AChemS
Association for Chemoreception Sciences

ACHEMS 2009 ANNUAL MEETING

PROGRAM

31st Annual Meeting April 22-26
Sarasota, Florida

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AChemS extends special thanks and appreciation for grant support from:

The National Institute on Deafness and Other Communications Disorders
and the
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A special thank you to **Ghislaine Polak** and the late **Ernest Polak** for supporting the **Polak Young Investigators Awards** and the **Junior Scientist Travel Awards**.

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2009 Annual Meeting Exhibitors

Oxford University Press
Oxford University Press publishes some of the world's most respected books and journals, including Chemical Senses. The journal publishes original research and review papers on all aspects of chemoreception in both humans and animals. Please visit us online at www.oxfordjournals.org.
Company Representative: Claire Bird

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

Springer
Springer is the proud publisher of Chemosensory Perception, now in its second year of publication, and recently accepted by ISI. Please stop by our booth to pick up a sample copy, as well as browse our books (available at the conference discount) and other journals. Susan Safren will be available to answer any questions about publishing with Springer.
Company Representative: Susan Safren

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 tests and recording of responses under computer control.
Company Representative: Kathleen VanDeGrift

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2009 Awardees

31st Annual Givaudan Lectureship - Givaudan Corporation
Carla J. Shatz, Stanford University

18th Annual Moskowitz Jacobs Award for Research in Psychophysics of Taste and Olfaction
Johan Lundström, Monell Chemical Senses Center

16th Annual Ajinomoto Award to Promising Young Researcher in the Field of Gustation
Alan Carleton, Brain Mind Institute, Ecole Polytechnique, Fédérale de Lausanne

International Flavors and Fragrances Award for Outstanding Research on the Molecular Basis of Taste
Keiko Abe, The University of Tokyo

Max Mozell Award for Outstanding Achievement in the Chemical Senses
Charles Greer, Yale University School of Medicine

The AChemS Young Investigator Award for Research in Olfaction
Nathaniel Urban, Carnegie Mellon University

AChemS Distinguished Service Award
Barry Davis, National Institute of Health

The Don Tucker Memorial Award (2008 Awardee)
Aaron Beyerlein, University of Arizona

AChemS 2009 Logo Contest Award
Maria Veldhuizen, John B. Pierce Laboratory and Yale University School of Medicine

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
2009 Polak Young Investigator Award Recipients:
Wen Li, University of Wisconsin-Madison
Nathalie Mandairon, Lyon University
Ivan Manzini, University of Göttingen
Koichi Matsumara, Monell Chemical Senses Center
Arie Mobley, Department of Neurosurgery, Department of Neurobiology, Yale University
Sharif Taha, University of Utah School of Medicine
Maria Veldhuizen, John B. Pierce Laboratory and Yale University School of Medicine

2009 Awardees, continued

We are pleased to announce that five 2009 Polak Junior Scientist Travel Awards were given for this year's meeting.

AChemS Minority/Travel Fellowship Recipients
Funded by a generous grant from the National Institute on Deafness and Other Communication Disorders and the National Institute on Aging, NIH
Juan Aggio, Georgia State University
C. Shawn Dotson, University of Maryland School of Medicine
Wombura Fobbs, John B. Pierce Laboratory and Yale University School of Medicine
Kristina Gonzalez, Clark University
Ernesto Salcedo, University of Colorado Denver
Nhat-Tuan Tran, University of Colorado Denver
Robert Utsman, University of Minnesota

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

Lindsey Silz
Richard Krolewski
Adam Packard
Allana Goodman
Krystin Corby
Faye Pesenti
Anna Kleeman
April Glatt
Chun Yang
Kaeli Samson
Samsudeen Ponissery
Rebekka Zernecke
Sara Dudgeon
Johanna Spitzer
Amanda Elson
Sebastian Rasche
Amy Gordon
Lian Gelis
Matthias Luebbert
Debbie Radtke
Masashi Tabuchi
Honghong Zhang
Andrew Rosen
Alexandra Miller
Kristin Rudenga
Julie Boyle
Markus Rothermel
Sabrina Baumgart
Silke Hagendorf
Jeremy McIntyre
Dorothee Buschhuter

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Committees

AChemS Executive Committee 2008-2009

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Alan Nighorn	Harriett Baker	Paul Moore
Steve Munger	Catherine Rouby	

MEETING EVALUATION

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

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Program at a Glance

April 22-26, 2009 • Sarasota, Florida

Wednesday, April 22, 2009

12:00 - 3:30 pm	**ACHEMS EXECUTIVE COMMITTEE MEETING** *Executive Boardroom*
3:30 - 8:00 pm	**REGISTRATION** *Prefunction Area*
6:00 - 8:00 pm	**WELCOME BANQUET** *(Ticketed event)*
8:00 - 9:00 pm	**WELCOME/AWARDS CEREMONY** *South Ballroom*
9:00 - 10:00 pm	**GIVAUDAN LECTURE** **TUNING UP CIRCUITS: BRAIN WAVES, IMMUNE GENES AND SYNAPSE PLASTICITY** Chair/Organizer: D. Wilson Carla J. Shatz, Stanford University, Stanford, CA, United States *South Ballroom*

Thursday, April 23, 2009

7:00 am – 1:00 pm 6:30 pm – 7:30 pm	**REGISTRATION** *Prefunction Area*
7:30 – 9:00 am	**CONTINENTAL BREAKFAST**
8:00 - 10:00 am	**PLATFORM PRESENTATIONS** **GUSTATION** *South Ballroom*
8:00 am - 12:30 pm	**POSTER SESSION I: CHEMOSENSORY DISORDERS, MODELS AND AGING/CENTRAL CHEMOSENSORY CIRCUITS** *North Ballroom*
10:00 – 10:30 am	**BREAK** *Prefunction Area*
10:30 am - 12:30 pm	**SYMPOSIUM** **GENDER EFFECTS ON OLFACTORY PROCESSING** Chair/Organizer: L. Stowers *South Ballroom*
12:30 - 2:00 pm	**LUNCHEON: MINORITY TRAVEL AWARDEES** *(Invitation only)* *Executive Boardroom*
1:00 - 4:00 pm	**INDUSTRY SYMPOSIUM** Chair/Organizer: M. Meredith *South Ballroom*
2:10 - 2:25 pm	**BREAK** *Prefunction Area*
3:00 - 5:00 pm	**NIH WORKSHOP: FUNDING OPPORTUNITIES FOR THE NEW INVESTIGATOR** Chair/Organizer: B. Davis *Tropics Room*
4:15 – 6:00 pm	**INDUSTRY RECEPTION** *(Ticketed event)* *The Boathouse*
7:00 - 11:00 pm	**POSTER SESSION II: CHEMOSENSORY RESPONSE TO, AND CONTROL OF, FEEDING/NEUROETHOLOGY** *North Ballroom*
7:00 - 9:05 pm	**SYMPOSIUM** **PRESIDENTIAL SYMPOSIUM: ON BEYOND GLOMERULI** Chair/Organizer: P. Brunjes *South Ballroom*

Friday, April 24, 2009

7:30 am – 1:00 pm
6:30 pm – 7:30 pm **REGISTRATION**
Prefunction Area

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

8:00 - 10:30 am **SYMPOSIUM**
DEVELOPMENT AND PLASTICITY: FIRST CENTRAL CHEMOSENSORY RELAYS
Chair/Organizer: C. Mistretta and D. Hill
South Ballroom

8:00 am - 12:30 pm **POSTER SESSION III: CORTICAL CHEMOSENSORY PROCESSING/RECEPTOR GENOMICS AND MOLECULAR BIOLOGY**
North Ballroom

10:30 – 11:00 am **BREAK**
Prefunction Area

11:00 am - 12:30 pm **PLATFORM PRESENTATIONS**
POLAK YOUNG INVESTIGATOR AWARD WINNERS
South Ballroom

12:45 - 2:45 pm **ACHEMS BUSINESS MEETING**
South Ballroom

3:00 - 4:00 pm **NIH WORKSHOP: EVERYTHING YOU WANTED TO KNOW ABOUT CHANGE IN NIH PEER REVIEW, BUT WERE AFRAID TO ASK**
Chair/Organizer: NIDCD Scientific Review Branch
Florida Room

5:00 - 7:00 pm **CHEMA SOCIAL (ACHEMS MEMBERS ONLY; RSVP REQUIRED)**
Chair/Organizer: S. Sollars
Tropics Room

7:00 - 8:00 pm **IFF SPECIAL LECTURE**
TASTE MOLECULAR BIOLOGY AND NEW FOOD CHEMISTRY
Chair/Organizer: S. Herness,
Keiko Abe, *The University of Tokyo*
South Ballroom

Friday, April 24, 2009, continued

7:00 - 11:00 pm **POSTER SESSION IV: CHEMOSENSORY TRANSDUCTION AND PERIRECEPTOR EVENTS**
North Ballroom

8:00 – 8:15 pm **BREAK**
Prefunction Area

8:15 - 10:15 pm **SYMPOSIUM**
RECIPROCAL INTERACTIONS BETWEEN PRIMARY TASTE AND OLFACTORY PROCESSING NETWORKS AND HIGHER COGNITION
Chair/Organizer: L. Hermer-Vasquez
South Ballroom

Saturday, April 25, 2009

7:30 am – 1:00 pm
6:30 pm – 7:30 pm **REGISTRATION**
Prefunction Area

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

8:00 - 10:05 am **SYMPOSIUM**
FUNCTIONAL EVOLUTION OF CHEMOSENSORY RECEPTORS
Chair/Organizer: H. Matsunami and H. Zhuang
South Ballroom

8:00 am - 12:30 pm **POSTER SESSION V: CHEMOSENSORY MEMORY/CENTRAL SYNAPTIC PHYSIOLOGY/NEUROGENESIS**
North Ballroom

10:05 – 10:30 am **BREAK**

10:30 am - 12:30 pm **SYMPOSIUM**
MAKING SENSE OF FAT TASTE
Chair/Organizer: T. Gilberston
South Ballroom

12:45 - 2:45 pm **CLINICAL LUNCHEON** *(Ticketed event)*
OLFACTORY DYSFUNCTION IN SCHIZOPHRENIA: A MODEL SYSTEM TO INVESTIGATE DEVELOPMENTAL NEUROPATHOLOGY
Chair/Organizer: C. Murphy
Bruce Turetsky, MD, *University of Pennsylvania*
The Keys Room

3:00 - 5:30 pm **WORKSHOP: COMPUTATIONAL PROBLEMS IN SEQUENTIAL STAGES OF ODOR PROCESSING**
Chair/Organizer: T. Cleland and D. Dougherty
South Ballroom

7:00 - 9:05 pm **SYMPOSIUM**
FOLLOW THE HEAD, NOT ONLY THE NOSE: TOP-DOWN INFLUENCES ON OLFACTORY PERCEPTION
Chair/Organizer: M. Smeets
South Ballroom

7:00 - 11:00 pm **POSTER SESSION VI: CHEMOSENSORY DEVELOPMENT AND PSYCHOPHYSICS I**
North Ballroom

Sunday, April 26, 2009

7:30– 11:00 am	**REGISTRATION** *Prefunction Area*
7:30 – 9:00 am	**CONTINENTAL BREAKFAST**
8:00 - 10:05 am	**SYMPOSIUM** **GABA IN THE DEVELOPING OLFACTORY SYSTEM: FROM GENERATION TO DIFFERENTIATION** Chair/Organizer: H. Baker *South Ballroom*
8:00 am - 12:30 pm	**POSTER SESSION VII: CHEMOSENSORY PSYCHOPHYSICS II** *North Ballroom*
10:05 – 10:30 am	**BREAK** *Prefunction Area*
10:30 am - 12:30 pm	**PLATFORM PRESENTATIONS** **OLFACTORY AND VOMERONASAL SYSTEMS** *South Ballroom*

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Program in Detail

April 22-26, 2009 • Sarasota, Florida

Wednesday, April 22, 2009

12:00 - 3:30 pm **ACHEMS EXECUTIVE COMMITTEE MEETING**
Executive Boardroom

3:30 - 8:00 pm **REGISTRATION**
Prefunction Area

6:00 - 8:00 pm **WELCOME BANQUET** *(Ticketed event)*

8:00 - 9:00 pm **WELCOME/AWARDS CEREMONY**
South Ballroom

9:00 - 10:00 pm **GIVAUDAN LECTURE**
Chair/Organizer: Donald Wilson
South Ballroom

#1 **TUNING UP CIRCUITS: BRAIN WAVES, IMMUNE GENES AND SYNAPSE PLASTICITY**
Carla J. Shatz, *Stanford University, Stanford, CA, United States*
South Ballroom

The Shatz lab studies how sensory experience tunes up brain circuits during critical periods of development. She will discuss surprising new findings that suggest that genes previously thought to be used only by the immune system function in neurons as "molecular brakes" on activity-dependent synaptic plasticity, both during development and in adulthood.

Thursday, April 23, 2009

7:00 am - 1:00 pm
6:30 pm - 7:30 pm **REGISTRATION**
Prefunction Area

7:30 - 9:00 am **CONTINENTAL BREAKFAST**

8:00 - 10:00 am **PLATFORM PRESENTATIONS**
GUSTATION
South Ballroom

8:00 #2 **Wnt/ß-catenin Signaling Controls Taste Bud Regeneration in Mice**
Linda A. Barlow[1], Fei Liu[2], Shoba Thirumangalathu[1], Elizabeth A. Harvey[1], Ping Wu[1], Sarah E. Millar[3]. *[1]Department of Cell and Developmental Biology & Rocky Mountain Taste & Smell Center, University of Colorado Denver, School of Medicine, Aurora, CO, United States, [2]Institute for Regenerative Medicine at Scott & White Hospital, Texas A&M University System Health Science Center, Temple, TX, United States, [3]Departments of Dermatology and Cell and Developmental Biology, University of Pennsylvania School of Medicine, Philadelphia, PA, United States*

8:15 #3 **Fatty acids induce increases in intracellular calcium in Type II and a subset of Type III mouse taste cells**
Pin Liu, Bhavik Shah, Hala Hadawar, Timothy Gilbertson. *Department of Biology and The Center for Advanced Nutrition, Utah State University, Logan, UT, United States*

8:30 #4 **GPR40 knockout mice have diminished taste responses to fatty acids**
Sami Damak[1], Cristina Cartoni[1], Keiko Yasumatsu[2], Johannes le Coutre[1], Yuzo Ninomiya[2]. *[1]Nestlé Research Center, Lausanne, Switzerland, [2]Kyushu University, Fukuoka, Japan*

8:45 #5 **Thermal taste: association with perception of oral sensations and food and beverage behavior**
Martha R Bajec, Gary J Pickering. *Brock University, St Catharines, ON, Canada*

9:00 #6 **TRPA1 Sensory Agonism in Humans: Time Dependence**
William S. Cain, Roland Schmidt, J. Enrique Cometto-Muñiz.
University of California, San Diego, La Jolla, CA, United States

9:15 #7 **Oral Disinhibition Varies With Taster Status: Unilateral Anterior Oral Anesthesia Produces Asymmetric Posterior Taste Loss in Nontasters**
Derek J. Snyder[1,2], Frank A. Catalanotto[2], Patrick A. Antonelli[3], Linda M. Bartoshuk[2]. *[1]Neuroscience, Yale University, New Haven, CT, United States, [2]Center for Smell and Taste, University of Florida, Gainesville, FL, United States, [3]Otolaryngology, University of Florida, Gainesville, FL, United States*

#8 **Withdrawn**

9:30 #9 **"Restrained Eaters" Show Abnormal and Differential fMRI Activation to Sucrose and Saccharin**
Claire Murphy[1,2], Nobuko Kemmotsu[1,2]. *[1]San Diego State University, San Diego, CA, United States, [2]University of California, San Diego, San Diego, CA, United States*

10:00 - 10:30 am **BREAK**
Prefunction Area

10:30 am - 12:30 pm **SYMPOSIUM**
GENDER EFFECTS ON OLFACTORY PROCESSING
Chair/Organizer: Lisa Stowers
South Ballroom

10:30 #10 **Axons of gustatory receptor 32a expressing neurons extend their terminal throughout adult lifetime**
Tetsuya Miyamoto, Hubert Amrein. *Department of Molecular Genetics and Microbiology, Duke University Medical Center*

10:50 #11 **Recognition of Sexual Cues in the Urine by Mouse Vomeronasal Organ**
Ron Yu[1,2], Jie He[1], Limei Ma[1], Sangseong Kim[1], Junichi Nakai[3].
[1]Stowers Institute, Kansas City, MO, United States, [2]University of Kansas Medical Center, Kansas City, KS, United States, [3]RIKEN Brain Institute, Wako-shi, Japan

11:10 #12 **Vomeronasal reception of a sex peptide pheromone ESP1 in mice: the receptor, neural circuitry, and behavior**
Kazushige Touhara. *Department of Integrated Biosciences, The University of Tokyo, Chiba, Japan*

11:30 #13 **Differential Sensory Neuron Activation Underlies Gender Dimorphic Aggressive Behavior**
Lisa Stowers[1], Pablo Chamero[2], Kelly Flanagan[1], Fabio Papes[3], Darren DW Logan[1], Toby F Marton[4], Angeldeep Kaur[1].
[1]The Scripps Research Institute, La Jolla, CA, United States, [2]University of Saarland, Homberg, Germany, [3]State University of Campinas, Campinas, Brazil, [4]University of California San Diego, San Diego, CA, United States

11:50 #14 **Opposite-sex volatile urinary odors detected by the main and processed via the accessory olfactory system contribute to mate recognition in mice**
Michael J. Baum[1], Ningdong Kang[1], Kristine M. Martel[1], James A. Cherry[2]. *[1]Dept. of Biology, Boston University, Boston, MA, United States, [2]Dept. of Psychology, Boston University, Boston, MA, United States*

12:10 #15 **Neural control of sexually dimorphic behaviors**
Nirao Shah. *UCSF, San Francisco, CA, United States*

12:30 - 2:00 pm **LUNCHEON: MINORITY TRAVEL AWARDEES**
(Invitation only)
The Minority Travel Awards are funded by a generous grant from the NIDCD
Executive Boardroom

1:00 - 4:00 pm **SYMPOSIUM**
INDUSTRY SYMPOSIUM
Chair/Organizer: Mike Meredith
South Ballroom

TASTE AND SMELL IN TRANSLATION: APPLICATIONS FROM BASIC RESEARCH
An exploration of recent key advances in the chemical senses - of interest to industry scientists and also to basic scientists. The speakers will focus on two or a few recent advances in basic research that have potential applications. The speakers will take the time to explain the basic science background behind their examples for an audience that cannot be expert in all relevant areas. The audience will include industry scientists and policy makers as well as basic scientists and students new to the field, interested in applications of basic research. The symposium will conclude with a round-table discussion with audience participation. Our goal is to explore how collaborations between industry and academic scientists can benefit both, but particularly how basic-science expertise can contribute.

