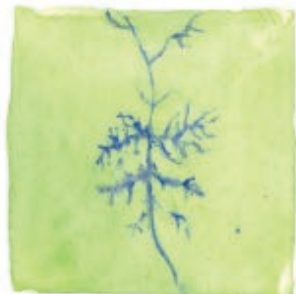
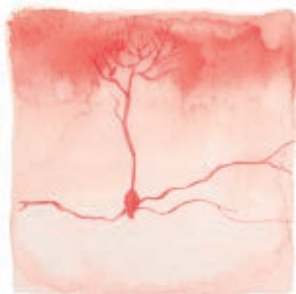
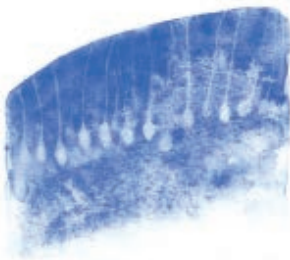


PROGRAM



AChemS

Association for Chemoreception Sciences



AChemS XXXVI

The Association for Chemoreception Sciences

36th Annual Meeting

April 9-12, 2014

Hyatt Regency Coconut Point
Bonita Springs, FL

**PepsiCo is proud to support
AChemS
and its commitment to advancing an understanding
of the chemical senses.**



**Human
Sustainability**



**Environmental
Sustainability**



**Talent
Sustainability**

Performance with Purpose is PepsiCo's goal to deliver sustained value by providing a wide range of foods and beverages, from treats to healthy eats; finding innovative ways to minimize our impact on the environment and lower our costs through energy and water conservation as well as reduce use of packaging material; providing a safe and inclusive workplace for our employees globally; and respecting, supporting and investing in the local communities in which we operate.



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ACChemS

Association for Chemoreception Sciences

ACChemS 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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Other Sponsors



A special thank you to **Ghislaine Polak** and the late **Ernest Polak**
for supporting the **Polak Young Investigators Awards** and the
Postdoctoral Travel Awards.

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



EXHIBIT HOURS

Thursday, April 10
8:00 am – 10:00 am

Friday, April 11
8:00 am – 10:00 am

Saturday, April 12
8:00 am – 10:00 am



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, an 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: Lloyd Hastings and Bruce Johnson



Oxford University Press

Oxford University Press is a publisher of some of most prestigious books and journals in the world. They include *Chemical Senses*, the official journal of ACHEMS, ECRO and JASTS. Visit our stand to pick up gratis copies of our journals, or go to www.oxfordjournals.org to read a free issue online.

Company representative: Jennifer Boyd



Sensonics, Inc.

Sensonics International provides the medical, scientific and industrial communities with the best smell and taste tests for assessing chemosensory function. The Smell Identification Test™ is the most widely used quantitative olfactory test in the world.

Company representatives: Kyra Milnamow, Dan Martino and Jerilyn Wissa



Sophion

With our latest product, the Qube, Sophion has taken automated patch clamp to a new level now providing state-of-the-art automated patch clamp systems for medium to high throughput. With QPatch and Qube we offer uncompromised data quality in a user-friendly set up from assay development to data analysis.

Our business philosophy is based on delivering complete customer focused support which includes technical, biological, and application solutions 24 hours day.

Company representatives: Richard Kondo and Hervor Lykke Olsen



Tucker-Davis Technologies

For over 10 years TDT has provided the AChemS community with innovative research platforms. Our integrated hardware & software configurations have evolved, with increased user-friendly design & proven lab testing. The latest from TDT includes new control systems for Optogenetics, Awake Behaving Subjects, & Electrode Design. Outperform all other research systems with TDT.

Company representatives: Victor Rush and Nafi Yasar

NEW THIS YEAR!



This Breakfast Table will discuss possible mechanisms of a specific flavor-modifying peptide. This peptide enhances the basic tastes, meaty and milky flavors. At this point, all that is known is the peptide stimulates the calcium sensing receptors. Please join us and bring your ideas.



Ever wonder about a career in the food and beverage industries? Interested in creating a research partnership with PepsiCo to achieve the goals of reducing sugar, salt, and fat while still delighting the consumer? If so, come to PepsiCo's Breakfast Corner to meet with Steve Gravina and Linda Flammer, R&D Directors in PepsiCo's Long Term Research Division. We will also have a variety of PepsiCo products for you to enjoy.

36th Annual Givaudan Lectureship

Richard Lifton, MD, PhD, Sterling Professor of Genetics and Professor of Medicine (Nephrology); Chair, Department of Genetics, Yale University; Investigator, Howard Hughes Medical Institute

20th Annual Ajinomoto Award to Promising Young Researcher in the Field of Gustation

C. Shawn Dotson, PhD, University of Florida College of Medicine and Center for Smell and Taste

23rd Annual Moskowitz Jacobs Award for Research in Psychophysics of Human Taste and Smell

Christina Zelano, PhD, Northwestern University Feinberg School of Medicine

Max Mozell Award for Outstanding Achievement in the Chemical Senses

Donald Wilson, PhD, Nathan Kline Institute and New York University Langone School of Medicine

The AChemS Young Investigator Award for Research in Olfaction

Stavros Lomvardas, PhD, University of California San Francisco

The Don Tucker Memorial Award (2013 Awardees)

Adam Clark, University of Maryland, Baltimore

Genevieve Tauxe, University of California, Riverside

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

James Corson, PhD, University of Michigan

Michael Economo, PhD, University of Utah

Chad Samuelsen, PhD, Stony Brook University

Jennifer Stratford, PhD, University of Colorado, Denver

Yiqun Yu, PhD, University of Pennsylvania

Yali Zhang, PhD, University of California, Santa Barbara

Polak Postdoctoral Travel Award Recipients

Imad Aoude, PhD, University of Maryland, Baltimore

Klaus Deckmann, PhD, University of Zurich

Thorsten Kahnt, PhD, University of Zurich

Takaaki Miyazaki, PhD, National Institutes of Health

Meng Wang, MD, PhD, Burke Medical Research Institute

AChemS Travel Fellowships for Diversity Recipients:

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

Genevieve Bell, Florida State University
Kendra Edwards, University of Maryland, Baltimore
Veronica Flores, Brandeis University
Ariell Joiner, University of Michigan
Veronica Lopez, University of Maryland, Baltimore
Kevin Lopez, Judson University
Nirvine Simon, West Chester University of Pennsylvania,
Monell Chemical Senses Center
Cedric Uytengco, University of Maryland, Baltimore

AChemS Student Housing and Travel Award Recipients

Funded by the Polak Foundation: Ghislaine Polak and the late Ernest Polak

Dolly Al Koborssy	Laura Grigereit	Lukas Meadows
Abdullah Al-Matrouk	Samer Halabiya	Lars Mizera
Dylan Barnes	Julie Hewitt	Andrew Moberly
Daniel Baum	Jaryd Hiser	Smiljana Mutic
Ryan Bohnenkamp	Jianghai Ho	Jacquelyn Omelian
Samual Bradley	James Howard	Baris Ozbay
Alexandra Brignall	Zhenbo Huang	Shreoshi Pal Choudhuri
Nadia Byrnes	Joseph Jones	Taylor Pence
Kaitlin Carlson	Benjamin Kalbe	Ofer Perl
Mitzi Carreon	Marley Kass	Cordelia Running
Wei Chen	Matthew Kochem	Ruchira Sharma
Ezen Choo	Jacqueline Krajnik	Xue Sun
Ryan Dalton	Devaki Kumarhia	Genevieve Tauxe
Rachel Dana	Trina Lapis	Chryssanthi Tsitoura
Jasper H. B. de Groot	NaHye Lee	Amit Vinograd
Jakob Dobrowolski	Carrie LeMay	Evan White
Olga Escanilla	Haixin Liu	Courtney Wilson
Christopher Ferguson	Simona Manescu	Olga Wudarczyk
Yankun Gao	Louis Martin	Joseph Zak
Elizabeth Gould	Matthew May	

Annual Meeting Logo Award Winner

Stephan Vigues, PhD, University of Maryland, Baltimore

ACHEMS EXECUTIVE COMMITTEE 2013-2014

President	John Glendinning, PhD	Barnard College, Columbia University
Past President	Alan Spector, PhD	Florida State University
Senior Advisor	Timothy McClintock, PhD	University of Kentucky
President Elect	Debra Fadool, PhD	Florida State University
Secretary	Julie Mennella, PhD	Monell Chemical Senses Center
Membership Chair	Dana Small, PhD	JB Pierce Laboratory/ Yale University
Program Chair	Steven Munger, PhD	University of Maryland School of Medicine
Treasurer	Joseph Travers, PhD	Ohio State University
Program Chair Elect	Dana Small, PhD	JB Pierce Laboratory/ Yale University
Sr. Councilor	Christiane Linster, PhD	Cornell University
Jr. Councilor	Rachel Herz, PhD	Brown University

ACHEMS PROGRAM COMMITTEE 2013-2014

Steven Munger, PhD (Chair)	John McGann, PhD
Robert Anholt, PhD	Kathryn Medler, PhD
Maik Behrens, PhD	Venky Murthy, PhD
Paul Breslin, PhD	Dana Small, PhD
Christine Byrd-Jacobs, PhD	Brian Smith, PhD
Nirupa Chaudhari, PhD	Marc Spehr, PhD
Denise Chen, PhD	Mark Stopfer, PhD
Ivan de Araujo, PhD	Lisa Stowers, PhD
Alfredo Fontanini, PhD	Ali Ventura, PhD
Johan Lundstrom, PhD	Paul Wise, PhD
Bettina Malnic, PhD	

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.

Program at a Glance

WEDNESDAY, APRIL 9, 2014

- 12:00 – 3:30 pm **ACHEMS EXECUTIVE COMMITTEE MEETING**
The Cove at Tarpon Bay
- 3:30 – 7:00 pm **REGISTRATION**
Calusa Ballroom Foyer
- 5:00 – 6:00 pm **WELCOME/AWARDS CEREMONY**
Calusa Ballroom E-H
- 6:00 – 7:00 pm **GIVAUDAN LECTURE**
GENES, GENOMES AND THE FUTURE
OF BIOMEDICINE
Exclusively sponsored by: 
Calusa Ballroom E-H
- 7:00 – 9:00 pm **WELCOME BANQUET**
Waterfall Pool Deck (*Ticketed event*)
Inclement weather backup: Calusa Ballroom A-C

THURSDAY, APRIL 10, 2014

- 7:00 am – 12:00 pm **REGISTRATION**
- 6:30 – 7:30 pm *Calusa Ballroom Foyer*
- 7:30 – 9:00 am **CONTINENTAL BREAKFAST**
Estero Ballroom Foyer
- 7:30 – 9:00 am **BREAKFAST CORNERS WITH INDUSTRY**
Estero Terrace
- 8:00 – 10:00 am ■ **POSTER SESSION I:**
OLFACTORY TRANSDUCTION AND PERIPHERAL
PHYSIOLOGY; GUSTATORY CNS: NTS AND PBN;
CHEMOSENSORY-CLINICAL; LEARNING AND
MEMORY; BITTER TASTE
Estero Ballroom
- 10:00 am – 12:00 pm **SYMPOSIUM: CODING PRINCIPLES IN THE**
ACCESSORY OLFACTORY BULB
Calusa Ballroom E-H
- 10:00 am – 12:00 pm **SYMPOSIUM: ARE MAMMALS ABLE TO**
DISCRIMINATE BETWEEN BITTER STIMULI?
Calusa Ballroom A-C


Please Note: *Filming and photographing presentations (platform and poster) is prohibited unless the presenting author has granted permission.*

Program at a Glance, *continued*

1:45 – 2:15 pm	REFRESHMENTS AVAILABLE <i>Calusa Ballroom Foyer</i>
2:00 – 4:00 pm	INDUSTRY WORKSHOP: OPEN INNOVATION: BENEFITTING CHEMOSENSORY SCIENCE THROUGH COLLABORATIVE RESEARCH <i>Calusa Ballroom E-H</i>
2:00 – 4:00 pm	THE BARRY DAVIS WORKSHOP: NIH FUNDING OPPORTUNITIES FOR THE NEW INVESTIGATOR <i>Calusa Ballroom A-C</i>
4:00 – 5:30 pm	CHEMA MENTORING/NETWORKING SOCIAL <i>Estero Ballroom Terrace and Royal Palm Courtyard</i> <i>*Inclement weather backup: Driftwood</i>
6:45 – 7:15 pm	REFRESHMENTS AVAILABLE <i>Calusa Ballroom Foyer</i>
7:00 – 9:00 pm	SYMPOSIUM: FUNCTIONAL REGENERATION IN THE SPECIAL SENSES <i>Calusa Ballroom E-H</i>
7:00 – 9:00 pm	SYMPOSIUM: BEHAVIORAL INSIGHTS INTO FOOD SELECTION AND FLAVOR PREFERENCE IN DOMESTIC AND WILD ANIMALS <i>Calusa Ballroom A-C</i>
9:00 – 11:00 pm	 POSTER SESSION II: SWEET AND POLYSACCHARIDE TASTE; OLFACTORY BULB AND ANTENNAL LOBE; CHEMOSENSORY STIMULI; TRP CHANNELS; OLFACTORY DEVELOPMENT; CHEMOSENSORY PERCEPTION AND BEHAVIOR <i>Estero Ballroom</i> <i>Cash bar available</i>

Please Note: *Filming and photographing presentations (platform and poster) is prohibited unless the presenting author has granted permission.*

FRIDAY, APRIL 11, 2014

- 7:30 am – 12:00 pm **REGISTRATION**
Calusa Ballroom Foyer
- 6:30 – 7:00 pm
- 7:30 – 9:00 am **CONTINENTAL BREAKFAST**
Estero Ballroom Foyer
- 8:00 – 10:00 am ■ **POSTER SESSION III:**
**APPETITIVE TASTE; MIXTURE DETECTION;
OLFACTORY DEVELOPMENT—LINEAGE AND
DIFFERENTIATION; OLFACTORY MODULATION;
PERIPHERAL TASTE SIGNALING**
Estero Ballroom
- 10:00 am – 12:00 pm **SYMPOSIUM: DO RODENTS DREAM OF
ODORIZED SHEEP? THE ROLE OF SLEEP IN
ENHANCING OLFACTORY PERCEPTION,
LEARNING AND BEHAVIOR**
Calusa Ballroom E-H
- 10:00 am – 12:00 pm **SYMPOSIUM: DIRECT SINGLE CELL
GENOMIC AND MICROCHEMICAL ANALYSIS
OF CELLULAR HETEROGENEITY SYSTEMS**
Calusa Ballroom A-C
- 12:00 – 1:00 pm **ACHEMS BUSINESS MEETING**
(All members are welcome and encouraged to attend)
Calusa Ballroom A-C
- 6:45 – 7:15 pm **REFRESHMENTS AVAILABLE**
Calusa Ballroom Foyer
- 7:00 – 9:00 pm **PRESIDENTIAL SYMPOSIUM:
CHEMOSENSATION IN THE GUT AND BRAIN**
Exclusively sponsored by: 
Calusa Ballroom E-H
- 9:00 – 11:00 pm ■ **POSTER SESSION IV:**
**GUSTATORY CORTEX/AMYGDALA/THALAMUS;
TRIGEMINAL/CHEMESTHESIS; OLFACTORY
DEVELOPMENT; SALT AND SOUR TASTE;
OLFACTORY TESTING AND BEHAVIOR**
Estero Ballroom
Cash bar available

Please Note: Filming and photographing presentations (platform and poster) is prohibited unless the presenting author has granted permission.

SATURDAY, APRIL 12, 2014

7:30 am – 12:00 pm	REGISTRATION
6:30 – 7:00 pm	<i>Calusa Ballroom Foyer</i>
7:30 – 9:00 am	CONTINENTAL BREAKFAST
	<i>Estero Ballroom Foyer</i>
8:00 – 10:00 am	 POSTER SESSION V: MOB CIRCUITRY; CHEMOSENSATION AND METABOLISM; PERIPHERAL GUSTATORY ANATOMY, DEVELOPMENT AND REGENERATION; CHEMOSENSORY DYSFUNCTION
	<i>Estero Ballroom</i>
10:00 – 11:30 am	POLAK YOUNG INVESTIGATOR AWARD SYMPOSIUM
	<i>Calusa Ballroom E-H</i>
12:30 – 1:45 pm	CLINICAL SYMPOSIUM: NHANES AND THE CHEMOSENSES
	<i>Calusa Ballroom E-H</i>
2:45 – 3:15 pm	REFRESHMENTS AVAILABLE
	<i>Calusa Ballroom Foyer</i>
3:00 – 5:00 pm	SYMPOSIUM: CHEMORECEPTION IN MOSQUITOES: EVOLUTION, GENOMICS AND CONTROL STRATEGIES
	<i>Calusa Ballroom E-H</i>
3:00 – 5:00 pm	SYMPOSIUM: METABOLIC INFLUENCES ON OLFACTION AND OLFACTORY-GUIDED FEEDING BEHAVIOR
	<i>Calusa Ballroom A-C</i>
6:45 – 7:15 pm	REFRESHMENTS AVAILABLE
	<i>Calusa Ballroom Foyer</i>
7:00 – 9:00 pm	SYMPOSIUM: MODULATION OF SENSORY SIGNALING AND BEHAVIORAL RESPONSE TO ODORS
	<i>Calusa Ballroom E-H</i>

Please Note: *Filming and photographing presentations (platform and poster) is prohibited unless the presenting author has granted permission.*

7:00 – 9:00 pm

**SYMPOSIUM: ATP: DIVERSE FUNCTIONS
IN CHEMOSENSORY EPITHELIA**

Calusa Ballroom A-C

9:00 – 11:00 pm

■ **POSTER SESSION VI:**

**ODORANT RECEPTORS; AVERSIVE TASTE;
SOCIAL OLFACTION; RETRONASAL
OLFACTION; MULTIMODAL SENSATION;
EXTRAORAL/EXTRANASAL CHEMORECEPTION;
AMINO ACID TASTE**

Estero Ballroom

Cash bar available

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The Association for
Chemoreception Sciences




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Program in Detail

WEDNESDAY, APRIL 9, 2014

- 12:00 – 3:30 pm **ACHEMS EXECUTIVE COMMITTEE MEETING**
The Cove at Tarpon Bay
- 3:30 – 7:00 pm **REGISTRATION**
Calusa Ballroom Foyer
- 5:00 – 6:00 pm **WELCOME/AWARDS CEREMONY**
Calusa Ballroom E-H
- 6:00 – 7:00 pm **GIVAUDAN LECTURE**
GENES, GENOMES AND THE FUTURE
OF BIOMEDICINE
Exclusively sponsored by: 
Chair/Organizer: Steven Munger
Richard Lifton, Yale University and Howard Hughes
Medical Institute
Calusa Ballroom E-H
- 7:00 – 9:00 pm **WELCOME BANQUET**
Waterfall Pool Deck (Ticketed event)
Inclement weather backup: Calusa Ballroom A-C

THURSDAY, APRIL 10, 2014

7:00 am – 12:00 pm **REGISTRATION**
 6:30 – 7:30 pm *Calusa Ballroom Foyer*

7:30 – 9:00 am **CONTINENTAL BREAKFAST**
Estero Ballroom Foyer

7:30 – 9:00 am **BREAKFAST CORNERS WITH INDUSTRY**
Estero Terrace
 Participating Partners (see page 7 for more information):



8:00 – 10:00 am **POSTER SESSION I: OLFACTORY
 TRANSDUCTION AND PERIPHERAL
 PHYSIOLOGY; GUSTATORY CNS: NTS AND PBN;
 CHEMOSENSORY-CLINICAL; LEARNING AND
 MEMORY; BITTER TASTE**
Estero Ballroom

10:00 am – 12:00 pm **SYMPOSIUM: CODING PRINCIPLES IN THE
 ACCESSORY OLFACTORY BULB**
 Chair/Organizer: Marc Spehr
Calusa Ballroom E-H

10:00 am #6 **Coding Principles in the Accessory Olfactory Bulb**
 Marc Spehr. *RWTH Aachen University/Dept. of
 Chemosensation, Aachen, Germany*

10:10 am #7 **Functional organization of presynaptic input and
 inhibition in the AOB**
 Timothy E Holy¹, Gary F. Hammen¹, Julian P. Meeks².
¹*Washington University in St. Louis/Anatomy & Neurobiology,
 St. Louis, MO, USA,* ²*UT Southwestern, Dallas, TX, USA*

10:40 am #8 **Slow Spontaneous Rhythmic Bursting in Mitral Cells
 of the Mouse Accessory Olfactory Bulb**
 Monika Gorin, Marc Spehr. *RWTH Aachen University/
 Dept. of Chemosensation, Aachen, Germany*

11:10 am #9 **Neuronal mechanisms underlying mating-induced
 pheromonal memory in the female mouse AOB**
 Yuan Gao, Ian G. Davison. *Boston University/Biology
 Department, Boston, MA, USA*

- 11:25 am #10 **Decoding Female Strain and Reproductive State from AOB Neuronal Activity**
Yoram Ben-Shaul, Anat Kahan. *Hebrew University/Medical Neurobiology, Jerusalem, Israel*
- 10:00 am – 12:00 pm **SYMPOSIUM: ARE MAMMALS ABLE TO DISCRIMINATE BETWEEN BITTER STIMULI?**
Chair/Organizer: Maik Behrens
Calusa Ballroom A-C
- 10:00 am #1 **Are Mammals Able to Discriminate Between Bitter Stimuli?**
Maik Behrens, Wolfgang Meyerhof. *German Institute of Human Nutrition Potsdam-Rehbruecke/Molecular Genetics, Nuthetal, Germany*
- 10:10 am #2 **Principles of bitter taste**
Wolfgang Meyerhof. *German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany*
- 10:40 am #3 **Bitter taste responses in mouse fungiform taste receptor cells**
Ryusuke Yoshida, Yuzo Ninomiya. *Kyushu University, Fukuoka, Japan*
- 11:10 am #4 ***Papilio hospiton* and *Papilio machaon* larvae discriminate bitter taste stimuli by different coding modalities**
Roberto Crnjar, Iole Tomassini Barbarossa, Carla Masala, Paolo Solari, Giorgia Sollai. *University of Cagliari, Dept. Biomedical Sciences, Monserrato, Italy*
- 11:25 am #5 **Bitter taste stimuli can elicit different neural codes in the brain**
Christian Lemon. *University of Oklahoma/Department of Biology, Norman, OK, USA*
- 1:45 – 2:15 pm **REFRESHMENTS AVAILABLE**
Calusa Ballroom Foyer

2:00 – 4:00 pm

**INDUSTRY WORKSHOP: OPEN INNOVATION:
BENEFITTING CHEMOSENSORY SCIENCE
THROUGH COLLABORATIVE RESEARCH**

Chair/Organizer: Christopher Simons

Calusa Ballroom E-H

Panel members: Gary Beauchamp, Monell Chemical Senses
Center Susan Ward, ITECS-Innovative Consulting
Greg Yep, Pepsico

2:00 – 4:00 pm

**THE BARRY DAVIS WORKSHOP: NIH FUNDING
OPPORTUNITIES FOR THE NEW INVESTIGATOR**

Chair/Organizers: Susan Sullivan (NIDCD),

Christine Livingston (NIDCD)

Calusa Ballroom A-C

2:00 pm #11

**Open Innovation: Benefitting chemosensory science
through collaborative research**

Christopher Simons. *The Ohio State University,
Columbus, OH, USA*

4:00 – 5:30 pm

CHEMA MENTORING/NETWORKING SOCIAL

Chair/Organizer: Suzanne Sollars

Estero Ballroom Terrace and Royal Palm Courtyard

**Inclement weather backup: Driftwood*

Join us for this social event designed for junior and senior AChemS members to network and talk about issues important to junior scientists. Senior AChemS scientists willing to mentor junior members will attend. All AChemS members who have achieved an advanced degree (PhD, MD, DVM, DDS) within the last 10 years are automatically members of ChEMA. It's a relaxed way to talk one on one, or in a group, with AChemS members in your field who know the ropes. ChEMA members can sign up with specific mentors before the meeting. Light snacks and beverages available for ChEMA mentors and mentees. RSVP requested, but not required.

