

ACheMS *28th Annual Meeting*

Dates of future AChemS meetings:

2007

April 25-29, 2007 – Hyatt - Sarasota, FL

2008 (ISOT)

July 21-25, 2008 – Hyatt Embarcadero - San Francisco, CA



ACheMS

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Minneapolis, MN 55416

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Program

April 26-30, 2006 • Sarasota, Florida



AChemS Association for Chemoreception Sciences

AChemS extends special thanks and appreciation for grant support from:

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

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2006 Awardees

28th Annual Givaudan Lectureship, Givaudan Corporation
John Dowling, PhD, Harvard University

15th Annual Moskowitz Jacobs Award for Research in Psychophysics of Taste and Olfaction
Paul Wise, PhD, Monell Chemical Senses Center

13th Annual Ajinomoto Award to Promising Young Researcher in the Field of Gustation
Lynette Phillips McCluskey, PhD, Medical College of Georgia

The AChemS Max Mozell Award for Outstanding Achievement in the Chemical Senses
William Cain, PhD, University of California at San Diego

The AChemS Young Investigator Award for Research in Olfaction
Abdallah Hayar, PhD, University of Arkansas

The AchemS Don Tucker Memorial Award (2005 Awardee)
Yiling Nie, University of Maryland (Steve Munger, PhD – Advisor)

POLAK YOUNG INVESTIGATOR AWARD RECIPIENTS
Funded by Ghislaine and Ernest Polak

<i>Mari Hakala, Monell Chemical Senses Center</i>	<i>Gianluca Polese, Michigan State University</i>
<i>Huey K. Hing, University of Illinois, Urbana-Champaign</i>	<i>Anandasankar Ray, Yale University</i>
<i>Robin Frances Krimm, University of Louisville Medical Center</i>	<i>Justus Verhagen, Boston University</i>

JUNIOR SCIENTIST TRAVEL FUND AWARD RECIPIENTS
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Salome Antolin, University of Cambridge, UK
John Cave, Burke Medical Research Institute, Weill Medical College, Cornell
Thomas Cleland, Cornell University
Teunis Dekker, Swedish University of Agricultural Sciences
Wen Li, Northwestern University
Nian Liu, Yale University
Harumi Saito, Duke University
Mandy Scheibe, University of Dresden Medical School, Germany
Mussadiq Shah, Smell & Taste Research Unit, Essex Neuroscience Centre, UK
Elena Shirokova, German Institute of Human Nutrition Potsdam-Rehbruecke
Jianli Wang, Pennsylvania State University
Kevin Wanner, University of Illinois, Urbana-Champaign

ACHEMS MINORITY/CLINICAL FELLOWSHIP RECIPIENTS
Funded by a grant from the National Institutes of Health

Valery Audige, Monell Chemical Senses Center
Genevieve Bender, Yale University
Stephanie Caldwell, - Fitzsimons
Amina Egwiekhor, Loyola University
Ebony Glover, Emory University
Adam Gomez, University of Nebraska at Omaha
Kristina Gonzalez, Clark University
Sumana Jothi, University of California – San Diego
Ronald McMillon, Alabama State University
Bruce Murrow, University of Colorado Health Science Center
Gina Nelson, University of Alabama
Anthony Oliva, University of Colorado Health Science Center
Ernesto Salcedo, University of Colorado Health Science Center
Chris Whittle, Monell Chemical Senses Center

ACHEMS STUDENT HOUSING/TRAVEL AWARD RECIPIENTS
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Kelly Albin	Yehudit Hasin	Melissa Nickell
Jessica Albrecht	Tom Heath	Alastair Noyce
Jason Bailie	Hector Hurtazo	Staci Padova
Lisa Belzer	Seth Jones	Yunfeng Pan
Ginger Blonde	Aya Kato	Nicolas Pirez
Julie Boyle	Ron Katz	Erin Ramage
Patricia Bulsing	Alyson Laframboise	Xiang Ren
Karen Castillo	Anderson Lee	Samsudeen Ponissery Saidu
Veronica Chen	Wooje Lee	Benjamin Thwaites
Andrew Dacks	Katrin Markovic	Yada Treesukosol
M. Luisa Dematte	Kristine Martel	Radhika Vaishnav
Laura Dishaw	Joshua Martin	Philip Vetterott
Wilder Doucette	Jessica McDonald	Maria Gerladine Veldhuizen
Cynthia Fuller	Jeremy McIntyre	Pam Wall
Jayne Gardiner	Idan Menashe	Daniel Wesson
Wendy Grus	Sarah Miller	Marcel Winnig
Brian Gulbransen	Arie Mobley	Peng Zhang
Jonathan Hansen	Shigehiro Namiki	Wen Zhou
Danielle Harlow	Loreno Rubio Navarro	

2006 Exhibitors – North Ballroom

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TDT provides versatile signal processing workstations for sensory neuroscience. Workstations include hardware and software for stimulus generation and data acquisition, including multichannel extracellular and evoked potential recordings, experimental control and stimulus control.

Sensonics, Inc.

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Sensonics, Inc. is devoted to providing the medical, scientific and industrial communities with the best products for assessing chemosensory function.

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Program Chair	Debra Ann Fadool, PhD	Florida State University
Councilors	Matt Wachowiak, PhD	Boston University
	Pam Dalton, PhD	Monell Chemical Senses Center

2005-06 Program Committee

Debra Ann Fadool, PhD (Chair), Charles Derby, PhD, Richard Doty, PhD, Timothy Gilbertson, PhD, Robert Lane, PhD, Trese Leinders-Zufall, PhD, Michael Leon, PhD, Emily Liman, PhD, Mary Lucero, PhD, Michael Meredith, PhD, Charlotte Mistretta, PhD, Jane Roskams, PhD, Steven St. John, PhD, Peter Sorensen, PhD, Richard Vogt, PhD, Joel White, PhD

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

Tuesday, April 25, 2006

12:00 PM - 5:00 PM

Registration for Satellite Symposium
(Prefunction Area - Hyatt)

SYMPOSIUM

Tuesday - 1:00 PM - 11:00 PM (South Ballroom)

Chemosensory Receptors Satellite Symposium
Peter Mombaerts, Session Chair

- | | |
|------|---|
| 1:00 | 1 DEVELOPMENT AND ACTIVITY-DEPENDENT REFINEMENT OF THE OLFACTORY INTRABULBAR MAP
Belluscio L. ¹ ¹ National Institutes of Health (NIH), Bethesda, MD |
| 1:45 | 2 CHARACTERIZING HUMAN OLFACTORY RECEPTOR GENE EXPRESSION
Gilad Y. ¹ , Pinto J. ¹ ¹ Department of Human Genetics, University of Chicago, Chicago, IL |
| 2:30 | 3 OLFACTORY RECEPTORS SIGNAL IDENTITY
Firestein S. ¹ ¹ Biological Sciences, Columbia University, New York, NY |
| 3:15 | 4 ONSET OF ODORANT RECEPTOR EXPRESSION
Greer C.A. ¹ , Rodriguez-Gil D. ¹ , Iwema C. ¹ , Treloar H. ¹ ¹ Neurosurgery, Yale University, New Haven, CT |
| 4:00 | 5 REPRESENTATION OF NATURAL STIMULI IN THE RODENT MAIN OLFACTORY BULB
Lin D. ¹ , Katz L.C. ¹ ¹ Neurobiology, Duke University, Durham, NC |
| 4:45 | 6 FUNCTIONAL AND STRUCTURAL ANALYSIS OF MAMMALIAN ODORANT RECEPTORS
Luetje C.W. ¹ ¹ Molecular and Cellular Pharmacology, University of Miami, Miami, FL |
| 5:30 | 7 OLFACTORY RECEPTORS IN THE SEPTAL ORGAN
Grosmaître X. ¹ , Tian H. ¹ , Lee A. ¹ , Ma M. ¹ ¹ Neuroscience, University of Pennsylvania, Philadelphia, PA |

- 6:15 8 RIC-8B, A PUTATIVE GEF FOR G ALPHA OLF, AMPLIFIES
SIGNAL TRANSDUCTION THROUGH ODORANT
RECEPTORS
Von Dannecker L.C.¹, Mercadante A.F.¹, Malnic B.¹ ¹*Department
of Biochemistry, University of Sao Paulo, Sao Paulo, Brazil*
- 7:00 9 "DEORPHANIZING" MAMMALIAN ODORANT
RECEPTORS
Matsunami H.¹ ¹*MGM, Duke University Medical Center, Durham,
NC*
- 7:45 10 OLFACTION TARGETED
Mombaerts P.¹ ¹*The Rockefeller University, New York, NY*
- 8:30 11 OLFACTORY DEFICITS IN MICE DEFICIENT FOR THE
TRANSIENT RECEPTOR POTENTIAL CHANNEL M5
Restrepo D.¹, Margolskee R.F.², Lin W.¹ ¹*Cell and Developmental
Biology, University of Colorado Health Sciences Center, Aurora,
CO; ²Neuroscience, Mount Sinai School of Medicine, New York,
NY*

Wednesday, April 26, 2006

10:00 AM - 12:00 PM **GWIZ Educational Outreach Event**
(Gwiz Science Center)

SYMPOSIUM

Wednesday - 9:00 AM - 1:00 PM (Ritz Carlton, Plaza 1)

Chemosensory Receptors Satellite Symposium
Peter Mombaerts, Session Chair

- 9:00 12 MONITORING ODORANT DETECTION BY OLFACTORY
RECEPTORS EXPRESSED IN YEAST AS A REPORTER
SYSTEM
Minic J.¹, Grosclaude J.², Persuy M.¹, Aioun J.¹, Connerton I.³,
Salesse R.¹, Pajot-Augy E.¹ ¹*Neurobiologie de l'Olfaction et de la
Prise Alimentaire, Institut National de la Recherche Agronomique,
Jouy-en-Josas Cedex, France; ²Virologie et Immunologie
Moléculaires, Institut National de la Recherche Agronomique,
Jouy-en-Josas Cedex, France; ³Biosciences, University of
Nottingham, Nottingham, United Kingdom*
- 9:45 13 ODORANT RECEPTORS WITH UNIQUE FEATURES
Breer H.¹, Strotmann J.¹ ¹*Institute of Physiology, University of
Hohenheim, Stuttgart, Germany*
- 10:30 14 EVOLUTIONAL AND BIOLOGICAL CHARACTERIZATION
OF THE MOUSE ESP FAMILY
Touhara K.¹ ¹*University of Tokyo, Chiba, Japan*
- 11:15 15 COMPLEXITY AND MODULARITY IN THE REGULATION
OF CHEMORECEPTOR GENE EXPRESSION IN *C. ELEGANS*
Van Der Linden A.M.¹, Nolan K.², Sengupta P.¹ ¹*Biology,
Brandeis University, Waltham, MA; ²School of Law, University of
California, Berkeley, CA*
- 12:00 16 ATYPICAL MEMBRANE TOPOLOGY AND HETEROMERIC
FUNCTION OF *DROSOPHILA* ODORANT RECEPTORS IN
VIVO
Benton R.¹, Sachse S.¹, Michnick S.², Vosshall L.¹ ¹*Rockefeller
University, New York, NY; ²University of Montreal, Montreal,
Quebec, Canada*

Wednesday, April 26, 2006

- 12:00 PM - 3:30 PM **Executive Committee**
(Executive Board Room)
- 2:30 PM - 5:30 PM **Special NIDCD Workshop: The Development of Quick Taste and Smell Tests** (Ringling Room)
Barry Davis, Workshop Chair
- 3:30 PM - 8:00 PM **Registration** (Prefunction Area)
- 4:00 PM - 5:00 PM **Long-range Planning** (Executive Board Room)
- 6:30 PM - 8:00 PM **Opening Banquet** (North and South Ballrooms)
- 8:00 PM - 8:30 PM **Welcome and Awards Ceremony** (South Ballroom)
- 8:30 PM - 9:30 PM **Givaudan Lecture** (South Ballroom)

8:30 17 FISHING FOR NOVEL GENES
Dowling J.E.¹ ¹Molecular and Cellular Biology, Harvard University, Cambridge, MA

9:30 PM - 10:30 PM **Social Gathering & Cash Bar** (Prefunction Area)

9:30 PM - 10:45 PM **Student Travel/Housing Award Volunteer Meeting** (North Ballroom)

Thursday, April 27, 2006

7:30 AM - 3:00 PM **Registration** (Prefunction Area)

SLIDES

Thursday - 8:00 AM - 9:45 AM (South Ballroom)

Ecology and Social Chemicals
Peter Sorenson, Session Chair

- 8:00 18 FUNCTION OF ODORS AND CHEMOSIGNALS IN BIRDS
Hagelin J.¹ ¹Biology, Swarthmore College, Swarthmore, PA
- 8:15 19 OLFACTION, MECHANORECEPTION AND VISION ARE USED IN THE LOCATION OF A TURBULENT ODOR SOURCE BY A BENTHIC SHARK
Gardiner J.M.¹, Atema J.¹ ¹Biology, Boston University, Woods Hole, MA
- 8:30 20 SEA HARE (*APLYSIA CALIFORNICA*) DEFENSIVE SECRETIONS ALSO CONTAIN PYRIMIDINE AND OTHER ALARM CUES THAT WARN CONSPECIFICS OF NEARBY PREDATORS
Kicklighter C.¹, Germann M.W.², Kamio M.¹, Kubanek J.³, Derby C.¹ ¹Biology, Georgia State University, Atlanta, GA; ²Chemistry, Georgia State University, Atlanta, GA; ³Biology, Georgia Institute of Technology, Atlanta, GA
- 8:45 21 CHEMICALS AND ECOLOGY: MULTITROPHIC PREDATOR PREY INTERACTIONS MEDIATED BY CHEMISTRY
Ferrer R.P.¹, Zimmer R.¹ ¹Ecology and Evolutionary Biology, University of California, Los Angeles, CA
- 9:00 22 ENANTIOMERIC PHEROMONE BLENDS IN MAMMALS: ASIAN ELEPHANTS AND BARK BEETLES SHARE CHIRAL CHEMISTRY
Greenwood D.¹, Rasmussen L.² ¹School of Biological Sciences, University of Auckland, Auckland, New Zealand; ²Environmental & Biomolecular Systems (EBS), Oregon Health & Science University, Portland, OR

- 9:15 23 BEHAVIORAL EVIDENCE THAT GOLDFISH DISCERN MOSAICS OF PHEROMONAL ODORANTS THAT INCLUDE BOTH SEX HORMONE DERIVATIVES AND BILE ACIDS
Sorensen P.W.¹, Fine F.², Murphy C.², Bjerselius R.², Kihlslinger R.³ ¹University of Minnesota, St. Paul, MN; ²Fisheries, Wildlife, and Conservation Biology, University of Minnesota, St. Paul, MN; ³Neurobiology, Physiology and Behavior, University of California, Davis, Davis, CA
- 9:30 24 PHEROMONAL RECOGNITION MEMORY INDUCED BY TRPC2-INDEPENDENT VOMERONASAL SENSING
Kelliher K.R.¹, Spehr M.¹, Li X.¹, Zufall F.¹, Leinders-Zufall T.¹ ¹Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD

SYMPOSIUM

Thursday - 10:00 AM - 12:15 PM (South Ballroom)

Impact of Odorant Metabolism on Scent Perception Xinxin Ding, Symposium Chair

- 10:00 25 ODORANT/PEROMONE METABOLISM IN INSECTS
Vogt R.¹ ¹Biological Sciences, University of South Carolina, Columbia, SC
- 10:35 26 MAMMALIAN NASAL P450 ENZYMES AND ODORANT METABOLISM
Ding X.¹ ¹Wadsworth Center, NYSDOH, Albany, NY
- 11:10 27 ODORANT METABOLISM IN THE HUMAN NOSE
Schilling B.¹ ¹Givaudan Schweiz AG - Fragrance Research, Duebendorf, Zurich, Switzerland
- 11:40 28 FLAVOR METABOLISM IN THE ORAL CAVITY
Buettner A.¹ ¹German Research Center for Food Chemistry, Garching, Germany

POSTERS

Thursday - 8:00 AM - 12:00 PM (North Ballroom)

Peripheral Olfaction – Ion Channels, Exchangers, and Pumps

- P1 29 LIPID RAFTS ORGANIZE CHEMOSENSORY SIGNAL TRANSDUCTION MOLECULES IN THE CHEMOATTRACTION OF PARAMECIUM
Pan Y.¹, Yano J.¹, Van Houten J.¹ ¹Biology, University of Vermont, Burlington, VT
- P2 30 THE CNGB1 SUBUNIT IS REQUIRED FOR NORMAL OLFACTION AND LOCALIZATION OF THE CNG CHANNEL TO OLFACTORY CILIA
Michalakis S.¹, Reisert J.², Geiger H.¹, Wetzel C.H.³, Zong X.¹, Bradley J.², Spehr M.³, Hüttel S.¹, Gerstner A.¹, Pfeifer A.¹, Hatt H.³, Yau K.², Biel M.¹ ¹Pharmazie, Ludwig-Maximilians-Universität München, München, Germany; ²Neuroscience, Johns Hopkins School of Medicine, Baltimore, MD; ³Zellphysiologie, Ruhr-Universität Bochum, Bochum, Germany
- P3 31 CILIARY TARGETING OF OLFACTORY CNG CHANNELS REQUIRES THE CNGB1B SUBUNIT AND THE KINESIN MOTOR PROTEIN, KIF17
Jenkins P.M.¹, Hurd T.W.², Zhang L.¹, Brown R.L.³, Margolis B.L.⁴, Verhey K.J.⁵, Martens J.R.¹ ¹Pharmacology, University of Michigan, Ann Arbor, MI; ²Internal Medicine, University of Michigan, Ann Arbor, MI; ³Neurology, Oregon Health & Science University, Beaverton, OR; ⁴Howard Hughes Medical Institute, University of Michigan, Ann Arbor, MI; ⁵Cell and Developmental Biology, University of Michigan, Ann Arbor, MI
- P4 32 CLUSTERING OF CYCLIC-NUCLEOTIDE-GATED CHANNELS IN OLFACTORY CILIA
Flannery R.J.¹, French D.A.², Kleene S.J.¹ ¹Cell Biology, Neurobiology, and Anatomy, University of Cincinnati, Cincinnati, OH; ²Mathematical Sciences, University of Cincinnati, Cincinnati, OH
- P5 33 MECHANISM OF SIGNAL AMPLIFICATION IN THE NEWT OLFACTORY SENSORY CILIA
Takeuchi H.¹, Kurahashi T.¹ ¹Frontier Biosciences, Osaka University, Osaka, Japan

- P6 34 SENSITIVITY OF LOBSTER OLFACTORY RECEPTOR NEURONS TO AMILORIDE DERIVATIVES
Bobkov Y.V.¹, Ache B.W.¹ ¹Whitney Laboratory for Marine Bioscience and Center for Smell and Taste, University of Florida, St. Augustine, FL
- P7 35 PLASMA MEMBRANE CALCIUM PUMPS' ROLE IN CALCIUM REMOVAL IN MOUSE OLFACTORY NEURONS
Van Houten J.¹, Poinissery-Saidu S.¹, Valentine M.¹, Weeraratne S.D.¹, Delay R.¹ ¹Biology, University of Vermont, Burlington, VT
- P8 36 CALCIUM ATPASE IN OLFACTORY CILIA
Castillo K.¹, Bacigalupo J.¹ ¹Biology, Fac Sciences, University of Chile, Santiago, Chile
- P9 37 EFFECT OF EXTERNAL NA⁺ ON NA-CA EXCHANGE-MEDIATED CURRENT RECOVERY IN FROG ORN'S
Antolin S.¹, Matthews H.R.¹ ¹Department of Physiology, University of Cambridge, Cambridge, United Kingdom
- P10 38 INVESTIGATING THE ROLE OF SODIUM CALCIUM EXCHANGERS IN CULTURED HUMAN OLFACTORY CELLS.
Costanzo J.¹, Gomez G.¹ ¹Biology Dept., University of Scranton, Scranton, PA
- P11 39 MECHANISMS OF CHLORIDE ACCUMULATION IN INTACT MOUSE OLFACTORY EPITHELIUM
Nickell W.T.¹, Kleene N.K.¹, Kleene S.J.¹ ¹University of Cincinnati, Cincinnati, OH

Peripheral Olfaction – Modulation and Transduction

- P12 40 DUAL EFFECT OF ATP IN THE OLFACTORY EPITHELIUM OF XENOPUS LAEVIS TADPOLES: ACTIVATION OF BOTH RECEPTOR AND SUSTENTACULAR SUPPORTING CELLS
Manzini I.¹, Czesnik D.¹, Kuduz J.¹, Schild D.¹ ¹University of Goettingen, Goettingen, Lower Saxony, Germany
- P13 41 EXPRESSION OF THE GABA PI SUBUNIT IN THE OLFACTORY EPITHELIUM
Hollins B.¹, Sither M.J.¹ ¹Clinical Sciences, University of Kentucky, Lexington, KY
- P14 42 ACETYLCHOLINE MODULATES ACTIVITY IN THE OLFACTORY EPITHELIUM IN AXOLOTL, AMBYSTOMA MEXICANUM
Leitch K.J.¹, Lane L.S.¹, Polese G.¹, Eisthen H.L.¹ ¹Zoology, Michigan State University, East Lansing, MI

- P15 43 INVESTIGATIONS ON PRESENCE AND FUNCTION OF NITRIC OXIDE IN THE MURINE OLFACTORY SYSTEM
Brunert D.¹, Isik S.², Schuhmann W.², Hatt H.¹, Wetzel C.H.¹ ¹Cell Physiology, Ruhr-University, Bochum, Germany; ²Analytical Chemistry, Ruhr-University, Bochum, Germany
- P16 44 ANATOMICAL AND FUNCTIONAL EVIDENCES FOR A NEUROMODULATORY ROLE OF ENDOTHELINE ON THE OLFACTORY MUCOSA CELLS
Congar P.¹, Gouadon E.¹, Meunier N.¹, Baly C.¹, Salesse R.¹, Caillol M.¹ ¹Institut National de la Recherche Agronomique (INRA), Jouy-en-Josas, France
- P17 45 BURSTING WITH ODOR: INTRINSICALLY OSCILLATING OLFACTORY RECEPTOR NEURONS
Ache B.W.¹, Bobkov Y.V.¹ ¹Whitney Laboratory for Marine Bioscience and Center for Smell and Taste, University of Florida, St. Augustine, FL
- P18 46 USE OF CILIARY BEAT FREQUENCY FOR MEASURING CHEMORESPONSE IN PARAMECIUM
Bell W.E.¹, Hallworth R.J.², Wyatt T.A.³, Sisson J.H.³ ¹Biology, Virginia Military Institute, Lexington, VA; ²Biomedical Sciences, Creighton University, Omaha, NE; ³Internal Medicine, University of Nebraska Medical Center, Omaha, NE
- P19 47 IMPLANTABLE NEURAL INTERFACES FOR CHARACTERIZING POPULATION RESPONSES TO ODORANTS AND ELECTRICAL STIMULI IN THE NURSE SHARK, *GINGLYMOSTOMA CIRRATUM*
Lehmkuhle M.J.¹, Vetter R.J.², Parikh H.¹, Carrier J.C.³, Kipke D.R.¹ ¹Biomedical Engineering, University of Michigan, Ann Arbor, MI; ²NeuroNexus Technologies, Inc., Ann Arbor, MI; ³Biology, Albion College, Albion, MI
- P20 48 RESPONSES OF SPONTANEOUSLY INACTIVE OLFACTORY RECEPTOR NEURONS CORRELATE WITH EOG IN BLACK BULLHEAD CATFISH (*AMEIURUS MELAS*)
Dolensek J.¹, Valentincic T.¹ ¹Biology, University of Ljubljana, Ljubljana, Slovenia
- P21 49 CULTURED OLFACTORY RECEPTOR NEURONS SHOW SUMMATION, ADAPTATION, AND AGE-RELATED DIFFERENCES IN EOG RESPONSE KINETICS
Viswaprakash N.¹, Josephson E.M.¹, Vodyanoy V.J.² ¹Anatomy, Physiology, and Pharmacology, Auburn University, Auburn, AL; ²Biosensor Laboratory, Auburn University, Auburn, AL

