

Dates of future AChemS meetings:

April 26-30, 2006 – Sarasota, FL

Future dates will be announced shortly; please visit our website for updates.



AChemS

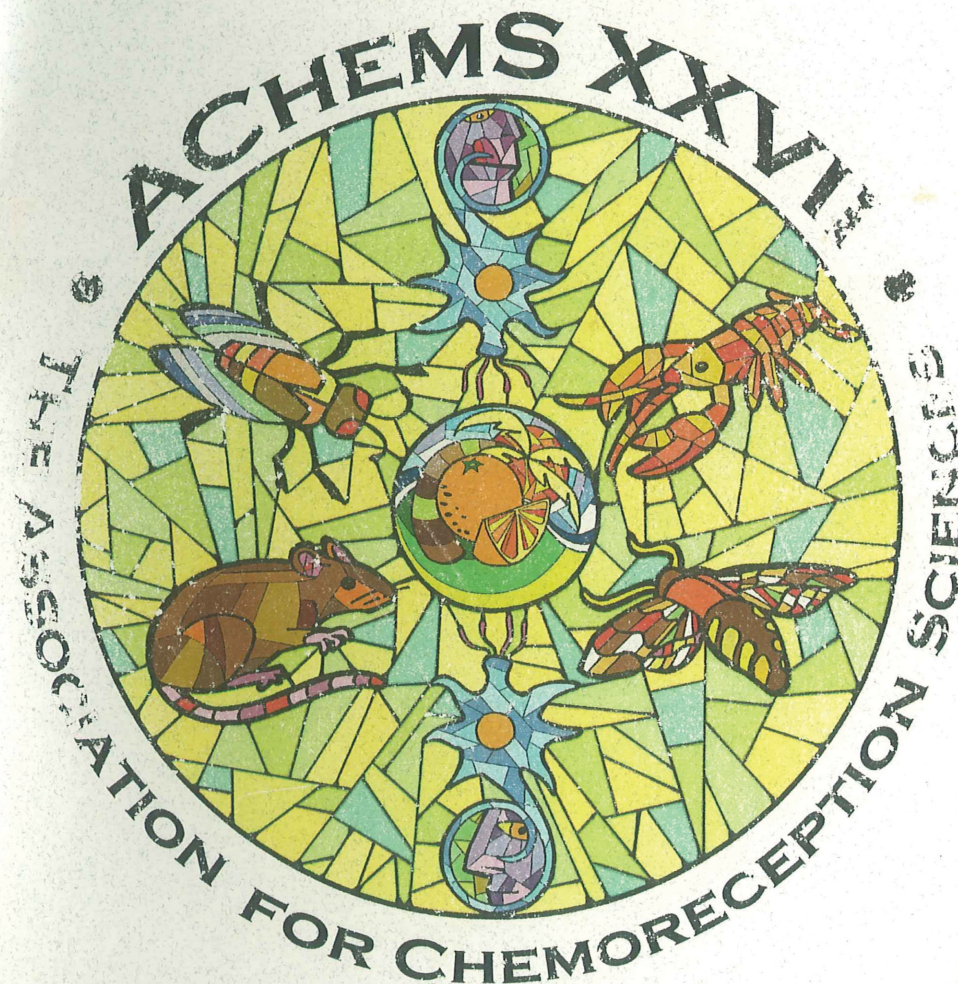
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Minneapolis, MN 55416

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PROGRAM

APRIL 13-17, 2005 - SARASOTA, FL



AChemS Association for Chemoreception Sciences

AChemS extends appreciation for grant support from:
***The National Institute on Deafness and Other Communication Disorders and
the National Institute on Aging, NIH***

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

***Twenty Seventh Annual Givaudan Lectureship
Givaudan Corporation***

***Fourteenth Annual Moskowitz Jacobs Award for Research in
Psychophysics of Taste and Olfaction
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***Twelfth Annual Ajinomoto Award to Promising Young Researcher in the Field of
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	<i>Matt Wachowiak, PhD</i>	<i>Boston University</i>

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Please remember to fill out the meeting evaluation form, which can be found behind the cover of the abstract program. Your feedback helps AChemS' leadership continue to offer quality annual meetings and member services.

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Wednesday, April 13, 2005

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10:00 AM - 12:00 PM	GWIZ Educational Outreach Event <i>(GWIZ Science Center)</i>
12:00 PM - 3:30 PM	Executive Committee <i>(Executive Boardroom)</i>
3:30 PM - 7:30 PM	Registration <i>(Registration Area)</i>
4:00 PM - 5:00 PM	Long Range Planning Committee Meeting <i>(Executive Boardroom)</i>
6:30 PM - 8:00 PM	Opening Buffet <i>(North Ballroom)</i>
8:00 PM - 8:30 PM	Welcome and Awards Ceremony <i>(South Ballroom)</i>
8:30 PM - 9:30 PM	GIVAUDAN LECTURE <i>(South Ballroom)</i>
8:30	1 LEPTIN AND THE REGULATION OF BODY WEIGHT Friedman J.M. ¹ ¹ <i>Rockefeller University, New York, NY</i>
9:30 PM - 11:30 PM	Student Travel/Housing Award Volunteer Meeting <i>(North Ballroom)</i>
9:30 PM - 10:30 PM	Social Gathering <i>(Prefunction Area)</i>

Thursday, April 14, 2005

7:00 AM - 3:00 PM **Registration** (*Registration Area*)7:30 AM - 9:00 AM **Continental Breakfast** (*Prefunction Area*)

SLIDES

Thursday - 8:00 AM - 9:00 AM (*South Ballroom*)**Cellular & Molecular**
Emily Liman, Session Chair

- 8:00 2 CHARACTERISATION OF MOUSE TRIGEMINAL NEURONS IDENTIFIED BY VIRAL TRACING
Wetzel C.H.¹, Damann N.¹, Dörner J.F.¹, Rothermel M.¹, Klasen K.¹, Mettenleiter T.C.², Hatt H.¹ ¹*Lehrstuhl für Zellphysiologie, Ruhr-Universität Bochum, Bochum, Germany*; ²*Friedrich-Loeffler-Institut, Bundesforschungsinstitut für Tiergesundheit, Insel Riems, Germany*
- 8:15 3 MANIPULATING THE DEVELOPING OLFACTORY AND VOMERONASAL SYSTEMS THROUGH THE USE OF ULTRASOUND-GUIDED RETROVIRUS INJECTION
Chesler A.¹, Le Pichon C.¹, Peterlin Z.¹, Mathews G.², Firestein S.³ ¹*Biology, Columbia University, New York, NY*; ²*Neurobiology and Behavior, Columbia University, New York, NY*; ³*Columbia University, New York, NY*
- 8:30 4 EXPRESSION OF TRPM5 IN THE MAIN OLFACTORY EPITHELIUM
Lin W.¹, Margolskee R.F.², Zhao Z.³, Liman E.R.³, Restrepo D.¹ ¹*Cell and Developmental Biology and Rocky Mountain Taste and Smell Center, University of Colorado Health Sciences Center at Fitzsimons, Aurora, CO*; ²*Physiology & Biophysics, Mount Sinai School of Medicine, New York, NY*; ³*Biological Sciences, University of Southern California, Los Angeles, CA*
- 8:45 5 OLFACTORY IMPRINTING ALTERS GENE EXPRESSION IN THE OLFACTORY EPITHELIUM
Rivard M.V.¹, McKenzie M.G.¹, Whitlock K.E.¹ ¹*Dept. of Molecular Biology and Genetics, Cornell University, Ithaca, NY*

SLIDES

Thursday - 9:15 AM - 10:15 AM (*South Ballroom*)**Chemosensory Development**
Jane Roskams, Session Chair

- 9:15 6 SPECIFICITY, SENSITIVITY, AND HOST SHIFTS: VARIATION IN PERIPHERAL CHEMORECEPTION AND SYMPATRIC SPECIATION IN RHAGOLETIS FLIES
Olsson S.B.¹, Linn, Jr. C.E.², Roelofs W.L.² ¹*Neurobiology and Behavior, Cornell University, Ithaca, NY*; ²*Entomology, NYS Agricultural Experiment Station, Cornell University, Geneva, NY*
- 9:30 7 ODOR RECEPTOR GENE CHOICE IN DROSOPHILA
Ray A.¹, Van Der Goes Van Naters W.¹, Carlson J.¹ ¹*MCDB, Yale University, New Haven, CT*
- 9:45 8 WNT5 AND ITS RECEPTOR, DERAILED, PATTERNS THE DROSOPHILA OLFACTORY MAP
Yao Y.¹, Yin C.¹, Fradkin L.², Aigaki T.³, Hing H.K.¹ ¹*Cell and Structural Biology, University of Illinois at Urbana-Champaign, Urbana, IL*; ²*Medical Center, Leiden University, Leiden, Netherlands*; ³*Biological Sciences, Tokyo Metropolitan University, Tokyo, Japan*
- 10:00 9 TASTE PROGENITOR CELLS ARE SPECIFIED BY BMP AND SHH SIGNALING.
Parker M.A.¹, Perry C.², Barlow L.A.² ¹*Molecular, Cellular and Developmental Biology, University of Colorado at Boulder, Boulder, CO*; ²*Cell & Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO*

Coffee Break - 10:00 AM - 10:30 AM (*Prefunction Area*)

SYMPOSIUM

Thursday - 10:30 AM - 12:30 PM (*South Ballroom*)**Coding in the Taste System: New Perspectives on an Old Problem**
Tim Gilbertson, Symposium Chair

- 10:30 10 CODING IN THE TASTE SYSTEM: NEW PERSPECTIVES ON AN OLD PROBLEM
Gilbertson T.A.¹, Glendinning J.² ¹*Biology & The Center for Integrated BioSystems, Utah State University, Logan, UT*; ²*Barnard College, Columbia University, New York, NY*