6:45 – 7:15 pm

REFRESHMENTS AVAILABLE

Calusa Ballroom Foyer

- 7:00 – 9:00 pm **SYMPOSIUM: FUNCTIONAL REGENERATION IN THE SPECIAL SENSES**
Chair/Organizer: Jeffrey Martens
Calusa Ballroom E-H
- 7:00 pm #17 **Functional Regeneration in the Special Senses**
Jeffrey Martens. *Department of Pharmacology & Therapeutics, University of Florida, Gainesville, FL, USA*
- 7:10 pm #18 **Restoration of Olfactory Function Using Gene Therapy**
Jeremy C McIntyre, Jeffrey R Martens. *University of Florida, Department of Pharmacology and Therapeutics, Gainesville, FL, USA*
- 7:40 pm #19 **Regeneration of Hair Cells from Cochlear Stem Cells**
Albert Edge. *Harvard Medical School, Boston, MA, USA*
- 8:10 pm #20 **Novel neuroendocrine progenitor cells of the olfactory epithelium function in neural stem cell maintenance and regeneration**
Mridula (Meera) Vinjamuri, Catherine E. Ovitt. *University of Rochester Medical Center, Rochester, NY, USA*
- 8:25 pm #21 **Taking Poietic License: Stem Cell Regulation in the Olfactory Epithelium**
James E Schwob. *Tufts University School of Medicine / DMCB, Boston, MA, USA*
- 7:00 – 9:00 pm **SYMPOSIUM: BEHAVIORAL INSIGHTS INTO FOOD SELECTION AND FLAVOR PREFERENCE IN DOMESTIC AND WILD ANIMALS**
Chair/Organizer: Nancy Rawson
Calusa Ballroom A-C
- 7:00 pm #12 **Behavioral Insights into Food Selection and Flavor Preference in Domestic and Wild Animals**
Nancy E. Rawson, Susan Jojola. *AFB International, St. Charles, MO, USA*
- 7:10 pm #13 **Palatability Links Variety with Culture and Health through Nutrition**
Fred Provenza. *Utah State University, Logan, UT, USA*

- 7:40 pm #14 **Behavioral responses in large carnivores to mammalian blood odor and a blood odor component**
Matthias Laska¹, Sara Nilsson¹, Johanna Sjöberg¹, Mats Amundin², Shiva K. Rachamadugu¹, Constanze Hartmann³, Andrea Buettner³. ¹*Linköping University, IFM Biology, Linköping, Sweden*, ²*Kolmården Wild Animal Park, Kolmården, Sweden*, ³*University of Erlangen-Nuremberg, Dep. of Chemistry and Pharmacy, Erlangen, Germany*
- 8:10 pm #15 **The bamboo-eating giant panda has a sweet tooth**
Peihua Jiang¹, Jesusa Josue-Almqvist^{1,3}, Xuelin Jin², Xia Li^{1,4}, Joseph G Brand¹, Robert F Margolskee¹, Danielle R Reed¹, Gary K Beauchamp¹. ¹*Monell Chemical Senses Center, Philadelphia, PA, USA*, ²*Shaanxi Wild Animal Rescue and Research Center, Louguantai, China*, ³*The Children's Hospital of Philadelphia, Philadelphia, PA, USA*, ⁴*Cincinnati Children's Hospital, Cincinnati, OH, USA*
- 8:25 pm #16 **Flavorful Wildlife: Palatability and Behavior in Concert**
Bruce A Kimball. *USDA-APHIS-WS-NWRC, Philadelphia, PA, USA*
- 9:00 – 11:00 pm **POSTER SESSION II: SWEET AND POLYSACCHARIDE TASTE; OLFACTORY BULB AND ANTENNAL LOBE; CHEMOSENSORY STIMULI; TRP CHANNELS; OLFACTORY DEVELOPMENT; CHEMOSENSORY PERCEPTION AND BEHAVIOR**
Estero Ballroom
Cash bar available

FRIDAY, APRIL 11, 2014

- 7:30 am – 12:00 pm **REGISTRATION**
 6:30 – 7:00 pm *Calusa Ballroom Foyer*
- 7:30 – 9:00 am **CONTINENTAL BREAKFAST**
Estero Ballroom Foyer
- 8:00 – 10:00 am **POSTER SESSION III: APPETITIVE TASTE; MIXTURE DETECTION; OLFACTORY DEVELOPMENT—LINEAGE AND DIFFERENTIATION; OLFACTORY MODULATION; PERIPHERAL TASTE SIGNALING**
Estero Ballroom
- 10:00 am – 12:00 pm **SYMPOSIUM: DO RODENTS DREAM OF ODORIZED SHEEP? THE ROLE OF SLEEP IN ENHANCING OLFACTORY PERCEPTION, LEARNING AND BEHAVIOR**
 Chair/Organizer: Jay Gottfried
Calusa Ballroom E-H
- 10:00 am #22 **Do Rodents Dream of Odorized Sheep? The Role of Sleep in Enhancing Olfactory Perception, Learning, and Behavior**
 Jay A. Gottfried. *Northwestern University, Chicago, IL, USA*
- 10:10 am #23 **Synaptic Microcircuits of the *Drosophila* Mushroom Body Associative Network Bidirectionally Control Sleep**
 Michael Nitabach^{1,2,3,4}. ¹*Department of Cellular and Molecular Physiology, Yale University, New Haven, CT, USA,* ²*Department of Genetics, Yale University, New Haven, CT, USA,* ³*Program in Cellular Neuroscience, Neurodegeneration and Repair, Yale University, New Haven, CT, USA,* ⁴*Kavli Institute for Neuroscience, Yale University, New Haven, CT, USA*
- 10:40 am #24 **Acuity of Odor Memory is Shaped by Sleep**
 Dylan C Barnes^{1,2}, Donald A Wilson^{1,2,3}. ¹*Nathan Kline Institute/EBI, Orangeburg, NY, USA,* ²*CUNY Graduate Center, New York City, NY, USA,* ³*NYU Langone Medical Center, New York City, NY, USA*
- 11:10 am #25 **Odor-Induced Increases in Delta Power Imply an Olfactory Mechanism of Sleep Protection**
 Ofer Perl¹, Anat Arzi¹, Lee Sela¹, Perry Samnon¹, Yael Holtzman¹, Arie Oksenberg², Ilana S. Hairston³, Noam Sobel¹. ¹*Weizmann Institute of Science/Department of Neurobiology, Rehovot, Israel,* ²*Loewenstein Rehabilitation Hospital, Raanana, Israel,* ³*Tel Aviv-Yaffo Academic College/Department of Behavioral Sciences, Tel-Aviv Yaffo, Israel*

- 11:25 am #26 **Odor-evoked memory reactivation during slow-wave sleep in the human brain**
Björn Rasch. *University of Fribourg, Department of Psychology, Fribourg, Switzerland*
- 10:00 am – 12:00 pm **SYMPOSIUM: DIRECT SINGLE CELL GENOMIC AND MICROCHEMICAL ANALYSIS OF CELLULAR HETEROGENEITY SYSTEMS**
Chair/Organizer: Shawn Dotson
Calusa Ballroom A-C
- 10:00 am #27 **Direct single cell genomic and microchemical analysis of cellular heterogeneity in sensory systems**
C. Shawn Dotson. *University of Florida, Gainesville, FL, USA*
- 10:10 am #28 **Olfactory Transcriptomics: Resolving Receptors from Whole Tissues to Single Cells**
Darren W. Logan¹, Ximena Ibarra-Soria¹, Luis R. Saraiva^{1,2}, Maria O. Levitin¹, Gabriela Sánchez-Andrade¹, John C. Marion². ¹*Wellcome Trust Sanger Institute, Cambridge, United Kingdom*, ²*European Molecular Biology Laboratory–European Bioinformatics Institute, Cambridge, United Kingdom*
- 10:40 am #29 **The role of Mrgprs in itch**
Xinzhong Dong. *Johns Hopkins University School of Medicine, Baltimore, MD, USA*
- 11:10 am #30 **Next Generation Sequencing of single olfactory sensory neurons**
Paul Scholz¹, Benjamin Kalbe¹, Fabian Jansen¹, Janine Altmüller², Christian Becker², Hanns Hatt¹, Sabrina Baumgart¹. ¹*Ruhr-University Bochum, Bochum, Germany*, ²*University of Cologne, Cologne, Germany*
- 11:25 am #31 **Dynamic Transcriptional Regulation in the Peripheral Gustatory System as a Function of Metabolic State**
Sergei Zolotukhin¹, Svitlana Yegorova², Olexandr Moskalenko³, Seth Currin¹, Shawn Dotson². ¹*University of Florida, Dept. of Pediatrics, Gainesville, FL, USA*, ²*University of Florida, Department of Neuroscience and Department of Psychiatry, Gainesville, FL, USA*, ³*University of Florida, IT-HIGH PERFORMANCE COMPUTING, Gainesville, FL, USA*

- 12:00 – 1:00 pm **ACHEMS BUSINESS MEETING**
Calusa Ballroom A-C
All AChemS members are welcome and encouraged to attend.
- 6:45 – 7:15 pm **REFRESHMENTS AVAILABLE**
Calusa Ballroom Foyer
- 7:00 – 9:00 pm **PRESIDENTIAL SYMPOSIUM:
CHEMOSENSATION IN THE GUT AND BRAIN**
Exclusively sponsored by: 
Chair/Organizer: John Glendinning
Calusa Ballroom E-H
- 7:00 pm #32 **Chemosensation in the Gut and Brain**
John I Glendinning. *Barnard College, Columbia University, New York, NY, USA*
- 7:05 pm #33 **Brain based nutrient sensors regulate feeding behavior in *Drosophila***
Hubert Amrein. *Texas A&M University/Health Science Center, Department of Molecular and Cellular Medicine, College Station, TX, USA*
- 7:40 pm #34 **Taste-independent sugar selection is controlled by interoceptive sugar sensor in the brain of *Drosophila***
Greg S.B. Suh. *Skiball Institute, Department of Cell Biology, NYU School of Medicine, New York, NY, USA*
- 8:15 pm #35 **Gut nutrient sensing and food preferences in rodents**
Anthony Sclafani. *Brooklyn College of CUNY/Psychology, Brooklyn, NY, USA*
- 9:00 – 11:00 pm  **POSTER SESSION IV: GUSTATORY CORTEX/ AMYGDALA/THALAMUS; TRIGEMINAL/ CHEMESTHESIS; OLFACTORY DEVELOPMENT; SALT AND SOUR TASTE; OLFACTORY TESTING AND BEHAVIOR**
Estero Ballroom
Cash bar available

SATURDAY, APRIL 12, 2014

7:30 am – 12:00 pm **REGISTRATION**
6:30 – 7:30 pm *Calusa Ballroom Foyer*

7:30 – 9:00 am **CONTINENTAL BREAKFAST**
Estero Ballroom Foyer

8:00 – 10:00 am **POSTER SESSION V: MOB CIRCUITRY;
CHEMOSENSATION AND METABOLISM;
PERIPHERAL GUSTATORY ANATOMY,
DEVELOPMENT AND REGENERATION;
CHEMOSENSORY DYSFUNCTION**
Estero Ballroom

10:00 – 11:30 am **POLAK YOUNG INVESTIGATOR
AWARD SYMPOSIUM**
Chair/Organizer: Dana Small
Calusa Ballroom E-H

10:00 am #36 **Integration of gustatory and olfactory signals in the
gustatory cortex of alert rats**
Chad L. Samuelsen¹, Alfredo Fontanini^{1,2}.
*¹Department of Neurobiology and Behavior – Stony Brook
University, Stony Brook, NY, USA, ²Program in Neuroscience –
Stony Brook University, Stony Brook, NY, USA*

10:15 am #37 **Activation of intestinal sodium-glucose co-transporters
1 and 3 is sufficient for mice to form a conditioned
flavor preference**
Jennifer M Stratford. *Rocky Mountain Taste & Smell Center,
Department of Cell and Developmental Biology, University
Colorado School of Medicine, Aurora, CO, USA*

10:30 am #38 **The molecular basis for attractive salt-taste coding
in *Drosophila***
Yali V. Zhang^{1,2}, Jinfei Ni¹, Craig Montell^{1,2}. *¹Department
of Biological Chemistry, The Johns Hopkins University School
of Medicine, Baltimore, MD, USA, ²Department of MCDB,
University of California, Santa Barbara, CA, USA*

10:45 am #39 **Optogenetic Investigation of Local Inhibitory
Circuits Connected to Identified Projection Neuron
Populations in the Rostral Nucleus of the Solitary Tract**
James A Corson, Robert M Bradley. *Biologic and Materials
Sciences, Ann Arbor, MI, USA*

- 11:00 am #40 **Identification of key amino acids underlying broad tuning of mammalian odorant receptors**
Yiqun Yu¹, Kaylin A. Adipietro², Claire A. De-March³, Mengjue J. Ni², Jerome Golebiowski³, Hiroaki Matsunami², Minghong Ma¹. ¹*Department of Neuroscience, University of Pennsylvania Perelman School of Medicine, Philadelphia, PA, USA*, ²*Department of Molecular Genetics and Microbiology, Duke University Medical Center, Durham, NC, USA*, ³*Institut de Chimie de Nice, UMR CNRS, Université de Nice Sophia Antipolis, Nice, France*
- 11:15 am #41 **Functional mapping of glomerular inhibition in the olfactory bulb of the awake and anesthetized mouse**
Michael N Economo^{1,2}, Kyle R Hansen³, Thomas Bozza⁴, Matt Wachowiak^{1,2}. ¹*Brain Institute, University of Utah, Salt Lake City, UT, USA*, ²*Department of Neurobiology and Anatomy, University of Utah, Salt Lake City, UT, USA*, ³*Department of Bioengineering, University of Utah, Salt Lake City, UT, USA*, ⁴*Department of Neurobiology, Northwestern University, Evanston, IL, USA*
- 12:30 – 1:45 pm **CLINICAL SYMPOSIUM: NHANES AND THE CHEMOSENSES**
Chair/Organizer: Valerie Duffy
Calusa E-H
- 12:30 pm #42 **Chemosensory Function and the Assessment of the Health and Nutritional Status of Adults in the United States: History, Implementation and Future Opportunities**
Valerie B Duffy. *University of Connecticut/Allied Health Sciences, Storrs, CT, USA*
- 12:35 pm #43 **Overview and Preliminary Findings from the National Health and Nutrition Examination Survey (NHANES) Chemosensory (Taste and Smell) Component, 2011-2014 (Part 1)**
Howard J. Hoffman¹, Kathleen E. Bainbridge¹, Shristi Rawal², John E. Hayes³, Richard L. Doty⁴, Valerie B. Duffy². ¹*NIDCD, NIH/Epidemiology & Statistics Program, Bethesda, MD, USA*, ²*University of Connecticut/Allied Health Sciences, Storrs, CT, USA*, ³*Pennsylvania State University/Department of Food Science, University Park, PA, USA*, ⁴*Perelman School of Medicine, University of Pennsylvania/Department of Otorhinolaryngology-Head and Neck Surgery, Philadelphia, PA, USA*

- 12:45 pm #44 **National Health and Nutrition Examination Survey (NHANES) 2011–2014 Chemosensory Protocol and Implementation**
Shristi Rawal¹, Howard J Hoffman², Valerie B Duffy¹.
¹University of Connecticut/Allied Health Sciences, Storrs, CT, USA, ²NIDCD/NIH/Epidmiology & Statistics Program, Bethesda, MD, USA
- 1:00 pm #45 **NHANES Chemosensory Exam Tastant Kits: Logistical, Manufacturing, and Storage Considerations**
John E Hayes^{1,2}, Nadia K Byrnes^{1,2}. ¹Penn State, Department of Food Science, University Park, PA, USA, ²Penn State, Sensory Evaluation Center, University Park, PA, USA
- 1:10 pm #46 **Overview and Preliminary Findings from the National Health and Nutrition Examination Survey (NHANES) Chemosensory (Taste and Smell) Component, 2011-2014 (Part 2)**
Howard J. Hoffman¹, Kathleen E. Bainbridge¹, Shristi Rawal², John E. Hayes³, Richard L. Doty⁴, Valerie B. Duffy². ¹NIDCD, NIH/Epidemiology & Statistics Program, Bethesda, MD, USA, ²University of Connecticut/Allied Health Sciences, Storrs, CT, USA, ³Pennsylvania State University/Department of Food Science, University Park, PA, USA, ⁴Perelman School of Medicine, University of Pennsylvania/Department of Otorhinolaryngology-Head and Neck Surgery, Philadelphia, PA, USA
- 1:20 pm #47 **The Importance of the NHANES and Population-based Research in the Chemosenses**
Karen J. Cruickshanks. University of Wisconsin School of Medicine and Public Health, Madison, WI, USA
- 2:45 – 3:15 pm **REFRESHMENTS AVAILABLE**
Calusa Ballroom Foyer

- 3:00 – 5:00 pm **CHEMORECEPTION IN MOSQUITOES:
EVOLUTION, GENOMICS AND CONTROL
STRATEGIES**
Chair/Organizer: Leslie Vosshall
Calusa Ballroom E-H
- 3:00 pm #48 **Chemoreception in Mosquitoes: Evolution, Genomics,
and Control Strategies**
Leslie B Vosshall. *HHMI/The Rockefeller University,
New York, NY, USA*
- 3:10 pm #49 **The Genomics and Molecular Biology of
Odorant Receptors in the Malaria Vector Mosquito
*Anopheles gambiae***
LJ Zwiebel. *Vanderbilt University/Biological Sciences,
Pharmacology, Nashville, TN, USA*
- 3:40 pm #50 **Evolution of host finding in mosquitoes and their
olfactory receptors**
Rickard Ignell. *Unit of Chemical Ecology, Dept. Plant
Protection Biology, Swedish University of Agricultural Sciences,
Alnarp, Sweden*
- 4:10 pm #51 **Synthetic and Natural Antagonists of the Insect
Odorant Receptor Co-Receptor Subunit**
Charles W. Luetje, Sisi Chen. *Molecular and Cellular
Pharmacology, University of Miami, Miami, FL, USA*
- 4:25 pm #52 **Pathways for push, pull and mask in mosquitoes**
Anandasankar Ray. *University of California Riverside/
Department of Entomology, Riverside, CA, USA*

3:00 – 5:00 pm

METABOLIC INFLUENCES ON OLFACTION AND OLFACTORY-GUIDED FEEDING BEHAVIORChair/Organizer: Dana Small
Calusa Ballroom A-C

3:00 pm #53

Metabolic influences on olfaction and olfactory guided feeding behaviorDana Small^{1,4}, ¹*The John B Pierce Laboratory, New Haven, CT, USA*, ²*Yale University, New Haven, CT, USA*, ³*University of Cologne, Cologne, Germany*

3:10 pm #54

Metabolic Sensing by the Olfactory BulbDebra Ann Fadool^{1,2,4}, Nicolas Thiebaud^{1,4}, Sukhee Cho¹, Austin Schwartz², Hedi Mattoussi³. ¹*Program In Neuroscience / The Florida State University, Tallahassee, FL, USA*, ²*Institute of Molecular Biophysics, Tallahassee, FL, USA*, ³*Department of Chemistry, Tallahassee, FL, USA*, ⁴*Department of Biological Science, Tallahassee, FL, USA*

3:40 pm #55

Sniffing out the calories – the effect of ghrelin on olfactionJenny Tong¹, Erica Mannea², Pascaline Aime³, Paul T Pfluger¹, Chun-Xia Yi¹, Xueying Ren⁴, Sarah Pixley⁵, Karyne Julliard³, Stephen Benoit⁶, Stephen C Woods⁶, Tamas L Horvath⁷, Mark M Sleeman⁸, David D'Alessio¹, Silvana Obici¹, Robert Frank², Matthias Tschoep¹. ¹*University of Cincinnati / Department of Medicine, Cincinnati, OH, USA*, ²*University of Cincinnati / Department of Psychology, Cincinnati, OH, USA*, ³*CNRS and Universite Claude Bernard Lyon 1 / 3. UMR5020 Neurosciences Sensorielles Comportement Cognition, Lyon, France*, ⁴*John B. Pierce Laboratory / Department of Psychiatry, Yale University, New Haven, CT, USA*, ⁵*University of Cincinnati / Cancer and Cell Biology, Cincinnati, OH, USA*, ⁶*University of Cincinnati / Department of Psychiatry, Cincinnati, OH, USA*, ⁷*Yale University / Department of Comparative Medicine, New Haven, CT, USA*, ⁸*Regeron Pharmaceuticals, Inc., Tarry Town, NY, USA*

4:10 pm #56

Molecular cues of glucose sensing in the rat olfactory bulb assessed under steady and dynamic glycemic conditionsDolly Al Koborssy¹, Brigitte Palouzier-Paulignan¹, Marc Thevenet¹, Caroline Romestaing², Karyn A. Julliard¹. ¹*Team – Olfaction: From Coding to Memory INSERM U1028-CNRS 5292. University of Lyon 1, Lyon, France*, ²*Laboratoire d'Ecologie des Hydrosystèmes Naturels et Anthropisés (LEHNA) CNRS 5023 – University of Lyon 1, Lyon, France*

- 4:25 pm #57 **Ghrelin modulates the effect of a meal on perceptual and brain response to odors**
Xue Sun¹, Marga G Veldhuizen², Amanda E Wray², Dana M Small^{1,2}. ¹*Yale University, New Haven, CT, USA*, ²*The John B. Pierce Laboratory, New Haven, CT, USA*
- 6:45 – 7:15 pm **REFRESHMENTS AVAILABLE**
Calusa Ballroom Foyer
- 7:00 – 9:00 pm **MODULATION OF SENSORY SIGNALING AND BEHAVIORAL RESPONSE TO ODORS**
Chair/Organizer: Lisa Stowers
Calusa Ballroom E-H
- 7:00 pm #63 **Modulation of sensory signaling and behavioral response to odors**
Lisa Stowers. *The Scripps Research Institute, La Jolla, CA, USA*
- 7:10 pm #64 **Regulation of sensory signaling and behavior by female hormones**
Lisa Stowers, Sandeepa Dey. *The Scripps Research Institute Molecular and Cellular Neuroscience, La Jolla, CA, USA*
- 7:40 pm #65 **Dopaminergic Control of Context-dependent Olfactory Behavior**
Jing W. Wang, Susy M. Kim, Orel Zaninovich, Tricia Ngo, Kang I. Ko. *UCSD/Division of Biological Sciences, La Jolla, CA, USA*
- 8:10 pm #66 **Cholinergic inputs from basal forebrain add an excitatory bias to odor coding in the olfactory bulb**
Markus Rothmel¹, Ryan M. Carey¹, Adam Puche², Michael T. Shipley², Matt Wachowiak¹. ¹*University of Utah Dept. of Neurobiology and Anatomy, Salt Lake City, UT, USA*, ²*University of Maryland Dept. Anatomy and Neurobiology, Baltimore, MD, USA*
- 8:25 pm #67 **Neural Syntax for Early Partition of Olfactory Inputs**
Diego Restrepo¹, David H Gire², Anan Li^{1,3}. ¹*Department of Cell and Developmental Biology, Rocky Mountain Taste and Smell Center and Neuroscience Program, University of Colorado Medical School, Aurora, CO, USA*, ²*Department of Molecular and Cellular Biology, and Center for Brain Science, Harvard University, Cambridge, MA, USA*, ³*Wuhan Institute of Physics and Mathematics, The Chinese Academy of Sciences/State Key Laboratory of Magnetic Resonance and Atomic and Molecular Physics, Wuhan, China*

