC-D neurons respond to the semiochemical carbon disulfide and mediate the social transmission of food preference**
Steven D. Munger[1], Trese Leinders-Zufall[2], Lisa Heuvel[3], Renee E. Cockerham[1], Andreas Schmid[2], Petra Wandernoth[4], Gunther Wennemuth[4], Martin Biel[5], Frank Zufall[2], Kevin R. Kelliher[3]. *[1]Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD, United States, [2]Department of Physiology, University of Saarland School of Medicine, Homburg, Germany, [3]Department of Biological Sciences, University of Idaho, Moscow, ID, United States, [4]Department of Anatomy and Cell Biology, University of Saarland School of Medicine, Homburg, Germany, [5]Munich Center for Integrated Protein Science and Department of Pharmacy, Center for Drug Research, Ludwig-Maximilians-Universität München, Munich, Germany*

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45 #P45 **Gene Expression in the Olfactory Epithelium of 3GnT2 Mice**
Thomas K Knott[1], Pasil A Madany[2], Timothy R Henion[1], Ashley A Faden[1], Gary A Schwarting[1]. *[1]University of Masachusetts Medical School, Worcester, MA, United States, [2]College of the Holy Cross, Worcester, MA, United States*

46 #P46 **Genomic Effects of Unilateral Naris Occlusion (UNO) on the Olfactory Mucosa: A RNA Microarray Approach in Mouse**
Chris T Waggener[1], David M Coppola[2]. *[1]Department of Biology, Virginia Commonwealth University, Richmond, VA, United States, [2]Department of Biology, Randolph Macon College, Ashland, VA, United States*

47 #P47 **Unilateral smell loss- an early indicator for future global olfactory dysfunction**
Volker Gudziol, Irene Paech. *Smell & Taste Clinic, Dresden, Germany*

48 #P48 **Gene expression and alternative splicing at the peak of proliferation during adult neurogenesis**
Paula M Heron, Timothy S McClintock. *Department of Physiology, University of Kentucky, Lexington, KY, United States*

49 #P49 **OR and V1R Genes share Common Promoter Elements**
Bettina Malnic, Jussara S Michaloski, Pedro AF Galante, Maíra H Nagai, Lúcia Armelin-Correa. *University of São Paulo, São Paulo, Brazil*

50 #P50 **The Molecular Components of Anion-Based Signal Amplification in Olfactory Cilia**
Thomas Hengl[1], Hiroshi Kaneko[2], Kristin Dauner[1], Kerstin Vocke[1], Stephan Frings[1], Frank Moehrlen[1]. *[1]Department of Molecular Physiology, Institute of Zoology, Heidelberg, Germany, [2]Department of Clinical Neurobiology, University Hospital of Neurology, Heidelberg, Germany*

51 #P51 **Heterotrimeric G-protein subunits in the Mouse Olfactory Epithelium**
Aaron S. Sathyanesan, Adrian Feijoo, Abhinav Parikh, Julie Wolf, Weihong Lin. *University of Maryland Baltimore County, Baltimore, MD, United States*

6:30 pm – 8:00 pm **BREAK**
Banyan Breezeway

7:30 pm – 9:35 pm **PRESIDENTIAL SYMPOSIUM: NEUROTRANSMITTERS AND NEUROMODULATORS IN THE TASTE BUD**
Chair/Organizer: Scott Herness
Island Ballroom

The taste system has traditionally been considered invariant to an organism's homeostatic state and for good reason: early attempts to demonstrate such modulation were at best only moderately successful. However, as details of the cellular mechanisms of the taste bud have become better understood, this view is changing. It's now known that a number of neurotransmitters are important in cell-to-cell interactions within the bud and that taste receptor cells express receptors for both endogenous and exogenous neuromodulators. This symposium addresses some of these new findings, beginning with the role of endogenous neurotransmitters in the taste bud and followed by examples of how individual taste qualities (sweet, salt) may be influenced by exogenous hormonal modulation (leptin, insulin, respectively). These studies demonstrate that the taste bud is more dynamic than previously appreciated.

7:35 pm #15 **Cells, signals, and synapses in mammalian taste buds**
Stephen Roper. *Department of Physiology & Biophysics, and Program in Neuroscience, Miller School of Medicine, University of Miami, Miami, FL 33136*

8:15 pm #16 **Modulation of sweet taste responses by orexigenic and anorexigenic factors**
Yuzo Ninomiya. *Section of Oral Neuroscience, Graduate School of Dental Sciences, Kyushu University, Fukuoka, Japan*

8:55 pm #17 **Insulin regulates the function of epithelial sodium channels and salt taste preference**
Timothy Gilbertson, Arian Baquero. *Department of Biology & The Center for Advanced Nutrition, Utah State University, Logan, UT USA*

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7:00 pm – 11:00 pm **POSTER SESSION II: OLFACTORY PHYSIOLOGY & CELL BIOLOGY; TASTE MOLECULAR GENETICS; CHEMESTHESIS & TRIGEMINAL**
Pavilion

1 #P52 **Odor fear conditioning effects on piriform cortical odor processing in awake rats**
Chien-Fu F. Chen[1,2], Donald A. Wilson[1,2,3]. *[1]EBI, NKI, Orangeburg, NY, United States, [2]University of Oklahoma, Norman, OK, United States, [3]NYU Medical School, New York, NY, United States*

2 #P53 **Physiological Roles of MOB CCKergic Neurons**
Shaolin Liu, Michael T. Shipley. *Department of Anatomy & Neurobiology, Program in Neuroscience, University of Maryland School of Medicine, Baltimore, MD, United States*

3 #P54 **Mitral Cell Responses to Sensory Input Under Tonic Inhibition**
Zuoyi Shao, Adam C. Puche, Michael T. Shipley. *Department of Anatomy & Neurobiology, Program in Neuroscience, University of Maryland School of Medicine, Baltimore, MD, United States*

4 #P55 **Ethanol Reduces Olfactory Bulb Output by Reducing Excitatory Drive to Mitral/Tufted Cells**
Feras Jeradeh-Boursoulian, Abdallah Hayar. *Univ. of Arkansas for Medical Sciences, Little Rock, AR, United States*

5 #P56 **Lateral interactions in the in vivo olfactory bulb network of the rat show heterogeneous distance dependences and vary strongly with respect to respiratory phase**
Matthew E Phillips[1,2], Gordon M Shepherd[1], David C Willhite[1]. *[1]Yale University School of Medicine, Department of Neurobiology, New Haven, CT, United States, [2]Yale University, Department of Physics, New Haven, CT, United States*

6 #P57 **Effects of Sniffing on the Temporal Structure of Mitral/Tufted Cell Output from the Olfactory Bulb**
Ryan M. Carey[1], Matt Wachowiak[1,2]. *[1]Dept. of Biomedical Engineering, Boston University, Boston, MA, United States, [2]Dept. of Biology, Boston University, Boston, MA, United States*

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7 #P58 **NMDA Receptors modulate Spontaneous EPSC Bursts of Olfactory Bulb Superficial EPL Interneurons**
Kathryn A. Hamilton, Yu-Feng Wang. *Cellular Biology & Anatomy, LSU Health Sciences Center, Shreveport, LA, United States*

8 #P59 **Mitral Cell Activity during Odor Discrimination in a Mouse Model of Schizophrenia**
Jennifer L. Hellier[1,2], Wilder Doucette[1,2], Nicole L. Arevalo[1,2], Diego Restrepo[1,2]. *[1]University of Colorado Denver-Anschutz Medical Campus, Aurora, CO, United States, [2]Rocky Mountain Taste and Smell Center, Aurora, CO, United States*

9 #P60 **Role of Group I and II Metabotropic Glutamate Receptors in Mouse Main Olfactory Bulb External Tufted Cell Responses to Olfactory Inputs**
Wenling Zhang, Hongwei Dong, Qiang Nai, Matthew Ennis. *Department of Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN, United States*

10 #P61 **Recognition and Coding of Social Cues by the Mammalian Grueneberg Ganglion**
Andreas Schmid[1], Martina Pyrski[1], Martin Biel[2], Trese Leinders-Zufall[1], Frank Zufall[1]. *[1]Department of Physiology, University of Saarland, Homburg, Germany, [2]Munich Center for Integrated Protein Science and Department of Pharmacy, Center for Drug Research, Ludwig-Maximilians Universität München, Munich, Germany*

11 #P62 **Is the Olfactory Epithelium Tuned to Olfactory Perception?**
Hadas Lapid[1], Sagit Shushan[1,2], Anton Plotkin[1], Yehudah Roth[2], Noam Sobel[1]. *[1]Dept. of Neurobiology, Weizmann Institute of Science, Rehovot, Israel, [2]Department of Otolaryngology, Edith Wolfson Medical Center, Holon, Israel*

12 #P63 **Chemical determinants of rat olfactory epithelium response**
John W Scott, Lisa Sherrill. *Emory University, Atlanta, GA, United States*

13 #P64 **Diffusion limitation of cytoplasmic elements within the olfactory cilium**
Hiroko Takeuchi, Takashi Kurahashi. *Graduate School of Frontier Biosciences, Osaka University, Osaka, Japan*

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14 #P65 **Olfactory xenobiotic metabolizing enzymes have an impact on the stimulating properties of some odorants**
Nicolas Thiebaud, Stephanie Veloso Da Silva, Ingrid Jakob, Gilles Sicard, Yves Artur, Jean-Marie Heydel, Anne-Marie Le Bon. *Centre des Sciences du Goût et de l'Alimentation, Dijon, France*

15 #P66 **Integrating heterogeneous Odor Response Data into a common Response Model: A DoOR to the Complete Olfactome**
C Giovanni Galizia[1], Daniel Munch[1], Martin Strauch[1], Anja Nissler[2], Shouwen Ma[1]. *[1]Universitat Konstanz, Konstanz, Germany, [2]Humboldt Universität, Berlin, Germany*

16 #P67 **The multiple PDZ domain protein 1 (MUPP1) – mediator of the olfactosome?**
Sabrina Baumgart[1], Robert Menzler[1], Ruth Dooley[2], Hanns Hatt[1], Eva Maria Neuhaus[3]. *[1]1, Bochum, Germany, [2]2, Dublin, Ireland, [3]3, Berlin, Germany*

17 #P68 **Splice variants of the Ca^{2+}-activated Cl^- channel Anoctamin 2**
Samsudeen Ponissery Saidu[1], Aaron B. Stephan[2], Sonia M. Caraballo[2], Haiqing Zhao[2], Johannes Reisert[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Biology, The Johns Hopkins University, Baltimore, MD, United States*

18 #P69 **An electroolfactogram (EOG) study of odor response maps from the mouse olfactory mucosa?**
David M Coppola[1], Sarah M Held[1], David A Brooks[1], Chris T. Waggener[2]. *[1]Department of Biology, Randolph Macon College, Ashland, VA, United States, [2]Department of Biology, Virginia Commonwealth University, Richmond, VA, United States*

19 #P70 **Neuropeptide Y modulates olfactory mucosa responses to odorant in fasted rat**
Patrice Congar[1], Julia Negroni[1], Nicolas Meunier[1,2], Christine Baly[1,2], Roland Salesse[1], Monique Caillol[1]. *[1]INRA / NOeMI, Jouy-en-Josas, France, [2]Université de Versailles Saint-Quentin en Yvelines, Versailles, France*

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20 #P71 **Investigation of Olfactory CO_2 Detection in Mice**
Jessica K. Kenemuth[1], Allison J. Hensler[2], Lee Coates[1,2].
[1]Allegheny College, Neuroscience Program, Meadville, PA, United States, [2]Allegheny College, Dept of Biology, Meadville, PA, United States

21 #P72 **ATP Maintains Homeostasis in Olfactory Epithelium in Vivo and in Vitro**
Cuihong Jia, Sean Crudgington, Colleen C. Hegg. *Department of Pharmacology & Toxicology, Michigan State University, East Lansing, MI, United States*

22 #P73 **Nickel Sulfate Induces Location-Dependent Atrophy of Mouse Olfactory Epithelium: Protective and Proliferative Role of Purinergic Receptor Activation**
Colleen C. Hegg, Carlos Roman, Cuihong Jia. *Michigan State University, East Lansing, MI, United States*

23 #P74 **Using a 3-D Culture Model to Identify Factors that Regulate Olfactory Epitheliopoiesis**
Woochan Jang, Jesse N. Peterson, Tyler T. Hickman, James E. Schwob. *Tufts University School of Medicine, Boston, MA, United States*

24 #P75 **Molecular markers of stem and progenitor cells are the same in human olfactory mucosa as in mice and rats**
Eric H Holbrook[1,2], Enming Wu[2], James E Schwob[2].
[1]Massachusetts Eye and Ear Infirmary, Harvard Medical School, Boston, MA, United States, [2]Tufts University School of Medicine, Boston, MA, United States

25 #P76 **Glomerular targets of olfactory sensory neurons in adult female mice heterozygous for mutated CNGA2 with TRPM5 knockout background**
David A. Dunston, Christy Thai, Weihong Lin. *University of Maryland, Baltimore County, Baltimore, MD, United States*

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26 #P77 **G protein-dependent activation of PLC and PI3K in mammalian olfactory receptor neurons**
Katharina Klasen[1,3], Elizabeth A Corey[1], Daniela Brunert[1], Kirill Ukhanov[1], Hanns Hatt[3], Barry W Ache[1,2]. *[1]Whitney Laboratory, Center for Smell and Taste, and McKnight Brain Institute, University of Florida, Gainesville, FL, United States, [2]Department of Biology and Neurobiology, University of Florida, Gainesville, FL, United States, [3]Department of Cell Physiology, Ruhr-University Bochum, Bochum, Germany*

27 #P78 **Does Olfactory Marker Protein (OMP) function by interacting at calmodulin (CaM) binding sites?**
Hyun J. Kwon[1], Kristen Varney[2], Joyce W. Margolis[3], David J. Weber[2], Frank L. Margolis[3]. *[1]Dept. Engineering & Computer Science, Andrews University, Berrien Springs, MI, United States, [2]Department of Biochemistry, University of Maryland, School of Medicine, Baltimore, MD, United States, [3]Department of Anatomy and Neurobiology, University of Maryland, School of Medicine, Baltimore, MD, United States*

28 #P79 **Isolation and characterization of immature olfactory sensory neurons**
Melissa D. Nickell, Timothy S. McClintock. *Department of Physiology, University of Kentucky, Lexington, KY, United States*

29 #P80 **Gene Expression Profiling of the Olfactory Neurogenic Lineage**
Richard C Krolewski, James E Schwob. *Department of Anatomy & Cellular Biology, Tufts University School of Medicine, Boston, MA, United States*

30 #P81 **Visualizing the Redistribution of Responses within the Rodent Olfactory Receptor Repertoire: Tracking Chemical, Conformational, and Concentration Changes**
Zita Peterlin[1], Yadi Li[2], Kevin Ryan[2], Stuart Firestein[1]. *[1]Columbia University : Department of Biological Sciences, New York, NY, United States, [2]City College of New York: Chemistry Department, New York, NY, United States*

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31 #P82 **Taste Preferences of the FHH-Chr n^{BN} Consomic Rat Strain Set**
Michael G. Tordoff. *Monell Chemical Senses Center, Philadelphia, PA, United States*

32 #P83 **Association Between Common Genetic Variation in the G-alpha Gustducin Gene and Human Sucrose Perception**
Alexey A. Fushan[1], Christopher T. Simons[2], Jay P. Slack[2], Dennis T. Drayna[1]. *[1]NIDCD/National Institutes of Health, Rockville, MD, United States, [2]Givaudan Flavors Corp., Cincinnati, OH, United States*

33 #P84 **Do TAS1R3 promoter region SNP rs35744813 A allele carriers show a reduced response to concentrated sucrose?**
John E Hayes[1,3], John E McGeary[2,3], Andrea Grenga[2,3], Robert M Swift[2,3]. *[1]Department of Food Science, Penn State, State College, PA, United States, [2]Providence VA Medical Center, Providence, RI, United States, [3]Center for Alcohol and Addiction Studies, Brown University, Providence, RI, United States*

34 #P85 **Polymorphism in Bitter Taste Receptors of Primates**
Hiroo Imai[1,2], Nami Suzuki[1], Tohru Sugawara[1], Atsushi Matsui[1], Yasuhiro Go[2], Hirohisa Hirai[1,2]. *[1]Primate Research Institute, Kyoto University, Inuyama, Japan, [2]Global COE Program, Kyoto University, Inuyama, Japan*

35 #P86 **Community-Based Participatory Research in a Museum Setting**
Nicole L Garneau, Jonathan Grudis, Meghan Sloan, Susan Nicholson-Dykstra, Cathy Sheldon, Bridget Coughlin. *Denver Museum of Nature & Science, Denver, CO, United States*

36 #P87 **Morphological, physiological, and gene expression evidence for a supertasting phenotype in Gust-BDNF mice**
Irina V. Nosrat[1], Shailaja Kishan Rao[1], Michelle Sims[1], Akira Ito[1], Weikuan Gu[1], Robert Margolskee[2], Christopher A. Nosrat[1]. *[1]University of Tennessee Health Science Center, College of Dentistry, and Center for Cancer Research, Memphis, TN, United States, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

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37 #P88 **Segregated populations of fish taste bud cells express T2R bitter taste receptor genes in a genomic cluster-dependent manner**
Shinji Okada[1], Shugo Nakamura[2], Toshitada Nagai[1], Yoshiro Ishimaru[1], Ichiro Matsumoto[1], Takashi Ieki[1], Takumi Misaka[1], Keiko Abe[1]. *[1]Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, [2]Department of Biotechnology, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, [3]current address: Catalysis Science Laboratory, Mitsui Chemicals Inc., Mobara, Japan, [4]current address: Monell Chemical Senses Center, Philadelphia, PA, United States*

38 #P89 **Changes in the Expression of Taste Receptor Genes in the Rat Circumvallate Papillae Caused by Zinc Deficiency**
Minoru Ikeda[1], Hiroki Sekine[1], Kyoichi Takao[2], Shinichiro Kokubun[2]. *[1]Department of Otolaryngology - Head & Neck Surgery, Tokyo, Japan, [2]Department of Physiology, Nihon University School of Medicine, Tokyo, Japan*

