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 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

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

PLATINUM LEVEL

Givaudan

OTHER SPONSORS

MOSKOWITZ JACOBS INC.
Strategic Brand Developers: Research & Consulting

AJINOMOTO

Sensonics, Inc.

A special thank you to Ghislaine Polak and the late Ernest Polak for support of the Polak Young Investigators Awards, the Junior Scientist Travel Fund and the Student Travel/Housing Awards.
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
Mari Hakala, Monell Chemical Senses Center
Huey K. Hing, University of Illinois, Urbana-Champaign
Robin Frances Krimm, University of Louisville Medical Center

JUNIOR SCIENTIST TRAVEL FUND AWARD RECIPIENTS
Funded by Ghislaine and Ernest Polak
Salome Antolin, University of Cambridge, UK
John Cave, Burke Medical Research Institute, Weil 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 Schelbe, University of Dresden Medical School, Germany
Musadadi 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
Ebro Gove, Emory University
Adam Gomez, University of Nebraska at Omaha
Kristina Gonzalez, Clark University
Sumana Jothi, University of California - San Diego
Ronald McMillen, 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
ACEMS STUDENT HOUSING/TRAVEL AWARD RECIPIENTS
Funded by Ghilaine and Ernest Polak
Melissa Nickell
Alastair Noyce
Staci Padove
Yunfeng Pan
Nicolas Pierz
Enin Ramage
Xiang Ren
Samsudeen Ponnissery Saidu
Benjamin Thwaites
Yada Treesukosol
Radhika Vaishnav
Philip Vetterott
Marla Gerladine Velduizen
Pam Wall
Daniel Wesson
Marcel Wening
Peng Zhang
Wen Zhou

2006 Exhibitors – North Ballroom

Tucker-Davis Technologies
Company Representatives: Victor Rush, Tim Tucker
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.

Sensornics, Inc.
Company Representatives: Richard Doty, Jerilyn Wissa
Sensornics, Inc. is devoted to providing the medical, scientific and industrial communities with the best products for assessing chemosensory function.

2005-06 ACeMS Executive Committee
President
Charles Derby, PhD
Georgia State University
Past-President
Mimi Halpern, PhD
SUNY Downstate Medical Center
President-Elect
Leslie Tolbert, PhD
University of Arizona
Senior Advisor
John Scott, PhD
Emory University
Secretary
Christine Byrd, PhD
Western Michigan University
Treasurer
William Michel, PhD
University of Utah
Membership Chair
Donald Wilson, PhD
University of Oklahoma
Program Chair
Debra Ann Fadool, PhD
Florida State University
Councillors
Matt Wachowiak, PhD
Boston University
Pam Dalton, PhD
Sanofi 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 Miestretta, PhD, Jane Rosekams, 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.acems.org to give us your feedback on the meeting. Your input helps ACeMS' 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, April 25, 2006

1:00
1 DEVELOPMENT AND ACTIVITY-DEPENDENT REFINEMENT OF THE OLFATORY INTRABULBAR MAP
Belluscio L.1 National Institutes of Health (NIH), Bethesda, MD

1:45
2 CHARACTERIZING HUMAN OLFATORY RECEPTOR GENE EXPRESSION
Gild Y.1, Pinto J.1 Department of Human Genetics, University of Chicago, Chicago, IL

2:30
3 OLFATORY RECEPTORS SIGNAL IDENTITY
Fristein S.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 Neurosurgery, Yale University, New Haven, CT

4:00
5 REPRESENTATION OF NATURAL STIMULI IN THE RODENT MAIN OLFATORY BULB
Lin D.1, Katz L.C.1 Neurobiology, Duke University, Durham, NC

4:45
6 FUNCTIONAL AND STRUCTURAL ANALYSIS OF MAMMALIAN ODORANT RECEPTORS
Luefte C.W.1 Molecular and Cellular Pharmacology, University of Miami, Miami, FL

5:30
7 OLFATORY RECEPTORS IN THE SEPTAL ORGAN
Grosmaire X.1, Tian H.1, Lee A.1, Ma M.1 Neuroscience, University of Pennsylvania, Philadelphia, PA
8:00  RIC-8B, A PUTATIVE GEF FOR G ALPHA OLF, AMPLIFIES SIGNAL TRANSDUCTION THROUGH ODORANT RECEPTORS
Von Dannecker L.C., Mercadante A.F., Malnic B.  iDepartment of Biochemistry, University of Sao Paulo, Sao Paulo, Brazil

7:00  "DEORPHANIZING" MAMMALIAN ODORANT RECEPTORS
Matsumoto H.  iMGU Medical School, Duke University Medical Center, Durham, NC

7:45  OLFATION TARGETED
Mombaerts P.  iThe Rockefeller University, New York, NY

8:30  OLFATORY DEFICITS IN MICE DEFICIENT FOR THE TRANSIENT RECEPTOR POTENTIAL CHANNEL M5
Restrepo D., Margolskee R.F., Lin W.  iCell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO;  iiNeuroscience, Mount Sinai School of Medicine, New York, NY

9:00  MONITORING ODORANT DETECTION BY OLFATORY RECEPTORS EXPRESSED IN YEAST AS A REPORTER SYSTEM
Minic J., Grosclaude J., Persuy M., Aioun J., Connerton I., Salesse R., Pajot-Augy E.  iNeurobiologie de l'Odorat et de la Prise Alimentaire, Institut National de la Recherche Agronomique, Jouy-en-Josas Cedex, France;  iiVirologie et Immunologie Moléculaires, Institut National de la Recherche Agronomique, Jouy-en-Josas Cedex, France;  iiiBiosciences, University of Nottingham, Nottingham, United Kingdom

9:45  ODORANT RECEPTORS WITH UNIQUE FEATURES
Breer H., Strummann J.  iInstitute of Physiology, University of Hohenheim, Stuttgart, Germany

10:30  EVOLUTIONAL AND BIOLOGICAL CHARACTERIZATION OF THE MOUSE ESP FAMILY
Touhara K.  iUniversity of Tokyo, Chiba, Japan

11:15  COMPLEXITY AND MODULARITY IN THE REGULATION OF CHEMORECEPTOR GENE EXPRESSION IN C. ELEGANS
Van Der Linden A.M., Nolan K., Sengupta P.  iBiology, Brandeis University, Waltham, MA;  iiSchool of Law, University of California, Berkeley, CA

12:00  ATYPICAL MEMBRANE TOPOLOGY AND HETEROMERIC FUNCTION OF DROSOPHILA ODORANT RECEPTORS IN VIVO
Benton R., Sachse S., Michnick S., Vosshall L.  iRockefeller University, New York, NY;  iiUniversity 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 PM

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 Sorensen, 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.1, 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.1 1School of Biological Sciences, University of Auckland, Auckland, Auckland, New Zealand; 2Environmental & Biomolecular Systems (EBS), Oregon Health & Science University, Portland, OR
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/PEROMON METABOLISM IN INSECTS
Vogt R.1 Biological Sciences, University of South Carolina, Columbia, SC

10:35 26 MAMMALIAN NASAL P450 ENZYMES AND ODORANT METABOLISM
Ding X.1 Wadsworth Center, NYSDOH, Albany, NY

11:10 27 ODORANT METABOLISM IN THE HUMAN NOSE
Schilling B.1 Givaudan Schweiz AG, Fragrance Research, Duebendorf, Zurich, Switzerland

11:40 28 FLAVOR METABOLISM IN THE ORAL CAVITY
Buettner A.1 German 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., Yan J.1, Van Houten J.1 Biology, University of Vermont, Burlington, VT

P2 30 THE CNGB1 SUBUNIT IS REQUIRED FOR NORMAL OLFAC TION AND LOCALIZATION OF THE CNG CHANNEL TO OLFATORY CILIA
Michalakis S., Reisert J.1, Geiger H., Wetzel C.H., Zong X., Bradley J.3, Spehr M., Hutt S., Gerstner A., Pfeifer A., Hatt H.3, Yau K.3, Biel M.1 Pharmazie, Ludwig-Maximilians-Universitat Muenchen, Munich, Germany; Neuroscience, Johns Hopkins School of Medicine, Baltimore, MD; Zellphysiologie, Ruhr-Universitaet Bochum, Bochum, Germany

P3 31 CILIARY TARGETING OF OLFATORY CNG CHANNELS REQUIRES THE CNGB1B SUBUNIT AND THE KINESIN MOTOR PROTEIN, KIF17
Jenkins F.M.1, Hurd T.W., Zhang L., Brown R.L.3, Margolis B.L.4, Verhey K.J.1, Martens J.R.1 Pharmacology, University of Michigan, Ann Arbor, MI; Internal Medicine, University of Michigan, Ann Arbor, MI; Neurology, Oregon Health & Science University, Beaverton, OR; Howard Hughes Medical Institute, University of Michigan, Ann Arbor, MI; Cell and Developmental Biology, University of Michigan, Ann Arbor, MI

P4 32 CLUSTERING OF CYCLIC-NUCLEOTIDE-GATED CHANNELS IN OLFATORY CILIA
Flannery R.J.1, French D.A.3, Kleene S.J.1 Cell Biology, Neurobiology, and Anatomy, University of Cincinnati, Cincinnati, OH; Mathematical Sciences, University of Cincinnati, Cincinnati, OH

P5 33 MECHANISM OF SIGNAL AMPLIFICATION IN THE NEWT OLFATORY SENSORY CILIA
Takeuchi H., Kurahashi T.1 Frontier Biosciences, Osaka University, Osaka, Japan
Peripheral Olfaction – Modulation and Transduction

P12 40 DUAL EFFECT OF ATP IN THE OLFATORY EPITHELIUM OF XENOPUS LAEVIS TADPOLES: ACTIVATION OF BOTH RECEPTOR AND SUSTENTACULAR SUPPORTING CELLS
Manzini I.1, Czesnik D.1, Kudzu J.1, Schild D.1 1University of Goettingen, Goettingen, Lower Saxony, Germany

P13 41 EXPRESSION OF THE GABA PI SUBUNIT IN THE OLFATORY EPITHELIUM
Hollins B.1, Sither M. J.1 1Clinical Sciences, University of Kentucky, Lexington, KY

P14 42 ACETYLCHOLINE MODULATES ACTIVITY IN THE OLFATORY EPITHELIUM IN AXOLOTLS, 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
Brunet D.1, Isik S.1, Schuhmann W.1, 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 ETHOENDOLINE ON THE OLFATORY 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 OLFATORY 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.1, Wyatt T.A.1, Sisson J.H.1 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.1, Purik 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 OLFATORY RECEPTOR NEURONS CORRELATE WITH EOG IN BLACK BULLHEAD CATFISH (AMEIRUS MELAS)
Dolensek J.1, Valentinic T.1 1Biology, University of Ljubljana, Ljubljana, Slovenia

P21 49 CULTURED OLFATORY RECEPTOR NEURONS SHOW SUMMATION, ADAPTATION, AND AGE-RELATED DIFFERENCES IN EOG RESPONSE KINETICS
Viswprakash N.1, Josephson E.M.1, Vodyanyo V.J.1 1Anatomy, Physiology, and Pharmacology, Auburn University, Auburn, AL; 2Biosensor Laboratory, Auburn University, Auburn, AL
Peripheral Olfaction – Anatomy

P24  52  OLFACTORY AND OTHER CHEMOSENSORY RECEPTOR CELLS IN THE NASAL CAVITY OF THE AMERICAN ALLIGATOR
Hansen A. 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; 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. 1, Zielinski B. 1; Biological Sciences, University of Windsor, Windsor, Ontario, Canada; Département de Kinanthropologie, Université du Québec à Montréal, Montréal, Quebec, Canada

P27  55  G-PROTEINS IN THE SQUID OLFACTORY EPITHELIUM
Mobley A.S.1, Greig A. 1, Lucero M. 1; Physiology, University of Utah, Salt Lake City, UT

P28  56  IMMUNOCYTOCHEMICAL LOCALIZATION OF SEROTONIN IN THE CENTRAL AND PERIPHERAL CHEMOSENSORY SYSTEM OF MOSQUITOES
Sjöv K. 1, Hansson B. 1, Ignell R. 1; SLU, Alnarp, Sweden

P29  57  REGIONAL DIFFERENCES IN CYTOARCHITECTURE IN THE ANTERIOR OLFACTORY NUCLEUS
Meyer E.A. 1, Illig K.R. 1, Brunjes P.C. 1; Biology, University of Virginia, Charlottesville, VA; Psychology, University of Virginia, Charlottesville, VA

P30  58  CAN DIELECTRIC ANTENNA THEORY HELP EXPLAIN INSECT OLFACITION?
Dykstra T.M. 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, Faunron A. 2, Trotier D. 2; INRA, Jouy en Josas, France; CNRS / INRA, Jouy en Josas, France

P32  60  CHORDA TYMPANI TASTE RESPONSES MODIFIED BY AGONISTS AND ANTAGONISTS OF BRAIN GLUTAMATE RECEPTORS
Faunron A. 1, Vandenbeuch A. 2, Bertetetch M. 2, Lelièvre M. 2; CNRS / INRA, Jouy en Josas, France; 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, Hong Q. 1, Inoue M. 1, Bachmanov A.A. 1, Margolskee R.F. 1, Pfeifer K.B. 1, Huang L. 1; Monell Chemical Senses Center, Philadelphia, PA; NICHD, NIH, Bethesda, MD; Tokyo University of Pharmacy and Life Science, Tokyo, Japan; 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; Food Science, Cornell University, Ithaca, NY

P35  63  AQUAPORIN EXPRESSION IN MICE
Watson K.J. 1, Gilbertson T.A. 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; 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; 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., Phan V., Chassagne S., Martin N. Nestle, Lausanne, Switzerland

P39 67 EXPRESSION OF ARACHIDONIC ACID SIGNALING-RELATED MOLECULES IN RAT CIRCUMVALLATE TASTE BUDS Oike H., Misaka T., Matsumoto I., Abe K. The University of Tokyo, Bunkyo-ku, Tokyo, Japan

P40 68 TRANSGENIC MICE EXPRESSING GFP IN PLC_\_TASTE CELLS DEMONSTRATE FUNCTIONAL CLASSES OF CELLS Kim J., Maruyama Y., Roberts C.D., Berg S., Roper S.D., Chaudhari N. Physiology & Biophysics, Miller School of Medicine, University of Miami, Miami, FL

P41 69 INHIBITION OF THE IP_3 PATHWAY PERMITS FLY SUGAR RECEPTOR CELL RESPONSES TO NA-SACCHARIN Miller S.E., Kennedy L.M. Neuroscience Laboratory, Biology Department, Clark University, Worcester, MA

P42 70 INVESTIGATING CYCLIC AMP IN TASTE TRANSDUCTION USING REAL TIME IMAGING Roberts C.D., Chaudhari N., Roper S.D. Program in Neurosciences, Miller School of Medicine, University of Miami, Miami, FL; Physiology & Biophysics and Program in Neurosciences, Miller School of Medicine, University of Miami, Miami, FL