7:00 – 9:00 pm

**ATP: DIVERSE FUNCTIONS IN
CHEMOSENSORY EPITHELIA**Chair/Organizer: Tom Finger
Calusa Ballroom A-C

7:00 pm #58

ATP: Diverse Functions in Chemosensory EpitheliaThomas E Finger^{1,3}, Sue C Kinnamon^{2,3}. ¹*University of Colorado Medical School/Dept. Cell and Structural Biology, Aurora, CO, USA*, ²*University of Colorado Medical School/Otolaryngology, Aurora, CO, USA*, ³*University of Colorado Medical School/ Rocky Mountain Taste and Smell Center, Aurora, CO, USA*

7:10 pm #59

The Role of ATP in Olfactory Dynamics and FunctionColleen Cosgrove Hegg^{1,2,3}, Cuihong Jia¹, Sebastien Hayoz¹, Chelsea R. Hutch^{2,3}, Tania R. Iqbal³. ¹*Michigan State University Pharmacology and Toxicology, East Lansing, MI, USA*, ²*Michigan State University Neuroscience Program, East Lansing, MI, USA*, ³*Michigan State University Center for Integrative Toxicology, East Lansing, MI, USA*

7:40 pm #60

Purinergic signaling in the carotid bodyColin A. Nurse. *McMaster University, Biology, Hamilton, ON, Canada*

8:10 pm #61

Purinergic Receptor-Induced Ca²⁺ Signaling in the Epithelium of the Vomeronasal OrganIvan Manzini^{1,2}, Katarina Ditttrich¹, Alfredo Sansone¹, Thomas Hassenklöver^{1,2}. ¹*University of Göttingen, Institute of Neurophysiology and Cellular Biophysics, Göttingen, Germany*, ²*University of Göttingen, Center for Nanoscale Microscopy and Molecular Physiology of the Brain (CNMPB), Göttingen, Germany*

8:25 pm #62

The Effect on Taste Function of Antagonists at P2X3-Containing ReceptorsAnthony P Ford. *Afferent Pharmaceuticals, San Mateo, CA, USA*

9:00 – 11:00 pm

POSTER SESSION VI: ODORANT RECEPTORS; AVERSIVE TASTE; SOCIAL OLFACTION; RETRONASAL OLFACTION; MULTIMODAL SENSATION; EXTRAORAL/EXTRANASAL CHEMORECEPTION; AMINO ACID TASTE*Estero Ballroom*
Cash bar available

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

8:00 – 10:00 am

POSTER SESSION I

Estero Ballroom

OLFACTORY TRANSDUCTION AND PERIPHERAL PHYSIOLOGY; GUSTATORY CNS: NTS AND PBN; CHEMOSENSORY-CLINICAL; LEARNING AND MEMORY; BITTER TASTE

- | | | |
|---|-----|--|
| 1 | #P1 | <p>Physiological characterization of formyl peptide receptor expressing cells in the mouse vomeronasal organ
Tobias Ackels¹, Benoît von der Weid², Ivan Rodriguez², Marc Spehr¹. ¹<i>Department of Chemosensation, Aachen, Germany</i>, ²<i>Department of Genetics and Evolution, Geneva, Switzerland</i></p> |
| 2 | #P2 | <p>Using Additive Response Profiles of Repeated Non-Saturating Stimuli to Probe Signaling in Olfactory Sensory Neurons
Damian Droste, Lisa M Moeller, Jennifer Spehr, Marc Spehr. <i>RWTH Aachen University/Dept. of Chemosensation, Aachen, Germany</i></p> |
| 3 | #P3 | <p>Odor-specific Alternative Signaling in Murine Olfactory Sensory Neurons
Sabrina Baumgart¹, Paul Scholz¹, Benjamin Kalbe¹, Fabian Jansen¹, Katharina Klasen¹, Barry Ache², Hanns Hatt¹. ¹<i>Ruhr-University Bochum/Cell Physiologie, Bochum, Germany</i>, ²<i>University of Florida/Center for Smell and Taste, Gainesville, FL, USA</i></p> |
| 4 | #P4 | <p>Inhomogeneous distribution of transduction-related proteins in cilia of mouse olfactory sensory neurons
Baris Ozbay¹, Diego Restrepo². ¹<i>Department of Bioengineering, University of Colorado Denver, Denver, CO, USA</i>, ²<i>Department of Cell & Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO, USA</i></p> |

Abstracts are printed as submitted by the author(s).

*Posters should be mounted by 7:00 am and taken down after 11:00 pm.
Posters are on display all day.*

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

- 5 #P5 **Novel protein Q8BH53 modulates signal transduction kinetics in olfactory sensory neurons**
Anna K Talaga¹, Aaron B Stephan², Orville Mayberry III¹, Johannes Reiser³, Haiqing Zhao¹. ¹*Department of Biology/ Johns Hopkins University, Baltimore, MD, USA*, ²*Department of Biology/UCSD, La Jolla, CA, USA*, ³*Monell Chemical Senses Center, Philadelphia, PA, USA*
- 6 #P6 **G protein-dependent activation of phosphoinositide signaling by a mammalian olfactory receptor**
Elizabeth A Corey¹, Kirill Ukhanov¹, Yuriy Bobkov¹, Barry W Ache^{1,2}. ¹*University of Florida, Whitney Laboratory, Center for Smell and Taste, and McKnight Brain Institute, St Augustine, FL, USA*, ²*Depts. of Biology and Neuroscience, Gainesville, FL, USA*
- 7 #P7 **PLC-dependent signaling interacts with PI3K-dependent signaling in mammalian olfactory receptor neurons**
Kirill Ukhanov¹, Elizabeth Corey¹, Daniela Brunert¹, Barry Ache^{1,2}. ¹*Univ Florida, Whitney Laboratory, Center for Smell and Taste, and McKnight Brain Institute, Gainesville, FL, USA*, ²*Univ Florida, Depts. of Biology and Neuroscience, Gainesville, FL, USA*
- 8 #P8 **Phospholipase C Isoform Expression in Mouse Main Olfactory Epithelium**
Abdullah Al-Matrouk, Aaron Sathyanesan, Weihong Lin. *University of Maryland Baltimore County, Department of Biological Sciences, Baltimore, MD, USA*
- 9 #P9 **Determining the molecular basis of olfactory adaptation: an EOG analysis of double mutant mice that lack CNG channel desensitization and PDE1C**
Christopher H. Ferguson, Haiqing Zhao. *Johns Hopkins University, Department of Biology, Baltimore, MD, USA*

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|----|------|--|
| 10 | #P10 | <p>A novel subpopulation of olfactory sensory neurons expressing phosphodiesterase 1A
 Veronica Lopez^{1,2}, Steven D Munger^{1,2,3}. ¹University of Maryland Baltimore/Department of Anatomy and Neurobiology, Baltimore, MD, USA, ²University of Maryland Baltimore/Department of Biochemistry and Molecular Biology, Baltimore, MD, USA, ³University of Maryland Baltimore/Department of Medicine, Baltimore, MD, USA</p> |
| 11 | #P11 | <p>NKCC1- Chloride Accumulator in the Murine Olfactory Epithelium
 Claudia Haering, Nintuhjah Kanageswaran, Pascal Bouvain, Janine Waering, Hanns Hatt.
 Ruhr-University Bochum/Cell Physiology, Bochum, Germany</p> |
| 12 | #P12 | <p>Recombinant Anoctamins Form Heteromultimeric Complexes
 Daniela R Droese¹, Tobias Ackels¹, Bastian Henkel², Eva Neuhaus³, Marc Spehr¹. ¹RWTH Aachen University, Department of Chemosensation, Aachen, Germany, ²FU-Berlin, Department of Biology, Chemistry and Pharmacy, Berlin, Germany, ³University of Jena, Institute for Pharmacology and Toxicology, Jena, Germany</p> |
| 13 | #P13 | <p>Cloning and Characterization of the Ca²⁺-activated Chloride Channel ClCa4I from the rat Olfactory Epithelium
 Casilda V Mura¹, Ricardo Delgado¹, Diego Restrepo², Juan Bacigalupo¹. ¹Department of Biology, Faculty of Sciences, University of Chile, Santiago, Chile, ²University of Colorado Anschutz Medical Center, Aurora, Colorado, USA of America, Aurora, CO, USA</p> |
| 14 | #P14 | <p>Effect of 2,4,6-trichloroanisole; mechanism and diversity
 Hiroko Takeuchi, Takashi Kurahashi. Graduate School of Frontier Biosciences, Osaka University, Osaka, Japan</p> |

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

- 15 #P15 **Peripherally Administered Oleoylethanolamide (OEA) Alters Taste Coding in the Nucleus of the Solitary Tract of Mice**
Andras Hajnal, Yi Kang. *The Pennsylvania State University, College of Medicine, Department of Neural and Behavioral Sciences, Hershey, PA, USA*
- 16 #P16 **Optogenetic modulation of inhibitory circuitry in the gustatory NTS**
Joseph M Breza, JiuLin Zhu, Susan P Travers. *Ohio State University/Oral Biology, Columbus, OH, USA*
- 17 #P17 **The influence of adapting and stimulus temperature on taste responses in central gustatory neurons**
Jinrong Li, Christian H. Lemon. *The University of Oklahoma/Department of Biology, Norman, OK, USA*
- 18 #P18 **Development Of Glutamatergic Terminals and Receptors In Rostrolateral and Rostrocentral NTS**
Genrieta Bochorishvili, Ducar Dallas, Cheng Yan, Anqi Fu, Alev Erisir. *University of Virginia/ Psychology, Charlottesville, VA, USA*
- 19 #P19 **Anatomical and Functional Analyses Reveal Candidate Second-order Gustatory Neurons in *Drosophila***
Takaaki Miyazaki¹, Tzu-Yang Lin¹, Kei Ito², Chi-Hon Lee¹, Mark Stopfer¹. ¹*NIH-NICHD, Bethesda, MD, USA*, ²*IMCB, Univ. Tokyo, Tokyo, Japan*
- 20 #P20 **Stimulation of GABA-A in the Parabrachial Nucleus Enhances Taste Palatability during Long-term and Brief-access Testing in Rats**
David W. Pittman¹, Sarah E. Holstein¹, Savanah R. Atkins¹, Tyler S. Nelson¹, Lindy J. Pence¹, Kelsey A. Smith¹, Alexandra M. Brantly¹, Sarah M. Evans¹, Elisabeth A. Sidden¹, Ashley L. Smith¹, John-Paul Baird². ¹*Wofford College, Department of Psychology, Spartanburg, SC, USA*, ²*Amherst College, Department of Psychology & Neuroscience, Amherst, MA, USA*

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|----|------|---|
| 21 | #P21 | <p>Liposomal spray in the therapy of smell and taste disorders in patients with head and neck cancer
 Clemens Heiser, Johannes Schuhkraft, Benedikt Hofauer, Andreas Knopf. <i>Department of Otorhinolaryngology, Head and Neck Surgery, Klinikum rechts der Isar, Technische Universitaet Muenchen, Munich, Germany</i></p> |
| 22 | #P22 | <p>A Time Limit for Starting Anti-inflammatory Treatment with Steroid for Better Improving on Olfactory Dysfunction After Head Injury
 Masayoshi Kobayashi, Kengo Tamari, Kazuhiko Takeuchi. <i>Department of Otorhinolaryngology-Head and Neck Surgery, Mie University Graduate School of Medicine, Tsu, Japan</i></p> |
| 23 | #P23 | <p>Gene Therapeutic Restoration of Olfaction in Bardet-Biedl Syndrome
 Corey L Williams, Jeremy C McIntyre, Jeffrey R Martens. <i>University of Florida/Pharmacology and Therapeutics, Gainesville, FL, USA</i></p> |
| 24 | #P24 | <p>Human olfactory memory performance under the influence of an intranasal insulin application
 Yvonne F. Br  nner¹, Anja Kofoet¹, Christian Benedict², Jessica Freiherr¹. ¹<i>Diagnostic and Interventional Neuroradiology/RWTH Aachen, Aachen, Germany,</i> ²<i>Diagnostic and Interventional Neuroradiology/RWTH Aachen, Aachen, Germany,</i> ³<i>Institute of Neuroscience/University Uppsala, Uppsala, Sweden,</i> ⁴<i>Diagnostic and Interventional Neuroradiology/RWTH Aachen, Aachen, Germany</i></p> |
| 25 | #P25 | <p>Olfactory transport is necessary for nasally administered insulin-like growth factor-I to increase phosphorylation of extracellular signal-regulated kinase 1/2 in the cerebrum of mice
 Hideaki Shiga¹, Mikiya Nagaoka², Kohshin Washiyama², Junpei Yamamoto¹, Kentarou Yamada¹, Takuya Noda¹, Masayuki Harita¹, Ryohei Amano², Takaki Miwa¹. ¹<i>Kanazawa Medical University/Otorhinolaryngology, Ishikawa, Japan,</i> ²<i>Kanazawa University/Quantum Medical Technology, Ishikawa, Japan</i></p> |

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

- 26 #P26 **An interaction effect of intranasal insulin on olfactory performance and BMI in anosmics**
Veronika Schöpf¹, Kathrin Kollndorfer¹, Michael Pollak¹, Christian A. Mueller², Jacqueline Krajnik^{1,3}, Christian Benedict⁴, Jessica Freiherr⁵. ¹*Department of Biomedical Imaging and Image-guided Therapy, Medical University of Vienna, Vienna, Austria*, ²*Department of Otorhinolaryngology, Medical University of Vienna, Vienna, Austria*, ³*Department of Neurosurgery, Medical University of Vienna, Vienna, Austria*, ⁴*Department of Neuroscience, Uppsala University, Uppsala, Sweden*, ⁵*Diagnostic and Interventional Neuroradiology, RWTH Aachen University, Aachen, Germany*
- 27 #P27 **Olfactory Cue-elicited Craving in Nicotine-dependent Smokers: anfMRI Preliminary Investigation**
Bernadette M. Cortese¹, Thomas W. Uhde¹, Todd LeMatty¹, Qing X. Yang², F. Joseph McClernon³, Kathleen T. Brady^{1,4}, Karen J. Hartwell^{1,4}. ¹*Medical University of South Carolina, Charleston, SC, USA*, ²*Penn State College of Medicine, Hershey, PA, USA*, ³*Duke University Medical Center, Durham, NC, USA*, ⁴*Ralph H. Johnson VAMC, Charleston, SC, USA*
- 28 #P28 **Olfactory event-related potentials in children and adolescents**
Carolyn Boerner¹, Valentin A. Schriever¹, Eri Mori², Thomas Hummel¹. ¹*TU Dresden / Smell & Taste Clinic Department of Otorhinolaryngology, Dresden, Germany*, ²*Jikei University, School of Medicine / Department of Otorhinolaryngology, Tokyo, Japan*
- 29 #P29 **Medication use and compliance among children: A “matter of taste”**
Julie A. Mennella, Phoebe S. Mathew, Kristi M. Roberts, Corrine J. Mansfield, Danielle R. Reed. *Monell Chemical Senses Center, Philadelphia, PA, USA*

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| 30 | #P30 | <p>Validity and Reliability Testing of the National Health and Nutrition Examination Survey (NHANES) Taste and Smell Protocol
 Mallory Honda¹, Shruti Rawal¹, Howard J Hoffman², Kathleen E Bainbridge², Valerie B Duffy¹. ¹<i>University of Connecticut / Allied Health Sciences, Storrs, CT, USA</i>, ²<i>NIDCD/NIH/Epidemiology & Statistics Program, Bethesda, MD, USA</i></p> |
| 31 | #P31 | <p>Pain-relieving effect of olfactory exposure
 Daniel Baum, Thomas Hummel, Antje Hähner.
 <i>Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany</i></p> |
| 32 | #P32 | <p>Olfactory Aversive Conditioning During Sleep as a Potential Treatment for Addiction
 Anat Arzi, Yael Holtzman, Perry Samnon, Neetai Eshel, Ido Harel, Noam Sobel. <i>Department of Neurobiology, Weizmann Institute of Science, Rehovot, Israel</i></p> |
| 33 | #P33 | <p>Effect of pleasant and unpleasant odors on free radical scavenging activity
 Shizuka Tonosaki¹, Keiichi Tonosaki². ¹<i>Faculty of Global Business, Department of Business, Showa Women's University, Tokyo, Japan</i>, ²<i>Department of Human Sciences, Bunkyo University, Saitama, Japan</i></p> |
| 34 | #P34 | <p>Is odor memory context-dependent?
 Stina Cornell Kärnekull¹, Fredrik U Jönsson², Johan Willander³, Maria Larsson¹. ¹<i>Gösta Ekman Laboratory, Department of Psychology, Stockholm University, Stockholm, Sweden</i>, ²<i>Department of Psychology, Stockholm University, Stockholm, Sweden</i>, ³<i>Department of Psychology, Mid Sweden University, Sundsvall, Sweden</i></p> |
| 35 | #P35 | <p>Reward-related modulation of conditioned stimulus perception after associative learning
 James D. Howard¹, Thorsten Kahnt², Jay A. Gottfried¹. ¹<i>Northwestern University, Department of Neurology, Chicago, IL, USA</i>, ²<i>University of Zurich, Department of Economics, Zurich, Switzerland</i></p> |

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- 36 #P36 **Verbal Overshadowing in Olfactory Memory**
Peter N. Weatherill, David E. Hornung. *Biology Department / St. Lawrence University, Canton, NY, USA*
- 37 #P37 **The Olfactory LOVER Model: Behavioral and Neural Correlates in Autobiographical Odor Memory**
Artin Arshamian¹, Johan Willander^{2,3}, Kristina Karlsson², Maria Larsson¹. ¹*Gösta Ekmans Laboratory, Department of Psychology, Stockholm University, Stockholm, Sweden,* ²*Department of Psychology, Stockholm University, Stockholm, Sweden,* ³*Mid-Sweden University, Sundsvall, Sweden*
- 38 #P38 **Odor-Guided Associative Learning in Adolescent Female Rats**
Elizabeth A. Smith¹, Katherine A Hanson¹, Chloe R Lawyer², Kurt R. Illig^{1,2}. ¹*Neuroscience Program, University of St. Thomas, Saint Paul, MN, USA,* ²*Biology Department, University of St. Thomas, Saint Paul, MN, USA*
- 39 #P39 **Differential involvement of amygdala and cortical NMDA receptors activation upon encoding in odor fear memory: the amygdala starts first, and then the cortex takes the lead**
Anne-Marie Mouly¹, Sandrine Parrot¹, Guillaume Ferreira^{2,3}, Chloé Hegoburu¹. ¹*Centre de Recherche en Neurosciences de Lyon, INSERM U1028, CNRS UMR5292, University Lyon1, Lyon, France,* ²*Nutrition et neurobiologie intégrée, INRA UMR 1286, Bordeaux, Bordeaux, France,* ³*Université de Bordeaux, Bordeaux, France*
- 40 #P40 **RESPONSES TO PREDATOR CHEMICAL SIGNALS IN THE HOUSE MOUSE: THE EFFECTS OF EARLY OLFACTORY EXPERIENCE**
Vera V Voznessenskaya, Artyom B Klinov, Ilya G Kvasha, Tatiana K Laktionova. *A.N. Severtzov Institute of Ecology & Evolution, Moscow, Russia*

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- 41 #P41 **Conditioned olfactory preference: What does it change?**
A.Karyn Julliard¹, Pascaline Aimé^{1,2}, Belkacem Messaoudi¹, Samuel Garcia¹, Elodie Ey³, Rémi Gervais¹, Nadine Ravel¹, Nicolas Torquet^{1,3}. ¹Team "Olfaction: From Coding to Memory" INSERM U1028-CNRS 5292- Université Lyon1, Lyon, France, ²Columbia University Medical Center Department of Pathology and Cell Biology, New York, NY, USA, ³Institut Pasteur. Génétique Humaine et Fonctions Cognitives CNRS, Paris, France
- 42 #P42 **Enhanced Olfactory Ability Decreases Anxiety-like Behavior and Elevates Attention Disorders**
Zhenbo Huang^{1,2}, Carlie Ann Holffman², Debra Ann Fadool^{1,2,3}. ¹Department of Biological Science, The Florida State University, Tallahassee, FL, USA, ²Program in Neuroscience, Tallahassee, FL, USA, ³Institute of Molecular Biophysics, Tallahassee, FL, USA
- 43 #P43 **Experience-Based Formation of Novel Odor Object Templates**
Lisa P. Qu, Sydni M. Cole, Jay A. Gottfried. Northwestern University Department of Neurology, Chicago, IL, USA
- 44 #P44 **Innate Odor Avoidance for Spoiled Food Categories in the Mouse**
Linnea E. Herzog, Ian G. Davison. Department of Biology, Boston University, Boston, MA, USA
- 45 #P45 **Persistence in memory of configural odor mixture and components in the newborn rabbit**
Gérard Coureaud¹, Thierry Thomas-Danguin¹, Frédérique Datiche¹, Donald A. Wilson², Guillaume Ferreira^{3,4}. ¹Centre des Sciences du Goût et de l'Alimentation, CNRS/INRA/Université de Bourgogne, Dijon, France, ²Department of Child & Adolescent Psychiatry, New York University Langone School of Medicine, New York, NY, USA, ³Nutrition and Integrative Neurobiology group, INRA, Bordeaux, France, ⁴Université de Bordeaux, Bordeaux, France

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

- 46 #P46 **Changes in olfactory bulb volume following lateralized olfactory training in healthy subjects**
Thomas Hummel, Kathrin Pietsch. *Smell & Taste Clinic, Department of Otorhinolaryngology, Technical University of Dresden, Dresden, Germany*
- 47 #P47 **Does the learning of elements prevent configural odor mixture perception in the newborn rabbit?**
Sébastien Romagny^{1,2}, Thierry Thomas-Danguin², Gérard Coureaud¹. ¹*Centre des Sciences du Goût et de l'Alimentation (CSGA), UMR 6265 CNRS, UMR 1324 INRA, Université de Bourgogne, Developmental Ethology and Cognitive Psychology group, Dijon, France,* ²*Centre des Sciences du Goût et de l'Alimentation (CSGA), UMR 6265 CNRS, UMR 1324 INRA, Université de Bourgogne, Molecular Interactions, in-mouth Breakdown and Flavour Perception Group, Dijon, France, Dijon, France*
- 48 #P48 **Stimulus-Specific Enhancement of Primary Sensory Input to the Brain After Olfactory Fear Learning**
Marley D. Kass, Michelle C. Rosenthal, Joseph Pottackal, John P. McGann. *Rutgers University/ Psychology Department, Piscataway, NJ, USA*
- 49 #P49 **The detection of bitter and sweet compounds by individual taste receptors in *Drosophila***
Erica G Freeman¹, Anupama Dahanukar^{1,2}. ¹*Bioengineering Interdepartmental Graduate Program, University of California Riverside, Riverside, CA, USA,* ²*Department of Entomology, University of California, Riverside, Riverside, CA, USA*
- 50 #P50 **Salivary Proteins Alter the Acceptance of Quinine Diets**
Ann-Marie Torregrossa, Larissa V. Nikonova. *Florida State University, Dept. of Psychology, Tallahassee, FL, USA*