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

1:03 **Economic stimulus: When chemicals meet receptors on the tongue**
Danielle Reed, Ph.D., *Monell Chemical Senses Center, Philadelphia PA, USA*

1:36 **Recent Advances in Understanding Olfactory Perception**
Thomas Hummel, M.D., *Otorhinolaryngology, University of Dresden, Dresden, Germany*

2:10 - 2:25 pm **COFFEE BREAK**
Prefunction Area

2:25 **Recent Advances in Understanding Taste Molecular Mechanisms**
Nirupa Chaudhari, Ph.D., *Physiology and Biophysics, University of Miami, Miami, FL, USA*

2:58 **Recent Advances in Understanding Olfactory Molecular Mechanisms**
Stuart Firestein, Ph.D., *Biology*, *Columbia University, New York, NY, USA*

3:35 - 4:05 pm **Round Table Discussion**

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

3:00 - 5:00 pm **NIH WORKSHOP: FUNDING OPPORTUNITIES FOR THE NEW INVESTIGATOR**
Chair/Organizer: Barry Davis
Come learn or get refreshed on how to compete for NIH funding.
Tropics Room

4:15 - 6:00 pm **INDUSTRY RECEPTION**
(Ticketed event)
An opportunity for industry scientists to network and interact with basic scientists including the distinguished speakers from the symposium. Buffet included with ticket.
The Boathouse

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

8:00 am - 12:30 pm **POSTER SESSION I: CHEMOSENSORY DISORDERS, MODELS AND AGING/CENTRAL CHEMOSENSORY CIRCUITS**
North Ballroom

1 #P1 **Taste disturbances after tonsillectomy - results of a prospective study**
Clemens Heiser, Sabine Frey, Karl Hörmann, Boris Stuck. *Department of Otorhinolaryngology, Head and Neck Surgery, University Hospital Mannheim, Mannheim, Germany*

2 #P2 **Long-term olfactory outcome in patients with mild traumatic brain injuries (mTBI)**
Faye Pesenti, Alain Ptito, Jelena Djordjevic. *Montreal Neurology Institute, McGill University, Montreal, QC, Canada*

3 #P3 **Volatile biomarkers for human melanoma cells**
Jae Kwak[1], Hakan Ozdener[1], Michelle Gallagher[1], Charles J Wysocki[1], Adam Faranda[1], Amaka Isamah[1], Steve S Fakharzadeh[2], Christopher J Miller[2], George Preti[1,2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Dermatology, School of Medicine, University of Pennsylvania, Philadelphia, PA, United States*

4 #P4 **Olfactory function in childhood maltreatment and post-traumatic stress disorder**
Ilona Croy[1,2], Julia Schellong[2], Peter Joraschky[2]. *[1]Universitätsklinikum Carl Gustav Carus Department of Otorhinolaryngology, Dresden, Germany, [2]Universitätsklinikum Carl Gustav Carus Department of Psychotherapie and Psychosomatic Medicine, Dresden, Germany*

5 #P5 **"Anosmic smell": Residual olfactory function following hemispherectomy**
Jelena Djordjevic, Faye Pesenti, Alain Ptito. *Montreal Neurological Institute, McGill University, Montreal, QC, Canada*

Poster Numbering Key:
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6 #P6 **The perception of malodors: An fMRI study of age and gender related differences between pre and post puberty subjects**
Thomas Hummel[1], Arianne Baur[1], Cornelia Hummel[1], Anita Chopra[2]. *[1]Smell & Taste Clinic, University of Dresden Medical School, Dresden, Germany, [2]Unilever Research and Development Port Sunlight, Wirral, United Kingdom*

7 #P7 **Odor judgments in first episode and chronic schizophrenia patients**
Claudia I. Rupp[1], Georg Kemmler[1], Thomas Walch[1], Arne W. Scholz[2], Martina Klimbacher[1], Theresia Lechner[1], Hartmann Hinterhuber[1], Wolfgang W. Fleischhacker[1]. *[1]Innsbruck Medical University, Department of Psychiatry and Psychotherapy, Innsbruck, Austria, [2]Innsbruck Medical University, Department of Otorhinolaryngology, Innsbruck, Austria*

8 #P8 **Odor Discrimination in Mouse Models of Schizophrenia**
Jennifer L. Hellier[1,2], Nicole L. Arevalo[1,2], Catherine E. Adams[3], Diego Restrepo[1,2,4]. *[1]Dept. of Cell & Developmental Biology, Univ. of Colorado Denver, Aurora, CO, United States, [2]Rocky Mountain Taste & Smell Center, Univ. of Colorado Denver, Aurora, CO, United States, [3]Dept. of Psychiatry, Univ. of Colorado Denver, Aurora, CO, United States, [4]Program in Neuroscience, Univ. of Colorado Denver, Aurora, CO, United States*

9 #P9 **A Timeline for Parkinson's Disease**
Christopher H Hawkes[1], Kelly Del Tredici[2], Heiko Braak[2]. *[1]Barts and the London School of Medicine, London, United Kingdom, [2]Institute for Clinical Neuroanatomy, Frankfurt am Main, Germany*

10 #P10 **Functional MRI (fMRI) in Parkinson's disease patients reveals differences according to the degree of hyposmia**
Antje Welge-Luessen[1], Elise Wattendorf[1], Uta Schwerdtfeger[2], Peter Fuhr[3], Deniz Bilecen[4], Thomas Hummel[5], Birgit Westermann[1,6]. *[1]Dept. of Otorhinolaryngology, University Hospital , Basel, Switzerland, [2]Dept. of Otorhinolaryngology, Kantonsspital , Aarau, Switzerland, [3]Dept. of Neurology, University Hospital, Basel, Switzerland, [4]Dept. of Radiology, University Hospital, Basel, Switzerland, [5]Smell & Taste Clinic, University of Dresden Medical School, Dresden, Germany, [6]Dept. of Neurosurgery, University Hospital, Basel, Switzerland*

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11 #P11 **Scent marking and countermarking behaviors as a measure of olfactory communication in the BTBR T+tf/J inbred strain, a mouse model of autism**
Florence I. Roullet, Markus Wöhr, Mu Yang, Jacqueline N. Crawley. *Laboratory of Behavioural Neuroscience- National Institute of Mental Health, Bethesda, MD, United States*

12 #P12 **Taste damage following radiation treatment for head and neck cancer**
Henrietta L. Logan, Linda M. Bartoshuk, Vicki D. Mayo, William M. Mendenhall. *University of Florida, Gainesville, FL, United States*

13 #P13 **The use of odours as emotional triggers in the study of dysfunctional brain regions in bipolar disorder – an fMRI study**
Simona Negoias[1], Emilia Iannilli[1], Stephanie Krueger[2], Johannes Gerber[3], Thomas Hummel[1]. *[1]Smell & Taste Clinic, Department of Otorhinolaryngology , University of Dresden Medical School, Dresden, Germany, [2]Department of Neuroradiology, University of Dresden Medical School, Dresden, Germany, [3]Department of Psychiatry and Psychotherapy, Charité University Medicine Berlin, Campus Mitte, Berlin, Germany*

14 #P14 **Mind over age - Social priming and olfactory function**
Eva C. Alden[1], Amy R. Gordon[1], Monica Hernandez[1], Mats J. Olsson[2], Johan N. Lundstrom[1,3]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden, [3]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States*

15 #P15 **Faster Cognitive Processing of Olfactory Stimuli in an Active Task, Even in Old Age**
Charlie D. Morgan[1], Krystin M. Corby[1], Claire Murphy[1,2]. *[1]San Diego State University, Department of Psychology, San Diego, CA, United States, [2]University of California Medical Center, San Diego, CA, United States*

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16 #P16 **Functional Connectivity of Olfactory Processing During a Hedonic Evaluation Task in Young and Older Adults**
Erin R. Green[1], Lori Haase[1], Claire Murphy[1,2]. *[1]San Diego State University/University of California, San Diego Joint Doctoral Program in Clinical Psychology, San Diego, CA, United States, [2]Department of Surgery, University of California, San Diego, San Diego, CA, United States*

17 #P17 **Functional Connectivity during an olfactory recognition memory paradigm is associated with task performance and the e4 allele of the apolipoprotein E (ApoE) gene**
Lori Haase[1], Erin Green[1], Claire Murphy[1,2]. *[1]SDSU/UCSD Joint Doctoral Program in Clinical Psychology, San Diego, CA, United States, [2]Department of Surgery, UCSD, San Diego, CA, United States*

18 #P18 **Olfactory, but not Gustatory Function, correlates with BMI and Depressive Symptoms in the Elderly**
Sanne Boesveldt[1], Thomas Hummel[2], Stacy Tessler Lindau[3], Johan N Lundstrom[1,4]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Dept. of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, [3]Dept. of Obstetrics and Gynecology, University of Chicago, Chicago, IL, United States, [4]Dept. of Psychology, University of Pennsylvania, Philadelphia, PA, United States*

19 #P19 **Prevalence of Olfactory Impairment in Adults across the Life Span: The Beaver Dam Offspring Study**
Carla R. Schubert[1], Karen J. Cruickshanks[1], Elizabeth M. Krantz[1], Guan-Hua Huang[2], Barbara E.K. Klein[1], Ronald Klein[1], James S. Pankow[3]. *[1]University of WI, Madison, WI, United States, [2]Nat. Chiao Tung Univ., Hsinchu, Taiwan, [3]University of MN, Minneapolis, MN, United States*

20 #P20 **ApoE Status and Differences in Olfactory Detection Across the Lifespan**
Krystin M. Corby[1], Charlie D. Morgan[1], Claire Murphy[1,2]. *[1]San Diego State University, San Diego, CA, United States, [2]University of California Medical Center, San Diego, CA, United States*

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21 #P21 **Influence of Cognitive Status on Olfactory Threshold Variability**
Brittany N. Carlisle[1], Jason M. Bailie[1], Lloyd Hastings[2], Katie Pointer[1], Katie VanDeGrift[1], Robert A. Frank[1,3]. *[1]University of Cincinnati, Cincinnati, OH, United States, [2]Osmic Enterprises, Cincinnati, OH, United States, [3]CompuSniff, Cincinnati, OH, United States*

22 #P22 **Olfactory Perceptual Correlates of ß – Amyloid Plaque Burden in Alzheimer's Disease Mouse Models**
Daniel W. Wesson[1], Efrat Levy[2,3], Ralph A. Nixon[2,3], Donald A. Wilson[1,3]. *[1]Emotional Brain Inst., Nathan Kline Inst. for Psych Research, Orangeburg, NY, United States, [2]Ctr. for Dementia Research, Nathan Kline Inst. for Psych Research, Orangeburg, NY, United States, [3]New York Univ School of Medicine, New York, NY, United States*

23 #P23 **Toxin-Induced Chemosensory Dysfunction: A Case Series and Review**
Wendy M. Smith[1], Terence M. Davidson[1,2,3], Claire L. Murphy[1,4]. *[1] Department of Surgery, University of California, San Diego, San Diego, CA, United States, [2]Continuing Medical Education, University of California, San Diego School of Medicine , San Diego, CA, United States, [3]VA San Diego Healthcare System, San Diego, CA, United States, [4]San Diego State University, San Diego, CA, United States*

24 #P24 **Gene-targeted deletion of E2F1 evokes olfactory deficits, memory loss, and increased anxiety**
David R. Marks, Ying Wang, Kelly Jordan-Sciutto. *University of Pennsylvania, Philadelphia, PA, United States*

25 #P25 **Social Anxiety and Reduced Recruitment of Orbitofrontal Cortex to Human Social Chemosensory Cues**
Kathy Zhang, Wen Zhou, Denise Chen. *Rice University, Houston, TX, United States*

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26 #P26 ***Toxoplasma gondii* infects olfactory structures in the mouse: a possible mechanism for host manipulation by influencing olfactory function**
Ann E. Jorgensen[1], Corrie N. Hiltbrand[2], Gustavo Arrizabalaga [3], Mark D. Lavine[3], Kevin R. Kelliher[1]. *[1]Dept. Biological Science, University of Idaho, Moscow, ID, United States, [2]Dept. Biological Sciences, Brigham Young University Idaho, Rexburg, ID, United States, [3]Dept. Microbiology, Molecular Biology and Biochemistry, University of Idaho, Moscow, ID, United States*

27 #P27 **Sexual dimorphism in olfactory bulb structure**
Willi Bennegger[1], Elke Weiler[2]. *[1]Maria-von-Linden-Schule, Heckentalstraße 86 , D-89518 Heidenheim, Germany, [2]Faculty of Medicine, Institute of Physiology, Department of Neurophysiology, Ruhr-University, D-44780 Bochum, Germany*

28 #P28 **Heterogeneous Sensory Innervation of Individual Necklace Glomeruli**
Renee E. Cockerham, Adam C. Puche, Steven D. Munger. *Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD, United States*

29 #P29 **Spatial analysis of olfactory bulb activity in the sea lamprey**
Warren W Green[1], Sana Ahmed[1], Dominique Derjean[2], Réjean Dubuc[2], Barbara S Zielinski[1]. *[1]Department of Biological Sciences, University of Windsor, Windsor, ON, Canada, [2]Centre de Recherche en Sciences Neurologiques, Département de physiologie, Université de Montréal, Montréal, QC, Canada*

30 #P30 **Spatial Representations of Natural Odor Objects Across the Glomerular Layer of the Rat Olfactory Bulb**
Brett A. Johnson, Joan Ong, Michael Leon. *Dept. of Neurobiology & Behavior, UC Irvine, Irvine, CA, United States*

31 #P31 **Analysis of responses to musk odorants in olfactory sensory neurons and in the main olfactory bulb**
Mika Shirasu, Kazushige Touhara. *Department of Integrated Biosciences, The University of Tokyo, Chiba, Japan*

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32 #P32 **Input Driven Synchrony of Oscillating Olfactory Receptor Neurons: A Computational Modeling Study**
Il Park[1], Yuriy V. Bobkov[2], Kirill Ukhanov[2], Barry W. Ache[2,3], Jose C. Principe[1]. *[1]Department of Biomedical Engineering, University of Florida, Gainesville, FL, United States, [2]Whitney Laboratory, Center for Smell and Taste, and McKnight Brain Institute, University of Florida, Gainesville, FL, United States, [3]Departments of Zoology and Neuroscience, Gainesville, FL, United States*

33 #P33 **Increase in Number of Androgen Receptor Immunoreactive Cells in the Medial Amygdala of Male Hamsters in Response to Chemosensory Input**
Camille B Blake, Michael Meredith. *Florida State University, Department of Biological Science, Program in Neuroscience, Tallahassee, FL, United States*

34 #P34 **Cytokine profiles in nasal lavage fluid of patients with chronic rhinosinusitis**
M. Hakan Ozdener[1], Karen K Yee[1], Beverly J Cowart[1], Aldona A Vainius[1], Pu Feng[1], Nancy E Rawson[1, 2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]WellGen, Inc, North Brunswick, 08902, NJ, United States*

35 #P35 **Voltage-sensitive dye imaging of odor evoked activity patterns in the trigeminal ganglion *in vivo***
Markus Rothermel[1,3], Benedict Ng[2], Hanns Hatt[1,3], Dirk Jancke[2]. *[1]Lehrstuhl für Zellphysiologie, Ruhr-Universität, Bochum, Germany, [2]Lehrstuhl Allgemeine Zoologie und Neurobiologie, Kognitive Neurobiologie, Bernstein Group for Computational Neuroscience, Ruhr-Universität, Bochum , Germany, [3]Graduiertenkolleg GRK736 "Development and Plasticity of the Nervous System: Molecular, synaptic and cellular mechanisms", Bochum, Germany*

36 #P36 **Microglial response in the nucleus of the solitary tract after chorda tympani nerve injury**
Dianna L Bartel, Thomas E Finger. *Rocky Mtn Taste & Smell Ctr, Neurosci Prog, Univ Colo Denver Med Sch, Aurora, CO, United States*

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37 #P37 **Convergent Innervation Patterns of the Chorda Tympani and Glossopharyngeal Nerves onto Nucleus of the Solitary Tract Projection Neurons**
James A. Corson, Alev Erisir. *University of Virginia, Charlottesville, VA, United States*

38 #P38 **Synaptic Profile of Amygdala Terminals in Rodent Brainstem Gustatory Nuclei**
Lydia N. Kullman, Robert F. Lundy. *Anatomical Sciences and Neurobiology, School of Medicine, University of Louisville, Louisville, KY, United States*

39 #P39 **Activation of the dorsal motor nucleus of the vagus nerve modulates taste responses of the neurons in the parabrachial nuclei**
Cheng-Shu Li. *1, Carbondale, IL, United States*

40 #P40 **Taste Responsive Multipolar And Elongated Neurons In Hamster Nucleus Of The Solitary Tract (NST) Project Differentially To Targets In The Brainstem: An In-Vivo Intracellular Recording, Labeling, And Tracing Study**
Cheng-Xiang Li[1], Qiuhong Yang[1], Cheng-Shu Li[2], David V. Smith[1], Robert S. Waters[1]. *[1]University of Tennessee Health Science Center, Memphis, TN, United States, [2]Southern Illinois University, Carbondale, IL, United States*

41 #P41 **Analysis Of Spike Train Variability In Chemosensory Neurons Within The Rat Geniculate Ganglion**
Alexandre A Nikonov[1], Vernon Lawhern[2], Robert J Contreras[1]. *[1]1Department of Psychology and Program in Neuroscience, FSU, Tallahassee, FL, United States, [2]Department of Statistics, FSU, Tallahassee, FL, United States*

42 #P42 **Neuron Survival and Central Terminal Field Persistence Despite Limited Peripherial Regeneration of the Injured Chorda Tympani Nerve in Adult Rats**
Rebecca Reddaway, David L. Hill. *University of Virginia, Charlottesville, VA, United States*

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43 #P43 **A Network Model of Taste Processing in the Nucleus of the Solitary Tract**
A.M. Rosen[1], H. Sichtig[2], J.D. Schaffer[2,3], P.M. Di Lorenzo[1]. *[1]Dept. of Psychology, Binghamton University , Binghamton, NY, United States, [2]Dept. of Bioengineering, Binghamton University, Binghamton, NY, United States, [3]Philips Research, North Am., Briarcliff Manor, NY, United States*

44 #P44 **Linoleic acid does not enhance chorda tympani nerve responses to sucrose, citric acid and quinine hydrochloride**
Jennifer M Stratford, Robert J Contreras. *Florida State University Department of Psychology and Program in Neuroscience, Tallahassee, FL, United States*

45 #P45 **Improvement of olfactory function in patients treated for chronic rhinosinositis is related to increasing olfactory bulb volume**
Volker Gudziol, Dorothee Buschhüter. *Smell and Taste centre, Dresden, Germany*

46 #P46 **Terminal Field Organization of the Chorda Tympani, Greater Superficial Petrosal, and Glossopharyngeal Nerves in Nucleus of the Solitary Tract in C57BL/6J Mice**
Chengsan Sun, David Hill. *University of Virginia, Charlottesville, VA, United States*

47 #P47 **Characteristics of convergent synaptic activity between the caudal brainstem gustatory nucleus and neurons in the chorda tympani terminal field projecting to the parabrachial nucleus**
Takeshi Suwabe, Robert M. Bradley. *Department of Biologic and Materials Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, United States*

48 #P48 **A Murine Model for Induced Allergic Rhinitis**
Virginia McM. Carr, Alan M. Robinson, Robert C. Kern. *Dept. of Otolaryngology, Feinberg School of Medicine, Northwestern University, Chicago, IL, United States*

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49 #P49 **Objective evaluation of the impact of chronic rhinosinusitis (CRS) on olfactory function**
Kai Zhao[1,2], Edmund A. Pribitkin[1,2], Nancy E. Rawson[1,3], David Rosen[2], Christopher T. Klock[1], Aldona A. Vainius[1], Pamela Dalton[1], Beverly J. Cowart[1,2]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Otolaryngology, Head & Neck Surgery, Thomas Jefferson University, Philadelphia, PA, United States, [3]WellGen, Inc., North Brunswick, NJ, United States*

50 #P50 **Palinosmia: Olfactory Perseveration**
Alan R Hirsch. *Smell & Taste Treatment and Research Foundation, Chicago, IL, United States*

51 #P51 **Bimodal odorant perception in anosmic subject: a fMRi study**
Emilia Iannilli[1], Thomas Bitter[2], Hilmar Gudziol[2], Hartmut Burmeister[3], Anita Chopra[4]. *[1]Dept. of ORL, University of Dresden Medical School, Dresden, Germany, [2]Dept. of ORL, University of Jena, Jena, Germany, [3]Dept. of Radiology, University of Jena, Jena, Germany, [4]Unilever R&D Port Sunlight, Birmingham, United Kingdom*

7:00 - 9:05 pm **PRESIDENTIAL SYMPOSIUM: ON BEYOND GLOMERULI**
Chair/Organizer: Peter Brunjes
South Ballroom

7:00 #16 **Functional Architecture of Inhibition in the Olfactory Bulb: Glomeruli and Beyond**
Michael T Shipley. *Department of Anatomy & Neurobiology, Program in Neuroscience University of Maryland School of Medicine, Baltimore, MD, United States*