- 10:38 11 TASTE RECOGNITION IN DROSOPHILA
Scott K.¹ ¹*Molecular and Cell Biology Department, University of California, Berkeley, Berkeley, CA*
- 11:06 12 DIVISION OF LABOR IN MAMMALIAN TASTE BUDS
Chaudhari N.¹, Roper S.¹ ¹*Physiology and Biophysics, University of Miami, Miami, FL*
- 11:34 13 DISCRIMINATORY PERFORMANCE OF CENTRAL GUSTATORY NEURONS
Lemon C.H.¹, Smith D.V.¹ ¹*Anatomy and Neurobiology, University of Tennessee, Memphis, TN*
- 12:02 14 SWEET, BITTER AND UMAMI TASTES ARE MEDIATED BY DISTINCT CELL TYPES AND DEDICATED SENSORY PATHWAYS
Chandrashekar J.¹, Hoon M.A.², Zhang Y.¹, Mueller K.¹, Zhao G.Q.¹, Erlenbach I.², Nelson G.¹, Ryba N.J.², Zuker C.S.¹ ¹*Howard Hughes Medical Institute and Departments of Biology and Neurosciences, University of California, San Diego, La Jolla, CA;* ²*National Institute of Dental and Craniofacial Research, National Institutes of Health, Bethesda, MD*

POSTERS

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

Computational Approaches

- P1 15 MORPHOLOGICAL CLASSIFICATION AND MORPHOMETRIC MODELING OF ANTENNAL LOBE LOCAL INTERNEURONS IN BOMBYX MORI
Seki Y.¹, Ohgushi K.², Kanzaki R.² ¹*Graduate School of Life and Environmental Sciences, University of Tsukuba, Tsukuba, Ibaraki, Japan;* ²*Department of Mechano-Informatics, Graduate School of Information Science and Technology, University of Tokyo, Bunkyo-ku, Tokyo, Japan*
- P2 16 CHANGING ROLES OF TEMPSPIDES REPRESENTATION OF THE ODORANT DURING THE OSCILLATORY RESPONSE IN THE OLFACTORY BULB
Kim S.¹, Singer B.², Zochowski M.¹ ¹*Physics, University of Michigan, Ann Arbor, MI;* ²*Neuroscience, University of Michigan, Ann Arbor, MI*
- P3 17 CONSENSUS STRUCTURE-FUNCTION DETERMINANTS FOR OLFACTORY RECEPTORS AND ODOR LIGANDS
Crasto C.J.¹, Shepherd G.M.² ¹*Informatics, Yale University, New Haven, CT;* ²*Neurobiology, Yale University, New Haven, CT*

- P4 18 FUNCTIONAL REPRESENTATION OF OLFACTORY RECEPTORS: A FRAMEWORK FOR VISUALIZING ODORANT SPACE
Man O.¹, Gilad Y.², Crasto C.J.³, Shepherd G.M.³, Willhite D.C.³ ¹*Structural Biology, Weizmann Institute, Rehovot, Israel;* ²*Genetics, Yale University, New Haven, CT;* ³*Neurobiology, Yale University, New Haven, CT*
- P5 19 A PROBABELISTIC MODEL FOR DISCRIMINATING BETWEEN FUNCTIONAL AND NON-FUNCTIONAL OLFACTORY RECEPTORS
Menashe I.¹, Aloni R.¹, Lancet D.¹ ¹*Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel*
- P6 20 COMPARATIVE GENOMICS OF ODORANT- AND PHEROMONE RECEPTOR GENES IN RODENTS
Zhang X.¹, Zhang X.², Firestein S.¹ ¹*Columbia University, New York, NY;* ²*Biological Sciences, Columbia University, New York, NY*
- P7 21 MOLECULAR MODELING SWEET TASTE RECEPTORS
Cui M.¹, Jiang P.¹, Max M.¹, Margolskee R.F.², Osman R.¹ ¹*Department of Physiology & Biophysics, Mount Sinai School of Medicine, New York, NY;* ²*Howard Hughes Medical Institute, Mount Sinai School of Medicine, New York, NY*

Olfaction- Central Anatomy

- P8 22 NR2B GENE EXPRESSION IS ALTERED IN MOUSE PIRIFORM CORTEX AFTER PERIPHERAL DEAFFERENTATION
Kim H.H.¹, Margolis F.L.¹ ¹*Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD*
- P9 23 -BUNGAROTOXIN BINDING IN THE OLFACTORY SYSTEM OF SELECT INBRED MOUSE STRAINS
Clevenger A.C.¹, Adams C.E.², Restrepo D.¹ ¹*Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO;* ²*Psychiatry, University of Colorado Health Sciences Center, Aurora, CO*
- P10 24 SEX DIFFERENCES IN THE NUMBER OF TYROSINE HYDROXYLASE IMMUNOREACTIVE PERIGLOMERULAR CELLS SURROUNDING P2 GLOMERULI
Oliva A.M.¹, De La Torre A.¹, Restrepo D.¹ ¹*Cell and Developmental Biology and Neuroscience Program, University of Colorado Health Sciences Center, Aurora, CO*

- P11 25 A NEW, OPEN SOURCE SOFTWARE PACKAGE FOR MAPPING THE GLOMERULAR LAYER OF THE OLFACTORY BULB
Salcedo E.¹, Zhang C.², Kronberg E.¹, Restrepo D.¹ ¹Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO; ²Illinois Institute of Technology, Chicago, IL
- P12 26 INFLUENCES OF SENSORY ACTIVITY ON THE DEVELOPMENT OF OR SPECIFIC GLOMEULI
Zou D.¹, Rivers A.², Tong L.², Firestein S.¹ ¹Columbia University, New York, NY; ²Biological Sciences, Columbia University, New York, NY
- P13 27 GLUTAMATE TRANSPORTER AND NMDA RECEPTOR EXPRESSION IN THE CANINE OLFACTORY BULB
Josephson E.M.¹, Vodyanoy V.J.², Morrison E.¹ ¹Anatomy, Physiology and Pharmacology, Auburn University, Auburn, AL; ²Biosensor Laboratory, Auburn University, Auburn, AL
- P14 28 GFAP EXPRESSION IN THE DIABETIC RAT OLFACTORY BULB
Dennis J.C.¹, Moody S.W.¹, Wright W.C.², Coleman E.S.¹, Judd R.L.¹, Morrison E.E.¹ ¹Anatomy, Physiology and Pharmacology, Auburn University, Auburn, AL; ²Pathobiology, Auburn University, Auburn, AL
- P15 29 THE CENTRAL CHEMOSENSORY SYSTEM OF MOSQUITOES
Ignell R.¹, Hansson B.² ¹Agricultural University of Sweden, Alnarp, Sweden; ²Crop Sciences, Agricultural University of Sweden, Alnarp, Sweden
- P16 30 THE PROJECTION OF OUTPUT NEURONS FROM THE OLFACTORY BULB OF THE SEA LAMPREY, PETROMYZON MARINUS
Chang S.¹, Askew M.L.¹, Macdonald H.¹, Raslan Z.¹, Dubuc R.², Zielinski B.S.¹ ¹Biological Sciences, University of Windsor, Windsor, Ontario, Canada; ²Kinesiology, Universite du Quebec à Montreal, Montreal, Ontario, Canada
- P17 31 THE LOCALIZATION OF TERMINAL NERVE FIBERS IN THE OLFACTORY BULB OF ROUND GOBY (NEOGOBUS MELANOSTOMUS)
Ren X.¹, Zielinski B.S.¹, Jasra S.K.¹, Vaissica J.¹, Siara L.¹, Corkum L.D.¹, Li W.², Scott A.P.³ ¹Biological Sciences, University of Windsor, Windsor, Ontario, Canada; ²Fisheries and Wildlife, Michigan State University, East Lansing, MI; ³Weymouth Laboratory, The Center for Environment, Fisheries and Aquaculture Sciences, Weymouth, Dorset, United Kingdom

- P18 32 CHARACTERIZATION OF THREE DISTINCT TYPES OF OUTPUT NEURONS IN THE ADULT ZEBRAFISH OLFACTORY BULB
Fuller C.L.¹, Byrd C.A.¹ ¹Biological Sciences, Western Michigan University, Kalamazoo, MI
- P19 33 DISTINGUISHING BETWEEN PERIGLOMERULAR AND GRANULE CELLS IN THE MOUSE OLFACTORY BULB
Baker H.¹, Saino-Saito S.² ¹Burke Med. Res. Inst., Cornell University, White Plains, NY; ²Department of Anatomy and Cell Biology, Yamagata University School of Medicine, Yamagata, Japan
- P20 34 LONG-TERM EFFECTS OF ACUTE SOCIAL STRESS ON NEUROGENESIS IN THE MALE GOLDEN HAMSTER DENTATE GYRUS AND OLFACTORY BULB
Bath K.G.¹, Johnston R.¹ ¹Psychology, Cornell University, Ithaca, NY
- P21 35 BULBAR SYNAPTIC TARGETS MAINTAIN OLFACTORY SENSORY NEURONS IN ADULT MICE.
Guthrie K.¹, Ardiles Y.¹ ¹Biomedical Science, Florida Atlantic University, Boca Raton, FL

Olfaction- Peripheral Anatomy

- P22 36 MITRAL CELL SURVIVAL, REGENERATION OF OLFACTORY TRACT AND RECOVERY OF OLFACTION FOLLOWING NEONATAL OLFACTORY TRACT AXONAL DAMAGE IN RATS
Subramani M.¹, Bhaskar S.², T.R.R.² ¹John Demsey Hospital, University of Connecticut Health Center, Farmington, CT; ²Neurophysiology, National Institute of Mental Health and Neurosciences, Bangalore, Karnataka, India
- P23 37 TENASCIN-C AND ITS RECEPTORS AND BINDING PARTNERS IN THE DEVELOPING OLFACTORY SYSTEM
Treloar H.B.¹, Dinglasen L.V.¹, Greer C.A.¹ ¹Neurosurgery, Yale University, New Haven, CT
- P24 38 ONSET OF OLFACTORY SENSORY NEURON MOLECULAR PHENOTYPE IN THE EARLY EMBRYONIC MOUSE
Miller A.M.¹, Treloar H.B.¹, Greer C.A.¹ ¹Neurosurgery, Yale University, New Haven, CT