39 #P90 **Expression of vesicular glutamate transporters 1 in chemically defined cell populations in the rat lingual fungiform papillae**
Adeline Braud[1,2], Yves Boucher[1,2], Fawzia Zerari-Mailly[2,3]. *[1]UFR Odontologie, University Diderot, Paris, France, [2]CrICM UMRS 975, Paris, France, [3]UFR Biologie, University Diderot, Paris, France*

40 #P91 **Identifying trigeminal stimulants of TRPA1**
Paige M Richards, Wayne L Silver. *Wake Forest University, Winston-Salem, NC, United States*

41 #P92 **TRPM5-Expressing Solitary Chemosensory Cells of Mouse Vomeronasal Organ: Regulation of Chemical Access**
Kurt Krosnowski, Lana Zhang, Tatsuya Ogura, Weihong Lin. *University of Maryland Baltimore County, Baltimore, MD, United States*

Poster Numbering Key:
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42 #P93 **TRPM5 and ChAT-expressing solitary chemosensory cells of mouse vomeronasal organ: anatomical and functional imaging studies**
Tatsuya Ogura, Mikhael Bekkerman, Weihong Lin. *University of Maryland Baltimore County, Baltimore, MD, United States*

43 #P94 **Growth and Differentiation of Solitary Chemosensory Cells in Tracheal Epithelial Culture**
C J Saunders[1], Susan D Reynolds[2], Thomas E Finger[1]. *[1]Rocky Mtn Taste & Smell Ctr, Neurosci Prog, Univ Colo Denver Med Sch, Aurora, CO, United States, [2]Dept of Pediatrics, National Jewish Health, Denver, CO, United States*

44 #P95 **Subpopulations of trigeminal ganglion neurons are depolarized by GABA**
Nicole Schoebel[1], Jennifer Spehr[2], Hanns Hatt[1]. *[1]Ruhr-University Bochum, Department of Cellular Physiology, Bochum, Germany, [2]RWTH-Aachen University, Institute for Biology II, Aachen, Germany*

45 #P96 **First and second-order trigeminal sensory neurons respond to two novel cooling componds that modulate lingual thermosensitivity**
Christopher T. Simons[2], Amanda H. Klein[1], Karen L. Zanotto[1], Mirela Iodi Carstens[1], T. Scott McCluskey[2], Guillaume Blancher[2], Jay P. Slack[2], E. Carstens[1]. *[1]University of California, Davis, CA, United States, [2]Givaudan Flavors Corp., Cincinnati, OH, United States*

46 #P97 **Tingle sensation by a sanshool derivative and its effects on primary sensory neurons**
Amanda H. Klein[1], Carolyn M. Sawyer[1], Margaret A. Ivanov[1], Susan Cheung[1], Mirela Iodi Carstens[1], Christopher T. Simons[2], Jay Slack[2], E. Carstens[1]. *[1]University of California, Davis, Davis, CA, United States, [2]Givaudan Flavors Corp., Cincinnati, OH, United States*

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47 #P98 **Ni^{2+}-Ions directly activate transient receptor potential V1**
Matthias Luebbert[1,2], Debbie Radtke[1,2], Hanns Hatt[1], Christian H. Wetzel[1]. *[1]Department of Cellular Physiology, Ruhr University Bochum, Bochum, Germany, [2]Ruhr University Research School, Bochum, Germany*

48 #P99 **Chloride Homeostasis In Trigeminal Sensory Neurons**
Debbie Radtke[1], Nicole Schöbel[1], Jennifer Spehr[2], Hanns Hatt[1]. *[1]Ruhr-University Bochum, Department of Cell Physiology, Bochum, Germany, [2]RWTH-Aachen University, Institute for Biology II, Aachen, Germany*

49 #P100 **Pain Processing Networks Revealed Using Fully Exploratory Analysis: An FMRI Study Using Trigeminal Stimulation**
Martin Wiesmann[1,2], Veronika Schoepf[2,3,4], Christian Windischberger[3,4], Christian H Kasess[3,5], Jessica Albrecht[2,6], Rainer Kopietz[2], Anna Maria Kleemann[2], Ewald Moser[3,4]. *[1]Dept. of Neuroradiology, Technical University of Aachen RWTH, Aachen, Germany, [2]Dept. of Neuroradiology, Ludwig-Maximilian-University Munich, Munich, Germany, [3]MR Centre of Excellence, Medical University Vienna, Vienna, Austria, [4]Centre for Medical Physics and Biomedical Engineering, Medical University Vienna, Vienna, Austria, [5]Division of Biological Psychiatry, Dept. of Psychiatry and Psychotherapy, Medical University Vienna, Vienna, Austria, [6]Monell Chemical Senses Center, Philadelphia, PA, United States*

50 #P101 **Real-time PCR of trigeminal receptor mRNAs in human nasal biopsies**
Jacqueline Zimmermann[1,2], Thomas Hummel[2], Andreas Hermann[3], Alexander Storch[3], Sylvia Kanzler[3], Mandy Scheibe[2], Martin Witt[4]. *[1]Dept. Anatomy,TU Dresden, Dresden, Germany, [2]Otorhinolaryngology, TU Dresden, Dresden, Germany, [3]Dept. Neurology and Center for Regenerative Therapies Dresden (CRTD), TU Dresden, Dresden, Germany, [4]Dept. Neurology and Center for Regenerative Therapies Dresden (CRTD), TU Dresden, Dresden, Germany, [5]Dept. Neurology and Center for Regenerative Therapies Dresden (CRTD), TU Dresden, Dresden, Germany, [6]Otorhinolaryngology, TU Dresden, Dresden, Germany, [7]University of Rostock, Rostock, Germany*

Friday, April 23, 2010

7:30 am – 1:00 pm
6:00 pm – 7:00 pm **REGISTRATION**
Grand Palm – Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Partially sponsored by kao
Banyan Breezeway

8:00 am – 10:40 am **SYMPOSIUM – CILIA, SENSORY DYSFUNCTION AND DISEASE**
Chair/Organizer: Barry Davis & Jeffrey Martens
Island Ballroom

Olfactory dysfunction in the general population is frequent, affecting at least 2.5 million people in the U.S. alone. In at least 20% of the cases the etiology of the chemosensory disturbance cannot be identified. Olfactory dysfunction due to genetic mutations or neurodegenerative disorders affecting cilia has emerged as a clinical manifestation of a newly recognized class of human genetic disorders, termed ciliopathies. This class of diseases involves defects in ciliary assembly and/or protein transport. This symposium will feature talks from several investigators both within and outside the olfactory field whose work combines clinical studies with basic science research to investigate the mechanisms of cilia dysfunction to provide us important new information regarding the pathogenesis of human sensory perception diseases.

8:00 am #18 **Olfactory Cilia: Linking Sensory Cilia Function and Human Disease**
Jeffrey Martens. *University of Michigan, Ann Arbor, MI, United States*

8:25 am #19 **Molecular Organization of Olfactory Transduction Components in Cilia**
Randall Reed, Abigail L. D. Tadenev, Adrian Cuenca.
Center for Sensory Biology, Johns Hopkins School of Medicine, Baltimore, MD, United States

8:50 am #20 **Intraflagellar Transport functions in cilia assembly and signalling processes, and also in exocytosis**
Joel Rosenbaum[1], Cosima Baldari[2], Francesca Fanetti[2], Kaiyao Huang[1], Chris Wood[1]. *[1]Dept of Molecular, Cellular and Developmental Biology, Yale University, [2]Dept of Evolutionary Biology, University of Siena, Italy*

9:25 am #21 **Genetic interactions dictate photoreceptor cilia biogenesis, homeostasis and survival**
Anand Swaroop. *National Eye Institute, Neurobiology Neurodegeneration & Repair Laboratory, Bethesda, Maryland*

9:50 am #22 **Loss of Bardet-Biedl Syndrome Proteins Causes Aberrant Localization of Ciliary GPCRs in Central Neurons**
Kirk Mykytyn. *The Ohio State University, Columbus, OH, United States*

10:15 am #23 **Usher protein function in ciliated neuroepithelium of the cochlea and retina**
Dominic Cosgrove. *Boys Town National Research Hospital, Omaha, NE, United States*

10:40 am – 11:00 am **BREAK**
Banyan Breezeway

11:00 am – 12:15 pm **PLATFORM PRESENTATIONS – POLAK YOUNG INVESTIGATOR AWARD WINNERS**
Island Ballroom

An additional Polak Young Investigator Awardee, Daniel Wesson, will speak in the symposium on Friday evening.

11:00 am #24 **Nasal SCCs respond to bacterial quorum sensing molecules**
Marco Tizzano[1,2], Brian D. Gulbransen[1,2], Aurelie Vandenbeuch[1,3,4], Tod R. Clapp[1,4], Jake P. Herman[5], Hiruy M. Sibhatu[5], Mair E. A. Churchill[5], Wayne L. Silver[6], Sue C. Kinnamon[1,3,4], Thomas E. Finger[1,2]. *[1]Rocky Mountain Taste and Smell Center, University of Colorado Denver, Aurora, CO, United States, [2]Department of Cell and Developmental Biology, University of Colorado Denver, Aurora, CO, United States, [3]Department of Otolaryngology, University of Colorado Denver, Aurora, CO, United States, [4]Department of Biomedical Sciences, Colorado State University, Fort Collins, CO, United States, [5]Department of Pharmacology, University of Colorado Denver, Aurora, CO, United States, [6]Department of Biology, Wake Forest University, Winston-Salem, NC, United States*

11:15 am #25 **GABA: an inhibitory neurotransmitter in taste buds**
Rene Barro-Soria[1], Stephen D Roper[1,2]. *[1]Department of Physiology & Biophysics. Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience. Miller School of Medicine, University of Miami, Miami, FL, United States*

11:30 am #26 **Birthdates of mitral cells regulate the soma location in mouse olfactory bulb**
Fumiaki Imamura[1], Albert E. Ayoub[2,3], Pasko Rakic[*2,3], Charles A. Greer[1,2]. *[1]Departments of Neurosurgery, Yale University School of Medicine, New Haven, CT, United States, [2]Departments of Neurobiology, Yale University School of Medicine, New Haven, CT, United States, [3]Kavli Institute of Neuroscience, Yale University School of Medicine, New Haven, CT, United States*

11:45 am #27 **Faf1 as a Regulator of Olfactory Axon Guidance**
Kai Cheng, Leonardo Belluscio. *NIH/NINDS, Bethesda, MD, United States*

12:00 pm #28 **Food for Thought: Processing of Food and Non-Food Odors in the Human Brain**
Sanne Boesveldt[1], Jessica Albrecht[1], Johannes Gerber[2], Simona Negoias[3], Thomas Hummel[3], Johan N. Lundstrom[1,4,5]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Dept. of Neuroradiology, University of Dresden Medical School, Dresden, Germany, [3]Smell & Taste Clinic, Dept. of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, [4]Dept. of Psychology, University of Pennsylvania, Philadelphia, PA, United States, [5]Division for Psychology, Dept. of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden*

12:45 pm – 2:45 pm **ACHEMS BUSINESS MEETING**
Island Ballroom

3:00 pm – 4:00 pm **NIH WORKSHOP: THE NIH PEER REVIEW PROCESS**
Chair/Organizer: Susan Sullivan, *NIDCD Scientific Review Branch*
Royal Tern

Everything you wanted to know about the NIH review process and the restructured applications but were afraid to ask.

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Friday, April 23, 2010

8:00 am – 12:30 pm **POSTER SESSION III: OLFACTORY PERCEPTION, HUMAN PSYCHOPHYSICS & ANIMAL BEHAVIOR; PERIPHERAL TASTE DEVELOPMENT & SIGNALING**
Pavilion

1 #P102 **Determinants of Measured Olfactory Sensitivity: Reprise**
William S. Cain, Roland Schmidt, J. Enrique Cometto-Muñiz.
University of California, San Diego, La Jolla, CA, United States

2 #P103 **The relationship between nasal cycle and cognitive processing**
E. Leslie Cameron[1], Laura Lipton[1], Richard L. Doty[2].
[1]Psychology Department, Carthage College, Kenosha, WI, United States, [2]Smell & Taste Center, University of Pennsylvania School of Medicine, Philadelphia, PA, United States

3 #P104 **Characterizing the Relationship between Naming and Recognition Memory for Odors and Sounds**
Trevor C. Cessna[1], Melinda S. Brearton[2], Kathleen M. VanDeGrift[2], Konstantin A. Rybalsky[1], Robert A. Frank[1].
[1]University of Cincinnati, Cincinnati, OH, United States, [2]Osmic Enterprises, Inc., Cincinnati, OH, United States

4 #P105 **The Effect of Odor Naming Feedback on Odor Naming And Recognition Memory**
Robert Frank, Erica Mannea. *Univ. of Cincinnati, Cincinnati, OH, United States*

5 #P106 **Smell and Prejudice: Affect influences on olfactory threshold**
Jhoette M Dumlao, Jhanvi Menon, Alan Hirsch, Oliaga Vrilos.
Smell &Taste Treatment and Research Foundation, LTD., Chicago, IL, United States

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6 #P107 **Effects of odor on time perception**
Musbah M. M. Eghil[1], Svetlana Yakov[1], Alan R. Hirsch[1], Arvinder Kaur[1], Sally Freels[2], Marwa F.A. Gamra[1]. *[1]Smell & Taste Treatment and Research Foundation, Chicago, IL, United States, [2]Smell & Taste Treatment and Research Foundation, Chicago, IL, United States, [3]Smell & Taste Treatment and Research Foundation, Chicago, IL, United States, [4]Smell & Taste Treatment and Research Foundation, Chicago, IL, United States, [5]University of Illinois, School of Public Health, Chicago, IL, United States, [6]Smell & Taste Treatment and Research Foundation, Chicago, IL, United States*

7 #P108 **Odor-related Affective Feelings: Structure and Inter-individual Variability**
Camille Ferdenzi[1,2], Annett Schirmer [3], S. Craig Roberts[4], Sylvain Delplanque[1,2], Isabelle Cayeux[5], Christelle Porcherot[5], Maria-Inès Velazco[5], David Sander[1,2], Klaus R. Scherer[1], Didier Grandjean[1,6]. *[1]Swiss Center for Affective Sciences, University of Geneva, Geneva, Switzerland, [2]Laboratory for the Study of Emotion Elicitation and Expression, University of Geneva, Geneva, Switzerland, [3]Department of Psychology, Faculty of Arts and Social Sciences, National University of Singapore, Singapore, Singapore, [4]School of Biological Sciences, University of Liverpool, Liverpool, United Kingdom, [5]Firmenich, SA, Geneva, Switzerland, [6]Neuroscience of Emotion and Affective Dynamics Laboratory, University of Geneva, Geneva, Switzerland*

8 #P109 **The Effect Of Two Ambient Aromas On Human Physiology And Food Choice**
Rene A de Wijk[1], Suzet Zijlstra[2]. *[1]AFSG,Consumer Science & Intelligent Systems, Wageningen, Netherlands, [2]Wageningen University, Human Nutrition, Wageningen, Netherlands*

9 #P110 **Perfume Masculinity/Femininity Affects Face Gender Judgments**
Theresa White[1,2]. *[1]Le Moyne College, Syracuse, NY, United States, [2]SUNY Upstate Medical University, Syracuse, NY, United States*

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10 #P111 **Olfactory Brown**
Tali Weiss, Kobi Snitz, Elad Schneidman, Noam Sobel. *Department of Neurobiology, Weizmann Institute, Rehovot, Israel*

11 #P112 **Influence of Odor Pleasantness on Perceived Intensity in Binary Mixtures**
Miki Wakamatsu, Yukio Sone, Hisanori Nagata, Hiroki Shikata, Yuichi Furudono. *Tobacco Science Research Center, Japan Tobacco Inc., Kanagawa, Japan*

12 #P113 **Long-term reductions of olfactory sensitivity due to short-term intermittent exposures to a peri-threshold odorant**
Sarah Ezzell[1], Jennifer Chen[1], Wen Zhou[1,2], Meng Zhang[3], Denise Chen[1]. *[1]Rice University, Houston, TX, United States, [2]Chinese Academy of Sciences, Beijing, China, [3]Harbin Medical University, Harbin, China*

13 #P114 **The relationship between positive odor-evoked memories and product evaluation**
Haruko Sugiyama[1], Akiko Oshida[1], Paula Thueneman[2], Susan Littell[2], Atsushi Katayama[1], Mitsuyoshi Kashiwagi[1], Satoshi Hikichi[1], Rachel S. Herz[3]. *[1]Perfumery Development Research labs., Kao Corporation, Tokyo, Japan, [2]Kao Brands Company, Cincinnati, OH, United States, [3]Department of Psychiatry and Human Behavior, Brown University, Providence, RI, United States*

14 #P115 **A Compact Multi-functional Olfactometer for fMRI Examinations**
Qing X Yang[1,2], Weidong Yang[3], Lucas Ansel[1], Xiaoyu Sun[1], Jianli Wang[1], Christopher W Weitekamp[1]. *[1]Radiology, Center for NMR Research, Penn State Milton S. Hershey Medical Center, Hershey, PA, United States, [2]Neurosurgery, Penn State Milton S. Hershey Medical Center, Hershey, PA, United States, [3]Emerging Tech Trans, LCC, Hummelstown, PA, United States*

15 #P116 **Behavioral characteristics when smelling odors and making selections**
Shiori Nakano, Saho Ayabe-Kanamura. *University of Tsukuba Graduate School of Comprehensive Human Sciences, Tsukuba, Japan*

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16 #P117 **Odor Interactions among Ternary Mixtures by Human**
Toshio Miyazawa[1,2], Michelle Gallagher[2], George Preti[2,3], Shuichi Muranishi[1], Paul M. Wise[2]. *[1]Ogawa & Co., Ltd., Chiba, Japan, [2]Monell Chemical Senses Center, Philadelphia, PA, United States, [3]University of Pennsylvania, Philadelphia, PA, United States*