7:25 #17 **Olfactory systems theory**
Thomas A. Cleland[1], Christiane Linster[2]. *[1]Dept. Psychology, Cornell University, Ithaca, NY, United States, [2]Dept. Neurobiology & Behavior, Cornell University, Ithaca, NY, United States*

7:50 #18 **Oscillatory Modes and the Role of Task Structure in Early Olfactory Processing**
Leslie M. Kay. *Department of Psychology and Institute for Mind & Biology, The University of Chicago, Chicago, IL, United States*

8:15 #19 **Rostral Olfactory Cortex**
Kurt R. Illig. *University of Virginia, Charlottesville, VA, United States*

8:40 #20 **Olfaction in the wider world: The cortex and beyond**
Joel Price. *Washington University at St. Louis*

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7:00 - 11:00 pm **POSTER SESSION II: CHEMOSENSORY RESPONSE TO, AND CONTROL OF FEEDING/ NEUROETHOLOGY**
North Ballroom

1 #P52 **The Nutritional Significance of Oral Starch Digestion**
Abigail L. Mandel, Kimberly L. Plank, Paul A.S. Breslin.
Monell Chemical Senses Center, Philadelphia, PA, United States

2 #P53 **Characterization of Off-odor development in human milk during storage at -18°C**
Johanna Spitzer[1], Andrea Buettner[1,2]. [1]*Institute of Pharmacy and Food Chemistry, Department Food Chemistry, University Erlangen-Nürnberg, 91052 Erlangen, Germany,* [2]*Fraunhofer Institute for Process Engineering and Packaging (IVV), Giggenhauser Str. 35, D-85354 Freising, Germany*

3 #P54 **Chronic otitis media is associated with a marker of taste damage and higher weight status in children**
Alison K. Ventura, Danielle R. Reed, Julie A. Mennella.
Monell Chemical Senses Center, Philadelphia, PA, United States

4 #P55 **Food Liking, Ear Infections and Body Mass Index Among Preschoolers**
Kerah Kennedy[1], Heather L. Harrington[1], Stephanie Scarmo[2], Valerie B. Duffy[1]. [1]*Allied Health Sciences, Univ of CT, Storrs, CT, United States,* [2]*Public Health, Yale Univ, New Haven, CT, United States*

5 #P56 **Odor Intensity, Diet and Nutrition-Related Health Indices Among Females**
Katryna R. Minski, Valerie B. Duffy. *Allied Health Sciences, Univ of CT, Storrs, CT, United States*

6 #P57 **Taste loss, retronasal olfaction loss and reduced food liking**
Jennifer J. Stamps, Linda M. Bartoshuk, Derek J. Snyder.
University of Florida Center for Smell and Taste, Gainesville, FL, United States

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7 #P58 **Bitesize is affected by Food Aroma presented at Sub- or Peri Threshold Concentrations**
Rene A de Wijk[1], Ilse A. Polet[1,2], Johannes HF Bult[2,3]. *[1]AFSG/CICS, Wageningen, Netherlands, [2]TIFN, Wageningen, Netherlands, [3]NIZO Food Research, Wageningen, Netherlands*

8 #P59 **Similarities in Food Cravings and Mood States between Obese Women and Women who Smoke Tobacco**
Susana Finkbeiner[1], M. Yanina Pepino[1,2], Julie A. Mennella[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Washington University, School of Medicine, St. Louis, MO, United States*

9 #P60 **PROP Sensitivity and Dietary Intake of Antioxidant-Rich Foods**
Yvonne Koelliker[1], Beverly J. Tepper[1], James E. Simon[2], John R. Burgess[3]. *[1]Dept. of Food Science, Rutgers University, New Brunswick, NJ, United States, [2]Plant Biology and Pathology, Rutgers University, New Brunswick, NJ, United States, [3]Dept. of Foods and Nutrition, Purdue University, West Lafayette, IN, United States*

10 #P61 **Association of a *TAS2R38* Polymorphism and the Eating Behavior Disinhibition in a Female Amish Cohort**
Cedrick D. Dotson[1], Hillary Shaw[2], Steven D. Munger[1], Nanette I. Steinle[2]. *[1]Department of Anatomy & Neurobiology, University of Maryland School of Medicine, Baltimore, MD, United States, [2]Department of Medicine, Division of Endocrinology, Diabetes and Nutrition, University of Maryland School of Medicine, Baltimore, MD, United States*

11 #P62 **Modulation of sweet taste sensitivity by glucagon signaling in taste buds**
Amanda E.T. Elson[1], Cedrick D. Dotson[1], Josephine M. Egan[2], Steven D. Munger[1]. *[1]Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD, United States, [2]National Institute on Aging/NIH, Baltimore, MD, United States*

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12 #P63 **Sweet receptor gene (*Tas1r2*) structure and preference for sweet stimuli in species of Carnivora**
Joseph G. Brand[1,3], Dieter Glaser[2], Weihua Li[1], Gary K. Beauchamp[1,4], Xia Li[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Anthropological Institute and Museum, University of Zürich, Zürich, Switzerland, [3]Department of Biochemistry, School of Dental Medicine, University of Pennsylvania, Philadelphia, PA, United States, [4]Department of Psychology, School of Arts and Sciences and Department of Anatomy, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, United States*

13 #P64 **GABA-A Receptor Activation Influences Consumption of Appetitive and Aversive Tastants**
David W. Pittman[1], Molly McGinnis[1], Elizabeth Miller[1], Lindsey Richardson[1], John-Paul Baird[2]. *[1]Department of Psychology, Wofford College, Spartanburg, SC, United States, [2]Department of Psychology, Amherst College, Amherst, MA, United States*

14 #P65 **Conditioned preferences for glucose and fructose in T1R3 KO and TRPM5 KO mice**
Steven Zukerman[1], Robert F. Margolskee[2], Anthony Sclafani[1]. *[1]Brooklyn College of CUNY, Brooklyn, NY, United States, [2]Mount Sinai School of Medicine, New York, NY, United States*

15 #P66 **Nutrient-specific preferences in trpm5 knockout mice**
Xueying Ren[1,2], Jozelia G Ferreira[1,2,3], Jenny Tong[4], Catherine W Yeckel[1,5], Ivan E de Araujo[1,2]. *[1]The John B Pierce Laboratory / Yale University, New Haven, CT, United States, [2]Department of Psychiatry, Yale University, New Haven, CT, United States, [3]Institute of Biomedical Sciences, University of Sao Paulo, Sao Paulo, Brazil, [4]Division of Endocrinology, Diabetes & Metabolism, University of Cincinnati, Cincinnati, OH, United States, [5]Epidemiology & Public Health, Yale University, New Haven, CT, United States*

16 #P67 **Taste Receptor T1R3 is Involved in Detection of Ethanol Flavor in Mice**
Vladimir O. Murovets[1], Vasily A. Zolotarev[1], Robert F. Margolskee[2], Alexander A. Bachmanov[3]. *[1]Pavlov Institute of Physiology, Saint-Petersburg, Russia, [2]Mount Sinai School of Medicine, New York, NY, United States, [3]Monell Chemical Senses Center, Philadelphia, PA, United States*

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17 #P68 **Effect of *kokumi* taste active peptides on amiloride-insensitive salt taste preference in C57BL/6J mice**
MeeRa Rhyu[1], Ah-Young Song[1], Keiko Abe[2], Vijay Lyall[3]. *[1]Food Function Research Division, Korea Food Research Institute, Seongnam-Si, South Korea, [2]Department of Applied Biological Chemistry, The University of Tokyo, Tokyo, Japan, [3]Physiology, Virginia Commonwealth University, Richmond, VA, United States*

18 #P69 **Responses of *Trpv1* Knockout Mice to Trigeminal Irritants in Two Different Behavioral Assays**
CJ Saunders[1], Winston Y Li[2], Tulsi D Patel[2], Bo-Shan Xiang[2], Wayne L Silver[2]. *[1]University Colorado Denver-Anschutz Medical Campus, Denver, CO, United States, [2]Wake Forest University, Winston-Salem, NC, United States*

19 #P70 **Sweet Stimuli Elicit Differential Responses in the Chorda Tympani Nerve of Obesity-resistant Rats Compared to Obesity-prone Rats**
Kimberly R. Smith, David W. Pittman. *Department of Psychology, Wofford College, Spartanburg, SC, United States*

20 #P71 **The Perceptual Consequences Of Salt Appetite In Rats**
Steven J. St. John, Anya C. Marshall, Erin Krauskopf. *Department of Psychology, Rollins College, Winter Park, FL, United States*

21 #P72 **Rat as a model for the study of multimodal integration of flavor**
Shree H. Gautam, Justus V. Verhagen. *The John B. Pierce Laboratory, New Haven, CT, United States*

22 #P73 **Mouse Strain Differences in Conditioned Taste Aversion Formation, Generalization and Extinction using a Self-administration Paradigm**
April R. Glatt, Kenichi Tokita, John D. Boughter, Jr. . *University of Tennessee Health Science Center, Memphis, TN, United States*

23 #P74 **Beyond *Tas1r3*: Identification of other loci affecting consumption of sweet-tasting compounds**
Natalia P. Bosak, Maria L. Theodorides, Cailu Lin, Zakiyyah Smith, Gary K. Beauchamp, Alexander A. Bachmanov. *Monell Chemical Senses Center, Philadelphia, PA, United States*

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24 #P75 **The Benzamil (Bz)-insensitive NaCl Chorda Tympani (CT) Taste Nerve Responses Demonstrate Increased Sensitivity to TRPV1t Modulators in Alcohol-preferring (P) Rats**
Vijay Lyall, Tam-Hao T. Phan, Shobha Mummalaneni, Pamela Melone, Jamison Coleman, John A. DeSimone. *Department of Physiology and Biophysics, Virginia Commonwealth University, Richmond, VA, United States*

25 #P76 **Central neural sensitivity to ethanol and other taste stimuli in selectively bred ethanol-preferring and ethanol-non-preferring rats**
Christian H Lemon[1], Susan M Brasser[2]. *[1]St. Louis University School of Medicine, Saint Louis, MO, United States, [2]San Diego State University, San Diego, CA, United States*

26 #P77 **Integrative studies of the relationship between feeding condition and the rat olfactory bulb responses**
Anan Li[1], Xiaoping Rao[1], Lihong Jiang[2], Kevin Bahr[2], Gordon M. Shepherd[2], Fuqiang Xu[1]. *[1]The State Key Laboratory of Spectroscopy, Atomic and Molecular Physics, WIPM, Wuhan, China, [2]Yale Medical School, New Haven, CT, United States*

27 #P78 **Resistance to Obesity Following Kv1.3-gene Targeted Deletion is Inhibited by Olfactory Bulbectomy**
Kristal R Tucker[1], Melissa A Cavallin[1], J Michael Overton[2], Debra A Fadool[1]. *[1]Florida State University, Department of Biological Sciences, Program in Neuroscience, Tallahassee, FL, United States, [2]Florida State University, College of Medicine, Department of Biomedical Sciences, Tallahassee, FL, United States*

28 #P79 **Experimental anosmia abolishes avoidance of ethanol solutions in 129P3/J mice**
Vasiliy A. Zolotarev[1], Anastasia O. Shabolina[1], Vladimir O. Murovets[1], Alexander A. Bachmanov[2]. *[1]Pavlov Institute of Physiology, Saint-Petersburg, Russia, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

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29 #P80 **Maillard Reacted Peptides (MRPs) Modulate Benzamil (Bz)-insenstive NaCl Chorda Tympani (CT) Taste Nerve Responses and Blood Pressure (BP) in Dahl Salt-sensitive Rats**
Shyama Masilamani[1], Jamison Coleman[2], Pamela Melone[2], Shobha Mummalaneni[2], Tadayoshi Katsumata[3], John A DeSimone[2], Vijay Lyall[2]. *[1]Department of Medicine Division of Nephrology VCU, Richmond, VA, United States, [2]Department of Division of Physiology and Biophysics VCU, Richmond, VA, United States, [3]Kyowa hakko Food Sp. Co. LTD, Ibaraki, Japan*

30 #P81 **Regulation of release of endogenous opioids from duodenal brush cells requires Trpm5**
Zaza Kokrashvili, Robert F Margolskee, Bedrich Mosinger. *Department of Neuroscience, Mount Sinai School of Medicine, New York, NY, United States*

31 #P82 **Differential Effects of GLP-1 Agonist on Brief- and Long-Access Sucrose Preferences in Lean and High Fat Diet-Induced Obese Rats**
Andras Hajnal[1,2], Derek M. Culnan[2], Robert N. Cooney[2]. *[1]Dept. of Neural & Behavioral Sciences, Penn State University, College of Medicine, Hershey, PA, United States, [2]Dept. of Surgery, Penn State University, College of Medicine, Hershey, PA, United States*

32 #P83 **State-dependent Yeast Intake in *Drosophila melanogaster***
Osama Ahmed, Beth Gordesky-Gold, Paul A. S. Breslin. *Monell Chemical Senses Center, Philadelphia, PA, United States*

33 #P84 **A Behavioral Assay using *Drosophila* to Test for Chemesthetic Irritants Activating TRPA1 Channels**
Wayne L. Silver, Matthew W. Greene, Paige M. Roe, Erik C. Johnson. *Wake Forest University, Winston-Salem, NC, United States*

34 #P85 **Intake of Fructose and Sucrose Solutions as a Function of Concentration**
Jennifer A. Cassell, James C. Smith, Thomas A. Houpt. *Program in Neuroscience, The Florida State University, Tallahassee, FL, United States*

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35 #P86 **Antennular Waving in Spiny Lobsters is Enhanced by Odorants: A 3D Kinematic Analysis**
Peter C. Daniel, Calvin Carter. *Hofstra University, Hempstead, NY, United States*

36 #P87 **The effect of sniffing frequency on odor behavior**
Keiichi Tonosaki. *Meikai Univ , Sakatoshi, Japan*

37 #P88 **Detailed Analysis of the Effects of Periodic Input on Behavioral Measures of Odor Detection in the Moth *Manduca sexta***
Mandy N. Hatfield , Faizan R. Kalwar , Kevin C. Daly. *West Virginia University, Morgantown, WV, United States*

38 #P89 **Periodic Odor Stimulation Affects Antennal Input, Antennal Lobe Processing, and Behavioral Measures of Perception in the Moth *Manduca sexta***
Kevin C. Daly[1], Shreejoy Tripathy[2], Erich M. Staudacher[1], Oakland J. Peters[1], Mandy N. Hatfield[1], Faizan R. Kalwar[1]. *[1]West Virginia University, Morgantown, WV, United States, [2]Carnegie Mellon University, Pittsburgh, PA, United States*

39 #P90 **Attraction of Female Round Gobies to Steroids Released by Males**
Matthew R. Kereliuk[1], Yogesh Katare[1], Keith Tierney[1], Alyson Laframboise[1], Alexander P. Scott[2], Barbara S. Zielinski[1]. *[1]Department of Biological Sciences, University of Windsor, Windsor, ON, Canada, [2]Weymouth Laboratory, The Centre for Environment, Fisheries and Aquaculture Science, Weymouth, United Kingdom*

40 #P91 **Androstenone May Show Pheromonal Activity in Mice**
Vera V. Voznessenskaya, Maria A. Klyuchnikova. *A.N.Severtzov Institute of Ecology & Evolution, Moscow, Russia*

41 #P92 **The induction of pregnancy block in mice by saliva via the vomeronasal organ**
Roger N Thompson, Murtada Taha, Audrey Napier, Kennedy s Wekesa. *Alabama State University, Montgomery, AL, United States*

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42 #P93 **Sea hares chemically defend themselves from predatory blue crabs and bluehead wrasse using light-harvesting molecules in their algal diet**
Michiya Kamio, Linh Nguyen, Tiphani V. Grimes, Matthew Nusnbaum, Melissa H. Hutchins, Seyma Yaldiz, Robyn van Dam, Charles D. Derby. *Neuroscience Institute and Department of Biology, Georgia State University, Atlanta, GA, United States*

43 #P94 **Role of Octopamine in Moth Olfaction**
Kirk Hillier. *Acadia University, Wolfville, NS, Canada*

44 #P95 **Flavor Identification and Memory in Children**
Melinda S Brearton, Brittany Carlisle, Katheryn Pointer, Erica Mannea, Konstantin Rybalsky, Robert A Frank. *University of Cincinnati, Cincinnati, OH, United States*

45 #P96 **Millisecond Photoactivation of Bombykol Receptor Neurons Expressing Channelrhodopsin-2 Triggers Pheromone Searching Behavior in Male Silkmoths**
Masashi Tabuchi[1,2], Takeshi Sakurai[1], Hidefumi Mitsuno[1], Ryo Minegishi[1], Shuichi S. Haupt[1], Takahiro Shiotsuki[3], Keiro Uchino[3], Hideki Sezutsu[3], Toshiki Tamura[3], Kei Nakatani[2], Ryohei Kanzaki[1]. *[1]Research Center for Advanced Science and Technology, The University of Tokyo, Tokyo, Japan, [2]Graduate School of Life and Environmental Sciences, University of Tsukuba, Tsukuba, Japan, [3]National Institute of Agrobiological Sciences, Tsukuba, Japan*

46 #P97 **Olfactory Thresholds of Elasmobranchs**
Tricia L Meredith, Stephen M Kajiura. *Florida Atlantic University, Boca Raton, FL, United States*

47 #P98 **Cycloheximide: an effective taste aversion UCS**
Bradley K Formaker, Kumudini Chintalapati, Thomas P Hettinger, Marion E Frank. *University of Connecticut Health Center, Farmington, CT, United States*

48 #P99 **Enantioselective Odorant Receptor in the Yellow Fever Mosquito, Aedes aegypti**
Jonathan D. Bohbot, Joseph C. Dickens. *USDA, ARS, BARC, PSI, IIBBL, Beltsville, MD, United States*

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49 #P100 **Relationships between Early Dietary Experiences and Acceptance of the Basic Tastes during Infancy**
Catherine A. Forestell[1,2], Gary K. Beauchamp[1], Julie A. Mennella[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]The College of William & Mary, Wiliamsburg, VA, United States*

50 #P101 **How do taste and nutritional feedback from the gut interact to determine daily sugar intake?**
John I Glendinning, Frans Beltran, Sabrina Cheng, Jade Gieseke, Heather N Spain. *Barnard College, Columbia University, New York, NY, United States*

51 #P102 **Intensity of 6-n-propylthiouracil (PROP) Taste, Food Preferences, and Obesity: The Beaver Dam Offspring Study**
Karen J Cruickshanks[1], Carla R Schubert[1], Derek J Snyder[2,3], Linda M Bartoshuk[2], Guan-Hua Huang[4], Barbara EK Klein[1], Ronald Klein[1], Elizabeth M Krantz[1]. *[1]University of Wisconsin School of Medicine and Public Health, Madison, WI, United States, [2]University of Florida, Gainesville, FL, United States, [3]Yale University, New Haven, CT, United States, [4]National Chiao Tung University, Hsinchu, Taiwan*

52 #P103 **Perception of Threshold and Suprathreshold Taste Stimuli in Obese and Normal-Weight Women**
M. Yanina Pepino[1,2], Susana Finkbeiner[1], Gary K. Beauchamp[1], Julie A. Mennella[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Washington University in St. Louis, School of Medicine, St. Louis, MO, United States*

53 #P111 **Group III metabotropic glutamate receptors modulate transmission of taste information in primary taste afferents**
Robert M Hallock. *University of Colorado School of Medicine, Aurora, CO, United States*

Friday, April 24, 2009

7:30 am - 1:00 pm
6:30 pm - 7:30 pm **REGISTRATION**
Prefunction Area

7:30 - 9:00 am **CONTINENTAL BREAKFAST**

8:00 - 10:30 am **SYMPOSIUM**
DEVELOPMENT AND PLASTICITY: FIRST CENTRAL CHEMOSENSORY RELAYS
Chair/Organizer: Charlotte Mistretta and David Hill
South Ballroom

#21 **Development and Plasticity: First Central Chemosensory Relays**
Charlotte M. Mistretta[1], David L. Hill[2]. [1]*University of Michigan, Ann Arbor, MI, United States,* [2]*University of Virginia, Charlottesville, VA, United States*

8:00 #22 **Mechanisms to establish functional groups of neurons: Lessons from chick neurogenesis**
Catherine Krull. *University of Michigan*

8:25 #23 **Roles for glia in regulating formation of neuronal groups in moth olfactory lobe**
Lynne Oland. *University of Arizona*

8:50 #24 **Long life expansion of olfactory brain in spiny lobster by neurogenesis**
Manfred Schmidt. *Georgia State University*

9:15 #25 **Establishing the rat taste nucleus of solitary tract (NST)**
Robert Bradley. *University of Michigan*

9:40 #26 **Development and plasticity of neuron and synapse morphology in rat rostral NST**
Alev Erisir. *University of Virginia*

10:05 #27 **Plasticity in synaptic function following altered chemosensory input to caudal NST**
Diana Kunze. *Case Western Reserve University*

10:30 - 11:00 am **BREAK**
Prefunction Area

11:00 am - 12:30 pm **PLATFORM PRESENTATIONS**
POLAK YOUNG INVESTIGATOR AWARD WINNERS
South Ballroom

An additional Polak Young Investigator Award Winner, Wen Li, will speak in the symposium on Saturday evening.