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

- 51 #P51 **Soybean-derived umami peptides reduce bitterness in human and hT2R43- or 46-expressing cells**
Mee-Ra Rhyu¹, Hee Jin Son¹, Ji Hyun Ryu¹, Bo Hyun Lee¹, Yiseul Kim¹, Yong-ho Choi², Min Jung Kim¹. ¹*Division of Metabolism and Functionality Research, Korea Food Research Institute, Sungnam-si, South Korea*, ²*Research & Development 1 Team, Sempio Foods Company, Seoul, South Korea*
- 52 #P52 **Relationships of PROP bitterness and density of fungiform papillae with TAS2R38 and gustin gene genotypes in an ancestrally heterogeneous population**
Melania Melis^{1,2}, Mitchell Z Mattes¹, Patrizia Muronì², Iole Tomassini Barbarossa², Beverly J Tepper¹. ¹*Rutgers University, Department of Food Science, School of Environmental and Biological Sciences, New Brunswick, NJ, USA*, ²*Department of Biomedical Sciences, Cagliari University, Monserrato (CA), Italy*
- 53 #P53 **Role of Bitterness Perception in Nausea Elicitation**
Catherine Peyrot des Gachons¹, Helene Marcher^{1,2}, Michael Gleason¹, Paul A.S. Breslin^{1,3}. ¹*Monell Chemical Senses Center, Philadelphia, PA, USA*, ²*AgroSup Dijon, Dijon, France*, ³*Rutgers University Department of Nutritional Sciences, New Brunswick, NJ, USA*
- 54 #P54 **Are children more sensitive to bitter than adults?**
Kristi M. Roberts, Phoebe S. Mathew, Corrine J. Mansfield, Danielle R. Reed, Julie A. Mennella. *Monell Chemical Senses Center, Philadelphia, PA, USA*
- 55 #P55 **A Measure of Dietary Quality Generated from a Food Liking Survey Links Bitter Phenotype to Adiposity**
Mastaneh Sharafi, Shristi Rawal, Valerie B Duffy. *University of Connecticut / Allied Health Sciences, Storrs, CT, USA*

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9:00 – 11:00 pm

POSTER SESSION II

Estero Ballroom

SWEET AND POLYSACCHARIDE TASTE; OLFACTORY BULB AND ANTENNAL LOBE; CHEMOSENSORY STIMULI; TRP CHANNELS; OLFACTORY DEVELOPMENT; CHEMOSENSORY PERCEPTION AND BEHAVIOR

- | | | |
|----|------|--|
| 56 | #P56 | <p>TIR3-independent sweet taste reception mechanism revealed by selective breeding of mouse strains with high and low glycine preference</p> <p>Alexander A. Bachmanov¹, Masashi Inoue^{1,2}, Akihiko Kitamura^{1,3}, Kimiko Nakayama¹, Shiomi Katsumori², Maria L. Theodorides¹, Natalia P. Bosak¹, Glen J. Golden¹, Makoto Ohmoto¹, Ichiro Matsumoto¹, Gary K. Beauchamp¹. ¹Monell Chemical Senses Center, Philadelphia, PA, USA, ²Tokyo University of Pharmacy and Life Sciences, Hachioji, Japan, ³Institute for Innovation, Ajinomoto Co., Inc., Kawasaki, Japan</p> |
| 57 | #P57 | <p>Non-nutritive sweeteners are not super-normal stimuli</p> <p>Rachel G. Antenucci, John E. Hayes. <i>Department of Food Science, The Pennsylvania State University, University Park, PA, USA</i></p> |
| 58 | #P58 | <p>Mutant tomato varieties and the study of volatile-enhanced-sweetness</p> <p>Linda M. Bartoshuk¹, Eric Dreyer¹, Harry J. Klee¹, Asli Z. Odabasi¹, Charles A. Sims¹, Derek J. Snyder², Denise M. Tieman¹. ¹University of Florida, Gainesville, FL, USA, ²University of Southern California, Los Angeles, CA, USA</p> |
| 59 | #P59 | <p>Relative Sweetness and Sweetness Synergism of Various Sweeteners in Coffee System</p> <p>JI-HYE CHOI, SEO-JIN CHUNG. <i>Nutritional Science and Food Management, Ewha Womans University, SEOUL, South Korea</i></p> |

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

- 60 #P60 **Experience with Na-cyclamate decreases human taste sensitivity for aspartame, as well as for D-tryptophan and monosodium glutamate**
Samer F Halabiya^{2,3,4}, Alexander A Shcherbakov^{2,5}, Ian Davidson^{2,5}, Todd P Livdahl¹, Linda M Kennedy^{1,2}.
¹Clark University/Biology, Worcester, MA, USA, ²University of Washington School of Dentistry/Oral Health Sciences, Seattle, WA, USA, ³Everett Community College/Biology, Everett, WA, USA, ⁴University of Washington/Biology, Seattle, WA, USA, ⁵University of Washington/Biochemistry, Seattle, WA, USA
- 61 #P61 **Taste Perception of Maltopolysaccharides and the Factors Affecting It**
Trina J. Lapis, Michael H. Penner, Juyun Lim. *Department of Food Science and Technology, Oregon State University, Corvallis, OR, USA*
- 62 #P62 **Selective Temperature-Dependent Effects of Cold on Taste Sensitivity and Adaptation for Sugars and Artificial Sweeteners**
Danielle J Nachtigal¹, Barry G Green^{1,2}. ¹The John B Pierce Laboratory, New Haven, CT, USA, ²Yale School of Medicine, New Haven, CT, USA
- 63 #P63 **Effects of repeated exposure to sweetener on the sweetness acceptance and food attitude**
Ji-won Shim, Seo-jin Chung. *Nutritional science and food management, Ewha Womans University, Seoul, South Korea*
- 64 #P64 **Calcium intake influences sucrose taste detection**
Anna Voznesenskaya, Michael G Tordoff. *Monell Chemical Senses Center, Philadelphia, PA, USA*
- 65 #P65 **Identification of a Novel Alternatively-spliced mRNA Isoform of the Human Taste Receptor TAS1R3**
Stephan Vignes¹, Blossom Tewelde¹, Steven D. Munger^{1,2}.
¹University of Maryland School of Medicine/Department of Anatomy and Neurobiology, Baltimore, MD, USA, ²University of Maryland School of Medicine/Department of Medicine, Division of Endocrinology, Diabetes and Nutrition, Baltimore, MD, USA

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- 66 #P66 **Receptors and circuits for detection of aversive DEET and attractive sugar in the peripheral and central nervous system of *Drosophila***
Pinky Kain, Anandasankar Ray, Anupama Dahanukar.
Department of Entomology, University of California, Riverside, Riverside, CA, USA
- 67 #P67 **Neurophysiological basis of metabolic state dependent feeding behavior in *Drosophila* :Electrophysiological studies of the Ellipsoid Body R4 neurons**
JIN-YONG PARK, Monica Dus, Jason S. Lai, Greg S. Suh.
Skirball Institute of Biomolecular Medicine, Department of Cell Biology, New York University School of Medicine, New York, NY, USA
- 68 #P68 **Synaptic Circuitry of the Mouse External Plexiform Layer**
Dianna L. Bartel¹, Lorena Rela², Lawrence Hsieh¹, Charles A. Greer^{1,3}. ¹*Yale University School of Medicine, Department Neurosurgery, New Haven, CT, USA*, ²*University of Buenos Aires, Department Physiology and Biophysics, Buenos Aires, Argentina*, ³*Yale University School of Medicine, Department Neurobiology, New Haven, CT, USA*
- 69 #P69 **Olfactory Bulb Current Source Density Analysis in Awake Behaving Rats: Beta and Gamma Oscillations**
Donald E Frederick^{1,3}, Nisarg Mehta³, Austin Brown³, Cinar Doruk³, Leslie M Kay^{1,2,3}. ¹*Department of Psychology, University of Chicago, Chicago, IL, USA*, ²*Committee on Neurobiology, The University of Chicago, Chicago, IL, USA*, ³*Institute for Mind & Biology, The University of Chicago, Chicago, IL, USA*
- 70 #P70 **Plasticity of Stimulus Representation in the Olfactory Bulb of the Awake, Unrestrained Mouse**
Richard Gerkin, Ryan Brackney, Taleen Der-Ghazarian, Kael Dai, Brian Smith. *School of Life Sciences, Arizona State University, Tempe, AZ, USA*

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| 71 | #P71 | <p>A temporal channel for information in sparse olfactory coding</p> <p>Nitin Gupta, Mark Stopfer. <i>NICHD, National Institutes of Health, Bethesda, MD, USA</i></p> |
| 72 | #P72 | <p>Precise detection of glomerular input duration by the olfactory system</p> <p>Anan Li^{1,3}, Thomas Bozza², Diego Restrepo¹.
 ¹<i>Department of Cell and Developmental Biology, Neuroscience Program and Rocky Mountain Taste and Smell Center, University of Colorado Anschutz Medical Campus, Aurora, CO, USA,</i>
 ²<i>Department of Neurobiology, Northwestern University, Evanston, IL, USA,</i> ³<i>Wuhan Institute of Physics and Mathematics, The Chinese Academy of Sciences/State Key Laboratory of Magnetic Resonance and Atomic and Molecular Physics, Wuhan, China</i></p> |
| 73 | #P73 | <p>Nitric Oxide Controls Sensory Input In Mouse Olfactory Glomeruli</p> <p>Jie Ma, Graeme Lowe. <i>Monell Chemical Senses Center, Philadelphia, PA, USA</i></p> |
| 74 | #P74 | <p>Temporal Processing of Odor Stimuli from Olfactory Receptor Neurons to Projection Neurons</p> <p>Carlotta Martelli¹, Steven Zwick², Thierry Emonet^{1,2}.
 ¹<i>Yale University, Molecular Cellular and Developmental Biology, New Haven, CT, USA,</i> ²<i>Yale University, Physics, New Haven, CT, USA</i></p> |
| 75 | #P75 | <p>The effect of glomerular input patterns on mitral cell responses in the olfactory bulb</p> <p>Shaina M. Short^{1,2}, Thomas S. McTavish¹, Thomas M. Morse¹, Gordon M. Shepherd¹, Justus V. Verhagen^{1,2}.
 ¹<i>The John B. Pierce Laboratory, New Haven, CT, USA,</i> ²<i>Yale School of Medicine, Dept. Neurobiology, New Haven, CT, USA</i></p> |
| 76 | #P76 | <p>Plasticity of Glomeruli and Olfactory-Mediated Behavior in Zebrafish Following Detergent Lesioning of the Olfactory Epithelium</p> <p>Evan J. White, Savannah K. Kounelis, Christine A. Byrd-Jacobs. <i>Western Michigan University/Biological Sciences, Kalamazoo, MI, USA</i></p> |

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- 77 #P77 **Cellular Mechanisms Underlying Olfactory Signal-Filtering at Olfactory Bulb Glomeruli**
Joseph D. Zak^{1,2}, Nathan E. Schoppa^{1,2}.
¹Neuroscience Program, Aurora, CO, USA,
²Department of Physiology & Biophysics, Aurora, CO, USA
- 78 #P78 **Dendritic Analysis of Granule Cells in the BDNF-enriched Olfactory Bulb**
Brittnee McDole, Ceylan Isgor, Kathleen Guthrie.
College of Medicine, Dept. of Biomedical Science, Florida Atlantic University, Boca Raton, FL, USA
- 79 #P79 **Characterization of 5-HT₇ receptor type expression in the antennal lobe of *Drosophila melanogaster***
Lukas D Meadows, Andrew M Dacks. *West Virginia University / Biology, Morgantown, WV, USA*
- 80 #P80 **Interneuron functional diversity in the mouse accessory olfactory bulb**
Julian P Meeks, Marina A Maksimova, Jennifer M Torres.
UT Southwestern Medical Center, Dept. of Neuroscience, Dallas, TX, USA
- 81 #P81 **Sulfated Steroids are Chemosensory Stimuli of Both the Main and Accessory Olfactory System of an Amphibian**
Alfredo Sansone¹, Thomas Hassenklöver^{1,2}, Ivan Manzini^{1,2}.
¹University of Göttingen, Institute of Neurophysiology and Cellular Biophysics, Göttingen, Germany, ²University of Göttingen, Center for Nanoscale Microscopy and Molecular Physiology of the Brain (CNMPB), Göttingen, Germany
- 82 #P82 **When the nose must remain responsive: glutathione conjugation of the mammary pheromone in the newborn rabbit**
Philippe Faure¹, Arielle Legendre¹, Helene Tiesset¹, Catherine Potin¹, Ingrid Jacob¹, Gilles Sicard², Benoist Schaal¹, Yves Artur¹, Gerard Coureaud¹, Jean-Marie Heydel¹. ¹Centre des Sciences du Goût et de l'Alimentation, UMR 6265 CNRS, UMR 1324 INRA, Université de Bourgogne, Agrosup-Dijon, Dijon, France, ²Neurobiologie des interactions cellulaires et pathologie, NICN UMR 7259, Université d'Aix Marseille, Marseille, France

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- 83 #P83 **Competitive enzymatic inhibition of the mammary pheromone olfactory catabolism: *in-vitro* and *ex-vivo* investigation**
Hassan-Ismail Hanser, Philippe Faure, Ariele Legendre, Benoist Schaal, Yves Artur, Gerard Coureaud, Jean-Marie Heydel. *Centre des Sciences du Goût et de l'Alimentation, UMR 6265 CNRS, UMR 1324 INRA, Université de Bourgogne, Agropup-Dijon, Dijon, France*
- 84 #P84 **Major Urinary Proteins (MUPs) as a Key Component in Mouse Olfactory Coding: An Important Landmark in Genetics of Social Behavior**
Sergey N Novikov¹, Elena M Fedorova², Irina I Ermakova³.
¹I.P. Pavlov Institute of Physiology, Russian Academy of Sciences, St.Petersburg, Russia, ²Institute of Experimental Medicine, Russian Academy of Medical Sciences, St.Petersburg, Russia, ³Institute of Cytology, Russian Academy of Sciences, St.-Petersburg, Russia
- 85 #P85 **Predicting odorant perception from odorant structure**
kobi snitz, lavi secundo, noam sobel. *weizmann institute of science, neurobiology, rehovot, Israel*
- 86 #P86 **Individual Olfactory Fingerprints: From Mapping Odors in People-Space to Mapping People in Odor-Space**
Lavi Secundo, Kobi Snitz, Liron Pinchover, Dana Bar-Zvi, Noam Sobel*. *Weizmann Institute of Science, Rehovot, Israel*
- 87 #P87 **How many molecules have an odor?**
Chung Wen Yu, Lindsay A. Warrenburg, Katharine A. Prokop-Prigge, Joel D. Mainland. *Monell Chemical Senses Center, Philadelphia, PA, USA*
- 88 #P88 **Eavesdropping on Immunity**
Bruce A Kimball^{1,2}, Gary K Beauchamp².
¹USDA-APHIS-WS-NWRC, Philadelphia, PA, USA, ²Monell Chemical Senses Center, Philadelphia, PA, USA

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- 89 #P89 **Genetic and Ethnic Influences on Human Odorant Production**
Katharine A. Prokop-Prigge¹, Kathryn L. Greene¹, Charles J. Wysocki^{1,2}, Erica R. Thaler³, George Preti^{1,4}.
¹Monell Chemical Senses Center, Philadelphia, PA, USA, ²Department of Animal Biology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, USA, ³Department of Otorhinolaryngology: Head and Neck Surgery, University of Pennsylvania, Philadelphia, PA, USA, ⁴Department of Dermatology, School of Medicine, University of Pennsylvania, Philadelphia, PA, USA
- 90 #P90 **TRPV1 and TAS2R Polymorphisms and Ethanol Perception**
Alissa L. Allen¹, John E. McGeary², John E. Hayes¹.
¹Department of Food Science, Penn State, University Park, PA, USA, ²Providence VA Medical Center, Providence, MA, USA
- 91 #P91 **(E)-2-alkenals and quinones from arthropod defensive secretion activate sensory TRP channels**
Nathaniel T Blair^{1,2}, Yessenia Ibarra^{1,2}, Benjamin I Philipson³, Julia F Doerner^{1,2}, David E Clapham^{1,2}.
¹Howard Hughes Medical Institute, Department of Cardiology, Boston Children's Hospital, Boston, MA, USA, ²Department of Neurobiology, Harvard Medical School, Boston, MA, USA, ³Harvard College, Cambridge, MA, USA
- 92 #P92 **Topographic Representation of External Space in the Mouse Main Olfactory Epithelium**
Ningdong Kang, Timothy Holy. *Washington University in St Louis / Anatomy and Neurobiology, St Louis, MO, USA*
- 93 #P93 **Ion channels of the transient receptor family participate in the electrical membrane response of the tongue to chemical stimulation at different temperatures**
Alexandre Nikonov, Robert Contreras. *FSU, Tallahassee, FL, USA*

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

- 94 #P94 **Novel Cooling Agents Derived from Nutmeg Neolignan with Original Interaction Sites on TRPM8**
Tomohiro Shirai¹, Kentaro Kumihashi¹, Hiroshi Kusuoku², Mitsuyoshi Sakasai², Yusuke Shibuya², Junji Nakamura¹.
¹Kansei Science Research, Kao, Tochigi, Japan, ²Biological Science Research, Kao, Tochigi, Japan
- 95 #P95 **Both *painless* and *dTRPA1*, *Drosophila* TRPA Channels, Detect Chemical Irritants**
Wayne L Silver, Samantha J Mandel, Madison L Shoaf, Jason T Braco, Erik C Johnson. *Wake Forest University/ Biology, Winston Salem, NC, USA*
- 96 #P96 **Regeneration in the Human Olfactory Epithelium**
Elizabeth Gould¹, Khoa Nguyen¹, Wendy Macklin¹, Diego Restrepo¹, Vijay Ramakrishnan². ¹*University of Colorado, Anschutz Medical Campus/Department of Cellular and Developmental Biology, Aurora, CO, USA*, ²*University of Colorado, Anschutz Medical Campus/Department of Otolaryngology, Aurora, CO, USA*
- 97 #P97 **Mutation in *Wnt5* knocked out the ability of *Drosophila* to respond to Carbon Dioxide**
Huey Hing¹, Christine Pham², Anandasankar Ray².
¹*State University of New York at Brockport/Biology, Brockport, NY, USA*, ²*University of California at Riverside/Entomology, Riverside, CA, USA*
- 98 #P98 **AMIGO-1 regulates the targeting of olfactory sensory neuron axons to the olfactory bulb**
Reesha Raja^{1,2}, Emilie Dumontier^{1,2}, Jean-Francois Cloutier^{1,2}. ¹*McGill University, Department of Neurology and Neurosurgery, Montreal, QC, Canada*, ²*Montreal Neurological Institute, Montreal, QC, Canada*

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

- 99 #P99 **The maintenance of olfactory sensory axon terminal arbors is dependent upon *Mecp2* in adult mice**
Ying Ren¹, Freshta Obaidi², Huaiyang Chen¹, Qizhi Gong¹.
¹Department of Cell Biology and Human Anatomy,
University of California School of Medicine, Davis, CA, USA,
²Rosalind Franklin University of Medicine and Science,
North Chicago, IL, USA
- 100 #P100 **A novel transcription regulatory mechanism for tyrosine hydroxylase mediated by hnRNP K and DNA secondary structure**
Meng Wang^{1,2}, Kasturi Banerjee¹, Elizabeth Cai¹,
Nana Fujiwara¹, Harriet Baker^{1,2}, John Cave^{1,2}.
¹Burke Medical Research Institute, White Plains, NY, USA,
²Weill Cornell Medical College, New York, NY, USA
- 101 #P101 **Functional Characterization of Igr5 Expressing Cells in the Olfactory Bulb**
Andrew H Moberly, Yiqun Yu, Minghong Ma.
University of Pennsylvania, Philadelphia, PA, USA
- 102 #P102 **Effects of Buttered Popcorn Scent Administration on Ratings of Movie Quality and Enjoyment in a Theater Setting**
Allison Burke, Patrick Dwyer, Killeen Schlegel, Bryan Raudenbush, Rebecca Brown. *Wheeling Jesuit University*
Department of Psychology, Wheeling, WV, USA
- 103 #P103 **Taste Detection and Recognition: A Decision-Theoretic Framework**
Lawrence E. Marks^{1,2,3}. ¹John B. Pierce Laboratory,
New Haven, CT, USA, ²Department of Environmental
Health Sciences, Yale School of Public Health, New Haven,
CT, USA, ³Department of Psychology, Yale University,
New Haven, CT, USA
- 104 #P104 **Extension of the “Taste Strips” Test for the Assessment of Supertaster**
Christian A. Mueller¹, Axel Wolf¹, Bertold Renner².
¹Medical University Vienna / Otorhinolaryngology, Vienna,
Austria, ²University Erlangen-Nürnberg / Pharmacology,
Erlangen, Germany

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- 105 #P105 **A Designated Odor-language System in the Human Brain**
Jonas K Olofsson¹, Robert Hurley², Nicholas E Bowman²,
Marsel Mesulam², Jay A Gottfried². ¹*Stockholm University/*
Psychology, Stockholm, Sweden, ²*Northwestern University/*
Neurology, Chicago, IL, USA
- 106 #P106 **The Relationship Between PTC Taster Status and Personality Characteristics While Undergoing a Frustrating Task**
Amy Pinkerton, Sierra Moore, Erin Sheplavy, Jessica Florian, Bryan Raudenbush. *Wheeling Jesuit University Department of Psychology, Wheeling, WV, USA*
- 107 #P107 **Effects of Peppermint Scented Pencils on Academic Performance**
Bryan Raudenbush. *Wheeling Jesuit University Department of Psychology, Wheeling, WV, USA*
- 108 #P108 **Exogenous Attentional Demands from Olfactory Stimuli in Hungry and Satiated Individuals**
Timothy S. Schreiber, Theresa L. White. *Le Moyne College, Syracuse, NY, USA*

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8:00 – 10:00 am

POSTER SESSION III

Estero Ballroom

APPETITIVE TASTE; MIXTURE DETECTION; OLFACTORY DEVELOPMENT—LINEAGE AND DIFFERENTIATION; OLFACTORY MODULATION; PERIPHERAL TASTE SIGNALING

- 1 #P109 **Stronger Preferences for Trisodium Pyrophosphate in T1R3 Knockout than Wild-Type Mice**
Shannon L. Urena, Tiffany Aleman, Sitaram Valmeki, Peihua Jiang, Michael G. Tordoff. *Monell Chemical Senses Center, Philadelphia, PA, USA*

- 2 #P110 **Effect of NaCl on taste preferences for L-Arginine (Arg) in C57BL/6 mice**
Yuko Murata¹, Tomomi Kato¹, Alexander A. Bachmanov².
¹National Research Institute of Fisheries Science, Fisheries Research Agency, Yokohama, Japan, ²Monell Chemical Senses Center, Philadelphia, PA, USA