17 #P118 **The Monell Odor Identification Task for the NIH Toolbox: Comparing Response Alternatives for 3 and 4 Year Olds**
Christopher Maute, Aleida Silva-Garcia, Sara Castor, Julie A. Mennella, Pamela H. Dalton. *Monell Chemical Senses Center, Philadelphia, PA, United States*

18 #P119 **Process differences between physical and physiological odor mixtures**
Malin Brodin[1], Simona Negoias[2], Mats J Olsson[1]. *[1]Department of Clinical Neuroscience, Karolinska Institutet, Stockholm, Sweden, [2]Smell & Taste Clinic, University of Dresden Medical School, Dresden, Germany*

19 #P120 **Rapid yet short-lived olfactory plasticity in wake and in sleep**
Anat Arzi, Noam Sobel. *Weizmann Institute of Science, Rehovot, Israel*

20 #P121 **Effect Of Eye Closure On Olfactory Detection Threshold**
Amit K. Bhise[1], Alan R. Hirsch[2], Amal Asiri[2]. *[1]Sinai Hospital of Baltimore, Baltimore, MD, United States, [2]Smell and Taste Treatment and Research Foundation, Chicago, IL, United States*

21 #P122 **Newly Discovered Specific Anosmias**
Charles J. Wysocki[1], Jennifer Louie[1], Lisa Oriolo[1], Angelica Au[1], Edward Strojan[1], Makoto Emura[2], Michael Lankin[3]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]TAKASAGO International Corporation, Hiratsuka-shi, Kanagawa, Japan, [3]TAKASAGO International Corporation, Rockleigh, NJ, United States*

22 #P123 **Early Odor Learning in Tree Swallows (*Tachycineta bicolor*)**
Meredyth P. Duncan, Ashley A. Miniet, Julie C. Hagelin. *Department of Biology, Swarthmore College, Swarthmore, PA, United States*

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23 #P124 **Exploring the Olfactory Ability of the Kea (*Nestor notabilis*), an Endangered Parrot from New Zealand**
Kimberly F. Kramer[1], Regina L. Kukola[2], Christine Q. Ernst[1], Julie C. Hagelin[1]. *[1]Department of Biology, Swarthmore College, Swarthmore, PA, United States, [2]Department of Biology, Bryn Mawr College, Bryn Mawr, PA, United States*

24 #P125 **Songbird Chemosignaling: Differentiation and Detection of Volatile Compounds by Dark-eyed Juncos**
Danielle J Whittaker[1], Helena A Soini[2,3], Jonathan W Atwell[1], Allison Miller[4], Amanda L Posto[2,3], Milos V Novotny[2,3], Ellen D Ketterson[1]. *[1]Indiana University Dept of Biology, Bloomington, IN, United States, [2]Indiana University Dept of Chemistry, Bloomington, IN, United States, [3]Institute for Pheromone Research, Indiana University, Bloomington, IN, United States, [4]University of California, San Diego Dept of Biology, San Diego, CA, United States*

25 #P126 **Impact of Complexity on the Processing of Odour Mixture in Newborn Rabbits**
Charlotte Sinding[1,2], Thierry Thomas-Danguin[2], Benoist Schaal[1], Gérard Coureaud[1]. *[1]Centre des Sciences du Goût, Equipe d'Ethologie et de Psychobiologie Sensorielle, UMR 5170 CNRS/UB/INRA, Dijon, France, [2]Flavic, Equipe Perception de la Flaveur, UMR 1129 ENESAD/INRA/UB, Dijon, France*

26 #P127 **Developmental and Odor-induced Changes in Odorant Receptor mRNA Expression During Olfactory Imprinting and Homing in Pacific Salmon, *Oncorhynchus spp*.**
Andrew H. Dittman[1], Darran May[2], Michelle A. Havey[2]. *[1]Northwest Fisheries Science Center, NOAA Fisheries, Seattle, WA, United States, [2]School of Aquatic and Fishery Sciences, University of Washington, Seattle, WA, United States*

27 #P128 **Comparative study of the response of *Aedes aegypti* and *Culex quinquefasciatus* to host odor cues**
Shahid Majeed, Sharon R Hill, Göran Birgersson, Rickard Ignell. *Division of chemical ecology, Swedish University of Agricultural Sciences, Alnarp, Sweden*

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28 #P129 **Influence of complex learning contexts on olfactory discrimination abilities and bulbar network**
Mélissa Moreno, Joelle Sacquet, Anne Didier, Nathalie Mandairon. *UMR,CNRS 5020 Lyon1, Lyon, France*

29 #P130 **Alteration of the scent of age by the xenobiotic citronellal ingestion**
Kazumi Osada[1], Masaaki Hanawa[2], Kenji Tsunoda[2], Hiroshi Izumi[1]. *[1]Department of Oral Physiology, School of Dentistry, Health Sciences University of Hokkaido, Ishikari-Tobetsu, Hokkaido, 061-0293, Japan, [2]Department of Research and Development, Daiichi Sankyo Healthcare CO., Ltd., Tokyo,103-8541, Japan*

30 #P131 **Lesions of the Medial Amygdala Impair Lordosis And Olfactory Responses to Urinary Volatiles in Female Mice**
Brett DiBenedictis[1], Katie Ingraham[1], Michael J Baum[1], James A Cherry[2]. *[1]Dept Biology, Boston University, Boston, MA, United States, [2]Dept Psychology, Boston University, Boston, MA, United States*

31 #P132 **Butylated hydroxytoluene is a ligand of urinary proteins of female mice**
Jae Kwak[1], Adam Faranda[1], Maryanne Opiekun[1], George Preti[1,2], Kazumi Osada[3], Kunio Yamazaki[1], Gary Beauchamp[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Dermatology, School of Medicine, University of Pennsylvania, Philadelphia, PA, United States, [3]Department of Oral Biology, School of Dentistry, Health Sciences University of Hokkaido, Hokkaido, Japan*

32 #P133 **The role of the neurotrophin receptor, TrkB, in taste system development**
Da Fei, Robin F. Krimm. *Department of Anatomical Sciences and Neurobiology, School of Medicine, University of Louisville, Louisville, KY, United States*

33 #P134 **Replacement of BDNF by NT4 rescues gustatory neuron targeting but not taste bud number in the tongue**
Tao Huang, Robin F Krimm. *Department of Anatomical Sciences and Neurobiology, University of Louisville School of Medicine, Louisville, KY, United States*

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34 #P135 **Involvement of Wnt/β-catenin signaling in the renewal of mature taste bud of mice**
Dany Gaillard[1], Jason Nealy[1], Sarah E Millar[2], Fei Liu[3], Linda A Barlow[1]. *[1]Department of Cell & Developmental Biology-Rocky Mountain Taste & Smell Center, University of Colorado Denver, School of Medicine, Aurora, CO, United States, [2]Departments of Dermatology and Cell & Developmental Biology, University of Pennsylvania School of Medicine, Philadelphia, PA, United States, [3]Institute for Regenerative Medicine at Scott & White Hospital, Texas A&M University System Health Science Center, Temple, TX, United States*

35 #P136 **Wnt/β-catenin Signaling within Taste Bud Progenitor Cells Impacts Both Taste bud and Taste Papilla Development**
Shoba Thirumangalathu, Linda A. Barlow. *Dept of Cell and Developmental Biology, UC Denver Anschutz Medical Campus and Rocky Mountain Taste and Smell Center, Aurora, CO, United States*

36 #P137 **Adult Mice with Genetic Deletion of SHH in Tongue Epithelium Have Fungiform Taste Buds and Papillae with Aberrant Morphology**
Elizabeth A. Harvey, Linda A. Barlow. *Department of Cell and Developmental Biology and Rocky Mountain Taste and Smell Center, University of Colorado Anschutz Medical Campus, Aurora, CO, United States*

37 #P138 **Gli Transcriptional Activity in Hedgehog Signaling Regulates Tongue Epithelial Integrity and Postnatal Papilla and Taste Bud Support**
Hong-Xiang Liu[1], Marina Grachtchouk[2], Andrzej A. Dlugosz[2,3], Charlotte M. Mistretta[1]. *[1]Department of Biologic and Materials Sciences, School of Dentistry, Ann Arbor, MI, United States, [2]Department of Dermatology, Medical School, Ann Arbor, MI, United States, [3]Department of Cell and Developmental Biology, Medical School, Ann Arbor, MI, United States*

38 #P139 **Peripheral taste system morphology in taster and non-taster mice**
W. Wes Shelton, Akira Ito, Irina V. Nosrat, Christopher A. Nosrat. *University of Tennessee Health Science Center, College of Dentistry, and Center for Cancer Research, Memphis, TN, United States*

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39 #P140 **Mosaic Analysis with Double Markers (MADM) as a method to map cell fates in adult mouse taste buds**
Preston D. Moore, Jarrod D. Sword, Dennis M. Defoe, Theresa A. Harrison. *East Tennessee State University College of Medicine, Johnson City, TN, United States*

40 #P141 **Oxytocin Receptor Is Expressed In A Subset Of Glial-like Cells In Mouse Taste Buds**
Isabel Perea-Martinez[1], Michael Sinclair[2], Gennady Dvoryanchikov [1], Nirupa Chaudhari[1,2]. *[1]Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, United States, [2]Program in Neurosciences, University of Miami Miller School of Medicine, Miami, FL, United States*

41 #P142 **Glutamatergic and Catecholaminergic Markers are Present in Fibers Innervating Mouse Taste Buds**
Elizabeth Pereira[1], Jeff A. Grant[1], Yijen A. Huang[1], Xinzhong Dong[3], Stephen D. Roper[1,2]. *[1]Department of Physiology and Biophysics, Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, Miller School of Medicine, University of Miami, Miami, FL, United States, [3]The Solomon H. Snyder Department of Neuroscience, School of Medicine, Johns Hopkins University, Baltimore, MD, United States*

42 #P143 **Orally Administered Capsaicin Reduces Taste Bud Volumes in Rats Treated as Adults, but Not Those Treated as Neonates**
Kaeli K. Samson, Suzanne I. Sollars. *University of Nebraska at Omaha, Omaha, NE, United States*

43 #P144 **Lipopolysaccharide-Induced Inflammation Attenuates Taste Progenitor Cell Proliferation and Taste Bud Cell Renewal**
Zachary J Cohn, Agnes Kim, Liquan Huang, Joseph Brand, Hong Wang. *Monell Chemical Senses Center, Philadelphia, PA, United States*

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The second number (#Pxxx) indicates the poster abstract number

44 #P145 **Distinct GABA synthesizing enzymes and GABA receptors in each cell type of mouse taste buds**
Gennady Dvoryanchikov[1], Nirupa Chaudhari[1,2]. *[1]Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, United States, [2]Program in Neurosciences, University of Miami Miller School of Medicine, Miami, FL, United States*

45 #P146 **Expression patterns of adrenergic receptors in rat posterior taste buds**
Yuan Zhang[2], Tamara Kolli[1], Fang-li Zhao[1], Jianqun Yan[2], Scott Herness[1]. *[1]The Ohio State University, Columbus, OH, United States, [2]Xi'an Jiaotong University, Xi'an, China*

46 #P147 **Serotonin acts to facilitate tastant responses in the rat chorda tympani nerve**
Luc Jaber, Fang-li Zhao, Scott Herness. *The Ohio State University, Columbus, OH, United States*

47 #P148 **Paroxetine, a selective serotonin reuptake inhibitor, does not alter concentration-dependent licking of prototypical taste stimuli by rats**
Clare M Mathes, Alan C Spector. *Florida State Universtiy Department of Psychology and Program in Neuroscience, Tallahassee, FL, United States*

48 #P149 **Activation of Synaptic Glutamate Receptors Stimulates Mouse Taste Cells and Induces Serotonin Release**
Jeff A. Grant[1], Stephen D. Roper[1,2]. *[1]Department of Physiology and Biophysics, Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, Miller School of Medicine, University of Miami, Miami, FL, United States*

49 #P150 **The amiloride-insensitive component of the chorda tympani response to NaCl is larger in A/J than in C57BL/6J mice**
Stuart A McCaughey[1], Chandra M Cherukuri[2], Alexander A Bachmanov[3]. *[1]Center for Medical Education, IUSM-Muncie at Ball State University, Muncie, IN, United States, [2]Dept. of Physiology and Health Science, Ball State University, Muncie, IN, United States, [3]Monell Chemical Senses Center, Philadelphia, PA, United States*

Poster Numbering Key:
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50 #P151 **Differential regulation of chorda tympani (CT) taste nerve responses to sweet, salty, bitter and umami taste stimuli by phosphatidylinositol 4, 5-bisphosphate (PIP_2)**
Vijay Lyall, Tam-Hao T Phan, Shobha Mummalaneni, Melone Pamela, John A. DeSimone. *Department of Physiology & Biophysics, Virginia Commonwealth University, Richmond, VA, United States*

51 #P152 **PKD2L1 is required for normal chorda tympani nerve responses to acids**
Nao Horio[1], Ryusuke Yoshida[1], Yoshiro Ishimaru[2], Hiroaki Matsunami[3], Yuzo Ninomiya[1]. *[1]Section of Oral Neuroscience, Graduate School of Dental Science, Kyushu University, Fukuoka, Japan, [2]Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan, [3]Department of Molecular Genetics and Microbiology, Duke University Medical Center, Durham, NC, United States*

52 #P153 **Comparative analysis of ENaC and TRPV1-mediated NaCl responses of the rat chorda tympani nerve**
Joanne M Garcia, Robert J Contreras. *Department of Psychology and Program in Neuroscience, Florida State University, Tallahassee, FL, United States*

53 #P154 **Anion Size Attenuates Summated Epithelial Potentials of Tongue and Single-cell Responses of Geniculate Ganglion Neurons to TRPV1-mediated Salt Stimulation in Rats**
Joseph M Breza, Joanne M Garcia, Robert J Contreras. *Florida State University, Tallahassee, FL, United States*

5:00 pm – 7:00 pm **CHEMOSENSORY ENTERPRISE AND MENTORSHIP ALLIANCE (ChEMA) SOCIAL**
Chair/Organizer: Suzanne Sollars
Breck Deck North

Join us for this social event (open to AChemS members only)! AChemS members who have achieved an advanced degree (PhD, MD, DVM, DDS, terminal Masters, etc.) within the past 10 years are automatically members of the ChEMA subgroup. The social is designed for junior and senior AChemS members to network, and talk about issues important to junior chemosensory scientists. It's a great, relaxed way to talk one–on-one with AChemS members in your field who have been through the ropes!

7:00 pm – 8:00 pm **IFF LECTURE**
#59 **MAMMALIAN TASTE**
Exclusively sponsored by IFF International Flavors & Fragrances Inc.
Island Ballroom

Charles Zuker, *Howard Hughes Medical Institute and Depts. of Biochemistry and Neurosciences, College of Physicians and Surgeons Columbia University, New York*

8:00 pm – 8:15 pm **BREAK**
Banyan Breezeway

8:15 pm – 10:20 pm **SYMPOSIUM – SENSORY INTEGRATION AND COMPETITION**
Partially sponsored by IFF International Flavors & Fragrances Inc.
Chair/Organizer: Denise Chen & Jay Gottfried
Island Ballroom

Sensory integration and competition are central to our perceptual experience, and yet an understanding of their behavioral properties and neural mechanisms is rather limited. This symposium aims to bring together researchers of diverse backgrounds who will address this broad issue using a variety of novel approaches. Among the topics will be the neural mechanisms of various effects, including olfactory-auditory integration in mice, olfactory, visual, and auditory integration in humans, and the resolution of conflicts between different sensory modalities in humans. Also included will be the anatomical and physiological studies on signal processing between the bilateral olfactory bulbs in mice, binaral rivalry and olfactory processing in humans, and interactions between taste and other somatosensory modalities in humans.