- P25 39 OLFACTION AND OLFACTORY EPITHELIUM IN ZINC GLUCONATE TREATED MICE
Slotnick B.¹, Harrod D.¹, Sanguino A.¹, Husband S.¹ ¹*Psychology, University of South Florida, Tampa, FL*
- P26 40 OLFACTORY ENSHEATHING CELLS AND TARGET TISSUE INFLUENCE PRIMARY OLFACTORY AXON TRAJECTORY.
St John J.¹, Allen C.¹, Claxton C.¹, Key B.¹, Storan M.¹ ¹*School of Biomedical Sciences, University of Queensland, Brisbane, Queensland, Australia*
- P27 41 MORPHOLOGICAL ANALYSIS OF CRAYFISH (ORCONECTES RUSTICUS) MAJOR CHELAE SENSORY HAIRS
Belanger R.M.¹, McDowell K.E.², Chang S.², Moore P.A.¹, Zielinski B.S.² ¹*Laboratory for Sensory Ecology, Department of Biological Sciences, J.P. Scott Center for Neuroscience, Mind & Behav, Bowling Green State University, Bowling Green, OH;* ²*Department of Biological Sciences, University of Windsor, Windsor, Ontario, Canada*
- P28 42 EVIDENCE FOR ENDOGENOUS NEUROSTEROID PRODUCTION IN THE MAMMALIAN OLFACTORY MUCOSA: IMMUNOCYTOCHEMICAL LOCALIZATION OF CYTOCHROME P450SCC.
Foster J.D.¹ ¹*Western University of Health Sciences, Pomona, CA*
- P29 43 MORPHOLOGICAL ANALYSIS OF TWO TYPES OF RECEPTOR NEURONS IN GOAT OLFACTORY EPITHELIUM
Wakabayashi Y.¹, Okamura H.², Mori Y.³, Ichikawa M.⁴ ¹*Japan Society for the Promotion of Science (JSPS), Tokyo, Japan;* ²*Physiol. Genetic Regulation, Nat. Inst. Agrobiol. Sci., Ibaraki, Japan;* ³*Laboratory of Veterinary Ethology, University of Tokyo, Tokyo, Japan;* ⁴*Tokyo Metropol Institute of Neuroscience, Tokyo, Japan*
- P30 44 SODIUM CHANNEL DISTRIBUTION IN THE MOUSE MAIN OLFACTORY EPITHELIUM
Frenz C.T.¹, Dionne V.E.¹ ¹*Department of Biology, Boston University, Boston, MA*
- P31 45 DIFFERENTIAL DISTRIBUTION OF AQUAPORINS IN MAIN AND VOMERONASAL OLFACTORY EPITHELIA, AND IN VALLATE TASTE BUDS; A FREEZE-SUBSTITUTION FINE-STRUCTURAL STUDY IN THE RAT
Menco B.¹ ¹*Neurobiology and Physiology, Northwestern University, Evanston, IL*

- P32 46 LECTIN APPLICATION TO THE OLFACTORY EPITHELIUM SUPPORTS THE MULTIPLE PROFILE-MULTIPLE RECEPTOR SITE MODEL FOR VERTEBRATE OLFACTION
Apfelbach R.¹, Deutsch S.¹, Weiler E.M.¹, Polak E.H.² ¹*Dept. of Zoology, University of Tuebingen, Tuebingen, Germany;* ²*Laboratoire de Neurophysiologies Enseignement, Université Paris VI, Paris, France*

Pheromones/VNO

- P33 47 A PUTATIVE SOCIAL CHEMOSIGNAL ELICITS DIFFERENT CORTICAL RESPONSES THAN PERCEPTUALLY SIMILAR ODORANTS
Lundstrom J.N.¹, Olsson M.J.¹, Schaal B.², Hummel T.³ ¹*Psychology, Uppsala University, Uppsala, Sweden;* ²*Centre des Sciences du Goût, Centre National de la Recherche Scientifique, Dijon, France;* ³*University of Dresden, Dresden, Germany*
- P34 48 MEDIAL AMYGDALA CATEGORIZES SPECIES-SPECIFIC CHEMOSENSORY INPUT IN BOTH MALE HAMSTERS AND MALE MICE.
Samuelsen C.L.¹, Westberry J.¹, Meredith M.¹ ¹*Program in Neuroscience, Florida State University, Tallahassee, FL*
- P35 49 MODULATION OF MAIN OLFACTORY INPUT TO THE MEDIAL AMYGDALA BY GONADOTROPIN-RELEASING HORMONE (GNRH).
Blake C.¹, Westberry J.², Meredith M.¹ ¹*Florida State University, Tallahassee, FL;* ²*Neuroscience, Florida State University, Tallahassee, FL*
- P36 50 DESENSITIZATION IN THE MAMMALIAN VOMERONASAL ORGAN
Miller S.¹, Smith L.², Wekesa K.¹ ¹*Alabama State University, Montgomery, AL;* ²*Biological Sciences, Alabama State University, Montgomery, AL*
- P37 51 SEX-SPECIFIC RESPONSES TO URINARY CHEMICALS BY THE MOUSE VOMERONASAL ORGAN
Thompson R.N.¹, Robertson B.², Napier A.², Wekesa K.² ¹*Biological Science, Florida State University, Tallahassee, FL;* ²*Biological Sciences, Alabama State University, Montgomery, AL*
- P38 52 CHEMICAL ASSESSMENT OF FIGHTING RISKS: THE FINE-TUNED RESPONSES OF THE LIZARD LIOLAEMUS MONTICOLA
Labra A.¹ ¹*Dept. Biol. Sci., Program in Neurosci., Florida State University, Tallahassee, FL*

- P39 53 HOMER, A FAMILY OF ADAPTOR PROTEINS, IS EXPRESSED IN THE VOMERONASAL ORGAN AND OLFACTORY BULB.
Brann J.H.¹, Fadool D.A.² ¹*Prog. Neurosci., Florida State University, Tallahassee, FL*; ²*Neurosci. & Mol. Biophysics, Florida State University, Tallahassee, FL*
- P40 54 IDENTIFICATION OF A SEX-SPECIFIC PEPTIDE THAT STIMULATES VOMERONASAL SENSORY NEURONS IN BEHAVING MICE
Kimoto H.¹, Haga S.¹, Sato K.¹, Touhara K.¹ ¹*Department of Integrated Biosciences, University of Tokyo, Kashiwa, Chiba, Japan*
- P41 55 THE ONTOGENY OF SEXUALLY DIMORPHIC REPRODUCTIVE SIGNALS AND RESPONSES BY WILD AND CAPTIVE ASIAN AND AFRICAN ELEPHANTS
Rasmussen L.¹, Schulte B.², Goodwin T.³, Greenwood D.⁴ ¹*OGI School of Science, OHSU, Beaverton, OR*; ²*Georgia Southern University, Statesboro, GA*; ³*Hendrix College, Conway, AR*; ⁴*Molecular Olfaction, HORT Institute, Auckland, New Zealand*
- P42 56 ANDROGEN RECEPTOR EXPRESSION IN FEMALE OLFACTORY EPITHELIUM
Weiler E.¹ ¹*Ruhr-Universität Bochum, Bochum, Germany*
- P43 57 KINETIC STUDIES ON LIGAND BINDING TO INSECT PHEROMONE-BINDING PROTEINS
Plettner E.¹, Gong Y.¹ ¹*Chemistry, Simon Fraser University, Burnaby, British Columbia, Canada*
- P44 58 SEX, STRAIN AND INDIVIDUAL VARIATION IN THE MAJOR URINARY PROTEINS (MUPS) EXPRESSED BY INBRED LABORATORY MICE
Cheetham S.A.¹, Smith A.L.², Hurst J.L.¹, Beynon R.J.¹ ¹*Faculty of Veterinary Science, University of Liverpool, Neston, United Kingdom*; ²*ULAR & Department of Pathobiology, University of Pennsylvania, Philadelphia, PA*
- P45 59 RELATIVE ROLES OF THE MAIN AND ACCESSORY OLFACTORY SYSTEMS IN BEHAVIORAL RESPONSES TO MHC CLASS I PEPTIDES: BRUCE EFFECT
Kelliher K.R.¹, Spher M.¹, Li X.¹, Zufall F.¹, Leinders-Zufall T.¹ ¹*Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD*

- P46 60 MHC-RELATED ODORPRINTS IN MICE
Preti G.¹, Belcher A.¹, Willse A.², Wahl J.H.³, Thresher M.¹, Yang P.¹, Kwak J.¹, Yamazaki K.¹, Beauchamp G.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*; ²*Statistics and Quantitative Sciences, Pacific Northwest National Laboratory, Richland, WA*; ³*Systems Biology, Pacific Northwest National Laboratory, Richland, WA*
- P47 61 HLA-RELATED ODORANTS IN HUMANS
Yang P.¹, Preti G.², Kwak J.¹, Wahl J.³, Willse A.³, Yamazaki K.¹, Curran M.¹, Mennella J.¹, Steinmeyer A.¹, Kamoun M.⁴, Beauchamp G.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*; ²*Dermatology, University of Pennsylvania, Philadelphia, PA*; ³*Pacific Northwest National Laboratory, Richland, WA*; ⁴*The Hosp of the University of Pennsylvania, Philadelphia, PA*
- P48 62 COMPARISON OF VOLATILE COMPONENTS OF MICE AND THEIR URINE
Overath P.¹, Röck F.², Weimar U.², Rammensee H.¹ ¹*Department of Immunology, University of Tuebingen, Tuebingen, Germany*; ²*Department of Physical Chemistry, University of Tuebingen, Tuebingen, Germany*
- P49 63 WATER-SOLUBLE ALARM PHEROMONE INDUCED AUTONOMIC STRESS RESPONSE IN MALE RATS
Kiyokawa Y.¹, Kikusui T.¹, Takeuchi Y.¹, Mori Y.¹ ¹*Graduate School of Agricultural and Life Sciences, University of Tokyo, Bunkyo-ku, Tokyo, Japan*
- P50 64 MALE BLUE CRAB PHEROMONE ORIGINATES IN SEMEN
Rittschof D.¹ ¹*Duke University, Beaufort, NC*
- P51 65 DIVERGENT V1R REPERTOIRES IN FIVE SPECIES
Young J.M.¹, Kambere M.², Trask B.J.³, Lane R.P.⁴ ¹*Division of Human Biology, Fred Hutchinson Cancer Research Center, Seattle, WA*; ²*Department of Molecular Biology and Biochemistry, Wesleyan University, Middletown, CT*; ³*Fred Hutchinson Cancer Research Center, Seattle, WA*; ⁴*Wesleyan University, Middletown, CT*