- P22 50 STRUCTURE AND FUNCTION OF A TRACE DETECTOR SYSTEM: CANINE OLFACTORY SYSTEM
Morrison E.¹, Josephson E.¹, Viswaprakash N.¹, Dennis J.C.¹, Wang K.², Denny T.², Vodyanov V.³ ¹*Anatomy, Physiology and Pharmacology, Auburn University, Auburn, AL;* ²*Electrical Engineering, Auburn University, Auburn, AL;* ³*Auburn University, Auburn, AL*
- P23 51 RESPONSES OF THE RAT OLFACTORY EPITHELIUM TO REVERSED AIR FLOW
Scott J.W.¹, Humberto A.P.¹, Sherrill L.¹ ¹*Cell Biology, Emory University, Atlanta, GA*

Peripheral Olfaction – Anatomy

- P24 52 OLFACTORY AND OTHER CHEMOSENSORY RECEPTOR CELLS IN THE NASAL CAVITY OF THE AMERICAN ALLIGATOR
Hansen A.¹ ¹*Rocky Mountain Taste and Smell Center, University of Colorado Health Sciences Center at Fitzsimons, Aurora, CO*
- P25 53 DIFFERENTIAL EXPRESSION OF NEURONAL MARKERS IN OLFACTORY EPITHELIA
Weiler E.¹, Benali A.¹ ¹*Ruhr-University, Bochum, Germany*
- P26 54 SEA LAMPREY (*PETROMYZON MARINUS*) OLFACTORY SENSORY NEURONS DISPLAY POLYMORPHISMS
Laframboise A.¹, Chang S.¹, Ren X.¹, Dubuc R.², Zielinski B.¹ ¹*Biological Sciences, University of Windsor, Windsor, Ontario, Canada;* ²*Département de Kinanthropologie, Université du Québec à Montréal, Montréal, Québec, Canada*
- P27 55 G-PROTEINS IN THE SQUID OLFACTORY EPITHELIUM
Mobley A.S.¹, Greig A.¹, Lucero M.¹ ¹*Physiology, University of Utah, Salt Lake City, UT*
- P28 56 IMMUNOCYTOCHEMICAL LOCALIZATION OF SEROTONIN IN THE CENTRAL AND PERIPHERAL CHEMOSENSORY SYSTEM OF MOSQUITOES.
Siju K.¹, Hansson B.¹, Ignell R.¹ ¹*SLU, Alnarp, Sweden*
- P29 57 REGIONAL DIFFERENCES IN CYTOARCHITECTURE IN THE ANTERIOR OLFACTORY NUCLEUS
Meyer E.A.¹, Illig K.R.², Brunjes P.C.² ¹*Biology, University of Virginia, Charlottesville, VA;* ²*Psychology, University of Virginia, Charlottesville, VA*
- P30 58 CAN DIELECTRIC ANTENNA THEORY HELP EXPLAIN INSECT OLFACTION?
Dykstra T.M.¹ ¹*Dykstra Laboratories, Inc., Gainesville, FL*

Peripheral Taste – Ion Channels

- P31 59 BASOLATERAL MONOSODIUM GLUTAMATE INDUCE A CLOSURE OF CHANNELS IN SOME RAT TASTE BUD CELLS.
Vandenbeuch A.¹, Faurion A.², Trotier D.² ¹*INRA, Jouy en Josas, France;* ²*CNRS / INRA, Jouy en josas, France*
- P32 60 CHORDA TYMPANI TASTE RESPONSES MODIFIED BY AGONISTS AND ANTAGONISTS OF BRAIN GLUTAMATE RECEPTORS.
Faurion A.¹, Vandenbeuch A.², Berteretche M.², Lelièvre M.² ¹*CNRS / INRA, Jouy en josas, France;* ²*INRA, Jouy en Josas, France*
- P33 61 EXPRESSION OF A VOLTAGE-GATED POTASSIUM CHANNEL KCNQ1 IN TASTE BUD CELLS
Wang H.¹, Zhou M.¹, Rong Q.², Ihoue M.³, Bachmanov A.A.¹, Margolskee R.F.⁴, Pfeifer K.E.², Huang L.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA;* ²*NICHD, NIH, Bethesda, MD;* ³*Tokyo University of Pharmacy and Life Science, Tokyo, Japan;* ⁴*Neuroscience, Mount Sinai School of Medicine, New York, NY*
- P34 62 CALIBRATION OF A LINGUAL ELECTRIC STIMULATOR, LATERALITY OF RESPONSE AND METALLIC TASTE
McClure S.T.¹, Lawless H.T.¹ ¹*Food Science, Cornell University, Ithaca, NY*
- P35 63 AQUAPORIN EXPRESSION IN MICE
Watson K.J.¹, Gilbertson T.A.¹ ¹*Biology, Utah State University, Logan, UT*
- P36 64 DIETARY FAT INDUCED OBESITY ALTERS K⁺ CHANNEL EXPRESSION AND REDUCES FATTY ACID RESPONSIVENESS IN RATS
Baquero A.F.¹, Hansen D.R.¹, Coombs C.¹, Gilbertson T.A.¹ ¹*Biology & The Center for Integrated BioSystems, Utah State University, Logan, UT*

Peripheral Taste – Electrophysiology, Modulation, and Transduction

- P37 65 CHORDA TYMPANI NERVE ELECTROPHYSIOLOGICAL RESPONSES TO LINGUAL CO-APPLICATION OF MSG AND LINOLEIC ACID IN MALE AND FEMALE RATS
Stratford J.M.¹, Curtis K.S.¹, Contreras R.J.¹ ¹*Department of Psychology and Program in Neuroscience, Florida State University, Tallahassee, FL*

- P38 66 NEAR THRESHOLD CONCENTRATIONS OF LINOLEIC OR OLEIC ACID SPECIFICALLY INHIBIT BITTERNESS OF QUININE IN HUMANS BUT DO NOT MODULATE PERCEPTION OF OTHER TASTANTS.
Godinot N.¹, Phan V.¹, Chassagne S.¹, Martin N.¹ ¹Nestle, Lausanne, Switzerland
- P39 67 EXPRESSION OF ARACHIDONIC ACID SIGNALING-RELATED MOLECULES IN RAT CIRCUMVALLATE TASTE BUDS
Oike H.¹, Misaka T.¹, Matsumoto I.¹, Abe K.¹ ¹The University of Tokyo, Bunkyo-ku, Tokyo, Japan
- P40 68 TRANSGENIC MICE EXPRESSING GFP IN PLC₂ TASTE CELLS DEMONSTRATE FUNCTIONAL CLASSES OF CELLS
Kim J.¹, Maruyama Y.¹, Roberts C.D.¹, Berg S.¹, Roper S.D.¹, Chaudhari N.¹ ¹Physiology & Biophysics, Miller School of Medicine, University of Miami, Miami, FL
- P41 69 INHIBITION OF THE IP₃ PATHWAY PERMITS FLY SUGAR RECEPTOR CELL RESPONSES TO NA-SACCHARIN
Miller S.E.¹, Kennedy L.M.¹ ¹Neuroscience Laboratory, Biology Department, Clark University, Worcester, MA
- P42 70 INVESTIGATING CYCLIC AMP IN TASTE TRANSDUCTION USING REAL TIME IMAGING
Roberts C.D.¹, Chaudhari N.², Roper S.D.² ¹Program in Neurosciences, Miller School of Medicine, University of Miami, Miami, FL; ²Physiology & Biophysics and Program in Neurosciences, Miller School of Medicine, University of Miami, Miami, FL
- P43 71 IDENTIFICATION OF TWO PUTATIVE TASTE SIGNAL TRANSDUCTION COMPONENTS
Lopezjimeñez N.D.¹, Cavenagh M.M.¹, Sainz E.¹, Battey J.F.¹, Sullivan S.L.¹ ¹National Institute on Deafness and Other Communication Disorders, National Institutes of Health (NIH), Rockville, MD
- P44 72 *DROSOPHILA* NORPA EXPRESSION IN TASTE NEURONS: ROLE IN TREHALOSE DETECTION
Chyb S.¹, Sadiq F.², Robert P.², Chyb M.² ¹CSIRO Entomology, Canberra, Australian Capital Territory, Australia; ²Molecular Cell Biology, Imperial College London, Wye, Kent, United Kingdom

- P45 73 RECOMBINANT NEOCULIN PRODUCED BY *ASPERGILLUS ORYZAE* HAS THE NATIVE TASTE-MODIFYING ACTIVITY, RECOGNIZABLE BY HUMAN SWEET TASTE RECEPTOR
Nakajima K.¹, Asakura T.¹, Maruyama J.², Morita Y.¹, Oike H.¹, Misaka T.¹, Kitamoto K.², Abe K.¹ ¹Department of Applied Biological Chemistry, the University of Tokyo, Tokyo, Japan; ²Department of Biotechnology, The University of Tokyo, Tokyo, Japan
- P46 74 EXPRESSION OF SWEET TASTE RECEPTORS AND SIGNALING MOLECULES IN THE ENTEROENDOCRINE STC-1 CELLS
Ginjala V.¹, Wang H.¹, Huang L.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P47 75 EXPRESSION OF THE G PROTEIN -SUBUNIT GUSTDUCIN IN MAMMALIAN SPERMATOZOA
Meyer D.¹, Fehr J.¹, Borth H.¹, Widmayer P.², Wilhelm B.³, Gudermann T.¹, Boekhoff I.¹ ¹Pharmacology, University of Marburg, Marburg, Germany; ²Physiology, University of Hohenheim, Stuttgart, Germany; ³Anatomy, University of Marburg, Marburg, Germany
- P48 76 FURTHER CHARACTERIZATION OF NEUROPEPTIDES IN RAT TASTE RECEPTOR CELLS.
Cao Y.¹, Zhao F.¹, Herness M.S.¹ ¹College of Dentistry, Ohio State University, Columbus, OH
- P49 77 EXPRESSION OF GENES INVOLVED IN SYNTHESIS AND SECRETION OF BIOGENIC AMINE NEUROTRANSMITTERS IN MOUSE TASTE BUDS
Dvorianchikov G.¹, Chaudhari N.¹ ¹Physiology & Biophysics, University of Miami, Miami, FL
- P50 78 CELL-TO-CELL COMMUNICATION IN TASTE BUDS: THE ROLE OF ATP AND 5HT
Huang Y.¹, Maruyama Y.¹, Pereira E.¹, Roper S.D.¹ ¹Physiology & Biophysics, Miller School of Medicine, University of Miami, Miami, FL
- P51 79 ECTO-ATPASE IN TASTE BUDS OF FISHES
Kirino M.¹, Kiyohara S.¹, Hansen A.², Finger T.E.² ¹Chemistry and BioScience, Fac. Science, Kagoshima Univ., Kagoshima, Kagoshima, Japan; ²Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO
- P52 80 NUMERICAL DENSITY OF TASTE CELLS IN RAT AND MOUSE CIRCUMVALLATE TASTE BUDS
Ma H.¹, Yang R.¹, Kinnamon J.C.¹ ¹Biological Sciences, University of Denver, Denver, CO

- P53 81 SYNAPTOTAGMIN-1-LIKE IMMUNOREACTIVITY IN CIRCUMVALLATE TASTE BUDS OF THE RAT
Thomas S.¹, Yang R.¹, Ma H.¹, Kinnamon J.C.¹ ¹*Biological Sciences, University of Denver, Denver, CO*
- P54 82 CHARACTERISTICS OF GUSTATORY RESPONSES FROM THE SOFT PALATE IN C57BL MICE
Harada S.¹, Ooki M.¹, Nakayama A.¹, Miura H.¹ ¹*Oral Physiology, Kagoshima University, Kagoshima, Japan*

Peripheral Taste – Chorda Tympani

- P55 83 MIXING SWEET AND SOUR STIMULI: EFFECTS ON THE HAMSTER CHORDA TYMPANI
Lin H.¹, Formaker B.K.¹, Hettinger T.P.¹, Frank M.E.¹ ¹*Oral Health & Diagnostic Sciences, UConn Health Center, Farmington, CT*
- P56 84 AMILORIDE INHIBITION OF THE NA-EVOKED LINGUAL SURFACE POTENTIALS (LSP) VARIES IN HUMANS
Feldman G.¹, Heck G.² ¹*Internal Medicine, Virginia Commonwealth University, Richmond, VA*; ²*Physiology, Virginia Commonwealth University, Richmond, VA*
- P57 85 TIME COURSE OF ALTERED CHORDA TYMPANI NERVE RESPONSE AFTER CONTRALATERAL NERVE SECTION IN SODIUM-RESTRICTED RATS
Wall P.L.¹, McCluskey L.¹ ¹*Institute of Molecular Medicine and Genetics, Medical College of Georgia, Augusta, GA*
- P58 86 EXPRESSION AND REGULATION OF LINGUAL VASCULAR ADHESION MOLECULES FOLLOWING UNILATERAL CHORDA TYMPANI NERVE SECTION
Cavallin M.¹, McCluskey L.² ¹*Physiology, Medical College of Georgia, Augusta, GA*; ²*IMMAG, Medical College of Georgia, Augusta, GA*
- P59 87 MACROPHAGE ACTIVATION PATTERNS FOLLOWING CHORDA TYMPANI NERVE SECTION
Phillips M.¹, McCluskey L.P.¹ ¹*Institute of Molecular Medicine and Genetics, Medical College of Georgia, Augusta, GA*
- P60 88 BRIEF AND PROLONGED DIETARY SODIUM DEPRIVATION REDUCE CHORDA TYMPANI NERVE RESPONSES TO NaCl
Vaughn J.M.¹, Curtis K.S.¹, Contreras R.J.¹ ¹*Program in Neuroscience, Florida State University, Tallahassee, FL*

12:00 PM – 1:30 PM

Cash Lunch Cart (*Prefunction Area*)

12:30 PM - 2:00 PM

Minority & Clinical Award Luncheon
(*Executive Board Room*)

SYMPOSIUM

Thursday - 1:00 PM - 4:45 PM (*South Ballroom*)

Taste & Smell in Translation: Applications from Basic Research

*In depth explanations of recent basic-science advances with potential applications in industry***Michael Meredith, Symposium Chair**

1:00

- 89.1 INTRODUCTION: Taste and Smell in Translation
Meredith, M. *Neuroscience, Florida State University, Tallahassee, FL*

1:05

- 89.2 TASTE: Molecular Biology
Margolskee, R.F. *Neuroscience, Mount Sinai School of Medicine, New York, NY*

1:50

- 89.3 OLFACTION: Molecular Biology
Reed, R.R. *Molecular Biology and Genetics, Johns Hopkins University, Baltimore, MD*

2:50

- 89.4 OLFACTION: Perception/Psychophysics
Hertz, R. *Psychology, Brown University, Providence, RI*

3:35

- 89.5 TASTE: Perception/Psycho-genomics
Breslin, P. *Monell Chemical Senses Center, Philadelphia, PA*

4:20

- 89.6 ROUND TABLE DISCUSSION

3:00 PM - 4:30 PM **NIH Workshop - Funding Opportunities for New Investigators** (*Ringling Room*)
Barry Davis, Workshop Chair

5:15 PM - 6:45 PM **Industry Reception and Buffet**
(The Keys Room, Ticket holders only)

An opportunity for industry scientists to network and interact with basic scientists including the distinguished speakers from the Translational Workshop. Buffet, sufficient for a light meal, included with the ticket.

5:00 PM - 7:00 PM **ChEMA Social** (*Florida Room*)
Suzanne Sollars, Organizer

6:30 PM - 8:00 PM **Registration** (*Prefunction Area*)

SYMPOSIUM

Thursday - 7:00 PM - 9:30 PM (*South Ballroom*)

Structure/Function and Pharmacology of GPCR
Stuart Firestein, Symposium Chair

- 7:00 90 THE ORGANISATION AND MOLECULAR RELEVANCE OF GPCR QUATERNARY STRUCTURE
 Milligan G.¹ ¹*University of Galsgow, Glasgow, United Kingdom*
- 7:50 91 PHARMACOLOGY OF MOUSE OLFACTORY RECEPTORS
 Touhara K.¹ ¹*University of Tokyo, Chiba, Japan*
- 8:40 COMPLETING THE VISUAL CYCLE: CHROMOPHORE ENRTY AND RELEASE IN VISUAL PIGMENTS
 Sakmar, T.P.¹ ¹*The Rockefeller University, New York, NY*

POSTERS

Thursday - 7:00 PM - 11:00 PM (*North Ballroom*)

Clinical - Neural Basis of Human Olfaction

- P1 92 OLFACTORY EVENT-RELATED POTENTIALS: HOW MANY STIMULI DO WE REALLY NEED?
 Boesveldt S.¹, Haehner A.², Berendse H.¹, Hummel T.²
¹*Department of Neurology, VU University Medical Center, Amsterdam, Netherlands*; ²*Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany*
- P2 93 OLFACTORY EVENT-RELATED FUNCTIONAL MAGNETIC RESONANCE IMAGING STUDY IN YOUNG ADULTS
 Ni D.¹, Liu J.² ¹*Peking Union Medical College Hospital, Beijing, China*; ²*Dept. of Otolaryngology, Peking Union Medical College Hospital, Beijing, China*
- P3 94 HEDONIC-SPECIFIC TEMPORAL PATTERN OF RESPONSE IN PRIMARY OLFACTORY CORTEX OF HUMANS
 Zelano C.¹, Khan R.², Sobel N.² ¹*Biophysics, University of California, Berkeley, Berkeley, CA*; ²*Neuroscience, University of California, Berkeley, CA*
- P4 95 THE ASSOCIATION BETWEEN OLFACTORY RECOGNITION MEMORY PERFORMANCE AND BRAIN ACTIVATION IN OLDER MALES AND FEMALES: AN FMRI STUDY
 Wang M.¹, Cerf-Ducastel B.¹, Pirogovsky E.¹, Sundermann E.¹, Rattner K.¹, Allmon T.¹, Miller M.¹, Hackbarth J.¹, Murphy C.²
¹*San Diego State University, San Diego, CA*; ²*San Diego State University and UCSD Medical School, San Diego, CA*
- P5 96 OLFACTORY PERCEPTUAL LEARNING IN HUMAN PIRIFORM AND ORBITOFRONTAL CORTEX
 Gottfried J.A.¹, Li W.¹, Luxenberg E.², Howard J.¹ ¹*Neurology, Northwestern University, Chicago, IL*; ²*Linguistics, Duke University, Durham, NC*
- P6 97 THE EFFECTS OF SLEEP QUALITY ON OLFACTORY EVENT-RELATED POTENTIALS IN HEALTHY ADULTS.
 Essoe J.K.¹, Ramage E.¹, Parks A.M.¹, Lloyd K.¹, Hunt K.¹, Geisler M.W.¹ ¹*Psychology, San Francisco State University, San Francisco, CA*

- P7 98 ECHO TIME DEPENDENCE OF BOLD FMRI STUDIES OF THE PIRIFORM CORTEX
Kopietz R.¹, Albrecht J.¹, Linn J.¹, Sakar V.¹, Pollatos O.¹, Anzinger A.¹, May J.¹, Wesemann T.¹, Fesl G.¹, Kobal G.², Wiesmann M.¹ ¹Dept. of Neuroradiology, University of Munich, Munich, Germany; ²Sensory Research R&T, Philip Morris USA Inc., Richmond, VA
- P8 99 CONTRIBUTION OF THE LATERAL ORBITOFRONTAL CORTEX TO PROCESSING OF BINARY ODOR MIXTURE
Boyle J.A.¹, Olsson M.J.², Lundstrom J.N.¹, Djordjevic J.¹, Jones-Gotman M.¹ ¹Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada; ²Psychology, Uppsala University, Uppsala, Sweden
- P9 100 BRAIN ACTIVATIONS TO CHEMICAL SIGNALS
Chen D.¹, Zhou W.¹, Hou P.², Burton P.¹ ¹Psychology, Rice University, Houston, TX; ²Radiology, University of Texas Medical School at Houston, Houston, TX
- P10 101 OLFACTORY EVENT-RELATED BRAIN POTENTIALS TO NEAR-THRESHOLD STIMULI IN HEALTHY ADULTS.
Ramage E.¹, Essoe J.K.¹, Parks A.M.¹, Hunt K.¹, Lloyd K.¹, Geisler M.W.¹ ¹Psychology, San Francisco State University, San Francisco, CA
- P11 102 CENTRAL OLFACTORY ACTIVITY TO DIFFERENT ODOR INTENSITY IN OLDER PEOPLE
Wang J.¹, Zimmerman E.¹, Grunfeld R.¹, Vesck J.¹, Eslinger P.J.², Smith M.B.¹, Connor J.R.³, Yang Q.X.¹ ¹Radiology, Pennsylvania State University, Hershey, PA; ²Neurology, Pennsylvania State University, Hershey, PA; ³Neurosurgery, Pennsylvania State University, Hershey, PA
- P12 103 REDUCTION OF MAGNETIC SUSCEPTIBILITY ARTIFACTS IN OLFACTORY FMRI WITH GESEPI-SENSE-EPI METHOD
Zimmerman E.¹, Wang J.¹, Grunfeld R.¹, Sun X.¹, Vesck J.¹, Eslinger P.J.², Smith M.B.¹, Connor J.R.³, Yang Q.X.¹ ¹Radiology, Pennsylvania State University, Hershey, PA; ²Neurology, Pennsylvania State University, Hershey, PA; ³Neurosurgery, Pennsylvania State University, Hershey, PA

Clinical – Neurodegenerative Disease

- P13 104 OLFACTORY TESTS IN THE DIAGNOSIS OF ESSENTIAL TREMOR.
Shah M.¹, Findley L.¹, Muhammed N.¹, Hawkes C.H.¹ ¹Smell & Taste Research Unit, Essex Neuroscience Centre, London, United Kingdom