P43 71 IDENTIFICATION OF TWO PUTATIVE TASTE SIGNAL TRANSDUCTION COMPONENTS Lopez Jimenez N.D., Cavenagh M.M., Sainz E., Battey J.F., Sullivan S.L. National 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., Sadik F., Robert P., Chyb M. CSIRO Entomology, Canberra, Australian Capital Territory, Australia; Molecular 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., Asakura T., Maruyama J.S., Morita Y., Oike H., Misaka T., Kitamoto K., Abe K. Department of Applied Biological Chemistry, The University of Tokyo, Tokyo, Japan; Department 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., Wang H., Huang L. Monell Chemical Senses Center, Philadelphia, PA

P47 75 EXPRESSION OF THE G PROTEIN-SUBUNIT GUSTDUCIN IN MAMMALIAN SPERMATOZOA Meyer D., Fehr J., Borth H., Widmayer P., Wilhelm B., Guermann T., Boeckhoff I. Pharmacology, University of Marburg, Marburg, Germany; Physiology, University of Hohenheim, Stuttgart, Germany; Anatomy, University of Marburg, Marburg, Germany

P48 76 FURTHER CHARACTERIZATION OF NEUROPEPTIDES IN RAT TASTE RECEPTOR CELLS Cao Y., Zhao F., Herness M.S. College 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 Dvoriatchikov G., Chaudhari N. Physiology & Biophysics, University of Miami, Miami, FL

P50 78 CELL-TO-CELL COMMUNICATION IN TASTE BUDS: THE ROLE OF ATP AND SHT Huang Y., Maruyama Y., Pereira E., Roper S.D. Physiology & Biophysics, Miller School of Medicine, University of Miami, Miami, FL

P51 79 ECTO-ATPASES IN TASTE BUDS OF FISHES Kirino M., Kiyohara S., Hansen A., Finger T.E. Chemistry and BioScience, Fac. Science, Kagoshima Univ., Kagoshima, Kagoshima, Japan; Cell 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., Yang R., Kinnamon J.C. Biological Sciences, University of Denver, Denver, CO
Peripheral Taste – Chorda Tympani

P53  81  SYNAPTOTAGMIN-1-LIKE IMMUNOREACTIVITY IN CIRCUUMVALLATE TASTE BUDS OF THE RAT
    Thomas S. 1, Yang R. 1, Ma H. 1, Kinnamon J.C. 1  1Biology 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  1Oral Physiology, Kagoshima University, Kagoshima, Japan

P55  83  MIXING SWEET AND SOUR STIMULI: EFFECTS ON THE HAMSTER CHORDA TYPANII
    Lin H. 1, Formaker B.K. 1, Hettenger T.P. 1, Frank M.E. 1  1Oral 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  1Internal Medicine, Virginia Commonwealth University, Richmond, VA; 2Physiology, Virginia Commonwealth University, Richmond, VA

P57  85  TIME COURSE OF ALTERED CHORDA TYPANII NERVE RESPONSE AFTER CONTRALATERAL NERVE SECTION IN SODIUM-RESTRICTED RATS
    Wall P.L. 1, McCluskey L. 1  1Institute of Molecular Medicine and Genetics, Medical College of Georgia, Augusta, GA

P58  86  EXPRESSION AND REGULATION OF LINGUAL VASCULAR ADHESION MOLECULES FOLLOWING UNILATERAL CHORDA TYPANII NERVE SECTION
    Cavallin M. 1, McCluskey L. 2  1Physiology, Medical College of Georgia, Augusta, GA; 2Mammalian, Medical College of Georgia, Augusta, GA

P59  87  MACROPHAGE ACTIVATION PATTERNS FOLLOWING CHORDA TYPANII NERVE SECTION
    Phillips M. 1, McCluskey L.P. 1  1Institute of Molecular Medicine and Genetics, Medical College of Georgia, Augusta, GA

P60  88  BRIEF AND PROLONGED DIETARY SODIUM DEPRIVATION REDUCE CHORDA TYPANII NERVE RESPONSES TO NACL
    Vaughn J.M. 1, Curtis K.S. 1, Contreras R.J. 1  1Program 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/Psyco-genomics
      Breslin, P. Monell Chemical Senses Center, Philadelphia, PA

4:20  89.6  ROUND TABLE DISCUSSION
NIH Workshop - Funding Opportunities for New Investigators (Ringling Room)
Barry Davis, Workshop Chair

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.

ChEMA Social (Florida Room)
Suzanne Sollars, Organizer

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 University of Galsgow, Glasgow, United Kingdom

7:50
91 PHARMACOLOGY OF MOUSE Olfactory Receptors
Touhara K.1 University of Tokyo, Chiba, Japan

8:40
COMPLETING THE VISUAL CYCLE: CHROMOPHORE ENTRY AND RELEASE IN VISUAL PIGMENTS
Sakmar, T.P.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.1
1Department of Neurology, VU University Medical Center, Amsterdam, Netherlands; 2Smell & 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 Peking Union Medical College Hospital, Beijing, China; 2Dept. 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.3, Sobel N.2 Biophysics, University of California, Berkeley, Berkeley, CA; 2Neuroscience, 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
1San Diego State University, San Diego, CA; 2San 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 Neurology, Northwestern University, Chicago, IL; 2Linguistics, Duke University, Durham, NC

P6
97 The effects of sleep quality on olfactory event-related potentials in healthy adults.
Esso L.J.1, Ramage E.1, Parks A.M.1, Lloyd K.1, Hunt K.1, Geisler M.W.2 Psychology, San Francisco State University, San Francisco, CA
P7  98  ECHO TIME DEPENDENCE OF BOLD FMRI STUDIES OF THE PIRIFORM CORTEX
Kopiez R., Albrecht J., Linn J., Sakar V., Pollatos O.,
Anzinger A., May J., Wesemann T., Pesl G., Kobal G.,
Wiesmann M. - Dept. of Neuroradiology, University of Munich,
Munich, Germany; Sensory 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., Olsson M.J., Lundstrom J.N., Djordjevic J.J., Jones-
Gotman M. - Montreal Neurological Institute, McGill University,
Montreal, Quebec, Canada; *Psychology, Uppsala University,
Uppsala, Sweden

P9  100  BRAIN ACTIVATIONS TO CHEMICAL SIGNALS
Chen D., Zhou W., Hou P., Burton P. - *Psychology, Rice University,
Houston, TX; *Radiology, 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., Esse J.K., Parks A.M., Hunt K., Lloyd K., Geisler
M.W. - *Psychology, San Francisco State University, San Francisco, CA

P11  102  CENTRAL OLFATORY ACTIVITY TO DIFFERENT ODOR INTENSITY IN OLDER PEOPLE
Wang J., Zimmerman E., Grunfeld R., Vesce J., Eisinger P.J.,
University, Hershey, PA; *Neurology, Pennsylvania State
University, Hershey, PA; *Neurosurgery, Pennsylvania State
University, Hershey, PA

P12  103  REDUCTION OF MAGNETIC SUSCEPTIBILITY ARTIFACTS IN OLFATORY FMRI WITH GESEPI-SENSE-EPI METHOD
Zimmerman E., Wang J., Grunfeld R., Sun X., Vesce J.,
Eisinger P.J., Smith M.B., Connor J.R., Yang Q.X. - *Radiology,
Pennsylvania State University, Hershey, PA; *Neurology,
Pennsylvania State University, Hershey, PA; *Neurosurgery,
Pennsylvania State University, Hershey, PA

Clinical - Neurodegenerative Disease

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

P14  105  CHEMOSENSORY MEASUREMENT IN ESSENTIAL TREMOR
Taste Research Unit, Essex Neuroscience Centre, London, United
Kingdom

P15  106  NASAL MUCOSA IN PATIENTS WITH PARKINSON'S DISEASE
Witt M., Gudziol V., Haehner A., Reichmann H., Hummel T.
*Otologynarology, University of Technology, Dresden, Med.
Sch., Dresden, Germany; *Neurology, University of Technology,
Dresden, Med. Sch., Dresden, Germany

P16  107  IDIOPATHIC PARKINSON'S DISEASE IS A PRIMARY OLFATORY DISORDER
Hawkes C.H. - *Essex Neuroscience Centre, Romford, United
Kingdom

P17  108  CLARIFYING THE NATURE OF THE OLFATORY IMPAIRMENT FOUND IN PARKINSON'S DISEASE
R.C., Frank R.A. - *Psychology, University of Cincinnati,
Cincinnati, OH; *Omic Enterprises, Inc., Cincinnati, OH;
*Neurology, University of Cincinnati, Cincinnati, OH; *Cell
Biology, Neurobiology & Anatomy, University of Cincinnati,
Cincinnati, OH; *Psychology/Office of Vice President for Research and
Advance, University of Cincinnati, Cincinnati, OH

P18  109  CEREBRAL ACTIVATION IN PD DURING OLFATORY STIMULATION – AN FMRI STUDY
Welge-Lüssen A., Westermann B., Watendörf E., Una S., Peter
F., Wolfsberger M., Hummel T., Bilecen D. - *University
Hospital Basel, Basel, Switzerland; *Otologynarology,
University Hospital Basel, Basel, Switzerland; *University of
Dresden, Dresden, Saxony, Germany

P19  110  IMPAIRMENTS IN SOURCE MEMORY FOR Olfactory Stimuli in Preclinical Gene Carriers of Huntington's Disease (HD)
Pirogowsky E., Rice J., Mekrut A., Vallejo F., Bushfield A.M.,
Gilbert P.E., Murphy C. - *Psychology, 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., Nordin S., Larsson M., Cruts M., Adolfsson R.,
Sleegers K., Van Broeckhoven C., Nilsson L. - *Psychology,
Umeå University, Umed, Sweden; *Psychology, Stockholm
University, Stockholm, Sweden; *Molecular Genetics, University of
Antwerp, Antwerp, Belgium; *Clinical sciences and Psychiatry,
Umed University, Umed, Sweden
P21 112 LONGITUDINAL EVALUATION OF SMELL IDENTIFICATION DEFICITS IN PATIENTS WITH MILD COGNITIVE IMPAIRMENT
Tabert M.1, Albers M.3, 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.3, 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-INFECTIONOUS 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, Zahner 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.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.1, Brasser S.M.1, Waters R.S.1 1Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN; 2NIH, 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.3, Bufo B.3, Meyerhof W.3, Brelin P.A.1 1Monell Chemical Senses Center, Philadelphia, PA; 2German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany

P28 119 EFFECTS OF PREGNANCY ON OLFACITION
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.3, Albin R.1, Iodi Carstens M.1, Carstens E.1 1Ghawaid 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, Schroder T.1, Kobal G.1, Wissmann 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 SENSORENEAL 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, Munford J.1, 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
Wysokii C.1, Sergeant M.A.1, 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.1, 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.1, Smulian J.1  
    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.2, Hayes J.E.3, Bartoshuk 
    L.M.3  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.3, 
    Bartoshuk L.2  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.3, Gillespie Y.2, Brand J.1  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 F.J.1, McGue C.1, Kanes S.2, Roalf D.1, Balderton 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.3, 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 OLFACATORY 
    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.a, Reiter E.R.a, DiNardo L.J.a, Saito S.a, Kobayakawa T.a, Deguchi Y., Costanzo R.M.a. aPhysiology, Virginia Commonwealth University, Richmond, VA; bOtorhinolaryngology-Head and Neck Surgery, Virginia Commonwealth University, Richmond, VA; cNational Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan; dCentral Research Laboratory, Takasago International Corporation, Hiratsuka, Kanagawa, Japan

P48 139 ADMINISTRATION OF THE “SNIFFIN’ STICKS” ODOR IDENTIFICATION TESTS IN JAPANESE SUBJECTS
Ishimaru T.a, Ibara Y.a, Kobayashi M.a, Imanishi Y.a, Ishikawa M.a, Kuroda H.a, Kuwahara D.a, Koizuka I.a, Hummel T.a. aOtorhinolaryngology, Nanto General Hospital, Nanto, Toyama, Japan; bOtorhinolaryngology, Yokohama General Hospital, Yokohama, Kanagawa, Japan; cOtorhinolaryngology-Head and Neck Surgery, Mie University Graduate School of Medicine, Tsu, Mie, Japan; dOtorhinolaryngology, St. Marianna University School of Medicine, Kawasaki, Kanagawa, Japan; eOtorhinolaryngology, University of Dresden, Dresden, Saxony, Germany

P49 140 A COMPARISON OF METHODS FOR SNIFF MEASUREMENT CONCURRENT WITH OLFATORY TASKS IN HUMANS
Johnson B.N.a, Russell C.a, Mainland J.a, Khan R.M.a, Sobel N.a. aBioengineering, University of California, Berkeley, Berkeley, CA; bNeuroscience, University of California, Berkeley, Berkeley, CA

P50 141 OLFATORY DETECTION THRESHOLDS IN HUNGER AND SATIETY
Schreder T.a, Albrecht J.a, Rzeczniak A.a, Schöpf V.a, Anzinger A.a, Demmel M.a, Pollatos O.a, Koptitz R.a, Linn J.a, Wiesmann M.a. aDept. of Neuroradiology, University of Munich, Munich, Germany

P51 142 LATERALIZATION OF ODOR IDENTIFICATION
Gudziol V.a, Zahnert T.a, Hummel C.a. aDresden Medical School, Dresden, Germany; bDepartment of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany

P52 143 THE CLINICAL CHARACTERISTICS AND PATHOGENESIS OF DYSONSIA
Miwa T.a, Tsukatani T.a, Furukawa M.a. aOtorhinolaryngology, Kanazawa University, Kanazawa, Japan

P53 144 THE HEDONIC DATABASE OF SMELL-FRANKONIA (HEDOS-F) – AN ANALYSIS OF GENDER DIFFERENCES
Thuerau N.a, Reulbach U.a, Lunenheimer J.a, Spannenberger R.a, Vassiliadou A.a, Markovic K.a. aDepartment of Psychiatry and Psychotherapy, University of Erlangen-Nuremberg, Erlangen, Bavaria, Germany; bDepartment of Neurology, University of Erlangen-Nuremberg, Erlangen, Bavaria, Germany

P54 145 THE HEDONIC DATABASE OF SMELL-FRANKONIA (HEDOS-F) – THE INFLUENCE OF AGE ON THE HEDONIC ESTIMATES OF ODORS
Markovic K.a, Reulbach U.a, Lunenheimer J.a, Vassiliadou A.a, Spannenberger R.a, Thuerau N.a. aDepartment of Psychiatry and Psychotherapy, University of Erlangen-Nuremberg, Erlangen, Bavaria, Germany; bDepartment of Neurology, University of Erlangen-Nuremberg, Erlangen, Bavaria, Germany

P55 146 WITHDRAWN

P56 147 IDENTIFICATION OF NEUROTROPHIC FACTORS BDNF, NT-3, AND NT-4 IN HUMAN SALIVA
Mielewski A.L.a, Utermohl V.a. aDivision of Nutritional Sciences, Cornell University, Ithaca, NY