SCHEDULE EVENTS

- 12:00 PM - 1:30 PM **Cash Lunch Cart** (*Prefunction Area*)
- 12:30 PM - 2:00 PM **Minority/Clinical Award Luncheon** (*Prefunction Area*)
- 3:00 PM - 4:30 PM **NIH Workshop: "Funding Opportunities for Young Investigators"** (*South Ballroom*)
- 5:00 PM - 7:00 PM **CHemA Social** (*Florida Room*)
- 6:00 PM - 8:30 PM **Registration** (*Registration Area*)
- 8:00 PM - 8:30 PM **Evening Break** (*Prefunction Area*)

POSTERS

Thursday - 7:00 PM - 11:00 PM (*P1-54 North Ballroom; P55-P106 South Ballroom*)

Olfactory Bulb: Neurophysiology (*North Ballroom*)

- P1 66 STIMULUS SPECIFIC SPATIO-TEMPORAL DYNAMICS OF MOTH OLFACTORY PROJECTION NEURONS
Carlsson M.A.¹, Hansson B.S.² ¹SLU, Alnarp, Sweden, Alnarp, Sweden; ²Crop Science, SLU, Alnarp, Sweden
- P2 67 EFFECTS OF BOND TYPE, POSITION, NUMBER, AND STEREOCHEMISTRY ON GLOMERULAR RESPONSES TO HYDROCARBON ODORANTS IN THE RAT OLFACTORY BULB.
Ho S.L.¹, Chen A.L.¹, Johnson B.A.¹, Leon M.¹ ¹Dept. of Neurobiology and Behavior, University of California, Irvine, Irvine, CA
- P3 68 SPIKING PROPERTIES OF EPL INTERNEURONS
Hamilton K.A.¹, Hayar A.², Ennis M.² ¹Cellular Biol. and Anatomy, Louisiana St. Univ. Health Sci. Ctr., Shreveport, LA; ²Anatomy and Neurobiol., University of Tennessee Health Science Center, Memphis, TN

- P4 69 THE BURSTING OF OLFACTORY BULB EXTERNAL TUFTED (ET) CELLS IS COORDINATED BY SYNAPTIC AND GAP JUNCTION CURRENTS
Hayar A.¹, Shipley M.T.², Ennis M.¹ ¹Anatomy and Neurobiology, University of Tennessee, Memphis, TN; ²Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD
- P5 70 ACTIVATION OF METABOTROPIC GLUTAMATE RECEPTORS (MGLURS) ENHANCES BURSTING IN EXTERNAL TUFTED CELLS OF THE OLFACTORY BULB
Ennis M.¹, Hayar A.¹ ¹Anatomy and Neurobiology, University of Tennessee, Memphis, TN
- P6 71 SEROTONIN MODULATION OF EXTERNAL TUFTED CELLS IN MOUSE OLFACTORY BULB GLOMERULI
Aungst J.¹, Shipley M.T.² ¹Anatomy & Neurobiology, University of Maryland at Baltimore, Baltimore, MD; ²University of Maryland at Baltimore, Baltimore, MD
- P7 72 CELLULAR AND SYNAPTIC PROPERTIES OF DOPAMINERGIC JUXTAGLOMERULAR (DA-JG) NEURONS IN THE MOUSE OLFACTORY BULB
Pan Y.¹, Aungst J.¹, Puche A.C.², Shao Z.², Shipley M.T.² ¹Anatomy & Neurobiology, University of Maryland at Baltimore, Baltimore, MD; ²University of Maryland at Baltimore, Baltimore, MD
- P8 73 CHOLINERGIC MODULATION IN THE ZEBRAFISH OLFACTORY BULB.
Edwards J.¹, Greig A.², Michel W.C.² ¹Molecular Pharmacology, Physiology and Biotechnology, Brown University, Providence, RI; ²Physiology, University of Utah, Salt Lake City, UT
- P9 74 THE INFLUENCE OF STIMULUS DURATION ON OLFACTORY EVENT RELATED POTENTIALS
Frasnelli J.¹, Wohlgemuth C.¹ ¹University of Dresden Medical School, Dresden, Germany
- P10 75 SLICE ELECTROPHYSIOLOGY AND HISTOLOGICAL EVIDENCE OF CALCIUM-FLUXING AMPA RECEPTORS IN THE OLFACTORY BULB
Blakemore L.J.¹, Trombley P.Q.¹ ¹Biological Science, Florida State University, Tallahassee, FL

- P11 76 ODORANT RESPONSE PROPERTY OF THE MOR-EG GLOMERULUS IN TRANSGENIC MICE
Oka Y.¹, Katada S.¹, Omura M.¹, Suwa M.², Yoshihara Y.³,
Touhara K.¹ ¹Department of Integrated Biosciences, University of
Tokyo, Chiba, Japan; ²CBRC, National Institute of Advanced
Industrial Science and Technology, Tokyo, Japan; ³RIKEN Brain
Science Institute, Saitama, Japan
- P12 77 PHARMACOLOGICAL ANALYSIS OF THE
PHYSIOLOGICAL FUNCTIONS OF GABAERGIC INTRA-
AND INTER-GLOMERULAR INHIBITION IN THE
ANTENNAL LOBE OF A MOTH
Lei H.¹, Martin J.¹, Christensen T.A.¹, Hildebrand J.G.¹
¹Neurobiology, University of Arizona, Tucson, AZ
- P13 78 MODULATING LEVELS OF NITRIC OXIDE AND SOLUBLE
GUANYLYL CYCLASE AFFECTS ANTENNAL LOBE
NEURON PROCESSING IN THE MOTH, MANDUCA SEXTA
Wilson C.¹, Hudson J.¹, Christensen T.², Nighorn A.² ¹ARL,
Division of Neurobiology, University of Arizona, Tucson, AZ;
²Neurobiology, University of Arizona, Tucson, AZ
- P14 79 LEARNING-INDUCED OSCILLATORY ACTIVITIES
CORRELATED TO ODOR RECOGNITION: A NETWORK
ACTIVITY
Martin C.¹, Gervais R.¹, Ravel N.¹ ¹Institut des Sciences
Cognitives CNRS/Univ Lyon1, Bron, France
- P15 80 INTERCORRELATION OF OLFACTORY BULB SPIKES
DURING LOCAL FIELD POTENTIAL OSCILLATIONS IS
LOW
Scott J.W.¹, Sherrill L.¹, Green E.¹ ¹Cell Biology, Emory
University, Atlanta, GA
- P16 81 MODULATION OF RECEPTOR NEURON INPUT TO THE
OLFACTORY BULB MEDIATED BY FEEDBACK VERSUS
LATERAL PRESYNAPTIC INHIBITION
McGann J.P.¹, Pirez N.¹, Gainey M.A.¹, Muratore C.¹, Elias A.S.¹,
Wachowiak M.¹ ¹Biology, Boston University, Boston, MA
- P17 82 BASIC CHARACTERISTICS OF NEURON NETWORK
COMPONENTS IN THE ANTENNAL LOBE OF THE
SILKMOTH
Namiki S.¹, Kazawa T.², Kanzaki R.² ¹Graduate School of Life and
Environmental Sciences, University of Tsukuba, Tsukuba, Japan;
²Department of Mechano-Informatics, Graduate School of
Information Science and Technology, University of Tokyo, Tokyo,
Japan

- P18 83 OLFACTORY BULB (OB) RESPONSES ARE ALTERED BY
REGIONAL BLOCKADE OF EPITHELIAL REGIONS BY
EXPOSURE TO ULTRAVIOLET (UV) LIGHT
Cheung M.¹, White J.E.¹, Kauer J.S.¹ ¹Neuroscience, Tufts
University, Boston, MA
- P19 84 REPRESENTATION OF ODORS IN THE MOUSE
OLFACTORY BULB
Rinberg D.¹, Koulakov A.², Ollinger F.¹, Gelperin A.¹ ¹Monell
Chemical Senses Center, Philadelphia, PA; ²Freeman Building,
Cold Spring Harbor Laboratory, Cold Spring Harbor, NY
- P20 85 SCREENING FOR PLASMA MEMBRANE EXPRESSION OF
FLUORESCENT PROTEIN (FP)-VOLTAGE SENSITIVE
SENSORS
Kosmidis E.¹, Homma R.¹, Cohen L.B.¹, Baker B.¹ ¹Physiology,
Yale University, New Haven, CT
- P21 86 DENDRITES OF JUXTAGLOMERULAR NEURONS IN RAT
OLFACTORY BULB EXPRESS CA2+-PERMEABLE AMPA
RECEPTORS
Ma J.¹, Lowe G.¹ ¹Monell Chemical Senses Center, Philadelphia,
PA

Human Olfactory Performance (North Ballroom)

- P22 87 EFFECTS OF ODORS ON THE EXERCISE PERFORMANCE
OF SUBJECTS AT DIFFERENT TRAINING LEVELS
Merrihew M.¹, Kent J.¹, Hornung D.¹ ¹Biology, St. Lawrence
University, Canton, NY
- P23 88 EPISODIC ODOR MEMORY: INFLUENCES OF
HANDEDNESS, SEX, AND SIDE OF NOSE
Doty R.L.¹, Kerr K.¹ ¹Smell and Taste Center, University of
Pennsylvania, Philadelphia, PA
- P24 89 POSTMENOPAUSAL HORMONE REPLACEMENT: DO
ESTROGEN AND PROGESTERONE DIFFERENTIALLY
AFFECT SMELL FUNCTION?
Armstrong D.J.¹, Neff J.¹, Sammel M.D.², Tourbier I.A.¹, Evans
D.³, Moberg P.J.³, Sondheimer S.⁴, Doty R.L.¹
¹Otorhinolaryngology, University of Pennsylvania, Philadelphia,
PA; ²Biostatistics and Epidemiology, University of Pennsylvania,
Philadelphia, PA; ³Psychiatry, University of Pennsylvania,
Philadelphia, PA; ⁴Obstetrics and Gynecology, University of
Pennsylvania, Philadelphia, PA