- P14 105 CHEMOSENSORY MEASUREMENT IN ESSENTIAL TREMOR
Noyce A.¹, Shah M.¹, Deeb J.¹, Findley L.J.¹, Hawkes C.H.¹ ¹Smell & Taste Research Unit, Essex Neuroscience Centre, London, United Kingdom
- P15 106 NASAL MUCOSA IN PATIENTS WITH PARKINSON'S DISEASE
Witt M.¹, Gudziol V.¹, Haehner A.¹, Reichmann H.², Hummel T.¹ ¹Otorhinolaryngology, University of Technology, Dresden, Med. Sch., Dresden, Germany; ²Neurology, University of Technology, Dresden, Med. Sch., Dresden, Germany
- P16 107 IDIOPATHIC PARKINSON'S DISEASE IS A PRIMARY OLFACTORY DISORDER
Hawkes C.H.¹ ¹Essex Neuroscience Centre, Romford, United Kingdom
- P17 108 CLARIFYING THE NATURE OF THE OLFACTORY IMPAIRMENT FOUND IN PARKINSON'S DISEASE
Bailie J.M.¹, Rybalsky K.A.¹, Hastings L.², Revilla F.J.³, Gesteland R.C.⁴, Frank R.A.⁵ ¹Psychology, University of Cincinnati, Cincinnati, OH; ²Osmic Enterprises, Inc., Cincinnati, OH; ³Neurology, University of Cincinnati, Cincinnati, OH; ⁴Cell Biology, Neurobiology & Anatomy, University of Cincinnati, Cincinnati, OH; ⁵Psychology/Office of Vice President for Research and Advance, University of Cincinnati, Cincinnati, OH
- P18 109 CEREBRAL ACTIVATION IN PD DURING OLFACTORY STIMULATION – AN FMRI STUDY
Welge-Lüssen A.¹, Westermann B.¹, Wattendorf E.¹, Uta S.¹, Peter F.¹, Wolfensberger M.², Hummel T.³, Bilecen D.¹ ¹University Hospital Basel, Basel, Switzerland; ²Otorhinolaryngology, University Hospital Basel, Basel, Switzerland; ³University of Dresden, Dresden, Saxony, Germany
- P19 110 IMPAIRMENTS IN SOURCE MEMORY FOR OLFACTORY STIMULI IN PRECLINICAL GENE CARRIERS OF HUNTINGTON'S DISEASE (HD)
Pirogovsky E.¹, Rice J.¹, Mekrut A.¹, Vallejo F.¹, Brushfield A.M.¹, Gilbert P.E.¹, Murphy C.¹ ¹Psychology, San Diego State University, San Diego, CA
- P20 111 OLFACTORY IDENTIFICATION AS A FUNCTION OF APOE-STATUS IN NON-DEMENTED ADULTS: EVIDENCE FROM A POPULATION-BASED SAMPLE
Olofsson J.K.¹, Nordin S.¹, Larsson M.², Cruts M.³, Adolfsson R.⁴, Sleegers K.³, Van Broeckhoven C.³, Nilsson L.² ¹Psychology, Umeå University, Umeå, Sweden; ²Psychology, Stockholm University, Stockholm, Sweden; ³Molecular Genetics, University of Antwerp, Antwerp, Belgium; ⁴Clinical sciences and Psychiatry, Umeå University, Umeå, Sweden

- P21 112 LONGITUDINAL EVALUATION OF SMELL IDENTIFICATION DEFICITS IN PATIENTS WITH MILD COGNITIVE IMPAIRMENT
Tabert M.¹, Albers M.², Liu X.³, Devanand D.⁴ ¹Psychiatry, Columbia University, New York, NY; ²Neurology, Columbia University, New York, NY; ³Columbia University, New York, NY; ⁴Columbia University and the New York State Psychiatric Institute, New York, NY

Clinical – Drug/Hormone Effects on Chemosensation

- P22 113 SPECIFIC EFFECTS OF CHLORHEXIDINE ON TASTE IDENTIFICATION
Wang M.¹, Marks L.E.¹, Gent J.², Frank M.E.³ ¹John B. Pierce Laboratory, New Haven, CT; ²Epidemiology & Public Health, Yale University, New Haven, CT; ³Oral Health & Diagnostic Sciences, University of Connecticut, Farmington, CT
- P23 114 OLFACTORY FUNCTION IN PATIENTS WITH POST-INFECTIOUS AND POST-TRAUMATIC SMELL DISORDERS BEFORE AND AFTER TREATMENT WITH VITAMIN A: A DOUBLE-BLIND, PLACEBO-CONTROLLED, RANDOMIZED CLINICAL TRIAL
Lill K.¹, Reden J.¹, Müller A.¹, Zahnert T.¹, Hummel T.¹ ¹Department of Otorhinolaryngology, University of Dresden Medical School, Germany, Dresden, Germany
- P24 115 SEROTONIN AND NORADRENALINE DIFFERENTIALLY MODULATE TASTE SENSITIVITY IN HUMANS.
Heath T.P.¹, Melichar J.K.², Donaldson L.F.¹ ¹Department of Physiology, University of Bristol, Bristol, Avon, United Kingdom; ²Department of Psychiatry, University of Bristol, Bristol, Avon, United Kingdom
- P25 116 OLFACTORY DEFICITS IN ALCOHOLISM: ASSOCIATION WITH IMPAIRED EXECUTIVE FUNCTION
Rupp C.I.¹, Fleischhacker W.¹, Drexler A.¹, Hausmann A.¹, Hinterhuber H.¹, Kurz M.¹ ¹Department of Psychiatry, Innsbruck Medical University, Innsbruck, Austria
- P26 117 EARLY POSTNATAL ALCOHOL EXPOSURE REDUCED THE SIZE OF THE NUCLEUS OF THE SOLITARY TRACT (NST) IN NEONATAL RAT PUPS
Li C.X.¹, Maier S.E.², Brasser S.M.¹, Waters R.S.¹ ¹Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN; ²NIAAA, NIH, Rockville, MD

- P27 118 LACTISOLE GREATLY DECREASES DIFFERENTIAL THRESHOLDS FOR SUCROSE: A CASE FOR INCREASED COOPERATIVITY.
Galindo-Cuspinera V.¹, Tharp A.A.¹, Winnig M.², Bufo B.², Meyerhof W.², Breslin P.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA; ²German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany
- P28 119 EFFECTS OF PREGNANCY ON OLFACTION
Cameron E.L.¹ ¹Carthage College, Kenosha, WI
- P29 120 NICOTINE SUPPRESSION OF TASTE AND GUSTATORY RESPONSES OF NTS NEURONS
Simons C.T.¹, Boucher Y.², Albin K.³, Iodi Carstens M.³, Carstens E.³ ¹Givaudan Flavors Global R&D, University of California, Davis, Cincinnati, OH; ²Université Paris 7, Paris, France; ³Neurobiology, Physiology and Behavior, University of California, Davis, Davis, CA
- P30 121 MULTIMODAL SENSORY STIMULATION OF THE NASAL MUCOSA WITH NICOTINE – FMRI STUDY
Albrecht J.¹, Kopietz R.¹, Linn J.¹, Sakar V.¹, Anzinger A.¹, Schreder T.¹, Kobal G.², Wiesmann M.¹ ¹Dept. of Neuroradiology, University of Munich, Munich, Germany; ²Sensory Research R&T, Philip Morris USA Inc., Richmond, VA
- P31 122 TOKI-SHAKUYAKU-SAN IN THE TREATMENT OF SENSORINEURAL SMELL DYSFUNCTION
Tsukatani T.¹, Miwa T.¹, Ikeno S.¹, Yagi S.¹, Furukawa M.¹ ¹Otorhinolaryngology, Kanazawa University, Kanazawa, Ishikawa, Japan
- P32 123 THE POTENTIAL EFFECT OF AMBIENT ARSENIC IN DRINKING WATER ON ODOR IDENTIFICATION IN AN AGRICULTURAL SAMPLE IN INNER MONGOLIA
Prah J.D.¹, Mumford J.², Li Y.³, Xia Y.³, Liu Y.³, Zhang F.⁴, Le X.⁵ ¹U.S. Environmental Protection Agency, Chapel Hill, NC; ²Human Studies Division, US Environmental Protection Agency, Chapel Hill, NC; ³Inner Mongolia Center for Endemic Disease Control and Research, Huhhot, Inner Mongolia, China; ⁴Ba Men Anti-epidemic Station, Lin He, Inner Mongolia, China; ⁵University of Alberta, Edmonton, Manitoba, Canada
- P33 124 HETEROSEXUAL FEMALES, BUT NOT LESBIANS, SENSITIZE TO LOW LEVELS OF ODORANT
Wysocki C.¹, Sergeant M.², Louie J.¹ ¹Monell Chemical Senses Center, Philadelphia, PA; ²Division of Psychology, Nottingham Trent University, Nottingham, United Kingdom

- P34 125 CAN HETEROSEXUAL MEN AND WOMEN DISCRIMINATE EACH OTHER FROM THEIR AXILLARY SECRETIONS? IF SO, DO THEY EXHIBIT A PREFERENCE?
Reynolds D.J.¹, Fisher R.J.², Scott L.¹, Kemp S.³ ¹University of Chester, Chester, United Kingdom; ²Consumer Science, Unilever R&D, UK, Wirral, United Kingdom; ³Unilever R&D, UK, Sharnbrook, Bedfordshire, United Kingdom
- P35 126 WITHDRAWN
- P36 127 LEPTIN, INSULIN AND SWEET TASTE IN GESTATIONAL DIABETES MELLITUS
Belzer L.¹, Tepper B.J.¹, Ranzini A.², Smulian J.³ ¹Food Science, Rutgers University, New Brunswick, NJ; ²Maternal & Fetal Medicine, St. Peter's University Hospital, New Brunswick, NJ; ³UMDNJ-Robert Wood Johnson Medical School, New Brunswick, NJ

Clinical Taste and Retronasal

- P37 128 REVISITING THE SWEET TOOTH: RELATIONSHIPS BETWEEN SWEETNESS PERCEPTION, SWEET FOOD PREFERENCE, AND BMI
Snyder D.J.¹, Duffy V.B.², Moskowitz H.³, Hayes J.E.², Bartoshuk L.M.⁴ ¹Surgery, Yale University, New Haven, CT; ²Dietetics, University of Connecticut, Storrs, CT; ³Moskowitz-Jabobs, Inc., White Plains, NY; ⁴Center for Smell and Taste, University of Florida, Gainesville, FL
- P38 129 PROP BITTERNESS AND CARDIOVASCULAR DISEASE (CVD) RISK FACTORS IN ADULT WOMEN
Duffy V.B.¹, Fernandez M.L.², Lanier S.¹, Aggarwal D.², Bartoshuk L.³ ¹Dietetics, University of Connecticut, Storrs, CT; ²Nutritional Sciences, University of Connecticut, Storrs, CT; ³Yale University, New Haven, CT
- P39 130 INFLAMMATORY PATHWAYS MAY UNDERLIE EARLY TASTE LOSS AND TASTE CELL DEATH CAUSED BY RADIATION THERAPY
Nelson G.¹, Cao J.², Gillespie Y.³, Brand J.⁴ ¹Department of Neurobiology, Univ of Alabama at Birmingham, Birmingham, AL; ²Monell Chemical Senses Center, Philadelphia, PA; ³Comprehensive Cancer Center, Univ of Alabama at Birmingham, Birmingham, AL; ⁴Univ of Pennsylvania and, Monell Chemical Senses Center, Philadelphia, PA

- P40 131 PHENYLTHIOCARBAMIDE (PTC) PERCEPTION IN PATIENTS WITH SCHIZOPHRENIA AND FIRST-DEGREE FAMILY MEMBERS
Moberg P.J.¹, McGue C.¹, Kanes S.¹, Roalf D.¹, Balderston C.¹, Gur R.¹, Turetsky B.¹ ¹University of Pennsylvania, Philadelphia, PA
- P41 132 RETRONASAL OLFACTION AND OTITIS MEDIA
Collins S.P.¹, Snyder D.J.², Catalanotto F.A.³, Bartoshuk L.M.³ ¹Otolaryngology Department, University of Florida, Gainesville, FL; ²Neuroscience, Yale University, New Haven, CT; ³Center for Smell and Taste, University of Florida, Gainesville, FL
- P42 133 RETRONASAL BUT NOT ORAL-CAVITY IDENTIFICATION OF NON-TRIGEMINAL ODORANTS
Chen V.¹, Halpern B.P.² ¹Neurobiology & Behavior, Cornell University, Ithaca, NY; ²Psychology and Neurobiology & Behavior, Cornell University, Ithaca, NY
- P43 134 RETRONASAL AND ORTHONASAL ADAPTATION: SIMILAR OVER 90 SECONDS
Lee J.¹, Halpern B.P.² ¹Microbiology and Economics, Cornell University, Ithaca, NY; ²Psychology and Neurobiology & Behavior, Cornell University, Ithaca, NY
- P44 135 ROUTE OF ADMINISTRATION ALTERS OLFACTORY PERCEPTION
Simons C.T.¹, Webb L.¹, Luzuriaga D.A.¹, Burland M.¹ ¹Research & Development, Givaudan Flavors, Cincinnati, OH
- P45 136 COMPARISON OF RESPONSES TO ELECTRICAL AND CHEMICAL STIMULI
Stevens D.A.¹, Cutroni E.¹, Frey A.M.¹, Lawless H.T.² ¹Hiatt School of Psychology, Clark University, Worcester, MA; ²Food Science, Cornell University, Ithaca, NY

Smell & Taste Methodology and Measurement

- P46 137 AN EXTENDED VERSION OF THE "SNIFFIN' STICKS"
Reden J.¹, Mayer A.¹, Hummel T.¹ ¹University of Dresden Medical School, Dresden, Germany

- P47 138 EVALUATION OF US PATIENTS USING THE JAPANESE ODOR STICK IDENTIFICATION TEST (OSIT-J)
Kobayashi M.¹, Reiter E.R.², DiNardo L.J.², Saito S.³, Kobayakawa T.³, Deguchi Y.⁴, Costanzo R.M.¹ ¹*Physiology, Virginia Commonwealth University, Richmond, VA;* ²*Otolaryngology-Head and Neck Surgery, Virginia Commonwealth University, Richmond, VA;* ³*National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan;* ⁴*Central Research Laboratory, Takasago International Corporation, Hiratsuka, Kanagawa, Japan*
- P48 139 ADMINISTRATION OF THE "SNIFFIN" STICKS" ODOR IDENTIFICATION TESTS IN JAPANESE SUBJECTS
Ishimaru T.¹, Ihara Y.², Kobayashi M.³, Imanishi Y.³, Ishikawa M.³, Kuroda H.⁴, Kuwahara D.², Koizuka I.⁴, Hummel T.⁵ ¹*Otorhinolaryngology, Nanto General Hospital, Nanto, Toyama, Japan;* ²*Otorhinolaryngology, Yokohama General Hospital, Yokohama, Kanagawa, Japan;* ³*Otorhinolaryngology-Head and Neck Surgery, Mie University Graduate School of Medicine, Tsu, Mie, Japan;* ⁴*Otorhinolaryngology, St. Marianna University School of Medicine, Kawasaki, Kanagawa, Japan;* ⁵*Otorhinolaryngology, University of Dresden, Dresden, Saxony, Germany*
- P49 140 A COMPARISON OF METHODS FOR SNIFF MEASUREMENT CONCURRENT WITH OLFACTORY TASKS IN HUMANS
Johnson B.N.¹, Russell C.¹, Mainland J.², Khan R.M.², Sobel N.² ¹*Bioengineering, University of California, Berkeley, Berkeley, CA;* ²*Neuroscience, University of California, Berkeley, Berkeley, CA*
- P50 141 OLFACTORY DETECTION THRESHOLDS IN HUNGER AND SATIETY
Schreder T.¹, Albrecht J.¹, Rzeznicka A.¹, Schöpf V.¹, Anzinger A.¹, Demmel M.¹, Pollatos O.¹, Kopietz R.¹, Linn J.¹, Wiesmann M.¹ ¹*Dept. of Neuroradiology, University of Munich, Munich, Germany*
- P51 142 LATERALIZATION OF ODOR IDENTIFICATION
Gudziol V.¹, Zahnert T.², Hummel C.² ¹*Dresden Medical School, Dresden, Germany;* ²*Department of Otorhinolaryngology, University of Dresden Medical School, Germany, Dresden, Germany*
- P52 143 THE CLINICAL CHARACTERISTICS AND PATHOGENESIS OF DYSSOSMIA
Miwa T.¹, Tsukatani T.¹, Furukawa M.¹ ¹*Otorhinolaryngology, Kanazawa University, Kanazawa, Japan*

- P53 144 THE HEDONIC DATABASE OF SMELL-FRANKONIA (HEDOS-F) – AN ANALYSIS OF GENDER DIFFERENCES
Thuerlauf N.¹, Reulbach U.¹, Lunkenheimer J.¹, Spannenberger R.¹, Vassiliadu A.², Markovic K.¹ ¹*Department of Psychiatry and Psychotherapy, University of Erlangen-Nürnberg, Erlangen, Bavaria, Germany;* ²*Department of Neurology, University of Erlangen-Nürnberg, Erlangen, Bavaria, Germany*
- P54 145 THE HEDONIC DATABASE OF SMELL-FRANCONIA (HEDOS-F) – THE INFLUENCE OF AGE ON THE HEDONIC ESTIMATES OF ODORS
Markovic K.¹, Reulbach U.¹, Lunkenheimer J.¹, Vassiliadu A.², Spannenberger R.¹, Thuerlauf N.¹ ¹*Department of Psychiatry and Psychotherapy, University of Erlangen-Nürnberg, Erlangen, Bavaria, Germany;* ²*Department of Neurology, University of Erlangen-Nürnberg, Erlangen, Bavaria, Germany*
- P55 146 WITHDRAWN
- P56 147 IDENTIFICATION OF NEUROTROPHIC FACTORS BDNF, NT-3, AND NT-4 IN HUMAN SALIVA
Milewski A.L.¹, Utermohlen V.¹ ¹*Division of Nutritional Sciences, Cornell University, Ithaca, NY*
- P57 148 METABOLOMIC ANALYSES OF HUMAN SKIN: AGE AND DISEASE BIOMARKERS
Gallagher M.¹, Preti G.¹, Fakhrazadeh S.S.², Leyden J.J.², Spielman A.I.³, Willse A.⁴ ¹*Monell Chemical Senses Center, Philadelphia, PA;* ²*Dermatology, University of Pennsylvania, Philadelphia, PA;* ³*Basic Science and Craniofacial Biology, New York University, New York, NY;* ⁴*Statistics and Quantitative Sciences, Pacific Northwest National Laboratory, Richland, WA*
- P58 149 ANALYSES OF HUMAN AXILLARY ODORS AND THEIR PRECURSORS IN NORMAL AND STRESSFUL SITUATIONS
Yabuki M.¹, Takeuchi K.¹, Hagura T.¹, Hasegawa Y.¹ ¹*Tokyo Research Laboratory, Kao Corporation, Tokyo, Japan*
- P59 150 WITHDRAWN
- P60 151 PROBING THE CEREBELLAR ROLE IN SNIFFING WITH TRANSCRANIAL MAGNETIC STIMULATION (TMS)
Mainland J.¹, Ivry R.B.¹, Sobel N.¹ ¹*Neuroscience, University of California, Berkeley, Berkeley, CA*

Friday, April 28, 2006**7:00 AM - 1:00 PM Registration (Prefunction Area)****SLIDES****Friday - 8:00 AM - 9:45 AM (South Ballroom)****Taste Chemoreception****Timothy Gilbertson, Session Chair**

- 8:00 152 "FATTY" - A PRIMARY TASTE
Chalé-Rush A.¹, Mattes R.D.¹ ¹*Foods and Nutrition, Purdue University, West Lafayette, IN*
- 8:15 153 TASTE CELLS IN THE GASTRO-INTESTINAL TRACT
Bezençon C.¹, Le Coutre J.¹, Damak S.¹ ¹*Nestlé Research Center, Lausanne, Switzerland*
- 8:30 154 THE REGULATION OF NEURAL TARGETING IN THE DEVELOPING GUSTATORY SYSTEM.
Krimm R.F.¹, Lopez G.F.¹, Patel A.¹ ¹*Anatomical Sciences and Neurobiology, University of Louisville Medical Center, Louisville, KY*
- 8:45 155 SEARCHING FOR GENES AFFECTING PREFERENCES FOR SWEET FOODS; A FINNISH FAMILY STUDY
Keskitalo K.¹, Knaapila A.¹, Kallela M.², Palotie A.¹, Wessman M.¹, Peltonen L.³, Tuorila H.¹, Perola M.³ ¹*University of Helsinki, Helsinki, Finland; ²Helsinki University Central Hospital, Helsinki, Finland; ³National Public Health Institute, Helsinki, Finland*
- 9:00 156 MOLECULAR MECHANISMS OF HUMAN SWEET WATER TASTE
Bufo B.¹, Winnig M.¹, Galindo-Cuspinera V.², Breslin P.², Meyerhof W.¹ ¹*Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany; ²Monell Chemical Senses Center, Philadelphia, PA*
- 9:15 157 HTAS2R38 HAPLOTYPES DETERMINE BITTERNESS RATINGS OF GLUCOSINOLATE CONTAINING VEGETABLES
Hakala M.¹, Alarcon S.M.¹, Estrella N.¹, Breslin P.A.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*

9:30

- 158 INFLUENCE OF RESPONSE VARIABILITY ON THE CODING PERFORMANCE OF CENTRAL GUSTATORY NEURONS
Lemon C.H.¹, Smith D.V.¹ ¹*Anatomy and Neurobiology, University of Tennessee, Memphis, TN*

SYMPOSIUM**Friday - 10:00 AM - 12:30 PM (South Ballroom)****TRP Channels****Emily Liman, Symposium Chair**

- 10:00 159 TRP CHANNELS: MEDIATORS OF SENSORY SIGNALING AND ROLES IN HEALTH AND DISEASE
Montell C.¹ ¹*Biological Chemistry, Johns Hopkins University, Baltimore, MD*
- 10:45 160 THERMOTRP CHANNELS AND CHEMESTHESIS
Patapoutian A.¹ ¹*Cell Biology, The Scripps Research Institute, La Jolla, CA*
- 11:30 161 TRPM5 AND TASTE TRANSDUCTION
Liman E.¹ ¹*Biological Sciences, University of Southern California, Los Angeles, CA*
- 12:00 162 FUNCTIONAL PROPERTIES OF A NATIVE TRP-RELATED ION CHANNEL IN LOBSTER OLFACTORY RECEPTOR NEURONS
Ache B.W.¹, Bobkov Y.V.¹, Zhainazarov A.B.¹ ¹*Whitney Laboratory for Marine Bioscience and Center for Smell and Taste, University of Florida, Gainesville, FL*

POSTERS

Friday - 8:00 AM - 12:00 PM (North Ballroom)

Chemosensory Sensors

- P1 163 MECHANISM OF NEW ULTRASONIC REAL-TIME GAS MOLECULE SENSOR
Toda H.¹, Kobayakawa T.¹ ¹National Institute of Advanced Industrial Science and Technology (AIST), Tsukuba, Ibaraki, Japan, Japan
- P2 164 DETERMINATION OF THE SMELL THRESHOLD USING A PIEZOELECTRIC MICRODISPENSER FOR NEURODEGENERATIVE DISEASE DIAGNOSTICS
Hayes D.J.¹, Taylor D.¹, Stewart M.², Sanghera M.³, Comparini N.¹, Wallace D.¹, Achiriloaie I.¹, Silva D.¹ ¹MicroFab Technologies, Inc., Plano, TX; ²Human Performance Laboratory, Fogelson Neuroscience Center, Dallas, TX; ³Fogelson Neuroscience Center, Dallas, TX
- P3 165 DNA STRUCTURAL CHANGES ASSOCIATED WITH DNA HYDRATION AND ODOR POLARITY ARE MECHANISTIC FACTORS IN ODOR RESPONSE BY NOVEL DNA-BASED FLUORESCENT SENSORS.
Williams L.B.¹, White J.¹, Kauer J.¹ ¹Neuroscience, Tufts University, Boston, MA
- P4 166 SINGLE PROTEIN NANOBIOSENSOR GRID ARRAY, IST-2001-38899-SPOT-NOSED EUROPEAN PROJECT
Pajot E.¹ ¹European SPOT-NOSED Consortium, Institut National de la Recherche Agronomique, Jouy-en-Josas Cedex, France
- P5 167 USE OF INK-JET MICRODISPENSING TO CREATE CONCENTRATION- CRITICAL CHEMICAL LADEN VAPORS FOR SENSOR CALIBRATION.
Hayes D.J.¹, Taylor D.¹ ¹MicroFab Technologies, Inc., Plano, TX
- P6 168 DEVELOPMENT OF THE OLFACT-RL
Hastings L.¹, Bailie J.M.² ¹Osmic Enterprises, Inc, Cincinnati, OH; ²Psychology, University of Cincinnati, Cincinnati, OH
- P7 169 THE CREDIBILITY OF MEASURED ODOR THRESHOLDS
Schmidt R.¹, Cain W.S.¹ ¹Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA

- P8 170 SELECTION OF SUBJECTS FOR CHEMOSENSORY STUDIES: CRITERIA
Jothi S.¹, Cain W.S.¹, Jalowayski A.A.¹ ¹Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA

Taste Psychophysical Studies

- P9 171 NAEL SENSATION AND HEDONICS: RELATIONSHIPS WITH SEX, TASTE GENETICS, AND SODIUM INTAKE
Sullivan B.S.¹, Hayes J.E.², Duffy V.B.¹ ¹Allied Health, University of Connecticut, Storrs, CT; ²Dietetics Program, University of Connecticut, Storrs, CT
- P10 172 DETECTION OF WEAK GUSTATORY-OLFACTORY FLAVOR MIXTURES
Elgart B.Z.¹, Marks L.E.² ¹John B. Pierce Laboratory, New Haven, CT; ²Yale University, New Haven, CT
- P11 173 INDIVIDUAL TASTE AND SMELL SENSITIVITY, AND THEIR EFFECTS ON SALIVARY FLOW RATES AND FOOD PERCEPTION
De Wijk R.A.¹, Bult H.¹, Prinz J.F.¹, Dransfield E.¹ ¹Wageningen Center for Food Sciences, Wageningen, Netherlands
- P12 174 MOLECULAR STRUCTURE PREDICTS HUMAN JUDGMENTS OF PLEASANTNESS AND SIMILARITY
Khan R.M.¹, Luk C.², Flinker A.³, Sobel N.¹ ¹Neuroscience, University of California, Berkeley, CA; ²Bioengineering, University of California, Berkeley, CA; ³University of California, Berkeley, CA
- P13 175 HEDONIC GLMS: VALID COMPARISONS FOR FOOD LIKING/DISLIKING ACROSS OBESITY, AGE, SEX AND PROP STATUS
Bartoshuk L.M.¹, Snyder D.J.², Duffy V.B.³ ¹Center for Smell and Taste, University of Florida, Gainesville, FL; ²Neuroscience, Yale University, New Haven, CT; ³Dietetics, University of Connecticut, Storrs, CT
- P14 176 PSYCHOSOCIAL PREDICTORS OF 6-N-PROPYLTHIOURACIL RATINGS IN A GENERAL POPULATION SAMPLE
McAnally H.M.¹, Poulton R.¹, Hancox R.¹, Prescott J.², Welch D.¹ ¹Preventive and Social Medicine, University of Otago, Dunedin, New Zealand; ²Psychology, James Cook University, Cairns, Queensland, Australia

- P15 177 EXPERIENCE WITH NA-CYCLAMATE, BUT NOT ACESULFAME-K, INDUCES INCREASED TASTE DISCRIMINATION ABILITY FOR GLUCOSE
Hassan A.¹, Gonzalez K.M.¹, Kennedy L.M.¹ ¹Neuroscience Laboratory, Biology Dept., Clark University, Worcester, MA
- P16 178 WOMEN AND SMOKING: EFFECTS ON SUCROSE TASTE PREFERENCE AND THRESHOLDS
Pepino M.Y.¹, Steinmeyer A.L.¹, Mennella J.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P17 179 EXPOSURE TO A VARIETY OF FRUITS INCREASES FRUIT BUT NOT VEGETABLE ACCEPTANCE IN INFANTS
Mennella J.A.¹, Jagolino A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P18 180 FEEDING VEGETABLES AND FRUITS TO INFANTS: DOES THE TYPE OF EXPOSURE MATTER?
Forestell C.A.¹, Mennella J.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA

Olfactory Psychophysical Studies

- P19 181 SPECIFIC ANOSMIA FOR SELECTED NOR-ISOPRENOID FLAVOR COMPOUNDS IN ORANGE JUICE
Plotto A.¹, Barnes K.W.², Goodner K.L.¹ ¹Citrus & Subtropical Products Laboratory, Agricultural Research Service (ARS), Winter Haven, FL; ²Danisco USA Inc., Lakeland, FL
- P20 182 HUMAN ODOR DETECTION OF HOMOLOGOUS CARBOXYLIC ACIDS AND THEIR BINARY MIXTURES
Miyazawa T.¹, Gallagher M.², Preti G.², Wise P.² ¹Flavor System & Technology Laboratory, Ogawa & Co., Ltd., Philadelphia, PA; ²Monell Chemical Senses Center, Philadelphia, PA
- P21 183 SWEET ODOURS INCREASE PAIN TOLERANCE
Wilkie J.¹, Prescott J.² ¹School of Psychology, James Cook University, Cairns, Queensland, Australia; ²Psychology, James Cook University, Cairns, Queensland, Australia
- P22 184 THE INFLUENCE OF SMELLING COFFEE ON OLFACTORY HABITUATION
Secundo L.¹, Sobel N.¹ ¹Neuroscience, University of California, Berkeley, Berkeley, CA

- P23 185 PREDICTING NOSTRIL-SPECIFIC DETECTION THRESHOLDS
Porter J.A.¹, Anand T.², Kennedy K.³, Khan R.M.⁴, Noam S.⁴ ¹Psychology, University of California, Berkeley, Berkeley, CA; ²Bioengineering, University of California, Berkeley, Berkeley, CA; ³Pierce College, Woodland Hills, CA; ⁴Helen Wills Neuroscience Institute, University of California, Berkeley, Berkeley, CA
- P24 186 ODOR MEMORY AND LABELING IN ADULTS AND CHILDREN
Horning S.M.¹, Bailie J.M.¹, Rybalsky K.A.¹, Frank R.A.² ¹Psychology, University of Cincinnati, Cincinnati, OH; ²Psychology/Office of Vice President for Research and Advance, University of Cincinnati, Cincinnati, OH
- P25 187 VERBAL ASSOCIATIONS AND ODOR MEMORY
Moeller P.¹, Hansen D.¹, Mojet J.², Koester E.P.² ¹Sensory Systems, Royal Veterinary and Agricultural University, Frederiksberg, Denmark; ²Wageningen University Research, Agrotechnology and Food Innovations, Wageningen, Netherlands
- P26 188 IT SMELLS SO GOOD I CAN ALMOST TASTE IT: EVIDENCE THAT FOOD AND NONFOOD ODORS ARE LOCALIZED DIFFERENTLY WITHIN THE NASAL CAVITY.
Newhouse K.J.¹, Green B.², Small D.M.³ ¹Interdepartmental Neuroscience Program, Yale University, New Haven, CT; ²Surgery (Otolaryngology), Yale University, New Haven, CT; ³Psychology, Yale University, New Haven, CT
- P27 189 ASPARAGUS MALODOR IN URINE – A TRUE POLYMORPHISM?
Pelchat M.¹, Bykowski C.¹, Izbicke E.¹, Reed D.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P28 190 WORKING MEMORY FOR ODORS
Olsson M.J.¹, Jonsson F.U.¹, Moeller P.² ¹Psychology, Uppsala University, Uppsala, Sweden; ²Food Science, Sensory Science, Royal Veterinary and Agricultural University, Frederiksberg C, Denmark
- P29 191 THE INHIBITION OF STRESS – ODOR CONDITIONING
Maute C.¹, Sitvarin L.¹, Petrova M.¹, Dalton P.¹ ¹Monell Chemical Senses Center, Philadelphia, PA

Olfactory Epithelium Pathophysiology & Anatomy

- P30 192 ADVERSE EFFECT OF AIR POLLUTION ON OLFACTORY DETECTION OF A CONTAMINATED FOOD BY RESIDENTS OF MEXICO CITY
Hudson R.¹, Guarneros M.², Martínez-Gómez M.³, Distel H.⁴
¹Univ Nacional Autónoma de México, Mexico City, Mexico; ²Univ Nacional Autónoma de México, Mexico, Mexico; ³Centro Tlaxcala Biol Conducta, Univ Autónoma de Tlaxcala, Mexico, Mexico; ⁴Univ München, Munich, Germany
- P31 193 PATHOPHYSIOLOGY OF THE OLFACTORY NEUROEPITHELIUM IN A MURINE MODEL OF ALLERGIC RHINITIS
Epstein V.A.¹, Robinson A.M.¹, Bryce P.J.², Conley D.B.¹, Kern R.C.¹
¹Otolaryngology-HNS, Northwestern University, Chicago, IL; ²Allergy-Immunology, Northwestern University, Chicago, IL
- P32 194 NEURONAL AND INFLAMMATORY CHANGES IN NASAL TISSUES OF CHRONIC RHINOSINUSITIS PATIENTS
Yee K.K.¹, Ozdener M.H.¹, Cowart B.J.¹, Pribitkin E.A.², Rawson N.E.¹
¹Monell Chemical Senses Center, Philadelphia, PA; ²Otolaryngology, Thomas Jefferson University, Philadelphia, PA
- P33 195 LASER SCANNING MICROSCOPY OF THE NASAL MUCOSA: A PRELIMINARY, EX VIVO STUDY
Pau H.¹, Stachs O.², Stave J.², Guthoff R.², Witt M.³, Just T.⁴
¹Otorhinolaryngology, University of Rostock, Rostock, Mecklenburg-West Pomerania, Germany; ²Ophthalmology, University of Rostock, Rostock, Mecklenburg-West Pomerania, Germany; ³University of Technology, Dresden, Dresden, Saxony, Germany; ⁴University of Rostock, Rostock, Mecklenburg-West Pomerania, Germany
- P34 196 THE RELATIONSHIP BETWEEN HUMAN NASAL ANATOMY AND OLFACTORY ABILITY
Hanson R.E.¹, Hornung D.E.¹, Leopold D.A.², ^{1st} Lawrence University, Canton, NY; ²University of Nebraska Medical Center, Omaha, NE

Trigeminal

- P35 197 ODOR AND LATERALIZATION THRESHOLDS FOR AMMONIA: A COMPARISON ACROSS STATIC AND DYNAMIC OLFACTOMETRY
Smeets M.¹, Bulsing P.¹, Ogink N.², Van Thriel C.³, Dalton P.⁴
¹Utrecht University, Utrecht, Netherlands; ²A&F, Wageningen, Netherlands; ³IFADO, Dortmund, Germany; ⁴Monell Chemical Senses Center, Philadelphia, PA

- P36 198 IRRITATION, AMMONIA AND ASTHMA
Petrova M.¹, Diamond J.¹, Schuster B.H.², Dalton P.¹
¹Monell Chemical Senses Center, Philadelphia, PA; ²University of Dresden, Dresden, Germany
- P37 199 BREATHING RESPONSES OF NORMOSMIC AND ANOSMIC INDIVIDUALS TO STIMULI PRESENTED IN AN ENVIRONMENTAL CHAMBER
Walker J.C.¹, Walker D.B.¹
¹Sensory Research Institute, Florida State University, Tallahassee, FL
- P38 200 TEMPORAL INTEGRATION IN NASAL LATERALIZATION OF ETHANOL
Wise P.¹, Canty T.¹, Wysocki C.¹
¹Monell Chemical Senses Center, Philadelphia, PA
- P39 201 PAIN INTENSITY RELATED CORTICAL ACTIVATION FOLLOWING TRIGEMINAL STIMULATION OF THE NASAL MUCOSA: FMRI STUDY
Wiesmann M.¹, Kopietz R.¹, Albrecht J.¹, Schöpf V.¹, Linn J.¹, Rzeznicka A.¹, Anzinger A.¹, Schreder T.¹, Pollatos O.¹, Kobal G.²
¹Dept. of Neuroradiology, University of Munich, Munich, Germany; ²Sensory Research R&T, Philip Morris USA Inc., Richmond, VA
- P40 202 EFFECTS OF IRRITANT CHEMICALS ON ORAL HEAT AND COLD PAIN PERCEPTION
Albin K.¹, Iodi Carstens M.², Carstens E.²
¹Food Science and Technology, University of California, Davis, Davis, CA; ²Neurobiology, Physiology and Behavior, University of California, Davis, Davis, CA
- P41 203 IS OVERALL TRIGEMINAL SENSITIVITY IMPAIRED IN PATIENTS WITH OLFACTORY DYSFUNCTION?
Frasnelli J.¹, Schuster B.², Lötsch J.³, Hummel T.²
¹Montreal Neurological Institute, Mc Gill University, Montreal, Quebec, Canada; ²University of Dresden, Dresden, Germany; ³Department of Pharmacology, pharmazentrum, Frankfurt a. M., Germany
- P42 204 FEEL FROM SOLUBLE DUSTS
Cain W.S.¹, Jalowayski A.A.¹, Schmidt R.¹, Kleinman M.², Warren C.B.¹, Culver B.³
¹Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA; ²Community and Environmental Medicine, University of California, Irvine, Irvine, CA; ³Medicine (Epidemiology), University of California, Irvine, Irvine, CA
- P43 205 DETERMINATION OF ORAL TRIGEMINAL SENSITIVITY IN HUMANS
Just T.¹, Steiner S.¹, Pau H.¹
¹Department of Otorhinolaryngology, University of Rostock, Rostock, Mecklenburg-West Pomerania, Germany

- P44 206 CONCENTRATION-DETECTION FUNCTIONS FOR EYE IRRITATION FROM HOMOLOGOUS N-ALCOHOLS APPROACHING A CUT-OFF POINT
Cometto-Muniz J.E.¹, Cain W.S.¹, Abraham M.H.² ¹*Chemosensory Perception Laboratory, Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA;* ²*Chemistry, University College London, London, United Kingdom*
- P45 207 TRPV1 RECEPTORS AND NASAL TRIGEMINAL CHEMESTHESIS
Silver W.L.¹, Clapp T.R.², Stone L.M.², Kinnamon S.C.² ¹*Biology, Wake Forest University, Winston-Salem, NC;* ²*Biomedical Sciences, Colorado State University, Fort Collins, CO*
- P46 208 FOOD FLAVORS AND THE SWEETENER SACCHARIN ACTIVATE THE TRANSIENT RECEPTOR POTENTIAL VANILLOID SUBTYPE 1 (TRPV1) CHANNEL.
Riera C.¹, Damak S.¹, Le Coutre J.¹ ¹*Nestle Research Center, Vers-chez-les-Blancs, Lausanne, Switzerland*
- P47 209 TRPM5-EXPRESSING SOLITARY CHEMORECEPTOR CELLS IN THE MOUSE NASAL CAVITY RESPOND TO ODORS AT HIGH CONCENTRATIONS
Ogura T.¹, Lin W.¹, Margolskee R.F.², Finger T.E.¹, Restrepo D.¹ ¹*Rocky Mountain Taste & Smell Ctr, Univ of Colorado at Denver & Hlth Sci Ctr, Aurora, CO;* ²*Neuroscience, Mount Sinai School of Medicine, New York, NY*
- P48 210 OLEOCANTHAL, AN ANTI-INFLAMMATORY AND ANTI-OXIDANT COMPOUND OF OLIVE OILS, ELICITS ACTIVITY IN ISOLATED TRIGEMINAL NEURONS
Peyrot Des Gachons C.¹, Bryant B.¹, Breslin P.¹, Beauchamp G.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*
- P49 211 TOPOGRAPHICAL DIFFERENCES IN THE TRIGEMINAL SENSITIVITY OF THE HUMAN NASAL MUCOSA
Scheibe M.¹, Zahnert T.¹, Hummel T.¹ ¹*Otorhinolaryngology, University of Dresden Medical School, Dresden, Saxony, Germany*
- P50 212 PET-BASED INVESTIGATION OF CEREBRAL ACTIVATION FOLLOWING INTRANASAL TRIGEMINAL STIMULATION
Hummel T.¹, Beuthien-Baumann B.², Heinke M.¹, Oehme L.², Van Den Hoff J.³, Gerber J.C.⁴ ¹*Otorhinolaryngology, University of Dresden Medical School, Dresden, Saxony, Germany;* ²*Nuclear Medicine, University of Dresden Medical School, Dresden, Saxony, Germany;* ³*Institute for Bioanorganic and Radiopharmaceutical Chemistry / PET Center, Research Center Rossendorf, Dresden, Saxony, Germany;* ⁴*Neuroradiology, University of Dresden Medical School, Dresden, Saxony, Germany*

Multimodal/Nutrition

- P51 213 MOUSE STRAIN DIFFERENCES IN FAT APPETITE: INITIAL OROSENSORY RESPONSE AND LONG-TERM INTAKE
Glendinning J.I.¹, Feld N.¹, Sclafani A.² ¹*Biological Sciences, Barnard College, New York, NY;* ²*Psychology, Brooklyn College, Brooklyn, NY*
- P52 214 WEIGHT GAIN, OLFACTORY SENSITIVITY AND KV1.3 EXPRESSION: IS THERE A LINK?
Tucker K.¹, Dunham J.¹, Walker D.¹, Overton M.², Fadool D.¹ ¹*Dept. of Bio. Sci., Florida State University, Tallahassee, FL;* ²*College of Medicine, Florida State University, Tallahassee, FL*
- P53 215 MITRAL CELLS IN POSTNATALLY UNDERNOURISHED RATS.
Frias C.¹, Torrero C.¹, Regalado M.¹, Rubio L.¹, Salas M.¹ ¹*Developmental Neurobiology and Neurophysiology, INB, UNAM, Campus Juriquilla, Queretaro, Mexico*
- P54 216 CROSSMODAL ASSOCIATIONS BETWEEN OLFACTION, VISION, AND TOUCH
Demattè M.L.¹, Sanabria D.², Spence C.² ¹*Dept. of Cognitive Sciences and Education, University of Trento, Rovereto, Italy;* ²*Dept. of Experimental Psychology, University of Oxford, Oxford, United Kingdom*
- P55 217 FMRI OF SUBTHRESHOLD INTEGRATION OF ODORS AND TASTES: A STUDY OF LEARNED CONGRUENCY
Breslin P.A.¹, Galindo-Cuspinera V.¹, Alarcon S.M.¹, Lee W.¹, Valdez J.², McGue C.², Barrett F.², Pratiwadi R.², Tharp A.A.¹, Tharp C.¹, Dalton P.¹, Turetsky B.², Loughhead J.² ¹*Monell Chemical Senses Center, Philadelphia, PA;* ²*Psychiatry, University of Pennsylvania, Philadelphia, PA*
- P56 218 HUMAN CORTICAL ACTIVITY OF TOUCH SENSATION AND LATERALITY
Kobayakawa T.¹, Gotow N.¹, Toda H.², Saito S.¹ ¹*Institute for Human Science and Biomedical Engineering, National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan;* ²*National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan*
- P57 219 'ACTIVE' TASTING SELECTIVELY ENHANCES PERCEPTION OF MSG ON THE FRONT OF THE TONGUE
Green B.¹, Urban L.¹ ¹*The John B. Pierce Laboratory, New Haven, CT*

- P58 220 OVEREXPRESSION OF K⁺ CHANNEL SUBTYPES ALTERS RESPONSIVENESS TO FATTY ACIDS IN A CHEMOSENSORY CELL LINE
Shah B.P.¹, Hansen D.R.¹, Gilbertson T.A.¹ ¹*Biology & The Center for Integrated BioSystems, Utah State University, Logan, UT*
- P59 221 MEASURES OF CONFUSION AND SIMILARITY BETWEEN BITTER TASTE AND BURNING SENSATION
Lim J.¹, Green B.¹ ¹*The John B. Pierce Laboratory, New Haven, CT*
- P60 222 GUSTATORY-OLFACTORY MIXTURES: A CONFUSION MATRIX STUDY
Munoz D.M.¹, Frank M.E.¹, Gent J.F.², Hettinger T.P.¹ ¹*Oral Health & Diagnostic Sciences, UCONN Health Center, Farmington, CT*; ²*Epidemiology & Public Health, Yale University, New Haven, CT*

12:45 PM - 2:30 PM **AChemS Business Meeting** (South Ballroom)

1:30 PM **Ultimate Frisbee Tournament** (Lido Beach)

3:30 PM - 5:30 PM **Smell vs. Taste Softball Game** (Bee Ridge Park)

WORKSHOP

Friday - 4:00 PM - 6:00 PM (South Ballroom)

Olfaction in Neurodegenerative Disease

Thomas Hummel, Workshop Chair

Chris Hawkes, Discussant

- 4:00 223 THE ANATOMICAL DISSECTION OF HYPOSMIA IN PARKINSON PATIENTS
Hoogland P.¹ ¹*Anatomy, Free University Hospital Amsterdam, Amsterdam, Netherlands*
- 4:30 224 OLFACTORY DYSFUNCTION AS AN EARLY INDEX OF 'PRE-MOTOR' PARKINSON'S DISEASE
Doty R.L.¹ ¹*Smell and Taste Center, University of Pennsylvania, Philadelphia, PA*
- 5:00 225 DETECTION OF PRECLINICAL PARKINSON'S DISEASE ALONG THE OLFACTORY TRACT
Berendse H.W.¹ ¹*Neurology, VU University Medical Center, Amsterdam, Netherlands*

- 5:30 226 LONG-TERM CHANGES OF THE OLFACTORY SYSTEM IN IDIOPATHIC PARKINSON'S DISEASE
Hummel T.¹, Haehner A.¹, Witt M.¹, Herting B.², Storch A.², Reichmann H.² ¹*Otorhinolaryngology, University of Dresden, Dresden, Saxony, Germany*; ²*Neurology, University of Dresden, Dresden, Saxony, Germany*

6:30 PM - 8:00 PM **Registration** (Prefunction Area)

SLIDES

Friday - 7:00 PM - 8:15 PM (South Ballroom)

Molecular Genetic Approaches to Chemoreception

Robert Lane, Session Chair

- 7:00 227 MOLECULAR IDENTIFICATION OF PACAP-SENSITIVE K CHANNEL EXPRESSION IN OE
Lucero M.¹, Han P.¹ ¹*Physiology, University of Utah, Salt Lake City, UT*
- 7:15 228 THE FUNCTIONAL PROPERTIES OF MAMMALIAN ODORANT RECEPTORS
Saito H.¹, Chi Q.¹, Zhuang H.¹, Matsunami H.¹ ¹*Department of Molecular Genetics and Microbiology, Duke University, Durham, NC*
- 7:30 229 NEURON-SPECIFIC ODOR RECEPTOR GENE CHOICE IN *DROSOPHILA*
Ray A.¹, Van Der Goes Van Naters W.¹, Carlson J.¹ ¹*MCDB, Yale University, New Haven, CT*
- 7:45 230 ALTERING OLFACTORY NEURON IDENTITY WITH ECTOPIC EXPRESSION OF G-PROTEIN COUPLED RECEPTORS
Chesler A.¹, Le Pichon C.², Peterlin Z.A.³, Matthews G.⁴, Zou D.², Firestein S.² ¹*Biology, Columbia University, New York, NY*; ²*Columbia University, New York, NY*; ³*Biological Sciences, Columbia University, New York, NY*; ⁴*Neurobiology and Behavior, Columbia University, New York, NY*

- 8:00 231 UBIQUITOUS EXPRESSION OF AN ODORANT RECEPTOR
IMPAIRS PROPER AXON TARGETING TO THE
OLFACTORY BULB
Vidaltamayo R.¹, Reed R.R.¹ ¹*Molecular Biology and Genetics,
Howard Hughes Medical Institute, Baltimore, MD*

SYMPOSIUM

Friday - 8:30 PM - 10:35 PM (South Ballroom)

Changing the Development of Taste and Olfaction
Regina Sullivan & Julie Mennella, Symposium Co-Chairs