8:20 pm #29 **Smelling sounds: olfactory–auditory sensory convergence in the olfactory tubercle**
Daniel W. Wesson[1,2], Donald A. Wilson[1,2]. *[1]Nathan Kline Institute for Psychiatric Research, Orangeburg, NY, United States, [2]New York University School of Medicine, New York, NY, United States*

8:40 pm #30 **Multisensory stimulation modulates perceptual ratings and neuronal activity**
Jessica Albrecht[1], Jay A. Gottfried[*2,3], Johan N. Lundstrom[1,4,5]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Neurology, Northwestern University Feinberg School of Medicine, Chicago, IL, United States, [3]Department of Psychology, Northwestern University Weinberg College of Arts and Sciences, Chicago, IL, United States, [4]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States, [5]Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden*

9:00 pm #31 **fMRI and TMS studies of multisensory integration**
Michael S Beauchamp. *University of Texas Medical School, Houston, TX, United States*

9:20 pm #32 **Odor information processing by the olfactory bulb analyzed in gene-targeted mice**
Minmin Luo. *NIBS, Beijing, China*

9:40 pm #33 **Binaral rivalry and olfactory awareness**
Denise Chen. *Rice University, Houston, TX, United States*

10:00 pm #34 **Evidence of a central gustatory map in humans**
Paul A.S. Breslin[1,2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Rutgers University, New Brunswick, NJ, United States*

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7:00 pm – 11:00 pm **POSTER SESSION IV: CHEMOSENSORY TRANSDUCTION AND SIGNALING**
Pavilion

1 #P155 **Estrogen Modulates Excitability and Olfactory Responses in Mouse Vomeronasal Neurons**
Suraj Cherian, Ian McDaniels, Chun Yang, Rona J. Delay.
Department of Biology, University of Vermont, Burlington, VT, United States

2 #P156 **Variation in vomeronasal receptor expression in a terrestrial salamander**
Sarah K. Woodley[1], Karen M. Kiemnec-Tyburczy[2], Lynne D. Houck[3]. *[1]Duquesne University, Pittsburgh, PA, United States, [2]Cornell University, Ithaca, NY, United States, [3]Oregon State University, Corvallis, OR, United States*

3 #P157 **Molecular characterization and localization of olfactory-specific ionotropic glutamate receptors in lobster olfactory receptor neurons**
Elizabeth A Corey[1], Yuriy Bobkov[1], Barry W Ache[1,2]. *[1]Whitney Laboratory, Center for Smell and Taste, and McKnight Brain Institute, St Augustine, FL, United States, [2]Depts. of Biology and Neuroscience, University of Florida, Gainesville, FL, United States*

4 #P158 **Measuring Ensemble Activity in Lobster ORNs through Calcium Imaging**
Yuriy V. Bobkov[1], Kirill Y. Ukhanov[1], Ill Park[3], Jose C. Principe[3], Barry W. Ache[1,2]. *[1]Whitney Laboratory, Center for Smell and Taste, and McKnight Brain Institute, University of Florida, Gainesville, FL, United States, [2]Depts. of Biology and Neuroscience, University of Florida, Gainesville, FL, United States, [3]Dept. of Electrical and Computer Engineering, University of Florida, Gainesville, FL, United States*

5 #P159 **Ca Imaging of Response Properties of Olfactory Receptor Neurons of Spiny Lobsters, *Panulirus argus***
Manfred Schmidt, Tizeta Tadesse, Charles D Derby.
Neuroscience Institute, Georgia State University, Atlanta, GA, United States

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6 #P160 **Evolution of haematophagy: what one moth species can teach us**
Sharon R. Hill[1], Jennifer Zaspel[2], Bill S. Hansson[3], Susan Weller[2], Rickard Ignell[1]. *[1]Division of Chemical Ecology, Department of Plant Protection Biology, Swedish Agricultural University, Alnarp, Sweden, [2]Department of Entomology, University of Minnesota, St. Paul, MN, United States, [3]Department of Evolutionary Neuroethology, Max Planck Institute for Chemical Ecology, Jena, Germany*

7 #P161 **Sex Pheromone Receptor Specificity in the European Corn Borer Moth, Ostrinia nubilalis**
Kevin W Wanner[1], Andrew S Nichols[2], Jean E Allen[1], Peggy L Bunger[1], Stephen F Garczynski[3], Charles E Linn[4], Hugh M Robertson[5], Charles W Luetje[2]. *[1]Montana State University, Bozeman, MT, United States, [2]University of Miami, Miami, FL, United States, [3]USDA-ARS, Wapato, WA, United States, [4]Cornell University, Ithica, NY, United States, [5]University of Illinois Urbana-Champaign, Urbana, IL, United States*

8 #P162 **Molecular characterization of accessory proteins mediating sexual selection in two *Ostrinia* species**
Jean E. Allen, Kevin W. Wanner. *Montana State University, Bozeman, MT, United States*

9 #P163 **Behavioral and Olfactory Consequences of Slipping Imaginal Discs Between Two Moth Species**
Seong-Gyu Lee[1], Kathy R. Poole[2], Charles E. Linn, Jr.[2], Neil J. Vickers[1]. *[1]University of Utah, Salt Lake City, UT, United States, [2]Cornell University, Geneva, NY, United States*

10 #P164 **Modulation of pheromone responses by cyclic nucleotides and DAG in antennal trichoid sensilla of the hawkmoth *Manduca sexta***
Andreas Nolte, Christian Flecke, Monika Stengl. *Universitiy of Kassel, Kassel, Germany*

11 #P165 **Subunit Contributions to Insect Olfactory Receptor Function**
Andrew S. Nichols, Charles W. Luetje. *University of Miami Miller School of Medicine, Miami, FL, United States*

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12 #P166 **Enzymatic conversion of odorants in nasal mucus affects olfactory glomerular activation patterns and odor perception**
Ayumi Nagashima, Kazushige Touhara. *The University of Tokyo, Tokyo, Japan*

13 #P167 **PI3K-dependent Inhibitory Signaling in Mammalian Olfactory Receptor Neurons**
Kirill Ukhanov[1], Daniela Brunert[1], Barry W. Ache[1,2]. *[1]Whitney Laboratory, Center for Smell and Taste, and McKnight Brain Institute, Gainesville, FL, United States, [2]Depts. of Biology and Neuroscience, Gainesville, FL, United States*

14 #P168 **Functional implication of PI3K beta and gamma in rodent olfaction**
Daniela Brunert[1], Katharina Klasen[1], Elizabeth A. Corey[1], Kirill Ukhanov[1], Barry W. Ache[1,2]. *[1]Whitney Laboratory, Center for Smell and Taste and McKnight Brain Institute, University of Florida, Gainesville, FL, United States, [2]Depts. of Biology and Neuroscience, University of Florida, Gainesville, FL, United States*

15 #P169 **Regulation Of Sodium Calcium Exchanger (Ncx) Activity By Calmodulin Or Omp In The Olfactory Signaling Transduction Cascade**
Manoj Tyagi, Frank L Margolis. *Anatomy and Neurobiology, University of Maryland Baltimore, Baltimore, MD, United States*

16 #P170 **Inhibition or Loss of Plasma Membrane Calcium ATPases Prolongs Desensitization In Mouse Olfactory Sensory Neurons**
Judith Van Houten[1], Samsudeen Ponissery Saidu[2]. *[1]University of Vermont, Burlington, VT, United States, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

17 #P171 **Exogenous Odorant Receptor Suppresses Endogenous Receptor Expression in Cultured Olfactory Sensory Neurons**
Huaiyang Chen, Qizhi Gong. *University of California, Davis, CA, United States*

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18 #P172 **Heterologous Expression of Mouse Pheromone Receptors Identifies Cognate Ligands**
Sandeepa Dey, Hiroaki Matsunami. *Molecular Genetics and Microbiology, Duke University Medical Center, Durham, NC, United States*

19 #P173 **Muscarinic Receptor M3 Potentiates the Function of a Broad Range of Mammalian Odorant Receptors**
Yun R. Li[1], Hiroaki Matsunami[1,2]. *[1]Department of Molecular Genetics and Microbiology, DurhamDepartment of Molecular Genetics and Microbiology, Duke University Medical Center, Durham, NC, United States, [2]Department of Neurobiology, Duke University Medical Center, Durham, NC, United States*

20 #P174 **The OR37 subfamily: establishment of the clustered expression pattern**
Jörg Strotmann, Andrea Bader, Verena Bautze, Desirée Haid, Heinz Breer. *Institute of Physiology, University of Hohenheim, Stuttgart, Germany*

21 #P175 **Expression of odorant receptor genes on the olfactory epithelium following olfactory nerve transection**
Yongxiang Wei[1], Yuehong Liu[2], Ling Yang[2], Xutao Miao[3], Yayan Lu[2], Xiaochao Liu[2]. *[1]Beijing Chaoyang Hospital, Capital Medical University, Beijing, China, [2]Beijing Tongren Hospital,Capital Medical University, Beijing, China, [3]Beijing Jishuitan Hospital, Beijing, China*

22 #P176 **Olfactory Detection of Aldehydes: Comparison of Dose-Response Functions at the Behavioral and at the Cell/Receptor Levels**
J. Enrique Cometto-Muniz[1], Michael H. Abraham[2]. *[1]Chemosensory Perception Laboratory, Dept. of Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA, United States, [2]Department of Chemistry, University College London, London, United Kingdom*

23 #P177 **Retronasal but Not Oral-Cavity-Only Identifications of Isointense TRPM8 Agonists**
Tiffany Y. Li[1], Jay K. Shah[2], Bruce P. Halpern[3]. *[1]Arts and Sciences, Cornell University, Ithaca, NY, United States, [2]Economics and Management and Biological Sciences, Cornell University, Ithaca, NY, United States, [3]Psychology and Neurobiology and Behavior, Cornell University, Ithaca, NY, United States*

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24 #P178 **Characterization of Ca^{2+} currents in identified subpopulations of rat geniculate ganglion neurons**
Shiro Nakamura, Robert M. Bradley. *Dept. of Biologic and Material Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, United States*

25 #P179 **Temperature Alters Summated Epithelial Potentials Of Tongue And Single-Cell Responses Of Geniculate Ganglion Neurons To Chemical Stimulation In Rats**
Alexandre A. Nikonov, Robert J. Contreras. *Department of Psychology & Program in Neuroscience, Florida State University, Tallahassee, FL, United States*

26 #P180 **Primate Sweet taste is caused by impulses in a dedicated group of taste fibers**
Tiffany Cragin, Göran Hellekant. *[1]Department of Physiology and Pharmacology, Medical School, University of Minnesota-, Duluth, MN, United States, [2]Department of Physiology and Pharmacology, Medical School, University of Minnesota-, Duluth, MN, United States*

27 #P181 **Taste-location generalization as a novel tool to study rodent taste and flavor perception**
Justus V. Verhagen[1,2], John Buckley[1], Michael Fritz[1], Ron Goodman[1], Tom D'Alessandro[1], Shree H. Gautam[1,2]. *[1]The John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale University, New Haven, CT, United States*

28 #P182 **Behavioral and anatomical characterization of sucralose preferring and avoiding rats**
Gregory C Loney, Ann Marie Torregrossa, Lisa A Eckel. *Florida State University, Tallahassee, FL, United States*

29 #P183 **Natural Variation in Sucralose Drinking Patterns in Rats**
Ann-Marie M. Torregrossa, Gregory C. Loney, James C. Smith, Lisa A. Eckel. *Florida State University, Tallahassee, FL, United States*

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30 #P184 **Experience induced changes in sugar taste sensitivity take place in or before the sugar taste receptor cell of Drosophila melanogaster**
Kristina M. Gonzalez[1], Gregory C.H. Chua[1], Marie-J. Sellier[2], Todd P. Livdahl[1], Frederick Marion-Poll[2], Linda M. Kennedy. *[1]Lasry Bioscience Center, Clark University, Worcester, MA, United States, [2]INRA Physiologie de l'Insecte, UMR INRA-Universite Pierre et Marie Curie n 1272, Versailles France*

31 #P185 **Taste aversion to quinine in mosquitoes**
Jae Kwak, Natasha Rivers, Paul A S Breslin. *Monell Chemical Senses Center, Philadelphia, PA, United States*

32 #P186 **Plant Root Exudates as Chemoattractants for *Paramecium***
Wade E. Bell, Megan Strand, Anne B. Alerding. *Virginia Military Institute, Lexington, VA, United States*

33 #P187 **Sensory mechanisms of chemical deterrence by sea hare ink against predatory blue crabs**
Juan F. Aggio, Charles D. Derby. *Neuroscience Institute, Georgia State University, Atlanta, GA, United States*

34 #P188 **The Taste Of Salicin In Hamsters**
Nicole H Strobel, Marion E Frank, Thomas P Hettinger, Bradley K Formaker. *Center for Chemosensory Sciences, Oral Health & Diagnostic Sciences, Dental Medicine, University of Connecticut Health Center, Farmington, CT, United States*

35 #P189 **Is There More Than Bitter To The Taste Of Salicin In Hamsters?**
Liangfang Zhao, Marion E Frank, Thomas P Hettinger, Bradley K Formaker. *Center for Chemosensory Sciences, Oral Health & Diagnostic Sciences, Dental Medicine, University of Connecticut Health Center, Farmington, CT, United States*

36 #P190 **Perceptual Mapping of Cooling Ingredients – The Role of Ethnic, Biological and Product-Use Variables**
Beverly J Tepper[1], Yvonne Koelliker[1], Jennifer Mei[2], Carter Green[2]. *[1]Food Science, Rutgers University, New Brunswick, NJ, United States, [2]Food Science, Rutgers University, New Brunswick, NJ, United States, [3]Takasago International Corp (USA), Rockleigh, NJ, United States, [4]Takasago International Corp (USA), Rockleigh, NJ, United States*

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37 #P191 **Both Warming and Cooling Enhance the Bite of Carbonation**
Paul M Wise, Bruce Bryant. *Monell Chemical Senses Center, Philadelphia, PA, United States*

38 #P192 **Expression, Solubilization, Purification And Reconstitution Of The Human Epithelial Sodium Channel Involved With Salty Taste**
Jesusa S. Josue[1], Yuri Kaulin[2], Joseph G. Brand[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Thomas Jefferson University, Philadelphia, PA, United States*

39 #P193 **Taste-evoked chorda tympani responses to $CaCl_2$ are larger in PWD/PhJ than in C57BL/6J mice**
Chandra M Cherukuri[1], Stuart A McCaughey[2], Michael G Tordoff[3]. *[1]Dept. of Physiology and Health Science, Ball State University, Muncie, IN, United States, [2]Center for Medical Education, IUSM-Muncie at Ball State University, Muncie, IN, United States, [3]Monell Chemical Senses Center, Philadelphia, PA, United States*

40 #P194 **Calcium sensing receptor agonists induce response in taste cells**
Yutaka Maruyama, Reiko Yasuda, Motonaka Kuroda, Yuzuru Eto. *Institute of Life Sciences, Ajinomoto Co., Inc., Kawasaki, Japan*

41 #P195 **Expression and characterization of ligand-binding domain of T1R1 taste receptor**
Maud Sigoillot, Elodie Maîtrepierre, Loïc Briand. *Centre des Sciences du Goût et de l'Alimentation (CSGA), Dijon, France*

42 #P196 **The interaction between PKD1L3 and PKD2L1 through their transmembrane domains is required for localization of PKD2L1 protein at taste pore in taste cells of circumvallate and foliate papillae**
Yoshiro Ishimaru[1,2], Yuka Katano[1], Kurumi Yamamoto[1], Masato Akiba[1], Richard W. Roberts[2], Tomiko Asakura[1], Hiroaki Matsunami[2], Keiko Abe[1]. *[1]The University of Tokyo, Tokyo, Japan, [2]Duke University, Durham, NC, United States*

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43 #P197 **Residual Glucose Taste in T1R3 Knockout but not TRPM5 Knockout Mice**
Steven Zukerman[1], Robert F. Margolskee[2], Anthony Sclafani[1]. *[1]Brooklyn College of CUNY, Brooklyn, NY, United States, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

44 #P198 **Herbicides and Antilipid Drugs Block Human T1R3 Receptors**
Bedrich Mosinger[1], Zaza Kokrashvili[1], Robert F Margolskee[1], Emeline L Maillet[2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Mount Sinai School of Medicine, New York, NY, United States*

45 #P199 **Allosteric regulation of taste chemosensors: insights from molecular modeling and docking**
Wely B. Floriano[1,2], Desiree Daniels[3], Chloe Thai[3]. *[1]Lakehead University and the Biorefining Research Initiative, Thunder Bay, ON, Canada, [2]Thunder Bay Regional Research Institute, Thunder Bay, ON, Canada, [3]California State Polytechnic University Pomona, Pomona, CA, United States*

46 #P200 **Direct NMR measurement of ligand binding to the human sweet taste receptor domains**
Rani Parvathy[1], Outhiriaradjou Benard[2], Mike Goran[1], John L. Markley[1,3], Marianna Max[2], Fariba Assadi-Porter[1,3]. *[1]University of Wisconsin-Madison, NMRFAM, Madison, WI, United States, [2]Mt. Sinai School of Medicine, New York, NY, United States, [3]NMR Facility at Madison, Madison, WI, United States*

47 #P201 **Suppressing effect of cyclodextrin to taste modifiers**
Keisuke Sanematsu[1,2], Seiji Nakamura[2], Yuzo Ninomiya[1]. *[1]Section of Oral Neuroscience, Graduate School of Dental Sciences, Kyushu University, Fukuoka, Japan, [2]Section of Oral and Maxillofacial Oncology, Graduate School of Dental Sciences, Kyushu University, Fukuoka, Japan*

48 #P202 **Characterizing the interaction of miraculin, a taste-modifying protein, with human sweet taste receptor**
Ayako Koizumi, Asami Tsuchiya, Ken-ichiro Nakajima, Keisuke Ito, Tomiko Asakura, Keiko Abe, Takumi Misaka. *The University of Tokyo, Tokyo, Japan*

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49 #P203 **Structural role of the terminal disulfide bond in the sweetness of brazzein**
Sannali M. Dittli[1], Hongyu Rao[2], Emeline Maillet[3], Marianna Max[3], John Markley[1,2], Fariba Assadi-Porter[1,2]. *[1]University of Wisconsin-Madison, Madison, WI, United States, [2]NMR Facility at Madison, Madison, WI, United States, [3]Mt. Sinai School of Medicine, New York, NY, United States*

50 #P204 **Expression of GABA receptor subunits and Cl^- transporters of taste buds in mice**
Toshiaki Yasuo[1], Ryusuke Yoshida[1], Noriatsu Shigemura[1], Robert F. Margolskee[2], Yuzo Ninomiya[1]. *[1]Section of Oral Neuroscience, Graduate School of Dental Science, Kyushu University, Fukuoka, Japan, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

51 #P205 **GABA Inhibition in Mouse Taste Buds**
Yijen A. Huang[1], Stephen D. Roper[1,2]. *[1]Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, United States, [2]Program in Neuroscience, University of Miami Miller School of Medicine, Miami, FL, United States*

52 #P206 **Intracellular Ca^{2+} and TRPM5-mediated membrane depolarization are required for taste cells to secrete ATP**
Yijen A. Huang[1], Stephen D. Roper[1,2]. *[1]Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, University of Miami, Miami, FL, United States*

53 #P207 **Pannexin-1 and Connexin-43 Immunoreactivity in Rodent Taste Buds**
Ruibiao Yang[1,2], Amanda Bond[1,2], Stacey Thomas[1,2], John Kinnamon[1,2]. *[1]Department of Biological Sciences, University of Denver, Denver, CO, United States, [2]Rocky Mountain Taste & Smell Center, Aurora, CO, United States*

54 #P208 **Potential modulatory effects of serotonin in taste receptor cell excitability**
Fang-li Zhao, Scott Herness. *The Ohio State University, Columbus, OH, United States*

Saturday, April 24, 2010

7:30 am – 1:00 pm
6:30 pm – 7:30 pm **REGISTRATION**
Grand Palm – Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Banyan Breezeway

8:00 am – 10:05 am **SYMPOSIUM – CHEMORECEPTION IN CONTEXT: INTERACTIONS WITH ENDOCRINE SYSTEMS AND METABOLIC STATE**
Exclusively sponsored by 

Chair/Organizer: Debra Ann Fadool and Steven Munger
Island Ballroom

The rising incidence of diabetes, obesity and related metabolic disorders is a worldwide health concern. Recently published work and emerging research efforts suggest that olfactory and taste systems are intimately linked with endocrine systems that regulate or modify energy balance. During regular cycles of food intake or during disorders of endocrine function, chemoreception may be modulated in response to changing levels of glucose, insulin, glucagon or incretins. This symposium addresses the current knowledge of hormonal modulation of chemosensory perception and how disruption of hormonal signaling in the olfactory or taste systems can impact energy homeostasis or nutrient utilization. The symposium will consist of presentations on the interactions of endocrine systems with olfactory and gustatory systems.