P57 148 METABOLIC ANALYSES OF HUMAN SKIN: AGE AND DISEASE BIOMARKERS
Gallagher M.a, Preti G.a, Fakharzadeh S.S.a, Leyden J.J.a, Spielman A.J.a, Willie A.a. aMonell Chemical Senses Center, Philadelphia, PA; bDermatology, University of Pennsylvania, Philadelphia, PA; cBasic Science and Craniofacial Biology, New York University, New York, NY; dStatistics 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.a, Takeuchi K.a, Hagura T.a, Hasegawa Y.a. aTokyo Research Laboratory, Kao Corporation, Tokyo, Japan

P59 150 WITHDRAWN

P60 151 PROBING THE CEREBELLAR ROLE IN SNIFFING WITH TRANSCRANIAL MAGNETIC STIMULATION (TMS)
Mainland J.a, Irvy R.B.a, Sobel N.a. aNeuroscience, University of California, Berkeley, Berkeley, CA
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 1Foods 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 1Nestlé 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 1Anatomical 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.1, Palotie A.1, Wessman M.1, Peltonen L.1, Tuorila H.1, Perola M.1 1University of Helsinki, Helsinki, Finland; Helsinki University Central Hospital, Helsinki, Finland; National Public Health Institute, Helsinki, Finland

9:00 156 MOLECULAR MECHANISMS OF HUMAN SWEET WATER TASTE
Gue A.1, Winnig M.1, Galindo-Cuspinera V.1, Breslin P.1, Meyerhof W.1 1Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nutheatal, Germany; 1Monell 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 1Monell Chemical Senses Center, Philadelphia, PA

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
Montelli C.1 1Biological Chemistry, Johns Hopkins University, Baltimore, MD

10:45 160 THERMOTRP CHANNELS AND CHEMESTHESIS
Patapoutian A.1 1Cell Biology, The Scripps Research Institute, La Jolla, CA

11:30 161 TRP5 AND TASTE TRANSDUCTION
Liman E.1 1Biological 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, Bobkoy Y.V.1, Zhainazarov A.B.1 1Whitney 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.1, Sanghera M.1, Comparini N.1, Wallace D.1, Achiriloaeia I.1, Silva D.1 1MicroFab Technologies, Inc., Plano, TX; 2Human Performance Laboratory, Fogelson 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.I, 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, Baille J.M.2 1Osimic 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

Taste Psychophysical Studies

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

P9  171  NAACL SENSATION AND HEDONICS: RELATIONSHIPS WITH SEX, TASTE GENETICS, AND SODIUM INTAKE
Sullivan B.S.1, Hayes J.E.1, 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
Elgert B.Z.1, Marks L.E.1 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.1, Flinker A.1, 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.1, Duffy V.B.1 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-PROPYLETHIOURACIL RATINGS IN A GENERAL POPULATION SAMPLE
McAnally H.M.1, Poulton R.1, Hancox R.1, Prescott J.3, 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-CYCLOMAT, BUT NOT ACESULFAME-K, INDUCES INCREASED TASTE DISCRIMINATION ABILITY FOR GLUCOSE
Hassan A.1, Gonzalez K.M.1, Kennedy L.M.1 Neurosciences 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 Monell 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, Jagolinzki A.1 Monell 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 Monell Chemical Senses Center, Philadelphia, PA

Olfactory Psychophysical Studies

P19 181 SPECIFIC ANOSMIA FOR SELECTED NOR-ISOPRENOID FLAVOR COMPOUNDS IN ORANGE JUICE
Piotto A.1, Barnes K.W.5, Goodner K.L.1 Citrus & Subtropical Products Laboratory, Agricultural Research Service (ARS), Winter Haven, FL; Danisco USA Inc., Lakeland, FL

P20 182 HUMAN ODOR DETECTION OF HOMOLOGOUS CARBOXYLIC ACIDS AND THEIR BINARY MIXTURES
Miyazawa T.1, Gallagher M.3, Priti O.3, Wise P.2 Flavor System & Technology Laboratory, Ogawa & Co., Ltd., Philadelphia, PA; Monell Chemical Senses Center, Philadelphia, PA

P21 183 SWEET ODOURS INCREASE PAIN TOLERANCE
Wilkie J.1, Prescott J.1 School of Psychology, James Cook University, Cairns, Queensland, Australia; Psychology, James Cook University, Cairns, Queensland, Australia

P22 184 THE INFLUENCE OF SMELLING COFFEE ON OLFACTORY HABITUATION
Secundo L.1, Sobel N.1 neuroscience, University of California, Berkeley, Berkeley, CA

P23 185 PREDICTING NOSTRIL-SPECIFIC DETECTION THRESHOLDS
Porter J.A.1, Anand T.5, Kennedy K.3, Khan R.M.4, Noam S.1 Psychology, University of California, Berkeley, Berkeley, CA; Bioengineering, University of California, Berkeley, Berkeley, CA; Pierce College, Woodland Hills, CA; Helen Wills Neuroscience Institute, University of California, Berkeley, Berkeley, CA

P24 186 ODOR MEMORY AND LABELING IN ADULTS AND CHILDREN
Horming S.M.1, Baille J.M.1, Rybalsky K.A.1, Frank R.A.2 Psychology, University of Cincinnati, Cincinnati, OH; Psychology 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.3, Koester E.P.2 Sensory Systems, Royal Veterinary and Agricultural University, Frederiksberg, Denmark; Wageningen 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.1 Interdepartmental Neuroscience Program, Yale University, New Haven, CT; Surgery (Otolaryngology), Yale University, New Haven, CT; Psychology, Yale University, New Haven, CT

P27 189 ASPARAGUS MALODOR IN URINE - A TRUE POLYMORPHISM?
Pelchat M.3, Bykowski C.1, Ibicki E.1, Reed D.1 Monell Chemical Senses Center, Philadelphia, PA

P28 190 WORKING MEMORY FOR ODORS
Olsson M.J.1, Jonsson E.U.1, Moeller P.2 Psychology, Uppsala University, Uppsala, Sweden; Food Science, Sensory Science, Royal Veterinary and Agricultural University, Frederiksberg C, Denmark

P29 191 THE INHIBITION OF STRESS - ODOR CONDITIONING
Muato C.1, Sitvarin L.1, Petrova M.1, Dalton P.1 Monell 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, Guanerros M.3, Martínez-Gómez M.3, Distel H.4 1Univ Nacional Autónoma de México, Mexico City, Mexico; 2Univ Nacional Autónoma de México, Mexico, Mexico; 3Centro Tlaixcala Biol Conducta, Univ Autónoma de Tlaixcala, Mexico, Mexico; 4Univ München, Munich, Germany

PATHOPHYSIOLOGY OF THE OLFACOARY NEUROEPITHELIUM IN A MURINE MODEL OF ALLERGIC RHINITIS
Epstein V.A.1, Robinson A.M.1, Bryce P.J.1, 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.3, 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, Stach O.1, Stave J.1, Guthoff R.1, Witt M.1, 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 OLFACOARY ABILITY
Hanson R.E.1, Hornung D.E.1, Leopold D.A.3 1O, 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 OLFACTOMETERS
Smeets M.1, Bulsing P.1, Ogink N.1, Van Thriel C.1, Dalton P.1 1Utrecht University, Utrecht, Netherlands; 2A&F, Wageningen, Netherlands; 3IFADO, Dortmund, Germany; 4Monell Chemical Senses Center, Philadelphia, PA

198 IRRITATION, AMMONIA AND ASTHMA
Petra A.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 NORMOMISIC AND ANOMISMIC 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, Schöpf V.1, Linn J.1, Rzeznicka A.1, Anzinger A.1, Schroder T.1, Pollatos O.1, Kobal G.3 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, Iodil 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 OLFACOARY DYSFUNCTION?
Fransselli J.1, Schuster B.1, Lötch T.1, Hummel T.1 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.1, 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, Paul 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.1 1Chemosensory Perception Laboratory, Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA; 1Chemistry, University College London, London, United Kingdom

P45 207 TRPV1 RECEPTORS AND NASAL TRIGEMINAL CHEMESTHESIS Silver W.L.1, Clapp T.R.1, Stone L.M.1, Kinnamon S.C.1 1Biology, Wake Forest University, Winston-Salem, NC; 1Biomedical 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, Danak S.1, Le Coutre J.1 1Nestle Research Center, Verschez-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.1, Finger T.E.1, Restrepo D.1 1Rocky Mountain Taste & Smell Ctr, Univ of Colorado at Denver & Hlth Sci Ctr, Aurora, CO; 1Neuroscience, Mount Sinai School of Medicine, New York, NY

P48 210 OLEOCANTHAL, AN ANTI-INFLAMMATORY AND ANTI-OXIDANT COMPOUND OF OLIVE OILS, ELCITS ACTIVITY IN ISOLATED TRIGEMINAL NEURONS Peyrot Des Gachons C., Bryant B.1, Breslin P., Beauchamp G.1 1Monell Chemical Senses Center, Philadelphia, PA

P49 211 TOPOGRAPHICAL DIFFERENCES IN THE TRIGEMINAL SENSITIVITY OF THE HUMAN NASAL MUCOSA Scheibe M., Zahner T., Hummel T. 1Otorhinolaryngology, 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.1, Heinke M.1, Gehme L.1, Van Den Hoff J.1, Gerber J.C.1 1Otorhinolaryngology, University of Dresden Medical School, Dresden, Saxony, Germany; 1Nuclear Medicine, University of Dresden Medical School, Dresden, Saxony, Germany; 1Institute for Bioorganic and Radiopharmaceutical Chemistry / PET Center, Research Center Rossendorf, Dresden, Saxony, Germany; 1Neuroradiology, 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, Selafani A.1 1Biological Sciences, Barnard College, New York, NY; 1Psychology, Brooklyn College, Brooklyn, NY

P52 214 WEIGHT GAIN, OLFATORY SENSITIVITY AND KV1.3 EXPRESSION: IS THERE A LINK? Tucker K.1, Dunham J.1, Walker D.1, Overton M.1, Fadool D.1 1Dept. of Bio. Sci., Florida State University, Tallahassee, FL; 1College of Medicine, Florida State University, Tallahassee, FL

P53 215 MITRAL CELLS IN POSTNATALLY UNDERNOURISHED RATS. Frias C.1, Torreiro C.1, Regalado M.1, Rubio L.1, Salas M.1 1Developmental Neurobiology and Neurophysiology, INB, UNAM. Campus Juriquilla, Queretaro, Mexico

P54 216 CROSSMODAL ASSOCIATIONS BETWEEN OLFACION, VISION, AND TOUCH Demattè M.L.1, Sanabria D.1, Spence C.1 1Dept. of Cognitive Sciences and Education, University of Trento, Rovereto, Italy; 1Dept. 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-Cupina V.1, Aracon S.M.1, Lee W.1, Valdez J.1, McGuire C.1, Barrett F.1, Pratikadi R.1, Tharp A.A.1, Tharp C.1, Dalton P.1, Turetsky B.1, Loughead J.2 1Monell Chemical Senses Center, Philadelphia, PA; 1Psychiatry, University of Pennsylvania, Philadelphia, PA

P56 218 HUMAN CORTICAL ACTIVITY OF TOUCH SENSATION AND LATERALITY Kobayakawa T.1, Gotow N.1, Toda H.1, Saito S.1 1Institute for Human Science and Biomedical Engineering, National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan; 1National 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 1The 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 1Biology & 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., Green B.1 1The John B. Pierce Laboratory, New Haven, CT

P60 222 GUSTATORY-OLFACTORY MIXTURES: A CONFUSION MATRIX STUDY
Munoz D.M., Frank M.E.1, Gent J.F., Hettinger T.P.1 1Oral Health & Diagnostic Sciences, UConn Health Center, Farmington, CT; 2Epidemiology & 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 HYPOSTMIA IN PARKINSON PATIENTS
Hoogland P.1 1Anatomy, 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 1Smell and Taste Center, University of Pennsylvania, Philadelphia, PA

5:00 225 DETECTION OF PRECLINICAL PARKINSON'S DISEASE ALONG THE Olfactory TRACT
Berendsse H.W.1 1Neurology, 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.3, Storch A.3, Reichmann H.3 1Otorhinolaryngology, University of Dresden, Dresden, Saxony, Germany; 2Neurology, 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 1Physiology, 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 1Department 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 1MCDB, 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.2, Matthews G.4, Zou D.2, Firestein S.2 1Biology, Columbia University, New York, NY; 2Columbia University, New York, NY; 3Biological Sciences, Columbia University, New York, NY; 4Neurobiology and Behavior, Columbia University, New York, NY
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 1Monell 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 1Psychology, University of Virginia,
Charottesville, VA

9:20 234 ONTOGENETIC EMERGENCE OF LEARNED/NATURAL
FEAR AND DEVELOPMENT OF THE ODOR PATHWAY TO
THE AMYGDALA
Sullivan R.M. 1 1Department of Zoology, University of Oklahoma,
Norman, OK

9:45 235 NEURAL NETWORKS INVOLVED IN OLFACTORY FEAR
CONDITIONING IN RATS FROM INFANCY TO
ADULTHOOD
Moody A. 1 1Institut 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 1Psychology, 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 OLFATORY BULB
GRANULE CELLS
Balu R. 1, Strowbridge B. 1 1Department 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. 1, Ennis M. 1 1Anatomy and Neurobiology,
University of Tennessee Health Science Center, Memphis, TN;
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 OLFATORY BULB GRANULE CELLS
Heinbockel T. 1, Hamilton K.A. 1, Matthew E. 1 1Anatomy, Howard
University, Washington, DC; 1Cellular Biology & Anatomy,
Louisiana State University Medical Center at Shreveport,
Shreveport, LA; 1Anatomy 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 1Monell Chemical Senses Center, Philadelphia,
PA

P5 241 MEASURING OLFACTORY SENSORY NEURON SYNAPTIC
VESICLE RELEASE IN ZEBRAFISH USING THE
GENETICALLY-ENCODED EXOCYTOSIS MARKER
SYNAPTOPHILUORIN.
Sakata Y. 1, Greig A. 1, Michel W.C. 1 1Physiology, 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., Cave J.W., Baker H.J. - Burke Medical Research Institute, Weill Med. Coll., Cornell, White Plains, NY

P7  243  OLFACTORY BULB SPECIFIC REGULATION OF TYROSINE HYDROXYLASE GENE EXPRESSION BY ERB1 IN MICE

P8  244  SEROTONIN INCREASES GABA RELEASE FROM PERIGLOMERULAR CELLS IN MOUSE OLFACTORY BULB
Aungst J.L., Shipley M.T. - Anatomy & Neurobiology, University of Maryland at Baltimore, Baltimore, MD; University of Maryland at Baltimore, Baltimore, MD

P9  245  THE PHYLOGENY OF A PUTATIVE CIRCADIAN MODULATOR OF OLFACTORY SENSITIVITY
Danks A., Christensen T., Hildebrand J.G. - Neurobiology, University of Arizona, Tucson, AZ; University of Arizona, Tucson, AZ