- 8:30 232 FLAVOR PROGRAMMING DURING INFANCY
Mennella J.A.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*
- 8:55 233 EARLY ENVIRONMENTAL EVENTS SHAPE THE
NEUROBIOLOGICAL DEVELOPMENT OF THE
GUSTATORY SYSTEM
Hill D.L.¹, Mangold J.¹ ¹*Psychology, University of Virginia,
Charlottesville, VA*
- 9:20 234 ONTOGENETIC EMERGENCE OF LEARNED/NATURAL
FEAR AND DEVELOPMENT OF THE ODOR PATHWAY TO
THE AMYGDALA
Sullivan R.M.¹ ¹*Department of Zoology, University of Oklahoma,
Norman, OK*
- 9:45 235 NEURAL NETWORKS INVOLVED IN OLFACTORY FEAR
CONDITIONING IN RATS FROM INFANCY TO
ADULTHOOD
Mouly A.¹ ¹*Institut des Sciences Cognitives, CNRS-Université
Lyon1, Bron, Rhone, France*
- 10:10 236 NEURAL ANALYSIS OF PREDATOR ODOR-INDUCED
FEAR AND EMOTIONAL MEMORY
Takahashi L.K.¹ ¹*Psychology, University of Hawaii, Honolulu, HI*

POSTERS

Friday - 7:00 PM - 11:00 PM (North Ballroom)

Central Olfaction – Neuropharmacology

- P1 237 TWO DISTINCT CLASSES OF EXCITATORY
GLUTAMATERGIC INPUTS ONTO OLFACTORY BULB
GRANULE CELLS
Balu R.¹, Strowbridge B.¹ ¹*Department of Neurosciences, Case
Western Reserve University, Cleveland, OH*
- P2 238 ACTIVATION OF METABOTROPIC GLUTAMATE
RECEPTORS (MGLUR1) IN THE GLOMERULAR LAYER
(GL) AND GRANULE CELL LAYER (GCL) OF THE
OLFACTORY BULB ENHANCES SYNAPTIC INHIBITION OF
MITRAL CELLS (MCS)
Dong H.¹, Hayar A.², Ennis M.¹ ¹*Anatomy and Neurobiology,
University of Tennessee Health Science Center, Memphis, TN;*
²*Neurobiology and Developmental Sciences, University of
Arkansas for Medical Sciences, Little Rock, AR*
- P3 239 GROUP I METABOTROPIC GLUTAMATE RECEPTORS ARE
DIFFERENTIALLY EXPRESSED BY TWO POPULATIONS
OF OLFACTORY BULB GRANULE CELLS
Heinbockel T.¹, Hamilton K.A.², Matthew E.³ ¹*Anatomy, Howard
University, Washington, DC;* ²*Cellular Biology & Anatomy,
Louisiana State University Medical Center at Shreveport,
Shreveport, LA;* ³*Anatomy and Neurobiology, University of
Tennessee Health Science Center, Memphis, TN*
- P4 240 GLUTAMATE AUTORECEPTORS ON DENDRITES OF
EXTERNAL TUFTED (ET) CELLS.
Ma J.¹, Lowe G.¹ ¹*Monell Chemical Senses Center, Philadelphia,
PA*
- P5 241 MEASURING OLFACTORY SENSORY NEURON SYNAPTIC
VESICLE RELEASE IN ZEBRAFISH USING THE
GENETICALLY-ENCODED EXOCYTOSIS MARKER
SYNAPTOPHLUORIN.
Sakata Y.¹, Greig A.¹, Michel W.C.¹ ¹*Physiology, University of
Utah, Salt Lake City, UT*

- P6 242 TYROSINE HYDROXYLASE AND CFOS EXPRESSION IN MOUSE OLFACTORY BULB SLICE CULTURES REQUIRES AN L-TYPE CALCIUM CHANNEL
Akiba Y.¹, Cave J.W.¹, Baker H.¹ ¹Burke Medical Research Institute, Weill Med. Coll., Cornell, White Plains, NY
- P7 243 OLFACTORY BULB SPECIFIC REGULATION OF TYROSINE HYDROXYLASE GENE EXPRESSION BY ER81 IN MICE
Cave J.W.¹, Akiba Y.¹, Berlin R.¹, Baker H.¹ ¹Burke Medical Research Institute, Weill Med. Coll., Cornell, White Plains, NY
- P8 244 SEROTONIN INCREASES GABA RELEASE FROM PERIGLOMERULAR CELLS IN MOUSE OLFACTORY BULB
Aungst J.L.¹, Shipley M.T.² ¹Anatomy & Neurobiology, University of Maryland at Baltimore, Baltimore, MD; ²University of Maryland at Baltimore, Baltimore, MD
- P9 245 THE PHYLOGENY OF A PUTATIVE CIRCADIAN MODULATOR OF OLFACTORY SENSITIVITY
Dacks A.¹, Christensen T.¹, Hildebrand J.G.² ¹Neurobiology, University of Arizona, Tucson, AZ; ²University of Arizona*, Tucson, AZ
- P10 246 APPLICATION OF MAGNETIC RESONANCE SPECTROMETRY IN THE OLFACTORY SYSTEM
Xu F.¹, Jiang L.¹, Patel A.B.¹, Rothman D.L.¹, Hyder F.¹, Behar K.¹, Shepherd G.M.² ¹Diagnostic Radiology, Yale University, New Haven, CT; ²Neurobiology, Yale University, New Haven, CT
- P11 247 OSCILLATIONS, GABA AND SPIKE TIMING IN THE MOTH MANDUCA SEXTA.
Peters O.¹, Daly K.C.¹ ¹Biology, West Virginia University, Morgantown, WV
- P12 248 CELL TYPE SPECIFIC ACTIVITY-DEPENDENT REGULATION OF GAD ISOFORMS IN THE GLOMERULAR LAYER OF THE MOUSE MAIN OLFACTORY BULB
Aungst S.¹, Puche A.C.¹, Shipley M.T.¹ ¹Department of Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD
- P13 249 AGE-DEPENDENT MODULATION OF MEPPS BY CARBACHOL IN RAT MOB GRANULE CELLS
Ghatpande A.¹, Gelperin A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P14 250 NITRIC OXIDE IS NECESSARY FOR MAINTAINING MANDUCA SEXTA ANTENNAL LOBE NEURON ACTIVITY AND ODOR RESPONSIVENESS.
Nighorn A.¹, Christensen T.¹, Wilson C.¹ ¹ARL Division of Neurobiology, University of Arizona, Tucson, AZ

- P15 251 NITRIC OXIDE SIGNALING IN THE RODENT OLFACTORY BULB.
Lowe G.¹, Ma J.¹, Buerk D.G.², Ghatpande A.¹, Alan G.¹ ¹Monell Chemical Senses Center, Philadelphia, PA; ²Physiology, Bioengineering, University of Pennsylvania, Philadelphia, PA

Central Olfaction – Neurophysiological Approaches

- P16 252 INHIBITORY INTERACTIONS AMONG OLFACTORY GLOMERULI IN THE MOTH MANDUCA SEXTA
Reisenman C.E.¹, Hildebrand J.G.¹ ¹Neurobiology, University of Arizona, Tucson, AZ
- P17 253 IONIC MECHANISMS REGULATING INTRINSIC BURSTING IN MOUSE OLFACTORY BULB EXTERNAL TUFTED CELLS
Liu S.¹, Shipley M.T.¹ ¹Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD
- P18 254 BINARAL INTERACTION MODULATES OLFACTORY BULB RESPONSES TO ODORANT HISTORY.
Singer B.¹, Kim S.², Zochowski M.² ¹Neuroscience Graduate Program, University of Michigan, Ann Arbor, MI; ²Department of Physics, University of Michigan, Ann Arbor, MI
- P19 255 MULTI-SINGLE UNIT AND LOCAL FIELD OSCILLATORY DYNAMICS FROM IN-VIVO BRAIN STIMULATION FOCUSED ON PARALLEL CONNECTIONS BETWEEN THE ANTERIOR AND POSTERIOR PIRIFORM CORTICES AND THE ENTORHINAL CORTEX
Hermer-Vazquez R.¹, Hermer-Vazquez L.¹ ¹Psychology, University of Florida, Gainesville, FL
- P20 256 NEUROMODULATORY ROLE FOR POST-SYNAPTIC DENSITY 95 (PSD-95) IN THE OLFACTORY BULB
Marks D.R.¹, Fadool D.² ¹Neurosci., Florida State University, Tallahassee, FL; ²Neurosci. & Mol. Biophysics, Florida State University, Tallahassee, FL
- P21 257 DIFFERENCES IN ODOR RESPONSES BETWEEN ANTERIOR AND POSTERIOR PIRIFORM CORTEX
Illig K.R.¹, Kay R.¹ ¹Psychology, University of Virginia, Charlottesville, VA
- P22 258 EXPERIENCE-DEPENDENT ADAPTATION OF SENSORY SYNAPSES IN THE OLFACTORY BULB
Tyler W.J.¹, Murthy V.N.¹ ¹Molecular & Cellular Biology, Harvard University, Cambridge, MA

- P23 259 TRANSIENT BETA-FREQUENCY SPIKING COUPLING OLFACTORY AND MOTOR SITES DURING OLFACTORY S+ RECOGNITION
Hermer-Vazquez L.¹, Hermer-Vazquez R.¹ ¹Psychology, University of Florida, Gainesville, FL
- P24 260 THE INTRINSIC PROPERTIES AND FIRING MODES OF TWO TYPES OF OLFACTORY BULB INTERNEURONS.
Pressler T.¹, Strowbridge B.² ¹Case Western Reserve University, Cleveland, OH; ²Department of Neurosciences, Case Western Reserve University, Cleveland, OH

Central Olfaction – Functional Anatomical Approaches

- P25 261 THE ANTIBODY OR-17 SELECTIVELY AFFECTS THE DETECTION OF N-OCTANAL AND THE ODOR INDUCED C-FOS EXPRESSION PATTERN IN THE RAT OLFACTORY BULB
Deutsch S.¹, Apfelbach R.¹ ¹Animal Physiology, University of Tübingen, Tübingen, Germany
- P26 262 COLUMNAR ORGANIZATION IN THE OLFACTORY BULB
Willhite D.C.¹, Nguyen K.T.¹, Masurkar A.V.¹, Chen W.R.¹, Greer C.A.¹, Shepherd G.M.¹ ¹Neurobiology, Yale University, New Haven, CT
- P27 263 PATTERNED PROJECTIONS IN THE OLFACTORY BULB FROM OLFACTORY CORTEX REVEALED BY TRANSSYNAPTIC LABELING
Nguyen K.T.¹, Willhite D.C.¹, Chen W.R.¹, Shepherd G.M.¹ ¹Neurobiology, Yale University, New Haven, CT
- P28 264 ESTIMATING THE NUMBER OF MODULES IN RAT OLFACTORY BULB BY PREDICTION OF ODORANT DESCRIPTORS
Yamanaka T.¹, Gutierrez-Osuna R.¹ ¹Computer Science, Texas A&M University, College Station, TX
- P29 265 SEXUALLY DIFFERENTIATED EXPRESSION OF BDNF AND TRKB ASSOCIATED WITH THE P2 GLOMERULI OF MOUSE MAIN OLFACTORY BULB
Oliva A.M.¹, Vivekanandan V.¹, Jones K.², Restrepo D.¹ ¹Neuroscience Program, University of Colorado Health Sciences Center, Aurora, CO; ²University of Colorado at Boulder, Boulder, CO

- P30 266 THE SENSE OF SMELL: MULTIPLE OLFACTORY SUBSYSTEMS
Breer H.¹, Fleischer J.¹, Schwarzenbacher K.¹, Strotmann J.¹ ¹Institute of Physiology, University of Hohenheim, Stuttgart, Germany
- P31 267 SPATIALLY DISTINCT SENSORY INPUT TO MEDIAL OLFACTORY BULB GLOMERULI AND OUTPUT PROJECTIONS INTO THE HABENULA AND VENTRAL THALAMUS IN THE SEA LAMPREY PETROMYZON MARINUS.
Ren X.¹, Chang S.¹, Auclair F.², Dubuc R.², Zielinski B.¹ ¹Biological Sciences, University of Windsor, Windsor, Ontario, Canada; ²Département de Kinanthropologie, Université du Québec à Montréal, Montréal, Quebec, Canada

Olfactory & Taste Coding

- P32 268 FUNCTIONAL AND SPATIAL IDENTITY OF MOUSE OLFACTORY GLOMERULI INNERVATED BY DEFINED POPULATION OF OLFACTORY RECEPTOR NEURONS
Oka Y.¹, Katada S.¹, Omura M.¹, Suwa M.², Yoshihara Y.³, Touhara K.¹ ¹Integrated Biosciences, University of Tokyo, Kashiwa, Chiba, Japan; ²CBRC, National Institute of Advanced Industrial Science and Technology, Tokyo, Japan; ³RIKEN Brain Science Institute, Saitama, Japan
- P33 269 IN VIVO TWO-PHOTON IMAGING OF MITRAL CELL ODOR RESPONSIVENESS
Nagayama S.¹, Zeng S.¹, Fletcher M.L.¹, Xiong W.¹, Chen W.R.¹ ¹Department of Neurobiology, Yale University, New Haven, CT
- P34 270 NEUROANATOMICAL AND FUNCTIONAL CHARACTERIZATION OF MOR-EG GENE-TARGETED MICE: AXON CONVERGENCE AND ODORANT RESPONSES
Katada S.¹, Oka Y.¹, Omura M.¹, Yoshihara Y.², Touhara K.¹ ¹Department of Integrated Biosciences, The University of Tokyo, Chiba, Japan; ²RIKEN Brain Science Institute, Saitama, Japan
- P35 271 RESPONSE SPECIFICITY OF OLFACTORY FOREBRAIN UNITS IN THE CHANNEL CATFISH TO AMINO ACIDS
Nikonov A.A.¹, Caprio J.¹ ¹Biological Sciences, Louisiana State University, Baton Rouge, LA

- P36 272 SELECTIVITY OF BILE SALT RESPONSIVE NEURONS IN THE OLFACTORY BULB OF THE CHANNEL CATFISH
Rolen S.¹, Caprio J.¹ ¹*Biological Sciences, Louisiana State University, Baton Rouge, LA*
- P37 273 PATTERN RECOGNITION FOR OPTICAL MICROBEAD ARRAYS WITH A NEUROMORPHIC MODEL OF THE OLFACTORY BULB
Raman B.¹, Kotseroglou T.², Lebl M.², Clark L.², Gutierrez-Osuna R.¹ ¹*Computer Science, Texas A&M University, College Station, TX*; ²*Illumina, Inc., San Diego, CA*
- P38 274 MICROELECTRODE ARRAY ANALYSIS OF ODORANT-EVOKED SPATIAL ACTIVITY PATTERNS IN PIRIFORM CORTEX.
Rennaker R.¹, Ruyle A.¹, Chen C.F.², Wilson D.A.² ¹*Aerospace and Mechanical Engineering, University of Oklahoma, Norman, OK*; ²*Zoology, University of Oklahoma, Norman, OK*
- P39 275 OLFACTORY EXPERIENCE DE-CORRELATES ENCODING OF MIXTURES FROM COMPONENTS IN RAT PIRIFORM CORTEX.
Kadohisa M.¹, Wilson D.A.¹ ¹*Zoology, University of Oklahoma, Norman, OK*
- P40 276 ELECTROPHYSIOLOGICAL, BEHAVIORAL AND COMPUTATIONAL INVESTIGATION OF THE FUNCTIONAL ROLE OF SYNAPTIC ADAPTATION IN OLFACTORY CORTEX.
Linster C.¹, Kadohisa M.², Wilson D.A.² ¹*Cornell University, Ithaca, NY*; ²*Zoology, University of Oklahoma, Norman, OK*
- P41 277 TEMPORAL CODING OF SIMILAR TASTANTS IN THE NUCLEUS OF THE SOLITARY TRACT OF THE RAT
Roussin A.T.¹, Di Lorenzo P.M.¹, Victor J.D.² ¹*Psychology, State University of New York at Binghamton, Binghamton, NY*; ²*Neurology and Neuroscience, Weill Medical College of Cornell University, New York, NY*
- P42 278 FUNCTIONAL CHARACTERIZATION OF LOBSTER OLFACTORY PROJECTION NEURONS
Aggio J.F.¹, Ache B.W.¹ ¹*The Whitney Laboratory for Marine Bioscience, University of Florida, St. Augustine, FL*
- P43 279 A COMPARISON OF ENSEMBLE REPRESENTATIONS FOR NATURAL PLANT-ODOR BLENDS AND BLEND COMPONENTS IN THE ANTENNAL LOBE OF THE MOTH, *MANDUCA SEXTA*
Riffell J.A.¹, Christensen T.C.¹, Hildebrand J.G.¹ ¹*Div. Neurobiology, University of Arizona, Tucson, AZ*

	Wednesday April 26, 2006		Thursday April 27, 2006		Friday April 28, 2006		Saturday April 29, 2006		Sunday April 30, 2006			
7:00 AM			Registration: 7:30 am-3 pm & 6:30-8:00 pm		Registration: 7:30 am-1 pm & 6:30-8:00 pm		Registration: 7:30 am-1 pm & 6:30-7:30 pm		Registration: 8 am-9:30 am		7:00 AM	
8:00 AM			Continental Breakfast 7:30-9:00		Continental Breakfast 7:30-9:00		Continental Breakfast 7:30-9:00		Continental Breakfast 7:30-9:00		8:00 AM	
9:00 AM	9:00-1:00 <i>Symposium</i> Chemo- sensory Receptors <i>Ritz Carlton Plaza I</i>	10:00-12:00 Educational Outreach <i>GWIZ Science Center</i>	8:00-9:45 <i>Slide Session</i> Ecology & Social Chemicals <i>South Ballroom</i>	8:00-12:00 <i>Poster Session & Exhibits</i> • Peripheral Olfaction Ion Channels Transduction Electrophysiology Anatomy	8:00-9:45 <i>Slide Session</i> Taste Chemoreception <i>South Ballroom</i>	8:00-12:00 <i>Poster Session & Exhibits</i> • Chemosensory Sensors • Taste & Olfactory Psychophysics	8:00-10:15 <i>Slide Session</i> Peripheral and Central Olfaction <i>South Ballroom</i>	8:00-12:00 <i>Poster Session & Exhibits</i> • Vomeronasal Organ, Accessory Olfactory System, & Amygdala • Human Imaging	8:45-11:00 <i>Symposium</i> Neural Dynamics & Chemosensory Behavior <i>South Ballroom</i>	8:00-12:00 <i>Poster Session & Exhibits</i> • Developmental Taste and Olfaction • Neurogenesis & Neurotrophic Factors • Olfactory Lesion • Consumer Research <i>North Ballroom</i>	9:00 AM	
10:00 AM			10:00-12:15 <i>Symposium</i> Impact of Odorant Metabolism on Scent Perception <i>South Ballroom</i>	• Peripheral Taste Ion Channels Transduction Modulation Chorda Tympani <i>North Ballroom</i>	10:00-12:30 <i>Symposium</i> TRP Channels <i>South Ballroom</i>	• Olfactory Pathophysiology • Multimodal • Trigeminal <i>North Ballroom</i>	10:30-12:30 <i>Symposium</i> Approaching Taste & Olfaction at the Systems Level <i>South Ballroom</i>	• Social Chemosignals • Molecular Genetics Odor Receptors VNO Receptors Insect Chemoreceptors Taste Receptors <i>North Ballroom</i>		10:00 AM		
11:00 AM											11:00 AM	
12:00 PM											12:00 PM	
1:00 PM	12:00-3:30 Executive Committee <i>Executive Board Room</i>		1:00-4:45 <i>Symposium</i> Taste & Smell In Translation: Applications From Basic Research <i>South Ballroom</i>	12:30-2:00 Minority & Clinical Travel Awardee Luncheon <i>Executive Board Room</i>	12:45-2:30 AChemS Business Meeting <i>South Ballroom</i>		12:30-2:00 Clinical Luncheon <i>(ticketed event) The Keys</i>		CASH LUNCH CARTS & BREAKS THURSDAY 9:30-10:00 am - Break Noon-1:30 pm - Cash Lunch Cart 8:00-8:30 pm - Break FRIDAY 9:30-10:00 am - Break 12:30-2:00 pm - Cash Lunch Cart 8:00-8:30 pm - Break SATURDAY 10:00-10:30 am - Break 12:30-2:00 pm - Cash Lunch Cart 7:45-8:15 pm - Break		1:00 PM	
2:00 PM					1:30 pm 5th Annual Ultimate Frisbee Tournament <i>Lido Beach</i>						2:00 PM	
3:00 PM	2:30-5:30 <i>NIDCD Workshop</i> Quick Smell & Taste Tests <i>Ringling Room</i>			3:00-4:30 <i>NIH Workshop</i> Funding Opportunities for Young Investigators <i>Ringling Room</i>			2:30-4:30 <i>Workshop</i> Olfactory Bulb Computations <i>South Ballroom</i>				3:00 PM	
4:00 PM	4:00-5:00 Long Range Planning <i>Exec Board Rm</i>				4:00-6:00 <i>Workshop</i> Olfaction in Neurodegenerative Disease <i>South Ballroom</i>		3:30-5:30 Smell & Taste Softball Game <i>Bee Ridge Park</i>				4:00 PM	
5:00 PM	3:30-8:00 Registration <i>Prefunction Area</i>		5:15-6:45 Industry Reception and Buffet <i>(ticketed event) The Keys</i>	5:00-7:00 CHemA Social <i>Florida Room</i>							5:00 PM	
6:00 PM											6:00 PM	
7:00 PM	6:30-8:00 Opening Banquet <i>(ticketed event) North/South Ballrooms</i>		7:00-9:30 <i>Symposium</i> Structure/ Function & Pharmacology GPCRs <i>South Ballroom</i>	7:00-11:00 <i>Poster Session & Exhibits</i> • Neural Basis of Human Olfaction • Clinical Olfaction - Neurodegenerative Disease • Drug/Hormone Effects On Chemoreception • Retronasal • Chemosensory Methodology <i>North Ballroom</i>	7:00-8:15 <i>Slide Session</i> Molecular Genetics <i>South Ballroom</i>	7:00-11:00 <i>Poster Session & Exhibits</i> • Central Olfaction Neuropharmacology Neurophysiology Functional Anatomy • Chemosensory Coding • Chemical Ecology • Central Taste <i>North Ballroom</i>	7:00-8:00 <i>Slide Session</i> Clinical Chemosensory <i>South Ballroom</i>	7:00-11:00 <i>Poster Session & Exhibits</i> • Central Taste • Insect Chemosensory Behavior • Chemosensory Imprinting • Taste Plasticity • Taste & Olfactory Discrimination <i>North Ballroom</i>		7:00 PM		
8:00 PM	8:00 pm Welcome & Awards					8:30-10:35 <i>Symposium</i> Changing the Development of Taste & Olfaction <i>South Ballroom</i>		8:15-10:30 <i>Presidential Symposium</i> Why Have Neurogenesis in Adult Olfactory Systems? <i>South Ballroom</i>			8:00 PM	
9:00 PM	Givaudan Lecture John Dowling Fishing for Novel Genes <i>South Ballroom</i>										9:00 PM	
10:00 PM	Social Gathering & Cash Bar <i>Prefunction Area</i>			Organizational meeting for students with travel awards <i>North Ballroom</i>								10:00 PM
11:00 PM										11:00 PM		

- P44 280 SPATIAL AND TEMPORAL ORGANIZATION OF ODOR REPRESENTATION BY UNIGLOMERULAR PROJECTION NEURONS IN THE MOTH ANTENNAL LOBE
Namiki S.¹, Kanzaki R.² ¹*Graduate School of Life and Environmental Sciences, University of Tsukuba, Tsukuba, Ibaraki, Japan;* ²*Department of Mechano-Informatics, Graduate School of Information Science and Technology, University of Tokyo, Bunkyo-ku, Tokyo, Japan*
- P45 281 ENSEMBLE CODING OF ODOR-BLEND RATIOS IN THE INSECT ANTENNAL LOBE
Martin J.P.¹, Christensen T.A.¹, Hildebrand J.G.¹ ¹*ARL Division of Neurobiology, University of Arizona, Tucson, AZ*
- P46 282 COMPARATIVE FUNCTIONAL MORPHOLOGY OF MALE-SPECIFIC GLOMERULI IN TWO *HELIOTHINE* MOTH SPECIES, *HELICOVERPA ZEA* AND *HELIOTHIS SUBFLEXA*
Lee S.¹, Carlsson M.A.², Hansson B.S.², Vickers N.³, Baker T.C.¹ ¹*Entomology, Pennsylvania State University, University Park, PA;* ²*Crop Science, SLU, Alnarp, Sweden;* ³*Biology, University of Utah, Salt Lake City, UT*