8:00 am #35 **Olfactory epithelium, a tissue under metabolic influences**
Marie-Christine Lacroix[1], Karine Badonnel[2], Nicolas Meunier[1,3], Patrice Congar[1], Aïda Rodriguez-Enfedaque[4], Flore Renaud[4], Roland Salesse[1], Christine Baly[1], Monique Caillol[1]. *[1]INRA, UR 1197 Neurobiologie de l'Olfaction et Modélisation en Imagerie, Biologie de l'Olfaction et Biosenseurs, Jouy en Josas, France, [2]U1126 MSNC INRA group, UPR2197 DEPSN, Institut Fessard, CNRS, Gif sur Yvette, France, [3]Université de Versailles Saint Quentin en Yvelines, Versailles, France, [4]LGBC, UMR 8159 CNRS/UVSQ/EPHE, Université de Versailles Saint Quentin en Yvelines, Versailles, France*

8:25 am #36 **Olfactory neurons activity and olfactory perception are modulated by anorectic peptides, insulin and leptin**
Brigitte Palouzier-Paulignan[1], Agnès Savigner[2], Pascaline Aimé[1], Patricia Duchamp-Viret[1], Michel Chaput[1], Xavier Grosmaitre[2], Minghong Ma[2], A. Karyn Julliard[1]. *[1]Université Lyon1, CNRS UMR 5020, Lyon, France, [2]Department of Neuroscience, University of Pennsylvania, School of Medicine, Philadelphia, PA, United States*

8:50 am #37 **The olfactory bulb as a metabolic sensor via insulin modulation**
Debra A. Fadool[1,2], Kristal Tucker[2], David R. Marks[2], Melissa A. Cavallin[2], James M. Overton[3], Paola Pedarzani[4]. *[1]Florida State University Program in Neuroscience and Molecular Biophysics, Tallahassee, FL, United States, [2]Florida State University Department of Biological Sciences, Tallahassee, FL, United States, [3]Florida State University Department of Biomedical Sciences and Program in Neuroscience, Tallahassee, FL, United States, [4]Research Department of Neuroscience, Physiology and Pharmacology, University College London, London, United Kingdom*

9:15 am #38 **Roles of taste signaling molecules in endocrine cells in pancreas and tongue**
Zaza Kokrashvili, Peihua Jiang, Bedrich Mosinger, Robert F. Margolskee. *Monell Chemical Senses Center, Philadelphia, PA, United States*

9:40 am #39 **Mechanisms of alimentary chemosensation and modulation**
C. Shawn Dotson[1], Amanda E.T. Elson[2], Steven D. Munger[2]. *[1]Department of Neuroscience & Center for Smell and Taste, University of Florida College of Medicine, Gainesville, FL, United States, [2]Department of Anatomy & Neurobiology, University of Maryland School of Medicine, Baltimore, MD, United States*

10:05 am – 10:30 am **BREAK**
Banyan Breezeway

10:30 am – 12:35 pm **SYMPOSIUM – WIRING THE OLFACTORY SYSTEMS**
Chair/Organizer: Jean-Francois Cloutier
Island Ballroom

The detection of odorant signals from the environment relies on the formation of accurate stereotypical connections between olfactory sensory neurons (OSNs) located in the olfactory epithelium (OE) and second order neurons located in the olfactory bulb (OB). In the mouse, most OSNs expressing a single olfactory receptor project their axons to two symmetrically bilateral glomeruli within the OB. How do OSN axons select their target glomeruli in the complex three dimensional target field that represents an OB? The target choice of OSN axons appears to rely on a combination of molecular determinants that enhance the growth of axons to the OB, promote their segregation into broad regions of the OB to form a crude topography and then favor their sorting and coalescence into specific glomeruli. This symposium will examine recent progress in our understanding of the molecular mechanisms that underlie the formation of an accurate glomerular map.

10:35 am #40 **Mapping Odorant Receptor Classes in the Mouse Olfactory Bulb**
Thomas Bozza, Rodrigo Pacifico, Jingji Zhang, and Brian Weiland, *Department of Neurobiology and Physiology, Northwestern University, Evanston, IL, United States*

11:05 am #41 **Axon - matrix interactions regulate olfactory wiring**
Helen B. Treloar[1], Arundhati Ray[1], Lu Anne V. Dinglasan[1], Melitta Schachner[3,4], Charles A. Greer[1,2]. *[1]Department of Neurosurgery, Yale University School of Medicine, New Haven, CT, United States, [2]Department of Neurobiology, Yale University School of Medicine, New Haven, CT, United States, [3]Zentrum für Molekulare Neurobiologie, Universitätskrankenhaus Hamburg-Eppendorf, Hamburg, Germany, [4]Keck Center for Collaborative Neuroscience and Department of Cell Biology and Neuroscience, Rutgers University, Piscataway, NJ, United States*

11:35 am #42 **Faf1 as a Regulator of Olfactory Axon Guidance**
Leonardo Belluscio, Kai Cheng. *National Institutes of Health / NINDS, Bethesda, MD, United States*

12:05 pm #43 **Reduced Avoidance Response to Predator Odorants Associated with Wiring Defects in the Olfactory System of Robo-2 Mutant Mice.**
Jean-François Cloutier[1,2], Manon Lépine[1,2], Tyler Cutforth[3], Jin H. Cho[1,2]. *[1]Montreal Neurological Institute, Montreal, QC, Canada, [2]McGill University, Montreal, QC, Canada, [3]UC Santa Cruz, Santa Cruz, CA, United States*

12:45 pm – 2:45 pm **CLINICAL LUNCHEON** *(Ticketed Event)*
NEW CLINICAL TRIAL FUNDING OPPORTUNITIES AT NIDCD
Chair/Organizer: Claire Murphy
Gordon Hughes. *Program Officer, Clinical Trials, NIDCD Horizons*

#44 The National Institute on Deafness and Other Communication Disorders is committed to building and expanding its clinical trials program to promote the development of interventions to treat or prevent disorders in hearing, balance, taste, smell, voice, speech and language. Three new clinical trial initiatives and funding opportunities, issued in July, 2008, can be found at http://www.nidcd.nih.gov/research/clinicaltrials. Individual application information can be found at http://www.nidcd.nih.gov/funding/foa/. The Phase I/II Preliminary Clinical Trial specifically targets studies that will provide preliminary data and optimize the design of the eventual phase III trial. The Phase III Clinical Trial Planning Grant is designed to permit early peer review of a proposed phase III clinical trial and is used to develop a detailed Manual of Procedures, train clinical sites and prepare case report forms. The Phase III Definitive Clinical Trial should have the potential to significantly impact on clinical practice or public health policy. NIDCD strongly encourages clinical trial applications in chemoreception sciences.

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8:00 am – 12:30 pm **POSTER SESSION V: CENTRAL OLFACTION; CHEMOSENSORY PSYCHOPHYSICS & CLINICAL STUDIES**
Pavilion

1 #P209 **Co-stimulation with an olfactory stimulus enhances arousal responses to trigeminal stimulation during sleep in humans**
Boris A. Stuck, Franziska Lenz, Jann Baja, Clemens Heiser. *Department of Otorhinolaryngology, Head and Neck Surgery, Mannheim, Germany*

2 #P210 **Odor fear conditioning and olfactory system slow-wave sleep**
Dylan C. Barnes[1,2], Julie Chapuis[1], Donald A. Wilson[1,2,3]. *[1]EBI, NKI, Orangeburg, NY, United States, [2]CUNY, New York, NY, United States, [3]NYU Medical School, New York, NY, United States*

3 #P211 **A neural pathway underlying dynamic control of odor-induced responses to a wide range of odor concentrations**
Hong Lei, Hong-Yan Chiu, John G. Hildebrand. *Department of Neuroscience, University of Arizona, Tucson, AZ, United States*

4 #P212 **Transformation of olfactory information by neural networks in the honey bee 'olfactory cortex'**
Martin F Strube-Bloss, Marco A Herrera-Valdez, Brian H Smith. *School of Life Sciences Arizona State University, Tempe, AZ, United States*

5 #P213 **An Ih-dependent Switch from Inhibition to Excitation in ET Cells by Co-release of GABA and DA from SA Cells**
Zuoyi Shao, Shaolin Liu, Adam C. Puche, Michael T. Shipley. *Department of Anatomy & Neurobiology, Program in Neuroscience, University of Maryland School of Medicine, Baltimore, MD, United States*

6 #P214 **Olfactory-visual integration facilitates perceptual discrimination of facial expressions**
Emily Cahill, Lucas Novak, Wen Li. *University of Wisconsin-Madison, Madison, WI, United States*

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7 #P215 **Characterization of somatostatin systems in the mouse olfactory bulb**
Cécile Viollet[1,2], Gabriel Lepousez[1,2], Aurélie Mouret[3], Catherine Loudes[1,2], Jacques Epelbaum[1,2]. *[1]Inserm U894, Psychiatry and Neurosciences Center, Paris, France, [2]Université Paris Descartes, Paris, France, [3]URA2182 CNRS-Institut Pasteur, Paris, France*

8 #P216 **Glutamate modulates inhibitory inputs of GABAergic interneurons in the superficial EPL of the main olfactory bulb**
Yu-Feng Wang, Kathryn A Hamilton. *LSUHSC, Shreveport, LA, United States*

9 #P217 **Ion Channel in the Olfactory Bulb Subserves as a Metabolic Sensor**
Kristal R. Tucker[1], Melissa Cavallin[1], J. Michael Overton[2], Debra A. Fadool[1,3]. *[1]Program in Neuroscience, Department of Biological Science, Florida State University, Tallahassee, FL, United States, [2]College of Medicine, Department of Biomedical Sciences, Florida State University, Tallahassee, FL, United States, [3]Programs in Neuroscience and Molecular Biophysics, The Florida State University, Tallahassee, FL, United States*

10 #P218 **The Expression Pattern of TrpM5 and NT-3 in the Ventral Main Olfactory Bulb of Mice Reveals Two Distinct Populations of Glomeruli**
Shane H Rolen, Thomas E Finger, Diego Restrepo. *Rocky Mountain Taste & Smell Center & Dept. Cell & Developmental Biology, Univ Colorado Denver School of Medicine, Aurora, CO, United States*

11 #P219 **Expression and function of Rap1gap2 in the developing olfactory system**
Benjamin A Sadrian, Qizhi Gong. *University of California, Davis, Davis, CA, United States*

12 #P220 **Dishevelled-1 in mouse olfactory system development**
Diego J Rodriguez-Gil[1], Wilbur Hu[1], Charles A Greer[1,2]. *[1]Yale University, School of Medicine Dept Neurosurgery, New Haven, CT, United States, [2]Yale University, School of Medicine Dept Neurobiology, New Haven, CT, United States*

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13 #P221 **MMP-2 expression in the olfactory bulb is associated with neuronal reinnervation**
Stephen R Bakos, Richard M Costanzo. *Virginia Commonwealth University, Richmond, VA, United States*

14 #P222 **In Vivo Expression of Osterix in Mouse Olfactory Bulb**
Jung-Eun Kim[1], Ji-Soo Park[2]. *[1]Department of Molecular Medicine, Cell and Matrix Research Institute, Kyungpook National University School of Medicine, Daegu, Korea, [2]Department of Molecular Medicine, Cell and Matrix Research Institute, Kyungpook National University School of Medicine, Daegu, Korea*

15 #P223 **Calbindin, Parvalbumin and Calretinin Immunoreactivity in the Medial Amygdala of Male Hamsters**
Lindsey M Silz, Michael Meredith. *Florida State University, Tallahassee, FL, United States*

16 #P224 **Sexually Relevant Olfactory Stimuli Activate the Medial Preoptic Nucleus in an Age-Dependent Manner**
Daniel J Tobiansky[1], Juan M Dominguez[1,2]. *[1]Department of Psychology, The University of Texas at Austin, Austin, TX, United States, [2]Institute for Neuroscience, The University of Texas at Austin, Austin, TX, United States*

17 #P225 **Anatomical and Molecular Characterization of Centrifugal Cells Within the Olfactory Cortex**
Andrew N. Young, Qian-Quan Sun. *University of Wyoming, Laramie, WY, United States*

18 #P226 **Reversible Partial Deafferentation of the Zebrafish Olfactory Bulb with Repeated Detergent Application**
Taylor R. Paskin, Tania R. Iqbal, Christine A. Byrd-Jacobs. *Western Michigan University, Kalamazoo, MI, United States*

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19 #P227 **Hemi-bulb Organization in the Elasmobranch Brain**
Tricia L Meredith[1], Anne Hansen[2]. *[1]Florida Atlantic University, Boca Raton, FL, United States, [2]University of Colorado Denver, Anschutz Medical Campus, Aurora, CO, United States*

20 #P228 **Lateral Connections in the Olfactory Bulb: a Transsynaptic Tracing Study**
David H. Kim, Andrew Y. Chang, Gordon M. Shepherd, David C. Willhite. *Yale University, New Haven, CT, United States*

21 #P229 **How stable are olfactory bulb structures in color mutations of *Neovison vison*?**
Willi Bennegger[1,2], Elke Weiler[1]. *[1]Faculty of Medicine, Institute of Physiology, Department of Neurophysiology, Ruhr-University, Universitaetsstr. 150, 44801 Bochum, Germany, [2]Maria-von-Linden-Schule, Heckentalstr. 86 89518 Heidenheim, Germany*

22 #P230 **Effect of odor exposure on glomerular size in the mouse olfactory bulb**
Nicolas Busquet, Josephine Todrank, Giora Heth, Diego Restrepo. *University of Colorado, Denver, CO, United States*

23 #P231 **An Axis-Based Olfactory Neural Code that Predicts Behavior and Perception**
Rafi Haddad[1], Elad Schneidman[2], Noam Sobel[2]. *[1]Harvard University, Cambridge, MA, United States, [2]Weizmann Institute of Science, Rehovot, Israel, [3]Weizmann Institute of Science, Rehovot, Israel*

24 #P232 **Postnatal Development in Piriform Cortex**
Amy A Sarma[1], Marion B Richard[1], Charles A Greer[1, 2, 3]. *[1]Department of Neurosurgery, Yale University School of Medicine, New Haven, CT, United States, [2]Department of Neurobiology, Yale University School of Medicine, New Haven, CT, United States, [3]Interdepartmental Neuroscience Program, Yale University School of Medicine, New Haven, CT, United States*

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25 #P233 **Oxytocin and vasopressin in the medial amygdala modulate approach/avoidance responses to chemosignals associated with health condition in male rats**
Hiroyuki Arakawa, Keiko Arakawa, Stephanie Cruz, Terrence Deak. *Department of Psychology, State University of New York at Binghamton, Binghamton, NY, United States*

26 #P234 **A clinical test of gustatory function including umami taste**
Christian A Mueller[1], Karin Pintscher[1], Bertold Renner[2]. *[1]Department of Otorhinolaryngology, Medical University Vienna, Vienna, Austria, [2]Institute of Pharmacology, University of Erlangen-Nuremberg, Erlangen, Germany*

27 #P235 **Individual differences in human umami taste perception**
P. Bano Singh[1], Benno Schuster[2], Han-Seok Seo[2]. *[1]1Department of Oral Biology, Faculty of Dentistry, University of Oslo, Oslo, Norway, [2]2Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical, Dresden, Germany*

28 #P236 **Coding Mixture Components In Sucrose-Nacl Mixtures**
Marion E. Frank, Holly F. Goyert, Thomas P. Hettinger. *Center for Chemosensory Sciences, Oral Health & Diagnostic Sciences, Dental Medicine, University of Connecticut Health Center, Farmington, CT, United States*

29 #P237 **Monell Sucrose Preference Tracking Method: New Findings and Applications**
Julie A. Mennella[1], James W. Griffith[2], Laura D. Lukasewycz[1], Gary K. Beauchamp[1], Susan E. Coldwell[3]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Northwestern University, Chicago, IL, United States, [3]University of Washington, Seattle, WA, United States*

30 #P238 **Individual Differences in Salivary Amylase and the Perception of Oral Viscosity from Starch**
Abigail L. Mandel[1], Catherine Peyrot des Gachons[1], Kimberly L. Plank[1], Suzie M. Alarcon[1,2], Paul A.S. Breslin[1,2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Rutgers University, New Brunswick, NJ, United States*

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31 #P239 **The Detection of Free Fatty Acids in Edible Taste Strips**
Melissa Tiyouh, M. Hakan Ozdener, Sahbina A. Ebba, Gregory S. Smutzer. *Department of Biology, Temple University, Philadelphia, PA, United States*

32 #P240 **The Relative Satiety Value of Candy Bars in American Children**
Michele Soto, Jack Hirsch, Alan Hirsch. *Smell & Taste Treatment and Research Foundation, Chicago, IL, United States*

33 #P241 **Measuring referral of retronasal odors: The effect of taste**
Barry Green[1,2], Karen Blacher[1], Danielle Nachtigal[1]. *[1]The John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale School of Medicine, New Haven, CT, United States*

34 #P242 **A Modest Influence of Response Bias on the Enhancement of Taste-Like Properties of Odors**
Sarah Nolan-Poupart[1], Barry Green[1,2], Maria G. Veldhuizen[1,2], Jessica Blanton[1], Dana M. Small[1,2]. *[1]John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale University, New Haven, CT, United States*

35 #P243 **Not all Formulas are Alike: Differential Growth Patterns among Infants Fed Protein Hydrolysate or Cow Milk-Based Formulas**
Alison K. Ventura, Laura D. Lukasewycz, Sara M. Castor, Gary K. Beauchamp, Julie A. Mennella. *Monell Chemical Senses Center, Philadelphia, PA, United States*