P10  246  APPLICATION OF MAGNETIC RESONANCE SPECTROMETRY IN THE OLFACTORY SYSTEM
Xu F., Jiang L., Patel A.B., Rothman D.L., Hyder F.R., Behar K., Shepherd G.M. - Diagnostic Radiology, Yale University, New Haven, CT; Neurobiology, Yale University, New Haven, CT

P11  247  OSCILLATIONS, GABA AND SPIKE TIMING IN THE MOTH MANDUCA SEXTA.
Peters O., Daly K.C. - Biology, 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., Puche A.C., Shipley M.T. - Department of Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD

P13  249  AGE-DEPENDENT MODULATION OF MEPS5CS BY CARBACHOL IN RAT MOB GRANULE CELLS
Ghatpande A., Gelperin A. - Monell Chemical Senses Center, Philadelphia, PA

P14  250  NITRIC OXIDE IS NECESSARY FOR MAINTAINING MANDUCA SEXTA ANTENNAL LOBE NEURON ACTIVITY AND ODOR RESPONSIVENESS.
Nighorn A., Christensen T., Wilson C. - ARL Division of Neurobiology, University of Arizona, Tucson, AZ

P15  251  NITRIC OXIDE SIGNALING IN THE RODENT OLFACTORY BULB.
Lowe G., Ma J., Buerk D.G., Ghatpande A., Alan G. - Monell Chemical Senses Center, Philadelphia, PA; Physiology, 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., Hildebrand J.G. - Neurobiology, University of Arizona, Tucson, AZ

P17  253  IONIC MECHANISMS REGULATING INTRINSIC BUSTING IN MOUSE OLFACTORY BULB EXTERNAL TUFTED CELLS
Liu S., Shipley M.T. - Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD

P18  254  BINARAL INTERACTION MODULATES OLFACTORY BULB RESPONSES TO ODORANT HISTORY.
Singer B.L., Kim S., Zochowski M. - Neuroscience Graduate Program, University of Michigan, Ann Arbor, MI; Department 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 CORTEXES AND THE ENTRORHINAL CORTEX
Hernandez-Ortiz R., Hernandez-Ortiz L. - Psychology, University of Florida, Gainesville, FL

P20  256  NEUROMODULATORY ROLE FOR POST-SYNAPTIC DENSITY 95 (PSD-95) IN THE OLFACTORY BULB
Marks D.R., Fadool D. - Neurosci., Florida State University, Tallahassee, FL; Neurosci. & Mol. Biophysics, Florida State University, Tallahassee, FL

P21  257  DIFFERENCES IN ODOR RESPONSES BETWEEN ANTERIOR AND POSTERIOR PIRIFORM CORTEX
Ilig K.R., Kay R. - Psychology, University of Virginia, Charlottesville, VA

P22  258  EXPERIENCE-DEPENDENT ADAPTATION OF SENSORY SYNAPSES IN THE OLFACTORY BULB
Tyler W.J., Murthy V.N. - Molecular & Cellular Biology, Harvard University, Cambridge, MA
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., Apfelbach R.  Animal Physiology, University of Tübingen, Tübingen, Germany

P26  262  COLUMNAR ORGANIZATION IN THE OLFACTORY BULB  
Willhite D.C., Nguyen K.T., Masurkar A.V., Chen W.R., Greer C.A., Shepherd G.M.  Neurobiology, Yale University, New Haven, CT

P27  263  PATTERNED PROJECTIONS IN THE OLFACTORY BULB FROM OLFACTORY CORTEX REVEALED BY TRANSSYNAPTIC LABELING  
Nguyen K.T., Willhite D.C., Chen W.R., Shepherd G.M.  Neurobiology, Yale University, New Haven, CT

P28  264  ESTIMATING THE NUMBER OF MODULES IN RAT OLFACTORY BULB BY PREDICTION OF ODORANT DESCRIPTORS  
Yamanaoka T., Gutierrez-Osuna R.  Computer Science, Texas A&M University, College Station, TX

Olfactory & Taste Coding

P29  265  SEXUALLY DIFFERENTIATED EXPRESSION OF BDNF AND TRKB ASSOCIATED WITH THE P2 GLOMERULI OF MOUSE MAIN OLFACTORY BULB  
Oliva A.M., Vivekanandan V., Jones K., Restrepo D.  Neuroscience Program, University of Colorado Health Sciences Center, Aurora, CO; University of Colorado at Boulder, Boulder, CO

P30  266  THE SENSE OF SMELL: MULTIPLE OLFACTORY SUBSYSTEMS  
Breer H., Fleischer J., Schwarzenbacher K., Strotmann J.  Institute 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., Chang S., Auclair F., Dubuc R., Zielenki B.  Biological Sciences, University of Windsor, Windsor, Ontario, Canada; Département de Kinanthropologie, Université du Québec à Montréal, Montréal, Quebec, Canada

P32  268  FUNCTIONAL AND SPATIAL IDENTITIY OF MOUSE OLFACTORY GLOMERULI INNervATED BY DEFINED POPULATION OF OLFACTORY RECEPTOR NEURONS  
Oka Y., Katada S., Omura M., Suwa M., Yosihara Y., Touhara K.  Integrated Biosciences, University of Tokyo, Kashiwa, Chiba, Japan; CBRC, National Institute of Advanced Industrial Science and Technology, Tokyo, Japan; RIKEN Brain Science Institute, Saitama, Japan

P33  269  IN VIVO TWO-PHOTON IMAGING OF MITRAL CELL ODOR RESPONSIVENESS  
Nagayama S., Zeng S., Fletcher M.L., Xiong W., Chen W.R.  Department 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., Oka Y., Omura M., Yosihara Y., Touhara K.  Department of Integrated Biosciences, The University of Tokyo, Chiba, Japan; RIKEN Brain Science Institute, Saitama, Japan

P35  271  RESPONSE SPECIFICITY OF OLFACTORY FOREBRAIN UNITS IN THE CHANNEL CATFISH TO AMINO ACIDS  
Nikonov A.A., Caprio J.  Biological Sciences, Louisiana State University, Baton Rouge, LA
P36  272  SELECTIVITY OF BILE SALT RESPONSIVE NEURONS IN THE OLFATORY BULB OF THE CHANNEL CATFISH
Rolen S.1, Caprio J.1  *Biological Sciences, Louisiana State University, Baton Rouge, LA

P37  273  PATTERN RECOGNITION FOR OPTICAL MICROBEAD ARRAYS WITH A NEUROMORPHIC MODEL OF THE OLFATORY BULB
Raman B.1, Kotseros T.2, Lebl M.3, Clark L.3, Gutierrez-Osuna R.1  *Computer Science, Texas A&M University, College Station, TX; *Illumina, Inc., San Diego, CA

P38  274  MICROELECTRODE ARRAY ANALYSIS OF ODORANT-EVOKED SPATIAL ACTIVITY PATTERNS IN PIRIFORM CORTEX.
Rennaker R.1, Ruyte A.1, Chen C.F.2, Wilson D.A.2  *Aerospace and Mechanical Engineering, University of Oklahoma, Norman, OK; *Zoology, University of Oklahoma, Norman, OK

P39  275  OLFATORY EXPERIENCE DE-CORRELATES ENCODING OF MIXTURES FROM COMPONENTS IN RAT PIRIFORM CORTEX.
Kadohisa M.1, Wilson D.A.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.3, Wilson D.A.3  *Cornell University, Ithaca, NY; *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  *Psychology, State University of New York at Binghamton, Binghamton, NY; *Neurology and Neuroscience, Weill Medical College of Cornell University, New York, NY

P42  278  FUNCTIONAL CHARACTERIZATION OF LOBSTER OLFATORY PROJECTION NEURONS
Aggio J.F.1, Ache B.W.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
Riffel I.A.1, Christensen T.C.1, Hildebrand J.G.1  *Div. Neurobiology, University of Arizona, Tucson, AZ
<table>
<thead>
<tr>
<th>Time</th>
<th>Wednesday April 26, 2006</th>
<th>Thursday April 27, 2006</th>
<th>Friday April 28, 2006</th>
<th>Saturday April 29, 2006</th>
<th>Sunday April 30, 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 AM</td>
<td>Continental Breakfast 7:30-9:00</td>
<td>Continental Breakfast 7:30-9:00</td>
<td>Continental Breakfast 7:30-9:00</td>
<td>Continental Breakfast 7:30-9:00</td>
<td>Continental Breakfast 7:30-9:00</td>
</tr>
<tr>
<td>8:00 AM</td>
<td>Symposium on Chemoreception</td>
<td>Symposium on Peripheral and Central Odor Sensation</td>
<td>Symposium on Peripheral and Central Odor Sensation</td>
<td>Symposium on Peripheral and Central Odor Sensation</td>
<td>Symposium on Peripheral and Central Odor Sensation</td>
</tr>
<tr>
<td>9:00 AM</td>
<td>Symposium on Educational Outreach</td>
<td>Symposium on Metabolism of Odorous Substances</td>
<td>Symposium on Metabolism of Odorous Substances</td>
<td>Symposium on Metabolism of Odorous Substances</td>
<td>Symposium on Metabolism of Odorous Substances</td>
</tr>
<tr>
<td>10:00 AM</td>
<td>Symposium on Chemosensory Receptors</td>
<td>Symposium on Scent Perception</td>
<td>Symposium on Scent Perception</td>
<td>Symposium on Scent Perception</td>
<td>Symposium on Scent Perception</td>
</tr>
<tr>
<td>11:00 AM</td>
<td>Symposium on Social Chemicals</td>
<td>Symposium on TRP Channels</td>
<td>Symposium on TRP Channels</td>
<td>Symposium on TRP Channels</td>
<td>Symposium on TRP Channels</td>
</tr>
<tr>
<td>12:00 PM</td>
<td>Executive Committee</td>
<td>AChE Business Meeting</td>
<td>Clinical Luncheon</td>
<td>Clinical Luncheon</td>
<td>CASH LUNCHEON CARTS &amp; BREAKS</td>
</tr>
<tr>
<td>1:00 PM</td>
<td>Registration: 7:30 am-3 pm &amp; 6:30-9:00 pm</td>
<td>1:30 pm 5th Annual Ultimate Frisbee Tournament</td>
<td>2:30-4:30 Workshop on olfactory bulb computations</td>
<td>7:00-8:30 pm Poster Session &amp; Exhibits</td>
<td>7:00-8:30 pm Poster Session &amp; Exhibits</td>
</tr>
<tr>
<td>2:00 PM</td>
<td>12:30-2:30</td>
<td>3:30-5:30</td>
<td>3:30-5:30</td>
<td>3:30-5:30</td>
<td>3:30-5:30</td>
</tr>
<tr>
<td>3:00 PM</td>
<td>Taste &amp; Smell in Translation: Applications from Basic Research</td>
<td>4:00-6:00 Workshop on olfactory function in Neurodegenerative Disease</td>
<td>4:00-6:00 Workshop on olfactory function in Neurodegenerative Disease</td>
<td>4:00-6:00 Workshop on olfactory function in Neurodegenerative Disease</td>
<td>4:00-6:00 Workshop on olfactory function in Neurodegenerative Disease</td>
</tr>
<tr>
<td>4:00 PM</td>
<td>12:45-2:30</td>
<td>5:15-6:45</td>
<td>5:00-7:00</td>
<td>5:00-7:00</td>
<td>5:00-7:00</td>
</tr>
<tr>
<td>5:00 PM</td>
<td>6:30-8:00</td>
<td>7:00-9:30</td>
<td>7:00-11:00</td>
<td>7:00-11:00</td>
<td>7:00-11:00</td>
</tr>
<tr>
<td>6:00 PM</td>
<td>Registration: 7:30 am-1 pm &amp; 6:30-8:00 pm</td>
<td>7:00-8:15</td>
<td>7:00-8:15</td>
<td>7:00-8:15</td>
<td>7:00-8:15</td>
</tr>
<tr>
<td>7:00 PM</td>
<td>Opening Banquet</td>
<td>Poster Session &amp; Exhibits</td>
<td>Poster Session &amp; Exhibits</td>
<td>Poster Session &amp; Exhibits</td>
<td>Poster Session &amp; Exhibits</td>
</tr>
<tr>
<td>8:00 PM</td>
<td>Symposium on Molecular Genetics</td>
<td>Symposium on Neuropharmacology</td>
<td>Symposium on Neuropharmacology</td>
<td>Symposium on Neuropharmacology</td>
<td>Symposium on Neuropharmacology</td>
</tr>
<tr>
<td>9:00 PM</td>
<td>Symposium on Drug-Metabolism &amp; Pharmacology</td>
<td>Symposium on GPCRs</td>
<td>Symposium on GPCRs</td>
<td>Symposium on GPCRs</td>
<td>Symposium on GPCRs</td>
</tr>
<tr>
<td>10:00 PM</td>
<td>Symposium on Social Chemicals</td>
<td>Symposium on Social Chemicals</td>
<td>Symposium on Social Chemicals</td>
<td>Symposium on Social Chemicals</td>
<td>Symposium on Social Chemicals</td>
</tr>
<tr>
<td>Page</td>
<td>Code</td>
<td>Title</td>
<td>Authors</td>
<td>Affiliations</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>280</td>
<td>P44</td>
<td>SPATIAL AND TEMPORAL ORGANIZATION OF ODOR REPRESENTATION BY UNIGLomerular PROJECTION NEURONS IN THE MO TH ANTENNAL LOBE</td>
<td>Namiki S.¹, Kanzaki R.² ¹Graduate School of Life and Environmental Sciences, University of Tsukuba, Tsukuba, Ibaraki, Japan; ²Department of Mechano-Informatics, Graduate School of Information Science and Technology, University of Tokyo, Bunkyo-ku, Tokyo, Japan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>281</td>
<td>P45</td>
<td>ENSEMBLE CODING OF ODOR-BLEND RATIOS IN THE INSECT ANTENNAL LOBE</td>
<td>Martin J.P.¹, Christensen T.A.¹, Hildebrand J.G.¹ ¹ARL Division of Neurobiology, University of Arizona, Tucson, AZ</td>
<td></td>
<td></td>
</tr>
<tr>
<td>282</td>
<td>P46</td>
<td>COMPARATIVE FUNCTIONAL MORPHOLOGY OF MALE-SPECIFIC GLOMERULI IN TWO HELIOThINE MOTH SPECIES, Helicoverpa Zea AND Heliothis Subflexa</td>
<td>Lee S.¹, Carlsson M.A.¹, Hansson B.S.¹, Vickers N.¹, Baker T.C.¹ ¹Entomology, Pennsylvania State University, University Park, PA; ¹Crop Science, SLU, Alnarp, Sweden; ¹Biology, University of Utah, Salt Lake City, UT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chemical Ecology