- P25 90 RELATIONSHIP BETWEEN INDIVIDUAL ODOR THRESHOLD, ODOR QUALITY PERCEPTION, AND ODOR IDENTIFICATION
Hudson R.¹, Arriola A.¹, Martínez-Gómez M.², Distel H.³ ¹Univ Nacional Autónoma de México, Mexico City, Mexico; ²Centro Tlaxcala Biol Conducta, Univ Autónoma de Tlaxcala, Tlaxcala, Mexico; ³Inst Med Psychol, Univ München, München, Germany
- P26 91 TIME AND INTENSITY PATTERNS OF ORTHONASAL AND RETRONASAL SMELLING
Sood S.¹, Halpern B.P.² ¹Neurobiology and Behavior, Cornell University, Ithaca, NY; ²Psychology, Cornell University, Ithaca, NY
- P27 92 SMELL IDENTIFICATION DECLINES FROM AGE 36 YEARS AND MAINLY AFFECTS PLEASANT ODOURS.
Hawkes C.¹, Fogo A.², Shah M.¹ ¹Essex Neuroscience Centre, Romford, Essex, United Kingdom; ²Neurology, Essex Neuroscience Centre, Romford, Essex, United Kingdom
- P28 93 MODELING ODOR MIXTURE PERCEPTION
Broman D.A.¹, Moeller P.², Olsson M.J.³ ¹Department of Psychology, Umea University, Umeå, Sweden; ²Department of Food Science, Sensory Science, Royal Veterinary and Agricultural University, Frederiksberg C, Denmark; ³Psychology, Uppsala University, Uppsala, Sweden
- P29 94 TASK DEMANDS AFFECT SNIFFING BEHAVIOR
Sheena H.M.¹, John H.J.¹, Konstantin R.A.¹, Jason B.M.¹, Robert G.C.², Frank R.A.³ ¹Psychology, University of Cincinnati, Cincinnati, OH; ²Cell Biology, University of Cincinnati, Cincinnati, OH; ³Psychology/ The Graduate School, University of Cincinnati, Cincinnati, OH
- P30 95 HOW BIG ARE INDIVIDUAL DIFFERENCES IN OLFACTION ANYWAY?
Cain W.S.¹, Schmidt R.¹ ¹Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA
- P31 96 THE INFLUENCE OF MECAMYLAMINE ON TRIGEMINAL AND OLFACTORY CHEMORECEPTION OF NICOTINE
Thuerauf N.¹, Markovic K.¹, Braun G.¹, Bleich S.¹, Reulbach U.¹, Lunkenheimer J.¹ ¹Department of Psychiatry and Psychotherapy, University of Erlangen-Nürnberg, Erlangen, Bavaria, Germany
- P32 97 COGNITIVE EFFECTS OF HUMAN EMOTION SEMIOCHEMICALS
De Groat D.¹, Haviland-Jones J.¹ ¹Psychology, Rutgers, The State University of New Jersey, Piscataway, NJ

- P33 98 PERCEPTION OF FRESHNESS OF FOOD BY HUMANS: SENSITIZATION EFFECTS SHOWN IN A CHEMOSENSORY EVOKED RELATED POTENTIAL PARADIGM
Barkat S.¹, Sicard G.², Lorig T.S.³ ¹Neurosciences & Systèmes Sensoriels, CNRS, Lyon, France; ²CESG, Dijon, France; ³Cognitive Neuroscience, Washington and Lee University, Lexington, VA
- P34 99 EFFECTS OF INTERMITTENT PEPPERMINT ODOR ADMINISTRATION ON ALERTNESS, MOOD, MOBILITY, AND SLEEP PATTERNS
Schuler A.¹, Raudenbush B.¹ ¹Psychology, Wheeling Jesuit University, Wheeling, WV
- P35 100 MEASUREMENTS RELATED TO ODOR PERCEPTION ARE MODULATED BY LOOKING AT EMOTIONALLY EVOCATIVE IMAGES
Pollatos O.¹, Kopietz R.¹, Linn J.¹, Albrecht J.¹, Kettenmann B.², Kobal G.³, Wiesmann M.¹ ¹Neuroradiology, University of Munich, Munich, Germany; ²Radiology, Virginia Commonwealth University, Richmond, VA; ³Physiology, Virginia Commonwealth University, Richmond, VA
- P36 101 EFFECTS OF ODOR ADMINISTRATION ON DRIVING PERFORMANCE, SAFETY, ALERTNESS, AND FATIGUE
Grayhem R.¹, Esagro W.¹, Sears T.¹, Raudenbush B.¹ ¹Psychology, Wheeling Jesuit University, Wheeling, WV
- P37 102 PERCEPTION OF ODORS AT DIFFERENT STAGES OF AGE WITH SPECIAL REGARD TO SEX, PUBERTY AND MENOPAUSE
Buschmann-Maiworm R.E.¹, Kneuer S.¹ ¹Psychology, University of Munster, Munster, NRW, Germany
- P38 103 REACTION TIMES TO SEQUENCES OF TWO ODOURS
Koester E.P.¹, Moeller P.² ¹Sensory Science, Royal Veterinary and Agricultural University, Frederiksberg, Denmark; ²Food Science, Sensory Science, Royal Veterinary and Agricultural University, Frederiksberg C, Denmark
- P39 104 SCENT TRACKING IN HUMANS.
Sobel N.¹, Judkewitz B.¹, Porter J.A.¹, Telles C.¹, Mainland J.¹, Zelano C.¹, Bremner E.¹, Johnson B.¹, Young N.¹, Khan R.M.¹ ¹Neuroscience, University of California, Berkeley, Berkeley, CA
- P40 105 NEURAL CORRELATES OF ATTENTION TO PLEASANT VERSUS UNPLEASANT ODORS
Djordjevic J.¹, Boyle J.A.¹, Penicaud S.¹, Jones-Gotman M.¹ ¹Montreal Neurological Institute, Montreal, Quebec, Canada

- P41 106 PERITHRESHOLD EXPOSURE INCREASES ODOR DETECTABILITY BUT NOT ODOR RECOGNITION
Diamond J.¹, Breslin P.¹, Dalton P.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*

Trigeminal: Cellular (North Ballroom)

- P42 159 SOLITARY CHEMOSENSORY CELL TURNOVER IN THE NASAL EPITHELIUM
Gulbransen B.D.¹, Finger T.E.² ¹*Neuroscience, University of Colorado Health Sciences Center, Aurora, CO*; ²*Cellular and Structural Biology, University of Colorado Health Sciences Center, Denver, CO*
- P43 160 INVESTIGATION OF CHEMOSENSORY PROPERTIES OF TRIGEMINAL NEURONS USING ADENOVIRUS BASED EXPRESSION OF A PIP2 SIGNALLING MARKER
Klasen K.¹, Gisselmann G.¹, Hatt H.¹, Wetzel C.H.¹ ¹*Ruhr-Universität Bochum, Bochum, Germany*
- P44 161 CALCIUM-DEPENDENCE OF ANKTM1 FUNCTION
Dörner J.F.¹, Hatt H.¹, Wetzel C.H.¹ ¹*Ruhr-Universität Bochum, Bochum, Germany*
- P45 162 CHEMOSENSORY PROPERTIES OF TRIGEMINAL NEURONS INNERVATING THE NASAL CAVITY OF MICE
Damann N.¹, Rothermel M.¹, Mettenleiter T.C.², Hatt H.¹, Wetzel C.H.¹ ¹*Lehrstuhl für Zellphysiologie, Ruhr-Universität, Bochum, Germany*; ²*Friedrich-Loeffler-Institut, Bundesforschungsinstitut für Tiergesundheit, Insel Riems, Germany*
- P46 163 ELECTROPHYSIOLOGICAL CHARACTERISATION OF NASAL TRIGEMINAL NEURONS IDENTIFIED BY VIRAL TRACING
Rothermel M.¹, Damann N.¹, Mettenleiter T.C.², Hatt H.¹, Wetzel C.H.¹ ¹*Lehrstuhl für Zellphysiologie, Ruhr-Universität Bochum, Bochum, Germany*; ²*Friedrich-Loeffler-Institut, Bundesforschungsinstitut für Tiergesundheit, Insel Riems, Germany*

Trigeminal Neurophysiology (North Ballroom)