- 3 #P111 **The sweet-salty-bitter taste of saccharin in 2 strains of mice**
David A. Blizard¹, Marion E. Frank², Thomas P. Hettinger².
¹Pennsylvania State University, University Park, PA, USA, ²University of Connecticut Health Center, Farmington, CT, USA

- 4 #P112 **Adiponectin influences fat taste perception**
Jakob Dobrowolski¹, Robin Dando². ¹Biology, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY, USA, ²Food Science, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY, USA

- 5 #P113 **Pyrophosphates and cat food palatability**
Aurélie De Ratuld¹, Cécile Nicéron¹, Anne Levesque¹, Joseph Brand², Bruce Bryant², Joseph Araujo³.
¹SPF-DIANA, Elven, France, ²Monell Chemical Senses Center, Philadelphia, PA, USA, ³CanCog Technologies, Toronto, Canada

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| 6 | #P114 | <p>Selective Stimulation of GABA_{Aα2/3} Receptors Increases Intake and Motivation to Consume Sucrose Solutions in Rats</p> <p>John-Paul Baird¹, Jennifer C. Swick¹, Tyler S. Nelson², Sarah E. Holstein², David W. Pittman². ¹<i>Amherst College, Dept. of Psychology, Amherst, MA, USA,</i> ²<i>Wofford College, Dept. of Psychology, Spartanburg, SC, USA</i></p> |
| 7 | #P115 | <p>Neural and Behavioral Responses to Nicotine and Ethanol in Alcohol Preferring (P) and alcohol Non-preferring (NP) Rats</p> <p>Jie Qian, Shobha Mummalaneni, Vijay Lyall.
<i>VCU/Physiology & Biophysics, Richmond, VA, USA</i></p> |
| 8 | #P116 | <p>Oral sensitivity to non-esterified fatty acids increases with decreasing chain length and increasing degree of unsaturation</p> <p>Cordelia A Running, James R Daniel, Richard D Mattes.
<i>Purdue University, West Lafayette, IN, USA</i></p> |
| 9 | #P117 | <p>Olfactory navigation in humans: spatial orientation within an odor landscape</p> <p>Lucia F Jacobs, Jennifer Arter, Amy Cook. <i>Dept Psychol, Univ Calif, Berkeley, CA, USA</i></p> |
| 10 | #P118 | <p>Stability of Olfactory Sensitivity: Don't Chase Ghosts</p> <p>William S. Cain¹, Roland Schmidt¹, J. Enrique Cometto-Muñiz¹, Craig B. Warren¹, Matthias H. Tabert².
¹<i>Chemosensory Perception Lab (CPL), La Jolla, CA, USA,</i> ²<i>International Flavors and Fragrances, Inc., Union Beach, NJ, USA</i></p> |
| 11 | #P119 | <p>Is identifying odors useful? The accuracy, consistency and speed of odor and picture naming</p> <p>E. Leslie Cameron¹, Matthew R. Anderson¹, Per Møller².
¹<i>Carthage College, Department of Psychological Science, Kenosha, WI, USA,</i> ²<i>University of Copenhagen, Department of Food Science, Copenhagen, Denmark</i></p> |

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- 12 #P120 **Humans Can Discriminate More than One Trillion Olfactory Stimuli**
Andreas Keller¹, Caroline Bushdid¹, Marcelo O. Magnasco², Leslie B. Vosshall^{1,3}. ¹Laboratory of Neurogenetics and Behavior, The Rockefeller University, New York, NY, USA, ²Laboratory of Mathematical Physics, The Rockefeller University, New York, NY, USA, ³Howard Hughes Medical Institute, New York, NY, USA
- 13 #P121 **Elemental perceptions of binary and tertiary odorant mixtures**
Terry E Acree¹, Pauline Riehl², Edward H Lavin¹. ¹Cornell University, Geneva, NY, USA, ²AGRASUP, Dijon, France, ³Cornell University, Geneva, NY, USA
- 14 #P122 **Perceptual and neural effects of timing for binary odor mixtures**
Tyler S. Lorig¹, Emily A. Warner¹, Shannon E. Cusack¹, Leslie M. Kay², Joel D. Mainland³. ¹Washington and Lee University, Lexington, VA, USA, ²University of Chicago, Chicago, IL, USA, ³Monell Chemical Senses Center, Philadelphia, PA, USA
- 15 #P123 **Both the number and perceptual quality of odorants control configural processing of odor mixture in human adults**
Thierry Thomas-Danguin¹, Sébastien Romagny^{1,2}, Gérard Coureaud². ¹Centre des Sciences du Goût et de l'Alimentation (CSGA), UMR 6265 CNRS, UMR 1324 INRA, Université de Bourgogne, Molecular Interactions, in-mouth Breakdown and Flavour Perception Team, DIJON, France, ²Centre des Sciences du Goût et de l'Alimentation (CSGA), UMR 6265 CNRS, UMR 1324 INRA, Université de Bourgogne, Developmental Ethology and Cognitive Psychology Team, DIJON, France

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| 16 | #P124 | Withdrawn |
| 17 | #P125 | <p>The “Sniffin’ Kids” test ~A 12-item odor identification test for children~</p> <p>Eri Mori^{1,2}, Valentin A. Schriever², Wenke Petters², Carolin Boerner², Martin Smitka³, Thomas Hummel².</p> <p>¹Department of Otorhinolaryngology, Jikei University, School of Medicine, Tokyo, Japan, ²Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, ³Department of Neuropediatrics, University of Dresden Medical School, Dresden, Germany</p> |
| 18 | #P126 | <p>Contextual effects might influence the pleasantness of odors</p> <p>Shiori Nakano, Saho Ayabe-Kanamura. <i>University of Tsukuba, TSUKUBA, Japan</i></p> |
| 19 | #P127 | <p>Brain processing of attractive odorants added to an initially neutral mixture</p> <p>Charlotte Sinding, Viola Bojanoswky, Marcus Münch, Cornelia Hummel, Thomas Hummel. <i>ENT dept., TU Dresden, Dresden, Germany</i></p> |
| 20 | #P128 | <p>Implicit versus explicit localization capacities across two intranasal chemosensory systems in humans</p> <p>Olga A. Wudarczyk¹, Carolin Moessnang², Raquel Gur³, Frank Schneider¹, Ute Habel¹. <i>¹RWTH Aachen University, Aachen, Germany, ²Central Institute for Mental Health, Mannheim, Germany, ³University of Pennsylvania, Philadelphia, PA, USA</i></p> |

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- 21 #P129 **Co-opting the Unfolded Protein Response for Olfactory Receptor Feedback**
Ryan M Dalton, David Lyons, Stavros Lomvardas.
University of California, San Francisco/Department of Anatomy, San Francisco, CA, USA
- 22 #P130 **Mutually exclusive olfactory receptor expression does not depend on nuclear sequestration in immature cell types derived from the OSN lineage**
Robert P. Lane, Seda Kilinc, Diane Meredith. *Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, CT, USA*
- 23 #P131 **Role of c-Kit Expressing Progenitor Cells in Olfactory Neurogenesis**
Bradley J. Goldstein¹, Garrett Goss¹, Konstantinos E. Chatzistergos¹, Erika B. Rangel¹, Barbara Seidler², Dieter Saur², Joshua M. Hare¹. ¹*University of Miami Miller School of Medicine, Miami, FL, USA*, ²*Technische Universität München, München, Germany*
- 24 #P132 **Spatial organization of odorant receptor gene alleles within the nucleus of olfactory neurons**
Bettina Malnic, Lúcia Maria Armelin-Correa, Luciana Gutiyama, Débora Brandt. *University of São Paulo, São Paulo, Brazil*
- 25 #P133 **Olfactory stem cells do not retain spatial memory**
Julie C Hewitt^{1,2}, James E Schwob³. ¹*Sackler School of Biomedical Sciences, Tufts University, Boston, MA, USA*, ²*Department of Neuroscience, Tufts University School of Medicine, Boston, MA, USA*, ³*Department of Developmental and Cellular Biology, Tufts University School of Medicine, Boston, MA, USA*
- 26 #P134 **Neuroepithelium reduces with age in human olfactory mucosa**
Eric H Holbrook¹, Peter Solomon², James E Schwob². ¹*Massachusetts Eye and Ear Infirmary/Harvard Medical School, Boston, MA, USA*, ²*Tufts University School of Medicine, Boston, MA, USA*

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- 27 #P135 **The Role of Cilia in the Regulation of Olfactory Horizontal Basal Cells**
Ariell M. Joiner¹, Jeremy C. McIntyre², Jeffrey R. Martens².
¹University of Michigan/Department of Pharmacology, Ann Arbor, MI, USA, ²University of Florida/Department of Pharmacology & Therapeutics, Gainesville, FL, USA
- 28 #P136 **Trpm5-expressing microvillous cells play a role in adaptive functional plasticity after irritant exposure in mice**
Imad Aoudé¹, Tatsuya Ogura¹, Justin Chang¹, Wangmei Luo¹, Ichiro Matsumoto², Weihong Lin¹. ¹University of Maryland Baltimore County, Department of Biological Sciences, Baltimore, MD, USA, ²Monell Chemical Senses Center, Philadelphia, PA, USA
- 29 #P137 **Skn-1a/Pou2f3 is required for the generation of Trpm5-expressing microvillous cells in the mouse main olfactory epithelium**
Makoto Ohmoto¹, Junpei Yamashita², Tatsuya Yamaguchi², Alexander A Bachmanov¹, Ichiro Matsumoto¹, Junji Hirota². ¹Monell Chemical Senses Center, Philadelphia, PA, USA, ²Tokyo Institute of Technology, Department of Bioengineering, Yokohama, Japan
- 30 #P138 **RGM-b-Neogenin signaling controls cell specification in the olfactory epithelium.**
Joseph W.K. Kam¹, Emilie Dumontier², Alexandra Brignall³, David Mendes de Silva⁴, Mitra Cowan⁵, Jean-Francois Cloutier⁶. ¹McGill University, Montreal, QC, Canada, ²McGill University, Montreal, QC, Canada, ³McGill University, Montreal, QC, Canada, ⁴McGill University, Montreal, QC, Canada, ⁵Université de Montréal, Montreal, QC, Canada, ⁶McGill University, Montreal, QC, Canada

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- 31 #P139 **Neurog1+ progenitors are plastic and can give rise to non-neuronal lineages in the olfactory epithelium**
 Brian Lin¹, Julie Hewitt^{1,2}, James E. Schwob³. ¹*Sackler School of Biomedical Sciences, Tufts University, Boston, MA, USA*, ²*Department of Neuroscience, Tufts University School of Medicine, Boston, MA, USA*, ³*Department of Developmental, Molecular, and Cell Biology, Tufts University School of Medicine, Boston, MA, USA*
- 32 #P140 **Compensatory plasticity in the olfactory periphery: timing and reversibility**
 Casey N. Barber, David M. Coppola. *Biology Department, Randolph Macon College, Ashland, VA, USA*
- 33 #P141 **Sequential Spatio-temporal Molecular Differentiation of Olfactory Sensory Neurons**
 Diego Rodriguez Gil¹, Dianna Bartel¹, Austin Jaspers¹, Arie Mobley¹, Courtney Rubin¹, Fumiaki Imamura¹, Charles Greer^{*1,2}. ¹*Yale University, School of Medicine, Department of Neurosurgery, New Haven, CT, USA*, ²*Yale University, School of Medicine, Department of Neurobiology, New Haven, CT, USA*
- 34 #P142 **RTP1 and RTP2 Play an Essential Role in the Development and Functioning of the Olfactory System**
 Ruchira Sharma¹, Yoshiro Ishimaru², Ian Davison³, Hiroaki Matsunami¹. ¹*Duke University Medical Center, Durham, NC, USA*, ²*University of Tokyo, Tokyo, Japan*, ³*Boston University, Boston, MA, USA*
- 35 #P143 **Olfactory Epithelium of GAD65-GFP mice: A New Model for Studying Olfactory Sensory Neuron Maturation?**
 W. Devin Owens¹, Brian McRae², M. Payton Weidner², Kathryn A. Hamilton¹. ¹*LSU Health Sciences Center, Dept. of Cellular Biology & Anatomy, Shreveport, LA, USA*, ²*Centenary College, Dept. of Neuroscience, Shreveport, LA, USA*

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| 36 | #P144 | <p>Regenerative capacity of olfactory mucosa in Niemann-Pick disease type C1
 Anja Meyer¹, Rene Günther¹, Jan Lukas², Arndt Rolfs², Andreas Wree¹, Martin Witt¹. ¹Rostock University Medical Center, Dept. of Anatomy, Rostock, Germany, ²Rostock University Medical Center, Albrecht Kossel Institute for Neuroregeneration, Rostock, Germany</p> |
| 37 | #P145 | <p>Cholinergic modulation of olfactory bulb glomerular odor responses
 Max L. Fletcher, Cameron Ogg, Mounir Bendahmane. <i>University of Tennessee Health Sciences Center, Memphis, TN, USA</i></p> |
| 38 | #P146 | <p>Regulation of bulbar and cortical cholinergic modulation by olfactory cortex
 Christiane Linster, Licurgo deAlmeida, Sasha Devore, Owen Dean. <i>Cornell University, Ithaca, NY, USA</i></p> |
| 39 | #P147 | <p>Cholinergic modulation of glomerular circuits sculpts olfactory bulb output
 Shaolin Liu¹, Zuoyi Shao¹, Adam Puche¹, Matt Wachowiak², Markus Rothmel², Michael Shipley¹. ¹University of Maryland School of Medicine / Anatomy and Neurobiology, Baltimore, MD, USA, ²University of Utah / Neurobiology and Anatomy, Salt Lake, UT, USA</p> |
| 40 | #P148 | <p>Cholinergic modulation in the accessory olfactory bulb
 Richard Smith, Andre DeSouza, Wilson Chan, Robert Mauer, Ricardo Araneda. <i>University of Maryland, Department of Biology, College Park, MD, USA</i></p> |

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- 41 #P149 **Modulation of Mitral Cell Activity by Glucagon-like Peptide-1 is Conveyed by the Potassium Channel Kv1.3**
 Nicolas Thiebaud¹, Ida Llewellyn-Smith², Fiona Gribble³, Frank Reimann³, Stefan Trapp⁴, Debra Ann Fadool^{1,5}.
¹Department of Biological Science, The Florida State University, Tallahassee, FL, USA, ²Centre for Neurosciences, Flinders University, Bedford Park SA, Australia, ³Cambridge Institute for Medical Research, Addenbrooke's Hospital, Cambridge, United Kingdom, ⁴Department of Neuroscience, Physiology and Pharmacology, University College London, London, United Kingdom, ⁵Program in Neuroscience and Molecular Biophysics, The Florida State University, Tallahassee, FL, USA
- 42 #P150 **The Neural Source of Olfactory Plasticity in Young Adults**
 Johan N Lundström^{1,2,3}, Beverly J Cowart², Dominik Koller⁴, Marcia L Pelchat², Kathrin Ohla^{2,4}.
¹Karolinska Institutet/Clinical Neuroscience, Stockholm, Sweden, ²Monell Chemical Senses Center, Philadelphia, PA, USA, ³University of Pennsylvania/Psychology, Philadelphia, PA, USA, ⁴German Institute of Human Nutrition Potsdam-Rehbrücke, Nuthetal, Germany
- 43 #P151 **Serotonergic modulation of pheromone and amino acid responses in the olfactory bulb of the sea lamprey (*Petromyzon marinus*)**
 Karl C. Boyes¹, Warren W. Green¹, Zeenat Aurangzeb¹, Réjean Dubuc^{2,3}, Barbara Zielinski¹. ¹University of Windsor Department of Biological Sciences, Windsor, ON, Canada, ²Université du Québec à Montréal Groupe de Recherche en Activité Physique Adaptée, Montreal, QC, Canada, ³Université de Montréal Department of Neuroscience, Montreal, QC, Canada

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- 44 #P152 **The receptor basis of serotonergic modulation in the antennal lobe of *Drosophila***
Andrew M Dacks, Rachel Montgomery, Lukas Meadows.
West Virginia University, Morgantown, WV, USA
- 45 #P153 **Histamine projections from flight motor to primary olfactory centers enhance odor representations to high frequency stimuli encountered during odor-guided flight**
Samual P Bradley¹, Rex Burkland¹, Benjamin Houot^{1,2}, Anna K Snyder¹, Rita V M Rio¹, Andrew M Dacks¹, Kevin C Daly¹. ¹*West Virginia University, Morgantown, WV, USA*, ²*Centre des Sciences du Gout et de l'Alimentation Université de Bourgogne, Dijon, France*
- 46 #P154 **Mapping Properties of Fungiform Papillae on the Mouse Tongue**
Stuart A McCaughey. *IUSM-Muncie at Ball State University, Muncie, IN, USA*
- 47 #P155 **Mining deep sequencing data from individual taste cells**
Sunil K Sukumaran, Brian C Lewandowski, Yumei Qin, Liquan Huang, Alexander Bachmanov, Robert F Margolskee. *Monell Chemical Senses Center, Philadelphia, PA, USA*
- 48 #P156 **An Optogenetic Approach to Experimentally Manipulate Peripheral Nerve Taste Responses**
Chengsan Sun¹, Dustin M. Graham², Rolf J. Skyberg¹, Victoria E. Soler¹, David L. Hill¹. ¹*University of Virginia/ Psychology, Charlottesville, VA, USA*, ²*Stony Brook University/ Neurobiology and Behavior, Stony Brook, NY, USA*
- 49 #P157 **GLP-1 involvement in sweet specific taste transmission from taste cells to gustatory nerve fibers**
Shingo Takai¹, Keiko Yasumatsu¹, Mayuko Inoue¹, Shusuke Iwata¹, Ryusuke Yoshida¹, Noriatsu Shigemura¹, Daniel J. Drucker², Robert F. Margolskee³, Yuzo Ninomiya¹. ¹*Section of Oral Neuroscience, Graduate School of Dental Science, Kyushu University, Fukuoka, Japan*, ²*Lunenfeld Tanenbaum Research Institute, Mt. Sinai Hospital, University of Toronto, Toronto, ON, Canada*, ³*Monell Chemical Senses Center, Philadelphia, PA, USA*

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| 50 | #P158 | <p>Neurochemical subgroups of the geniculate ganglion
 Min Wang, Robert M Bradley. <i>University of Michigan/ Department of Biological and Materials Sciences, Ann Arbor, MI, USA</i></p> |
| 51 | #P159 | <p><i>Pkd2l1</i> Drives Cre Recombinase Expression in Type III Taste Cells
 Courtney E. Wilson^{1,2,3}, Wallace S. Chick^{1,4}, Sue C. Kinnamon^{1,2,3}. ¹<i>University of Colorado School of Medicine, Neuroscience Program, Aurora, CO, USA,</i> ²<i>University of Colorado School of Medicine, Department of Otolaryngology, Aurora, CO, USA,</i> ³<i>Rocky Mountain Taste and Smell Center, Aurora, CO, USA,</i> ⁴<i>University of Colorado School of Medicine, Department of Cell and Developmental Biology, Aurora, CO, USA</i></p> |

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9:00 – 11:00 pm

POSTER SESSION IV

Estero Ballroom

GUSTATORY CORTEX/AMYGDALA/THALAMUS; TRIGEMINAL/CHEMESTHESIS; OLFACTORY DEVELOPMENT; SALT AND SOUR TASTE; OLFACTORY TESTING AND BEHAVIOR

- 56 #P160 **A role for cortex in the generation of taste behavior**
Donald B Katz^{1,2,3}, Jennifer X Li², Joost X Maier³,
Emily E Reid². ¹Brandeis University / Biology, Waltham, MA,
USA, ²Brandeis University / Psychology, Waltham, MA, USA,
³Brandeis University / Volen Center, Waltham, MA, USA
- 57 #P161 **Population dynamics track behavior across learning
and extinction, but single neuron responses do not**
Anan Moran, Donald B Katz. *Psychology Department and
Volen Center for Complex Systems, Brandeis University,
Waltham, MA, USA*
- 58 #P162 **Mapping Taste-Responsive Neurons in the Gustatory
Cortex using Fos-Immunohistochemistry**
Michael S King¹, Matthew J Fremming¹, Thea C Kelsey².
¹Stetson University / Biology, DeLand, FL, USA, ²Daytona State
College / Biological Sciences, Daytona Beach, FL, USA
- 59 #P163 **Ensemble dynamics in the rat gustatory cortex can
precisely predict taste ingestion-rejection decisions**
Narendra Mukherjee^{1,3}, Jennifer X Li^{2,3,4}, Donald B
Katz^{1,2,3,4}. ¹Dept of Biology, Brandeis University, Waltham, MA,
USA, ²Dept of Psychology, Brandeis University, Waltham, MA,
USA, ³Program in Neuroscience, Brandeis University, Waltham,
MA, USA, ⁴Volen Center for Complex Systems, Brandeis
University, Waltham, MA, USA
- 60 #P164 **Peptide Co-localization in Forebrain Neurons that
Project to the Parabrachial Nucleus in Transgenic Mice**
Robert Lundy, Ali Magableh. *University of Louisville School
of Medicine / Anatomical Sciences and Neurobiology, Louisville,
KY, USA*

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Poster Numbering Key: The first number indicates the poster board number/session.
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- 61 #P165 **Taste cortex influences olfactory processing**
Joost X. Maier^{1,2}, Donald B. Katz^{1,2}. ¹Brandeis University/
Department of Psychology, Waltham, MA, USA,
²Brandeis University/Volen National Center for Complex Systems,
Waltham, MA, USA
- 62 #P166 **Coding of gustatory and anticipatory signals in the
gustatory thalamus (VPMpc) of behaving rats**
Haixin Liu^{1,2}, Alfredo Fontanini^{1,2}. ¹Department of
Neurobiology and Behavior, SUNY Stony Brook, Stony Brook,
NY, USA, ²Program in Neuroscience, SUNY Stony Brook,
Stony Brook, NY, USA
- 63 #P167 **Amygdalar activation of excitatory and inhibitory
circuits in gustatory cortex**
Melissa Haley, Alfredo Fontanini, Arianna Maffei.
SUNY – Stony Brook Dept. Neurobiology and Behavior,
Stony Brook, NY, USA
- 64 #P168 **Decoding neural taste quality processing with
multivariate pattern analyses (MVPA) of human brain
electrical activity**
Kathrin Ohla¹, Niko A. Busch^{2,3}, Sébastien Crouzet².
¹German Institute of Human Nutrition Potsdam-Rehbruecke,
Dept. of Molecular Genetics, Nuthetal, Germany, ²Charité
University Medicine, Institute of Medical Psychology, Berlin,
Germany, ³Humboldt-University, Berlin School of Mind and
Brain, Berlin, Germany
- 65 #P169 **Immunohistochemical characterization of the mouse
gustatory cortex**
Vivian de Alvarenga Guedes, Lianyi Lu, Max Fletcher,
John Boughter. University of Tennessee Health Science Center/
Anatomy & Neurobiology, Memphis, TN, USA