11:00 #28 **Nucleotide-mediated signaling in the olfactory epithelium**
Ivan Manzini[1,2], Thomas Hassenklöver[1,2], Silvia Kurtanska[1], Stephan Junek[1], Ilonka Bartoszek[1], Detlev Schild[1,2]. *[1]University of Göttingen, Göttingen, Germany, [2]DFG Research Center for Molecular Physiology of the Brain (CMPB), Göttingen, Germany*

11:15 #29 **Hyperpolarization-Activated Cyclic Nucleotide-gated Channels in Olfactory Sensory Neurons Mediate Axon Targeting and Glomerular Formation**
Arie S Mobley[1,2], Alexandra M Miller[1,3], Lydia Maurer[1], Charles A Greer[1,2,3]. *[1]Department of Neurosurgery, New Haven, CT, United States, [2]Department of Neurobiology, New Haven, CT, United States, [3]Interdepartmental Neuroscience Program, New Haven, CT, United States*

11:30 #30 **Virus infection increases mouse pheromone production**
Koichi Matsumura[1], Maryanne Opiekun[1], Kenji Mori[2], Takuya Tashiro[2], Hiroaki Oka[3], Kunio Yamazaki[1], Gary Beauchamp[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]RIKEN Research Center for Allergy and Immunology, Kanagawa, Japan, [3]Panasonic Corporation, Kyoto, Japan*

11:45 #31 **Increased inhibition in the olfactory bulb due to newborn neurons allows perceptual learning**
Nathalie Mandairon[1], Melissa Moreno[1], Christiane Linster[2], Olga Escanilla[2], Joelle Sacquet[1], Anne Didier[1]. *[1]UMR CNRS 5020 Lyon1, Lyon, France, [2]Cornell University, Ithaca, NY, United States*

12:00 #32 **Opioid modulation of taste encoding in the amygdala**
Sharif A Taha[1,2], Howard L Fields[2]. *[1]University of Utah School of Medicine, Salt Lake City, UT, United States, [2]Gallo Research Center, UCSF, Emeryville, CA, United States*

12:15 #33 **Taste cortex contributes to odor quality coding**
Maria G Veldhuizen[1,2], Danielle J Nachtigal[1], Dana M Small[1,2,3].
[1]The John B Pierce Laboratory, New Haven, CT, United States, [2]Department of Psychiatry, New Haven, CT, United States, [3]Department of Psychology, New Haven, CT, United States

12:45 - 2:45 pm **ACHEMS BUSINESS MEETING**
South Ballroom

3:00 - 4:00 pm **NIH WORKSHOP: EVERYTHING YOU WANTED TO KNOW ABOUT CHANGE IN NIH PEER REVIEW, BUT WERE AFRAID TO ASK**
Chair/Organizer: NIDCD Scientific Review Branch
Florida Room

5:00 - 7:00 pm **CHEMA SOCIAL**
(AChemS members only; RSVP required)
Chair/Organizer: Suzanne Sollars
Tropics Room

Join us for this social event! AChemS members who have achieved an advanced degree (Ph.D., M.D., D.V.M., D.D.S., terminal Masterís, etc.) within the past 10 years are automatically members of the ChEMA (Chemosensory Enterprise and Mentorship Alliance) subgroup. The social is open to all AChemS members and is designed for junior and senior AChemS members to get to know each other, network, and talk about issues important to junior chemosensory scientists.

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8:00 am - 12:30 pm **POSTER SESSION III: CORTICAL CHEMOSENSORY PROCESSING/RECEPTOR GENOMICS AND MOLECULAR BIOLOGY**
South Ballroom

1 #P104 **Odor Quality Coding and Categorization in Human Posterior Piriform Cortex**
James D. Howard[1], Jane Plailly[4], Marcus Grueschow[6], John-Dylan Haynes[5,6], Jay A. Gottfried[1,2,3]. *[1]Cognitive Neurology & Alzheimer's Disease Center, Chicago, IL, United States, [2]Department of Neurology, Northwestern University Feinberg School of Medicine, Chicago, IL, United States, [3]Department of Psychology, Northwestern University Weinberg College of Arts and Sciences, Chicago, IL, United States, [4]Laboratoire de Neurosciences et Systèmes Sensoriels, Université Claude-Bernard Lyon, Lyon, France, [5]Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, [6]Bernstein Center for Computational Neuroscience, Charité - Universitätsmedizin, Berlin, Germany*

2 #P105 **Anterior Olfactory Nucleus: A Golgi Study of Dendritic Morphology**
Peter C. Brunjes, Michael Kenerson. *University of Virginia, Charlottesville, VA, United States*

3 #P106 **Detecting the taste-specific temporal type by fMRI - salty and sweet**
Yuko Nakamura[1], Tazuko K Goto[1], Kenji Tokumori[1], Takashi Yoshiura[1], Koji Kobayashi[2], Yasuhiko Nakamura[2], Hiroshi Honda[1], Yuzo Ninomiya[1], Kazunori Yoshiura[1]. *[1]Kyushu University, Fukuoka, Japan, [2]Kyushu University Hospital, Fukuoka, Japan*

4 #P107 **Low bulbar NE concentration modulates odor detection whereas higher concentrations modulate discrimination**
Olga D Escanilla[1], Matthew Ennis[2], Christiane Linster[1]. *[1]Neurobiology and Behavior, Cornell University, Ithaca, NY, United States, [2]Anatomy and Neurobiology, University of Tennessee Health Science, Memphis, TN, United States*

5 #P108 **The effect of unilateral naris occlusion on gene expression in the mouse olfactory mucosa and bulb**
David M. Coppola[1], Yan Zhang[2], Oswald R. Crasta[2]. *[1]Randolph Macon College, Ashland, VA, United States, [2]Bioinformatics Institute, Blacksburg, VA, United States*

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6 #P109 **Anterior olfactory nucleus projections target the olfactory bulb**
Kurt R. Illig. *University of Virginia, Charlottesville, VA, United States*

7 #P110 **Activation likelihood estimation (ALE) meta-analysis of human functional brain imaging data following trigeminal stimulation of the nasal mucosa with carbon dioxide (CO_2)**
Jessica Albrecht[1], Rainer Kopietz[*2], Martin Wiesmann[2,3], Thomas Hummel[4], Johan N. Lundstrom[1,5]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Neuroradiology, Ludwig-Maximilians-University, Munich, Germany, [3]Department of Radiology and Neuroradiology, Helios Kliniken, Schwerin, Germany, [4]Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, [5]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States*

9 #P112 **Subnuclear organization of parabrachial taste neurons projecting to reward-related forebrain structures in C57BL/6J mice**
Kenichi Tokita, John D. Boughter. *University of Tennessee Health Science Center, Memphis, TN, United States*

10 #P113 **Cloning and Localization of Four Putative Serotonin Receptors in the Primary Olfactory Pathway of the Moth *Manduca sexta***
Wujie Zhang[1], Mike A. Miller[1], Akshay Muralidhar[1], Joel B. Dacks[2], Andrew M. Dacks[1], Alan J. Nighorn[1]. *[1]Arizona Research Laboratories, Division of Neurobiology, University of Arizona, Tucson, AZ, United States, [2]Department of Cell Biology, University of Alberta, Edmonton, AB, Canada*

11 #P114 **OR37 - receptors: a unique subfamily of olfactory receptors**
Heinz Breer, Hoppe Rainer, Zhang Yongquan, Strotmann Jörg. *University Hohenheim, Institute of Physiology, Stuttgart, Germany*

12 #P115 **Perceptual Decision-Making in the Human Olfactory Brain**
Nicholas E. Bowman, James D. Howard, Konrad P Kording, Jay A. Gottfried. *Northwestern University, Chicago, IL, United States*

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13 #P116 **A novel chemical-informatics method to decode odor receptor chemical space**
Sean M Boyle[1], Anandasankar Ray[2]. *[1]IGERT, GGB, University of California, Riverside, CA, United States, [2]Entomology Department, University of California, Riverside, CA, United States*

14 #P117 **Correlation between olfactory function and volume of hippocampus / amygdala**
Stefan Puschmann[1], Dorothee Buschhüter[1], Martin Smitka[2], Johannes Gerber[3], Nancy Honeycutt[4]. *[1]Otorhinolanryngology, Dresden, Germany, [2]Paediatrics, Dresden, Germany, [3]Neuroradiology, Dresden, Germany, [4]4Department of Psychiatry and Behavioral Sciences, Johns Hopkins University, Baltimore, MD, United States*

15 #P118 **Characterizing Olfactory Sub-genome through Custom Microarrays**
Xiaohong Zhang, Florencia Marcucci, Dongjing Zou, Stuart Firestein. *Dept. of Bio. Sci. Columbia University, New York, NY, United States*

16 #P119 **Next Generation Sequencing as a Tool for Comprehensive Variation Analyses of Human Olfactory Receptor Genes**
Yehudit Hasin[1], Tsviya Olender[1], Miriam Khen[1], Ifat Keydar[1], Hans Lehrach[2], Marcus Albrecht[2], Bernd Timmerman[2], Daniel Reed[3], Charles J. Wysocki[3], Jan Korbel[4], Doron Lancet[1]. *[1]Dept. Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel, [2]Dept. Vertebrate Genomics, Max Planck Institute for Molecular Genetics, Berlin, Germany, [3]Monell Chemical Senses Center, Philadelphia, PA, United States, [4]Gene Expression Unit, European Molecular Biology Laboratory, Heidelberg, Germany*

17 #P120 **OR5D3P, a pseudogene with a functional activity potential**
Alex Veithen, Magali Philippeau, Françoise Wilkin, Pierre Chatelain. *TecnoScent S.A., Brussels, Belgium*

18 #P121 **Identification and characterisation of a carboxylic acid-responding human OR**
Magali Philippeau, Alex Veithen, Françoise Wilkin, Pierre Chatelain. *TecnoScent S.A., Brussels, Belgium*

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19 #P122 **High incidence of charged amino acids in the third extracellular loop of olfactory receptors: Linking receptor structure to olfactory perception**
Hadas Lapid[1,3], Rehan Khan[1], Tsviya Olender[2], David Harel[3], Ron Naaman[4], Doron Lancet[2], Noam Sobel[1]. *[1]Department of Neurobiology, Weizmann Institute of Science, Rehovot, Israel, [2]Department of Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel, [3]Department of Computer Science and Applied Mathematics, Weizmann Institute of Science, Rehovot, Israel, [4]Department of Chemical Physics, Weizmann Institute of Science, Rehovot, Israel*

20 #P123 **Plasticity in expression of chemoreceptor genes in *Drosophila melanogaster***
Shanshan Zhou, Trudy F. C. Mackay, Robert R. H. Anholt. *North Carolina State University, Raleigh, NC, United States*

21 #P124 **Role of Plasma Membrane Calcium ATPases in Mouse Olfactory Neurons**
Samsudeen Ponissery Saidu, Megan S. Valentine, Rona J. Delay, Judith L. Van Houten. *University of Vermont, Burlington, VT, United States*

22 #P125 **Expression of Canine b-Defensin (CBD103) and Olfactory Marker Protein (OMP) in the Canine Nasal Cavity**
Edward E. Morrison[1], Shelly Aono[1], John C. Dennis[1], Jishu Shi[2]. *[1]Auburn University, Auburn, AL, United States, [2]Auburn University, Auburn, AK, United States, [3]Auburn University, Auburn, AL, United States, [4]Kansas State University, Manhattan, KS, United States*

23 #P126 **Experience-Dependent Modulation of Odor Mixture Coding and Perception**
Keng Nei Wu, James D Howard, Jay A Gottfried. *Cognitive Neurology & Alzheimer's Disease Center, Northwestern University, Chicago, IL, United States*

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24 #P127 **Endothelin modulates both short-term kinetics of odorant detection and long-term cellular population dynamics in olfactory mucosa**
Nicolas Meunier[1,2,3], Elodie Gouadon[1,2], Didier Durieux[1,2], Denise Grebert[1,2], Christine Baly[1,2], Martine Sautel[1,2,3], Roland Salesse[1,2], Monique Caillol[1,2], Patrice Congar[1,2]. *[1]INRA, UMR1197 Neurobiologie de l'Olfaction et de la Prise Alimentaire, Récepteurs et Communication Chimique, Jouy en Josas, France, [2]Université Paris-Sud, UMR1197, Orsay, France, [3]Université de Versailles Saint-Quentin, Versailles, France*

25 #P128 **Neuroanatomical correlates of olfactory function**
Johannes Frasnelli[1, 2], Johan N Lundstrom[2, 3], Julie A Boyle[2], Jelena Djordjevic[2], Robert J Zatorre[2], Marilyn Jones-Gotman[2]. *[1]CHU Ste.-Justine, Montreal, QC, Canada, [2]MNI, Montreal, QC, Canada, [3]Monell Chemical Senses Center, Philadelphia, PA, United States*

26 #P129 **Mechanisms of constitutive and ATP-evoked release of ATP from neonatal mouse OE stores**
Sebastien Hayoz, Colleen C Hegg. *Department of Pharmacology and Toxicology, Michigan State University, East Lansing, MI, United States*

27 #P130 **CNGA2 heterozygous mice with a knockout TRPM5 show fewer glomeruli targeted by OSNs with nonfunctional CNGA2**
David A. Dunston, Wangmei Luo, Weihong Lin. *University of Maryland Baltimore County, Baltimore, MD, United States*

28 #P131 **Differences in Matrix Metalloproteinase-2 Expression Following Two Olfactory Injury Models**
Steve R. Bakos[1], James E. Schwob[2], Richard M. Costanzo[1]. *[1]Virginia Commonwealth University School of Medicine, Richmond, VA, United States, [2]Tufts University School of Medicine, Boston, MA, United States*

29 #P132 **Identification of Taste Bud-Associated Genes**
Bryan D Moyer[1], Peter Hevezi[2], Na Gao[1], Min Lu[1], Fernando Echeverri[1], Bianca Laita[1], Dalia Kalabat[1], Hortensia Soto[1], Albert Zlotnik[2], Mark Zoller[1]. *[1]Senomyx, Inc., San Diego, CA, United States, [2]Univeristy of California at Irvine, Irvine, CA, United States*

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30 #P133 **Functional characterization of two fatty acid activated GPCRs expressed in the mammalian gustatory system**
Han Xu[1], Jason Montez[2], Stephen Gravina[2], Mark Dewis[2], Tian Yu[1], Bhavik P. Shah[1], Timothy A. Gilbertson[1]. *[1]Department of Biology & The Center of Advanced Nutrition, Utah State University, Logan, UT, United States, [2]International Flavors & Fragrances, Union Beach, NJ, United States*

31 #P134 **Genetic and Molecular Basis of Individual Differences in Human Umami Taste Perception**
Noriatsu Shigemura[1], Shinya Shirosaki[1], Keisuke Sanematsu[1], Yoko Ogiwara[1,2], Misako Kawai[1,3], Ryusuke Yoshida[1], Yuzo Ninomiya[1]. *[1]Sect Oral Neurosci, Grad Sch Dental Sci, Kyushu Univ, Fukuoka, Japan, [2]External Scientific Affairs Dept, Ajinomoto Co. Inc., Tokyo, Japan, [3]Inst Life Sci, Ajinomoto Co. Inc., Kawasaki , Japan*

32 #P135 **Genetic mutations and bitter taste sensitivity to four substances**
Stephen Wooding[1], Natacha Roudnitzky[2], Claudia Batram[2], Jenny Stehr[2], Marcel Winnig[2], Christina Kuhn[2], Wolfgang Meyerhof[2]. *[1]University of Texas Southwestern Medical Center, Dallas, TX, United States, [2]German Institute of Human Nutrition, Nuthetal, Germany*

33 #P136 **Identification of the Interaction site for Gymnemic acid at the sweet taste receptor T1R2+T1R3**
Keisuke Sanematsu[1,2], Noriatsu Shigemura[1], Masafumi Jyotaki[1], Seiji Nakamura[2], Toshiaki Imoto[3], Yuzo Ninomiya[1]. *[1]Section of Oral Neuroscience, Graduate School of Dental Science, Kyushu University, Fukuoka, Japan, [2]Section of Oral and Maxillofacial Oncology, Graduate School of Dental Science, Kyushu University, Fukuoka, Japan, [3]Division of Integrative Physiology, Department of Functional, Morphological and Regulatory Science, Tottori University, Yonago, Japan*

34 #P137 **The role of the visual cortex in olfactory processing: an rTMS study**
Johan N. Lundstrom[1,2], Michael Waterston[3], Jahan Jadauji[3], Christopher C. Pack[3], Jelena Djordjevic[3]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States, [3]Montreal Neurological Institute, McGill University, Montreal, QC, Canada*

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35 #P138 **TAS1R1-intronic SNP Associations with Liking for Dietary Sources of Glutamate and for Orosensory Intensity**
Shristi Rawal[1], Margaret R. Wallace[2], John E. Hayes[3], Linda M. Bartoshuk[4], Taimour Y. Langaee[5], Andrew Sholudko[1], Valerie B. Duffy[1]. *[1]Allied Health Sciences, Univ of CT, Storrs, CT, United States, [2]Molecular Genetics & Microbiology, Univ of FL, Gainesville, FL, United States, [3]Ctr Alcohol & Addiction, Brown Univ, Providence, RI, United States, [4]Dentistry, Univ of FL, Gainesville, FL, United States, [5]Ctr Pharmacogenomics, Univ of FL, Gainseville, FL, United States*

36 #P139 **Key amino acid residues involved in multi-point binding interactions of sweet protein, brazzein, with the T1R2-T1R3 human sweet receptor**
Fariba Assadi-Porter[1], Emeline L Maillet[2], James Radek[1], John L Markley[1], Marianna Max[2]. *[1]University of Wisconsin, Madison, WI, United States, [2]Mount Sinai School of Medicine, New York, NY, United States*

37 #P140 **Orbitofrontal lesions and hypersensitivity to olfactory stimuli**
Julie A. Boyle, Marilyn Jones-Gotman. *Montreal Neurological Institute, McGill University, Montreal, QC, Canada*

38 #P141 **Structural requirements for bitter taste receptor activation**
Maik Behrens[1], Anne Brockhoff[1], Giovanni Appendino[2], Wolfgang Meyerhof[1]. *[1]Dept. Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany, [2]Dipartimento di Scienze Chimiche, Università del Piemonte, Orientale, Alimentari, Farmaceutiche e Farmacologiche, Novara, Italy*

39 #P142 **Immunohistochemical Analysis of Human Fungiform Papillae**
Luba Dankulich-Nagrudny[1], Nancy Rawson[1,2], Frank Kim[1], Paul A. S. Breslin[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]WellGen, New Brunswick, NJ, United States*

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40 #P143 **Subtypes of T Lymphocytes in Healthy Human Fungiform Papillae**
Pu Feng, Paul A.S. Breslin. *Monell Chemical Senses Center, Philadelphia, PA, United States*