36 #P244 **Evaluation of Newborns' Movement by Image Segmentation while They Drink an Infant Formula**
Rosa G. Herrera-Lee[1,2], Homero V. Rios-Figueroa[1], Jesus O. Angulo-Guerrero[2], Julie A. Mennella[3], Iñigo Verdalet-Guzman[1], Takuo Nakano[4], Lech Ozimek[4], Eryck R. Silva-Hernandez[1]. *[1]University of Veracruz, Xalapa, Mexico, [2]Veracruz Institute of Technology, Veracruz, Mexico, [3]Monell Chemical Senses Center, Philadelphia, PA, United States, [4]University of Alberta, Edmonton, AB, Canada*

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37 #P245 **Factors Influencing Mothers' Perceptions of their Infants' Liking of a Green Vegetable**
Catherine A. Forestell[1,2], Julie A. Mennella[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]The College of William & Mary, Williamsburg, VA, United States*

38 #P246 **A study examining the incidence of taste disorders in the general population**
Antje Welge-Luessen[1], Patrick Doerig[1], Franziska Krone[2], Markus Wolfensberger[1]. *[1]Dept. of Otorhinolaryngology, University Hospital Basel, Basel, Switzerland, [2]Smell & Taste Clinic, University of Dresden Medical School, Dresden, Germany*

39 #P247 **Effects of aging on the injured peripheral taste system**
Lynnette P McCluskey, Arkadiy Yadgarov, Lianying He. *Medical College of Georgia, Augusta, GA, United States*

40 #P248 **Cigarette Smoking, Obesity and Fat Perception in Women**
M. Yanina Pepino[1,2], Susana Finkbeiner[1], Julie A. Mennella[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]School of Medicine, Washington University in St. Louis, St. Louis, MO, United States*

41 #P249 **Chemosensory Loss: Functional Consequences of the World Trade Center Disaster**
Pamela H. Dalton[1], Richard E. Opiekun[1], Tamika Wilson[1], Christopher Maute[1], Mehmet H. Ozdener[1], Kai Zhao[1], Edward Emmett[2], Peter S.J. Lees[3], Robin Herbert[4], Jacqueline Moline[4]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]University of Pennsylvania School of Medicine, Philadelphia, PA, United States, [3]Johns Hopkins School of Public Health, Baltimore, MD, United States, [4]Mount Sinai School of Medicine, New York, NY, United States*

42 #P250 **Gender and Burning Mouth Syndrome**
Svetlana Yakov[1], Yuri L. Yakov[1], Alan R. Hirsch[1], Sally Freels [2]. *[1]Smell & Taste Treatment and Research Foundation, Chicago, IL, United States, [2]University of Illinois, School of Public Health, Chicago, IL, United States*

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43 #P251 **Surgery for Mucosal Contact-Point Headache**
Woo Yong Bae[1], William S. Cain[1], Jae Hoon Lee[2], Tae Joo Ahn[2]. *[1]Chemosensory Perception Lab., Dept. of Surgery, University of California, San Diego, San Diego, CA, United States, [2]Dept. of Otolaryngology, Dong-A University, Busan, South Korea*

44 #P252 **Pharyngeal insensitivity in patients with obstructive sleep apnea compared to healthy subjects**
Clemens Heiser, Ingo Zimmermann, Karl Hörmann, Boris A. Stuck. *Department of Otorhinolaryngology, Head and Neck Surgery, University Hospital Mannheim, Mannheim, Germany*

45 #P253 **Intensity of Salt Taste and Hypertension**
Mary E. Fischer[1], Karen J. Cruickshanks[1], Alex Pinto[1], Barbara E. K. Klein[1], Ronald Klein[1], F. Javier Nieto[1], James S. Pankow[2], Derek J. Snyder[3]. *[1]University of Wisconsin, Madison, WI, United States, [2]University of Minnesota, Minneapolis, MN, United States, [3]Yale University, New Haven, CT, United States*

46 #P254 **Development of an Electronic Tongue (ET) to Evaluate the Bitterness Intensity of Rx and OTC Formulations**
Marie O. Richardson[1], Lisa A. Glover[1], Phil B. Stern[2], David Clapham[3], Ken A. Saunders[3], Andrey. Legin[4], Evgeny. Legin[4], Dmitry . Kirsanov[4], Alisa. Rudnitskaya[4], Boris. Seleznev[4]. *[1]GlaxoSmithKline Consumer Healthcare, Weybridge, United Kingdom, [2]GlaxoSmithKline Consumer Healthcare, Parsippany, NJ, United States, [3]GlaxoSmithKline Pharmaceuticals, Ware, United Kingdom, [4]University of St Peterburg, St Peterburg, Russia*

47 #P255 **GLMS for Ratings of Taste Intensity by the Elderly: Ready for the Toolbox?**
Marcia L. Pelchat[1], Gina M. Carfagno[1], Susan E. Coldwell[2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]University of Washington, Seattle, WA, United States*

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48 #P256 **How Does Context Affect Taste Intensity?**
Lawrence E Marks[1,2], Timothy G. Shepard[1], Adam Y. Shavit[1,2], Maria G. Veldhuizen[1,3]. *[1]John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale School of Public Health, New Haven, CT, United States, [3]Yale University School of Medicine, New Haven, CT, United States*

49 #P257 **Taste Perception and Sensitivity to Emotional Disgust**
Rachel S. Herz. *Brown University, Providence, RI, United States*

50 #P258 **Effects of Taste Responsiveness on the Hedonic Reactivity to Sweetness and Bitterness**
Juyun Lim, Alison Wood. *Oregon State University, Corvallis, OR, United States*

6:30 pm – 8:00 pm **BREAK**
Banyan Breezeway

7:30 pm – 9:35 pm **SYMPOSIUM – TRANSIENT DYNAMICS, METASTABLE STATES AND TEMPORAL CODING IN CHEMOSENSORY PROCESSING**
Chair/Organizer: Brian Smith & Maxim Bazhenov
Island Ballroom

Over the last decade there have been rapid and significant advances in understanding how sensory cells transduce and represent information about odorants and tastants in a wide variety of animals. However, a similarly thorough understanding of how neural networks in the brain process this sensory information remains poorly understood and much more controversial. Computational modeling studies using realistic biophysical properties and connectivities predict very complicated dynamics in these networks, which is supported by a number of empirical studies. There are two fundamental ways that neural networks might represent chemosensory information. In the first type of model the network rapidly settles into a steady state or into a sequence of repeating states called an 'attractor'. The qualities of the odorant or tastant are associated with that final state, and the path taken to reach that state is not relevant. A second, newer theoretical account of network behavior in early chemosensory processing uses transient states. In these models information about qualities and intensities of odorants and tastants is encoded by the entire response trajectory including the transient path taken to reach the attractor state. These models, therefore, are capable of achieving optimal sensitivity to small differences between inputs, and to ensure reliable responses to repeated presentations of an input in a noisy environment. The symposium will bring together theoreticians and experimentalists who have studied these networks with the explicit goal of comparing how one or another type of model may apply to different animals and chemosensory systems in the brain.

7:35 pm #45 **Frequency Transitions in Odor-Evoked Neural Oscillations**
Mark Stopfer[1], Iori Ito[1], Maxim Bazhenov[2], Rose C-Y Ong[1,3], Baranidharan Raman[1,4]. *[1]NIH/NICHD, Bethesda, MD, United States, [2]Department of Cell Biology and Neuroscience, University of California Riverside, Riverside, CA, United States, [3]Department of Biochemistry, The Chinese University of Hong Kong, Hong Kong, Hong Kong, [4]Chemical Senses and Technology Laboratory, NIST, Gaithersburg, MD, United States*

7:55 pm #46 **Multiple Roles for STDP in Shaping Olfactory Representations**
Stijn Cassenaer. *Caltech, Pasadena, CA, United States*

8:15 pm #47 **Timing in olfaction**
Dmitry Rinberg, Roman Shusterman, Matt Smear, Thomas Bozza.

8:35 pm #48 **Meta-stable states in taste processing**
Donald B Katz. *Brandeis University, Waltham, MA, United States*

8:55 pm #49 **Analyzing neuronal networks using discrete-time dynamics**
David Terman[1], Sungwoo Ahn[1], Alla Borisyuk[2], Brian H. Smith[3]. *[1]Ohio State University, Columbus, OH, United States, [2]University of Utah, Salt Lake City, UT, United States, [3]Arizona State University, Phoenix, AZ, United States*

9:15 pm #50 **Lessons from olfactory processing for odor recognition using artificial sensor arrays**
Ramon Huerta, Kerem Muezzinoglu, Alex Vergara, Nikolai Rulkov, Mikhail Rabinovich. *University of California San Diego, San Diego, CA, United States*

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7:00 pm – 11:00 pm **POSTER SESSION VI: PERIPHERAL AND CENTRAL TASTE; PERIPHERAL OLFACTION**
Pavilion

1 #P259 **Individual Predictors of Oral Free Fatty Acid Detection and Triacylglycerol Response**
Richard D Mattes. *Purdue University, W. Lafayette, IN, United States*

2 #P260 **Measurement of fat perception and electrophysiological assessment of taste function in patients with anterior lingual hemiageusia**
Viola Engelhardt[1], Thomas Hummel[1], Nicole Schöbel[2], Hanns Hatt[2], Basile Landis[1]. *[1]Smell and Taste Clinic, Dresden, Germany, [2]Dept. of Cellular Biology, Ruhr-University Bochum, Bochum, Germany*

3 #P261 **Bitter Taste Receptor Signaling in the Gut Stimulates ABCB1 through a Paracrine Mechanism Involving CCK/Gastrin and its Receptor**
Tae-Il Jeon[1,2], Young-Kyo Seo[1], Timothy F Osborne[1,2]. *[1]Department of Molecular Biology and Biochemistry, University of California Irvine, Irvine, CA, United States, [2]Diabetes & Obesity Research Center, Burnham Institute for Medical Research, Orlando, FL, United States*

4 #P262 **TRPM5 is required for fatty acid transduction in mouse taste cells**
Timothy A Gilbertson[1], Pin Liu[1], Robert F Margolskee[2]. *[1]Biology & The Center for Advanced Nutrition, Utah State University, Logan, UT, United States, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

5 #P263 **Dietary Modulation of the Fatty Acid Transduction Pathway**
Dane R. Hansen, Heather Curtis, Timothy A. Gilbertson. *Department of Biology and The Center for Advanced Nutrition, Utah State University, Logan, UT, United States*

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6 #P264 **Glossopharyngeal nerve transection eliminates preference for a corn oil emulsion but does not decrease high-fat diet intake or the associated acceleration of body weight gain in rats**
Ginger D. Blonde, Alan C. Spector. *Department of Psychology & Program in Neuroscience, Florida State University, Tallahassee, FL, United States*

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7 #P266 **Preference of the Fatty Acids Linoleate and Oleate during Long-Term 2-Bottle Tests**
David W Pittman, Harry B Quedenfeld, Chelsea A Nill. *Wofford College, Department of Psychology, Spartanburg, SC, United States*

8 #P267 **Conditioned aversion to a novel taste infused directly into the mouse gut may be attributed to reflux into the oral cavity**
Glen J. Golden[1], Amanda Hussey[1], Eleanora Robinson[1], Caroline Robiolle[1], Bruce A. Kimball[1,2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]USDA-APHIS-WS-National Wildlife Research Center, Philadelphia, PA, United States*

9 #P268 **Structural Modeling of the Putative Fat Taste Receptor, CD36**
D. Eric Walters. *Rosalind Franklin University of Medicine and Science, North Chicago, IL, United States*

10 #P269 **Does taste determine daily intake of dilute concentrations of glucose and fructose in C57BL/6 mice?**
John I Glendinning, Frans Beltran, Laura Benton, Sabrina Cheng, Jennifer Gillman, Heather N Spain. *Barnard College, Columbia University, New York, NY, United States*

11 #P270 **Glucose utilization supports preferences for sugars in mice**
Xueying Ren[1,2], Jozelia G Ferreira[1,2], Sara J Shammah-Lagnado[3], Catherine W Yeckel[1,4], Ivan E de Araujo[1,2]. *[1]The John B. Pierce Laboratory, New Haven, CT, United States, [2]Psychiatry, Yale School of Medicine, New Haven, CT, United States, [3]Physiology, Institute of Biological Sciences, Sao Paulo, Brazil, [4]Epidemiology and Public Health, Yale School of Medicine, New Haven, CT, United States*

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12 #P271 **Oxytocin Enhances Brief-Access Taste Preference for Sweet and Umami Stimuli**
Michael S. Sinclair[1], Steven J. St. John[2], Nirupa Chaudhari[1,3]. *[1]Program in Neurosciences, University of Miami Miller School of Medicine, Miami, FL, United States, [2]Department of Psychology, Rollins College, Winter Park, FL, United States, [3]Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, United States*

13 #P272 **Generalization of conditioned taste aversion (CTA) to guanosine 5'-monophosphate (GMP) in C57BL/6 mice**
Yuko Murata[1], Alexander A. Bachmanov[2], *[1]National Research Institute of Fisheries Science, Yokohama, Japan, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

14 #P273 **Cyclophosphamide Effects on Umami Taste of Mice**
Nabanita Mukherjee[1,2], Eugene R Delay[1,2]. *[1]Department of Biology/University of Vermont, Burlington, VT, United States, [2]Chemical Senses Group/University of Vermont, Burlington, VT, United States*

15 #P274 **Anatomical dissociation of melanocortin receptor agonist influences on taste- and gut-sensitive feeding processes**
John-Paul Baird, Michael LaRiviere, Pallabi Guha, Mariana Palacios, Christopher Lim, Eduardo Matute, Julia Lord, Lindsay Grigg. *Amherst College, Amherst, MA, United States*

16 #P275 **Diminished Fat Preference in Preprodynorphin KO Mice**
Sharif A. Taha, Jennifer A. Heckmann, Bilal Shahid, Lara Kapp. *University of Utah School of Medicine, Salt Lake City, UT, United States*

17 #P276 **The Chorda Tympani Carries Two Anatomically Distinct Inputs to Rostro-Central Subdivision and to Rostro-Lateral and Ventral Regions of the NTS**
Alev Erisir, James Corson. *University of Virginia, Charlottesville, VA, United States*

Poster Numbering Key:
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18 #P277 **Chorda tympani nerve injury initiates a microglial response in the nucleus of the solitary tract (nTS)**
Dianna L. Bartel, Thomas E. Finger. *Rocky Mtn Taste & Smell Center, Neurosci Prog, Univ Colo Denver, Anschutz Medical Campus, Aurora, CO, United States*

19 #P278 **NaCl- induced c-fos expression in the nucleus of the solitary tract of mice that lack P2X receptor subunits necessary for taste transmission**
Jennifer M Stratford, Thomas E Finger. *Rocky Mtn Taste & Smell Center, Neurosci Prog, Univ Colo Denver Anschutz Medical Campus, Aurora, CO, United States*

20 #P279 **Overexpression of BDNF in the Lingual Epithelium Alters Terminal Field Organization in the Mouse NTS**
Chengsan Sun, David L. Hill . *Department of Psychology, University of Virginia, Charlottesville, VA, United States*

21 #P280 **Development of intrinsic properties of rostral nucleus of solitary tract (rNST) neurons in embryonic and postnatal rats**
Takeshi Suwabe, Catherine E. Krull, Charlotte M. Mistretta, Robert M. Bradley. *Department of Biologic & Materials Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, United States*

22 #P281 **Brainstem Sites Underlying Sucrose-Induced Analgesia in Neonatal Rats**
Yi-Hong Zhang, Matthew Ennis. *Univ Tenn Hlth Sci Ctr, Memphis, TN, United States*

23 #P282 **Brainstem convergence of efferents from the gustatory and visceral regions of the rat solitary nucleus**
Susan P. Travers, Joseph B. Travers. *Ohio State University, College of Dentistry, Division of Oral Biology, Columbus, OH, United States*

Poster Numbering Key:
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24 #P283 **Mapping the tongue onto the brainstem**
Dustin M Graham, David L Hill. *University of Virginia, Charlottesville, VA, United States*

25 #P284 **Competitive Changes in CT Terminal Field Morphology and Taste-Related Behaviors Following GSP and IX Nerve Section**
Sara L Dudgeon, David L Hill. *University of Virginia, Charlottesville, VA, United States*

26 #P285 **Analysis of functional and anatomical relationships between trigeminal inferior alveolar afferents and gustatory neurons within the nucleus of the solitary tract**
Yves Boucher[1,2], Fawzia Zerari[2,3], Adeline Braud[1,2].
[1]UFR Odontologie, Université Denis Diderot, Paris, France, [2]CRicm UMRS 975, Paris, France, [3]UFR Biologie, Université Denis Diderot, Paris, France

27 #P286 **Repeated Peripheral Nerve Injury Leads to Enhanced Growth of Terminal Fields in the Nucleus of the Solitary Tract of Adult Rat**
Rebecca Reddaway, David L. Hill. *University of Virginia, Charlottesville, VA, United States*

28 #P287 **Amino acid taste-evoked activity in the parabrachial nucleus of mice**
John D Boughter, Kenichi Tokita. *University of Tennessee Health Science Center, Memphis, TN, United States*

29 #P288 **Quantification of c-Fos in the PBN reveals that visceral response does not play a role in strain differences observed in conditioned taste aversion between C57BL/6J and DBA/2J mice**
April R. Glatt, Kenichi Tokita, John D. Boughter, Jr. .
University of Tennessee Health Science Center, Memphis, TN, United States

30 #P289 **An Analysis of Spike Timing in Parabrachial Gustatory Neurons**
Laura C. Geran, Susan P. Travers. *The Ohio State University, Columbus, OH, United States*

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31 #P290 **Spatial differences in molecular characteristics of the pontine parabrachial nucleus**
Naohiro Maeda[1], Mayuko Onimura[1], Makoto Ohmoto[1], Tadashi Inui[2], Takashi Yamamoto[2,3,4], Ichiro Matsumoto[1,5], Keiko Abe[1]. *[1]Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, tokyo, Japan, [2]Department of Behavioral Physiology, Graduate School of Human Sciences, Osaka University, Osaka, Japan, [3]Graduate School of Dentistry, Osaka University, Osaka, Japan, [4]Faculty of Health Science, Kio University, Nara, Japan, [5]Monell Chemical Senses Center, Philadelphia, PA, United States*