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- 66 #P170 **Cortical thickness in patients with burning mouth syndrome, dysgeusia and healthy subjects**
Ann M. Gransj  n^{1,2}, Thomas Hummel², Gina Schlumberger², Charlotte Sinding², Preet B. Singh^{1,2,3}.
¹Oslo and Akershus University College of Applied Sciences, Oslo, Norway, ²Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, ³Department of Oral Biology, Faculty of Dentistry, University of Oslo, Oslo, Norway
- 67 #P171 **Effects of Taste Experience on Conditioned Taste Aversion**
Veronica L. Flores^{1,2,3}, Anan Moran^{1,2,3}, Donald B. Katz^{1,2,3}.
¹Brandeis University, Waltham, MA, USA, ²Psychology Department, Waltham, MA, USA, ³Volen National Center for Complex Systems, Waltham, MA, USA
- 68 #P172 **Eugenol and carvacrol enhance warmth and heat pain via effects on primary sensory neurons in rats**
E. Carstens¹, Amanda H. Klein², Christopher L. Joe¹, Auva Davoodi¹, Mirela Iodi Carstens¹, Kenichi Takechi³.
¹Univ. of California, Davis, Dept. of Neurobiology, Physiology and Behavior, Davis, CA, USA, ²The Johns Hopkins University, Dept. of Anesthesiology, Baltimore, MD, USA, ³Ehime Medical School, Dept. of Anesthesiology, Matsuyama, Japan
- 69 #P173 **Perception of Chemesthetic Stimuli in Groups who Differ in Culinary Expertise**
Nadia K. Byrnes, John E. Hayes. *Department of Food Science, Penn State, University Park, PA, USA*
- 70 #P174 **Exploring astringent sub-qualities using Check-All-That-Apply (CATA) and Multidimensional Scaling (MDS)**
Erin E. Fleming, Nadia K. Byrnes, John E. Hayes.
Department of Food Science, The Pennsylvania State University, University Park, PA, USA

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

- 71 #P175 **Right nostril advantages in trigeminal perception**
Johannes Frasnelli^{1,2}, Renée-Pier Filiou¹, Bruce Bryant³,
Johan Lundstrom^{3,4}, Franco Lepore¹. ¹*University of Montreal,*
Psychology, Montréal, QC, Canada, ²*Research Centre, Sacré*
Coeur Hospital, Montréal, QC, Canada, ³*Monell Chemical*
Senses Center, Philadelphia, PA, USA, ⁴*Karolinska Institute,*
Stockholm, Sweden
- 72 #P176 **Activation of Trigeminal Nerve Fibers and Macrophages
in Response to Irritants of the Olfactory Epithelium**
Tania R Iqbal, Colleen C Hegg. *Michigan State University/*
Neuroscience Program, East Lansing, MI, USA
- 73 #P177 **Investigating the Trigeminal Network using fMRI and
Somatosensory Stimulation**
Prasanna Karunanayaka¹, Robert Mchugh¹, Megha
Vasavada¹, Jianli Wang¹, Qing Yang¹. ¹*Radiology, Penn State*
University College of Medicine, Hershey, PA, USA, ²*Neurosurgery,*
Penn State University College of Medicine, Hershey, PA, USA
- 74 #P178 **Fetal Ethanol Exposure Diminishes Chorda Tympani
Nerve Responses To Some But Not All Taste Stimuli
In The Adolescent Rat**
Ana Paula Morales-Allende¹, Katherine Bedard¹,
Lisa Youngentob^{2,3}, Steven L Youngentob^{2,3}, John I
Glendinning^{1,3}. ¹*Department of Biology, Barnard College,*
Columbia University, New York, NY, USA, ²*Department of*
Psychiatry, Syracuse, NY, USA, ³*SUNY Developmental Exposure*
Alcohol Research Center, Binghamton, NY, USA
- 75 #P179 **Modulation of Chemosensory Properties of Capsaicin
in the Human Oral Cavity**
Gregory S. Smutzer¹, Jeswin C. Jacob¹, Darshan I. Shah¹,
Joseph T. Tran¹, Judith C. Stull². ¹*Department of Biology,*
Temple University, Philadelphia, PA, USA, ²*Department of*
Sociology, La Salle University, Philadelphia, PA, USA

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- | | | |
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| 76 | #P180 | <p>Key role for Solitary Chemosensory Cells in the aversive behavior to inhaled irritants in mice
 Marco Tizzano^{1,2}. ¹<i>Rocky Mtn Taste & Smell Ctr, Aurora, CO, USA</i>, ²<i>Dept, Cell Developmental Biology/Univ. of Colorado School of Medicine, Aurora, CO, USA</i></p> |
| 77 | #P181 | <p>Cough thresholds for inhalation of single irritants and binary mixtures
 Paul M Wise. <i>Monell Chemical Senses Center, Philadelphia, PA, USA</i></p> |
| 78 | #P182 | <p>Spilanthol activates multiple classes of trigeminal neurons and modulates sensitivity to some compounds
 Jiang Xu¹, Howard Brent², Bruce P. Bryant¹. ¹<i>Monell Chemical Senses Center, Philadelphia, PA, USA</i>, ²<i>American University of the Caribbean School of Medicine, Saint Maarten, Netherlands Antilles</i></p> |
| 79 | #P183 | <p>Effects of analgesics on the intranasal trigeminal system
 Lars Mizera, Antje Hähner. <i>University of Dresden Medical School, Dresden, Germany</i></p> |
| 80 | #P184 | <p>Electrophysiological Responses of the Chorda Tympani Following Chronic Capsaicin Exposure in Adult Rats
 Jacquelyn M. Omelian, Louis J. Martin, Suzanne I. Sollars. <i>University of Nebraska at Omaha, Omaha, NE, USA</i></p> |
| 81 | #P185 | <p>Amygdalar circuitry of chemosensory signal processing
 Lindsey Biggs, Ariel Simonton, Michael Meredith. <i>Program of Neuroscience, Department of Biological Science, Florida State University, Tallahassee, FL, USA</i></p> |
| 82 | #P186 | <p>A first step toward the understanding of the role of the thalamus in olfaction: Characterizing odor processing in the mediodorsal thalamus of the rat
 Emmanuelle Courtiol^{1,2}, Donald A. Wilson^{1,2}.
 ¹<i>The Emotional Brain Institute, Nathan Kline Institute for Psychiatric Research, Orangeburg, NY, USA</i>, ²<i>Department of Child and Adolescent Psychiatry New York University Langone Medical Center, New York, NY, USA</i></p> |

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- 83 #P187 **Odor- and State-dependent Olfactory Tubercle Local Field Potential Dynamics in Awake Rats**
Kaitlin S. Carlson¹, Maggie R. Dillione¹, Daniel W. Wesson^{1,2}. ¹*Department of Neurosciences, Case Western Reserve University, Cleveland, OH, USA*, ²*Department of Biology, Case Western Reserve University, Cleveland, OH, USA*
- 84 #P188 **FUNCTIONAL DYNAMIC OF CORTICAL LATERALIZATION DURING OLFACTORY DISCRIMINATION LEARNING**
Yaniv Cohen^{1,2}, David Putrino¹, Donald A Wilson^{1,2}. ¹*New York University School of Medicine/Child & Adolescent Psychiatry, New York, NY, USA*, ²*Nathan Kline Institute for Psychiatric Research/EBI, New York, NY, USA*
- 85 #P189 **Characterization of Bitter Masking Compounds via Modulation of Induced Proton Secretion in a Human Gastric Cell Line**
Jakob P. Ley², Kathrin I. Liszt¹, Elke Köck¹, Verena Stöger¹, Sabine Widder², Veronika Somoza¹. ¹*University of Vienna, Vienna, Austria*, ²*Symrise AG, Holzminden, Germany*
- 86 #P190 **Representation of perceived and actual odor category in the olfactory cortical hierarchy**
Jaryd Hiser¹, Takuya Sato², Wen Li^{1,3}. ¹*Psychology Department, University of Wisconsin-Madison, Madison, WI, USA*, ²*Kikkoman USA R&D Laboratory, Inc, Madison, WI, USA*, ³*Waisman Center, University of Wisconsin-Madison, Madison, WI, USA*
- 87 #P191 **Functional imaging of cortical feedback projections from the anterior olfactory nucleus to the mouse olfactory bulb**
Markus Rothermel, Matt Wachowiak. *University of Utah, Brain Institute and Department of Neurobiology and Anatomy, Salt Lake City, UT, USA*
- 88 #P192 **Modulation of activity in the piriform cortex by optogenetic stimulation of descending inputs**
Benjamin Sadrian^{1,2}, Donald Wilson^{1,2}. ¹*Nathan Kline Institute, Orangeburg, NY, USA*, ²*NYU School of Medicine, New York, NY, USA*

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- 89 #P193 **Olfactory Event-Related Potentials in Infants**
Valentin A Schriever¹, Maria Góis-Eanes², Benno Schuster¹, Caroline Huart^{3,4}, Thomas Hummel¹. ¹*Smell & Taste Clinic Department of Otorhinolaryngology, TU Dresden, Dresden, Germany*, ²*Women's, Children's and Adolescents' Department, Hospital Pedro Hispano, Matosinhos, Portugal*, ³*Department of Otorhinolaryngology, Cliniques universitaires Saint-Luc, Brussels, Belgium*, ⁴*Institute of Neuroscience, Université catholique de Louvain, Brussels, Belgium*
- 90 #P194 **Piriform cortical single-unit odor coding and behavioral odor perception in an Alzheimer's Disease mouse model is affected by the presence of APP metabolites**
WenJin Xu^{1,2,3}, Ralph A Nixon^{3,4,5,6}, Efrat Levy^{3,4,5,7}, Donald A Wilson^{1,2,3,8}. ¹*Nathan Kline Institute/Emotional Brain Institute, Orangeburg, NY, USA*, ²*NYU/Dept. of Child and Adolescent Psychiatry, New York, NY, USA*, ³*NYU/Center for Excellence on Brain Aging, New York, NY, USA*, ⁴*Nathan Kline Institute/Center for Dementia Research, Orangeburg, NY, USA*, ⁵*NYU/Psychiatry, New York, NY, USA*, ⁶*NYU/Cell Biology, New York, NY, USA*, ⁷*NYU/Molecular Pharmacology, New York, NY, USA*, ⁸*NYU/Neuroscience and Physiology, New York, NY, USA*
- 91 #P195 **Respiratory phase influences neural oscillatory power across a broad range of frequencies both within and beyond the canonical olfactory circuit**
Christina Zelano, Sydni Cole, Stephan Schuele, Joshua Rosenow, Jay Gottfried. *Northwestern University/Department of Neurology, Chicago, IL, USA*
- 92 #P196 **Specific and general predictive value codes in the human orbitofrontal cortex**
Thorsten Kahnt¹, James D. Howard², Jay A. Gottfried², Philippe N. Tobler¹. ¹*University of Zurich, Department of Economics, Zurich, Switzerland*, ²*Northwestern University Feinberg School of Medicine, Department of Neurology, Chicago, IL, USA*

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- 93 #P197 **Overshoot Phenomena in Olfactory Bulb Layers in the Female American Mink (*Neovison vison var. atratus*)**
Willi Bennegger^{1,2}, Elke Weiler^{1,2}. ¹*Faculty of Natural Sciences, Institute for Neurobiology, University of Ulm, Ulm, Germany,*
²*Maria-von-Linden-Schule, Heidenheim, Germany*
- 94 #P198 **Expression of Kirrels in vomeronasal sensory neuron axons controls their coalescence into glomeruli of the AOB**
Alexandra C. Brignall^{1,2}, Janet E.A. Prince^{1,2},
Jean-François Cloutier^{1,2}. ¹*McGill University Dept. Neurology and Neurosurgery, Montréal, QC, Canada,* ²*Montreal Neurological Institute, Montréal, QC, Canada*
- 95 #P199 **The Postnatal Development of the Mouse Olfactory Peduncle**
Peter Brunjes, Lindsay Collins, Stephen Osterberg,
Adriana Phillips. *University of Virginia, Charlottesville, VA, USA*
- 96 #P200 **Differential transcription factor expression patterns in mouse and human olfactory bulb interneuron phenotypes**
John W. Cave^{1,2}, Nana Fujiwara¹. ¹*Burke Medical Research Institute, White Plains, NY, USA,* ²*Weill Cornell Medical College, New York, NY, USA*
- 97 #P201 **Proinflammatory cytokines modulate sodium transport in polarized taste buds**
Devaki Kumarhia, Lynnette McCluskey. *Georgia Regents University, Augusta, GA, USA*
- 98 #P202 **Nicotinic Acetylcholine Receptor (nAChR)-dependent Chorda Tympani (CT) Taste Nerve Responses to Nicotine and Ethanol**
Vijay Lyall¹, Jie Qian¹, Shobha Mummalaneni¹, Karnam S. Murthy¹, Imad M. Damaj², Ivan E de Araujo³, Robert Margolskee⁴. ¹*VCU/Physiology & Biophysics, Richmond, VA, USA,* ²*VCU/Toxicology & Pharmacology, Richmond, VA, USA,*
³*Yale Univ/ The John B Pierce Laboratory, New Haven, CT, USA,*
⁴*Monell Chemical Senses Center, Philadelphia, PA, USA*

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| 99 | #P203 | <p>Neonatal Chorda Tympani Transection Reduces Adult Glossopharyngeal Nerve Responses to NaCl in Rats
 Louis J Martin, Suzanne I Sollars. <i>University of Nebraska at Omaha, Psychology Department, Omaha, NE, USA</i></p> |
| 100 | #P204 | <p>Individual differences in salt taste thresholds among children: Role of SCNN1D gene
 Nuala K. Bobowski, Loma B. Inamdar, Susana Finkbeiner, Corrine Mansfield, Danielle R. Reed, Julie A. Mennella.
 <i>Monell Chemical Senses Center, Philadelphia, PA, USA</i></p> |
| 101 | #P205 | <p>Salty Taste Deficits in CALHM1 Knockout Mice
 Rachel M Dana¹, Stuart A McCaughey¹, Tiffany Aleman², Phillipe Marambaud³, J. Kevin Foskett⁴, Michael G Tordoff². ¹<i>IUSM-MUNCIE at Ball State University, Muncie, IN, USA</i>, ²<i>Monell Chemical Senses Center, Philadelphia, PA, USA</i>, ³<i>Feinstein Institute for Medical Research, Manhasset, NY, USA</i>, ⁴<i>University of Pennsylvania, Philadelphia, PA, USA</i></p> |
| 102 | #P206 | <p>Serotonin signaling to 5-HT_{3A} on taste sensory nerve fibers is not required for sour taste
 Eric D. Larson^{1,3}, Aurelie Vandenbeuch^{1,3}, Sue C. Kinnamon^{1,2}, Thomas E. Finger^{2,3}. ¹<i>University of Colorado School of Medicine, Otolaryngology, Aurora, CO, USA</i>, ²<i>University of Colorado School of Medicine, Cell and Developmental Biology, Aurora, CO, USA</i>, ³<i>Rocky Mountain Taste and Smell Center, Aurora, CO, USA</i></p> |
| 103 | #P207 | <p>Efficient odor-guided navigation by mice using airborne plumes
 David H Gire^{1,2}, Vikrant Kapoor^{1,2}, Annie Arrighi-Allisan^{1,2}, Agnese Seminara³, Venkatesh N Murthy^{1,2}. ¹<i>Department of Molecular and Cellular Biology, Harvard University, Cambridge, MA, USA</i>, ²<i>Center for Brain Science, Harvard University, Cambridge, MA, USA</i>, ³<i>Laboratoire de physique de la matiere condensee, CNRS, Nice, France</i></p> |

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- 104 #P208 **Validation of Olfactory Threshold Testing Methods**
Alan R Hirsch¹, Alexander Roussos¹, Sally Freels².
¹Smell & Taste Treatment and Research Foundation, Chicago, IL, USA, ²University of Illinois at Chicago, Chicago, IL, USA
- 105 #P209 **Characterizing olfactory generalization in Fischer 344 rats using behavioral reaction times**
Michelle Lyman¹, Wendy M Yoder², Olivia Munizza¹, Leslie Gaynor¹, Barry Setlow^{2,3,4}, Jennifer Bizon^{2,3,5}, David W Smith^{1,2,5}. ¹Interdisciplinary Studies Major in Neurobiological Sciences, University of Florida, Gainesville, FL, USA, ²Program in Behavioral and Cognitive Neuroscience, Department of Psychology, University of Florida, Gainesville, FL, USA, ³Department of Psychiatry, University of Florida, Gainesville, FL, USA, ⁴Department of Neuroscience, University of Florida, Gainesville, FL, USA, ⁵Center for Smell and Taste, University of Florida, Gainesville, FL, USA
- 106 #P210 **Building a better rat trap: olfactory preferences of *Rattus Norvegicus* for foods and a pheromone**
Matthew D May, John J McGlone. Laboratory of Animal Behavior, Physiology and Welfare, Department of Animal and Food Sciences, Lubbock, TX, USA
- 107 #P211 **A Technique for Characterizing the Time Course of Odor Adaptation in Mice**
Olivia N Munizza¹, Wendy M Yoder², Michelle E Lyman¹, Leslie Gaynor¹, Barry Setlow^{2,3,4}, Jennifer L Bizon^{2,3,5}, David W Smith^{1,2,5}. ¹Interdisciplinary Studies Major in Neurobiological Sciences, Gainesville, FL, USA, ²Program in Behavioral and Cognitive Neuroscience, Department of Psychology, Gainesville, FL, USA, ³Department of Psychiatry, Gainesville, FL, USA, ⁴Department of Neuroscience, Gainesville, FL, USA, ⁵Center for Smell and Taste, Gainesville, FL, USA
- 108 #P212 **A simple low-cost, reliable and objective method to assess mouse odor detection and discrimination**
Burton Slotnick¹, David Coppola². ¹American University, Washington, DC, USA, ²Randolph Macon College, Ashland, VA, USA

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8:00 am – 10:00 am

POSTER SESSION V

Estero Ballroom

MOB CIRCUITRY; CHEMOSENSATION AND METABOLISM; PERIPHERAL GUSTATORY ANATOMY, DEVELOPMENT AND REGENERATION; CHEMOSENSORY DYSFUNCTION

- 1 #P213 **Intrinsic oscillatory discharge patterns in mitral cells of the mouse accessory olfactory bulb**
Monika Gorin, Marc Spehr. *RWTH Aachen University, Institute of Biology II, Dept. of Chemosensation, Aachen, Germany*
- 2 #P214 **Network-driven Oscillatory Activity in Mitral Cells of the Mouse Accessory Olfactory Bulb**
Chryssanthi Tsitoura, Monika Gorin, Marc Spehr. *Department of Chemosensation, Institute for Biology II, RWTH Aachen University, Aachen, Germany*
- 3 #P215 **Mapping functional circuitry in the main olfactory bulb using flavoprotein fluorescence imaging**
Cedric R Uyttingco^{1,2,4}, Adam C Puche^{1,2,4}, Steven D Munger^{1,2,3,4}. *¹Department of Anatomy and Neurobiology, Baltimore, MD, USA, ²Program in Neuroscience, Baltimore, MD, USA, ³Department of Medicine, Division of Endocrinology, Diabetes and Nutrition, Baltimore, MD, USA, ⁴University of Maryland School of Medicine, Baltimore, MD, USA*
- 4 #P216 **In vivo imaging mitral/tufted cell activity in the mouse olfactory bulb using the fluorescent protein voltage sensor ArcLight**
Douglas A Storace^{1,3}, Oliver R Braubach^{2,3}, Lawrence B Cohen^{1,2,3}, Uhna Sung². *¹Department of Cellular and Molecular Physiology, Yale University School of Medicine, New Haven, CT, USA, ²Center for Functional Connectomics, Korea Institute of Science and Technology, Seoul, South Korea, ³NeuroImaging Cluster, Marine Biological Laboratory, Woods Hole, MA, USA*

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- 5 #P217 **Biogenic Amines: Tyramine, Octopamine, Dopamine and Serotonin in the antennal lobe glomerulus in honey bee**
Irina Sinakevitch¹, Jen-Yung Chen², Maxim Bazhenov², Brian H. Smith¹. ¹ASU School of Life Sciences, Tempe, AZ, USA, ²UCR Department of Cell Biology and Neuroscience, Riverside, CA, USA
- 6 #P218 **Functional Operations of MOB CCKergic Circuitry**
Shaolin Liu, Adam Puche, Michael Shipley. *University of Maryland School of Medicine/Anatomy and Neurobiology, Program in Neuroscience, Baltimore, MD, USA*
- 7 #P219 **A Three Dimensional Model for Investigating the Functions of Brain Microcircuits: The Olfactory Bulb**
Michele Migliore^{1,2}, Francesco Cavarretta^{1,2}, Michael L. Hines¹, Gordon M. Shepherd¹. ¹Department of Neurobiology, Yale University, New Haven, CT, USA, ²National Research Council, Institute of Biophysics, Palermo, Italy
- 8 #P220 **Figure-Background processing in a seemingly low-level olfactory station**
Amit Vinograd^{1,2}, Yoav Livneh^{1,2}, Yoav Adam^{1,2}, Adi Mizrahi^{1,2}. ¹Department of Neurobiology, Hebrew University, Jerusalem, Israel, ²The Edmond & Lily Safra Center for Brain Sciences Hebrew University, Jerusalem, Israel
- 9 #P221 **Roux-en-Y Gastric Bypass Surgery Does Not Reduce Orosensory-Based Appetitive Behavior for Fat-Containing Solutions Even When Preference is Decreased**
Ryan A Bohnenkamp¹, Clare M Mathes¹, Caroline Corteville², Marco Bueter³, Thomas A Lutz², Carel W le Roux⁴, Alan C Spector¹. ¹Department of Psychology and Program in Neuroscience, Tallahassee, FL, USA, ²Institute of Veterinary Physiology, Vetsuisse Faculty University of Zurich, Zurich, Switzerland, ³University Hospital Zurich, Department of Surgery, Zurich, Switzerland, ⁴Diabetes Complications Research Centre, School of Medicine and Medical Science, Dublin, Ireland

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- 10 #P222 **Effects of bariatric interventions on sweet taste seeking and striatal function**
Wenfei Han^{1,2}, Gary J Schwartz³, Ivan E De Araujo^{1,2}.
¹The J.B. Pierce Laboratory, New Haven, CT, USA,
²Dept Psychiatry Yale university, New Haven, CT, USA,
³Albert Einstein College of Medicine, Bronx, NY, USA

- 11 #P223 **Roux-en-Y Gastric Bypass in Rats Decreases the Intake of Sweet and Fatty Liquids in a Manner Inconsistent with Alterations of Orosensory-Based Palatability**
Clare M. Mathes¹, Ryan A. Bohnenkamp¹, Carel W. le Roux², Alan C. Spector¹. ¹Department of Psychology and Program in Neuroscience, Florida State University, Tallahassee, FL, USA, ²Diabetes Complications Research Centre, School of Medicine and Medical Science, University College Dublin, Dublin, Ireland

- 12 #P224 **Diet-induced Obesity Alters Vagally Mediated Satiety Signals**
Alexander Denman-Brice¹, Krzysztof Czaja², Patricia M. Di Lorenzo¹. ¹Binghamton University/Psychology, Binghamton, NY, USA, ²Washington State University/Integrative Physiology and Neuroscience, Pullman, WA, USA

- 13 #P225 **fMRI of Brain Response to Chemosensory Stimuli in Metabolic Syndrome**
Claire Murphy^{1,2}, Erin Green¹, Aaron Jacobson^{1,2}, Lori Haase¹, Elissa McIntosh², Anna Buncic². ¹San Diego State University/University of California Joint Doctoral Program, San Diego, CA, USA, ²San Diego State University, San Diego, CA, USA