41 #P144 **Neutrophil infiltration impairs peripheral taste function**
Liqiao Shi, Lynnette McCluskey. *Medical College of Georgia, Augusta, GA, United States*

42 #P145 **Mouse taste buds express vesicular glutamate transporter type 2**
Leslie Stone[1,2], Catherine Anderson[1,2], Daniel Goldberg[1,2], Sue Kinnamon[1,2]. *[1]Dept. Biomedical Sciences, Colorado State University, Fort Collins Colorado , [2]Rocky Mountain Taste & Smell Center, University of Colorado, Aurora, Colorado*

43 #P146 **Serotonin Inhibits ATP Secretion in Mouse Taste Buds**
Yijen A. Huang[1], Stephen D. Roper[1,2]. *[1]Department of Physiology & Biophysics, Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, University of Miami, Miami, FL, United States*

44 #P147 **Expression of an Inwardly-Rectifying Potassium Channel (ROMK) in Mouse Glial-like Taste Cells**
Gennady Dvoryanchikov[1], Michael Sinclair[2], Nirupa Chaudhari[1,2]. *[1]Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, United States, [2]Program in Neurosciences, University of Miami Miller School of Medicine, Miami, FL, United States*

45 #P148 **Cortical Processing of Learned Aversive Odors in Awake Rats**
Chien-Fu F Chen[1,3], Donald A Wilson[1,2]. *[1]Nathan Kline Institute, Orangeburg, NY, United States, [2]NYU School of Medicine, New York, NY, United States, [3]The University of Oklahoma, Norman, OK, United States*

46 #P149 **Strategy for recombinant expression of functional N-terminal domain of human T1R3 taste receptor produced in *Escherichia coli***
Elodie Maîtrepierre, Maud Sigoillot, Loïc Briand. *UMR 1129 INRA-ENESAD-UB FLAVIC, Dijon, France*

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47 #P150 **Identifying TRPA1 agonists by monitoring intracellular calcium levels in HEK cells**
Paige M. Roe, Erik C. Johnson, Wayne L. Silver. *Wake Forest University, Winston-Salem, NC, United States*

48 #P151 ***In Vitro* Nematocidal Activity of TRPA1 Active Compounds from *Perilla Frutescens***
Angela Bassoli[1], Gigliola Borgonovo[1], Sara Caimi[1], Gabriella Morini[2], Francesco D'Errico[3], Giada D'Errico[3]. *[1]DISMA-University of Milano, Milano, Italy, [2]University of Gastronomic Sciences, Pollenzo (CN), Italy, [3]University of Naples, Napoli, Italy*

49 #P152 **Olfactory rivalry: Competing olfactory processing between the two nostrils and in the cortex**
Wen Zhou, Denise Chen. *Rice University, Houston, TX, United States*

50 #P153 **Is there a difference in odor processing in response to left vs. right-sided odor stimulation?**
Anna M. Kleemann[1], Jessica Albrecht[1, 2], Veronika Schöpf[3], Rainer Kopietz[1], Katrin Haegler[1], Rebekka Zernecke[1], Marco Paolini[1], Imke Eichhorn[1], Jennifer Linn[1], Hartmut Brückmann[1], Martin Wiesmann[1,4]. *[1]Department of Neuroradiology, Ludwig-Maximilians-University of Munich, Munich, Germany, [2]Monell Chemical Senses Center, Philadelphia, PA, United States, [3]MR Centre of Excellence, Medical University Vienna, Vienna, Austria, [4]Department of Radiology and Neuroradiology, Helios Kliniken Schwerin, Schwerin, Germany*

51 #P154 **Brain representation of subjective pleasantness**
Yaara Yeshurun, Yadin Dudai, Noam Sobel. *Weizmann Institute of Science, Rehovot, Israel*

52 #P155 **Olfactory intensity coding: an fMRI study**
Anat Arzi, Yaara Yeshurun, Noam Sobel. *Department of Neurobiology, The Weizmann Institute of Science, Rehovot, Israel*

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

53 #P156 **Development and Testing of a Neural Recording System for Chemosensory Behavioral Neuroscience**
Robert Rennaker[1], Donald Wilson[2,3]. *[1]University of Oklahoma, Norman, OK, United States, [2]Nathan Kline Institute, NY, NY, United States, [3]New York University School of Medicine , NY, NY, United States*

54 #P157 **The effect of learning and attention on odor responses in piriform cortex**
Jennifer D Whitesell[1,2], Wilder Doucette[1,2], Diego Restrepo[1,2]. *[1]Neuroscience Program, Denver, CO, United States, [2]Cell and Developmental Biology, Denver, CO, United States*

55 #P158 **Mapping Local Inhibitory Circuits in the Rat Piriform Cortex using Photostimulation of Caged Glutamate**
Victor M. Luna, Diana L. Pettit. *Dept of Neuroscience, Albert Einstein College of Medicine, Bronx, NY, United States*

56 #P159 **The olfactory bulb as cortical model system**
Thomas A. Cleland. *Dept. Psychology, Cornell University, Ithaca, NY, United States*

7:00 - 8:00 pm **IFF SPECIAL LECTURE**
TASTE MOLECULAR BIOLOGY AND NEW FOOD CHEMISTRY
Chair/Organizer: Scott Herness
Keiko Abe, *Graduate School of Agriculture and Life Sciences, The University of Tokyo*
South Ballroom

The sense of taste is indispensable for animals to find out a proper way of living by selection of foods at their discretion. Taste has also been a mainstay for construction of historical human cultures and modern food industries. However, no systematic information has been available regarding the molecular logic of intracellular taste signaling and associated chemical entities.

My study on the molecular biology of sweet, bitter, sour, salty and umami tastes had humble beginnings 20 years ago and then traced a unique path of development to reveal important parts of the signaling pathways and a series of responsible molecules. The process of the study has the following lineup: 1, identification of taste cells in taste buds and analysis of signal transduction; 2, construction of primarily cultured taste bud cells; 3, comparative analysis of taste signaling mechanisms in model fish (medaka) and mammals; 4, genomics of signal transduction from taste nerves to the brain and verification of the long hypothesized "labeled line theory"; and 5, application of these results. The last item (5) was investigated by the use of neoculin, an enigmatic sweet protein occurring in a tropical fruit that has sensory activity to convert sourness to stronger sweetness. Our X-ray crystallography and molecular dynamics simulation of neoculin as well as its mode of binding to hT1R2-hT1R3 provided new insights into the interface between taste molecular biology and new food chemistry exploring a taste (sourness)-taste (sweetness) interaction. The elucidation of this event would contribute to our increased understanding of the sense of taste as a scientifically and industrially interesting modality of life.

8:00 - 8:15 pm **BREAK**
Prefunction Area

8:15 - 10:15 pm **SYMPOSIUM**
RECIPROCAL INTERACTIONS BETWEEN PRIMARY TASTE AND OLFACTORY PROCESSING NETWORKS AND HIGHER COGNITION
Chair/Organizer: Linda Hermer-Vasquez
North Ballroom

8:15 #34 **Top-down Modulatory Influences on Central Encoding of Taste and Flavor in Humans**
Dana Small[1,2]. *[1]The John B Pierce Laboratory, New Haven, CT, United States, [2]Yale University, New Haven, CT, United States*

8:45 #35 **Roles of cognition and attention in the neural processing of taste and odor**
Edmund Rolls. *Oxford Centre for Computational Neuroscience*

9:15 #36 **Cognitive influences on taste processing in the gustatory cortex, orbitofrontal cortex and amygdala**
Alfredo Fontanini. *Department of Neurobiology and Behavior, SUNY Stony Brook, Stony Brook , NY, United States*

9:45 #37 **The piriform cortex plays an active role in olfactory-guided decision making**
Linda Hermer-Vazquez. *University of Florida, Center for Smell and Taste, Gainesville, FL, United States*

Poster Numbering Key:
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7:00 - 11:00 pm **POSTER SESSION IV: CHEMOSENSORY TRANSDUCTION AND PERIRECEPTOR EVENTS**
North Ballroom

1 #P160 **PI3K-gamma in olfactory signal transduction in mice**
Daniela Brunert[1], Kirill Y. Ukhanov[1], Elizabeth A. Corey[1], Barry W. Ache[1,2]. *[1]Whitney Laboratory, Center for Smell and Taste, McKnight Brain Institute, University of Florida, Gainesville, FL, United States, [2]Depts. of Zoology and Neuroscience, University of Florida,, Gainesville, FL, United States*

2 #P161 **Differential sensitivity to monosodium glutamate in Type II and Type III taste cells**
Aurelie Vandenbeuch[1,2], Catherine B. Anderson[1,2], Sue C. Kinnamon[1,2]. *[1]University of Colorado Denver and Health Sciences Center, Denver, CO, United States, [2]Rocky Mountain Taste and Smell Center, Denver, CO, United States*

3 #P162 **The Second Messenger Pathways in TRPC2 Knockout Mouse Vomeronasal Sensory Neurons**
Chun Yang[1], Peng Zhang[2], Rona J Delay[1]. *[1]Department of Biology, Vermont Chemical Sensory group, University of Vermont, Burlington, VT, United States, [2]Massachusetts General Hospital and Harvard Medical School, Charlestown, MA, United States*

4 #P163 **PI3K mediated signaling in lobster olfactory signal transduction**
Elizabeth A Corey[1], Adeline Pezier[1], Katharina Klasen[1], Barry W Ache[1,2]. *[1]Whitney Lab University of Florida, St Augustine, FL, United States, [2]Center for Smell and Taste, and McKnight Brain Institute Depts. of Zoology and Neuroscience, University of Florida, Gainesville, FL, United States*

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5 #P164 **Different response properties between Type II and Type III taste bud cells in mouse fungiform papillae**
Ryusuke Yoshida[1], Toshiaki Yasuo[1], Yoshihiro Murata[1], Masashi Jyotaki[1], Yuchio Yanagawa[2], Kunihiko Obata[3], Hiroshi Ueno[4], Robert F. Margolskee[5], Yuzo Ninomiya[1]. *[1]Sect. of Oral Neurosci., Grad. Sch. of Dental Sci., Kyushu Univ., Fukuoka, Japan, [2]Grad Sch. of Med., Gumma Univ., Maebashi, Japan, [3]RIKEN, Wako, Japan, [4]Nara Women's Univ., Nara, Japan, [5]Mount Sinai Sch. of Med., NY, NY, United States*

6 #P165 **Receptor-dependent PIP_2 resynthesis restores sweet and bitter inhibitions of potassium currents**
Fang-li Zhao, Scott Herness. *The Ohio State University, Columbus, OH, United States*

7 #P166 **Native TRPM5 currents recorded from posterior rat taste receptor cells**
Fangli Zhao, Luc Jaber, Randy Hivley, Scott Herness. *The Ohio State University, Columbus, OH, United States*

8 #P167 **Novel Insights into Odorant Recognition: A Computational and Functional Analysis of Ligand Binding to the Human Olfactory Receptor OR2AG1**
Lian Gelis[1], Steffen Wolf[2], Klaus Gerwert[2], Hanns Hatt[1], Eva M. Neuhaus[1]. *[1]Department of Cellular Physiology, Ruhr-University Bochum, Bochum, Germany, [2]Department of Biophysics, Ruhr-University Bochum, Bochum, Germany*

9 #P168 **Olfactory Neuron Response Statistics: a Cross Species Analysis**
Rafi Haddad[1,2], David Harel[1], Noam Sobel[2]. *[1]Department of Computer Science and Applied Mathematics, Rehovot, Israel, [2]Department of Neurobiology, the Weizmann Institute of Science, Rehovot, Israel*

10 #P169 **Determinants Of Agonist Sensitivity In An Insect Olfactory Receptor**
Andrew S. Nichols, Charles W. Luetje. *Molecular and Cellular Pharmacology, University of Miami, Miller School of Medicine, Miami, FL, United States*

Poster Numbering Key:
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11 #P170 **Visualization of Assayed Olfactory Chemical Space**
Zita Peterlin, Armen Enikolopov, Stuart Firestein.
Columbia University, New York, NY, United States

12 #P171 **Phosphoinositide-3-kinase Dependent Signaling in Mammalian Olfactory Receptor Neurons**
Kirill Ukhanov[1,2], Elizabeth A. Corey[1], Katharina Klasen[1,2], Daniela Brunert[1,2], Barry W. Ache[1,2,3]. *[1]University of Florida, Whitney Laboratory, St. Augustine, FL, United States, [2]University of Florida, Center for Smell and Taste, McKnight Brain Institute, Gainesville, FL, United States, [3]University of Florida, Depts. of Zoology and Neuroscience, Gainesville, FL, United States*

13 #P172 **The Effects of Membrane Permeant and Impermeant Carbonic Anhydrase Inhibitors on the EOG and NMP Responses to CO_2 in Mice**
Lee Coates[1,2], Tabitha L. Novosat[2], Ryan J. Hanson[2], Shane P. Hennessy[2], Jessica K. Kenemuth[2]. *[1]Department of Biology, Allegheny College, Meadville, PA, United States, [2]Neuroscience Program, Allegheny College, Meadville, PA, United States*

14 #P173 **Identification of a novel Calcium Activated Chloride Channel in the Cilia of Olfactory Sensory Neurons: TMEM16b**
Stefan Kurtenbach*[1], Sebastian Rasche*[1], Bastian Tötter[1], Jenny Adler[2], Astrid Tschapek[2], Hanns Hatt[1], Bettina Warscheid[2], Eva M. Neuhaus[1]. *[1]Department of Cell Physiology, Ruhr-University, Bochum, [2]Medical Proteome-Center, Ruhr-University, Bochum*
** both authors contributed equally to this work*

15 #P174 **Biotransformation of odorants modifies the olfactory signal**
Nicolas Thiebaud[1], Stéphanie Véloso Da Silva[2], Ingrid Jakob[2], Gilles Sicard[2], Yves Artur[1], Jean-Marie Heydel[1], Anne-Marie Le Bon[1]. *[1]UMR 1129 FLAVIC INRA Université de Bourgogne ENESAD, DIJON, France, [2]UMR CESG 5170 CNRS Université de Bourgogne INRA, DIJON, France*

16 #P175 **Homeostatic Control of Sensory Output in Basal Vomeronasal Neurons: Activity-Dependent Expression of *Ether-à-Go-Go* Related Gene Potassium Channels**
Silke Hagendorf, Corinna Engelhardt, Daniela Fluegge, Marc Spehr. *Department of Cellular Physiology, Ruhr-University, Bochum, Germany*

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17 #P176 **Movement of Pheromone Inside Insect Olfactory Sensillae**
Thomas M Dykstra. *Dykstra Laboratories, Inc., Gainesville, FL, United States*

18 #P177 **Pathophysiological role of ENaC in a mammalian model of diabetes**
Arian F Baquero, Stephanie Croasdell, Timothy A Gilbertson. *Utah State University, Logan, UT, United States*

19 #P178 **Response Latency To Lingual Chemical Stimulation Distinguishes Neuron Types Within The Geniculate Ganglion**
Joseph M Breza, Alexandre Nikonov, Robert J Contreras. *Florida State University, Tallahassee, FL, United States*

20 #P179 **Cell-Cell Communication In Intact Taste Buds Through ATP Signaling**
Robin P Dando[1], Stephen D Roper[1,2]. *[1]Department of Physiology and Biophysics, Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, Miller School of Medicine, University of Miami, Miami, FL, United States*

21 #P180 **Taste cells express and secrete glucagon-like peptide 1**
Zaza Kokrashvili, Robert F. Margolskee. *Mount Sinai School of Medicine, New York, NY, United States*

22 #P181 **Sodium/calcium exchangers selectively contribute to the regulation of cytosolic calcium levels in mouse taste cells**
Agnieszka I. Laskowski, Kathryn F. Medler. *University at Buffalo, Buffalo, NY, United States*

23 #P182 **The multiple PDZ domain protein 1 (MUPP1) - Role in the olfactory signal transduction cascade**
Sabrina Baumgart, Ruth C. Dooley, Hanns Hatt, Eva M. Neuhaus. *Ruhr-University Bochum, Bochum, Germany*

24 #P183 **Gurmarin inhibits the Sweet Receptor by Binding to the Venus Fly Trap Module of T1R3**
Emeline L. Maillet, Laura Pelletier, Timothy J. Cardozo, Jeniffer Quijada, Prisca Silie, Baohua Zhao, Yuzo Ninomiya, Marianna Max, Robert F. Margolskee. *Mount Sinai School of Medicine, Department of Neuroscience. New York, NY, United States*

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25 #P184 **Effect of inosine monophosphate (IMP) on taste perception of methionine and valine by mice**
Yuko Murata[1], Alexander A. Bachmanov[2], Gary K. Beauchamp[2]. *[1]National Research Institute of Fisheries Science, Yokohama, Japan, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

26 #P185 ***Mitigation of irradiation effects on taste epithelium in the Protein Kinase C delta null mouse***
H.M. Nguyen[1], M.E. Reyland[2], L.A. Barlow[1]. *[1]Dept. of Cell & Developmental Biology, and The Rocky Mountain Taste and Smell Center, School of Medicine, University of Colorado Denver, Aurora, CO, United States, [2]Dept. of Craniofacial Biology, School of Dental Medicine, University of Colorado Denver, Aurora, CO, United States*

27 #P186 **Effect of Nicotinic Acetylcholine Receptor (nAChR) Blockers, Mecamylamine (Mec) and Dihydro-ß-erthroidine (DHßE) on the Chorda Tympani Responses to Nicotine in TRPM5 Knockout (KO) Mice**
Albino J. Oliveira-Maia[1], Tam-Hao T. Phan[2], Shobha Mummalaneni[2], Pamela Melone[2], Miguel A. L. Nicolelis[1], Sidney A. Simon[1], John A. DeSimone[2], Vijay Lyall[2]. *[1]Department of Neurobiology, Duke University Medical Center, Durham, NC, United States, [2]Department of Physiology and Biophysics, Virginia Commonwealth University, Richmond, VA, United States*

28 #P187 **1,3-N-Acetylglucosaminyltransferase 1 (ß3GnT1) regulates signaling in olfactory neurons**
Timothy R. Henion, Gary A. Schwarting. *University of Massachusetts Medical School, Worcester, MA, United States*

29 #P188 **Penetrating the Permeability Barrier that Surrounds Mouse Taste Buds**
Elizabeth Pereira[1], Robin Dando[1], Nirupa Chaudhari[1,2], Stephen Roper[1,2]. *[1]Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, University of Miami, Miami, FL, United States*

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30 #P189 **Electrophysiological Responses to Tactile Stimulation of the Tongue in the Presence of Oils and Gustatory Stimuli**
Thomas C. Pritchard[1], Erin N. Nedderman[1], John Coupland[2], Ralph Norgren[1]. *[1]The Pennsylvania State University College of Medicine, Hershey, PA, United States, [2]The Pennsylvania State University, University Park, PA, United States*

31 #P190 **Optimization of the production of recombinant brazzein secreted by the yeast *pichia pastoris***
Antoine Rachid, Christine Belloir, Joëlle Chevalier, Catherine Desmetz, Marie-Louise Miller, Nicolas Poirier, Loïc Briand. *INRA, UMR 1129 FLAVIC, Dijon, France*

32 #P191 **Autocrine Regulation of ATP Secretion in Mouse Taste Buds**
Stephen D. Roper[1,2], Yijen A. Huang[1]. *[1]Miller School of Medicine, University of Miami, Miami, FL, United States, [2]Program in Neuroscience, University of Miami, Miami, FL, United States*

33 #P192 **Acidic substances added in the oral cavity reduce our bitter taste sensation by pH-dependent inhibition of hTAS2R response**
Takanobu Sakurai[1,2], Takumi Misaka[2], Toshitada Nagai[2], Yoshiro Ishimaru[2], Shinji Matsuo[1], Tomiko Asakura[2], Keiko Abe[2]. *[1]General Research Institute of Food Science and Technology, Nissin Foods Holdings Co., Ltd., Shiga, Japan, [2]Department of Applied Biological Chemistry, Graduate School of Agricultural and Life Sciences, The University of Tokyo, Tokyo, Japan*