<table>
<thead>
<tr>
<th>Page</th>
<th>Code</th>
<th>Title</th>
<th>Authors</th>
<th>Affiliations</th>
</tr>
</thead>
<tbody>
<tr>
<td>283</td>
<td>P47</td>
<td>OLFACTORY SHIFTS PARELLEL SUPERSPECIALISM FOR TOXIC FRUIT IN A Drosophila Melanogaster Sibling, D. Sechellia</td>
<td>Dekker T.¹, Ibbi L.², Siju K.³, Stensmyr M.⁴, Hansson B.⁵ ¹Swedish University of Agricultural Sciences, Alnarp, Sweden; ²SLU, Alnarp, Sweden</td>
<td></td>
</tr>
<tr>
<td>284</td>
<td>P48</td>
<td>RELEVANCE OF AGE, SEX, AND ODOR ON THE FORAGING CAPABILITIES OF MANDUCA Sexta.</td>
<td>Williams A. K.¹, Raguso R.¹ ¹Biological Sciences, University of South Carolina, Columbia, SC</td>
<td></td>
</tr>
<tr>
<td>285</td>
<td>P49</td>
<td>CHEMICALS RELEASED BY INJURED OR DISTURBED CONSPECFICS MEDIATE DEFENSIVE BEHAVIORS VIA THE AESTHETASC PATHWAY IN THE SPINY LOBSTER Panulirus Argus</td>
<td>Shabani S.¹, Kamio M.¹, Derby C.¹ ¹Biology, Georgia State University, Atlanta, GA</td>
<td></td>
</tr>
</tbody>
</table>
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 1Duke University, Beaufort, NC; 2Institute for Chemistry and Biology of the Marine Environment (ICBM), University of Oldenburg, Oldenburg, Germany

P51 287 N-ACETYLGULUCOSAMINO-1,5-LACTONE IS A CANDIDATE SEX PHEROMONE IN FEMALE BLUE CRABS
Kamio M.1, Kubanek J.1, Derby C.1 1Biology, Georgia State University, Atlanta, GA; 2Biology, Georgia Institute of Technology, Atlanta, GA

P52 288 ISOLATION AND STRUCTURE ELUCIDATION OF THE SEA LAMPIRE MIGRATORY PHEROMONE
Dvornikov V.1, Fine J.M.1, Hoce T.R.1, Jeffrey C.S.1, Shao F.1, Wang J.3, Vriize L.A.2, Anderson K.R.1, Sorensen P.W.2 1Department of Chemistry, University of Minnesota, Minneapolis, MN; 2Department of Fisheries & Wildlife, University of Minnesota, St. Paul, MN

P53 289 RELEASE, DETECTION, DISCRIMINATION, AND ASSOCIATIVE LEARNING OF CONSPECTIFIC BILE ACIDS BY MIGRATORY RAINBOW TROUT (ONCORHNCHUS MYKISS KAMLOOPS).
Thwaites B.F.1, Fine J.M.1, Sorensen P.W.1 1Fisheries, Wildlife, and Conservation Biology, University of Minnesota, St. Paul, MN

P54 290 PUTATIVE STEROIDAL PHEROMONES: SYNTHESIS SITES AND OLFATORY EPITHELIAL RESPONSES IN THE ROUND GOBY (NEOGOBIUS MELANOSTOMUS).
Jasra S.K.1, Avci Z.1, Corkum L.2, Scott A.P.3, Li W.4, Zieliinski B.5 1Biology, University of Windsor, Windsor, Ontario, Canada; 2University of Windsor, Windsor, Ontario, Canada; 3University of Windsor, Dorset, England, United Kingdom; 4Fisheries and Wildlife, Michigan State University, East Lansing, MI; 5Biological 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.1 1Biology, Swarthmore College, Swarthmore, PA; 2Monell 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.1 1Biology, Swarthmore College, Swarthmore, PA; 2David 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.1, Hatt H.1, McCarty N.A.1 1School of Biology, Georgia Institute of Technology, Atlanta, GA; 2School of Biology, School of Chemistry & Biochemistry, Georgia Institute of Technology, Atlanta, GA; 3Cell Physiology, Ruhr-University Bochum, Bochum, Germany

P58 294 GENETIC MODEL OF HIGH RESPONSIVENESS TO PREDATOR ODOR
Voznesenskaya V.1, Krivomazov G.1, Voznesenskaia A.1, Klyuchnikova M.1 1Institute of Ecology & Evolution RAS, Moscow, Russia

P59 295 THE ROLE OF THE VOMERONASAL ORGAN IN ALARM PHEROMONE PERCEPTION
Kiyokawa Y.1, Kikusui T.1, Takeuchi Y.1, Morii Y.1 1Japan Society for the Promotion of Science, Tokyo, Japan; 2Laboratory of Veterinary Ethology, University of Tokyo, Tokyo, Japan
### Central Olfaction

**Joel White, Session Chair**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Title</th>
<th>Authors</th>
<th>Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>300</td>
<td>GLOMERULAR COMPUTATIONS IN THE OLFACTORY BULB CAN NORMALIZE NEURAL ACTIVATION PATTERNS</td>
<td>Cleland T., Johnson B., Leon M., Linster C.</td>
<td>Dept. Neurobiol &amp; Behav, Cornell Univ, Ithaca, NY; Dept. Neurobiol &amp; Behav, University of California, Irvine, CA</td>
</tr>
<tr>
<td>9:15</td>
<td>301</td>
<td>Olfactory Bulb Glomerular Activity Patterns as a Basis for Odorant Quality Coding: Predicting Perceptual Behavior from 2-DG Functional Maps</td>
<td>Youngentob S.L., Johnson B.A., Leon M., Kent P.F.</td>
<td>Neuroscience and Physiology, SUNY Upstate Medical University, Syracuse, NY; Neurobiology and Behavior, University of California, Irvine, CA</td>
</tr>
<tr>
<td>9:45</td>
<td>303</td>
<td>Relationship Between Sniffing and Odor Representations Imagined from the Olfactory Bulb of Awake Rats</td>
<td>Verhagen J.V., Wesson D.W., Wachowiak M.</td>
<td>Biology, Boston University, Boston, MA</td>
</tr>
<tr>
<td>10:00</td>
<td>304</td>
<td>Adrenergic Enhancement of GABA Inhibitory Transmission in the Olfactory Bulb</td>
<td>Araneda R.C., Firestein S.</td>
<td>Biological Sciences, Columbia University, New York, NY</td>
</tr>
</tbody>
</table>
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.: Monell Chemical Senses Center, Philadelphia, PA

11:00 306 LEARNING TO SMELL: CORTICAL PLASTICITY AND ODOR PERCEPTION
Wilson D.A.: Zoology, University of Oklahoma, Norman, OK

11:30 307 NEURAL POPULATION CODING OF SATIETY STATES
De Araujo L.: Neurobiology, Duke University, Durham, NC

12:00 308 HEDONIC ASPECTS OF CHEMICAL STIMULI: CORTICOLIMBIC CIRCUITS THAT MEDIATE REWARD AND CHOICE.
Balleine B.: Psychology, 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., Firestein S.: Center for Neurobiology and Behavior, Columbia University, New York, NY; Dept. 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 &ALPHA;Q11 SUBFAMILY OF G-PROTEINS.
Thompson R.N., Napier A., Weneke K.: Biological Sciences, Alabama State University, Montgomery, AL

P3 311 ARACHIDONIC ACID PLAYS A ROLE IN THE ODOR RESPONSES OF MOUSE VOMERONASAL NEURONS
Zhang P., Delay R.: Biology Department, University of Vermont, Burlington, VT

P4 312 FEMALE SNAKE SEX PHEROMONE INDUCES MEMBRANE RESPONSES IN VOMERONASAL SENSORY NEURONS OF MALE SNAKES
Huang G., Zhang J., Wang D., Mason R., Halpern M.: Anatomy and Cell Biology, State University of New York (SUNY), Brooklyn, NY; Anatomy and Cell Biology, SUNY Downstate Medical Center, Brooklyn, NY; Biochemistry, SUNY Downstate Medical Center, Brooklyn, NY; Zoology, Oregon State University, Oregon, OR

P5 313 EVIDENCE FOR A PERIREECEPTOR ROLE FOR HARDERIAN GLAND SECRETIONS IN GARTER SNAKES: DELIVERY OF PHEROMONE MOLECULES TO THE VOMERONASAL ORGAN
Mason R.T., Wang D.T., Chen P., Halpern M.: Zoology, Oregon State University, Corvallis, OR; Biochemistry, State University of New York Health Science Center at Brooklyn, Brooklyn, NY; Anatomy & 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., Feldhoff R.C., Feldhoff P.W., Houck L.: Cell Biology, University of Oklahoma, Oklahoma City, OK; Biochemistry and Molecular Biology, University of Louisville, Louisville, KY; Zoology, Oregon State University, Corvallis, OR

P7 315 SYNTHESIZED MALE SEA LAMPREY PHEROMONE SUMMONS CONSPECIFIC FEMALES TO TRAPS
Li W., Johnson N., Yun S.: Fisheries and Wildlife, Michigan State University, East Lansing, MI

P8 316 REFLECTIONS AMONG ASIAN ELEPHANTS: CHIRALITY COUNTS
Rasmussen L., Greenwood D.R.: Environmental & Biomolecular Systems, Oregon Health & Science University, Beaverton, OR; School 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
Hurtado H.A., Agmo A., Paredes R.G. 1 Instituto de Neurobiología, Universidad Nacional Autónoma de México, Querétaro, Mexico; 2Department of Psychology, University of Tromso, Tromso, Norway

P10  318 VNO/AOB FUNCTION IN THE ABSENCE OF MOB INPUT FROM OLFACTORY EPITHELIUM
Slotnick B., Restrepo D., Lin W., Sanguino A., Schellinck H., Archbold G., Marquino G. 1 Psychology, University of South Florida, Tampa, FL; 2Cellular Biology, University of Colorado, Aurora, CO; 3Psychology, 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., Botros J., Baum M.J. 1 Department of Biology, Boston University, Boston, MA

P12  320 RESPONSE OF OPOSSUM ACCESSORY OLFACTORY BULB NEURONS TO URINE
Zhang J., Huang G., Halpern M. 1 Anatomy and Cell Biology, State University of New York (SUNY), Brooklyn, NY; 2Anatomy and Cell Biology, SUNY Downstate Medical Center, Brooklyn, NY

P13  321 NORADRENERGIC MODULATION OF SYNAPTIC TRANSMISSION FROM MTRAL TO GRANULE CELLS IN THE ACCESSORY OLFACTORY BULB
Kaba H., Huang G., Zhou Y., Taniguchi M. 1 Department of Integrative Physiology, Kochi Medical School, Nankoku, Kochi, Japan

P14  322 MEDIAL AMYGDALA RESPONSES TO CHEMOSENSORY STIMULI FROM SAME- AND DIFFERENT- SPECIES
Samuelson C., Blake C., Case G., Meredith M. 1 Biological Science, Florida State University, Tallahassee, FL

Chemosensation & Major Histocompatibility Molecules

P15  323 VOLATILE MHC ODOR TYPES

P16  324 FETAL ODOR TYPES: CONTRIBUTIONS OF MHC AND BACKGROUND GENETIC VARIATION
Yamazaki K., Curran M., Beauchamp G.K. 1 Monell Chemical Senses Center, Philadelphia, PA

P17  325 BACKGROUND STRAIN DEPENDENCE OF MHC-RELATED ODORANTS

P18  326 DETECTION OF THE SAME SOCIAL CUES BY THE MAIN AND ACCESSORY OLFACTORY SYSTEMS: DIRECT COMPARISON OF THEIR FUNCTIONS
Spehr M., Kelliber K., Li X., Boehm T., Leinders-Zufall T., Zufall F. 1 Department of Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD; 2MPI Immunobiology, Freiburg, Germany

P19  327 A ROLE FOR MAJOR HISTOCOMPATIBILITY MOLECULES IN THE MAIN OLFACTORY BULB
Salcedo E., Restrepo D. 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
Human Imaging & Social Chemosignals

P21 329 PROBING FUNCTIONALITY OF THE HUMAN VNO
Wyart C., 1 Webster W., 1 McClary A., 1 Sobel N. 1 1Psychology, University of California, Berkeley, Berkeley, CA; 1Kaiser Medical, Berkeley, CA; 1Neuroscience, University of California, Berkeley, CA

P22 330 FUNCTIONAL NEURONAL PROCESSING OF BODY ODORS DIFFERS FROM THAT OF COMMON ODORS
Lundstrom J., 1 Boyle J., 1 Zatorre R., 1 Jones-Genman M. 1 1Montreal Neurological Institute, McGill University, Montreal, Quebec, Canada

P23 331 DIFFERENT CEREBRAL ACTIVATION PRODUCED BY A PUTATIVE SOCIAL CHEMOSIGNAL AND PERCEPTUALLY SIMILAR ODORANTS
Gerber J., 1 Benedi M., 1 Husser A., 1 Frasnelli J., 1 Reden J., 1 Hummel T. 1 1University of Dresden, Dresden, Germany; 1Neuroscience, University of California, Berkeley, Berkeley, CA; 1ENT Department, University of Basel, Basel, Switzerland; 1ENT, University of Dresden, Dresden, Germany

P24 332 CULTURE, OlfACTION AND COGNITION: MULTIDIMENSIONALITY OF ‘CULTURALLY SCENTED KNOWLEDGE’
Damhuis C. 1 1Monell 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 1Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel

P26 334 A NEW STRUCTURAL SUB-CLASS OF OLFACTOR Y RECEPTORS
Lai P.C., 1 Bahl G., 1 Clot-Faybesse O., 1 Matarazzo V., 1 Crasto C.I. 1 1Molecular and Cell Biology, University of Connecticut, Storrs, CT; 1University of San Diego School of Medicine, San Diego, CA; 1Laboratoire de Neurogénétique, L'Université de Provence, Marseille, Marseille, France; 1Neurobiology, Yale University, New Haven, CT

P27 335 CHARACTERIZATION OF A NOVEL HUMAN TESTICULAR ODORANT RECEPTOR
Triller A., 1 Schwane K., 1 Riffig J.A., 1 Panten J., 1 Zimmer R.K. 1 1Cell Physiology, Ruhr-University, Bochum, Germany; 1Neurobiology, University of Arizona, Tucson, AZ; 1RD Syntheses New Molecules FRA, Synm Gas GmbH, Holmnden, Germany; 1Ecology and Evolution, University of California, Los Angeles, CA; 1Neurology and Neurobiology, University of Maryland School of Medicine, Baltimore, MD

P28 336 HIGHTHROUGHPUT SCREENING SYSTEM FOR OLFACTOR Y RECEPTORS
Sallmann P.R., 1 Wilkin F., 1 Philippe M., 1 Van Osselaer C., 1 Veiten A. 1 1ChemCom s.a., Brussels, Belgium

P29 337 FUNCTIONAL ANALYSIS OF THE MOUSE ODORANT RECEPTOR MOR42 SUBFAMILY
Abfatory T., 1 Matsunami H., 1 Luetje C. 1 1Pharmacology, University of Miami, Miami, FL; 1MG, Duke University, Durham, NC

P30 338 EXPLORING THE MOLECULAR RECEPTIVE RANGES OF MAMMALIAN ODORANT RECEPTORS
Repicky S.E., 1 Matsunami H., 1 Luetje C.W. 1 1Molecular and Cellular Pharmacology, University of Miami, Miami, FL; 1MG, Duke University, Durham, NC