Chemical Ecology

- P47 283 OLFACTORY SHIFTS PARELLEL SUPERSPECIALISM FOR TOXIC FRUIT IN A *DROSOPHILA MELANOGASTER* SIBLING, *D. SECHELLIA*
Dekker T.¹, Ibba I.², Siju K.², Stensmyr M.², Hansson B.² ¹*Swedish University of Agricultural Sciences, Alnarp, Sweden;* ²*SLU, Alnarp, Sweden*
- P48 284 RELEVANCE OF AGE, SEX, AND ODOR ON THE FORAGING CAPABILITIES OF *MANDUCA SEXTA*.
Williams A.K.¹, Raguso R.¹ ¹*Biological Sciences, University of South Carolina, Columbia, SC*
- P49 285 CHEMICALS RELEASED BY INJURED OR DISTURBED CONSPECIFICS MEDIATE DEFENSIVE BEHAVIORS VIA THE AESTHETASC PATHWAY IN THE SPINY LOBSTER *PANULIRUS ARGUS*
Shabani S.¹, Kamio M.¹, Derby C.¹ ¹*Biology, Georgia State University, Atlanta, GA*

- P50 286 EVIDENCE THAT A VOLATILE MOLECULE 3-DECANOL IN HERMIT CRAB BLOOD SIGNALS SHELL AVAILABILITY TO CONSPECIFICS
Rittschof D.¹, Schmidt G.², Harder T.² ¹*Duke University, Beaufort, NC*; ²*Institute for Chemistry and Biology of the Marine Environment (ICBM), University of Oldenburg, Oldenburg, Germany*
- P51 287 N-ACETYLGLUCOSAMINO-1,5-LACTONE IS A CANDIDATE SEX PHEROMONE IN FEMALE BLUE CRABS
Kamio M.¹, Kubanek J.², Derby C.¹ ¹*Biology, Georgia State University, Atlanta, GA*; ²*Biology, Georgia Institute of Technology, Atlanta, GA*
- P52 288 ISOLATION AND STRUCTURE ELUCIDATION OF THE SEA LAMPREY MIGRATORY PHEROMONE
Dvornikovs V.¹, Fine J.M.², Hoyer T.R.¹, Jeffrey C.S.¹, Shao F.¹, Wang J.¹, Vrieze L.A.³, Anderson K.R.¹, Sorensen P.W.²
¹*Department of Chemistry, University of Minnesota, Minneapolis, MN*; ²*Department of Fisheries & Wildlife, University of Minnesota, St. Paul, MN*
- P53 289 RELEASE, DETECTION, DISCRIMINATION, AND ASSOCIATIVE LEARNING OF CONSPECIFIC BILE ACIDS BY MIGRATORY RAINBOW TROUT (*ONCORHYNCHUS MYKISS KAMLOOPS*).
Thwaits B.F.¹, Fine J.M.¹, Sorensen P.W.¹ ¹*Fisheries, Wildlife, and Conservation Biology, University of Minnesota, St. Paul, MN*
- P54 290 PUTATIVE STEROIDAL PHEROMONES: SYNTHESIS SITES AND OLFACTORY EPITHELIAL RESPONSES IN THE ROUND GOBY (*NEOGOBIOUS MELANOSTOMUS*).
Jasra S.K.¹, Avci Z.¹, Corkum L.², Scott A.P.³, Li W.⁴, Zielinski B.⁵
¹*Biology, University of Windsor, Windsor, Ontario, Canada*; ²*University of Windsor, Windsor, Ontario, Canada*; ³*University of Windsor, Dorset, England, United Kingdom*; ⁴*Fisheries and Wildlife, Michigan State University, East Lansing, MI*; ⁵*Biological Sciences, University of Windsor, Windsor, Ontario, Canada*
- P55 291 CRESTED AUKLET ODOR IS INDICATIVE OF A FEATHER ORNAMENT
Chua W.¹, Hagelin J.¹, Preti G.², Wysocki L.² ¹*Biology, Swarthmore College, Swarthmore, PA*; ²*Monell Chemical Senses Center, Philadelphia, PA*
- P56 292 RESPONSE OF A TANGERINE-SCENTED SEABIRD TO ODOR AND VISUAL CUES
Tigue C.C.¹, Hagelin J.C.¹, Wenzel B.M.² ¹*Biology, Swarthmore College, Swarthmore, PA*; ²*David Geffen School of Medicine, UCLA, Los Angeles, CA*

- P57 293 RECONSTITUTION OF A CHEMICAL DEFENSE SIGNALING PATHWAY IN A HETEROLOGOUS SYSTEM
Padove S.A.¹, Kubanek J.², Hatt H.³, McCarty N.A.¹ ¹*School of Biology, Georgia Institute of Technology, Atlanta, GA*; ²*School of Biology, School of Chemistry & Biochemistry, Georgia Institute of Technology, Atlanta, GA*; ³*Cell Physiology, Ruhr-University Bochum, Bochum, Germany*
- P58 294 GENETIC MODEL OF HIGH RESPONSIVENESS TO PREDATOR ODOR
Voznessenskaya V.¹, Krivomazov G.¹, Voznesenskaia A.¹, Klyuchnikova M.¹ ¹*Institute of Ecology & Evolution RAS, Moscow, Russia*
- P59 295 THE ROLE OF THE VOMERONASAL ORGAN IN ALARM PHEROMONE PERCEPTION
Kiyokawa Y.¹, Kikusui T.², Takeuchi Y.², Mori Y.² ¹*Japan Society for the Promotion of Science, Tokyo, Japan*; ²*Laboratory of Veterinary Ethology, University of Tokyo, Tokyo, Japan*

Saturday, April 29, 2006

7:00 AM - 1:00 PM

Registration (Prefunction Area)

SLIDES

Saturday - 8:00 AM - 10:15 AM (South Ballroom)

Peripheral Olfaction

Mary Lucero, Session Chair

- 8:00 296 CONTEXT-DEPENDENT MODULATION OF OLFACTORY EPITHELIAL ACTIVITY BY THE TERMINAL NERVE IN AXOLOTL (AMBYSTOMA MEXICANUM)
Polese G.¹, Eisthen H.L.¹ ¹Zoology, Michigan State University, East Lansing, MI
- 8:15 297 ROLES OF TRPM5 IN MOUSE OLFACTORY SIGNAL TRANSDUCTION
Lin W.¹, Margolskee R.F.², Restrepo D.¹ ¹Cell and Devel. Biol, Neuroscience Program and Rocky Mountain Taste and Smell Center, University of Colorado at Denver and Health Sciences Center, Aurora, CO; ²Neuroscience, Mount Sinai School of Medicine, New York, NY
- 8:30 298 THE ROLE OF THE TRANSCRIPTION FACTOR OAZ IN ORN DEVELOPMENT
Cheng L.¹, Reed R.R.¹ ¹Molecular Biology and Genetics, Johns Hopkins University, Baltimore, MD
- 8:45 299 THE WNT2 AND WNT5 GENES REGULATE DIFFERENT STEPS IN OLFACTORY MAP DEVELOPMENT
Yin C.¹, Ying Y.¹, Ozawa R.¹, Wu Y.¹, Liebl F.¹, Fradkin L.², Aigaki T.³, Hing H.K.¹ ¹Cell and Developmental Biology, University of Illinois at Urbana-Champaign, Urbana, IL; ²Medical Center, Leiden University, Leiden, Netherlands; ³Biological Sciences, Tokyo Metropolitan University, Tokyo, Japan

Central Olfaction

Joel White, Session Chair

- 9:00 300 GLOMERULAR COMPUTATIONS IN THE OLFACTORY BULB CAN NORMALIZE NEURAL ACTIVATION PATTERNS
Cleland T.¹, Johnson B.², Leon M.², Linster C.¹ ¹Dept. Neurobiol & Behav, Cornell Univ, Ithaca, NY; ²Dept. Neurobiol & Behav, University of California, Irvine, Irvine, CA
- 9:15 301 OLFACTORY BULB GLOMERULAR ACTIVITY PATTERNS AS A BASIS FOR ODORANT QUALITY CODING: PREDICTING PERCEPTUAL BEHAVIOR FROM 2-DG FUNCTIONAL MAPS
Youngentob S.L.¹, Johnson B.A.², Leon M.², Kent P.F.¹ ¹Neuroscience and Physiology, SUNY Upstate Medical University, Syracuse, NY; ²Neurobiology and Behavior, University of California, Irvine, Irvine, CA
- 9:30 302 DEVELOPMENT OF FUNCTIONAL ODOR MAPS IN THE RODENT OLFACTORY BULB
Albeanu D.¹, Soucy E.¹, Sato T.¹, Meister M.¹, Murthy V.N.¹ ¹Molecular & Cellular Biology, Harvard University, Cambridge, MA
- 9:45 303 RELATIONSHIP BETWEEN SNIFFING AND ODOR REPRESENTATIONS IMAGED FROM THE OLFACTORY BULB OF AWAKE RATS.
Verhagen J.V.¹, Wesson D.W.¹, Wachowiak M.¹ ¹Biology, Boston University, Boston, MA
- 10:00 304 ADRENERGIC ENHANCEMENT OF GABA INHIBITORY TRANSMISSION IN THE OLFACTORY BULB
Araneda R.C.¹, Firestein S.¹ ¹Biological Sciences, Columbia University, New York, NY

SYMPOSIUM

Saturday - 10:30 AM - 12:30 PM (South Ballroom)

Approaching Taste and Olfaction at the Systems Level
Sidney Simon, Symposium Chair

- 10:30 305 THE INTEGRATION OF MULTIPLE SENSORY MODALITIES AND THE CREATION OF FLAVOR
Breslin P.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- 11:00 306 LEARNING TO SMELL: CORTICAL PLASTICITY AND ODOR PERCEPTION
Wilson D.A.¹ ¹Zoology, University of Oklahoma, Norman, OK
- 11:30 307 NEURAL POPULATION CODING OF SATIETY STATES
De Araujo I.¹ ¹Neurobiology, Duke University, Durham, NC
- 12:00 308 HEDONIC ASPECTS OF CHEMICAL STIMULI: CORTICOLIMBIC CIRCUITS THAT MEDIATE REWARD AND CHOICE.
Balleine B.¹ ¹Psychology, University of California, Los Angeles, Los Angeles, CA

POSTERS

Saturday - 8:00 AM - 12:00 PM (North Ballroom)

Vomeronasal Organ

- P1 309 REGULATION OF THE VNO BY A MOLECULAR CLOCK
Katz R.¹, Firestein S.² ¹Center for Neurobiology and Behavior, Columbia University, New York, NY; ²Dept. of Biological Sciences, Columbia University, New York, NY
- P2 310 ATTENUATION OF THE PRODUCTION OF INOSITOL 1,4,5 TRISPHOSPHATE IN THE VOMERONASAL ORGAN BY ANTIBODIES AGAINST THE &ALPHAQ/11 SUBFAMILY OF G- PROTEINS.
Thompson R.N.¹, Napier A.¹, Wekesa K.¹ ¹Biological Sciences, Alabama State University, Montgomery, AL

- P3 311 ARACHIDONIC ACID PLAYS A ROLE IN THE ODOR RESPONSES OF MOUSE VOMERONASAL NEURONS
Zhang P.¹, Delay R.¹ ¹Biology Department, University of Vermont, Burlington, VT
- P4 312 FEMALE SNAKE SEX PHEROMONE INDUCES MEMBRANE RESPONSES IN VOMERONASAL SENSORY NEURONS OF MALE SNAKES
Huang G.¹, Zhang J.², Wang D.³, Mason R.⁴, Halpern M.²
¹Anatomy and Cell Biology, State University of New York (SUNY), Brooklyn, NY; ²Anatomy and Cell Biology, SUNY Downstate Medical Center, Brooklyn, NY; ³Biochemistry, SUNY Downstate Medical Center, Brooklyn, NY; ⁴Zoology, Oregon State University, Oregon, OR
- P5 313 EVIDENCE FOR A PERIRECEPTOR ROLE FOR HARDERIAN GLAND SECRETIONS IN GARTER SNAKES: DELIVERY OF PHEROMONE MOLECULES TO THE VOMERONASAL ORGAN
Mason R.T.¹, Wang D.T.², Chen P.², Halpern M.³ ¹Zoology, Oregon State University, Corvallis, OR; ²Biochemistry, State University of New York Health Science Center at Brooklyn, Brooklyn, NY; ³Anatomy & Cell Biology, State University of New York Health Science Center at Brooklyn, Brooklyn, NY
- P6 314 GONADOTROPIN RELEASING HORMONE INCREASES VOMERONASAL NEURON RESPONSE TO MALE SALAMANDER PHEROMONE
Wirsig-Wiechmann C.R.¹, Feldhoff R.C.², Feldhoff P.W.², Houck L.³ ¹Cell Biology, University of Oklahoma, Oklahoma City, OK; ²Biochemistry and Molecular Biology, University of Louisville, Louisville, KY; ³Zoology, Oregon State University, Corvallis, OR
- P7 315 SYNTHESIZED MALE SEA LAMPREY PHEROMONE SUMMONS CONSPECIFIC FEMALES TO TRAPS
Li W.¹, Johnson N.¹, Yun S.¹ ¹Fisheries and Wildlife, Michigan State University, East Lansing, MI
- P8 316 REFLECTIONS AMONG ASIAN ELEPHANTS: CHIRALITY COUNTS
Rasmussen L.¹, Greenwood D.R.² ¹Environmental & Biomolecular Systems, Oregon Health & Science University, Beaverton, OR; ²School of Biological Sciences, University of Auckland, Auckland, New Zealand

Accessory Olfactory System & Amygdala

- P9 317 INFUSIONS OF LIDOCAINE IN THE ACCESSORY OLFACTORY BULB (AOB) REDUCE SEXUAL INCENTIVE MOTIVATION IN MALE RATS
Hurtazo H.A.¹, Agmo A.², Paredes R.G.¹ ¹*Instituto de Neurobiología, Universidad Nacional Autónoma de México, Querétaro, Mexico*; ²*Department of Psychology, University of Tromsø, Tromsø, Norway*
- P10 318 VNO/AOB FUNCTION IN THE ABSENCE OF MOB INPUT FROM OLFACTORY EPITHELIUM
Slotnick B.¹, Restrepo D.², Lin W.², Sanguino A.¹, Schellinck H.³, Archbold G.³, Marquino G.¹ ¹*Psychology, University of South Florida, Tampa, FL*; ²*Cellular Biology, University of Colorado, Aurora, CO*; ³*Psychology, Dalhousie University, Halifax, Nova Scotia, Canada*
- P11 319 VOLATILE, SEX-SPECIFIC URINARY ODORS DETECTED BY THE MAIN OLFACTORY EPITHELIUM AUGMENT FOS EXPRESSION IN THE ACCESSORY OLFACTORY BULB OF FEMALE MICE
Martel K.L.¹, Botros J.¹, Baum M.J.¹ ¹*Department of Biology, Boston University, Boston, MA*
- P12 320 RESPONSE OF OPOSSUM ACCESSORY OLFACTORY BULB NEURONS TO URINE
Zhang J.¹, Huang G.², Halpern M.² ¹*Anatomy and Cell Biology, State University of New York (SUNY), Brooklyn, NY*; ²*Anatomy and Cell Biology, SUNY Downstate Medical Center, Brooklyn, NY*
- P13 321 NORADRENERGIC MODULATION OF SYNAPTIC TRANSMISSION FROM MITRAL TO GRANULE CELLS IN THE ACCESSORY OLFACTORY BULB
Kaba H.¹, Huang G.¹, Zhou Y.¹, Taniguchi M.¹ ¹*Department of Integrative Physiology, Kochi Medical School, Nankoku, Kochi, Japan*
- P14 322 MEDIAL AMYGDALA RESPONSES TO CHEMOSENSORY STIMULI FROM SAME- AND DIFFERENT- SPECIES.
Samuelsen C.¹, Blake C.¹, Case G.¹, Meredith M.¹ ¹*Biological Science, Florida State University, Tallahassee, FL*

Chemosensation & Major Histocompatibility Molecules

- P15 323 VOLATILE MHC ODORTYPES
Preti G.¹, Kwak J.¹, Curran M.¹, Wahl J.², Willse A.², Yamazaki K.¹, Beauchamp G.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*; ²*Pacific Northwest National Laboratory, Richland, WA*
- P16 324 FETAL ODORTYPES: CONTRIBUTIONS OF MHC AND BACKGROUND GENETIC VARIATION.
Yamazaki K.¹, Curran M.¹, Beauchamp G.K.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*
- P17 325 BACKGROUND STRAIN DEPENDENCE OF MHC-RELATED ODORANTS
Kwak J.¹, Willse A.², Preti G.¹, Curran M.¹, Wahl J.H.², Yang P.¹, Yamazaki K.¹, Beauchamp G.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*; ²*Pacific Northwest National Laboratory, Richland, WA*
- P18 326 DETECTION OF THE SAME SOCIAL CUES BY THE MAIN AND ACCESSORY OLFACTORY SYSTEMS: DIRECT COMPARISON OF THEIR FUNCTIONS
Spehr M.¹, Kelliher K.R.¹, Li X.¹, Boehm T.², Leinders-Zufall T.¹, Zufall F.¹ ¹*Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD*; ²*MPI Immunobiology, Freiburg, Germany*
- P19 327 A ROLE FOR MAJOR HISTOCOMPATIBILITY MOLECULES IN THE MAIN OLFACTORY BULB
Salcedo E.¹, Restrepo D.¹ ¹*Cellular and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO*
- P20 328 GENE PROFILING OF AGING IN THE MURINE OLFACTORY SYSTEM: IMMUNE SIGNATURES
Getchell M.L.¹, Vaishnav R.A.², Liu H.³, Stromberg A.J.³, Getchell T.V.² ¹*Anatomy & Neurobiology, University of Kentucky, Lexington, KY*; ²*Physiology, University of Kentucky, Lexington, KY*; ³*Statistics, University of Kentucky, Lexington, KY*

Human Imaging & Social Chemosignals

- P21 329 PROBING FUNCTIONALITY OF THE HUMAN VNO
Wyart C.J.¹, Webster W.², McClary A.³, Sobel N.³ ¹*Psychology, University of California, Berkeley, Berkeley, CA*; ²*Kaiser Medical, Berkeley, CA*; ³*Neuroscience, University of California, Berkeley, Berkeley, CA*
- P22 330 FUNCTIONAL NEURONAL PROCESSING OF BODY ODORS DIFFERS FROM THAT OF COMMON ODORS
Lundstrom J.N.¹, Boyle J.A.¹, Zatorre R.J.¹, Jones-Gotman M.¹ ¹*Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada*
- P23 331 DIFFERENT CEREBRAL ACTIVATION PRODUCED BY A PUTATIVE SOCIAL CHEMOSIGNAL AND PERCEPTUALLY SIMILAR ODORANTS
Gerber J.C.¹, Bensafi M.², Husner A.³, Frasnelli J.⁴, Reden J.⁴, Hummel T.⁴ ¹*University of Dresden, Dresden, Germany*; ²*Neuroscience, University of California, Berkeley, Berkeley, CA*; ³*ENT Department, University of Basel, Basel, Switzerland*; ⁴*ENT, University of Dresden, Dresden, Germany*
- P24 332 CULTURE, OLFACTION AND COGNITION: MULTIDIMENSIONALITY OF 'CULTURALLY SCENTED KNOWLEDGE'
Damhuis C.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*

Molecular Genetics – Odorant Receptors

- P25 333 A POSSIBLE GENETIC BASIS FOR GENERAL HYPEROSMIA
Hasin Y.¹, Menashe I.¹, Feldmesser E.¹, Lancet D.¹ ¹*Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel*
- P26 334 A NEW STRUCTURAL SUB-CLASS OF OLFACTORY RECEPTORS
Lai P.C.¹, Bahl G.², Clot-Faybesse O.³, Matarazzo V.³, Crasto C.J.⁴ ¹*Molecular and Cell Biology, University of Connecticut, Storrs, CT*; ²*University of San Diego School of Medicine, San Diego, CA*; ³*Laboratoire de Neuroglycobiologie, L'Université de Provence, Marseille, Marseille, France*; ⁴*Neurobiology, Yale University, New Haven, CT*

- P27 335 CHARACTERIZATION OF A NOVEL HUMAN TESTICULAR ODORANT RECEPTOR
Triller A.¹, Schwane K.¹, Riffell J.A.², Panten J.³, Zimmer R.K.⁴, Spehr M.⁵, Hatt H.¹ ¹*Cell Physiology, Ruhr-University, Bochum, Germany*; ²*Neurobiology, University of Arizona, Tucson, AZ*; ³*RD Syntheses New Molecules FRA, Symrise GmbH, Holzminden, Germany*; ⁴*Ecology and Evolution, University of California, Los Angeles, CA*; ⁵*Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD*
- P28 336 HIGHTHROUGHPUT SCREENING SYSTEM FOR OLFACTORY RECEPTORS
Sallmann F.R.¹, Wilkin F.¹, Philippeau M.¹, Van Osselaer C.¹, Veithen A.¹ ¹*ChemCom s.a., Brussels, Belgium*
- P29 337 FUNCTIONAL ANALYSIS OF THE MOUSE ODORANT RECEPTOR MOR42 SUBFAMILY
Abaffy T.¹, Matsunami H.², Luetje C.¹ ¹*Pharmacology, University of Miami, Miami, FL*; ²*MGM, Duke University, Durham, NC*
- P30 338 EXPLORING THE MOLECULAR RECEPTIVE RANGES OF MAMMALIAN ODORANT RECEPTORS
Repicky S.E.¹, Matsunami H.², Luetje C.W.¹ ¹*Molecular and Cellular Pharmacology, University of Miami, Miami, FL*; ²*MGM, Duke University, Durham, NC*
- P31 339 DECIPHERING THE MOLECULAR BASIS OF HUMAN OLFACTORY THRESHOLD VARIATIONS
Menashe I.¹, Hasin Y.¹, Doron L.¹ ¹*Dept. of Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel*
- P32 340 IDENTIFICATION OF AMINO ACIDS INVOLVED IN G PROTEIN ACTIVATION BY A MOUSE EUGENOL RECEPTOR, MOR-EG
Kato A.¹, Katada S.¹, Touhara K.¹ ¹*Department of Integrated Biosciences, The University of Tokyo, Chiba, Japan*
- P33 341 CHANGES IN OLFACTORY RECEPTOR EXPRESSION IN AGING MICE
Lee A.C.¹, Tian H.¹, Ma M.¹ ¹*Neuroscience, University of Pennsylvania, Philadelphia, PA*
- P34 342 SIGNATURES OF AGING: PROFILES OF GENE REGULATION IN THE MURINE OLFACTORY EPITHELIUM
Getchell T.V.¹, Hersh M.A.², Vaishnav R.A.¹, Saunders C.P.², Liu H.², Stromberg A.J.², Getchell M.L.³ ¹*Physiology, University of Kentucky, Lexington, KY*; ²*Statistics, University of Kentucky, Lexington, KY*; ³*Anatomy & Neurobiology, University of Kentucky, Lexington, KY*

- P35 343 AN INTEGRATED OLFACTORY RECEPTOR MICROARRAY GENE EXPRESSION DATABASE
Liu N.¹, Yang J.¹, Crasto C.J.¹, Firestein S.², Ma M.³ ¹*Center for Medical Informatics, Yale University, New Haven, CT;* ²*Biology, Columbia University, New York, NY;* ³*Neuroscience, University of Pennsylvania, Philadelphia, PA*