34 #P193 **Unraveling the Signal Transduction Cascade Mediated by the Olfactory Receptor hOR51E2 in Prostate Cancer Cells**
Jennifer Spehr, Markus Osterloh, Weiyi Zhang, Lian Gelis, Hanns Hatt, Eva M. Neuhaus. *Dept. of Cellular Physiology, Ruhr-University Bochum, Bochum, Germany*

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35 #P194 **Expression and Functionality of Oxytocin Receptor in Mouse Taste Cells**
Michael Sinclair[1], Gennady Dvoryanchikov[2], Katsuhiko Nishimori[3], Nirupa Chaudhari[1,2]. *[1]Program in Neurosciences, University of Miami Miller School of Medicine, Miami, FL, United States, [2]Department of Physiology and Biophysics, University of Miami Miller School of Medicine, Miami, FL, United States, [3]Department of Molecular and Cell Biology, Graduate School of Agricultural Science, Tohoku University, Miyagi 981-8555, Japan*

36 #P195 **Inhibition of bitter taste receptors**
Jay Slack[1], Anne Brockhoff[2], Batram Claudia[2], Susann Menzel[2], Caroline Sonnabend[2], Maik Behrens[2], Nicole Brune[1], Ioana Ungureanu[1], Christopher Simons[1], Wolfgang Meyerhof[2]. *[1]Givaudan Flavors Corp, Cincinnati, OH, United States, [2]German Institute of Human Nutrition Potsdam-Rehbruecke, Potsdam-Rehbrueke, Germany*

37 #P196 **Solitary chemosensory cells (SCCs) in the pancreas**
Marco Tizzano[1,2], Zaza Kokrashvili [4], Bedrich Mosinger [4], Sukumar Vijayaraghavan[3,2], Robert F Margolskee [4], Thomas E Finger[1,2]. *[1]Cell & Development Biology, Univ. of Colorado at Denver, Aurora, CO, United States, [2]Rocky Mountain Taste & Smell Center, Aurora, CO, United States, [3]Physiology and Biophysics, Univ. of Colorado at Denver, Aurora, CO, United States, [4]Department of Neuroscience, Mount Sinai School of Medicine, New York, NY, United States*

38 #P197 **The prenyl binding protein PrBP/ impedes trafficking of G_{olf} in olfactory sensory neurons (OSNs)**
Mavis A. Irwin[1], Houbin Zhang[2], Michelle Stamm[1], Wolfgang Baehr[2], Mary Lucero[1]. *[1]University of Utah, Department of Physiology, Neuroscience Program, Salt Lake City, UT, United States, [2]University of Utah, Department of Ophthalmology, Salt Lake City, UT, United States*

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39 #P198 **Odor-stimulated phosphoinositide signaling in mammalian olfactory receptor neurons**
Katharina Klasen[1], Elizabeth A. Corey[1], Christian H. Wetzel[2], Hanns Hatt[2], Barry W. Ache[1]. *[1]Whitney Laboratory, Center for Smell and Taste, McKnight Brain Institute, University of Florida, Gainesville, FL, United States, [2]Department of Cell Physiology, Ruhr-University Bochum, Bochum, Germany*

40 #P199 **A Proteomic Screen of Mouse Cilial Membranes Reveals TMEM16B as an Olfactory Calcium-Activated Chloride Channel**
Aaron B Stephan[1], Eleen Y Shum[1], Sarah Hirsh[1], Katherine D Cygnar[1], Haiqing Zhao[1], Johannes Reisert[2]. *[1]Johns Hopkins University, Baltimore, MD, United States, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

41 #P200 **WITHDRAWN**

42 #P201 **TRPM5 Expressed In Solitary Chemosensory Cells Is Involved In Regulating Chemical Access To The Vomeronasal Organ**
Kurt Krosnowski, Nejat Merdato, Tatsuya Ogura, Weihong Lin. *University of Maryland Baltimore County, Catonsville, MD, United States*

43 #P202 **Transient receptor potential V1 is directly activated by nickel ions**
Matthias Luebbert[1], Debbie Radtke[1,2], Hanns Hatt[1], Christian H. Wetzel[1]. *[1]Department of Cellular Physiology Ruhr University Bochum, Bochum, Germany, [2]Ruhr University Research School, Bochum, Germany*

44 #P203 **Cetylpyridinium Chloride Effects on Sodium and Potassium Taste Stimulus Sensing in Hamster**
Clara C. McClenon, Brooke L. Reidy, Victoria M. Stevens, Robert E. Stewart. *Washington and Lee University, Lexington, VA, United States*

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45 #P204 **Establishment and Optimization of Antigen Capture Polymerase Chain Reaction Utilizing the Epithelial Sodium Channel Subtype Delta Antibody**
M Hakan Ozdener, Joseph G Brand, Jie Cao, John H Teeter.
Monell Chemical Senses Center, Philadelphia, PA, United States

46 #P205 **Direct evidence of the role of TRPM5 in bitter transduction in enteroendocrine cells**
Bhavik P. Shah[1,2], Pin Liu[1,2], Tian Yu[1,2], Dane R. Hansen[1,2], Timothy A. Gilbertson[1,2]. *[1]Department of biology, Utah State University, Logan, UT, United States, [2]Center for Advanced Nutrition, Utah State University, Logan, UT, United States*

Saturday, April 25, 2009

7:30 am - 1:00 pm
6:30 pm - 7:30 pm **REGISTRATION**
Prefunction Area

7:30 - 9:00 am **CONTINENTAL BREAKFAST**

8:00 - 10:05 am **SYMPOSIUM**
FUNCTIONAL EVOLUTION OF CHEMOSENSORY RECEPTORS
Chair/Organizer: Hiro Matsunami and Hanyi Zhuang
South Ballroom

8:00 #38 **Positive Selection Shapes the Function of an Odorant Receptor for Sex-steroid Derived Odors in Primates**
Hanyi Zhuang, Mingshan Chien, Hiroaki Matsunami.
Duke University Medical Center, Durham, NC, United States

8:25 #39 **Copy-number variation map obtained by high-resolution genomics reflects human olfactory receptor diversity and evolution**
Jan Korbel[1], Yehudit Hasin[2], Tsviya Olender[2], Alexander Eckehart Urban[3], Philip Kim[4], Jason Affourtit[5], Timothy Harkins[6], Michael Egholm[5], Michael Snyder[3], Doron Lancet[2], Mark Gerstein[3]. *[1]EMBL, Heidelberg, Germany, [2]Weizmann Institute, Rehovot, Israel, [3]Yale University, New Haven, CT, United States, [4]University of Toronto, Toronto, ON, Canada, [5]454 Life Sciences, Branford, CT, United States, [6]Roche Applied Science, Indianapolis, IN, United States*

8:50 #40 **Sequencing the entire OR gene repertoire (and other GPCRs) in a large number of individuals**
Yoav Gilad. *University of Chicago, Chicago, IL, United States*

9:15 #41 **Rapid evolution of two odorant-binding protein genes, *Obp57d* and *Obp57e*, in *Drosophila***
Takashi Matsuo. *Tokyo Metropolitan University, Tokyo, Japan*

9:40 #42 **Bimodal Function of *Drosophila* Odorant Receptors**
Dieter Wicher, Ronny Schäfer, Marcus C. Stensmyr, Bill S. Hansson. *Max Planck Institute for Chemical Ecology, Jena, Germany*

10:05 - 10:30 am **BREAK**
Prefunction Area

10:30 am - 12:30 pm **SYMPOSIUM**
MAKING SENSE OF FAT TASTE
Chair/Organizer: Tim Gilberston
South Ballroom

Discussants: Robert Contreras and Jean-Pierre Montmayeur

10:30 #43 **Making Sense of Fat Taste**
Timothy A. Gilbertson. *Utah State University, Logan, UT, United States*

10:35 #44 **Ligand specificities to putative fat receptor candidates CD36 and GPR120 and licking behavior corresponding to the ligands in mice**
Shigenobu Matsumura, Takeshi Yoneda, Ai Eguchi, Yasuko Manabe, Satoshi Tsuzuki, Kazuo Inoue, Tohru Fushiki. *Graduate School of Agriculture, Kyoto University, Kyoto, Japan*

11:00 #45 **Fatty Acid Transduction in Chemosensory Cells**
Tian Yu, Bhavik P. Shah, Pin Liu, Timothy A. Gilbertson. *Utah State University, Logan, UT, United States*

11:25 #46 **Oral Detection of Fatty Acids by Rats**
David W. Pittman. *Department of Psychology, Wofford College, Spartanburg, SC, United States*

11:50 #47 **Oral Detection of Free Fatty Acids in Humans**
Richard D Mattes. *Purdue University, W. Lafayette, IN, United States*

12:45 - 2:45 pm **CLINICAL LUNCHEON** *(Ticketed event)*
OLFACTORY DYSFUNCTION IN SCHIZOPHRENIA: A MODEL SYSTEM TO INVESTIGATE DEVELOPMENTAL NEUROPATHOLOGY
Chair/Organizer: C. Murphy
Bruce Turetsky, MD, *University of Pennsylvania*
The Keys Room

Schizophrenia is a complex heterogenous disorder that results in widespread functional brain impairments. However, there is now increasing consensus that this is a genetically-mediated neurodevelopmental disorder characterized by altered neural circuitry, synaptic functioning and intracellular signaling mechanisms. There is also clear evidence of associated olfactory deficits. This presentation will review what is known about olfactory impairments in schizophrenia and highlight the group's efforts to delineate the neural substrates and mechanisms underlying these deficits. In this context, the olfactory system can provide insights into the broader mechanisms underlying CNS pathology in schizophrenia.

3:00 - 5:30 pm **WORKSHOP: COMPUTATIONAL PROBLEMS IN SEQUENTIAL STAGES OF ODOR PROCESSING**
Chair/Organizer: Tom Cleland and Dan Dougherty
South Ballroom

Times approximate given the workshop format.

3:00 #48 **Exploring the Interaction between Odorants and Odorant Receptors using Functional and Computational Methods**
Charles W. Luetje, Sarah E. Repicky, Tatjana Abaffy. *Molecular and Cellular Pharmacology, University of Miami, Miami, FL, United States*

3:25 #49 **Modeling Diversity in the Signal Transduction of the Mouse Olfactory Receptor Neuron**
Daniel P. Dougherty. *Michigan State University, Lyman Briggs College of Science and Dept. of Statistics and Probability, East Lansing, MI, United States*

3:50 #50 **Odorant mixture interactions in rat olfactory receptor neurons: models and experiments**
Jean-Pierre Rospars[1], Petr Lansky[2], Michel Chaput[3], Patricia Duchamp-Viret[3]. *[1]UMR 1272 Physiologie de l'Insecte, INRA, Versailles, France , [2]Institute of Physiology, Academy of Sciences, Prague, Czech Republic , [3]UMR 5020 Neurosciences Sensorielles, Comportement, Cognition, Lyon, France*

4:15 #51 **Odor Maps in the Mouse Olfactory Bulb**
Venkatesh N Murthy[1], Dinu F Albeanu[2], Edward R Soucy[1], Markus Meister[1]. *[1]Harvard University, Cambridge, MA, United States, [2]Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, United States*

4:40 #52 **Distributed Lateral Inhibition in the Olfactory Bulb: Anatomical Evidence and Functional Implications of Long-range Interactions of Mitral and Tufted Cells**
Matthew E Phillips, Hetal K Patel, David H Kim, Gordon M Shepherd, David C Willhite. *Yale University, New Haven, CT, United States*

5:05 #53 **A two-stage model of odor representation and processing in the olfactory bulb**
Thomas A. Cleland. *Dept. Psychology, Cornell University, Ithaca, NY, United States*

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8:00 am - 12:30 pm **POSTER SESSION V: CHEMOSENSORY MEMORY/CENTRAL SYNAPTIC PHYSIOLOGY/NEUROGENESIS**
North Ballroom

1 #P206 **ATP Promotes Proliferation of Olfactory Sensory Neuron (OSN) and Sustentacular Progenitor Cells in Adult Mouse Olfactory Epithelium (OE)**
Colleen C. Hegg, Cuihong Jia. *Michigan State University, East Lansing, MI, United States*

2 #P207 **Sniffing out fear: Anxiety enhances olfactory discrimination learning via aversive conditioning**
Lucas Novak, Emily Cahill, Wen Li. *University of Wisconsin-Madison, Department of Psychology, Madison, WI, United States*

3 #P208 **Expansion, Engraftment and Multi-Lineage Potency of Mouse Neonatal Olfactory Neurospheres**
Richard C. Krolewski, James E. Schwob. *Department of Anatomy & Cellular Biology, Tufts University School of Medicine, Boston, MA, United States*

4 #P209 **Comparison of incidental and intentional learning of olfactory and visual stimuli**
Per Møller[1], Dag Piper[2], Ditte Hartvig[1], Egon P Köster[1].
[1]University of Copenhagen, Frederiksberg, Denmark, [2]Symrise Germany, Holzminden, Germany

5 #P210 **Characterizing the Relationship between Odor Memory and Identification Performance using Generalized Linear Modeling**
Konstantin A. Rybalsky, Melinda S. Brearton, Erica J. Mannea, Jason M. Bailie, Steven R. Howe, Robert A. Frank.
University of Cincinnati, Cincinnati, OH, United States

6 #P211 **Embryonic Chicks Can Learn the Scent of a Putative Predator**
Daisy M. Yuhas, Emma L. Stanley, Julie C. Hagelin.
Department of Biology, Swarthmore College, Swarthmore, PA, United States

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7 #P212 **Role of Glucagon-Like Peptide-1 in Conditioned Taste Aversion**
John-Paul Baird, Laura H. Turner, Christina Wright, Julia S. Lord, Lindsay A. Grigg. *Amherst College, Amherst, MA, United States*

8 #P213 **Altered Gene Expression In Brainstem And Forebrain Nuclei Following Acquisition Of A Learned Taste Aversion**
Siva K. Panguluri, Robert F. Lundy. *Department of Anatomical Sciences and Neurobiology, University of Louisville, School of Medicine, Louisville, KY, United States*

9 #P214 **Expression of Transient Receptor Potential (TRP) Channels in the Mouse Main Olfactory Bulb (MOB)**
Hong-Wei Dong[1], Sheng-Yuan Ding[2], Qiang Nai[1], Fu-Ming Zhou[2], Matthew Ennis[1]. *[1]Dept, Anat &Neurobiology, University of Tennessee, HSC, Memphis, TN, United States, [2]Dept. Pharmacology, University of Tennessee, HSC, Memphis, TN, United States*

10 #P215 **Cholinergic modulation of glomerular circuits**
Shaolin Liu, Michael T. Shipley. *University of Maryland School of Medicine, Baltimore, MD, United States*

11 #P216 **Synchronization of spike activity in tufted cells of mouse olfactory bulb**
Graeme Lowe, Jie Ma. *Monell Chemical Senses Center, Philadelphia, PA, United States*

12 #P217 **Adult neurogenesis in the mouse accessory olfactory bulb**
Alexia Nunez-Parra, Ricardo C. Araneda. *NACS Program & Biology Department, University of Maryland, College Park, MD, United States*

13 #P218 **Gap junction coupling and granule cell connectivity both contribute to long-range synchrony in the olfactory bulb**
Thomas S. McTavish, Diego Restrepo, Nathan Schoppa. *University of Colorado Denver, Denver, CO, United States*

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14 #P219 **Synaptic markers show heterogeneous mitral and tufted cell synapse distributions**
Matthew E. Phillips[1,2], Hetal K. Patel[1], David H. Kim[1], Gordon M. Shepherd[1], David C. Willhite[1]. *[1]Department of Neurobiology, Yale University School of Medicine, New Haven, CT, United States, [2]Department of Physics, Yale University, New Haven, CT, United States*

15 #P220 **Neuronal Survival and Replacement in the Neuron-depleted Olfactory System**
Huan Liu, Kathleen Guthrie. *Florida Atlantic University, Boca Raton, FL, United States*

16 #P221 **Glomerular Regulation of Mitral Cell Responses to Sensory Input**
Zuoyi Shao, Adam C. Puche, Michael T. Shipley. *Department of Anatomy & Neurobiology, Program in Neuroscience, University of Maryland School of Medicine, Baltimore, MD, United States*

17 #P222 **Characteristics of spontaneous and evoked EPSCs of interneurons in the superficial external plexiform layer of olfactory bulb**
Yu-Feng Wang, Kathryn A Hamilton. *LSU Health Sciences Center- Shreveport, Shreveport, LA, United States*

18 #P223 **1 and 2 Noradrenergic Receptor Exert Opposing Effects on the Excitability of Rat Main Olfactory Bulb (MOB) Granule Cells**
Qiang Nai[1], Hongwei Dong[1], Christiane Linster[2], Matthew Ennis[1]. *[1]university of Tennessee, HSC, Memphis, TN, United States, [2]2Dept. Neurobiology &Behavior, New York, NY, United States*

19 #P224 **Taurine deficiency causes loss of mitral cells in the olfactory bulb of mice**
Martin Witt[1], Maria Kammerer[2], Ulrich Warskulat[3], Dieter Häussinger[3], Thomas Hummel[4]. *[1]University of Rostock, Dept. of Anatomy, Rostock, Germany, [2]TU Dresden, Dept. of Anatomy, Dresden, Germany, [3]University of Düsseldorf, Experimental Hepatology, Düsseldorf, Germany, [4]TU Dresden, Dept. of Otorhinolaryngology, Dresden, Germany*

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20 #P225 **Adult and developmental expression of a GABA transporter by a subset of centrally derived glial cells in the antennal lobe of the moth**
Lynne A Oland, Nicholas J Gibson, Leslie P Tolbert. *University of Arizona, Tucson, AZ, United States*

21 #P226 **Heterogeneous Expression of Pannexin 1 and Pannexin 2 in the Olfactory Epithelium and Olfactory Bulb**
Honghong Zhang, Chunbo Zhang. *Department of Biological, Chemical and Physical Sciences, Illinois Institute of Technology, Chicago, IL, United States*

22 #P227 **Chloride imaging in trigeminal sensory neurons of mice**
Debbie Radtke[1,2], Nicole Schoebel[1,2,3,4], Hanns Hatt[1,2,4], Jennifer Spehr[1]. *[1]Department of Cellular Physiology, Ruhr-University, Bochum, Germany, [2]Ruhr-University Research School, Bochum, Germany, [3]Graduiertenkolleg "Development and Plasticity of the Nervous System", Ruhr-University, Bochum, Germany, [4]International Graduate School of Neuroscience, Ruhr-University, Bochum, Germany*

23 #P228 **Odor discrimination by mice with long-term unilateral naris occlusion and contralateral bulbectomy**
Cathy Angely, David M. Coppola. *Randolph-Macon College, Ashland, VA, United States*

24 #P229 **Characterization of GABA-Induced Responses of Trigeminal Sensory Neurons**
Nicole Schoebel[1,2,3,4], Annika Cichy[1], Debbie Radtke[1,4], Hanns Hatt[1,3,4], Jennifer Spehr[1]. *[1]Department of Cellular Physiology, Ruhr-University, Bochum, Germany, [2]Graduiertenkolleg, Bochum, Germany, [3]International Graduate School of Neuroscience, Ruhr-University, Bochum, Germany, [4]Ruhr-University Research School, Bochum, Germany*

25 #P230 **Properties of rostral nucleus of the solitary tract (rNST) GABAergic interneurons**
Min Wang[1], Robert M. Bradley[1,2]. *[1]Department of Biologic and Material Sciences, School of Dentistry, University of Michigan, Ann Arbor, MI, United States, [2]Department of Molecular and Integrative Physiology, Medical School, University of Michigan, Ann Arbor, MI, United States*

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26 #P231 **SOX2 Regulation Of Neurogenesis In The Adult Olfactory Epithelium**
Adam I Packard, James E Schwob. *Tufts University School of Medicine, Boston, MA, United States*

27 #P232 **PACAP Enhances Cell Survival in Cultured Slices of Mouse Olfactory Bulb**
Mary T Lucero, Shami Kanekar. *University of Utah, Department of Physiology, Neuroscience Program, Salt Lake City, UT, United States*