P31 339 DECIPHERING THE MOLECULAR BASIS OF HUMAN OLFACTOR Y THRESHOLD VARIATIONS
Menashe I., 1 Hasein Y., 1 Doron L. 1 1Dept. 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 1Department of Integrated Biosciences, The University of Tokyo, Chiba, Japan

P33 341 CHANGES IN OLFACTOR Y RECEPTOR EXPRESSION IN AGING MICE
Lee A.C., 1 Tian H., 1 Ma M. 1 1Neuroscience, University of Pennsylvania, Philadelphia, PA

P34 342 SIGNATURES OF AGING: PROFILES OF GENE REGULATION IN THE MURINE OLFACTOR Y EPITHELIUM
Getchell T.V., 1 Hersh M.A., 1 Vaishnav R.A., 1 Saunders C.P., 1 Liu H., 1 Stromberg A.J. 1 1Physiology, University of Kentucky, Lexington, KY; 1Statistics, University of Kentucky, Lexington, KY; 1Neurology & Neurobiology, University of Kentucky, Lexington, KY
Molecular Genetics – Vomeronasal Receptors

P37 345 POTENTIATION AND INHIBITION AMONG ODORANTS ACTING ON HUMAN V1N-TYPE RECEPTORS
Shirokova E., Krautwurst D.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., Kimoto H., Yanagawa T., Sato K., Touhara K.1 The University of Tokyo, Chiba, Japan

Molecular Genetics – Insect Chemoreceptors

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

P41 349 EXPANSION OF THE HONEY BEE ODORANT RECEPTOR FAMILY SUPPORTS THE INEUNN-1OR/2GLOMERULUS MODEL OF INSECT OLFACATION
Robertson H.M.1, Wanner K.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.1, Trowell S.1, Theilmann D.1, Robertson H.M.1, Newcomb R.1 Entomology, University of Illinois at Urbana-Champaign, Urbana, IL; School of Biological Sciences, Monash University, Victoria, Victoria, Australia;
Entomology, CSIRO, Acton, Australian Capital Territory, Australia; Parc, Agriculture and Agri-Food Canada, Summerland, British Columbia, Canada; Gene Technologies, HortResearch, Auckland, New Zealand

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

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

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

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

P48 356 DROSOPHILA SUGAR RECEPTORS
Dahanukar A.1, Carlson J.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 AGIO IN FEMALE ANTENNAE
Ruetzler M.R.1, Zweibel L.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, Peerce J.L.1, Li X.J.1, Boughter J.D.1, Lu L.1, Williams R.W.1, Waters R.S.1  
1Anatomy 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.1, Spielman A.1, Brand J.G.1  
1Monell Chemical Senses Center, Philadelphia, PA; 2Dental Medicine, V.A. Medical Center, Philadelphia, PA; 3New 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, Bufo B.1, Kratochwil N.1, Slack J.P.1, Meyerhof W.1  
1Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany; 2Pharmaceuticals Division Chemistry, F. Hoffmann-La Roche Ltd, Basel, Switzerland; 3Givaudan Flavors Corp., Cincinnati, OH

**P53 361** TASTE RECEPTORS FOR GLUTAMATE IN HUMAN FUNGIFORM PAPILLAE  
Marian R.1, Boucher Y.2, Wienci S.3, Bezirad V.4, Pernollet J.5, Trotier D.5, Fauron A.5, Montmayeur J.5  
1University of Paris 7, Jouy en Josas, France; 2University Paris 7, Paris, France; 3CNRS/INRA/UB, Dijon, France; 4INRA, Jouy en Josas, France; 5CNRS/INRA, Jouy en Josas, France; 6Centre National de la Recherche Scientifique, Dijon, France

**P54 362** POSITIONAL CLONING APPROACH TO IDENTIFICATION OF THE SUCROSE OCTACETATE AVERSION (SOA) LOCUS  
Bosak N.P.1, Theodorides M.L.1, Beauchamp G.K.1, Bachmanov A.A.1  
1Monell 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  
1Physiology & Biophysics, Mount Sinai School of Medicine, New York, NY; 2Mount Sinai School of Medicine, New York, NY; 3Neuroscience, Mount Sinai School of Medicine, New York, NY

**P56 364** PROBING THE ASPARTAME BINDING SITE OF HUMAN T1R2  
Maillet E.1, Cui M.1, Jiang P.1, Ahmed F.1, Zhao B.1, Osman R.1, Margolskee R.F.1, Max M.1  
1Neuroscience, Mount Sinai School of Medicine, New York, NY; 2Physiology & 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.1, LopezJimenez N.1, Battey J.F.1, Northup J.K.1, Sullivan S.L.1  
1National 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 (TRPV1)  
Rhyu M.1, Ogasawara M.1, Egi M.2, Phan T.T.1, DeSimone J.A.2, Heck G.L.1, Lyall V.1  
1Food Function Research Division, Korea Food Research Institute, Korea; 2Department Biotechnology, University of Seoul, South Korea; 3Food Creation Center, Kyowa Hakko Food Specialities Co., Ltd., Ami-machi, Ibaraki Prefecture, Japan; 4Physiology, Virginia Commonwealth University, Richmond, VA

**P59 367** EFFECT OF N-GERANYL CYCLOPROPYL CARBOXAMIDE (NGCC) ON TRPV1 VARIANT SALT TASTE RECEPTOR (TRPV1)  
Dewis M.L.1, DeSimone J.A.2, Phan T.T.1, Heck G.L.1, Lyall V.3  
1Flavor Ingredients R&D, International Flavors & Fragrances, Union Beach, NJ; 2Physiology, 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  
1Biology & 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.1, Wright M.J.1, Martin N.G.1, Breslin P.A.1  
1Queensland Institute of Medical Research, Brisbane, Queensland, Australia; 2Monell Chemical Senses Center, Philadelphia, PA
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 OLFATORY BULB NEURONS
Schoppa N.1 1Physiology and Biophysics, University of Colorado Health Sciences Center, Aurora, CO

3:00  371  OPTICAL STUDIES OF ACTIVE PROPERTIES IN DENDRITES OF OLFATORY BULB NEURONS
Delaney K.1, Zelles T.2, Davison I.3, Hardy A.1 1Biology, University of Victoria, Victoria, British Columbia, Canada; 2Institute for Experimental Medicine, Hungarian Academy of Science, Budapest, Hungary; 3Neuroscience, Duke University, Durham, NC

3:30  372  PERSISTENT ACTIVITY IN INHIBITORY LOCAL CIRCUITS IN THE OLFATORY BULB
Strowbridge B.1, Pressler T.1 1Department of Neurosciences, Case Western Reserve University, Cleveland, OH

4:00  373  AN ACCOUNT OF ODOR DISCRIMINATION TIMES IN THE MAMMALIAN Olfactory System
Margie T.1 1The Department of Physiology, University College London, London, United Kingdom

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 1Smell & Taste Research Unit, Essex Neuroscience Centre, London, United Kingdom

7:15  375  ALTERED CHEMOSENSES IN PARKINSON’S DISEASE
Muhammed N.1, Deeb J.1, Shah M.1, Findley L.1, Hawkes C.H.1 1Smell & 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 1Smell and Taste Center, University of Pennsylvania, Philadelphia, PA; 2Psychology, 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.1, Rawson N.E.1, Rosen D.1, Scherer P.W.1, Klock C.T.1, Vainius A.A.1, Dalton P.1 1Monell Chemical Senses Center, Philadelphia, PA; 2Otolaryngology-Head & Neck Surgery, Thomas Jefferson University, Philadelphia, PA; 3Bioengineering, 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 Cedex 9, 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.3
       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 GOLDFISH
       Hallock R.1, Ikenaga T.1, Finger T.E.1 1Psychology, State University of New York at Binghamton, Denver, CO; 1Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO; 1Cellular 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; 1Nursing, Chonnam University Medical School, Gwangju, South Korea

P7  388  EXCITATORY POSTSYNAPTIC ACTIVITY OF THE RAT INFERIOR SALIVATORY NUCLEUS NEURONS
       Kim M.1, Suwabe T.1, Chiego D.J.1, Bradley R.M.1 1Nursing, Chonnam University Medical School, Gwangju, South Korea; 1Biologic & Materials Sciences, University of Michigan, Ann Arbor, MI; 1Cariology, 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.1 1Kangnung National University, Kangnung, Kangwondo, South Korea; 1Anatomy, Southern Illinois University, Carbondale, IL
P10  391  VAGAL GUSTATORY REFLEX SYSTEMS IN GOLDFISH  
Ikenaga T., Ogura T., Finger T.E.  
*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., Finger T.E.  
*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., Frias C., Regalado M., Torrero C., Salas M.  
*Developmental Neurobiology and Neurophysiology, Universidad Nacional Autónoma de Mexico, Querétaro, 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., Garcea M., Stolzeberg D.S., Spector A.C.  
*Dept. of Psychology, Stetson Univ., DeLand, FL; *Dept. of Psychology & 
Center for Smell and Taste, Univ. of Florida, Gainesville, FL

P14  395  LICKING AND GAPING ELICITED BY NST 
MICROSTIMULATION  
Kinzeler N.R., Travers S.P.  
*Psychobiology and Behavioral Neuroscience, Ohio State University, Columbus, OH; *Oral 
Biology, Ohio State University, Columbus, OH

P15  396  MELANIN CONCENTRATING HORMONE INCREASES 
BRIEF-ACCESS LICKING FOR SUCROSE AND WATER BUT 
NOT QUININE HYDROCHLORIDE  
Baird J.P., Rios C., Walsh C.E., Pecora A.L.  
*Psychology & Neuroscience, Amherst College, Amherst, MA; *Psychology, 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., Delmond J., Maddox L.C.  
*Biology, Stetson University, DeLand, FL; *Daytona Beach Community College, Daytona Beach, FL

Central Taste – Gustatory Cortex & Amygdala

P17  398  ALTERED PARABRAChIAL TASTE PROCESSING IN 
OBESO OLETF RATS  
Lundy R., Hajnal A.  
*Anatomical Sciences and Neurobiology, University of Louisville, Louisville, KY; *Neural and Behavioral 
Sciences, Pennsylvania State University, Hershey, PA

P18  399  THE PROPERTIES OF INHIBITORY TASTE NEURONS IN 
THE PARABRAChIAL NUCLEUS OF RATS  
Lei Q., Yan J., Yang X., Shi J., Chen K.  
*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., Cho Y.K.  
*Anatomy, Southern Illinois University, 
Carbondale, IL; *Physiology & Neuroscience, Kangnung National 
University College of Dentistry, Kangnung, Kangwon-do, South 
Korea

Central Taste – Parabrachial Nucleus

P20  401  ENSEMBLE RESPONSES OF GUSTATORY CORTICAL 
NEURONS ACCURATELY PREDICT TASTANT IDENTITY  
Jones L.M., Fontanini A., Katz D.B.  
*Brandeis University, Waltham, MA

P21  402  GUSTATORY CORTEX ENCODES MULTIPLE FEATURES 
DURING AN INTENSITY DISCRIMINATION TASK  
MacDonald C.J., Nicoletis M.A., Simon S.A.  
*Psychological and Brain Sciences, Duke University, Durham, NC; *Department of 
Neurobiology, Duke University, Durham, NC

P22  403  ANTICIPATORY CORTICAL ACTIVITY IN A TASTE 
DISCRIMINATION TASK  
Gutierrez R.M., Nicoletis M.A., Simon S.A.  
*Neurobiology, Duke University, Durham, NC; *Anesthesiology, Duke University, 
Durham, NC

P23  404  GENDER DIFFERENCES IN ACTIVATION WITHIN THE OFC 
IN RESPONSE TO TASTE STIMULI WITH POSITIVE OR 
NEGATIVE VALUE ARE RELATED TO HUNGER AND 
SATIETY  
Haase L.B., Cerf-Ducastel B., Kemmotsu N., Green E., 
Jacobson A., Miller M., Murphy C.  
*Psychology, San Diego State University, San Diego, CA
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 1Biology, 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 1Biology, 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 1Biology, 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 1Life Sciences, Arizona State University, Tempe, AZ; 2School of Biology, University of Newcastle upon Tyne, Newcastle, United Kingdom; 3Entomology, Ohio State University, Columbus, OH

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 1Department of Biology, University of Vermont, Burlington, VT

P36 417 RELATIONSHIPS BETWEEN Insulin RELEASE AND TASTE. Tonosaki K.1 1Meikai University, Sakatoshi, Japan

P37 418 TASTE FUNCTIONS AFTER GASTRIC BYPASS SURGERY IN DIETARY AND GENETIC OBESE Rats. Hajnal A.1, Ahmed T.A.3, Khokhar S.1, Acharya N.1, Cooney R.N.2 1Neural and Behavioral Sciences, PennState Univ., College of Medicine, Hershey, PA; 2Surgery, PennState Univ. College of Medicine, Hershey, PA

P38 419 TEMPERATURE MODULATES BEHAVIORAL RESPONSES TO SUCROSE TASTE IN THE RAT. Breza J.M.1, Curtia K.S.1, Contreras R.J.1 1Program in Neuroscience, Florida State University, Tallahassee, FL

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 1Biology Dept., University of Scranton, Scranton, PA

P32 413 FUNCTIONAL ANATOMY OF SYNAPTIC PLASTICITY MEDIATING OLFACTORY LEARNING. Jones S.V.1, Stanke-Rattiner L.1, Ressler K.1 1Psychiatry & Behavioral Sciences, Emory University, Atlanta, GA

P33 414 OLFACTORY MASKING IN BEHAVIORALLY-TRAINED MICE. Smith D.W.1, Culpepper M.1, Heil T.1 1Department 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.1, Firestein S.1 1Columbia University, New York, NY; 2University Hospital of Zürich, Zürich, Switzerland
Saturday, April 29, 2006

Taste & Olfactory Discrimination

P39 420 EVALUATING THE LIMITS OF CANINE OLFACTORY Seward M.K., Latchney S.E., Horning D.E. *St. Lawrence University, Canton, NY

P40 421 INHIBITION OF MUSCARINIC ACETYLCHOLINE RECEPTORS ALTERS PERFORMANCE OF MICE IN AN ODOR DISCRIMINATION TASK Schutzmman J.J., Cleveinger A.C., Doucette W.J., Caldwell S.M., Salcedo E.J., Restrepo D.C. *Neuroscience Program, University of Colorado Health Sciences Center, Aurora, CO; Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO

P41 422 SPEED ACCURACY TRADEOFF IN OLFACITION Rinberg D., Roulaud A., Gelperin A. *Monell Chemical Senses Center, Philadelphia, PA; 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., Mandairon N., McNamara A., Stack C., Linster C. *Cornell University, Ithaca, NY; *Neurobiology and Behavior, Cornell University, Ithaca, NY

P43 424 BROAD ACTIVATION OF THE Olfactory BULB PRODUCES LONG-LASTING CHANGES IN ODOR PERCEPTION IN RATS Mandairon N., Kiselyczynk C.L., Stack C., Ferreti C., Linster C. *Cornell University, Ithaca, NY; *Neurobiology and Behavior, Cornell University, Ithaca, NY