- P36 344 CHROMATIN STRUCTURE AT ODORANT RECEPTOR LOCI
Kambere M.¹, Getman M.¹, Lane R.P.¹ ¹*Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, CT*

Molecular Genetics – Vomeronasal Receptors

- P37 345 POTENTIATION AND INHIBITION AMONG ODORANTS ACTING ON HUMAN VN1-TYPE RECEPTORS
Shirokova E.¹, Krautwurst D.¹ ¹*German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany*

- P38 346 IDENTIFICATION OF A MOUSE V2R RECEPTOR EXPRESSED IN VOMERONASAL SENSORY NEURONS STIMULATED BY A MALE-SPECIFIC PEPTIDE ESP1
Haga S.¹, Kimoto H.¹, Yanagawa T.¹, Sato K.¹, Touhara K.¹ ¹*The University of Tokyo, Chiba, Japan*

- P39 347 AN EARLIER ORIGIN FOR THE VOMERONASAL SYSTEM: TRP2 IN SEA LAMPREY (*PETROMYZON MARINUS*)
Grus W.E.¹, Zhang J.G.¹ ¹*Ecology & Evolutionary Biology, University of Michigan, Ann Arbor, MI*

- P40 348 TWO FAMILIES OF CANDIDATE TASTE RECEPTORS IN FISHES
Ishimaru Y.¹, Okada S.¹, Naito H.¹, Nagai T.¹, Yasuoka A.², Matsumoto I.¹, Abe K.¹ ¹*Applied Biological Chemistry, The University of Tokyo, Tokyo, Japan;* ²*National Institute of Environmental Health Sciences, Research Triangle Park, NC*

Molecular Genetics – Insect Chemoreceptors

- P41 349 EXPANSION OF THE HONEY BEE ODORANT RECEPTOR FAMILY SUPPORTS THE 1NEURON/1OR/1GLOMERULUS MODEL OF INSECT OLFACTION
Robertson H.M.¹, Wanner K.¹ ¹*Entomology, University of Illinois at Urbana-Champaign, Champaign, IL*

- P42 350 WITHDRAWN

- P43 351 FEMALE SPECIFIC ODORANT RECEPTORS EXPRESSED IN THE ADULT ANTENNAE OF THE SILKMOTH, *BOMBYX MORI*
Wanner K.W.¹, Anderson A.R.², Trowell S.³, Theilmann D.⁴, Robertson H.M.¹, Newcomb R.⁵ ¹*Entomology, University of Illinois at Urbana-Champaign, Urbana, IL;* ²*School of Biological Sciences, Monash University, Victoria, Australia;* ³*Entomology, CSIRO, Acton, Australian Capital Territory, Australia;* ⁴*PARC, Agriculture and Agri-Food Canada, Summerland, British Columbia, Canada;* ⁵*Gene Technologies, HortResearch, Auckland, New Zealand*

- P44 352 SHIFTS IN THE USE OF TWO ALDEHYDES AND THE EVOLUTION OF OLFACTORY COMMUNICATION IN *HELIOTHINE* MOTHS
Hillier K.N.¹, Hamilton J.², Horovitz J.², Vickers N.¹, Gould F.L.² ¹*Biology, University of Utah, Salt Lake City, UT;* ²*Entomology, North Carolina State University, Raleigh, NC*

- P45 353 PHEROMONE RECEPTOR MEDIATES BEHAVIOR IN *DROSOPHILA*
Smith D.¹, Ha T.¹ ¹*Pharmacology, University of Texas Southwestern Medical Center at Dallas, Dallas, TX*

- P46 354 CHARACTERIZATION OF A *DROSOPHILA MELANOGASTER* CHEMOSENSORY SPECIFIC SNMP.
Fernandez K.¹, Vogt R.¹ ¹*Biological Sciences, University of South Carolina, Columbia, SC*

- P47 355 EVOLUTION OF THE SNMP GENE FAMILY IN THE DIPTERA *DROSOPHILA MELANOGASTER*, *D. PSEUDOOBSCURA*, AND *ANOPHELES GAMBIAE*
Nichols Z.¹, Vogt R.¹ ¹*Biological Sciences, University of South Carolina, Columbia, SC*

- P48 356 *DROSOPHILA* SUGAR RECEPTORS
Dahanukar A.¹, Carlson J.¹ ¹*MCDB, Yale University, New Haven, CT*

- P49 357 THE G ENCODING GENE FAMILY OF THE MALARIA VECTOR MOSQUITO *ANOPHELES GAMBIAE*: EXPRESSION ANALYSIS AND IMMUNOLocalIZATION OF AGGQ AND AGGO IN FEMALE ANTENNAE
Ruetzler M.R.¹, Zwiebel L.¹ ¹*Biological Sciences, Vanderbilt University, Nashville, TN*

Molecular Genetics – Taste Receptors

- P50 358 GENETIC ANALYSIS OF TONGUE SIZE AND TONGUE WEIGHT IN RECOMBINANT INBRED STRAINS OF MICE
Jan T.A.¹, Reiner D.J.¹, Peirce J.L.¹, Li C.X.¹, Boughter J.D.¹, Lu L.¹, Williams R.W.¹, Waters R.S.¹ ¹*Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN*
- P51 359 EXPRESSION OF GPR4, A PROTON SENSING GPCR, IN HUMAN FUNGIFORM PAPILLAE
Huque T.¹, Lischka F.W.¹, Breslin P.A.¹, Feldman R.S.², Spielman A.I.³, Brand J.G.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*; ²*Dental Medicine, V.A. Medical Center, Philadelphia, PA*; ³*New York University, New York, NY*
- P52 360 A NEWLY IDENTIFIED NEOHESPERIDINE DIHYDROCHALCONE BINDING SITE IN THE HUMAN SWEET TASTE RECEPTOR OVERLAPS WITH ALLOSTERIC MODULATOR BINDING SITES FOR CLASS 3 GPCRS.
Winnig M.¹, Bufe B.¹, Kratochwil N.², Slack J.P.³, Meyerhof W.¹ ¹*Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany*; ²*Pharmaceuticals Division Chemistry, F. Hoffmann-La Roche Ltd, Basel, Switzerland*; ³*Givaudan Flavors Corp., Cincinnati, OH*
- P53 361 TASTE RECEPTORS FOR GLUTAMATE IN HUMAN FUNGIFORM PAPILLAE
Mariam R.¹, Boucher Y.², Wiencis A.³, Bézirard V.⁴, Pernollet J.⁴, Trotier D.⁵, Faurion A.⁵, Montmayeur J.⁶ ¹*University of Paris 7, Jouy en Josas, France*; ²*Université Paris 7, Paris, France*; ³*CSG-CNRS/INRA/UB, Dijon, France*; ⁴*INRA, Jouy en Josas, France*; ⁵*CNRS/INRA, Jouy en Josas, France*; ⁶*Centre National de la Recherche Scientifique, Dijon, France*
- P54 362 POSITIONAL CLONING APPROACH TO IDENTIFICATION OF THE SUCROSE OCTAACETATE AVERSION (SOA) LOCUS
Bosak N.P.¹, Theodorides M.L.¹, Beauchamp G.K.¹, Bachmanov A.A.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*
- P55 363 MOLECULAR MODELING OF SWEET TASTE RECEPTORS
Cui M.¹, Jiang P.¹, Max M.², Margolskee R.F.³, Osman R.¹ ¹*Physiology & Biophysics, Mount Sinai School of Medicine, New York, NY*; ²*Mount Sinai School of Medicine, New York, NY*; ³*Neuroscience, Mount Sinai School of Medicine, New York, NY*

- P56 364 PROBING THE ASPARTAME BINDING SITE OF HUMAN T1R2
Maillet E.¹, Cui M.², Jiang P.¹, Ahmed F.¹, Zhao B.¹, Osman R.², Margolskee R.F.¹, Max M.¹ ¹*Neuroscience, Mount Sinai School of Medicine, New York, NY*; ²*Physiology & Biophysics, Mount Sinai School of Medicine, New York, NY*
- P57 365 PROPERTIES OF THE SEVEN TRANSMEMBRANE CORE DOMAINS OF THE HUMAN T1RS
Sainz E.¹, Cavenagh M.M.¹, Lopezjimenez N.D.¹, Battey J.F.¹, Northup J.K.¹, Sullivan S.L.¹ ¹*National Institute on Deafness and Other Communication Disorders, National Institutes of Health (NIH), Rockville, MD*
- P58 366 EFFECT OF MAILLARD PEPTIDES (MPS) ON TRPV1 VARIANT SALT TASTE RECEPTOR (TRPV1T)
Rhyu M.¹, Ogasawara M.², Egi M.², Phan T.T.³, DeSimone J.A.³, Heck G.L.³, Lyall V.³ ¹*Food Function Research Division, Korea Food Research Institute, Korea, Songnam-Si, Kyunggi-DO, South Korea*; ²*Food Creation Center, Kyowa Hakko Food Specialities Co., Ltd., Ami-machi, Ibaraki Prefecture, Japan*; ³*Physiology, Virginia Commonwealth University, Richmond, VA*
- P59 367 EFFECT OF N-GERANYL CYCLOPROPYLCARBOXAMIDE (NGCC) ON TRPV1 VARIANT SALT TASTE RECEPTOR (TRPV1T)
Dewis M.L.¹, DeSimone J.A.², Phan T.T.², Heck G.L.², Lyall V.² ¹*Flavor Ingredients R&D, International Flavors & Fragrances, Union Beach, NJ*; ²*Physiology, Virginia Commonwealth University, Richmond, VA*
- P60 368 EXPRESSION OF FATTY ACID-ACTIVATED G PROTEIN COUPLED RECEPTORS IN CHEMOSENSORY CELLS
Hansen D.R.¹, McKenna L.¹, Shah B.P.¹, Gilbertson T.A.¹ ¹*Biology & The Center for Integrated BioSystems, Utah State University, Logan, UT*
- P61 369 REPLICATION OF LINKAGE AND ASSOCIATION OF PROP PERCEPTION TO CHROMOSOME 7 AND SUGGESTION OF NOVEL LOCI ON CHROMOSOME 6
Hansen J.L.¹, Reed D.R.², Wright M.J.¹, Martin N.G.¹, Breslin P.A.² ¹*Queensland Institute of Medical Research, Brisbane, Queensland, Australia*; ²*Monell Chemical Senses Center, Philadelphia, PA*

12:30 PM - 2:00 PM

Clinical Luncheon (*The Keys – ticketed event*)**WORKSHOP****Saturday - 2:30 PM - 4:30 PM** (*South Ballroom*)**Olfactory Bulb Computations****Ben Strowbridge, Workshop Chair**

- 2:30 370 MECHANISMS THAT GENERATE PRECISE SYNCHRONY
IN OLFACTORY BULB NEURONS
Schoppa N.¹ ¹*Physiology and Biophysics, University of Colorado
Health Sciences Center, Aurora, CO*
- 3:00 371 OPTICAL STUDIES OF ACTIVE PROPERTIES IN
DENDRITES OF OLFACTORY BULB NEURONS
Delaney K.¹, Zelles T.², Davison I.³, Hardy A.¹ ¹*Biology,
University of Victoria, Victoria, British Columbia, Canada;*
²*Institute for Experimental Medicine, Hungarian Academy of
Science, Budapest, Hungary;* ³*Neuroscience, Duke University,
Durham, NC*
- 3:30 372 PERSISTENT ACTIVITY IN INHIBITORY LOCAL CIRCUITS
IN THE OLFACTORY BULB
Strowbridge B.¹, Pressler T.¹ ¹*Department of Neurosciences, Case
Western Reserve University, Cleveland, OH*
- 4:00 373 AN ACCOUNT OF ODOR DISCRIMINATION TIMES IN THE
MAMMALIAN OLFACTORY SYSTEM
Margrie T.¹ ¹*The Department of Physiology, University College
London, London, United Kingdom*

6:30 PM - 7:30 PM

Registration (*Prefunction Area*)**SLIDES****Saturday - 7:00 PM - 8:00 PM** (*South Ballroom*)**Clinical Chemosensory****Richard Doty, Session Chair**

- 7:00 374 SMELL TESTING AND DATSCAN IMAGING IN
DIAGNOSING IDIOPATHIC PARKINSON'S DISEASE
Deeb J.¹, Shah M.¹, Mohamed N.¹, Findley L.¹, Hawkes C.¹ ¹*Smell
& Taste Research Unit, Essex Neuroscience Centre, London,
United Kingdom*
- 7:15 375 ALTERED CHEMOSENSSES IN PARKINSON'S DISEASE
Muhammed N.¹, Deeb J.¹, Shah M.¹, Findley L.¹, Hawkes C.H.¹
¹*Smell & Taste Research Unit, Essex Neuroscience Centre,
London, United Kingdom*
- 7:30 376 SAN FRANCISCO/OAKLAND BAY BRIDGE WELDER
STUDY: OLFACTORY FUNCTION
Doty R.L.¹, Antunes M.B.¹, Bowler R.² ¹*Smell and Taste Center,
University of Pennsylvania, Philadelphia, PA;* ²*Psychology, San
Francisco State University, San Francisco, CA*
- 7:45 377 COMPUTATIONAL MODELING OF NASAL AIRFLOW AND
ODORANT TRANSPORT IN PATIENTS WITH CHRONIC
RHINOSINUSITIS
Zhao K.¹, Cowart B.J.¹, Pribitkin E.A.², Rawson N.E.¹, Rosen D.²,
Scherer P.W.³, Klock C.T.¹, Vainius A.A.¹, Dalton P.¹ ¹*Monell
Chemical Senses Center, Philadelphia, PA;* ²*Otolaryngology-Head
& Neck Surgery, Thomas Jefferson University, Philadelphia, PA;*
³*Bioengineering, University of Pennsylvania, Philadelphia, PA*

SYMPOSIUM

Saturday - 8:15 PM - 10:30 PM (South Ballroom)

Presidential Symposium:

Why Have Neurogenesis in Adult Olfactory Systems?

Charles Derby, Symposium Chair & AChemS President

- 8:15 378 ADULT NEUROGENESIS IN THE MAMMALIAN BRAIN
Gould E.¹ ¹Psychology, Princeton University, Princeton, NJ
- 8:45 379 THE OLFACTORY PATHWAY OF DECAPOD CRUSTACEANS – A MODEL FOR LIFE-LONG NEUROGENESIS
Schmidt M.¹ ¹Biology, Georgia State University, Atlanta, GA
- 9:15 380 SENSORY ENRICHMENT, NEUROGENESIS AND OLFACTORY LEARNING IN AN ADULT INSECT
Cayre M.¹ ¹Centre National de la Recherche Scientifique, Marseille Cedex9, France
- 9:45 381 INTEGRATING NEW NEURONS INTO THE ADULT OLFACTORY SYSTEM
Lledo P.¹ ¹Pasteur Institute, Paris, France

POSTERS

Saturday - 7:00 PM - 11:00 PM (North Ballroom)

Central Taste – Afferent Projections & Nucleus of the Solitary Tract

- P1 382 CHORDA TYMPANI (CT), GREATER SUPERFICIAL PETROSAL (GSP) AND IXTH NERVE TERMINAL FIELDS IN HAMSTER SOLITARY NUCLEUS (NTS)
Bradenham B.P.¹, Harrison C.H.¹, Stewart J.S.², Stewart R.²
¹Program in Neuroscience, Washington and Lee University, Lexington, VA; ²Psychology/Program in Neuroscience, Washington and Lee University, Lexington, VA

- P2 383 CA2+ IMAGING OF PRIMARY GUSTATORY AFFERENTS IN THE VAGAL LOBE OF OF GOLDFISH
Hallock R.¹, Ikenaga T.², Finger T.E.³ ¹Psychology, State University of New York at Binghamton, Denver, CO; ²Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO; ³Cellular and Structural Biology, University of Colorado Health Sciences Center, Aurora, CO
- P3 384 TEMPORAL PATTERNS OF NEURAL ACTIVITY IN THE NUCLEUS OF THE SOLITARY TRACT OF C57BL/6BYJ MICE
McCaughey S.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P4 385 COMPUTATIONAL MODELS OF TEMPORAL FIRING PROPERTIES OF SINGLE NEURONS IN THE NUCLEUS OF THE SOLITARY TRACT
Chen J.¹, Di Lorenzo P.M.¹ ¹Psychology, State University of New York at Binghamton, Binghamton, NY
- P5 386 PRESYNAPTIC NICOTINIC RECEPTORS REGULATE GLUTAMATE RELEASE IN THE NUCLEUS OF THE SOLITARY TRACT OF THE RAT
Uteshev V.¹, Smith D.¹ ¹Anatomy and Neurobiology, University of Tennessee, Memphis, TN
- P6 387 CHARACTERISTICS OF INHIBITORY POSTSYNAPTIC ACTIVITY OF RAT INFERIOR SALIVATORY NUCLEUS NEURONS
Suwabe T.¹, Kim M.², Bradley R.M.¹ ¹Biologic & Materials Sciences, University of Michigan, Ann Arbor, MI; ²Nursing, Chonnam University Medical School, Gwangju, South Korea
- P7 388 EXCITATORY POSTSYNAPTIC ACTIVITY OF THE RAT INFERIOR SALIVATORY NUCLEUS NEURONS
Kim M.¹, Suwabe T.², Chiego D.J.³, Bradley R.M.² ¹Nursing, Chonnam University Medical School, Gwangju, South Korea; ²Biologic & Materials Sciences, University of Michigan, Ann Arbor, MI; ³Cariology, University of Michigan, Ann Arbor, MI
- P8 389 SOLITARY NUCLEUS - RETICULAR FORMATION PROJECTIONS IN A NEONATAL SLICE PREPARATION
Nasse J.¹, Travers J.B.¹ ¹Oral Biology, Ohio State University, Columbus, OH
- P9 390 THE ORGANIZATION OF THE GUSTATORY NEURAL NETWORK IN THE HAMSTER BRAINSTEM
Cho Y.K.¹, Li C.² ¹Kangnung National University, Kangnung, Kangwondo, South Korea; ²Anatomy, Southern Illinois University, Carbondale, IL

- P10 391 VAGAL GUSTATORY REFLEX SYSTEMS IN GOLDFISH
Ikenaga T.¹, Ogura T.¹, Finger T.E.¹ ¹*Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO*
- P11 392 TASTANT-INDUCED C-FOS EXPRESSION IN THE NST OF MICE THAT DON'T TASTE
Barrows J.K.¹, Finger T.E.¹ ¹*Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO*
- P12 393 TASTE-INDUCED C-FOS EXPRESSION IN THE ROSTRAL PORTION OF THE SOLITARY TRACT NUCLEUS OF NEONATAL RATS.
Rubio L.¹, Frias C.¹, Regalado M.¹, Torrero C.¹, Salas M.¹ ¹*Developmental Neurobiology and Neurophysiology, Universidad Nacional Autonoma de Mexico, Queretaro, Mexico*
- P13 394 DIFFERENTIAL EFFECTS OF CROSS-REGENERATION OF THE LINGUAL GUSTATORY NERVES ON QUININE-STIMULATED GAPING AND FOS-LIKE IMMUNOREACTIVITY IN THE NUCLEUS OF THE SOLITARY TRACT
King C.T.¹, Garcea M.², Stolzeberg D.S.¹, Spector A.C.² ¹*Dept. of Psychology, Stetson Univ., DeLand, FL; 2Dept. of Psychology & Center for Smell and Taste, Univ. of Florida, Gainesville, FL*
- P14 395 LICKING AND GAPING ELICITED BY NST MICROSTIMULATION
Kinzeler N.R.¹, Travers S.P.² ¹*Psychobiology and Behavioral Neuroscience, Ohio State University, Columbus, OH; 2Oral Biology, Ohio State University, Columbus, OH*

Central Taste – Parabrachial Nucleus

- P15 396 MELANIN CONCENTRATING HORMONE INCREASES BRIEF-ACCESS LICKING FOR SUCROSE AND WATER BUT NOT QUININE HYDROCHLORIDE
Baird J.P.¹, Rios C.¹, Walsh C.E.², Pecora A.L.¹ ¹*Psychology & Neuroscience, Amherst College, Amherst, MA; 2Psychology, Smith College, Northampton, MA*
- P16 397 INJECTION OF CHOLECYSTOKININ INTO THE WAIST AREA OF THE PARABRACHIAL NUCLEUS INCREASES TASTE REACTIVITY RESPONSES TO INTRA-ORAL INFUSION OF QUININE IN RATS.
King M.S.¹, Delmond J.¹, Maddox L.C.² ¹*Biology, Stetson University, DeLand, FL; 2Daytona Beach Community College, Daytona Beach, FL*

- P17 398 ALTERED PARABRACHIAL TASTE PROCESSING IN OBESE OLETF RATS
Lundy R.¹, Hajnal A.² ¹*Anatomical Sciences and Neurobiology, University of Louisville, Louisville, KY; 2Neural and Behavioral Sciences, Pennsylvania State University, Hershey, PA*
- P18 399 THE PROPERTIES OF INHIBITORY TASTE NEURONS IN THE PARABRACHIAL NUCLEUS OF RATS
Lei Q.¹, Yan J.¹, Yang X.¹, Shi J.¹, Chen K.¹ ¹*Dept of Physiology and Pathophysiology, Xi'an Jiaotong University Medical Center, Xi'an, Shaanxi, China*
- P19 400 EFFERENT PROJECTION FROM THE BED NUCLEUS OF THE STRIA TERMINALIS SUPPRESSES ACTIVITY OF TASTE-RESPONSIVE NEURONS IN THE HAMSTER PARABRACHIAL NUCLEI
Li C.¹, Cho Y.K.² ¹*Anatomy, Southern Illinois University, Carbondale, IL; 2Physiology & Neuroscience, Kangnung National University College of Dentistry, Kangnung, Kangwon-do, South Korea*

Central Taste – Gustatory Cortex & Amygdala

- P20 401 ENSEMBLE RESPONSES OF GUSTATORY CORTICAL NEURONS ACCURATELY PREDICT TASTANT IDENTITY
Jones L.M.¹, Fontanini A.¹, Katz D.B.¹ ¹*Brandeis University, Waltham, MA*
- P21 402 GUSTATORY CORTEX ENCODES MULTIPLE FEATURES DURING AN INTENSITY DISCRIMINATION TASK
MacDonald C.J.¹, Nicolelis M.A.², Simon S.A.² ¹*Psychological and Brain Sciences, Duke University, Durham, NC; 2Department of Neurobiology, Duke University, Durham, NC*
- P22 403 ANTICIPATORY CORTICAL ACTIVITY IN A TASTE DISCRIMINATION TASK
Gutierrez R.M.¹, Nicolelis M.A.¹, Simon S.A.² ¹*Neurobiology, Duke University, Durham, NC; 2Anesthesiology, Duke University, Durham, NC*
- P23 404 GENDER DIFFERENCES IN ACTIVATION WITHIN THE OFC IN RESPONSE TO TASTE STIMULI WITH POSITIVE OR NEGATIVE VALANCE ARE RELATED TO HUNGER AND SATIETY
Haase L.B.¹, Cerf-Ducastel B.¹, Kemmotsu N.¹, Green E.¹, Jacobson A.¹, Miller M.¹, Murphy C.¹ ¹*Psychology, San Diego State University, San Diego, CA*