- P47 164 TRIGEMINAL THRESHOLDS CORRELATE TO THE WIDTH OF THE NASAL CAVITY
Gartz I.¹, Konstantinidis I.E.², Reden J.³, Rodewald A.⁴, Gerber J.C.⁵ ¹*Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany*; ²*AHEPA University Hospital, Thessaloniki, Greece*; ³*University of Dresden, Dresden, Germany*; ⁴*Neuroradiology, University of Dresden Medical School, Dresden, Germany*; ⁵*Dresden University Hospital, Dresden, Germany*
- P48 165 EXCITATION OF COLD-SENSITIVE TRIGEMINAL CAUDALIS NEURONS BY MUSTARD OIL AND OTHER IRRITANTS
Carstens E.¹, Mitsuyo T.¹ ¹*Neurobiology, Physiology and Behavior, University of California, Davis, Davis, CA*
- P49 166 ETHANOL AFFECTS THE MECHANICAL RESPONSE IN TRIGEMINAL NERVE ENDINGS ON THE TONGUE OF RHESUS MONKEYS
Danilova V.¹, Danilov Y.¹, Roberts T.¹, Hellekant G.¹ ¹*University of Wisconsin-Madison, Madison, WI*
- P50 167 CHOLINERGIC RECEPTOR CELLS IN NASAL RESPIRATORY EPITHELIUM
Ogura T.¹, Lin W.¹ ¹*Cell & Development Biology, University of Colorado Health Sciences Center at Fitzsimons, and Rocky Mountain Taste and Smell Center, Aurora, CO*
- P51 168 ACTIVATION OF THE HUMAN SECONDARY SOMATOSENSORY CORTEX FOLLOWING MODERATELY PAINFUL TRIGEMINAL STIMULATION OF THE NASAL MUCOSA: FMRI STUDY
Albrecht J.¹, Wiesmann M.¹, Linn J.¹, Kopietz R.¹, Sakar V.¹, Anzinger A.¹, Kobal G.² ¹*Neuroradiology, University of Munich, Munich, Germany*; ²*Philip Morris USA Research Center, Richmond, VA*
- P52 169 PERIPHERAL TRIGEMINAL NERVE RESPONSES TO A HOMOLOGOUS SERIES OF CARBOXYLIC ACIDS
Allgood S.¹, Silver W.L.¹ ¹*Biology, Wake Forest University, Winston-Salem, NC*
- P53 170 TRIGEMINAL NERVE RESPONSES TO PUNGENT SPICES
Alimohammadi H.¹, Silver W.L.¹ ¹*Biology, Wake Forest University, Winston-Salem, NC*

- P54 271 ANTERIOR HUMAN NASAL MUCOSA MORE SENSITIVE TO TOUCH
Leopold D.¹, Bien A.¹, Wrobel B.², Holbrook E.³, Meyer G.E.⁴, Bratney N.¹, Meza J.¹ ¹Otolaryngology-Head and Neck Surgery, University of Nebraska Medical Center, Omaha, NE; ²Otolaryngology - Head and Neck Surgery, University of Southern California, Los Angeles, CA; ³Otolaryngology, Massachusetts General Hospital, Boston, MA; ⁴Biological Systems Engineering, University of Nebraska-Lincoln, Lincoln, NE

Taste: Human Sensory Performance (South Ballroom)

- P55 107 RELATIONSHIP BETWEEN GENOTYPES OF THE TAS2R38 BITTER TASTE RECEPTOR GENE AND SWEET PREFERENCES IN CHILDREN AND ADULTS.
Mennella J.A.¹, Pepino M.Y.¹, Kennedy J.M.¹, Reed D.R.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P56 108 'ACTIVE' VS. 'PASSIVE' TASTING: EVIDENCE OF DIFFERENTIAL EFFECTS ACROSS TASTE STIMULI, SENSORY MODALITIES, AND SLIDES SITES.
Urban L.¹, Alvarez-Reeves M.¹, Collins H.¹, Green B.² ¹Sensory Neuroscience, The John B. Pierce Laboratory, New Haven, CT; ²The John B. Pierce Laboratory, New Haven, CT
- P57 109 SWITCHING COSTS ASYMMETRY IN PLEASANTNESS AND INTENSITY IN TASTE
Veldhuizen M.G.¹, Kroeze J.H.² ¹Taste and Smell Laboratory Utrecht, Psychonomics, Utrecht University, Utrecht, Netherlands; ²Wageningen Taste and Smell Centre, Wageningen University, Wageningen, Netherlands
- P58 110 ENHANCED RESPONSES IN THE CORTICAL SENSORY AREAS TO ANTICIPATED TASTE OR FOOD STIMULI; MAGNETOENCEPHALOGRAPHIC STUDIES IN HUMANS
Yamamoto C.¹, Morikawa K.¹, Yamamura H.¹, Nakagawa S.², Yamaguchi M.², Sutani K.², Tonoike M.², Yamamoto T.¹ ¹Department of Behavior Science, Graduate School of Human Sciences, Osaka University, Osaka, Japan; ²Institute for Human Science and Biomedical Engineering, National Institute of Advanced Industrial Science and Technology, Osaka, Japan
- P59 111 INTERACTIONS BETWEEN CYCLAMATE AND MSG TASTES IN HUMAN SUBJECTS
Cowart B.J.¹, Vainius A.A.¹, Klock C.T.¹, Breslin P.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA

- P60 112 PTC NON-TASTERS FIND THE FRUIT OF ANTIDESMA BUNII BITTER, WHILE PTC TASTERS FIND IT SWEET.
Tharp C.D.¹, Tharp A.¹, Alarcon S.M.¹, Reed D.R.¹, Breslin P.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P61 113 TWIN-STUDY DEMONSTRATES HERITABILITY OF SENSITIVITY TO SOUR TASTE FROM CITRIC ACID.
Canty T.M.¹, Wise P.M.¹, Breslin P.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P62 114 ADAPTATION VS. INHIBITION: EVIDENCE OF INCREASED SENSITIVITY TO SUCROSE AFTER ADAPTATION
Galindo-Cuspinera V.¹, Breslin P.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P63 115 GENETIC AND ENVIRONMENTAL VARIATION IN TASTE MEDIATES VEGETABLE SWEETNESS, BITTERNESS AND INTAKE
Dinehart M.E.¹, Lanier S.¹, Hayes J.E.¹, Chappo A.², Bartoshuk L.M.², Duffy V.B.¹ ¹Allied Health, University of Connecticut, Storrs, CT; ²Surgery, Yale University, New Haven, CT
- P64 116 TASTE AND DIETARY PREDICTORS OF CENTRAL ADIPOSITY IN ADULT FEMALES
Lanier S.¹, Hutchins H.², Duffy V.B.¹ ¹Allied Health, University of Connecticut, Storrs, CT; ²Zone Labs Inc, Danvers, MA
- P65 117 APPLICATION OF STRUCTURAL EQUATION MODELING TO TAS2R38 GENOTYPE, 6-N-PROPYLTHIOURACIL (PROP) BITTERNESS AND SUPERTASTING
Hayes J.E.¹, Kidd J.R.², Kidd K.K.³, Bartoshuk L.⁴, Duffy V.B.⁵ ¹Nutritional Sciences, University of Connecticut, Storrs, CT; ²Genetics, Yale University, New Haven, CT; ³Psychiatry, Yale University, New Haven, CT; ⁴Surgery, Yale University, New Haven, CT; ⁵Dietetics Program, University of Connecticut, Storrs, CT
- P66 118 INHIBITION OF TASTE BY CHLORHEXIDINE IN HUMANS
Mccollum K.¹, Frank M.E.¹, Gent J.F.² ¹Neurosciences, SLIDES Diagnosis, University of Connecticut, Farmington, CT; ²Epidemiology & Public Health, Yale University, New Haven, CT
- P67 119 ADAPTATION AND RECOVERY-FROM-ADAPTATION TO SUCROSE AND SODIUM CHLORIDE
Ashkenazi A.¹, Marks L.E.¹, Elgart B.¹, Frank M.E.² ¹John B. Pierce Laboratory, New Haven, CT; ²SLIDES Diagnosis, University of Connecticut, Farmington, CT

- P68 120 EXPERIENCE INDUCED CHANGES IN HUMAN SWEET TASTE
Peo C.¹, Gonzalez K.M.², Kennedy L.M.² ¹Neuroscience Program, Smith College, Northampton, MA; ²Neuroscience Laboratory, Dept. Biology, Clark University, Worcester, MA
- P69 121 EXPERIENCE-INDUCED CHANGES IN TASTE IDENTIFICATION FOR MONOSODIUM GLUTAMATE (MSG) ARE REVERSIBLE
Chiyoko K.¹, Kennedy L.M.², Halpern B.¹ ¹Cornell University, Ithaca, NY; ²Clark University, Worcester, MA
- P70 122 THE EFFECT OF A NUTRITIONAL PRELOAD ON GUSTATORY ACTIVATION: AN ER-FMRI STUDY
Haase L.B.¹, Cerf-Ducastel B.¹, Fowler A.¹, Nguyen L.¹, Machado A.¹, Arain Y.¹, Dailey E.¹, Kemmotsu N.¹, Murphy C.¹ ¹Psychology, San Diego State University, San Diego, CA
- P71 123 BITTERNESS OF ILEX PARAGUARIENSIS (IP) INFUSIONS: AFFECTED BY FLAVOR MANIPULATIONS OR CAFFEINE?
Tamasi O.¹, Gurlekian I.¹, Drunday F.¹, Calviño A.¹ ¹Universidad de Buenos Aires, Buenos Aires, Argentina
- P72 124 PROPERTIES OF LACTISOL (2-(4-METHOXYPHENOXY) PROPANOIC ACID)
Delwiche J.¹, Warnock A.R.¹, Heffelfinger A.L.², Zevchak S.¹ ¹Food Science and Technology, Ohio State University, Columbus, OH; ²Cargill Custom Dressings, Port St Lucie, FL
- P73 125 PERCEIVED SALTINESS AND THE SODIUM EVOKED LINGUAL SURFACE POTENTIAL CORRELATE
Feldman G.M.¹, Mogyrosi A.¹, Heck G.² ¹Internal Medicine, Virginia Commonwealth University, Richmond, VA; ²Physiology, Virginia Commonwealth University, Richmond, VA
- P74 126 TASTE BLINDNESS TO 6-N-PROPYLTHIOURACIL (PROP) AND BODY WEIGHT IN A GENETICALLY-ISOLATED POPULATION IN SOUTHERN ITALY.
Tepper B.J.¹, Zhao L.¹, Ullrich N.¹, Persico G.², Ciullo M.², Colonna V.², Nutile T.², Gasparini P.³ ¹Food Science, Rutgers University, New Brunswick, NJ; ²Institute of Genetics and Biophysics, CNR, Naples, Italy; ³Telethon Institute of Genetics and Medicine, Naples, Italy

Taste Development (South Ballroom)