P44 425 SNiffING PATTERNS OF RATS DURING LEARNING AND PERFORMANCE OF ODOR DISCRIMINATION TASKS. Wesson D.W., Verhagen J.V., Wachowiak M. *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.J., Voolk M.S., Shepherd G.M.R., Laska M. *Neurobiology, Yale University, New Haven, CT; *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., Adamson A.C., Bramlett M.L., Evans S., Gasque L., Lister R. *Psychology, Wofford College, Spartanburg, SC

P47 428 SALT DISCRIMINATION IN RATS WITH CROSS-REGENERATED LINGUAL GUSTATORY NERVES. Blonde G., Jiang E., Garcea M., Spector A.C. *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., McLaughey S., Tordoff M., Baird P.J. *Psychology & Neuroscience, Amherst College, Amherst, MA

P49 430 DISCRIMINATION AND POST-INGESTIVE EFFECTS IN TRPM5/- MICE De Araujo L.E., Riffith A., Nicolesis M.A., Simon S.A. *Neurobiology, Duke University, Durham, NC; *Anesthesiology, Duke University, Durham, NC

P50 431 BEHAVIORAL ANALYSIS OF THE TASTE OF LAMINO ACIDS IN MICE Murata Y., Bachmanov A.A., Beauchamp G. *National Research Institute of Fisheries Science, Yokohama, Kanagawa, Japan; Monell Chemical Senses Center, Philadelphia, PA

P51 432 A HIGH-THROUGHPUT METHOD TO MEASURE NaCl DETECTION THRESHOLD IN MICE Ishiwata Y., Beauchamp G.K., Bachmanov A.A. *Ajinomoto Co., Inc., Kawasaki, Japan; *Monell Chemical Senses Center, Philadelphia, PA

P52 433 A NEW METHOD OF ASSESSING TASTE QUALITY GENERALIZATION IN RATS Grobe C.L., Spector A.C. *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., White T.L., Youngentob S.L. *Psychology, Le Moyne College, Syracuse, NY; *SUNY - Upstate Medical University, Syracuse, NY

P54 435 BEHAVIORAL TESTING OF SALT TASTE SENSITIVITY IN TRPV1 KNOCK-OUT MICE Treneskosol Y., Spector A.C. *Department of Psychology & Center for Smell and Taste, University of Florida, Gainesville, FL

P55 436 CYCLOHEXIMIDE: NO ORDINARY TASTE STIMULUS Hettinger T.P., Formaker B.K., Frank M.E. *Oral Health & Diagnostic Sciences, UCONN Health Center, Farmington, CT
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
Ganchow D.1, Witt M.2, Ganchow J.3, Arki-Burstyn E.1 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, Solars S.I.1 1Psychology, University of Nebraska at Omaha, Omaha, NE

P5 446 WITHDRAWN

P6 447 WT1-CATENIN SIGNALING MODULATES DEVELOPMENT OF TASTE PRIMORDIA
Thirumangalathu S.1, Stoick-Cooper C.L.1, Moon R.T.2, 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 FORMATION  
Liu H.X., Henson B.S., Zhou Y.Q., D'Silva N.J., Mistretta C.M. 
*School of Dentistry, University of Michigan, Ann Arbor, MI

P8 449  CANONICAL WNT SIGNALING DURING TASTE PAPILLAE FORMATION  
Iwatsuki K., Liu H., Mistretta C., Margolskee R.F. 
*Neuroscience, Mount Sinai School of Medicine, New York, NY; 
*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., Mistretta C.M. 
*School of Dentistry, University of Michigan, Ann Arbor, MI

P10 451  BDNF AND NT3 ATTRACT TRIGEMINAL NEURITES  
Egwiekhor A., Vatterott P., Rochlin M.W. 
*Biology, Loyola University of Chicago, Chicago, IL

P11 452  BDNF ATTRACTS GENICULATE NEURITES, NT4 DOESN'T  
Rochlin M.W., Vatterott P., Egwiekhor A. 
*Biology, Loyola University of Chicago, Chicago, IL

Chemosensory Neurogenesis and Neurotrophic Factors

P12 453  HYPER-INNERRATION WITH PRESERVATION OF TASTE BUD-NEURON SPECIFICITY IN MICE OVER-EXPRESSING NEUROTROPHIN IN THE TONGUE EPITHELIUM  
Zaidi F., Krimm R.F., Whitehead M.C. 
*Howard Hughes Medical Institute, University of California, San Diego, La Jolla, CA; 
*Anatomical Sciences and Neurobiology, University of Louisville, Louisville, KY; 
*Surgery/Anatomy, University of California, San Diego, La Jolla, CA

P13 454  EXPRESSION OF TROPHIC FACTORS AND THEIR RECEPTORS IN A PRIMARY TASTE CELL CULTURE SYSTEM  
Ozdener H., Rawson N.E. 
*Monell Chemical Senses Center, Philadelphia, PA

P14 455  DIFFERENTIAL POSTNATAL DEVELOPMENT OF GUSTATORY NERVE TERMINAL FIELDS IN CONTROL RATS AND E3-E12 SODIUM-RESTRICTED RATS  
Mangold J.E., Hill D.L. 
*Psychology, University of Virginia, Charlottesville, VA

P15 456  MYCN IS REQUIRED FOR PROPER OLFACTORY EPITHELIUM DEVELOPMENT  
Nickell M.D., Hardin D.H., McClintock T.S. 
*Physiology, University of Kentucky, Lexington, KY

P16 457  RESTIN IS EXPRESSED BY A SUBSET OF EMBRYONIC AND POSTNATAL OE PROGENITORS  
Murdoch B., Janzen N., Roskams A. 
*Zoology, University of British Columbia, Vancouver, British Columbia, Canada

P17 458  HORIZONTAL BASAL CELLS ARE MULTIPOTENT NEURAL PROGENITORS IN OLFACTORY EPITHELIUM  
Leung C.T., Reed R.R. 
*Molecular Biology and Genetics, Johns Hopkins University, Baltimore, MD

P18 459  MACROPHAGE DEPLETION IN MURINE OLFACTORY EPITHELIUM LEADS TO DECREASED NEUROGENESIS  
*Physiology, University of Kentucky, Lexington, KY; 
*Anatomy and Neurobiology, University of Kentucky, Lexington, KY; 
*Microbiology and Immunology, University of Kentucky, Lexington, KY

P19 460  MOUSE MODEL OF A HUMAN GENE POLYMORPHISM IN THE PRODOMAIN OF BDNF (VAL66MET) ALTERS NEUROGENESIS IN THE OLFACTORY SYSTEM  
Bath K.G., Chen Z., Jing D., Lee F.S. 
*Psychiatry, Weill Medical College of Cornell, New York, NY

P20 461  FRESH POSTMORTEM HUMAN OLFACTORY BULB CULTURES TO STUDY NEUROGENESIS  
Murrow B., Restrepo D. 
*Otolaryngology, University of Colorado Health Sciences Center, Denver, CO; 
*Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO

P21 462  GROWTH FACTORS AND RECEPTORS IN THE OLFACTORY EPITHELIUM  
Bergman D.A., Sammeta N., McClintock T.S. 
*Basic Science: Physiology, University of Kentucky, Lexington, KY

P22 463  PURINERGIC RECEPTOR ACTIVATION EVOKEs NEUROTrophic FACTOR NPY RELEASE FROM MOUSE OLFACTORY EPITHELIAL (OE) SLICES  
Kanekar S., Hegg C. 
*Physiology, University of Utah, Salt Lake City, UT
Developmental – Olfactory

P23 464 SDF-1/CXCR4 SIGNALING REGULATES CELL MIGRATION IN THE EMBRYONIC OLFATORY SYSTEM
Schwarting G.1, Henion T.R.1, Tobet S.2 1University of Massachusetts Medical School (Worcester), Waltham, MA; 2Biomedical Sciences, Colorado State University, Fort Collins, CO

P24 465 PROTODADHERIN 20 EXPRESSION IS RESTRICTED IN THE NEWLY DIFFERENTIATED OLFATORY SENSORY NEURONS
Lee W.1, Gong Q.1 1Cell Biology and Human Anatomy, University of California, Davis, CA

P25 466 LOCALIZATION OF NUCLEAR RETINOIC ACID RECEPTORS, RAR AND RXR IN POSTNATAL RODENT OLFATORY EPITHELIUM
Asson-Bates M.1, Smith W.1, Ahmad O.1, Zeng M.2 1Biological Sciences, Tennessee State University, Nashville, TN; 2Sun Yat-sen University, Guangzhou, China

P26 467 METHYL BINDING DOMAIN PROTEINS IN THE STAGE-SPECIFIC DIFFERENTIATION OF OLFATORY RECEPTOR NEURONS
MacDonald J.L.1, Roskams J.2 1Neuroscience Graduate Program, University of British Columbia, Vancouver, British Columbia, Canada; 2Zoology, University of British Columbia, Vancouver, British Columbia, Canada

P27 468 EXPRESSION OF TRANSCRIPTIONAL REGULATORS IN OLFATORY SENSORY NEURONS
Sammeta N.1, McClintock T.1 1Basic Science: Physiology, University of Kentucky, Lexington, KY; 2Physiology, University of Kentucky, Lexington, KY

P28 469 WNT AND FZ IN THE DEVELOPING MOUSE OLFATORY SYSTEM
Rodriguez Gil D.1, Greer C.A. 1Neurosurgery, Yale University, New Haven, CT; 2Neurobiology, Yale University, New Haven, CT

P29 470 EXPRESSION OF AXON GROWTH AND GUIDANCE GENES IN IMMATURE OSMs.
McIntyre J.C.1, McClintock T.S.1 1Basic Science: Physiology, University of Kentucky, Lexington, KY

P30 471 GENE-TARGETED DELETION OF KV1.3 CHANNEL ALTERS OLFATORY RECEPTOR GENE EXPRESSION AND MODIFIES PRIMARY OLFATORY PROJECTIONS
Biju K.C.1, Walker D.W.1, Fadool D.A.1 1Department of Biological Science, Programs in Neuroscience and Molecular Biophysics, The Florida State University, Tallahassee, FL

P31 472 SIGNALING MOLECULES INVOLVED IN REGULATING MOUSE OLFATORY AXON OUTGROWTH
Chen H.1, Gong Q.1 1Cell Biology and Human Anatomy, University of California, Davis, Davis, CA

P32 473 MEDIATION OF CELL SIGNALING EVENTS IN DEVELOPING OLFATORY SYSTEM OF MANDUCA Sexta BY LIPID RAFTS
Gibson N.J.1, Hildebrand J.G.1, Tolbert L.P.1 1ARL Div. of Neurobiology, University of Arizona, Tucson, AZ

P33 474 DISRUPTION OF KALLMANN AND FGFR1 GENE FUNCTION IN ZEBRAFISH DIFFERENTIALLY AFFECTS GNRH AND OLFATORY CELL DEVELOPMENT
Kim H.K.1, Smith K.M.1, Whitlock K.E.1 1Dept. Molecular Biology and Genetics, Cornell University, Ithaca, NY

P34 475 EXPRESSION OF GONADOTROPIN-RELEASING HORMONE (GNRH) AND GONADOTROPIN RELEASING HORMONE RECEPTORS (GNRH-R) IN THE ZEBRAFISH Twomey S.L.1, Ililing N.1, Brideau N.1, Smith K.1, Whitlock K.1 1Molecular Biology and Genetics, Cornell University, Ithaca, NY

P35 476 ODORANT MODULATION OF IMMEDIATE EARLY GENE EXPRESSION IN THE ZEBRAFISH OLFACTORY EPITHELIUM
McKenzie M.G.1, Harden M.V.1, Whitlock K.E.1 1Dept. of Molecular Biology and Genetics, Cornell University, Ithaca, NY

P36 477 FORMATION OF THE OLFACTORY PLACODE IN THE ZEBRAFISH, DANO RERIO
Harden M.V.1, Yang Z.1, Lin S.1, Whitlock K.E.1 1Dept. of Molecular Biology and Genetics, Cornell University, Ithaca, NY; 2Dept. of Molecular, Cellular and Developmental Biology, University of California, Los Angeles, CA

P37 478 METAMORPHOSIS OF AN OLFATORY SYSTEM: HORMONAL REGULATION OF GROWTH AND PATTERNING IN THE ANTENNAL IMAGINAL DISC OF THE MOTH MANDUCA Sexta
Fernandez K.A.1, Vogt R.1 1Biological Sciences, University of South Carolina, Columbia, SC
Olfactory Lesion

P38  479  MMP-9 ELEVATION IN THE EARLY RESPONSE TO OLFATORY NERVE INJURY
Costanzo R.M. 1, Perrino L.A. 1, Kobayashi M. 1 1Physiology, Virginia Commonwealth University, Richmond, VA

P39  480  SUPPORTING CELLS AND OLFACTORY NEURONS EXPRESS DIFFERENT INHIBITORY APOPTOSIS PROTEINS
Comte J. 1, Carr V. 1, Farbman A. 1 1Neurobiology and Physiology, Northwestern University, Evanston, IL

P40  481  MICROGlia IN THE ZEBRAFISH IMMUNE RESPONSE TO INJURY
Fuller C.L. 1, Koenig J.J. 1, Byrd C.A. 1 1Biological Sciences, Western Michigan University, Kalamazoo, MI

P41  482  COUMARIN PRODUCES SELECTIVE DEAFFERENTATION OF THE OLFATORY BULB
Sanguino A. 1 1Psychology, University of South Florida, Tampa, FL

P42  483  MORPHOLOGICAL AND FUNCTIONAL REGENERATION OF THE OLFATORY EPITHELIUM DEPENDS UPON THE EXTENT OF THE ABLATION
Plibersek K. 1, Valentinic T. 1 1Biology, University of Ljubljana, Ljubljana, Slovenia

P43  484  HEMOCYTE INFILTRATION OF OLFATORY RECEPTOR NEURON CLUSTERS AFTER AESTHETASC DAMAGE IN THE SPINY LOBSTER
Schmidt M. 1, Derby C. 1 1Biology, Georgia State University, Atlanta, GA

P44  485  ETHANOL IN VIVO CAUSES DEGENERATION OF OLFATORY SENSORY NEURONS
Ukhanova M. 1, Kim H.H. 1, Margolis J.W. 1, Margolis F.L. 1 1Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD

Developmental – Olfactory Bulb and Pyriform Cortex

P45  486  NG2-EXPRESSING CELLS: A 4TH CLASS OF MACROGLIA IN THE MOUSE OLFATORY BULB
Trelaor H.B. 1, Morton M. 1, Whitman M. 1, Greer C.A. 1 1Neurosurgery, Yale University, New Haven, CT; 1Neurobiology, Yale University, New Haven, CT

P46  487  HETEROGENEOUS GENERATION OF PERIGLOMERULAR CELLS IN THE ADULT MOUSE
Whitman M.C. 1, Greer C.A. 1 1Depts of Neurobiology and Neurosurgery, Yale University, New Haven, CT