- P24 405 DIFFERENTIAL INTERACTIONS BETWEEN AMYGDALA, INSULA, CAUDOMEDIAL AND CAUDOLATERAL ORBITOFRONTAL CORTEX DEPEND UPON THE NATURE OF STIMULUS PERCEIVED OR TASK PERFORMED.
Bender G.¹, Gitelman D.R.², Small D.M.³ ¹*Interdepartmental Neuroscience, Yale University and J.B. Pierce Laboratory, New Haven, CT;* ²*Neurology, Northwestern University, Chicago, IL;* ³*Psychology, Yale University, New Haven, CT*
- P25 406 CHANGE OF SERUM AND LEPTIN RECEPTOR IMMUNOREACTIVITY IN THE AMYGDALA OF RATS FOLLOWING INTRAORAL INFUSION OF SWEET TASTANT
Yan J.¹, Han Z.¹, Jiang E.¹ ¹*Dept of Physiology and Pathophysiology, Xi'an Jiaotong University Medical Center, Xi'an, Shaanxi, China*
- P26 407 TASTE GUIDED BEHAVIOR IN DROSOPHILA MELANOGASTER TO TRADITIONAL PSYCHOPHYSICAL TEST SOLUTIONS
Gordesky-Gold B.¹, Rivers N.¹, Ahmed O.¹, Breslin P.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*

Insect Chemosensory Behavior

- P27 408 DOES LEARNING SHAPE OLFACTORY ACUITY IN THE MOTH *MANDUCA SEXTA*?
Sprouse R.A.¹, Cassis J.J.¹, Daly K.C.¹ ¹*Biology, West Virginia University, Morgantown, WV*
- P28 409 CORRELATING BEHAVIORAL AND PHYSIOLOGICAL MEASURES OF ODOR DETECTION IN THE MOTH *MANDUCA SEXTA*.
Carrell L.A.¹, Mwilaria E.¹, Daly K.C.¹ ¹*Biology, West Virginia University, Morgantown, WV*
- P29 410 THE EFFECT OF INTENSITY ON DISCRIMINATION LEARNING AND PERFORMANCE IN THE MOTH *MANDUCA SEXTA*.
Mwilaria E.¹, Carrell L.A.¹, Daly K.C.¹ ¹*Biology, West Virginia University, Morgantown, WV*
- P30 411 MORE TIME MEANS BETTER DETECTION AND DISCRIMINATION OF ODORANTS IN THE HONEYBEE (*APIS MELLIFERA*)
Smith B.H.¹, Wright G.², Carlton M.³ ¹*Life Sciences, Arizona State University, Tempe, AZ;* ²*School of Biology, University of Newcastle upon Tyne, Newcastle, United Kingdom;* ³*Entomology, Ohio State University, Columbus, OH*

Chemosensory Imprinting

- P31 412 ANATOMICAL AND BEHAVIORAL INVESTIGATIONS OF IN OVO ODOR SENSITIVITY AND ODOR IMPRINTING IN CHICK EMBRYOS
Celii A.¹, De Jesus S.¹, Gomez G.¹ ¹*Biology Dept., University of Scranton, Scranton, PA*
- P32 413 FUNCTIONAL ANATOMY OF SYNAPTIC PLASTICITY MEDIATING OLFACTORY LEARNING
Jones S.V.¹, Stanek-Rattiner L.¹, Ressler K.¹ ¹*Psychiatry & Behavioral Sciences, Emory University, Atlanta, GA*
- P33 414 OLFACTORY MASKING IN BEHAVIORALLY-TRAINED MICE
Smith D.W.¹, Culpepper M.¹, Heil T.¹ ¹*Department of Psychology, Center for Smell and Taste, University of Florida, Gainesville, FL*
- P34 415 THE ROLE OF THE CELLULAR PRION PROTEIN PRPC IN AN OLFACTORY-DRIVEN BEHAVIOR.
Le Pichon C.E.¹, Glithero K.J.¹, Aguzzi A.², Firestein S.¹ ¹*Columbia University, New York, NY;* ²*University Hospital of Zürich, Zürich, Switzerland*

Taste Plasticity

- P35 416 EFFECTS OF THE MGLUR4 ANTAGONIST CPPG ON A LEARNED TASTE AVERSION IN RATS.
Eschle B.K.¹, Eddy M.C.¹, Watson J.P.¹, San Antonio C.M.¹, Delay E.R.¹ ¹*Department of Biology, University of Vermont, Burlington, VT*
- P36 417 RELATIONSHIPS BETWEEN INSULIN RELEASE AND TASTE.
Tonosaki K.¹ ¹*Meikai University, Sakatoshi, Japan*
- P37 418 TASTE FUNCTIONS AFTER GASTRIC BYPASS SURGERY IN DIETARY AND GENETIC OBESE RATS
Hajnal A.¹, Ahmed T.A.², Khokhar S.¹, Acharya N.¹, Cooney R.N.² ¹*Neural and Behavioral Sciences, PennState Univ., College of Medicine, Hershey, PA;* ²*Surgery, PennState Univ. College of Medicine, Hershey, PA*
- P38 419 TEMPERATURE MODULATES BEHAVIORAL RESPONSES TO SUCROSE TASTE IN THE RAT.
Breza J.M.¹, Curtis K.S.¹, Contreras R.J.¹ ¹*Program in Neuroscience, Florida State University, Tallahassee, FL*

Taste & Olfactory Discrimination

- P39 420 EVALUATING THE LIMITS OF CANINE OLFACTION
Seward M.K.¹, Latchney S.E.¹, Hornung D.E.¹ ¹*St. Lawrence University, Canton, NY*
- P40 421 INHIBITION OF MUSCARINIC ACETYLCHOLINE RECEPTORS ALTERS PERFORMANCE OF MICE IN AN ODOR DISCRIMINATION TASK
Schutzman J.¹, Clevenger A.C.¹, Doucette W.¹, Caldwell S.², Salcedo E.², Restrepo D.² ¹*Neuroscience Program, University of Colorado Health Sciences Center, Aurora, CO*; ²*Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO*
- P41 422 SPEED - ACCURACY TRADEOFF IN OLFACTION
Rinberg D.¹, Koulakov A.², Gelperin A.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*; ²*Freeman Building, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY*
- P42 423 ROLE OF CHOLINERGIC MODULATION IN THE MAIN OLFACTORY BULB IN RATS FOR OLFACTORY ACUITY AND DISCRIMINATION LEARNING
Ferreti C.¹, Mandaïron N.¹, McNamara A.², Stack C.¹, Linster C.¹ ¹*Cornell University, Ithaca, NY*; ²*Neurobiology and Behavior, Cornell University, Ithaca, NY*
- P43 424 BROAD ACTIVATION OF THE OLFACTORY BULB PRODUCES LONG-LASTING CHANGES IN ODOR PERCEPTION IN RATS
Mandaïron N.¹, Kiselycznyk C.L.², Stack C.¹, Ferreti C.¹, Linster C.¹ ¹*Cornell University, Ithaca, NY*; ²*Neurobiology and Behavior, Cornell University, Ithaca, NY*
- P44 425 SNIFFING PATTERNS OF RATS DURING LEARNING AND PERFORMANCE OF ODOR DISCRIMINATION TASKS.
Wesson D.W.¹, Verhagen J.V.¹, Wachowiak M.¹ ¹*Biology, Boston University, Boston, MA*
- P45 426 OLFACTORY SENSITIVITY FOR ENANTIOMERS AND THEIR RACEMIC MIXTURES - A COMPARATIVE STUDY IN MICE AND SPIDER MONKEYS
Joshi D.¹, Voelkl M.², Shepherd G.M.¹, Laska M.¹ ¹*Neurobiology, Yale University, New Haven, CT*; ²*Department of Medical Psychology, University of Munich, Munich, Germany*
- P46 427 BRIEF STIMULUS PRESENTATIONS PERMIT GUSTATORY DETECTION OF LINOLEIC ACID BUT NOT OLEIC ACID IN RATS.
Pittman D.W.¹, Adamson A.¹, Bramlett M.¹, Evans S.¹, Gasque L.¹, Lister R.¹ ¹*Psychology, Wofford College, Spartanburg, SC*
- P47 428 SALT DISCRIMINATION IN RATS WITH CROSS-REGENERATED LINGUAL GUSTATORY NERVES.
Blonde G.¹, Jiang E.¹, Garcea M.¹, Spector A.C.¹ ¹*Department of Psychology and Center for Smell and Taste, University of Florida, Gainesville, FL*
- P48 429 SHORT-TERM LICKING BY POTASSIUM-DEPRIVED RATS.
Guenthner C.¹, McCaughey S.², Tordoff M.², Baird J.P.³ ¹*Psychology & Neuroscience, Amherst College, Amherst, MA*; ²*Monell Chemical Senses Center, Philadelphia, PA*; ³*Psychology, Amherst College, Amherst, MA*
- P49 430 DISCRIMINATION AND POST-INGESTIVE EFFECTS IN TRPM5-/- MICE
De Araujo I.E.¹, Riofrio A.¹, Nicoletti M.A.¹, Simon S.A.² ¹*Neurobiology, Duke University, Durham, NC*; ²*Anesthesiology, Duke University, Durham, NC*
- P50 431 BEHAVIORAL ANALYSIS OF THE TASTE OF L-AMINO ACIDS IN MICE
Murata Y.¹, Bachmanov A.A.², Beauchamp G.² ¹*National Research Institute of Fisheries Science, Yokohama, Kanagawa, Japan*; ²*Monell Chemical Senses Center, Philadelphia, PA*
- P51 432 A HIGH-THROUGHPUT METHOD TO MEASURE NA CL DETECTION THRESHOLD IN MICE
Ishiwatari Y.¹, Beauchamp G.K.², Bachmanov A.A.² ¹*Ajinomoto Co., Inc., Kawasaki, Japan*; ²*Monell Chemical Senses Center, Philadelphia, PA*
- P52 433 A NEW METHOD OF ASSESSING TASTE QUALITY GENERALIZATION IN RATS
Grobe C.L.¹, Spector A.C.¹ ¹*Department of Psychology and Center for Smell and Taste, University of Florida, Gainesville, FL*
- P53 434 GENETIC INFLUENCES ON TASTE PREFERENCE FOR ETHANOL
Dishaw L.V.¹, White T.L.¹, Youngentob S.L.² ¹*Psychology, Le Moyne College, Syracuse, NY*; ²*SUNY - Upstate Medical University, Syracuse, NY*
- P54 435 BEHAVIORAL TESTING OF SALT TASTE SENSITIVITY IN TRPV1 KNOCK-OUT MICE
Treesukosol Y.¹, Spector A.C.¹ ¹*Department of Psychology & Center for Smell and Taste, University of Florida, Gainesville, FL*
- P55 436 CYCLOHEXIMIDE: NO ORDINARY TASTE STIMULUS
Hettinger T.P.¹, Formaker B.K.¹, Frank M.E.¹ ¹*Oral Health & Diagnostic Sciences, UCONN Health Center, Farmington, CT*

Sunday, April 30, 2006

8:00 AM - 9:30 AM

Registration (Prefunction Area)

SYMPOSIUM

Sunday - 8:45 AM - 11:00 AM (South Ballroom)

Neural Dynamics and Chemosensory Behavior
Don Katz, Symposium Chair

- 8:45 437 NORADRENALINE MODULATION OF MAIN OLFACTORY BULB NETWORK ACTIVITY: BEHAVIORAL CONSEQUENCES
Doucette W.¹, Restrepo D.¹ ¹Neuroscience, University of Colorado Health Sciences Center, Aurora, CO
- 9:10 438 TOWARDS REALISTIC MODELS OF CONCENTRATION-INVARIANT, BACKGROUND-RESISTANT ODOR RECOGNITION IN THE MAMMALIAN OLFACTORY BULB
Brody C.¹ ¹Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
- 9:35 439 STATE-DEPENDENT CHANGES IN TASTE PROCESSING
Fontanini A.¹, Katz D.B.¹ ¹Volen Center for Complex Systems and Department of Psychology, Brandeis University, Waltham, MA
- 10:00 440 TEMPORAL CODING OF TASTE IN THE BRAIN STEM: INFORMATION AND FUNCTION
Di Lorenzo P.M.¹, Victor J.D.² ¹Psychology, State University of New York at Binghamton, Binghamton, NY; ²Neurology and Neuroscience, Weill Medical College of Cornell University, New York, NY
- 10:25 441 TEMPORAL AND SPATIAL CODES MEDIATE THE DISCRIMINATION OF 'BITTER' TASTE STIMULI BY AN INSECT
Glendinning J.I.¹ ¹Barnard College, Columbia University, New York, NY

POSTERS

Sunday - 8:00 AM - 12:00 PM (North Ballroom)

Developmental - Taste

- P1 442 EMBRYONIC ORIGIN DICTATES MATURE GUSTATORY NEURON FATE
Harlow D.E.¹, Barlow L.A.¹ ¹Cell & Developmental Biology, Univ of Colorado Health Sciences Center, Aurora, CO
- P2 443 EMBRYONIC DEVELOPMENT OF NASAL SOLITARY CHEMORECEPTOR CELLS AND ASSOCIATED NERVE FIBERS IN MICE
Gulbransen B.D.¹, Finger T.² ¹Neuroscience, University of Colorado at Denver and Health Sciences Center, Aurora, CO; ²Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO
- P3 444 TASTE BUD DEVELOPMENT IN CHICKS AFTER TREATMENT WITH β -BUNGAROTOXIN, OR OTOCYST REMOVAL
Ganchrow D.¹, Witt M.², Ganchrow J.³, Arki-Burstyn E.³ ¹Anatomy and Anthropology, Tel Aviv University, Tel Aviv, Israel; ²Otorhinolaryngology, University of Technology Dresden, Med. Sch., Dresden, Germany; ³Institute of Dental Sciences, The Hebrew University-Hadassah School of Dental Medicine, Jerusalem, Israel
- P4 445 DEVELOPMENTAL EFFECTS OF LINGUAL NERVE TRANSECTION ON TASTE BUD VOLUMES IN RAT
Gomez A.M.¹, Sollars S.I.¹ ¹Psychology, University of Nebraska at Omaha, Omaha, NE
- P5 446 WITHDRAWN
- P6 447 WNT/-CATENIN SIGNALING MODULATES DEVELOPMENT OF TASTE PRIMORDIA
Thirumangalathu S.¹, Stoick-Cooper C.L.², Moon R.T.³, Barlow L.A.¹ ¹Cell & Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO; ²Neurobiology & Behavior Grad Program, University of Washington, Seattle, WA; ³HHMI/Pharmacology, University of Washington, Seattle, WA

- P7 448 CELL SIGNALING IN EGF REGULATION OF FUNGIFORM PAPILLA PATTERNING
Liu H.X.¹, Henson B.S.¹, Zhou Y.Q.¹, D'Silva N.J.¹, Mistretta C.M.¹ ¹*School of Dentistry, University of Michigan, Ann Arbor, MI*
- P8 449 CANONICAL WNT SIGNALING DURING TASTE PAPILLAE FORMATION
Iwatsuki K.¹, Liu H.², Mistretta C.², Margolskee R.F.¹
¹*Neuroscience, Mount Sinai School of Medicine, New York, NY;*
²*School of Dentistry, University of Michigan, Ann Arbor, MI*
- P9 450 BMP-4 AND NOGGIN ALTER NEURON SURVIVAL AND DIFFERENTIATION IN EMBRYONIC GENICULATE AND TRIGEMINAL GANGLIA IN VITRO.
May O.L.¹, Mistretta C.M.¹ ¹*School of Dentistry, University of Michigan, Ann Arbor, MI*
- P10 451 BDNF AND NT3 ATTRACT TRIGEMINAL NEURITES
Egwiekhor A.¹, Vatterott P.¹, Rochlin M.W.¹ ¹*Biology, Loyola University of Chicago, Chicago, IL*
- P11 452 BDNF ATTRACTS GENICULATE NEURITES, NT4 DOESN'T
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Chemosensory Neurogenesis and Neurotrophic Factors

- P12 453 HYPER-INNervation WITH PRESERVATION OF TASTE BUD-NEURON SPECIFICITY IN MICE OVER-EXPRESSING NEUROTROPHIN IN THE TONGUE EPITHELIUM
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- P13 454 EXPRESSION OF TROPHIC FACTORS AND THEIR RECEPTORS IN A PRIMARY TASTE CELL CULTURE SYSTEM
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- P14 455 DIFFERENTIAL POSTNATAL DEVELOPMENT OF GUSTATORY NERVE TERMINAL FIELDS IN CONTROL RATS AND E3-E12 SODIUM-RESTRICTED RATS.
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- P15 456 MYCN IS REQUIRED FOR PROPER OLFACTORY EPITHELIUM DEVELOPMENT
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- P16 457 NESTIN IS EXPRESSED BY A SUBSET OF EMBRYONIC AND POSTNATAL OE PROGENITORS
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- P17 458 HORIZONTAL BASAL CELLS ARE MULTIPOTENT NEURAL PROGENITORS IN OLFACTORY EPITHELIUM
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- P18 459 MACROPHAGE DEPLETION IN MURINE OLFACTORY EPITHELIUM LEADS TO DECREASED NEUROGENESIS
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- P19 460 MOUSE MODEL OF A HUMAN GENE POLYMORPHISM IN THE PRODOMAIN OF BDNF (VAL66MET) ALTERS NEUROGENESIS IN THE OLFACTORY SYSTEM
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- P20 461 FRESH POSTMORTEM HUMAN OLFACTORY BULB CULTURES TO STUDY NEUROGENESIS
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- P21 462 GROWTH FACTORS AND RECEPTORS IN THE OLFACTORY EPITHELIUM
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- P22 463 PURINERGIC RECEPTOR ACTIVATION EVOKES NEUROTROPHIC FACTOR NPY RELEASE FROM MOUSE OLFACTORY EPITHELIAL (OE) SLICES
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- P23 464 SDF-1/CXCR4 SIGNALING REGULATES CELL MIGRATION IN THE EMBRYONIC OLFACTORY SYSTEM
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- P24 465 PROTOCADHERIN 20 EXPRESSION IS RESTRICTED IN THE NEWLY DIFFERENTIATED OLFACTORY SENSORY NEURONS
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- P25 466 LOCALIZATION OF NUCLEAR RETINOIC ACID RECEPTORS, RAR AND RXR IN POSTNATAL RODENT OLFACTORY EPITHELIUM
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- P26 467 METHYL BINDING DOMAIN PROTEINS IN THE STAGE-SPECIFIC DIFFERENTIATION OF OLFACTORY RECEPTOR NEURONS
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- P27 468 EXPRESSION OF TRANSCRIPTIONAL REGULATORS IN OLFACTORY SENSORY NEURONS
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- P28 469 WNT AND FZ IN THE DEVELOPING MOUSE OLFACTORY SYSTEM
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- P29 470 EXPRESSION OF AXON GROWTH AND GUIDANCE GENES IN IMMATURE OSNS.
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- P30 471 GENE-TARGETED DELETION OF KV1.3 CHANNEL ALTERS OLFACTORY RECEPTOR GENE EXPRESSION AND MODIFIES PRIMARY OLFACTORY PROJECTIONS
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- P31 472 SIGNALING MOLECULES INVOLVED IN REGULATING MOUSE OLFACTORY AXON OUTGROWTH
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- P32 473 MEDIATION OF CELL SIGNALING EVENTS IN DEVELOPING OLFACTORY SYSTEM OF MANDUCA SEXTA BY LIPID RAFTS
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- P33 474 DISRUPTION OF KALLMANN AND FGFR1 GENE FUNCTION IN ZEBRAFISH DIFFERENTIALLY AFFECTS GNRH AND OLFACTORY CELL DEVELOPMENT
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- P34 475 EXPRESSION OF GONADOTROPIN-RELEASING HORMONE (GNRH) AND GONADOTROPIN RELEASING HORMONE RECEPTORS (GNRH-R) IN THE ZEBRAFISH
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- P35 476 ODORANT MODULATION OF IMMEDIATE EARLY GENE EXPRESSION IN THE ZEBRAFISH OLFACTORY EPITHELIA
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- P36 477 FORMATION OF THE OLFACTORY PLACODE IN THE ZEBRAFISH, *DANIO RERIO*
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- P37 478 METAMORPHOSIS OF AN OLFACTORY SYSTEM: HORMONAL REGULATION OF GROWTH AND PATTERNING IN THE ANTENNAL IMAGINAL DISC OF THE MOTH *MANDUCA SEXTA*
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Olfactory Lesion

- P38 479 MMP-9 ELEVATION IN THE EARLY RESPONSE TO OLFACTORY NERVE INJURY
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- P39 480 SUPPORTING CELLS AND OLFACTORY NEURONS EXPRESS DIFFERENT INHIBITORY APOPTOSIS PROTEINS
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- P40 481 MICROGLIA IN THE ZEBRAFISH IMMUNE RESPONSE TO INJURY
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- P41 482 COUMARIN PRODUCES SELECTIVE DEAFFERENTATION OF THE OLFACTORY BULB
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- P42 483 MORPHOLOGICAL AND FUNCTIONAL REGENERATION OF THE OLFACTORY EPITHELIUM DEPENDS UPON THE EXTENT OF THE ABLATION
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- P43 484 HEMOCYTE INFILTRATION OF OLFACTORY RECEPTOR NEURON CLUSTERS AFTER AESTHETASC DAMAGE IN THE SPINY LOBSTER
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- P44 485 ETHANOL *IN VIVO* CAUSES DEGENERATION OF OLFACTORY SENSORY NEURONS
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Developmental – Olfactory Bulb and Piriform Cortex

- P45 486 NG2-EXPRESSING CELLS: A 4TH CLASS OF MACROGLIA IN THE MOUSE OLFACTORY BULB
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- P46 487 HETEROGENEOUS GENERATION OF PERIGLOMERULAR CELLS IN THE ADULT MOUSE
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- P47 488 TARSH GENE EXPRESSION IN THE DEVELOPING MITRAL CELL
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- P48 489 TIME LAPSE CONFOCAL MICROSCOPY ON MIGRATING NEUROBLASTS IN THE MOUSE ROSTRAL MIGRATORY STREAM
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- P49 490 ODORANT DEPRIVATION REVERSIBLY MODULATES NR2B-MEDIATED CREB PHOSPHORYLATION IN MOUSE PIRIFORM CORTEX.
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- P50 491 GENESIS AND MIGRATION OF MITRAL CELLS IN THE DEVELOPING MOUSE OLFACTORY BULB
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- P51 492 MOLECULAR CLONING, CHARACTERIZATION AND EXPRESSION PATTERNS OF A NOVEL RAPGAP GENE IN THE DEVELOPING OLFACTORY BULB
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- P52 493 OXIDATIVE STRESS-MEDIATED DEGENERATIVE CHANGES IN THE AGING MURINE OLFACTORY BULB
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Chemosensory Consumer Research

- P53 494 ODOR INCREASES INFANTS' ATTENTION TO DYNAMIC EMOTION DISPLAY
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- P54 495 EFFECTS OF AROMA ON AMATEUR TEN-PIN BOWLING PERFORMANCE
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- P55 496 FLORAL ODOR PROMPTS POSITIVE EMOTIONAL SEARCHES
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- P56 497 BEAUTY IS IN THE "NOSE" OF THE BEHOLDER – UNCONSCIOUS SMELLS INFLUENCE PERCEIVED LIKABILITY
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- P57 498 EFFECTS OF PLEASANT AND UNPLEASANT ODORS ON EXERCISE PERFORMANCE
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- P58 499 COGNITIONS INFLUENCE COLOR-ODOR CORRESPONDENCES
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- P59 500 MEASURING ODOR ATTITUDES IN AN IMPLICIT WAY
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- P60 501 PLEASANTNESS INFORMATION FACILITATES DETECTION IN TASTE.
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- 502 CORRELATION BETWEEN BRAIN ACTIVITY AND ONLINE PSYCHOPHYSICAL MEASUREMENT: HOW THE EVALUATIVE TASK AFFECTS BRAIN ACTIVATION
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- 503 IDENTIFICATION OF LATENT VARIABLES IN A SEMANTIC ODOR PROFILE DATABASE USING PRINCIPAL COMPONENT ANALYSIS
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