- P75 127 NEURONAL DEATH IN THE DEVELOPING RAT GENICULATE GANGLION
Carr V.M.¹, Sollars S.², Farbman A.¹ ¹Neurobiology and Physiology, Northwestern University, Evanston, IL; ²University of Nebraska at Omaha, Omaha, NE
- P76 128 DIETARY PROTEIN RESTRICTION PRODUCES ATTENUATED SALT RESPONSES IN THE CHORDA TYMPANI NERVE TO SODIUM-SPECIFIC STIMULI IN RATS.
Thomas J.E.¹, Hill D.L.² ¹Neuroscience, University of Virginia, Charlottesville, VA; ²Psychology, University of Virginia, Charlottesville, VA
- P77 129 PATTERNS OF FUNGIFORM TASTE BUD INNERVATION IN C57BL/6J AND BAX KNOCKOUT MICE.
Guagliardo N.¹, Hill D.L.¹ ¹Psychology, University of Virginia, Charlottesville, VA
- P78 130 DEVELOPMENTAL SUSCEPTIBILITY OF FUNGIFORM PAPILLAE FOLLOWING LINGUAL NERVE TRANSECTION IN RATS
Gomez A.M.¹, Sollars S.I.¹ ¹Psychology, University of Nebraska at Omaha, Omaha, NE
- P79 131 DEVELOPMENTAL REGULATION OF THE GENICULATE GANGLION BY NEUROTROPHINS BDNF AND NT-4
Patel A.¹, Krimm R.F.¹ ¹Anatomical Sciences and Neurobiology, University of Louisville, Louisville, KY
- P80 132 BONE MORPHOGENETIC PROTEINS REGULATE FUNGIFORM PAPILLA DEVELOPMENT IN EMBRYONIC RAT TONGUE.
Zhou Y.¹, Liu H.¹, Mistretta C.¹ ¹School of Dentistry, University of Michigan, Ann Arbor, MI
- P81 133 ROLES FOR PI3K, MEK AND P38 MAP KINASE SIGNALING IN REGULATING THE FUNGIFORM PAPILLA RESPONSE TO EPIDERMAL GROWTH FACTOR DURING TONGUE DEVELOPMENT.
Liu H.¹, Zhou Y.¹, Mistretta C.¹ ¹School of Dentistry, University of Michigan, Ann Arbor, MI
- P82 134 DEVELOPMENT OF GUSTATORY NERVE TERMINAL FIELD VOLUMES FOLLOWING NEONATAL CHORDA TYMPANI NERVE TRANSECTION
Lane A.H.¹, Sollars S.I.¹ ¹Psychology, University of Nebraska at Omaha, Omaha, NE

- P83 135 BMP4 AND SONIC HEDGEHOG COORDINATE THE DEVELOPMENT OF TASTE PAPILLAE.
Liggins C.A.¹, Ripley A.N.¹, Denkers N.², Barlow L.A.¹ ¹*Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO*; ²*Pathology, Colorado State University, Fort Collins, CO*
- P84 136 BDNF IS REQUIRED FOR TARGETING OF GUSTATORY FIBERS DURING DEVELOPMENT.
Lopez G.F.¹, Krimm R.F.¹ ¹*Anatomical Sciences and Neurobiology, University of Louisville School of Medicine, Louisville, KY*
- P85 137 IDENTIFICATION OF MOLECULAR MARKERS SELECTIVELY EXPRESSED IN TASTE BASAL CELLS
Iwatsuki K.¹, Margolskee R.F.¹ ¹*Physiology & Biophysics, Howard Hughes Medical Institute, Mount Sinai School of Medicine, New York, NY*
- P86 138 EXPRESSION OF FOXA2 AND GUSTDUCIN IN TASTE BUDS
Iwatsuki K.¹, Matsumoto N.², Margolskee R.F.¹ ¹*Physiology & Biophysics, Howard Hughes Medical Institute, Mount Sinai School of Medicine, New York, NY*; ²*Division of Liver Diseases, Mount Sinai School of Medicine, New York, NY*
- P87 139 SEMA3F EXPRESSION AND REPELLENT EFFECTS IN THE DEVELOPING GUSTATORY SYSTEM.
Vilbig R.¹, Rochlin M.W.¹ ¹*Biology, Loyola University of Chicago, Chicago, IL*
- P88 140 T1R3 EXPRESSION ACROSS TASTE FIELDS DURING POSTNATAL MOUSE DEVELOPMENT
Kim J.¹, Roper S.¹, Chaudhari N.¹ ¹*Physiology and Biophysics, University of Miami, Miami, FL*
- P89 141 POSTNATAL DEVELOPMENT OF GUSTATORY NERVE TERMINAL FIELDS IN CONTROL RATS.
Mangold J.E.¹, Hill D.L.¹ ¹*Psychology, University of Virginia, Charlottesville, VA*
- P90 142 EPH/EPHRIN EXPRESSION IN THE DEVELOPING GUSTATORY SYSTEM
Spec A.¹, Huang R.¹, Rochlin M.W.¹ ¹*Biology, Loyola University of Chicago, Chicago, IL*

- P91 143 A COMPARATIVE ANALYSIS OF THE ULTRASTRUCTURAL MORPHOLOGY OF THE THREE GUSTATORY NERVE AXONS IN THE NUCLEUS OF THE SOLITARY TRACT IN DEVELOPMENTALLY SODIUM-RESTRICTED AND CONTROL RATS
May O.L.¹, Erisir A.¹, Hill D.L.¹ ¹*Psychology, University of Virginia, Charlottesville, VA*
- P92 144 CHARACTERIZATION OF A LONG-TERM PRIMARY TASTE CELL CULTURE
Ozdener H.¹, Rawson N.E.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*

Feeding & Drinking (South Ballroom)

- P93 145 CALCIUM INTAKE AND WEIGHT
Hooper R.¹, Lewis A.¹, Thaw A.² ¹*Psychology, Millsaps College, Jackson, MS*; ²*Millsaps College, Jackson, MS*
- P94 146 BEHAVIORS EFFECTS OF CAFFEINATED COLA CONSUMPTION ON FIRST GRADERS
Oliver M.¹, Hirsch A.R.¹, Ye Y.² ¹*Smell and Taste Treatment and Research Foundation, Chicago, IL*; ²*Illinois Mathematics and Science Academy, Aurora, IL*
- P95 147 ALTERED TASTE SENSITIVITY IN OBESE, PREDIABETIC OLETF RATS.
Hajnal A.¹, Norgren R.¹, Covasa M.², Piekutowski A.¹ ¹*Neural & Behavior Sciences, Pennsylvania State University, Hershey, PA*; ²*Nutritional Sciences, Pennsylvania State University, University Park, PA*
- P96 148 MOTIVATIONAL SUBSTITUTIONS IN FOOD AND DRUG ADDICTION
Pelchat M.L.¹, Childress A.², Valdez J.², Bykowski C.¹, Ragland J.D.² ¹*Monell Chemical Senses Center, Philadelphia, PA*; ²*Psychiatry, University of Pennsylvania, Philadelphia, PA*
- P97 149 EFFECT OF TASTE AND PALATABILITY ON LINGUAL PRESSURE DURING SWALLOWING
Pelletier C.¹, Dhanaraj G.¹ ¹*Syracuse University, Syracuse, NY*
- P98 150 EFFECTS OF SLIDES MOVEMENTS ON PERCEIVED FOOD FLAVORS.
De Wijk R.A.¹, Prinz J.² ¹*Wageningen Center for Food Sciences/A&F, Wageningen, Netherlands*; ²*Wageningen Center for Food Sciences/TNO-V, Wageningen, Netherlands*

- P99 151 INDUCTION OF KALLIKREINS IN RAT SUBMANDIBULAR SALIVA BY SWEET TASTE INHIBITORS CONTAINED GYMNEMA DIET.
Yamada A.¹, Nakamura Y.¹, Katsukawa H.², Ninomiya Y.¹
¹*SLIDES Neuroscience, Kyushu University, Fukuoka, Japan;*
²*SLIDES Physiology, Asahi University, Mizuho, Japan*
- P100 152 EFFECTS OF SHAM INTOXICATION: IMPACT ON MOOD, PAIN PERCEPTION AND THRESHOLD, LEVEL OF AGGRESSION, AND PHYSIOLOGY
Raudenbush B.¹, Wilson I.¹, Zoladz P.¹, Lilley S.¹ ¹*Psychology, Wheeling Jesuit University, Wheeling, WV*
- P101 153 SEX DIFFERENCES IN ADULT OBESITY RISK ASSOCIATED WITH CHILDHOOD TOBACCO EXPOSURE
Snyder D.J.¹, O'Malley S.S.², Mckee S.A.², Bartoshuk L.M.³
¹*Neuroscience, Yale University, New Haven, CT;* ²*Psychiatry, Yale University, New Haven, CT;* ³*Surgery, Yale University, New Haven, CT*
- P102 154 INGESTION OF NON-CALORIC PALATABLE FOOD MASH DID NOT INDUCE C-FOS EXPRESSION IN THE RAT PVN AND NTS
Jahng J.W.¹, Yoo S.B.¹, Ryu V.¹, Ahn K.M.², Gao E.F.², Lee J.H.²
¹*Pharmacology, Yonsei University College of Medicine, Seoul, South Korea;* ²*SLIDES & Maxillofacial Surgery, Seoul National University College of Dentistry, Seoul, South Korea*
- P103 155 BRAIN MECHANISMS OF HEDONIC VALUE OF TASTE AND INGESTIVE BEHAVIOR
Yamamoto T.¹, Shimura T.¹, Furudono Y.¹, Ando C.¹, Imaoka H.¹, Yamamoto C.¹ ¹*Department of Behavior Science, Graduate School of Human Sciences, Osaka University, Osaka, Japan*
- P104 156 MOUSE STRAINS SHOW DIFFERENCES IN INTAKE OF ALKALINES
Boughter J.¹, Pour L.², Shank A.J.³, St. John S.J.² ¹*Anatomy & Neurobiology, University of Tennessee, Memphis, TN;* ²*Psychology, Reed College, Portland, OR;* ³*Anatomy & Neurobiology, University of Tennessee Health Sciences Center, Memphis, TN*
- P105 157 RATS FORM TASTE-NAUSEA ASSOCIATIONS IN 8 MINUTES: NEW METHODS TO EXPLORE THE TEMPORAL SLIDES AND QUALITATIVE DYNAMICS OF CONDITIONED TASTE AVERSION PROCESSING.
Baird J.P.¹, St. John S.², Nguyen E.A.³ ¹*Psychology & Neuroscience, Amherst College, Amherst, MA;* ²*Reed College, Portland, OR;* ³*Psychology, Amherst College, Amherst, MA*