28 #P233 **Cytoarchitecture of Neuroblasts and their Stem Cell Niche Maintaining Adult Neurogenesis in the Olfactory Midbrain of Spiny Lobsters, *Panulirus argus***
Manfred Schmidt, Charles D. Derby. *Neuroscience Institute, Georgia State University, Atlanta, GA, United States*

29 #P234 **Ectopic gene expression by postnatal electroporation during olfactory interneurons neurogenesis**
Dongjing Zou[1], Alex Chesler[1], Claire Le Pichon[1], Jesse Brann[1], Ricardo Araneda[2], Stuart Firestein[1]. *[1]Department of Biological Sciences, Columbia University, New York, NY, United States, [2]Department of Biology, University of Maryland, College Park, MD, United States*

30 #P235 **Deafferentation affects cell genesis and neuron survival in the olfactory bulb of adult zebrafish**
Christine A. Byrd-Jacobs, Ruth Villanueva. *Western Michigan University, Kalamazoo, MI, United States*

31 #P236 **Cell specific deletion of BDNF leads to impairments in murine adult olfactory neurogenesis**
Kevin G Bath, Christine Neeb, Deqiang Jing, Francis S Lee. *Weill Medical College of Cornell, New York, NY, United States*

32 #P237 ***In vivo* optical imaging of experience-induced olfactory bulb glomerular plasticity**
Max L. Fletcher[1], Johannes Richter[2], Wei R. Chen[1]. *[1]University of Texas Medical School Department of Neurobiology and Anatomy, Houston, TX, United States, [2]Yale University School of Medicine, New Haven, CT, United States*

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33 #P238 **Maternal Modulation of the Functional Emergence of the Hippocampus in Context Fear Learning in Infant Rats**
Charlis Raineki[1,2,3], Parker Holman[3], Melissa Bugg[3], Allyson Beasley[3], Regina M. Sullivan[1,2,3]. *[1]Emotional Brain Institute, Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NY, United States, [2]Child and Adolescent Psychiatry, NYU Langone Medical Center, New York, NY, United States, [3]Department of Zoology, University of Oklahoma, Norman, OK, United States*

34 #P239 **Rethinking statistical analysis of associative learning in an olfactometer**
Nicolas Busquet, Diego Restrepo. *University of Colorado Denver, Denver, CO, United States*

35 #P240 **Changes in Sniffing Patterns During Learning of the Association of Odor with Reward**
Vanessa Carmean[1], Jennifer D Whitesell[1,2], Diego Restrepo[1,2]. *[1]Neuroscience Program, University of Colorado Denver Anschutz Medical Campus , Aurora, CO, United States, [2]Department of Cell and Developmental Biology, University of Colorado Denver Anschutz Medical Campus, Aurora, CO, United States*

36 #P241 **Long-term reductions of olfactory sensitivity due to short-term exposures to a peri-threshold odorant**
Jennifer Chen[1], Wen Zhou[1], Meng Zhang[2], Denise Chen[1]. *[1]Rice University, Houston, TX, United States, [2]Harbin Medical University, Harbin, China*

37 #P242 **Learned preferences for odours determined by individual variations in taste intensity and hedonics**
John Prescott[1], Martin Yeomans[2], Natalie Gould[2]. *[1]The University of Newcastle, Ourimbah, Australia, [2]University of Sussex, Brighton, United Kingdom*

7:00 - 9:05 pm **SYMPOSIUM**
FOLLOW THE HEAD, NOT ONLY THE NOSE: TOP-DOWN INFLUENCES ON OLFACTORY PERCEPTION
Chair/Organizer: Monique Smeets
South Ballroom

7:00 #54 **The Nose is Just the Beginning: Patterns, Objects and Experience in Olfaction**
Donald A. Wilson[1,2]. [1]*Nathan Kline Institute, Orangeburg, NY, United States,* [2]*NYU School of Medicine, New York, NY, United States*

7:05 #55 **Learning to smell: Olfactory perceptual learning and its ecological impact**
Wen Li. *University of Wisconsin-Madison, Department of Psychology, Madison, WI, United States*

7:35 #56 **Expectations About Health Effects Alter Odor Perception**
Monique A. Smeets[1], Patricia Bulsing[2]. [1]*Utrecht University, Utrecht, Netherlands,* [2]*Unilever, Vlaardingen, Netherlands*

8:05 #57 **Implications For Remediation Of Health Effects From Odor Exposure**
Pamela Dalton. *Monell Chemical Senses Center, Philadelphia, PA, United States*

8:35 #58 **Olfaction and cognitive information processing**
Denise Chen. *Rice University, Houston, TX, United States*

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7:00 - 11:00 pm **POSTER SESSION VI: CHEMOSENSORY DEVELOPMENT AND PSYCHOPHYSICS I**
South Ballroom

1 #P243 **Sonic hedgehog and Sox2 expression in taste cell progenitors in genetic mouse models of gustatory nerve transection**
Akira Ito, Michelle M. Sims, Jong-Gwan Kim, Christopher A. Nosrat. *Department of Restorative Dentistry and Center for Cancer Research, University of Tennessee Health Science Center, Memphis, TN, United States*

2 #P244 **Expression of Stem Cell Factor and Kit receptor during development of the main and accessory olfactory systems**
Thomas K. Knott, Timothy R. Henion, Gary A. Schwarting. *University of Massachusetts Medical School, Worcester, MA, United States*

3 #P245 **Differentiation and migration of neurons derived from the olfactory placode**
Alexandra M. Miller[1,3], Helen B. Treloar[1], Charles A. Greer[1,2,3]. *[1]Department of Neurosurgery, Yale University School of Medicine, New Haven, CT, United States, [2]Department of Neurobiology, Yale University School of Medicine, New Haven, CT, United States, [3]Interdepartmental Neuroscience Program (INP), New Haven, CT, United States*

4 #P246 **Early GABAergic Specification of Subventricular Derived Progenitors**
Celine Plachez, Adam C. Puche. *Department of Anatomy and Neurobiology, University of Maryland, School of Medicine, Baltimore, MD, United States*

5 #P247 **The positional variability of the P2, M72, and MOR23 glomeruli in the mouse main olfactory bulb in young and adult animals**
Ernesto Salcedo, Tuan Tran, Xuan Ly, Kyle Hanson, Eugene Kronberg, Diego Restrepo. *University of Colorado Denver, Aurora, CO, United States*

6 #P248 **Sensory inputs modulate olfactory receptor expression patterns in the mouse olfactory epithelium**
Huikai Tian, Minghong Ma. *Department of Neuroscience, University of Pennsylvania School of Medicine, Philadelphia, PA, United States*

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7 #P249 **Influences of p53 gene in the development of olfactory neurons**
Honghong Zhang, Chunbo Zhang. *Department of Biological, Chemical and Physical Sciences, Illinois Institute of Technology, Chicago, IL, United States*

8 #P250 **How Does Adding Cocoa to Sucrose Affect Pain Tolerance?**
Kristina Eggleston[1], Theresa White[1,2]. *[1]Le Moyne College, Syracuse, NY, United States, [2]SUNY Upstate Medical University, Syracuse, NY, United States*

9 #P251 **Effects of Chocolate Consumption on Pain Perception and Tolerance**
Scott Bonnette, Kristin McCombs, Amanda Stover, Kristian Winters, Bryan Raudenbush. *Wheeling Jesuit University, Wheeling, WV, United States*

10 #P252 **Is perception of nasal patency a function of air temperature, humidity, mucosal heat loss, nasal resistance or trigeminal sensitivity?**
Kara J. Blacker[1], Edmund Pribitkin[2], Yuehao Luo[1], Kai Zhao[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Thomas Jefferson University Hospital, Philadelphia, PA, United States*

11 #P253 **Retronasal and Oral-Cavity-Only Responses to TRPM8 Odorants**
Kathleen E. Melville[1], James C. Navia[2], Bruce P. Halpern[3]. *[1]Neurobiology and Behavior, Cornell University, Ithaca, NY, United States, [2]Food Science, Auburn University, Auburn, AL, United States, [3]Psychology and Neurobiology and Behavior, Cornell University, Ithaca, NY, United States*

12 #P254 **Eph/Ephrin Expression in the Developing and Adult Taste System**
Gennadiy Katsevman, Michael Oleksiak, Natalia Hoshino, M William Rochlin. *Loyola University Chicago, Chicago, IL, United States*

13 #P255 **Investigation of detection and pain thresholds at different sites at the human nasal mucosa in response to electrical stimuli**
Mandy Scheibe, Annika Schmidt. *Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany*

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14 #P256 **Time-Intensity ratings of nasal irritation from pulsed homologous alcohols**
Paul M Wise, Kai Zhao, Charles J Wysocki. *Monell Chemical Senses Center, Philadelphia, PA, United States*

15 #P257 **Nasal biopsy assessment of veterinary students exposed to formaldehyde in anatomy class**
Karen K. Yee[1], Tamika Wilson[1], Ryan McDermott[1], Edmund A. Pribitkin[2], David Rosen[2], Christopher Maute[1], Pam Dalton[1].
[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Thomas Jefferson University, Philadelphia, PA, United States

16 #P258 **Functional and Inflammatory Consequences of Veterinary Gross Anatomy Lab Enrollment: Effects of Formaldehyde on Chemosensation**
Ryan D. McDermott, Tamika L. Wilson, Kara J. Blacker, Christopher Maute, M. Hakan Ozdener, Pamela H. Dalton.
Monell Chemical Senses Center, Philadelphia, PA, United States

17 #P259 **Development and Evaluation of the Monell Odor Identification Task for the NIH Toolbox**
Christopher Maute[1], Sara Lehmann[1], Carly Jornlin[2], William Parkes[2], Christopher Grindle[2], James S. Reilly[2], Allison Steinmeyer[1], Jill Hersh[1], Julie A. Mennella[1], Pamela H. Dalton[1].
[1]Monell Center, Philadelphia, PA, United States, [2]Nemours/Alfred I. duPont Hospital for Children, Wilmington, DE, United States

18 #P260 **Musk odorants - a useful tool for the study of olfactory genetics**
Antti J. Knaapila[1], Danielle R. Reed[1], Charles J. Wysocki[1], Gu Zhu[2], Nicholas G. Martin[2], Margaret J. Wright[2].
[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Queensland Institute of Medical Research, Brisbane, Australia

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19 #P261 **Evaluation of a Forced-Choice, Paired-Comparison Tracking Procedure Method for Determining Taste Preferences Across the Lifespan**
Julie A. Mennella[1], Laura D. Lukasewycz[1], James W. Griffith[2], Gary K. Beauchamp[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Northshore University HealthSystem, Evanston, IL, United States*

20 #P262 **OLFACT-Kô™: A Test for Assessing Olfactory Function in Young Children**
Kathleen M. VanDeGrift, Lloyd Hastings. *Osmic Enterprises, Inc., Cincinnati, OH, United States*

21 #P263 **Comparison of two different olfactory detection threshold tests of the Sniffin' Sticks**
Rebekka Zernecke[1], Birgit Vollmer[1], Jessica Albrecht[1,2], Anna M. Kleemann[1], Katrin Haegler[1], Jennifer Linn[1], Gunther Fesl[1], Hartmut Brückmann[1], Martin Wiesmann[1,3]. *[1]Department of Neuroradiology, Ludwig-Maximilians-University of Munich, Munich, Germany, [2]Monell Chemical Senses Center, Philadelphia, PA, United States, [3]Department of Radiology and Neuroradiology, Helios Kliniken Schwerin, Schwerin, Germany*

22 #P264 **Longitudinal study of olfactory preferences during childhood**
Fanny Rinck[1], Melissa Barkat-Defradas[2], Fanny Bourgeat[1], Catherine Rouby[1], Moustafa Bensafi[1]. *[1]CNRS UMR 5020, Lyon, France, [2]CNRS UMR 5267, Montpellier, France*

23 #P265 **Neuronal and neural crest cell markers identify specific cell types in developing tongue and taste papillae**
Hong-Xiang Liu, Yoshihiro Komatsu, Yuji Mishina, Charlotte Mistretta. *School of Dentistry, University of Michigan, Ann Arbor, MI, United States*

24 #P266 **Impact of Proportionon Configural Perception of Odor Mixtures in a Newborn Mammal**
Gérard Coureaud[1], David Gibaud[1], Elodie Le Berre[2,3], Benoist Schaal[1], Thierry Thomas-Danguin[2]. *[1]Centre Européen des Sciences du Goût (CESG), CNRS-UB-INRA, Dijon, France, [2]FLAVIC, INRA-ENESAD-UB, Dijon, France, [3]current address: Unilever Food and Health Research Institute, Vlaardingen, Netherlands*

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25 #P267 **Correlation between olfactory bulb volume and olfactory function in children**
Dorothee Buschhüter[1], Martin Smitka[2], Stefan Puschmann[1], Johannes Gerber[3], Thomas Hummel[1]. *[1]1Departments of Otorhinolaryngology, Dresden, Germany, [2]Paediatrics, Dresden, Germany, [3]Radiology, Dresden, Germany*

26 #P268 **Pregnancy and Olfactory Sensitivity**
E. Leslie Cameron[1], Richard L. Doty[2]. *[1]Carthage College, Kenosha, WI, United States, [2]Smell & Taste Center, University of Pennsylvania School of Medicine, Philadelphia, PA, United States*

27 #P269 **Beliefs About Health Effects From An Odor Alter Sniffing Of That Odor**
Patricia Bulsing[1], Monique A Smeets[2], Tyler Lorig[3]. *[1]Unilever, Vlaardingen, Netherlands, [2]Utrecht University, Utrecht, Netherlands, [3]Washington and Lee University, Lexington, VA, United States*

28 #P270 **Relationship between Odor Properties for Pleasant and Unpleasant Odors**
Allana L. Goodman[1,2], Jelena Djordjevic[1,2]. *[1]Montreal Neurological Institute, Montreal, QC, Canada, [2]McGill University, Montreal, QC, Canada*

29 #P271 **Slight Variations in Components Ratio affect Odor Pleasantness of a Blending Mixture**
Elodie Le Berre[1,3], Noëlle Béno[1], Gérard Coureaud[2], Patrick Etiévant[1], Thierry Thomas-Danguin[1]. *[1]Flaveur Vision et Comportement du Consommateur, INRA-ENESAD-UB, Dijon, France, [2]Centre Européen des Sciences du Goût, CNRS-UB-INRA, Dijon, France, [3]current address: Unilever Food and Health Research Institute, Vlaardingen, Netherlands*

30 #P272 **Identification of odorants induced by stress and deception in humans**
George Preti[1,2], Jae Kwak[1], Christopher Maute[1], Pamela Dalton[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Dermatology, School of Medicine, University of Pennsylvania, Philadelphia, PA, United States*

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31 #P273 **The Recognition Point in Odor Detection**
William S. Cain, Roland Schmidt, J. Enrique Cometto-Muñiz.
University of California, San Diego, La Jolla, CA, United States

32 #P274 **Time encoded in smell**
Kinneret Weissler[1], Shulamith Kreitler[1], Noam Sobel[2].
[1]Department Of Psychology, Tel-Aviv University, Tel-Aviv Israel, [2]Department Of Neurobiology, Weizmann Institute of Science, Rehovot Israel

33 #P275 **A view of the world through the nose**
Lee Sela, Aharon Weissbrod, Elad Schneidman, Noam Sobel.
Weizmann institute of science, Rehovot, Israel

34 #P276 ***Wnt5a* has stage and location specific effects in embryonic tongue epithelium and mesenchyme**
Charlotte M. Mistretta [1], Hong-Xiang Liu[1], Ann M. Staubach Grosse[2], Katherine D. Walton[2], Deborah L. Gumucio[2].
[1]School of Dentistry, University of Michigan, Ann Arbor, MI, United States, [2]Medical School, University of Michigan, Ann Arbor, MI, United States

35 #P277 **Odor Discrimination Is Influenced By Odor Naming Ability**
Erica, J. Mannea[1], Robert, C. Gesteland[3], Robert, A. Frank[1], Lloyd Hastings[2], Konstantin A. Rybalski[1], Jason, M. Bailie[1], Melinda, S. Brearton[1]. *[1]University of Cincinnati, Cincinnati, OH, United States, [2]Osmic Enterprises, Cincinnati, OH, United States, [3]CompuSniff, Cincinnati, OH, United States*

36 #P278 **Crossmodal interactions between odors and abstract symbols**
Han-Seok Seo[1], Artin Arshamian[1,2], Kerstin Schemmer[3], Ingeborg Scheer[4], Thorsten Sander[3], Guido Ritter[3], Thomas Hummel[1]. *[1]Smell and Taste Clinic, University of Dresden Medical School, Dresden, Germany, [2]Department of Psychology, Stockholm University, Stockholm, Sweden, [3]Department of Home Economics and Nutrition Science, Münster University of Applied Sciences, Münster, Germany, [4]Dasign GmbH, Darmstadt, Germany*

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37 #P279 **How big is the gap between detection and recognition of aliphatic aldehydes?**
Matthias Laska, Anna Ringh. *Linkoping University, Linkoping, Sweden*

38 #P280 **Comparison of odor threshold for phenylethylalcohol and butanol**
Franziska Krone, Kornelia Lange, Ilona Croy, Thomas Hummel. *Dresden, Germany*

39 #P281 **Human Olfactory Detectability of Homologous 2-Ketones and n-Alkylbenzenes**
J. Enrique Cometto-Muniz[1], Michael H. Abraham[2]. *[1]Chemosensory Perception Lab., Dept. of Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA, United States, [2]Department of Chemistry, University College London, London, United Kingdom*

40 #P282 **Cigarette Smoking and the Olfactory Detection of Cyanide**
Jeneca J. Dovey, David E. Hornung. *St. Lawrence University, Canton, NY, United States*

41 #P283 **Retronasal olfaction influences swallowing**
Myriam Ebnoether[1], Antje Welge-Luessen[1], Markus Wolfensberger[1], Thomas Hummel[2]. *[1]Dept. of Otorhinolaryngology, University Hospital , Basel, Switzerland, [2]Smell & Taste Clinic, University of Dresden Medical School, Dresden, Germany*

42 #P284 **Rapid plasticity in the olfactory system modulates detection threshold in an odorant-specific manner**
Amy R. Gordon[1], Fredrik Åhs[2], Johan N. Lundstrom[1,3]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Department of Psychology, Uppsala University, Uppsala, Sweden, [3]Department of Psychology, University of Pennsylvania, Philadelphia, PA, United States*

43 #P285 **Effects of sub-threshold odorants on rapid olfactory adaptation in human observers**
Ryan R. Keith[1], Swati Pradeep[1], Erica M. Rodriguez[1], Katherine E. Boylan[1], Danielle A. Broome[1], Neal R. Delvadia[1], David W. Smith[1,2]. *[1]Dept. of Psychology, University of Florida, Gainesville, FL, United States, [2]University of Florida Center for Smell and Taste, Gainesville, FL, United States*

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44 #P286 **Update on Racial and Gender Differences in Odor Perception**
Charles J. Wysocki[1], Danielle R. Reed[1], Doron Lancet[2], Yehudit Hasin[2], Jennifer Louie[1], Lisa Oriolo[1], Fujiko Duke[1].
[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Weizmann Institute of Science, Rehovot, Israel

45 #P287 **Taste cell specific over-expression of BDNF leads to multiple fold increase of expression levels of BDNF and increased size and number of taste buds**
Irina Nosrat[1], Shailaja Kishan Rao[1], Weikuan Gu[1], Robert Margolskee[2], Christopher Nosrat[1]. *[1]University of Tennessee Health Science Center, Memphis, TN, United States, [2]Mount Sinai School Medicine, New York, NY, United States*

46 #P288 **Dreams and Smell - The Impact of Nocturnal Olfactory Stimulation on Dreams**
Boris A. Stuck[1], Desislava Atanasova[1,2], Michael Schredl[2].
[1]Department of Otorhinolaryngology, Head and Neck Surgery, Mannheim, Germany, [2]Central Institute of Mental Health, Mannheim, Germany