- 14 #P226 **Reduced sweet perception may contribute to anhedonia, but not anorexia**
Doyun Kim^{1,2}, Jin Young Kim¹, Sung Ho Lee¹, Jong-Ho Lee¹, JaeHyung Koo², Jeong Won Jahng¹. ¹Dental Research Institute, Dept Oral & Maxillofacial Surgery, Seoul National University School of Dentistry, Seoul, Korea, ²Department of Brain Science, DGIST, Dae Gu, Korea

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| 15 | #P227 | <p>Bariatric surgery-induced weight loss causes remission of food addiction in extreme obesity
M. Yanina Pepino, Rick Stein, Christopher Eagon, Samuel Klein. <i>Center for Human Nutrition and Atkins Center of Excellence in Obesity Medicine. Washington University, School of Medicine, St. Louis, MO, USA</i></p> |
| 16 | #P228 | <p>Effects of Weight Feedback and Disordered Eating on Food Choice in a Mock Cafeteria Buffet
Lucas Lemasters, Bryan Raudenbush, Patrick Dwyer, Stephen Saldanha. <i>Wheeling Jesuit University Department of Psychology, Wheeling, WV, USA</i></p> |
| 17 | #P229 | <p>The TRPA1 Agonist, Methyl Syringate Delays Gastric Emptying with Elevation of Peptide YY Level
Min Jung Kim, Hee Jin Son, Yiseul Kim, Mee-Ra Rhyu. <i>Division of Metabolism and Functionality Research, Korea Food Research Institute, Seoul, South Korea</i></p> |
| 18 | #P230 | <p>Loss of Gastrointestinal Brush Cells in <i>Skn-1</i>-deficient Mice Reduces Insulin Secretion
Yoshiro Ishimaru, Misako Yoshioka, Tomiko Asakura, Keiko Abe. <i>Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan</i></p> |
| 19 | #P231 | <p>Metabolic Influences on Odor Sensitivity
Sanne Boesveldt¹, Marielle G Ramaekers², Alard Verhoef¹, Pieter A Luning². ¹<i>Wageningen University, Division of Human Nutrition, Wageningen, Netherlands</i>, ²<i>Wageningen University, Food Quality and Design, Wageningen, Netherlands</i></p> |
| 20 | #P232 | <p>The Effects of Eating Attitudes and Behaviors on Nutritional Intake and Activity Level
Sierra Moore, Bryan Raudenbush. <i>Wheeling Jesuit University Department of Psychology, Wheeling, WV, USA</i></p> |

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| 21 | #P233 | <p>P0-Cre Labeled Neural Crest Derived Cell Origins and Distribution in Mature Taste Buds</p> <p>Suresh Amtati¹, Cornelis F.S. Lichtveld¹, Steven Stice¹, Charlotte M. Mistretta², Yuji Mishina², Hong-Xiang Liu¹.</p> <p>¹Regenerative Bioscience Center, Department of Animal and Dairy Science, College of Agricultural and Environmental Sciences, University of Georgia, Athens, GA, USA, ²Department of Biologic and Materials Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, USA</p> |
| 22 | #P234 | <p>Morphological differences of the circumvallate papillae and their taste buds following perinatal undernutrition in the developing rat</p> <p>Mitzi G. Carreon, Lorena Rubio, Mirelta Regalado, Carmen Torrero, Manuel Salas. <i>Institute of Neurobiology, Developmental Neurobiology and Neurophysiology Department, Juriquilla, Qro, Mexico</i></p> |
| 23 | #P235 | <p>Pregnancy Alters Hormone Receptor mRNA Levels in Mouse Taste Buds</p> <p>Ezen Choo¹, Robin Dando². ¹Molecular Medicine, College of Veterinary Medicine, Cornell University, Ithaca, NY, USA, ²Food Science, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY, USA</p> |
| 24 | #P236 | <p>Involvement of the GFL/Ret pathway in the development of the peripheral taste system</p> <p>Christopher R. Donnelly, Charlotte M. Mistretta, Brian A. Pierchala. <i>University of Michigan/Department of Biologic and Materials Sciences, Ann Arbor, MI, USA</i></p> |
| 25 | #P237 | <p>Keratin 14+ progenitors for fungiform and palatal taste buds examined with multi-color lineage tracing</p> <p>Gennady Dvoryanchikov¹, Isabel Perea-Martinez¹, Nirupa Chaudhari^{1,2}. ¹Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, USA, ²Program in Neurosciences, University of Miami Miller School of Medicine, Miami, FL, USA</p> |

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- 26 #P238 **WT1 regulates the development of the posterior taste field**
Yankun Gao, Eneda Toska, Dane Denmon, Stefan G.E. Roberts, Kathryn F. Medler. *Dept of Biological Sciences, University at Buffalo, Buffalo, NY, USA*
- 27 #P239 **Immunohistochemical study of human vallate gustatory and laryngeal cell morphology and innervation**
Laura Grigereit¹, Marco Tizzano^{2,3}, Matthew S. Clary⁴, Thomas E. Finger^{2,3}. ¹*University of Colorado Medical School, Aurora, CO, USA*, ²*Rocky Mtn Taste & Smell Ctr, Aurora, CO, USA*, ³*Cell and Developmental Biology/Univ. of Colorado School of Medicine, Aurora, CO, USA*, ⁴*Dept. of Otolaryngology, Aurora, CO, USA*
- 28 #P240 **Diet induced obesity modulates turnover and receptor expression of murine taste buds**
Andrew M Kaufman, Robin Dando. *Cornell University, Department of Food Science, Ithaca, NY, USA*
- 29 #P241 **Taste System Disruptions during Hedgehog Pathway Blockade using the Anti-Neoplastic Drug LDE225**
Archana Kumari¹, Alexandre N. Ermilov², Robert M. Bradley¹, Ben L. Allen³, Andrzej A. Dlugosz², Charlotte M. Mistretta¹. ¹*Department of Biologic and Materials Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, USA*, ²*Department of Dermatology, Medical School, University of Michigan, Ann Arbor, MI, USA*, ³*Department of Cell and Developmental Biology, Medical School, University of Michigan, Ann Arbor, MI, USA*
- 30 #P242 **Structural integrity of taste organs is strictly dependent on continuous Hh/Gli signaling activity**
Charlotte M. Mistretta¹, Libo Li¹, Alexandre N. Ermilov², Marina A. Grachtchouk², Andrzej A. Dlugosz². ¹*Department of Biologic and Materials Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, USA*, ²*Department of Dermatology, Medical School, University of Michigan, Ann Arbor, MI, USA*

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| 31 | #P243 | <p>Stress and the Sweet Taste Receptor Cell
 M. Rockwell Parker¹, Dianna Feng^{1,2}, Brianna Chamuris^{1,3},
 Robert F. Margolskee¹. ¹<i>Monell Chemical Senses Center, Philadelphia, PA, USA</i>, ²<i>University of Pittsburgh, Pittsburgh, PA, USA</i>, ³<i>Lehigh University, Bethlehem, PA, USA</i></p> |
| 32 | #P244 | <p>Single Lgr5-expressing taste stem/progenitor cells generate taste bud cells in vitro
 Wenwen Ren, Karen K. Yee, Kevin M. Redding, Robert F. Margolskee, Peihua Jiang. <i>Monell Chemical Senses Center, Philadelphia, PA, USA</i></p> |
| 33 | #P245 | <p>3D Functional Organization of a Taste Bud Using Serial Block-face Scanning EM
 Rae L Russell¹, Adam Lawson¹, Grahame Kidd², Ashley Foster³, Ruibiao Yang^{1,3}, John C Kinnamon³, Thomas E Finger¹. ¹<i>Rocky Mountain Taste & Smell Center, Department of Cell & Developmental Biology, University Colorado School of Medicine, Aurora, CO, USA</i>, ²<i>Department of Neurosciences, Cleveland Clinic, Lerner Research Institute, Cleveland, OH, USA</i>, ³<i>Rocky Mountain Taste & Smell Center, Department of Biological Sciences, University of Denver, Denver, CO, USA</i></p> |
| 34 | #P246 | <p>Expression of TGF-βs and Their Receptors in Taste Tissues
 Nirvine Simon, Pu Feng, Jinghua Chai, Hong Wang. <i>Monell Chemical Senses Center, Philadelphia, PA, USA</i></p> |
| 35 | #P247 | <p>Prenatal Cocaine Exposure Elicits Adult Deficits in Olfaction and Cognitive Flexibility
 Genevieve Bell¹, Deirdre McCarthy², Pradeep Bhide², Debra Ann Fadool^{1,3}. ¹<i>Program in Neuroscience, The Florida State University, Tallahassee, FL, USA</i>, ²<i>Center for Brain Repair, Tallahassee, FL, USA</i>, ³<i>Institute of Molecular Biophysics, Tallahassee, FL, USA</i></p> |
| 36 | #P248 | <p>Does The Lighter iPad Make You Heavier?
 Noah Hirsch, Richard Bone, Alan R Hirsch. <i>Smell & Taste Treatment and Research Foundation, Chicago, IL, USA</i></p> |

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- 37 #P249 **A Sensory Frailty Index Including Olfaction and Gustation Predicts Physical Frailty**
Megan J. Huisinigh-Scheetz¹, Kristen E. Wroblewski², Kevin Lopez³, David W. Kern⁴, L. Philip Schumm², Martha K. McClintock⁴, Jayant M. Pinto³. ¹*Section of Geriatric Medicine and Palliative Care, The University of Chicago, Chicago, IL, USA*, ²*Department of Health Studies, The University of Chicago, Chicago, IL, USA*, ³*Section of Otolaryngology-Head and Neck Surgery, The University of Chicago, Chicago, IL, USA*, ⁴*Department of Comparative Human Development and the Institute for Mind and Biology, The University of Chicago, Chicago, IL, USA*
- 38 #P250 **Olfactory function in blind subjects**
Simona Manescu¹, Johannes Frasnelli^{1,2}, Franco Lepore¹. ¹*Centre de Recherche en Neuropsychologie et Cognition (CERNEC), Montreal, Canada*, ²*Centre de Recherche de l'Hôpital du Sacré-Coeur de Montréal (CRHSCM), Montreal, Canada*
- 39 #P251 **Depression Scores as a Predictor of Olfactory Sensitivity in End-Stage Renal Disease Patients**
Matthew P McCurdy¹, Joseph W Jones¹, Irene N Ozbek¹, James A Tumlin². ¹*The University of Tennessee at Chattanooga, Chattanooga, TN, USA*, ²*Southeast Renal Research Institute, Chattanooga, TN, USA*
- 40 #P252 **Risk Factors for Hazardous Events In Olfactory Impaired Patients**
Taylor S. Pence¹, Evan R. Reiter², Laurence J. DiNardo², Richard M. Costanzo^{1,2}. ¹*VCU School of Medicine, Department of Physiology and Biophysics, Richmond, VA, USA*, ²*VCU School of Medicine, Department of Otolaryngology, Richmond, VA, USA*
- 41 #P253 **Prevalence and risk factors of self-reported chemosensory disorders and preliminary associations with adiposity in United States adults: Results from 2011-2012 National Health and Nutrition Examination Survey (NHANES)**
Shristi Rawal¹, Howard J Hoffman², Kathleen E Bainbridge², Valerie B Duffy¹. ¹*University of Connecticut/ Allied Health Sciences, Storrs, CT, USA*, ²*NIDCD/NIH/ Epidemiology & Statistics Program, Bethesda, MD, USA*

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- 42 #P254 **Correlation of obesity and reduced reward network activation to pleasant tastes**
Jianli Wang¹, Robert Mchugh¹, Qing X. Yang^{1,2}, Nicole Matthews¹, Jeffrey Vesek¹, Andras Hajnal^{3,4}, Ann M. Rogers⁴. ¹*Penn State University College of Medicine/ Radiology, Hershey, PA, USA*, ²*Penn State University College of Medicine/ Neurosurgery, Hershey, PA, USA*, ³*Penn State University College of Medicine/ Neural & Behavioral Sciences, Hershey, PA, USA*, ⁴*Penn State University College of Medicine/ Surgery, Hershey, PA, USA*
- 43 #P255 **Extensive lateralisation of olfactory disorders and its possible impact on complaints in posttraumatic patients**
Antje Welge-Luessen¹, Birgit Westermann², Thomas Hummel³. ¹*Dept. of Otorhinolaryngology, University Hospital Basel, Switzerland*, ²*Dept. of Neurosurgery, University Hospital, Basel, Switzerland*, ³*Smell & Taste Clinic, Dept. of ORL, Technical University of Dresden Medical School, Dresden, Germany*
- 44 #P256 **Decreased food pleasure and disrupted satiety signals in chronic low-back pain**
Paul Y Geha^{1,2}, Ivan deAraujo^{1,2}, Barry Green¹, Dana DM Small^{1,2}. ¹*The John B. Pierce Laboratory, New Haven, CT, USA*, ²*Yale University Department of Psychiatry, New Haven, CT, USA*
- 45 #P257 **Anosmia with Absent Alliacious Lacrimation**
Marissa Hirsch¹, Sanford Sherman², Alexander Roussos², Alan R. Hirsch². ¹*University of Michigan, Ann Arbor, MI, USA*, ²*Smell & Taste Treatment and Research Foundation, Chicago, IL, USA*
- 46 #P258 **Olfactory function before and after endoscopic sinus surgery**
Julien W Hsieh^{1,2}, Basile N Landis¹. ¹*Rhinology-Olfactology Unit, Department of Otorhinolaryngology-Head and Neck Surgery, Smell and Taste Clinic, University of Geneva, Geneva, Switzerland*, ²*Laboratory of Neurogenetics and Behavior, Rockefeller University, New York, NY, USA*

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- 47 #P259 **Impact of the Usher-Syndrome on olfaction**
Fabian Jansen¹, Benjamin Kalbe¹, Paul Scholz¹,
Uwe Wolfrum², Hanns Hatt¹, Sabrina Baumgart¹.
*¹Department of Cell Physiology, Faculty for Biology and
Biotechnology, Ruhr-University, Bochum, Germany, ²Cell and
Matrix Biology, Institute of Zoology, Johannes Gutenberg
University, Mainz, Germany*
- 48 #P260 **Variability in Olfactory Detection Thresholds in
End-Stage Renal Disease Patients**
Joseph W Jones¹, Matthew P McCurdy¹, Irene N Ozbek¹,
James A Tumlin². *¹Department of Psychology, The University
of Tennessee at Chattanooga, Chattanooga, TN, USA, ²Southeast
Renal Research Institute, Chattanooga, TN, USA*
- 49 #P261 **Why anosmics are still good at barbecuing: Olfactory
imagery in patients with olfactory dysfunction**
Kathrin Kollndorfer¹, Jacqueline Krajnik^{1,2}, Stefanie Nell¹,
Christian A. Mueller³, Veronika Schöpf¹. *¹Department
of Biomedical Imaging and Image-guided Therapy, Medical
University of Vienna, Vienna, Austria, ²Department of
Neurosurgery, Medical University of Vienna, Vienna, Austria,
³Department of Otorhinolaryngology, Medical University of
Vienna, Vienna, Austria*
- 50 #P262 **The impact of olfactory dysfunction on
interoceptive awareness**
Jacqueline Krajnik^{1,2}, Kathrin Kollndorfer¹, Lisbeth
Notter¹, Christian A. Mueller³, Veronika Schöpf¹.
*¹Department of Biomedical Imaging and Image-guided Therapy,
Medical University Vienna, Vienna, Austria, ²Department of
Neurosurgery, Medical University of Vienna, Vienna, Austria,
³Department of Otorhinolaryngology, Medical University of
Vienna, Vienna, Austria*
- 51 #P263 **Conductive olfactory losses in chronic rhinosinusitis? —
A computational fluid dynamics study of 29 patients**
Kai Zhao^{1,2}, Jianbo Jiang¹, Edmund A. Pribitkin²,
Pamela Dalton¹, David Rosen^{*2}, Brian Lyman¹,
Karen K. Yee¹, Nancy E. Rawson¹, Beverly J. Cowart^{1,2}.
*¹Monell Chemical Senses Center, Philadelphia, PA, USA,
²Department of Otolaryngology, Thomas Jefferson University,
Philadelphia, PA, USA*

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

- 52 #P264 **Olfactory Dysfunction and Physical Frailty are Closely Linked in Older Adults**
Kristen E. Wroblewski¹, Megan Huisinigh-Scheetz², Kevin Lopez³, David W. Kern⁴, L. Philip Schumm¹, Jayant M. Pinto³, Martha K. McClintock⁴. ¹*Department of Health Studies, The University of Chicago, Chicago, IL, USA*, ²*Section of Geriatric Medicine and Palliative Care, The University of Chicago, Chicago, IL, USA*, ³*Section of Otolaryngology-Head and Neck Surgery, The University of Chicago, Chicago, IL, USA*, ⁴*Department of Comparative Human Development and the Institute for Mind and Biology, The University of Chicago, Chicago, IL, USA*
- 53 #P265 **Age-related olfactory dysfunction in the Fischer 344 rat model**
Wendy M Yoder¹, Brandi K Ormerod², Barry Setlow^{1,2,3}, Jennifer L Bizon^{1,2,5}, Michelle Lyman⁴, Olivia Munizza⁴, David W Smith^{1,5}. ¹*Program in Behavioral and Cognitive Neuroscience, Department of Psychology, Gainesville, FL, USA*, ²*Department of Neuroscience, McKnight Brain Institute, Gainesville, FL, USA*, ³*Department of Psychiatry, McKnight Brain Institute, Gainesville, FL, USA*, ⁴*Center for Smell and Taste, Gainesville, FL, USA*, ⁵*Major in Interdisciplinary Studies, Neurobiological Sciences, Gainesville, FL, USA*
- 54 #P266 **The Effects of Soccer Ball “Heading” Frequency and Intensity on Nasal Inspiratory and Expiratory Function as Measured by Rhinological Patency**
Kristen Custer, Bryan Raudenbush, Emily Robinson, Killeen Schlegel, Sierra Moore. *Wheeling Jesuit University Department of Psychology, Wheeling, WV, USA*

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9:00 – 11:00 pm

POSTER SESSION VI

Estero Ballroom

ODORANT RECEPTORS; AVERSIVE TASTE; SOCIAL OLFACTION; RETRONASAL OLFACTION; MULTIMODAL SENSATION; EXTRAORAL/ EXTRANASAL CHEMORECEPTION; AMINO ACID TASTE

- 56 #P267 **A Na⁺/Ca²⁺ Exchange Inhibitor Blocks Activation of Insect Olfactory Receptors**
Yuriy Bobkov¹, Elizabeth Corey¹, Barry Ache^{1,2}.
¹Whitney Laboratory, Center for Smell and Taste, and
McKnight Brain Institute, Univ. Florida, Gainesville, FL, USA,
²Depts. Biology and Neuroscience, Univ. Florida,
Gainesville, FL, USA
- 57 #P268 **Inotropic Receptor Activation Arrests Appetitive Responses in Insects**
Kevin C Daly¹, Kirk Hillier², Christian Klinner³, Ewald Grosse-Wilde³, Jaime Martinez-Harms³, Anna Spathe³, Markus Knaden³, Bill S Hansson³. ¹West Virginia University, Department of Biology, Morgantown, WV, USA, ²Acadia University, Department of Biology, Acadia University, NS, Canada, ³Max Planck Institute for Chemical Ecology, Department of Evolutionary Neuroethology, Jena, Germany
- 58 #P269 **Dissecting a Dual Detector: Functional Analysis of the Mosquito Receptor for CO₂ and Skin Odor**
Genevieve M. Tauxe, Anandasankar Ray. Department of Entomology, University of California, Riverside, Riverside, CA, USA
- 59 #P270 **Identification of Novel Odorant Ligands for Mouse Olfactory Receptor MOR42-3 using *In Silico* Screening and *In Vitro* Validation**
Tatjana Abaffy, Selvan Bavan, Benjamin Sherman, Charles W. Luetje. Molecular and Cellular Pharmacology, University of Miami, Miami, FL, USA

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| 60 | #P271 | <p>Structure-Function Relations of OR1A1 as an Enantiomer-Specific Receptor for the Key Food Odorants (-)-Carvone and (+)-Carvone</p> <p>Christiane Geithe¹, Franziska Kreuchwig², Gerd Krause², Dietmar Krautwurst¹. ¹<i>Deutsche Forschungsanstalt für Lebensmittelchemie Leibniz Institut, Freising, Germany</i>, ²<i>Leibniz-Institut für Molekulare Pharmakologie, Berlin, Germany</i></p> |
| 61 | #P272 | <p>Molecular recognition of ketamine by discrete olfactory G-protein coupled receptors</p> <p>Jianghai Ho^{1,4}, Jose Manuel Perez-Aguilar², Lu Gao², Jeffery G. Saven², Hiroaki Matsunami¹, Roderick Eckenhoﬀ³. ¹<i>Duke University Department of Molecular Genetics & Microbiology, Durham, NC, USA</i>, ²<i>University of Pennsylvania, Department of Chemistry, Philadelphia, PA, USA</i>, ³<i>University of Pennsylvania, Department of Anesthesiology and Critical Care, Philadelphia, PA, USA</i>, ⁴<i>Duke University Department of Neurobiology, Durham, NC, USA</i></p> |
| 62 | #P273 | <p>Biochemical analysis of interaction modes between murine olfactory receptors, related molecules and PDZ domains</p> <p>Benjamin Kalbe¹, Fabian Jansen¹, Paul Scholz¹, Benjamin Fraenzel², Simon Pyschny¹, Dirk Wolters², Hanns Hatt¹, Eva Maria Neuhaus³, Sabrina Baumgart¹. ¹<i>Department of Cell Physiology, Ruhr-University Bochum, Bochum, Germany</i>, ²<i>Department of Analytical Chemistry, Rubiospek, Ruhr-University Bochum, Bochum, Germany</i>, ³<i>Department of Pharmacology and Toxicology, Friedrich Schiller University Jena, Jena, Germany</i></p> |
| 63 | #P274 | <p>Mammalian Odorant Receptor Tuning Breadth Persists Across Distinct Odorant Panels</p> <p>Devin Kepchia¹, Benjamin Sherman¹, Rafi Haddad², Charles W. Luetje¹. ¹<i>Molecular and Cellular Pharmacology, University of Miami, Miami, FL, USA</i>, ²<i>Gonda Brain Research Center, Bar Ilan University, Ramat Gan, Israel</i></p> |

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- 64 #P275 **An N-terminal Signal Peptide Increases Total Expression and Enhances Surface Trafficking of Olfactory Receptors**
Blythe D Shepard, Niranjana Natarajan, Ryan P Protzko, Omar W Acres, Jennifer L Pluznick. *Department of Physiology, Johns Hopkins School of Medicine, Baltimore, MD, USA*
- 65 #P276 **The Role of a Single Olfactory Receptor in Odor Perception**
Casey Trimmer¹, Jason R Willer², Andreas Keller³, Leslie B Vosshall³, Nico Katsanis², Hiroaki Matsunami², Joel D Mainland¹. ¹*Monell Chemical Senses Center, Philadelphia, PA, USA*, ²*Duke University, Durham, NC, USA*, ³*The Rockefeller University, New York, NY, USA*
- 66 #P277 **Identifying Novel Olfactory Ligands by Exploiting Evolutionary Dynamics**
Mary Schreck, Jennifer Topolski, Madhu Siddappaji, Zainulabeuddin Syed. *University of Notre Dame, Dept. of Biological Sciences, Notre Dame, IN, USA*
- 67 #P278 **Psychosocial Stress in Humans Produces an Axillary Odor Signature**
Pamela Dalton¹, Christopher Maute¹, George Preti^{1,2}. ¹*Monell Chemical Senses Center, Philadelphia, PA, USA*, ²*University of Pennsylvania/Department of Dermatology, Philadelphia, PA, USA*
- 68 #P279 **Chemosignaling of Fear in Humans: A Case of Male-Female Asymmetry**
Jasper H. B. de Groot¹, Gün R. Semin^{1,2}, Monique A. M. Smeets^{1,3}. ¹*Utrecht University, Faculty of Social and Behavioral Sciences, Utrecht, Netherlands*, ²*Koç University, Department of Psychology, Koç, Turkey*, ³*Unilever R&D, Sensation Perception Behavior Strategic Sciences Group, Vlaardingen, Netherlands*
- 69 #P280 **Effects of 5 α -ANDROST-16-EN-3 α -OL Scent Administration on Gambling Behavior in Males**
Patrick Dwyer, Sierra Moore, Bryan Raudenbush. *Wheeling Jesuit University Department of Psychology, Wheeling, WV, USA*