32 #P291 **The anterior insula drives the insula-opercular taste network during sensation of sweet taste**
Maria G Veldhuizen[1,2], Darren Gitelman[3,4,5], Dana M Small[1,2,3,6,7]. *[1]The John B. Pierce Laboratory, New Haven, CT, United States, [2]Department of Psychiatry, Yale University, New Haven, CT, United States, [3]Departments of Neurology, Radiology, Northwestern University, Chicago, IL, United States, [4]Cognitive Neurology and Alzheimer's Disease Center, Northwestern University, Chicago, IL, United States, [5]Interdepartmental Neuroscience Program, Yale University School of Medicine, New Haven, CT, United States, [6]Department of Psychology, Yale University, New Haven, CT, United States*

33 #P292 **Central Amygdala Stimulation Activates Neurons in the Gustatory Brainstem and Increases the Number of Taste Reactivity Behaviors in Conscious Rats**
Michael S. King[1], Paige Angelson[2], Joshua Hargrove[1], Matthew Clayman[1]. *[1]Stetson University, DeLand, FL, United States, [2]Daytona State College, Daytona Beach, FL, United States*

34 #P293 **Effects of expectation on gustatory processing and multi-area interactions**
Matthew P.H. Gardner[1], Chad Samuelsen[2], Maolong Cui[3], Jozsef Fiser[3], Alfredo Fontanini[2]. *[1]Program in Neuroscience, Stony Brook University, Stony Brook, NY, United States, [2]Department of Neurobiology and Behavior, Stony Brook University, Stony Brook, NY, United States, [3]Department of Psychology, Brandeis University, Waltham, MA, United States*

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35 #P294 **Interaction Between Top-down and Bottom-up Synaptic Potentials in the Insular Cortex of Anesthetized Rats**
Martha E Stone, Arianna Maffei, Alfredo Fontanini. *Department of Neurobiology and Behavior, Stony Brook University, Stony Brook, NY, United States*

36 #P295 **Parametric evaluation of the time course of PKMzeta inhibitor effectiveness**
Yaihara Fortis-Santiago, Joshua Figueroa, Emma Reid, Donald B. Katz. *Brandeis University, Waltham, MA, United States*

37 #P296 **Umami and Saltiness: do they play with the same rules in the match of tastes? – an fMRI study**
Emilia Iannilli[1], Bano Singh[1,3], Benno Schuster[1], Johannes Gerber[2], Basile N. Landis[1,4]. *[1]Smell and Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, [2]Department of Neuroradiology, University of Dresden Medical School, Dresden, Germany, [3]Department of Oral Biology, Faculty of Dentistry, University of Oslo, Oslo, Norway, [4]Departments of Otolaryngology Head and Neck Surgery, University of Geneva Medical School and Geneva University Hospitals, Geneva, Switzerland*

38 #P297 **Electrical neuroimaging of gustatory perception in humans**
Kathrin Ohla, Julie Hudry, Johannes le Coutre. *Nestlé Research Center, Lausanne, Switzerland*

39 #P298 **Multiple Neuronal Subpopulations emerge from the Olfactory Placode During Development**
Alexandra M. Miller[1, 3, 4], Lydia R. Maurer[1], Charles A. Greer[1,2,3]. *[1]Department of Neurosurgery, Yale University School of Medicine, New Haven, CT, United States, [2]Department of Neurobiology, Yale University School of Medicine, New Haven, CT, United States, [3]Interdepartmental Neuroscience Program (INP), New Haven, CT, United States, [4]Medical Scientist Training Program, New Haven, CT, United States*

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40 #P299 **Development of a Mouse Embryonic Stem Cell Model for Neurogenesis and Localization of RARa and RARg in these Cells**
FaMitah Q. Buchanan[1], Elvin A. Woodruff III[2], Cecile Rochette-Egly[3], Mary Ann Asson-Batres[1]. *[1]Tennessee State University, Nashville, TN, United States, [2]Vanderbilt University, Nashville, TN, United States, [3]Institut de Génétique et de Biologie Moleculaire et Cellulaire, Strasbourg, France*

41 #P300 **Genetic Manipulation of Sox2 in the Adult Olfactory Epithelium During Lesion-Induced Regeneration**
Adam I. Packard[1], James E. Schwob[1]. *[1]Tufts University School of Medicine, Boston, MA, United States, [2]Tufts University School of Medicine, Boston, MA, United States*

42 #P301 **The Transcription Factor p63 is Required for the Differentiation of Horizontal Basal Cells During Development**
Nikolai Schnittke, Adam Packard, James E Schwob. *Department of Anatomy & Cellular Biology, Tufts University School of Medicine, Boston, MA, United States*

43 #P302 **IFT88 Regulates Olfactory Cilia Maintenance and Function**
Jeremy C. McIntyre, Paul M. Jenkins, Dyke P. McEwen, Jeffrey R. Martens. *University of Michigan, Ann Arbor, MI, United States*

44 #P303 **Fasciculation of Molecularly Defined Subsets of Axons in the Developing Olfactory Nerve Pathway**
Lydia R. Maurer[1], Alexandra M. Miller[1,3,4], Charles A. Greer[1,2,3]. *[1]Department of Neurosurgery, Yale University School of Medicine, New Haven, CT, United States, [2]Department of Neurobiology, Yale University School of Medicine, New Haven, CT, United States, [3]Interdepartmental Neuroscience Program (INP), New Haven, CT, United States, [4]Medical Scientist Training Program, New Haven, CT, United States*

45 #P304 **Bridging Multiple Time-Scales in the Signal Transduction of the Mouse Olfactory Receptor Neuron**
Daniel P. Dougherty. *Michigan State University, East Lansing, MI, United States*

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46 #P305 **A neural code for binary odorant mixture interactions in the nose**
Ginny E Cruz, Graeme Lowe. *Monell Chemical Senses Center, Philadelphia, PA, United States*

47 #P306 **Influence of the chemical structure on odor intensity and odor character of halogenated and methylated phenols**
Andrea Strube[1], Andrea Buettner[1,2]. *[1]Fraunhofer Institute for Process Engineering and Packaging (IVV), Freising, Germany, [2]Department of Chemistry and Pharmacy, Emil Fischer Center, University of Erlangen-Nuremberg, Erlangen, Germany*

48 #P307 **The first quantitative model of the nasal aerodynamics in mouse**
Jianbo Jiang[1], Yuehao Luo[1], Michael Dishowitz[2], Alexander C Wright[3], Kai Zhao[*1]. *[1]Monell chemical senses center, Philadelphia, PA, United States, [2]Department of Animal Biology, University of Pennsylvania, Philadelphia, PA, United States, [3]Radiology, University of Pennsylvania Medical Center, Philadelphia, PA, United States*

49 #P265 **Insect Olfaction and the Electrostatic Effect**
Thomas M. Dykstra. *Dykstra Laboratories, Inc., Gainesville, FL, United States*

50 #P308 **Implicit modulation of preferences for odors by explicit choices in long-term memory**
Géraldine Coppin[1,2], Sylvain Delplanque[1,2], Charlène Fournier[1,2], David Sander[1,2]. *[1]Swiss Center for Affective Sciences, University of Geneva, rue des Battoirs 7, Geneva, Switzerland, [2]Laboratory for the study of Emotion Elicitation and Expression (E3 Lab), University of Geneva, 40 Bld du Pont d'Arve, Geneva, Switzerland*

51 #P309 **The eyes see what the nose smells: Olfactory modulation of visual perception in binocular rivalry**
Wen Zhou[1,3], Yi Jiang[1], Sheng He[2], Denise Chen[3]. *[1]Chinese Academy of Sciences, Beijing, China, [2]Chinese Academy of Sciences, Beijing, China, [3]University of Minnesota, Minneapolis, MN, United States, [4]Rice University, Houston, TX, United States*

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52 #P310 **Virus-infected female mice attract male mice through pheromone up-regulation**
Koichi Matsumura[1], Maryanne Opiekun[1], Takuya Tashiro[2], Kenji Mori[2], Kunio Yamazaki[1], Gary K. Beauchamp[1].
[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]RIKEN Research Center for Allergy and Immunology, Kanagawa, Japan

53 #P311 **Human Male Superiority in Olfactory Sensitivity to the Sperm-Attractant Odorant Bourgeonal**
Peter Olsson, Matthias Laska. *Linköping University, Linköping, Sweden*

Sunday, April 25, 2010

7:00 am – 10:30 am **REGISTRATION**
Grand Palm - Colonnade West

7:30 am – 9:00 am **CONTINENTAL BREAKFAST**
Banyan Breezeway

8:00 am – 10:00 am **PLATFORM PRESENTATIONS – THROUGH THE NOSE**
Island Ballroom

8:00 am #51 **CO_2 Receptor Response Modifying Odors; Novel Tools for Control of Mosquitoes**
Stephanie Turner[1], Nan Li[2], Ring Carde[2], Anandasankar Ray[1,2].
[1]Cellular, Molecular, and Developmental Biology, University of California, Riverside, CA, United States, [2]Department of Entomology, University of California, Riverside, CA, United States

8:15 am #52 **RNAi-mediated dissection of olfactory behavioral response profiles of odorant binding proteins in Drosophila melanogaster**
Shilpa Swarup[1,2], Trudy.F.C Mackay[1,2], Robert.R.H Anholt[1,2,3].
[1]Department of Genetics, Raleigh, NC, United States, [2]W. M. Keck Center for Behavioral Biology, Raleigh, NC, United States, [3]Department of Biology, Raleigh, NC, United States

8:30 am #53 **Calcium imaging of retronasal odor responses in the olfactory bulb (OB) in the anesthetized rat**
Shree H. Gautam[1,2], Justus V. Verhagen[1, 2]. *[1]The John B Pierce Laboratory, New Haven, CT, United States, [2]Yale University School of Medicine, New Haven, CT, United States*

8:45 am #54 **Systems Level Decoding of Odor Receptor Chemical Space *In Silico***
Sean M. Boyle[1], Shane G. McInally[2], Anandasankar Ray[1,2].
[1]Genetics, Genomics and Bioinformatics Program, University of California, Riverside, CA, United States, [2]Department of Entomology, University of California, Riverside, CA, United States

9:00 am #55 **The Missense of Smell: Functional Variability in the Human Odorant Receptor Repertoire**
Joel D. Mainland, Hiroaki Matsunami. *Duke University, Durham, NC, United States*

9:15 am #56 **NCKX4, a calcium regulator, efficiently terminates the olfactory response and moderates the extent of adaptation**
Aaron B. Stephan[1], Steven Tobochnik[1], Johannes Reisert[2], Haiqing Zhao[1]. *[1]Johns Hopkins University, Baltimore, MD, United States, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

9:30 am #57 **CAGE MATCH! Effect of Rodent Housing Conditions on Aggressive Behavior and P2 Glomerular Anatomy**
Ernesto Salcedo, Anthony Oliva, Jennifer Hellier, Kanthaiah Koka, Daniel Tollin, Xuan Ly, Diego Restrepo. *University of Colorado Denver, Denver, CO, United States*

9:45 am #58 **A Brain-Machine Interface Through the Nose: Wheelchair Driving**
Anton Plotkin[1], Lee Sela[1], Aharon Weissbrod[1], Nahum Soroker[2,3], Noam Sobel[1]. *[1]Weizmann Institute of Science, Rehovot, Israel, [2]Loewenstein Rehabilitation Hospital, Raanana, Israel, [3]Sackler Faculty of Medicine, Tel-Aviv University, Tel-Aviv, Israel*

10:00 am – 10:30 am **BREAK**
Pavilion

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8:00 am – 12:30 pm **POSTER SESSION VII: OLFACTORY PSYCHOPHYSICS & CLINICAL STUDIES; CENTRAL OLFACTION**
Pavilion

1 #P312 **The characteristic aroma compounds in raw nonpareil almond kernel are enzymatic products**
Jae Kwak[1], Adam Faranda[1], Joshua M Henkin[2], Michelle Gallagher[3], Larry Mink[3], George Preti[1, 4], Patrick E McGovern[2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Biomolecular Archaeology Laboratory, University of Pennsylvania Museum of Archaeology and Anthropology, Philadelphia, PA, United States, [3]Dow Chemical, Spring House, PA, United States, [4]Department of Dermatology, School of Medicine, University of Pennsylvania, Philadelphia, PA, United States*

2 #P313 **The Relationship between Intranasal Volume and Olfactory Performance**
Valentin Schriever[1,2], Jessica Albrecht[1], Renée Mihail[1], Johannes Gerber[3], Johan N. Lundstrom[1,4,5]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Neurophysiology and Cellular Biophysics, Goettingen, Germany, [3]Neuroradiology, University Hospital Carl Gustav Carus, Dresden, Germany, [4]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States, [5]Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden*

3 #P314 **Olfactory Scintigraphy in Normal Volunteer by Intranasal Tl-201 Administration**
Takaki Miwa[1], Hideaki Shiga[1], Junichi Taki[2], Seigo Kinuya[2], Kohshin Washiyama[3]. *[1]Department of Otorhinolaryngology, Kanazawa Medical University, Kahoku, Japan, [2]Department of Nuclear Medicine, Kanazawa University, Kanazawa, Japan, [3]Department of Forefront Medical Technology, Guraduate School of Medical Science, Kanazawa University, Kanazawa, Japan*

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4 #P315 **Effects of Odor Discrimination Task Manipulation on Performance**
Kathleen M. VanDeGrift[1], Lloyd Hastings[1], Melinda S. Brearton[1], Robert A. Frank[2], Brittany Carlisle[2], Katheryn G. Pointer[2]. *[1]Osmic Enterprises, Inc., Cincinnati, OH, United States, [2]University of Cincinnati, Cincinnati, OH, United States*

5 #P316 **Time Course of Human Perceptual Odor Disadaptation**
Ryan R. Keith[1,2], Erica Rodriguez[1], Swati Pradeep[1], Katherine Boylan[1], Danielle Broome[1], David W. Smith[1,2]. *[1]Department of Psychology, Gainesville, FL, United States, [2]Center for Smell and Taste, Gainesville, FL, United States*

6 #P317 **Training the inter-nostril localization ability of olfactory chemicals**
Simona Negoias[1], Oxana Aszmann[1], Johannes Gerber[2]. *[1]Interdisciplinary Centre for Smell and Taste, ENT Clinic, University of Dresden Medical School, Dresden, Germany, [2]Clinic of Neuroradiology, University of Dresden Medical School, Dresden, Germany*

7 #P318 **Similarities and differences between sensory systems in the localsiation of unilateral nasal stimuli**
Johannes Frasnelli, Valerie A. La Buissonniere Ariz, Olivier Collignon, Franco Lepore. *CERNEC, Universite de Montreal, Montreal, QC, Canada*

8 #P319 **Nasal Epithelial Responses in a Murine Model of Allergic Rhinitis**
Virginia McM. Carr, Alan M. Robinson, Robert C. Kern. *Dept. of Otolaryngology - Head and Neck Surgery, Fineberg School of Medicine, Northwestern University, Chicago, IL, United States*

9 #P320 **Influence of sinunasal diseases on olfactory function and quality of life**
Franziska Krone[1], Ilona Croy[1], Jürgen Pade[2], Angelika Pade[2], Thomas Hummel[1]. *[1]Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, [2]Department of Otorhinolaryngology, St.-Johannes Hospital, Dortmund, Germany*

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10 #P321 **Olfactory neural responses of anosmics: A pilot fMRI study**
Veronika Schöpf[1,2], Christian A Mueller[3], Christian Windischberger[1,2], Ewald Moser[1,2]. *[1]MR Centre of Excellence, Medical University Vienna, Vienna, Austria, [2]Medical Physics and Biomedical Engineering, Medical University Vienna, Vienna, Austria, [3]Department of Otorhinolaryngology, Medical University Vienna, Vienna, Austria*

11 #P322 **Investigation of detection and pain thresholds at different sites at the human nasal mucosa in healthy subjects and patients with chronic rhinosinusitis**
Mandy Scheibe, Annika Schmidt. *Ent Department, Dresden, Germany*

12 #P323 **Odors, Asthma and Risk Perception**
Cristina Jaen, Pamela H. Dalton. *Monell Chemical Senses Center, Philadelphia, PA, United States*

13 #P324 **Olfaction in Burning Mouth Syndrome**
Yuri L. Yakov, Svetlana Yakov, Alan R. Hirsch. *Smell & Taste Treatment and Research Foundation, Chicago, IL, United States*

14 #P325 **Eruction Sensitive Subjective Hypogeusia**
Alan R. Hirsch. *Smell & Taste Treatment and Reasearch Foundation, Chicago, IL, United States*

15 #P326 **Identification of odor active substances in human amniotic fluid**
Constanze Hartmann[1], Sébastien Doucet[1,2,3], Ralf Dittrich[4], Benoist Schaal[3], Andrea Buettner[1,2]. *[1]University of Erlangen-Nuremberg, Department of Chemistry and Pharmacy, Erlangen, Germany, [2]Fraunhofer Institute for Process Engineering and Packaging, Freising, Germany, [3]Centre des Sciences du Gout, Developmental Ethology and Cognitive Psychology Group, Dijon, France, [4]University of Erlangen-Nuremberg, University Hospital Erlangen, Erlangen, Germany*

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16 #P327 **Human Neonatal Responses to Androstenone**
Sebastien Doucet[1,2,3], Constanze Hartmann[2], Ralph Dittrich[4], Robert Soussignan[1], Benoist Schaal[1], Andrea Buettner[2,3]. *[1]Developmental Ethology and Cognitive Psychology Group, Centre des Sciences du Goût, CNRS, Dijon, France, [2]Department of Chemistry and Pharmacy, Emil Fischer Center, University of Erlangen-Nuremberg, Erlangen, Germany, [3]Sensory Analytics, Fraunhofer Institute for Process Engineering and Packaging IVV, Freising, Germany, [4]University-Hospital Erlangen, University of Erlangen-Nuremberg, Erlangen, Germany*

17 #P328 **The Scent of Nurturing: Experimental Evidence supporting the Priming of Infant Nurturing Behavior by Baby Powder Fragrance**
Monique A. Smeets, Nikola M. Jörg, Judith Dubas, Henk Aarts. *Utrecht University, Utrecht, Netherlands*