P47  488  TARSH GENE EXPRESSION IN THE DEVELOPING MITRAL CELL
Cheng T. 1, Gong Q. 1 1Cell Biology and Human Anatomy, University of California, Davis, CA

P48  489  TIME LAPSE Confocal Microscopy on Migrating Neuroblasts in the Mouse Rostral Migratory Stream
Bovetti S. 1, Bovolin P. 1, Hsieh Y. 1, Perroteau L. 1, Puche A.C. 1 1Department of Anatomy and Neurobiology, University of Maryland, Baltimore, MD; 1Department of Human & Animal Biology, University of Turin, Turin, Italy

P49  490  ODORANT DEPRIVATION REVERSIBLY MODULATES NR2B-MEDIATED CREB PHOSPHORYLATION IN MOUSE PYRIFORM CORTEX
Kim H.H. 1, Puche A.C. 1, Margolis F.L. 1 1Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD

P50  491  GENESIS AND MIGRATION OF MITRAL CELLS IN THE DEVELOPING MOUSE OLFATORY BULB
Hawisher D. 1, Tran H. 1, Gong Q. 1 1Cell Biology and Human Anatomy, University of California, Davis, CA

P51  492  MOLECULAR CLONING, CHARACTERIZATION AND EXPRESSION PATTERNS OF A NOVEL RAPGAP GENE IN THE DEVELOPING OLFATORY BULB
Sadrian B.A. 1, Cheng T. 1, Gong Q. 1 1Cell Biology and Human Anatomy, University of California, Davis, CA

P52  493  OXIDATIVE STRESS-MEDIATED DEGENERATIVE CHANGES IN THE AGING MURINE OLFATORY BULB
Vaishnav R.A. 1, Barnett K.R. 1, Poon H.F. 1, Hunter S.A. 1, Hahn Y.K. 1, Getchell M.L. 1, Butterfield D.A. 1, Getchell T.V. 1 1Physiology, University of Kentucky, Lexington, KY; 1Anatomy and Neurobiology, University of Kentucky, Lexington, KY; 1Chemistry, University of Kentucky, Lexington, KY
Chemosensory Consumer Research

53 494 ODOR INCREASES INFANTS' ATTENTION TO DYNAMIC EMOTION DISPLAY
Haviland-Jones J.¹, Coffield C.¹, Mayhew E.¹, Walker-Andrews A.²
¹Psychology, Rutgers, The State University of New Jersey, New Brunswick, NJ; ²Psychology, Montana State University, Missoula, MT

54 495 EFFECTS OF AROMA ON AMATEUR TEN-PIN BOWLING PERFORMANCE
Hirsch A.R.¹, Ye Y.¹, Lu Y.², Choe M.³
¹The Smell & Taste Treatment and Research Foundation, Chicago, IL; ²University of Illinois at Chicago, Chicago, IL; ³Illinois Mathematics and Science Academy, Aurora, IL

55 496 FLORAL ODOR PROMPTS POSITIVE EMOTIONAL SEARCHES
Wilson P.¹, Coffield C.¹, Haviland-Jones J.²
¹Psychology, La Salle University, Philadelphia, PA; ²Psychology, Rutgers, The State University of New Jersey, New Brunswick, NJ

56 497 BEAUTY IS IN THE "NOSE" OF THE BEHOLDER - UNCONSCIOUS SMELLS INFLUENCE PERCEIVED LIKABILITY
Li W.¹, Moalem I.², Paller K.A.¹, Gottfried J.¹
¹Northwestern University, Chicago, IL

57 498 EFFECTS OF PLEASANT AND UNPLEASANT ODORS ON EXERCISE PERFORMANCE
Timothy A.A.¹, Hornung D.E.¹
¹St. Lawrence University, Canton, NY

58 499 COGNITIONS INFLUENCE COLOR-ODOR CORRESPONDENCES
Abreu D.¹, Mattern-Meclor R.¹, McGarry A.², Zellner D.³
¹Psychology, Montclair State University, Montclair, NJ

59 500 MEASURING ODOR ATTITUDES IN AN IMPLICIT WAY
Bulsing P.¹, Smets M.², Van Den Hout M.¹
¹University of Utrecht, Utrecht, Netherlands

60 501 PLEASANTNESS INFORMATION FACILITATES DETECTION IN TASTE
Veldhuizen M.G.¹, Meggelen Van C.², Kroese J.H.³
¹Psychological Laboratory, Utrecht University, Utrecht, Netherlands; ²Wageningen Taste and Smell Center, Wageningen University and Research Center, Wageningen, Netherlands

502 502 CORRELATION BETWEEN BRAIN ACTIVITY AND ONLINE PSYCHOPHYSICAL MEASUREMENT: HOW THE EVALUATIVE TASK AFFECTS BRAIN ACTIVATION
Cerf-Ducastel B.¹, Haase L.B.², Kemmotsu N.¹, Jacobson A., Green E.¹, Murphy C.¹
¹Psychology, San Diego State University, San Diego, CA

503 503 IDENTIFICATION OF LATENT VARIABLES IN A SEMANTIC ODOR PROFILE DATABASE USING PRINCIPAL COMPONENT ANALYSIS
Zarzo M.¹, Stanton D.²
¹Procter & Gamble, Cincinnati, OH; ²Corporate Modeling and Simulations, Procter & Gamble, Cincinnati, OH
<p>| Fine, Fine, 23 |
| Fine, Jared M., 288, 289 |
| Fingar, T. E., 79, 383 |
| Finger, Thomas E., 209, 391, 392, 443 |
| Firestone, Stuart, 3, 230, 304, 309, 343, 415 |
| Fisher, Rebecca Jane, 125 |
| Flannery, Richard J., 32 |
| Fleischers, Hoerg, 266 |
| Fleischhacker, W. Wolfgang, 116 |
| Fletcher, Max L., 269 |
| Flinker, Adeane, 174 |
| Fontanini, Alfredo, 401, 439 |
| Forrestell, Catherine Ann, 180 |
| Formaker, Bradley K., 83, 436 |
| Fradkin, Lee, 299 |
| Frank, Marion E., 83, 113, 222, 436 |
| Frank, Robert A., 208 |
| Fraselli, Johannes, 203, 331 |
| French, Donald A., 32 |
| Frey, Alexander M., 136 |
| Frias, Carmen, 215, 393 |
| Fuller, Cynthia L., 481 |
| Furukawa, Mitsuori, 122, 143 |
| Galindo-Cuspinera, Veronica, 118, 156, 217 |
| Gallagher, Michelle, 148, 182 |
| Ganczrow, Donald, 444 |
| Ganczrow, Judith, 444 |
| Garcea, Mircea, 394, 428 |
| Gardiner, Jayne Michelle, 19 |
| Gasque, Lauren, 427 |
| Geiger, Heidi, 30 |
| Geisler, Mark Warren, 97, 101 |
| Gelperin, Alan, 249, 422 |
| Gent, Janneane F., 113, 222 |
| Gerber, Johannes Christoph, 212, 331 |
| Germain, Markus W., 30 |
| Gerstner, Andrea, 30 |
| Gesteland, Robert C., 108 |
| Getchell, Marilyn L., 328, 432, 459, 493 |
| Getchell, Thomas V., 328, 432, 459, 493 |
| Getman, Michael, 344 |
| Gharpande, Ambarish, 249, 251 |
| Gibson, Nicholas J., 473 |
| Gilad, Yoav, 2 |
| Gilbert, Paul E., 110 |
| Gilbertson, Timothy Allan, 63, 64, 220, 368 |
| Gillespie, Yancey, 130 |
| Ginjala, Vasudeva, 74 |</p>
<table>
<thead>
<tr>
<th>Name</th>
<th>Page Numbers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Whitman, Mary C.</td>
<td>487</td>
</tr>
<tr>
<td>Widmayer, Patricia</td>
<td>75</td>
</tr>
<tr>
<td>Wiencis, Anna</td>
<td>361</td>
</tr>
<tr>
<td>Wiesler, Donald</td>
<td>150</td>
</tr>
<tr>
<td>Wiesmann, Martin</td>
<td>98, 121, 141, 201</td>
</tr>
<tr>
<td>Wilhelm, Beate</td>
<td>75</td>
</tr>
<tr>
<td>Wilkie, Jenell</td>
<td>183</td>
</tr>
<tr>
<td>Wilkin, Françoise</td>
<td>336</td>
</tr>
<tr>
<td>Willhite, David C.</td>
<td>262, 263</td>
</tr>
<tr>
<td>Williams, Addie K.</td>
<td>284</td>
</tr>
<tr>
<td>Williams, Lloyd B.</td>
<td>165</td>
</tr>
<tr>
<td>Williams, Robert W.</td>
<td>358</td>
</tr>
<tr>
<td>Wilse, Alan</td>
<td>148, 323, 325</td>
</tr>
<tr>
<td>Wilson, Caroline</td>
<td>250</td>
</tr>
<tr>
<td>Wilson, Donald A.</td>
<td>274, 275, 276, 306</td>
</tr>
<tr>
<td>Wilson, Patricia</td>
<td>496</td>
</tr>
<tr>
<td>Winnig, Marcel</td>
<td>118, 156, 360</td>
</tr>
<tr>
<td>Wirsig-Wiechmann, Celeste</td>
<td>314</td>
</tr>
<tr>
<td>Renee</td>
<td></td>
</tr>
<tr>
<td>Wise, Paul</td>
<td>182, 200</td>
</tr>
<tr>
<td>Witt, Martin</td>
<td>106, 195, 226, 444</td>
</tr>
<tr>
<td>Wolfensberger, Markus</td>
<td>109</td>
</tr>
<tr>
<td>Wright, Geraldine A.</td>
<td>411</td>
</tr>
<tr>
<td>Wright, Margaret J.</td>
<td>369</td>
</tr>
<tr>
<td>Wu, Yuping</td>
<td>299</td>
</tr>
<tr>
<td>Wyatt, Claire J.</td>
<td>329</td>
</tr>
<tr>
<td>Wyatt, Todd A.</td>
<td>46</td>
</tr>
<tr>
<td>Wysocki, Charles</td>
<td>124, 200</td>
</tr>
<tr>
<td>Xia, Y.</td>
<td>123</td>
</tr>
<tr>
<td>Xiong, Wenhui</td>
<td>269</td>
</tr>
<tr>
<td>Xu, Fuqiang</td>
<td>246</td>
</tr>
<tr>
<td>Yabuki, Masayuki</td>
<td>149</td>
</tr>
<tr>
<td>Yagi, Sayaka</td>
<td>122</td>
</tr>
<tr>
<td>Yamanaka, Takao</td>
<td>264</td>
</tr>
<tr>
<td>Yamazaki, Kunio</td>
<td>323, 324, 325</td>
</tr>
<tr>
<td>Yan, Jianqun</td>
<td>399, 406</td>
</tr>
<tr>
<td>Yanagawa, Taichi</td>
<td>346</td>
</tr>
<tr>
<td>Yang, Jin</td>
<td>343</td>
</tr>
<tr>
<td>Yang, Peter</td>
<td>325</td>
</tr>
<tr>
<td>Yang, Qing X.</td>
<td>102, 103</td>
</tr>
<tr>
<td>Yang, Ruihiao</td>
<td>80, 81</td>
</tr>
<tr>
<td>Yang, Xuejuan</td>
<td>399</td>
</tr>
<tr>
<td>Yang, Zhongan</td>
<td>477</td>
</tr>
<tr>
<td>Yano, Junji</td>
<td>29</td>
</tr>
<tr>
<td>Yasuoka, Akihito</td>
<td>348</td>
</tr>
<tr>
<td>Yao, King-Wai</td>
<td>30</td>
</tr>
<tr>
<td>Ye, Ying</td>
<td>495</td>
</tr>
<tr>
<td>Yee, Karen K.</td>
<td>194</td>
</tr>
<tr>
<td>Yin, Chong</td>
<td>299</td>
</tr>
<tr>
<td>Ying, Yao</td>
<td>299</td>
</tr>
<tr>
<td>Yoshihara, Yoshihiro</td>
<td>268, 270</td>
</tr>
<tr>
<td>Youngentob, Steven L.</td>
<td>301, 434</td>
</tr>
<tr>
<td>Yun, Sang-Soon</td>
<td>315</td>
</tr>
<tr>
<td>Zahnert, Thomas</td>
<td>114, 142, 211</td>
</tr>
<tr>
<td>Zaidi, Faisal</td>
<td>453</td>
</tr>
<tr>
<td>Zarzo, Manuel</td>
<td>503</td>
</tr>
<tr>
<td>Zatorre, Robert J.</td>
<td>330</td>
</tr>
<tr>
<td>Zelano, Christina</td>
<td>94</td>
</tr>
<tr>
<td>Zelles, Tibor</td>
<td>371</td>
</tr>
<tr>
<td>Zellner, Debra</td>
<td>499</td>
</tr>
<tr>
<td>Zeng, Musheng</td>
<td>466</td>
</tr>
<tr>
<td>Zeng, Shaoqin</td>
<td>269</td>
</tr>
<tr>
<td>Zhainazarov, Asylko B.</td>
<td>162</td>
</tr>
<tr>
<td>Zhang, F.</td>
<td>123</td>
</tr>
<tr>
<td>Zhang, Jianzhi George</td>
<td>347</td>
</tr>
<tr>
<td>Zhang, Jing-Ji</td>
<td>312</td>
</tr>
<tr>
<td>Zhang, Jingji</td>
<td>320</td>
</tr>
<tr>
<td>Zhang, Lian</td>
<td>31</td>
</tr>
<tr>
<td>Zhang, Peng</td>
<td>311</td>
</tr>
<tr>
<td>Zhao, Baozou</td>
<td>364</td>
</tr>
<tr>
<td>Zhao, Fang-zi</td>
<td>76</td>
</tr>
<tr>
<td>Zhao, Kai</td>
<td>377</td>
</tr>
<tr>
<td>Zhou, Minliang</td>
<td>61</td>
</tr>
<tr>
<td>Zhou, Wen</td>
<td>100</td>
</tr>
<tr>
<td>Zhou, Yangqi Q.</td>
<td>448</td>
</tr>
<tr>
<td>Zhou, Ye-Bo</td>
<td>321</td>
</tr>
<tr>
<td>Zhuang, Hanyi</td>
<td>228</td>
</tr>
<tr>
<td>Zielinski, Barbara</td>
<td>54, 290</td>
</tr>
<tr>
<td>Zimmer, Richard</td>
<td>21</td>
</tr>
<tr>
<td>Zimmer, Richard K.</td>
<td>335</td>
</tr>
<tr>
<td>Zimmerman, Erin</td>
<td>102, 103</td>
</tr>
<tr>
<td>Zochowski, Michal</td>
<td>254</td>
</tr>
<tr>
<td>Zong, Xiangang</td>
<td>30</td>
</tr>
<tr>
<td>Zou, Dong-Jing</td>
<td>230</td>
</tr>
<tr>
<td>Zufall, Frank</td>
<td>24, 326</td>
</tr>
<tr>
<td>Zwiebel, Laurence J.</td>
<td>357</td>
</tr>
</tbody>
</table>