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- 70 #P281 **The effect cultural background on odor perception: A combined psychophysical and psychophysiological study**
Camille Ferdenzi¹, Pauline Joussain¹, Berengere Digard¹, Jelena Djordjevic^{2,3}, Moustafa Bensafi¹. ¹*Lyon Neuroscience Research Center, CNRS and University of Lyon, Lyon, France,* ²*Department of Neurology and Neurosurgery, McGill University, Montreal, Canada,* ³*Department of Psychology, McGill University, Montreal, Canada*
- 71 #P282 **The Effect of Odor-induced Disgust on Reactions to Gay Men and Lesbians**
Catherine A. Forestell, Emily Cunningham, Cheryl L. Dickter. *Department of Psychology, The College of William & Mary, Williamsburg, VA, USA*
- 72 #P283 **Ability to Detect Androstadienone is Associated with Sexual and Social Behavior in Older Adults in the United States**
David W. Kern¹, Kristen E. Wroblewski², L. Philip Schumm², Jayant M. Pinto³, Martha K. McClintock¹. ¹*Comparative Human Development and The Institute for Mind and Biology, University of Chicago, Chicago, IL, USA,* ²*Department of Health Studies, University of Chicago, Chicago, IL, USA,* ³*Section of Otolaryngology-Head and Neck Surgery, Department of Surgery, University of Chicago, Chicago, IL, USA*
- 73 #P284 **The Olfactory basis of Right-Wing Authoritarianism**
Torun Lindholm, Caitlin B. Hawley, Marie Gustafsson Sendén, Jonas Olofsson. *Department of Psychology, Stockholm university, Stockholm, Sweden*
- 74 #P285 **Stress Chemosignals, Social Judgments, and Gender Differences**
Christopher Maute, Pamela Dalton, Cristina Jaen, Tamika Wilson. *MONELL CHEMICAL SENSES CENTER, Philadelphia, PA, USA*
- 75 #P286 **Chemosensory Signals of Aggression**
Smiljana Mutic, Jessica Freiherr. *RWTH Aachen University/ Diagnostic and Interventional Neuroradiology, Aachen, Germany*

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- 76 #P287 **Social chemosignals, but not common odors valence, modulate approach/avoidance response tendencies**
Valentina Parma^{1,2}, Amy R Gordon^{1,3}, Laura Hackl¹,
Vanessa Rebeschini¹, Johan N Lundstrom^{1,3,4}.
¹Monell Chemical Senses Center, Philadelphia, PA, USA,
²University of Padova, Padova, Italy, ³Karolinska Institutet,
Stockholm, Sweden, ⁴University of Pennsylvania,
Philadelphia, PA, USA
- 77 #P288 **The Oxytocin/Vasopressin System Regulates Human Chemosensory Communication of Gender**
Kepu Chen, Yuting Ye, Wen Zhou. *Institute of Psychology, Chinese Academy of Sciences, Beijing, China*
- 78 #P289 **Retronasal but not orthonasal presentation of odors is sufficient for learning in an olfactory preference task**
Meredith L Blankenship, Joost X Maier, Don B Katz.
Brandeis University, Waltham, MA, USA
- 79 #P290 **Responses to retronasal odorants in taste-responsive cells in the nucleus of the solitary tract of the awake rat**
Olga D Escanilla, Patricia M Di Lorenzo. *Department of Psychology, Binghamton University, Binghamton, NY, USA*
- 80 #P291 **The Effect of Retronasal Smell on Satiety in Adolescents**
Jack Hirsch, Alexander Roussos, Alan R Hirsch. *Smell & Taste Treatment and Research Foundation, Chicago, IL, USA*
- 81 #P292 **Comparisons of orthonasal to retronasal smell in those with chemosensory dysfunction**
Alexander Roussos¹, Michele Soto¹, Sally Freels²,
Alan R Hirsch¹. ¹Smell & Taste Treatment and Research Foundation, Chicago, IL, USA, ²University of Illinois at Chicago, Chicago, IL, USA
- 82 #P293 **Taste Modulation of Olfaction: When Taste and Smell Compete**
Jennifer Chen, Denise Chen. *Baylor College of Medicine, Neurology Department, Houston, TX, USA*

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- 83 #P294 **Enhancing Sweetness and Palatability of Aronia Juice via Added Sugars and Olfactory Flavoring**
Valerie B Duffy¹, Shruti Rawal¹, Bradley W Bolling²,
Jeeha Park¹, Mark H Brand³. ¹University of Connecticut/
Allied Health Sciences, Storrs, CT, USA, ²University of
Connecticut/Nutritional Sciences, Storrs, CT, USA,
³University of Connecticut/Plant Science and Landscape
Architecture, Storrs, CT, USA
- 84 #P295 **Human olfactory lateralization depends on trigeminal input**
Ilona Croy^{1,2}, Max Schulz², Thomas Hummel².
¹Department of Clinical Neurophysiology, Sahlgrenska University
Hospital, University of Gothenburg, Gothenburg, Sweden,
²Smell and Taste Clinic, Department of Otorhinolaryngology,
Technical University of Dresden, Dresden, Germany
- 85 #P296 **Flavor Identification and Intensity: Effects of Context**
Emily S. Murphy¹, Roshan Parikh², Maria G. Veldhuizen^{1,3},
Lawrence E. Marks^{1,4,5}. ¹John B. Pierce Laboratory, New
Haven, CT, USA, ²Graduate School of Education/Rutgers
University, New Brunswick, NJ, USA, ³Department of
Psychiatry/Yale University School of Medicine, New Haven,
CT, USA, ⁴Department of Environmental Health Sciences/Yale
School of Public Health, New Haven, CT, USA, ⁵Department of
Psychology/Yale University, New Haven, CT, USA
- 86 #P297 **Functional MRI of the Reward System Using Multisensory Cues**
Susan K Lemieux^{1,2}, Jianli Wang², Megha M Vasavada²,
Stephen J Wilson³, Kathleen L Keller^{4,5}, John E Hayes⁵,
Qing X Yang^{2,6}. ¹Penn State Harrisburg/Elec. Eng.,
Middletown, PA, USA, ²Penn State Hershey/Radiology,
Hershey, PA, USA, ³Penn State/Psychology, University Park,
PA, USA, ⁴Penn State/Nutritional Sciences, University Park,
PA, USA, ⁵Penn State/Food Science, University Park, PA, USA,
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- 87 #P298 **What makes the congruent sound-enhanced odor pleasantness?**
Han-Seok Seo¹, Franziska Lohse², Curtis R. Luckett¹.
¹University of Arkansas/Department of Food Science, Fayetteville, AR, USA, ²University of Dresden Medical School/Department of Otorhinolaryngology, Dresden, Germany
- 88 #P299 **Intertwined coding of facial affects and odor hedonics**
Wei Chen, Kepu Chen, Wen Zhou. *Key Laboratory of Mental Health, Institute of Psychology, Chinese Academy of Sciences, Beijing, China*
- 89 #P300 **Visuo-olfactory threat integration shifts affective evaluation**
Lucas R Novak, Wen Li. *University of Wisconsin – Madison, Madison, WI, USA*
- 90 #P301 **Taste and Oral Somatosensory Function and the Effects on Retronasal Olfaction during Healthy Aging, Alzheimer's disease, and Parkinson's disease**
Jennifer J. Stamps¹, Kenneth M. Heilman², Mariana Moscovich², Michael S. Okun², Linda M. Bartoshuk³.
¹University of Florida/Neuroscience Department, Clinical and Translational Science Institute, Gainesville, FL, USA, ²University of Florida, Department of Neurology, Gainesville, FL, USA, ³University of Florida/Department of Food Science and Human Nutrition, Gainesville, FL, USA
- 91 #P302 **Equal Relevance of Olfactory Compared to Audiovisual Channels in Communicating Fear**
Monique A Smeets^{1,2}, Jasper H de Groot¹, Gün R Semin^{1,3}.
¹Utrecht University/Faculty of Social and Behavioural Sciences, Utrecht, Netherlands, ²Unilever R&D/Sensation Perception Behaviour Strategic Science Group, Vlaardingen, Netherlands, ³Koç University/Department of Psychology, Istanbul, Turkey
- 92 #P303 **The Hormonal Mystery: Olfactory Sensitivity and Hormone Fluctuation Throughout the Menstrual Cycle**
Carrie C. LeMay¹, Ashley L. Galloway^{1,2}, William Tewalt¹, Irene N. Ozbek¹. ¹Psychology Department, Chattanooga, TN, USA, ²Chemistry Department, Chattanooga, TN, USA

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- 93 #P304 **Dynamics of Autonomic Nervous System Responses and Facial Expressions to Odors**
Rene A de Wijk¹, Wei He¹, Cees de Graaf², Sanne Boesveldt². ¹*Food&Biobased Research / WUR, Wageningen, Netherlands*, ²*Wageningen University, Division of Human Nutrition, Wageningen, Netherlands*
- 94 #P305 **Odor localization guided by spatial attention from auditory cue**
Shiori Ando, Saho Ayabe-Kanamura. *University of Tsukuba, TSUKUBA, Japan*
- 95 #P306 **Screening and identification of novel ligands for the ectopic olfactory receptor expressed in non-olfactory tissues**
NaHye Lee¹, Seunghyun Choi², Nana Kang¹, Cheol Ryong Ku³, Yoon Hee Cho³, Yunhye Kim², Eun Jig Lee³, Youngjoo Byun², JaeHyung Koo¹.
¹*Department of Brain Science, DGIST, Daegu, South Korea*,
²*College of Pharmacy, Korea University, Sejong, South Korea*,
³*College of Medicine, Yonsei University, Seoul, South Korea*
- 96 #P307 **Functional and structural characterization of a human odorant receptor expressed in cancer cells**
Nikolina Jovancevic, Steffen Wolf, Klaus Gerwert, Hanns Hatt, Lian Gelis. *Ruhr Universität Bochum, Bochum, Germany*
- 97 #P308 **Olfactory and Taste Receptors in Blood Leukocytes**
Dietmar Krautwurst, Agne Babusyte. *Deutsche Forschungsanstalt fuer Lebensmittelchemie Leibniz Institut, Freising, Germany*
- 98 #P309 **Denatonium Chemosensation In the Murine Trachea**
Gabriela Krasteva-Christ¹, Stephanie Wiederhold¹, Innokentij Jurastow¹, Christina Nassenstein¹, Petra Hartmann¹, Silke Wiegand¹, Amir Rafiq¹, Rajender Nandigama¹, Klaus Deckmann¹, Burkhard Schütz², Eberhard Weihe², Brendan J Canning³, Wolfgang Kummer¹. ¹*Justus-Liebig-University / Anatomy, Giessen, Germany*, ²*Philipps-University / Anatomy, Marburg, Germany*, ³*Johns Hopkins University, Baltimore, MD, USA*

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- 99 #P310 **Expression of α -gustducin in Immune Cells**
Pu Feng, Nirvine Simon, Jinghua Chai, Hong Wang. *Monell Chemical Senses Center, Philadelphia, PA, USA*
- 100 #P311 **Polymodal chemosensory brush cells in the urethra**
Klaus Deckmann¹, Filipinski Katharina¹, Gabriela Krasteva-Christ¹, Amir Rafiq¹, Mike Althaus², Martin Fronius², Tamara Papadakis¹, Burkhard Schütz³, Eberhard Weihe³, Vladimir Chubanov⁴, Thomas Gudermann⁴, Jochen Klein⁵, Thomas Bschiepfer⁶, Wolfgang Kummer¹. ¹*Institute of Anatomy and Cell Biology, Justus-Liebig-University, Giessen, Germany,* ²*Institute of Animal Physiology, Justus-Liebig-University, Giessen, Germany,* ³*Institute of Anatomy and Cell Biology, Philipps-University, Marburg, Germany,* ⁴*Walter-Straub-Institute for Pharmacology and Toxicology, Ludwig-Maximilian-University, Munich, Germany,* ⁵*Department of Pharmacology, School of Pharmacy, Goethe University, Frankfurt am Main, Germany,* ⁶*Department of Urology, Pediatric Urology and Andrology, Justus-Liebig-University, Giessen, Germany*
- 101 #P312 **Dextromethorphan Mediated Bitter Taste Receptor Activation in the Pulmonary Circuit causes Vasoconstriction**
Prashen Chelikani^{1,3}, Jasbir D. Upadhyaya^{1,3}, Nisha Singh^{1,3}, Anurag S. Sikarwar^{2,3}, Raja Chakraborty^{1,3}, Sai P. Pydi^{1,3}, Rajinder P. Bhullar¹, Shyamala Dakshinamurti^{2,3}. ¹*University of Manitoba/Oral Biology, Winnipeg, MB, Canada,* ²*University of Manitoba/Physiology, Winnipeg, MB, Canada,* ³*Manitoba Institute of Child Health/Biology of Breathing Group, Winnipeg, MB, Canada*
- 102 #P313 **T2R-Mediated Signal Transduction in Mammalian Male Germ Cells**
Jiang Xu, Minliang Zhou, Liquan Huang. *Monell Chemical Senses Center, Philadelphia, PA, USA*
- 103 #P314 **Clofibric Acid Inhibits Monosodium Glutamate Perception in Humans**
Matthew C. Kochem¹, Paul A.S. Breslin^{1,2}. ¹*Rutgers University/Nutritional Sciences, New Brunswick, NJ, USA,* ²*Monell Chemical Senses Center, Philadelphia, PA, USA*

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| 104 | #P315 | <p>Genetics of glutamate taste preferences in mice
 Natalia P. Bosak¹, Cailu Lin¹, Maria L. Theodorides¹,
 Akihiko Kitamura^{1,2}, Alexander A. Bachmanov¹.
 ¹Monell Chemical Senses Center, Philadelphia, PA, USA,
 ²Institute for Innovation, Ajinomoto Co., Inc., Kawasaki, Japan</p> |
| 105 | #P316 | <p>Two Distinct Determinants of Ligand Specificity in T1R1/T1R3
 Yasuka Toda¹, Tomoya Nakagita¹, Takashi Hayakawa²,
 Shinji Okada¹, Masataka Narukawa¹, Hiroo Imai², Yoshiro
 Ishimaru¹, Takumi Misaka¹. ¹Department of Applied Biological
 Chemistry, Graduate School of Agricultural and Life Sciences,
 The University of Tokyo, Tokyo, Japan, ²Primate Research
 Institute, Kyoto University, Aichi, Japan</p> |
| 106 | #P317 | <p>L-amino acid taste: Are multiple receptors and signal pathways involved?
 Shreoshi Pal Choudhuri¹, Rona J. Delay², Eugene R.
 Delay¹. ¹University of Vermont, Burlington, VT, USA,
 ²University of Vermont, Burlington, VT, USA, ³University
 of Vermont, Burlington, VT, USA</p> |
| 107 | #P318 | <p>Mice perceive synergistic umami mixtures as tasting sweet
 Louis N Saïtes, Zachary K Goldsmith, Jaron Densky,
 Vivian de Alvarenga Guedes, John D Boughter. <i>University
 of Tennessee Health Science Center/ Anatomy & Neurobiology,
 Memphis, TN, USA</i></p> |

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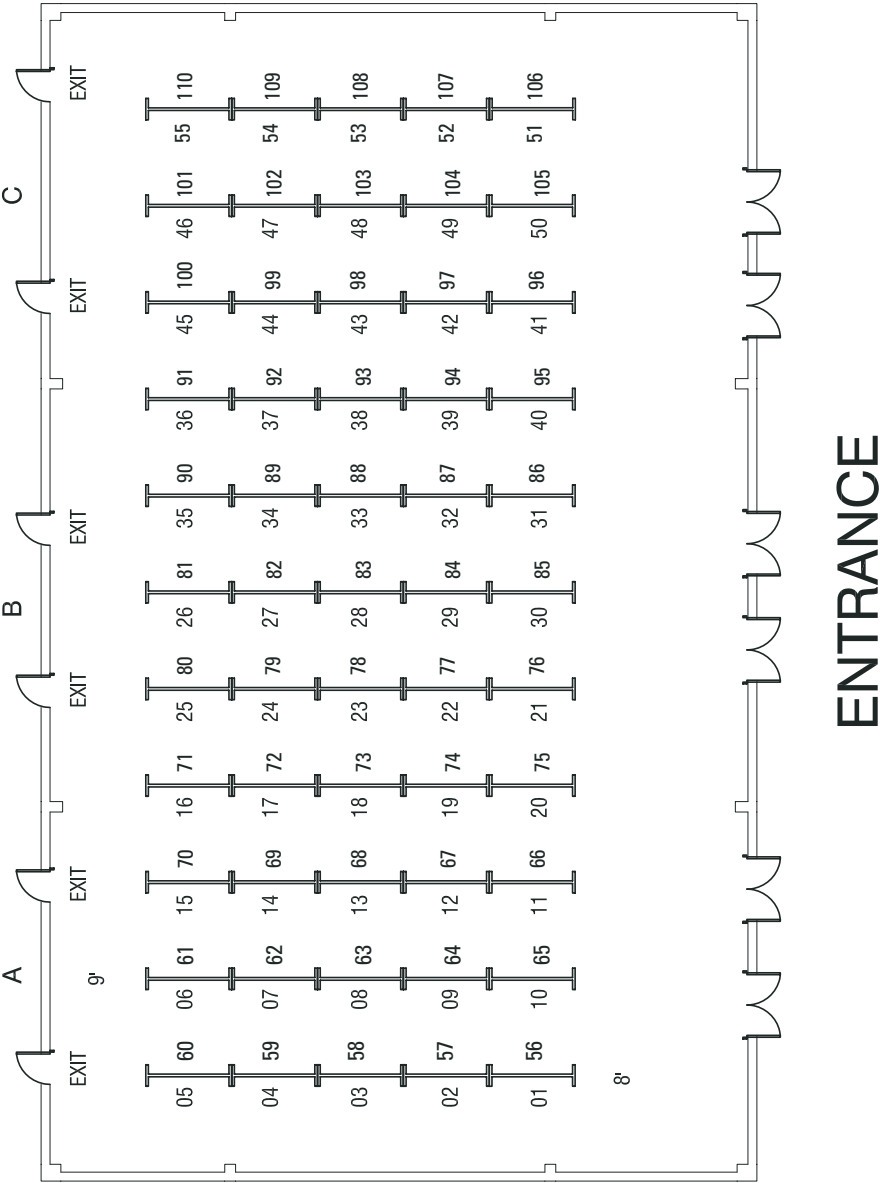
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AChemS 36th Annual Meeting

April 9-12, 2014

Hyatt Regency Coconut Point | Bonita Springs, FL



Visual Program at a Glance

REGISTRATION

3:30 – 7:00 pm

WEDNESDAY, APRIL 9

REGISTRATION

7:00 am – 12:00 pm, 6:30 – 7:30 pm

THURSDAY, APRIL 10

8:00 am

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BREAKFAST CORNERS WITH INDUSTRY

7:30 – 9:00 am

Estero Terrace

POSTER SESSION I

8:00 – 10:00 am

Estero Ballroom

SYMPOSIUM: Coding principles in the accessory olfactory bulb

10:00 am – 12:00 pm

Calusa Ballroom E-H

SYMPOSIUM: Are mammals able to discriminate between bitter stimuli?

10:00 am – 12:00 pm

Calusa Ballroom A-C

ACHEMS EXECUTIVE COMMITTEE MEETING

12:00 – 3:30 pm

The Cove at Tarpon Bay

INDUSTRY WORKSHOP

2:00 – 4:00 pm

Calusa Ballroom E-H

BARRY DAVIS NIH FUNDING WORKSHOP

2:00 – 4:00 pm

Calusa Ballroom A-C

CHEMA SOCIAL

4:00 – 5:30 pm

Estero Ballroom Terrace

Royal Palm Courtyard

WELCOME/AWARDS CEREMONY

5:00 – 6:00 pm

Calusa Ballroom A-C

GIVAUDAN LECTURE: Genes, Genomes and the Future of Biomedicine

6:00 – 7:00 pm

Calusa Ballroom E-H

WELCOME BANQUET

7:00 – 9:00 pm

Waterfall Pool Deck

SYMPOSIUM: Functional regeneration in the special senses

7:00 – 9:00 pm

Audit

Calusa Ballroom E-H

SYMPOSIUM: Behavioral insights into food selection and flavor preference in domestic and wild animals

7:00 – 9:00 pm

Calusa Ballroom A-C

POSTER SESSION II

9:00 – 11:00 pm

Estero Ballroom

Visual Program at a Glance

REGISTRATION

7:30 am – 12:00 pm, 6:30 – 7:30 pm

FRIDAY, APRIL 11

REGISTRATION

7:30 am – 12:00 pm, 6:30 – 7:30 pm

SATURDAY, APRIL 12

POSTER SESSION III

8:00 – 10:00 am

Estero Ballroom

SYMPOSIUM:
Do rodents dream of odorized sheep? The role of sleep in enhancing olfactory perception, learning and behavior

10:00 am – 12:00 pm

Calusa Ballroom E-H

SYMPOSIUM:
Direct single cell genomic and microchemical analysis of cellular heterogeneity systems

10:00 am – 12:00 pm

Calusa Ballroom A-C

SYMPOSIUM: Polak Symposium

10:00 – 11:30 am

Calusa Ballroom E-H

ACHEMS BUSINESS MEETING

12:00 – 1:00 pm

Calusa Ballroom A-C

FREE TIME

1:00 – 7:00 pm

SYMPOSIUM:
Presidential Symposium: Chemosensation in the gut and brain

7:00 – 9:00 pm

Calusa Ballroom E-H

POSTER SESSION IV

9:00 – 11:00 pm

Estero Ballroom

SYMPOSIUM:
Modulation of sensory signaling and behavioral response to odors

7:00 – 9:00 pm

Calusa Ballroom E-H

SYMPOSIUM:
ATP Diverse functions in Chemosensory epithelia

7:00 – 9:00 pm

Calusa Ballroom A-C

POSTER SESSION VI

9:00 – 11:00 pm

Estero Ballroom

POSTER SESSION V

8:00 – 10:00 am

Estero Ballroom

SYMPOSIUM:
Clinical Symposium: NHANES and the chemosenses

12:30 – 1:45 pm

Calusa Ballroom E-H

SYMPOSIUM:
Metabolic influences on olfaction and olfactory-guided feeding behavior

3:00 – 5:00 pm

Calusa Ballroom A-C

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AChemS XXXVII

Annual Meeting

APRIL 22-25, 2015 | HYATT REGENCY COCONUT POINT
FORT MYERS, FLORIDA





Givaudan^o

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