18 #P329 **Effect Of Sensory Education On Categorisation of Unknown Odors In Children**
Caroline Reverdy[1], Christine Lange[2], Adeline Thibaut[2], Pascal Schlich[2], Egon Peter Köster[3]. *[1]Pancosma, Le Grand Saconnex, Switzerland, [2]CESG, Dijon, France, [3]CICS, Wageningen, Netherlands*

19 #P330 **The Effect of the Stimulation of Traditional Korean Medicine Acupunctural Points on Olfactory Function**
Nina J. Rhim, David E. Hornung. *St. Lawrence University, Canton, NY, United States*

20 #P331 **Phantosmia Treatment with Olfactory Counterstimulation – A Case Report**
Amal Asiri, Allan Hirsch. *The Smell & Taste Treatment and Research Foundation, Chicaho, IL, United States*

21 #P332 **Filial Catamenial Phantosmia**
Jhanvi Menon, Alan R. Hirsch, Jhoette Dumlao. *The Smell and Taste Treatment and Research Foundation, Chicago, IL, United States*

22 #P333 **Developmental fine-tuning of olfactory discriminability**
Xiaomeng Zhang, Kepu Chen, Wen Zhou. *Institute of Psychology, Chinese Academy of Sciences, Beijing, China*

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23 #P334 **Quantifying Olfactory Function in the Aging U.S. Population: A Home Test**
David W. Kern[1], L. Philip Schumm[2], Martha K. McClintock[1]. *[1]Department of Comparative Human Development and Institute for Mind and Biology, University of Chicago, Chicago, IL, United States, [2]Department of Health Studies, University of Chicago, Chicago, IL, United States*

24 #P335 **Olfaction and Executive Function in the Beaver Dam Offspring Study**
Carla R. Schubert[1], Karen J. Cruickshanks[1], Guan-Hua Huang[2], Barbara EK Klein[1], Ronald Klein[1], James S. Pankow[3], David M. Nondahl[1]. *[1]University of Wisconsin, Madison, WI, United States, [2]National Chiao Tung University, Hsinchu, Taiwan, [3]University of Minnesota, Minneapolis, MN, United States*

25 #P336 **The Effect of Aging on Human Olfactory Ability**
Caitlin E Welch, David E Hornung. *St. Lawrence University, Canton, NY, United States*

26 #P337 **Demographic Effects on Olfactory and Gustatory Function in Healthy Chinese**
Ling Yang[1], Yongxiang Wei[2], Di Yu[1], Jinfeng Zhang[1], Yuehong Liu[1]. *[1]The Center Lab of Beijing Tongren Hospital, Capital Medical University, Beijng, China, [2]The Department of Otolaryngology-Head & Neck Surgery, Beijing Chaoyang Hospital, Capital Medical University, Beijing, China*

27 #P338 **Is there a shift in odor pleasantness with age?**
Pauline Joussain[1,2], Johan Poncelet[1,2], Catherine Rouby[1,2], Moustafa Bensafi[1,2]. *[1]Université de Lyon, Lyon, France, [2]CNRS UMR5020, Neurosciences sensorielles, comportement, Cognition, Lyon, F-69007, France*

28 #P339 **Aging does not reduce the proliferative capacity nor the distribution of progenitor cells in the VNO**
Jessica H Brann[1], Stuart Firestein[1, 2]. *[1]Department of Biological Sciences, Columbia University, New York, NY, United States, [2]Program in Neurobiology and Behavior, Columbia University, New York, NY, United States*

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29 #P340 **Clinical usefulness of Japanese version of University of Pennsylvania Smell Identification Test (UPSIT-J) to Japanese population**
Masayoshi Kobayashi, Hitomi Ogihara, Kohei Nishida, Masako Kitano, Kazuhiko Takeuchi. *Otorhinolaryngology-Head and Neck Surgery, Mie University Graduate School of Medicine, Tsu, Mie, Japan*

30 #P341 **The Odor Naming Power Test: Evaluating the Relationship of Odor Naming Ability and Recognition Memory Performance**
Melinda S. Brearton[1], Trevor C. Cessna[2], Kathleen M. VanDeGrift[1], Lloyd Hastings[1], Robert A. Frank[2]. *[1]Osmic Enterprises, Inc., Cincinnati, OH, United States, [2]University of Cincinnati, Cincinnati, OH, United States*

31 #P342 **Early Neurocognitive Changes Exhibited by Those at Risk for Alzheimer's Disease**
Charlie D. Morgan[1], Claire Murphy[1,2]. *[1]San Diego State University, Department of Psychology, San Diego, CA, United States, [2]University of California Medical Center, San Diego, CA, United States*

32 #P343 **The Role of Odor Identification in Discriminating Depression from Probable Alzheimer's Disease in Older Adults**
Emily S Bower, Claire Murphy. *San Diego State University, San Diego, CA, United States*

33 #P344 **Olfactory dysfunction in patients with Parkinson's disease is related to gray matter atrophy in regions of the olfactory cortex**
Birgit Westermann[1], Elise Wattendorf[2], Thomas Hummel[3], Antje Welge-Luessen[4]. *[1]Department of Neurosurgery, University Hospital, University of Basel, Basel, Switzerland, [2]Anatomy Unit, University of Fribourg, Fribourg, Switzerland, [3]Smell and Taste Clinic, University of Dresden Medical School, Dresden, Germany, [4]Department of Otorhinolaryngology, University Hospital, University of Basel, Basel, Switzerland*

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34 #P345 **The course of olfactory deficits in patients with Parkinson's disease – a long term study**
Thomas Meusel[1], Birgit Westermann[2], Peter Fuhr[3], Antje Welge-Lüssen[1]. *[1]Dept. of Otorhinolaryngology, University Hospital, Basel, Switzerland, [2]Dept. of Neurosurgery, University Hospital, Basel, Switzerland, [3]Dept. of Neurology, University Hospital, Basel, Switzerland*

35 #P346 **Functional and morphometric studies of the olfactory system in patients with idiopathic normal pressure hydrocephalus**
Dino Podlesek[1], Matthias Kirsch[1], Thomas Hummel[2], Johannes Gerber[3], Gabriele Schackert[1]. *[1]University Hospital Carl Gustav Carus Department of Neurosurgery, Dresden, Germany, [2]University Hospital Carl Gustav Carus, Department of Otorhinolaryngology, Dresden, Germany, [3]University Hospital Carl Gustav Carus, Department of Neuroradiology, Dresden, Germany*

36 #P347 **Pre-exposure to odour mixture modifies the perceptual quality of the components**
Thierry Thomas-Danguin[1], Charlotte Sinding[1,2], Boris Bervialle[1,2], Benoist Schaal[2], Gérard Coureaud[2]. *[1]FLAVIC, Equipe Perception de la Flaveur, UMR 1129 INRA/UB/ENESAD, DIJON, France, [2]Centre des Sciences du Goût, Equipe d'Ethologie et de Psychobiologie Sensorielle, UMR 5170 CNRS/UB/INRA, DIJON, France*

37 #P348 **Is action inherently encoded into odor?**
Yaara Yeshurun, Yadin Dudai, Noam Sobel. *Department of Neurobiology, Weizmann Institute of Science, Rehovot, Israel*

38 #P349 **Determinants of the Pleasantness of Odor Mixtures**
Per Møller, Ditte Hartvig, Wender Bredie. *University of Copenhagen, Copenhagen, Denmark*

39 #P350 **Body Odors Modulate Detection Speed of Visual Emotional Stimuli**
Amy R. Gordon[1,2], Mats J. Olsson[2], Johan N. Lundstrom[1,2,3]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Section of Psychology, Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden, [3]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States*

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40 #P351 **Influence of Odor Hedonics, Food-relatedness and Motivational State on Human Sniffing**
John Prescott[1], James Burns[1], Robert A Frank[2]. *[1]University of Newcastle, Ourimbah, NSW, Australia, [2]University of Cincinnati, Cincinnati, OH, United States*

41 #P352 **Feeding and Ghrelin Administration Modify Sniff Behavior in Humans**
Jenny Tong, Erica Mannea, Harold W Davis, Matthias H Tschoep, Robert A Frank. *University of Cincinnati, Cincinnati, OH, United States*

42 #P353 **Olfactory sensitivity related to hunger state, BMI and negative mood**
Lorenzo D Stafford, Kimberley Welbeck. *University of Portsmouth, Portsmouth, United Kingdom*

43 #P354 **Neural correlates of olfactory selective attention**
Christina Zelano, Katie Phillips, Aprajita Mohanty, James Howard, Keng Nei Wu, Jay Gottfried. *Northwestern University, Chicago, IL, United States*

44 #P355 **Differential activation of neural networks in an odor recognition task: an event-related fMRI study**
Jean-Pierre Royet[1], Léri Morin-Audebrand[2,4], Barbara Cerf-Ducastel[3], Lori Haase[3], Sylvie Issanchou[4], Claire Murphy[3], Pierre Fonlupt[5], Claire Sulmont-Rossé[4]. *[1]1, LYON, France, [2]2,4, SION, Switzerland, [3]3, San Diego, CA, United States, [4]3, San Diego, CA, United States, [5]4, Dijon, France, [6]3, San Diego, CA, United States, [7]5, Bron, France, [8]4, Dijon, France*

45 #P356 **Odor Coding in the Human Brain: Effect of Expectation**
Jane Plailly[1], James D Howard[2], Jay A Gottfried[2,3]. *[1]UMR 5020 CNRS - Université Lyon 1, Lyon, France, [2]Department of Neurology, Northwestern University Feinberg School of Medicine, Chicago, IL, United States, [3]Department of Psychology, Northwestern University Weinberg College of Arts and Sciences, Evanston, IL, United States*

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46 #P357 **Brain activity during lateralized olfactory stimulation and retrieval – an fMRI Study**
Soraya Krieg[1,2], Thomas Meusel[1], Markus Klärhofer[3], André Arnoux[2], Thomas Hummel[4], Birgit Westermann[1,5], Antje Welge-Lüssen[1]. *[1]Dept. of Otorhinolaryngology, University Hospital Basel, Basel, Switzerland, [2]Dept. of Otorhinolaryngology, Kantonsspital Aarau, Aarau, Switzerland, [3]Division of Radiological Physics, University Hospital Basel, Basel, Switzerland, [4]Smell & Taste Clinic, University of Dresden Medical School, Dresden, Germany, [5]Dept. of Neurosurgery, University Hospital Basel, Basel, Switzerland*

47 #P358 **Contextual modulation of odor valence coding**
Aprajita Mohanty, James D. Howard, Katie M. Phillips, Keng Nei Wu, Christina Zelano, Jay A. Gottfried. *Northwestern University, Chicago, IL, United States*

48 #P359 **Altered processing of olfactory stimuli in women with a history of childhood maltreatment: A functional MRI study**
Ilona Croy[1,2], Julia Schellong[1], Johannes Gerber[3], Peter Joraschky[1], Emilia Iannilli[2], Thomas Hummel[2]. *[1]University of Dresden Medical School Department of Psychosomatic Therapy, Dresden, Germany, [2]University of Dresden Medical School Department of Otorhinolaryngology, Dresden, Germany, [3]University of Dresden Medical School Department of Neuroradiology, Dresden, Germany*

49 #P360 **Brain mechanisms controlling the soft palate**
Roni Kahana, Lee Sela, Noam Sobel. *Weizmann Institute of Science, Rehovot, Israel*

50 #P361 **A Brain-Machine Interface Through the Nose: Text Writing**
Lee Sela[1], Anton Plotkin[1], Aharon Weissbrod[1], Nachum Soroker[2,3], Noam Sobel[1]. *[1]Weizmann institute of science, Rehovot, Israel, [2]Loewenstein Rehabilitation Hospital, Raanana, Israel, [3]Sackler Faculty of Medicine, Tel-Aviv, Israel*

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51 #P362 **Size Matters: Volumetric Relationship between the Olfactory Bulb and Olfactory Brain Areas**
Eva C. Alden[1], Jessica Albrecht[1], Emilia Iannilli [2], Johannes Gerber [3], Thomas Hummel [2], Johan Lundstrom[1,4,5]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Smell and Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, [3]Neuroradiology, University Hospital Carl Gustav Carus Dresden, Dresden, Germany, [4]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States, [5]Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden*

52 #P363 **Spontaneous Ca^{2+} Oscillations in Olfactory Bulbs of Neonatal Mice**
Mavis Irwin[1], Mary T Lucero[1,2]. *[1]Department of Physiology, University of Utah, Salt Lake City, UT, United States, [2]Neuroscience Program, Salt Lake City, UT, United States*

53 #P364 **Purinergic Receptor-Mediated Ca^{2+} Signaling in Cells of the Olfactory Bulb and the Periventricular Zone of the Lateral Telencephalic Ventricles**
Ivan Manzini[1,2], Philipp Schulz[1], Thomas Hassenklöver[1,2], Anna Peters[1], Detlev Schild[1,2]. *[1]Department of Neurophysiology and Cellular Biophysics, University of Göttingen, Humboldtallee 23, Göttingen, Germany, [2]DFG Research Center for Molecular Physiology of the Brain (CMPB), University of Göttingen, Humboldtallee 23, Göttingen, Germany*

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AChemS

Association for Chemoreception Sciences

PROGRAM AT A GLANCE

Registration
3:30 pm to 8:00 pm

Registration
7:00 am to 1:00 pm, 6:30 pm to 7:30 pm

Registration
7:30 am to 1:00 pm, 6:00 pm to 7:00 pm

WEDNESDAY, APRIL 21

AChemS Executive Committee Meeting
12:00 PM - 3:30 PM
SNOWY EGRET

Welcome Banquet
6:00 PM - 8:00 PM
BUNYAN BREEZEWAY/ GARDEN COURTYARD

Welcome/Awards Ceremony
8:00 PM - 9:00 PM
ISLAND BALLROOM

Givauden Lecture
9:00 PM - 10:00 PM
ISLAND BALLROOM

THURSDAY, APRIL 22

Platform Presentations - Tip of the Tongue
8:00 AM - 10:00 AM
ISLAND BALLROOM

Break
10:00 AM - 10:30 AM
BANYAN BREEZEWAY

Symposium - Genetics of Human Olfaction
10:30 AM - 12:35 PM
ISLAND BALLROOM

Industry Symposium
1:00 PM - 4:05 PM
ISLAND BALLROOM

Industry Reception
(Ticketed Event)
4:15 PM - 6:00 PM
BRECK DECK NORTH

Break
6:30 PM - 8:30 PM
BANYAN BREEZEWAY

Presidential Symposium: Neurotransmitters and Neuromodulators in the Taste Bud
7:30 PM - 9:35 PM
ISLAND BALLROOM

POSTER SESSION I: Taste Imaging & Psychophysics; Central Taste; Multiple Modalities; Central & Peripheral Olfaction
8:00 AM - 12:30 PM
PAVILION

Break
2:10 PM - 2:25 PM
GRAND PALM COLONNADE

NIH Workshop: Funding Opportunities for the New Investigator
3:00 PM - 5:00 PM
ROYAL TERN

POSTER SESSION II: Olfactory Physiology & Cell Biology; Taste Molecular Genetics; Chemesthesis & Trigeminal
7:00 PM - 11:00 PM
PAVILION

FRIDAY, APRIL 23

Symposium - Cilia, Sensory Dysfunction and Disease
8:00 AM - 10:40 AM
ISLAND BALLROOM

Break
10:40 AM - 11:00 AM
BANYAN BREEZEWAY

Platform Presentations - Polak Young Investigator Award Winners
11:00 AM - 12:15 PM
ISLAND BALLROOM

POSTER SESSION III: Olfactory Perception, Human Psychophysics & Animal Behavior; Peripheral Taste Development & Signaling
8:00 AM - 12:30 PM
PAVILION

AChemS Business Meeting
12:45 PM - 2:45 PM
ISLAND BALLROOM

NIH Workshop: The NIH Peer Review Process
3:00 PM - 4:00 PM
ROYAL TERN

ChEMA Social
5:00 PM - 7:00 PM
BRECK DECK NORTH

IFF Lecture - Mammalian Taste
7:00 PM - 8:00 PM
ISLAND BALLROOM

Break
8:00 PM - 8:15 AM
BANYAN BREEZEWAY

Symposium - Sensory Integration and Competition
8:15 PM - 10:20 PM
ISLAND BALLROOM

POSTER SESSION IV: Chemosensory Transduction and Signaling
7:00 PM - 11:00 PM
PAVILION

Registration
7:30 am to 1:00 pm, 6:30 pm to 7:30 pm

Registration
7:00 am to 10:30 am

SATURDAY, APRIL 24

Symposium - Chemoreception in Context: Interactions with Endocrine Systems and Metabolic State
8:00 AM - 10:05 AM
ISLAND BALLROOM

Break
10:05 AM - 10:30 AM
BANYAN BREEZEWAY

Symposium - Wiring the Olfactory Systems
10:30 AM - 12:35 PM
ISLAND BALLROOM

POSTER SESSION V: Central Olfaction; Chemosensory Psychophysics & Clinical Studies
8:00 AM - 12:30 PM
PAVILION

Clinical Luncheon
(Ticketed Event)
New Clinical Trial Funding Opportunities at NIDCD
12:45 PM - 2:45 PM
HORIZONS

Break
6:30 PM - 8:00 PM
BANYAN BREEZEWAY

Symposium - Transient Dynamics, Metastable States and Temporal Coding in Chemosensory Processing
7:30 PM - 9:35 PM
ISLAND BALLROOM

POSTER SESSION VI: Peripheral and Central Taste; Peripheral Olfaction
7:00 PM - 11:00 PM
PAVILION

SUNDAY, APRIL 25

Platform Presentations - Through the Nose
8:00 AM - 10:00 AM
ISLAND BALLROOM

Break
10:00 AM - 10:30 AM
PAVILION

POSTER SESSION VII: Olfactory Physchophysics & Clinical Studies; Central Olfaction
8:00 AM - 12:30 PM
PAVILION

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Notes

See you next year!

AChemS 33rd Annual Meeting

April 13-17, 2011

Tradewinds Resort | St. Pete Beach, Florida

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helping cultivate our customers' market success.