47 #P289 **Effects Of Septoplasty - A Pre-And Postoperative Study On Trigeminal Sensitivity And Olfactory Performance**
Benno Schuster[1], Stefanie Schulze[1], Christian A. Mueller[2].
[1]Smell & Taste Clinic, Dept. of ORL, University of Dresden Medical School, Dresden, Germany, [2]Dept. of ORL, Medical University of Vienna, Vienna, Austria

48 #P290 **Putative Human Pheromones Increase Women's Observed Flirtatious Behaviors and Ratings of Attraction**
James V. Kohl[1], Linda C. Kelahan[2], Heather Hoffmann[2].
[1]Stone Independent Research, Inc., Phoenix, NY, United States, [2]Knox College, Galesburg, IL, United States

49 #P291 **Effects of Video Game Console and Snack Type on Snack Consumption During Play**
Jonathan Kolks, Tim Wright, Bryan Raudenbush.
Wheeling Jesuit University, Wheeling, WV, United States

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50 #P292 **Effects of Peppermint Scent Administration on Increasing Nintendo Wii Guitar Hero Performance**
Ryan Hunker, Tim Wright, Kristin McCombs, Laura Bruno, Bryan Raudenbush, Jonathan Kolks. *Wheeling Jesuit University, Wheeling, WV, United States*

51 #P293 **Deposition of inhaled particles in the olfactory region in rat and human nasal cavities during breathing**
Jianbo Jiang, Kai Zhao. *Monell Chemical Senses Center, Philadelphia, PA, United States*

52 #P294 **The Effects of Orally Administered Capsaicin on Rat Taste Bud Volume and Papillae Morphology Throughout Development**
Kaeli K Samson, Suzanne I Sollars. *University of Nebraska Omaha, Omaha, NE, United States*

53 #P295 **Competitive Effects of GSP and IX Nerve Transection on the Maturation of CT Terminal Field Volume in the Nucleus of the Solitary Tract**
Sara L Dudgeon, David L Hill. *University of Virginia, Charlottesville, VA, United States*

54 #P296 **Postnatal development of trigeminal neuronal sensitivity to capsaicin, nicotine, and innocuous cooling**
Jiang Xu[1], Valery Audige[2], Nancy Rawson[3], Bruce Bryant[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]University of Pennsylvania, Philadelphia, PA, United States, [3]Wellgen, Inc. , North Brunswick, NJ, United States*

55 #P297 **Development of the olfactory organ in fish: a comparison**
Anne Hansen[1], Peter Bartsch[2], Eckart Zeiske[3]. *[1]University of Colorado , Denver, CO, United States, [2]Humboldt University, Berlin, Germany, [3]University of Hamburg, Hamburg, Germany*

Sunday, April 26, 2009

7:30 - 11:00 am **REGISTRATION**
Prefunction Area

7:30 - 9:00 am **CONTINENTAL BREAKFAST**

8:00 - 10:05 am **SYMPOSIUM**
GABA IN THE DEVELOPING OLFACTORY SYSTEM: FROM GENERATION TO DIFFERENTIATION
Chair/Organizer: Harriet Baker
South Ballroom

8:00 #59 **GABA in the developing olfactory system: from generation to differentiation**
Harriet Baker[1,2]. [1]*Weill, Cornell Med. Coll., White Plains, NY, United States,* [2]*Burke Med. Res. Inst, White Plains, NY, United States*

8:01 #60 **GABA differentially modulations migration of SVZ progenitor subpopulations**
Adam C Puche. *University of Maryland, Baltimore, MD, United States*

8:25 #61 **GABA and glutamate interplay on subventricular zone cell production**
Angelique Bordey. *Yale Univ Sch Med, New Haven, CT, United States*

8:50 #62 **GABA-enhanced differentiation of the olfactory bulb dopaminergic phenotype**
John W Cave[1,2], Yosuke Akiba[2], Harriet Baker[1,2]. [1]*Weill Cornell Medical College, New York, NY, United States,* [2]*Burke Medical Research Institute, White Plains, NY, United States*

9:15 #63 **Dynamic development of synaptic inputs on maturing interneurons in the adult OB**
Pierre-Marie Lledo, Antoine Nissant, Cedric Bardy, Hiro Katagiri, Kerren Murray. *Institut Pasteur, Paris, France*

9:40 #64 **Transsynaptic Tracing Studies Suggest Combinatorial Gating of Olfactory Information is Mediated by GABAergic Interneurons in the Granule Cell Layer**
David H Kim[1], Andrew Y Chang[1], Matthew E Phillips[1], Aurelie Pala[1], Hetal K Patel[1], Janna C Nawroth[2], Katherine T Nguyen[1], Michele Migliore[1,3], Gordon M Shepherd[1], David C Willhite[1]. *[1]Yale University, New Haven, CT, United States, [2]California Institute of Technology, Pasadena, CA, United States, [3]National Research Council, Institute of Biophysics, Palermo, Italy*

10:05 - 10:30 am **BREAK**
Prefunction Area

10:30 am - 12:30 pm **PLATFORM PRESENTATIONS**
OLFACTORY AND VOMERONASAL SYSTEMS
South Ballroom

10:30 #65 **Repertoire of chemosensory receptors from the genome of the jawless vertebrate *Petromyzon marinus***
Scot V. Libants[1], Kevin Carr[2], John H. Teeter[3], Yu-wen Chung-Davidson[1], Curt Wilkerson[2], Weiming Li[1]. *[1]Department of Fisheries and Wildlife, Michigan State University, East Lansing, MI, United States, [2]Research Technology Support Facility, Michigan State University, East Lansing, MI, United States, [3]The Monell Chemical Sense Center, Philadelphia, PA, United States*

10:45 #66 **Emx2 Stimulates Odorant Receptor Gene Expression and Controls OSN Axon Growth**
Jeremy C. McIntyre, Soma C. Bose, Timothy S. McClintock. *Department of Physiology, University of Kentucky, Lexington, KY, United States*

11:00 #67 **Investigations of Olfactory Receptor Internalizations**
Sebastian Rasche, Anastasia Mashukova, Hanns Hatt, Eva M. Neuhaus. *Ruhr-University, Bochum, Germany*

11:15 #68 **OMP Deletion Alters Functional Maturation of Single Olfactory Sensory Neurons**
Anderson C Lee, Minghong Ma. *Department of Neuroscience, University of Pennsylvania School of Medicine, Philadelphia, PA, United States*

11:30 #69 **Sensory Adaptation in the Vomeronasal Organ**
Frank Zufall[1], Silke Hagendorf[2], Jan Weiss[1], Marc Spehr[2], Trese Leinders-Zufall[1], Jennifer Spehr[2]. *[1]Dept. Physiology, University of Saarland, School of Medicine, Homburg, Germany, [2]Dept. Cellular Physiology, Ruhr-University of Bochum, Bochum, Germany*

11:45 #70 **First Order Blend Processing in the Moth Antennal Lobe**
Linda S. Kuebler, Shannon B. Olsson, Bill S. Hansson. *Department of Evolutionary Neuroethology, Max Planck Institute For Chemical Ecology, Jena, Germany*

12:00 #71 **Translation of Olfactory Input into Behavioral Output in the *Drosophila* Larva**
Shelby A. Montague[1,2], Dennis Mathew[2], John R. Carlson[2]. *[1]Department of Cellular and Molecular Physiology, Yale University, New Haven, CT, United States, [2]Department of Molecular, Cellular, and Developmental Biology, Yale University, New Haven, CT, United States*

12:15 #72 **Evidence for a chemosignal in human tears**
Shani Gelstein[1], Liron Rozenkranz[1], Yaara Yeshurun[1], Yehuda Roth[2], Noam Sobel[1]. *[1]Weizmann Institute of Science, Rehovot, Israel, [2]ENT Wolfson Medical Center, Holon, Israel*

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

8:00 am - 12:30 pm **POSTER SESSION VII: CHEMOSENSORY PSYCHOPHYSICS II**
North Ballroom

1 #P298 **The influence of suprathreshold gustatory stimuli on resting respiration in humans**
Thomas Bitter, Maria Lätzel, Hilmar Gudziol. *University Hospital of the University of Jena, Jena, Germany*

2 #P299 **Selective Inhibition of Taste in Humans by Cathodal Current**
Thomas P. Hettinger, Ricardo Abakah, Marion E. Frank. *UCONN Health Center, Farmington, CT, United States*

3 #P300 **Rare Subjects with the TAS2R38 AVI/AVI "Non-Taster" Diplotype Perceive Propylthiouracil as Bitter: The Quest for the Rescue**
Suzie Alarcon, Nelsa Estrella, Anilet Tharp, James Bernhardt, Kathryn Luley, Paul A. S. Breslin. *Monell Chemical Senses Center, Philadelphia, PA, United States*

4 #P301 **Examination of PROP Taste Recognition Thresholds and Suprathresholds with Edible Taste Strips**
Hetvi Desai[1], Sahbina Ebba[1], Gregory Smutzer[1,2].
[1]Biology Department, Temple University, Philadelphia, PA, United States, [2]Smell and Taste Center, University of Pennsylvania, Philadelphia, PA, United States

5 #P302 **B6 mice display confusion in behaviorally discriminating between quinine and citric acid**
Yada Treesukosol, Clare M Mathes, Alan C Spector. *Florida State University, Tallahassee, FL, United States*

6 #P303 **Non synomymous SNPs in human tas1r1, tas1r3, mGluR1 and individual taste sensitivity to glutamate**
Mariam Raliou[1,2], Anna Wiencis[2], Anne-Marie Pillias[1], Aurore Planchais[1], Corinne Eloit[1,3], Yves Boucher[4], Didier Trotier[1], Jean-Pierre Montmayeur[2], Annick Faurion[1].
[1]NBS-NOPA, INRA, Jouy-en-Josas, France, [2]CESG-CNRS, Dijon, France, [3]Dept ORL Hôpital Lariboisière, Paris, France, [4]Faculté Dentaire, UFR Ondotologie, Paris, France

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7 #P304 **Understanding the Relationship Between Saltiness and Umami**
Christopher T. Simons, Kelly Albin. *Givaudan Flavors Corp., Science & Technology, Cincinnati, OH, United States*

8 #P305 **Perceptual variation in umami taste and polymorphisms in *TAS1R* taste receptor genes**
Qing-Ying Chen[1], Suzie Alarcon[1], Anilet Tharp[1], Tiffani A. Greene[2], Joseph Rucker[2], Paul A.S. Breslin[1]. *[1]Monell Chemical Senses Center, Philadelphia, PA, United States, [2]Integral Molecular Inc., Philadelphia, PA, United States*

9 #P306 **Monosodium Glutamate Taste Recognition Thresholds are not Affected by Modulation of Serotonin or Noradrenaline Levels in Healthy Humans**
Lucy F Donaldson, Tom P Heath, Ben Feakins, Nathan Jones, Charlotte Kenyan, Shyamal Raichura, Emma Richardson, Leila Rooshenas, Vicoria Smith, Jan K Melichar. *University of Bristol, Bristol, United Kingdom*

10 #P307 **A receptor focused analysis of experience induced changes in glucose and monosodium glutamate (MSG) taste sensitivity**
Kristina M Gonzalez, Alison N Le, Todd P Livdahl, Linda M Kennedy. *Clark University, Worcester, MA, United States*

11 #P308 **The Effect of Amiloride on the Taste Quality of Salty Solutions**
Kathryn Luley, Anilet Tharp, James Bernhardt, Paul A. S. Breslin. *Monell Chemical Senses Center, Philadelphia, PA, United States*

12 #P309 **Synchronicity Judgment of Gustation and Olfaction**
Tatsu Kobayakawa, Hideki Toda, Naomi Gotow. *Advanced Industrial Science and Technology (AIST), Tsukuba, Japan*

13 #P310 **The Effect of pH on Arginine Enhancement of Salty Taste**
Nelsa Estrella, Paul A. S. Breslin. *Monell Chemical Senses Center, Philadelphia, PA, United States*

Poster Numbering Key:
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14 #P311 **Synergistic responses to L-glutamine and IMP in brief access preference testing in C57BL mice**
Benjamin K. Eschle, Meghan C. Eddy, J. Tyler Van Backer, Eugene R. Delay. *Department of Biology & Vermont Chemical Senses Group, University of Vermont, Burlington, VT, United States*

15 #P312 **Taste Recognition Thresholds for Human Sweet Taste Function**
Sahbina A. Ebba[1], Bradford Speck[1], Lloyd Hastings[2], Gregory Smutzer[1,3]. *[1]Biology Department, Temple University, Philadelphia, PA, United States, [2]Osmic Enterprises, Inc., Cincinnati, OH, United States, [3]Smell & Taste Center, University of Pennsylvania School of Medicine, Philadelphia, PA, United States*

16 #P313 **Sweetness Resists Suppression in Complex Mixtures**
Juyun Lim[1], Floor Oosterhoff [2], Barry Green[2, 3]. *[1]Oregon State University, Corvallis, OR, United States, [2]The John B. Pierce Laboratory, New Haven, CT, United States, [3]Yale School of Medicine, New Haven, CT, United States*

17 #P314 **Sucroseoctaacetate aversion: preliminary evaluation of MSM consomic mouse strains for gene-mapping**
David A Blizard[1], Tsuyoshi Koide[2], Toshihiko Shiroishi[2], Thomas P Hettinger[3], Marion E Frank[3], Ayako Ishii[2]. *[1]Pennsylvania State University, University Park, PA, United States, [2]National Institute of Genetics, Mishima, Japan, [3]University of Connecticut Health Center, Farmington, CT, United States*

18 #P315 **Measurements of stimulus preference vs. stimulus pleasantness give rise to different optimally liked concentrations of sucrose**
Kristin J Rudenga[1], Wambura Fobbs[1], Dana M Small[1, 2]. *[1]Yale University, New Haven, CT, United States, [2]John B Pierce Laboratory, New Haven, CT, United States*

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19 #P316 **Taste damage associated with otitis media**
Linda M. Bartoshuk[1], Frank A. Catalanotto[1], Valerie B. Duffy[2], Miriam Grushka[1], Vicki D. Mayo[1], Monica C. Skarulis[3], Derek J. Snyder[1,4]. *[1]University of Florida Center for Smell and Taste, Gainesville, FL, United States, [2]University of Connecticut, Storrs, CT, United States, [3]National Institutes of Health, Bethesda, MD, United States, [4]Yale University, New Haven, CT, United States*

20 #P317 **Otitis Media and intensification of non-taste oral sensations**
Frank A Catalanotto[1,2], Eric T Broe[1], Linda M Bartoshuk[1,2], Vicki D Mayo[1,2], Derek J Snyder[1,2]. *[1]University of Florida College of Dentistry, Department of Community Dentistry and Behavioral Science, Gainesville, FL, United States, [2]Center for Smell and Taste, Gainesville, FL, United States*

21 #P318 **Oral irritation elicited by menthol and cinnamaldehyde (CA): self- and cross-desensitization**
E. Carstens, Mirela Iodi Carstens, Karen Zanotto. *University of California, Davis, Davis, CA, United States*

22 #P319 **Evidence that repeated threshold testing can alter the perceived intensity of taste**
Barry Green[1,2], Juyun Lim[3]. *[1]The John B. Pierce Laboratory, New Haven, CT, United States, [2]Dept. of Surgery (Otolaryngology), Yale University School of Medicine, New Haven, CT, United States, [3]Dept. of Food Science and Technology, Oregon State University, Corvallis, OR, United States*

23 #P320 **Recognizing Taste Stimuli below the Detection Threshold**
Timothy G. Shepard[1], Miao-Fen Wang[1,2], Maria G. Veldhuizen[1,2], Lawrence E. Marks[1,2]. *[1]John B. Pierce Laboratory, New Haven, CT, United States, [2]Yale University School of Medicine, New Haven, CT, United States*

24 #P321 **Comparing the Distributions of human TAS2R38 taste receptor Genotypes in Philadelphia and in Southern Finland**
Mari A Sandell[1,2], Saila KE Mattila[1], Suzanne M Alarcon[2], Paul AS Breslin[2]. *[1]University of Turku, Turku, Finland, [2]Monell Chemical Senses Center, Philadelphia, PA, United States*

25 #P322 **Development of Multichannel Taste Stimulator System**
Hideki Toda, Tatsu Kobayakawa. *National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan*

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AChemS
Association for Chemoreception Sciences

PROGRAM AT A GLANCE

Registration
3:30 pm to 8:00 pm

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

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

WEDNESDAY, APRIL 22

Welcome Banquet
(Ticketed Event)
6:00 - 8:00 PM
SOUTH BALLROOM

Opening and Awards Ceremony
8:00 - 9:00 PM
SOUTH BALLROOM

Givadaun Lecture
9:00 - 10:00 PM
SOUTH BALLROOM

THURSDAY, APRIL 23

Gustation
8:00 - 10:00 AM
SOUTH BALLROOM

Break
10:00 - 10:30 AM

Gender effects on olfactory processing
10:30 AM - 12:30 PM
SOUTH BALLROOM

Break
2:10 - 2:25 PM

Workshop: NIH
3:00 - 5:00 PM
TROPICS ROOM

Presidential Symposium: On beyond glomeruli
7:00 - 9:05 PM
SOUTH BALLROOM

POSTER SESSION I: Chemosensory disorders, models and aging/Central chemosensory circuits
8:00 AM - 12:30 PM
NORTH BALLROOM

Industry Symposium
1:00 - 4:00 PM
SOUTH BALLROOM

Industry Reception
(Ticketed Event)
4:15 - 6:00 PM
THE BOATHOUSE

POSTER SESSION II: Chemosensory response to, and control of, feeding/ Neuroethology
7:00 - 11:00 PM
NORTH BALLROOM

FRIDAY, APRIL 24

Development and Plasticity: First Central Chemosensory Relays
8:00 - 10:30 AM
SOUTH BALLROOM

Break
10:30 - 11:00 AM

Polak Young Investigator Award Winners
11:00 AM - 12:30 PM
SOUTH BALLROOM

POSTER SESSION III: Cortical chemosensory processing/ Receptor genomics and molecular biology
8:00 AM - 12:30 PM
NORTH BALLROOM

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

Workshop: NIH
3:00 - 4:00 PM
FLORIDA ROOM

ChEMA Social
(Ticketed Event)
5:00 - 7:00 PM
TROPICS ROOM

IFF Special Lecture
7:00 - 8:00 PM
SOUTH BALLROOM

Break
8:00 - 8:15 PM

Reciprocal interactions between primary taste and olfactory processing networks and higher cognition
8:15 - 10:15 PM
SOUTH BALLROOM

POSTER SESSION IV: Chemosensory transduction and perireceptor events
7:00 - 11:00 PM
NORTH BALLROOM

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

Registration
7:30 am to 11:00 am

SATURDAY, APRIL 25

Functional evolution of chemosensory receptors
8:00 - 10:05 AM
SOUTH BALLROOM

Break
10:05 - 10:30 AM

Making sense of fat taste
10:30 AM - 12:30 PM
SOUTH BALLROOM

POSTER SESSION V: Chemosensory memory/ Central synaptic physiology/ Neurogenesis
8:00 AM - 12:30 PM
NORTH BALLROOM

Clinical Luncheon
(Ticketed Event)
12:45 - 2:45 PM
THE KEYS ROOM

Workshop: Computational problems in sequential stages of odor processing
3:00 - 5:30 PM
SOUTH BALLROOM

Follow the head, not only the nose: Top-down influences on olfactory perception
7:00 - 9:05 PM
SOUTH BALLROOM

POSTER SESSION VI: Chemosensory development and Psychophysics I
7:00 - 11:00 PM
NORTH BALLROOM

SUNDAY, APRIL 26

GABA in the developing olfactory system: From generation to differentiation
8:00 - 10:05 AM
SOUTH BALLROOM

Break
10:05 - 10:30 AM

Olfactory and Vomeronasal Systems
10:30 AM - 12:30 PM
SOUTH BALLROOM

POSTER SESSION VII: Chemosensory Psychophysics II
8:00 AM - 12:30 PM
NORTH BALLROOM

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See you next year at our new venue!

Tradewinds Resort | St. Petersburg, Florida

AChemS 32nd Annual Meeting
April 21-25, 2010

More space, more rooms, more fun!