- P106 158 SELECTIVE BREEDING OF MOUSE LINES DIVERGENT IN SWEETENER CONSUMPTION
Bachmanov A.A.¹, Bosak N.P.¹, Beauchamp G.K.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*

Friday, April 15, 2005

- 7:00 AM - 1:00 PM **Registration** (*Registration Area*)
- 7:30 AM - 9:00 AM **Continental Breakfast** (*Prefunction Area*)
- 9:45 AM - 10:15 AM **Coffee Break** (*Prefunction Area*)

POSTERS

Friday - 8:00 AM - 12:00 PM (*P1-P51 North Ballroom; P52-P102 South Ballroom*)

Olfactory CNS (*North Ballroom*)

- P1 171 A CORTICAL HIGH-PASS FILTER CONTRIBUTES TO OLFACTORY FIGURE-GROUND SEPARATION
Kadohisa M.¹, Wilson D.A.¹ ¹*Zoology, University of Oklahoma, Norman, OK*
- P2 172 ODOTOPIC MAP IN THE FOREBRAIN OF CHANNEL CATFISH
Nikonov A.A.¹, Finger T.², Caprio J.¹ ¹*Biological Sciences, Louisiana State University, Baton Rouge, LA;* ²*Cell & Dev. Biol., University of Colorado Health Sciences Center, Aurora, CO*
- P3 173 THE CLONING AND CHARACTERIZATION OF THE DISTRIBUTION OF AN OCTOPAMINE RECEPTOR AND TWO SEROTONIN RECEPTORS IN THE OLFACTORY SYSTEM OF THE TOBACCO HAWKMOTH MANDUCA SEXTA
Dacks A.¹, Hua L.², Christensen T.¹, Nighorn A.¹ ¹*Neurobiology, University of Arizona, Tucson, AZ;* ²*Biochemistry and Molecular Biophysics, University of Arizona, Tucson, AZ*

- P4 174 OLFACTORY WORKING-MEMORY IN PRIMARY OLFACTORY CORTEX
Zelano C.¹, Mainland J.², Johnson B.³, Bensafi M.², Porter J.A.⁴, Telles C.A.², Bremner E.², Khan R.M.⁵, Sobel N.² ¹University of California, Berkeley, Berkeley, CA; ²Neuroscience, University of California, Berkeley, Berkeley, CA; ³Bioengineering, University of California, Berkeley, Berkeley, CA; ⁴Psychology, University of California, Berkeley, Berkeley, CA; ⁵Helen Wills Neuroscience Institute, University of California, Berkeley, Berkeley, CA
- P5 175 CNS PROCESSING OF PULSE DURATION IN THE CRAYFISH, PROCAMBARUS CLARKII
Wolf M.¹, Daly K.C.², Moore P.A.¹ ¹Biological Sciences, Bowling Green State University, Bowling Green, OH; ²Biology, West Virginia University, Morgantown, VA
- P6 176 DIFFERENTIAL HABITUATION OF UNIT ACTIVITY, BETA ACTIVITY, AND GAMMA ACTIVITY IN OLFACTORY CORTEX
Gilmore H.L.¹, Stripling J.S.¹ ¹Psychology, University of Arkansas, Fayetteville, AR
- P7 177 REAL-TIME GAS CONCENTRATION MONITORING METHOD FOR CHEMOSENSORY EVENT-RELATED POTENTIAL MEASUREMENT
Toda H.¹, Yamada H.¹, Saito S.¹ ¹National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan
- P8 178 SYNAPTIC CORRELATES OF OLFACTORY RECOGNITION MEMORY
Kaba H.¹, Huang G.¹ ¹Department of Integrative Physiology, Kochi Medical School, Nankoku, Kochi, Japan
- P9 179 EYE CLOSURE IN DARKNESS ANIMATES OLFACTORY CORTICAL AREAS
Wiesmann M.¹, Kopietz R.¹, Albrecht J.¹, Linn J.¹, Reime U.¹, Kara E.¹, Kettenmann B.², Kobal G.³, Thomas S.⁴ ¹Neuroradiology, University of Munich, Munich, Germany; ²Radiology, Virginia Commonwealth University, Richmond, VA; ³Physiology, Virginia Commonwealth University, Richmond, VA; ⁴Neurology, University of Munich, Munich, Germany
- P10 180 EVIDENCE OF OLFACTORY CROSS-ADAPTATION OF AN UNPLEASANT MERCAPTAN ODORANT BY A PLEASANT MERCAPTAN AS REVEALED BY CHEMOSENSORY EVENT-RELATED POTENTIALS
Reynolds D.J.¹, Chopra A.², Grimshaw S.², Taylor D.², Hitchcock D.², Kemp S.³, Kettenmann B.⁴ ¹University College Chester, Chester, United Kingdom; ²Unilever R&D, Bebington, United Kingdom; ³Unilever R&D, Sharnbrook, United Kingdom; ⁴Radiology, Virginia Commonwealth University, Richmond, VA

- P11 181 VARIABILITY IN OLFACTORY FMRI STUDY RESULTS
Gerber J.C.¹ ¹Dresden University Hospital, Dresden, Germany
- P12 182 SINGLE ODORANTS VERSUS BINARY ODOR MIXTURES: A PET INVESTIGATION
Boyle J.A.¹, Djordjevic J.¹, Olsson M.J.², Penicaud S.¹, Jones-Gotman M.¹ ¹Montreal Neurological Institute, Montreal, Quebec, Canada; ²Psychology, Uppsala University, Uppsala, Sweden
- P13 183 AGE-DEPENDENT IMPAIRMENT IN LTP IN ANTERIOR PIRIFORM CORTEX OF MICE LACKING THE FRAGILE X MENTAL RETARDATION PROTEIN
Larson J.¹, Jessen R.¹, Kim D.¹ ¹Psychiatry, University of Illinois at Chicago, Chicago, IL
- P14 184 CONTEXT AND CHEMISTRY AS FACTORS FOR INNATE ODOR RESPONSES
Lowry C.A.¹, Fanselow M.S.², Kay L.M.³ ¹Neurobiology, University of Chicago, Chicago, IL; ²Psychology, University of California, Los Angeles, Los Angeles, CA; ³University of Chicago, Chicago, IL

Olfactory Receptor Neurons (North Ballroom)

- P15 185 DETECTION OF MHC CLASS I PEPTIDES BY THE MAMMALIAN MAIN OLFACTORY SYSTEM
Spehr M.¹, Kelliher K.R.¹, Boehm T.², Leinders-Zufall T.¹, Zufall F.¹ ¹Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD; ²Max-Planck-Institute of Immunobiology, Freiburg, Germany
- P16 186 LIPOCALINS IN THE OLFACTORY EPITHELIUM OF THE NEWT, CYNOPUS PYRROHOGASTER
Iwasa T.¹, Urano K.¹, Sawada K.¹, Okano K.², Nakamura T.² ¹Material Science and Engineering, Muroran Institute of Technology, Muroran, Hokkaido, Japan; ²Applied Physics and Chemistry, The University of Electro-Communications, Chofu, Tokyo, Japan
- P17 187 NONSELECTIVE CATION CHANNELS IN RAT OLFACTORY RECEPTOR NEURONS
Zhainazarov A.B.¹, Ache B.W.¹ ¹Whitney Laboratory for Marine Bioscience, Center for Smell and Taste, McKnight Brain Institute, University of Florida, Gainesville, FL
- P18 188 PLASMA MEMBRANE CALCIUM PUMPS OF MOUSE OLFACTORY NEURONS
Vanhouten J.¹, Valentine M.¹, Weeraratne S.D.¹, Delay R.¹ ¹Biology, University of Vermont, Burlington, VT

- P19 189 UNCONVENTIONAL NEURONS IN THE NASAL CAVITY OF HUMANS
Hansen A.¹, Witt M.², Hummel T.² ¹Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO; ²Technische Universität, Dresden, Germany
- P21 191 SIGNAL TRANSDUCTION PROTEINS IN THE SQUID, LOLLIGUNCULA BREVIS
Mobley A.S.¹, Lucero M.T.¹ ¹Physiology, University of Utah, Salt Lake City, UT
- P22 192 MOLECULAR IDENTIFICATION OF A TRPC PROTEIN HOMOLOG FROM LOBSTER OLFACTORY RECEPTOR NEURONS
Urban J.M.¹, Bobkov Y.V.¹, Zhainazarov A.B.¹, Ache B.W.¹ ¹Whitney Laboratory for Marine Bioscience, Center for Smell and Taste, McKnight Brain Institute, University of Florida, Gainesville, FL
- P23 193 CHARACTERIZATION OF A FUNCTIONALLY DIFFERENT SUBPOPULATION OF LOBSTER OLFACTORY RECEPTOR NEURONS
Bobkov Y.V.¹, Aggio J.F.¹, Urban J.M.¹, Daly K.C.², Ache B.W.¹ ¹Whitney Laboratory for Marine Bioscience, Center for Smell and Taste, McKnight Brain Institute, University of Florida, Gainesville, FL; ²Dept. Biology, West Virginia University, Morgantown, WV
- P24 194 CHARACTERIZATION OF A DROSOPHILA MELANOGASTER CHEMOSENSORY SPECIFIC SNMP
Fernandez K.¹, Taraskeiwicz D.¹, Vogt R.G.¹ ¹Biological Sciences, University of South Carolina, Columbia, SC
- P25 195 FUNCTIONAL CHARACTERIZATION OF TWO HUMAN OLFACTORY RECEPTORS EXPRESSED IN THE BACULOVIRUS SF9 INSECT CELL SYSTEM
Clot-Faybesse O.¹, Matarazzo V.² ¹Institut National de Recherche Agronomique (INRA, France), Dijon, France; ²Neuroscience, Johns Hopkins University, Baltimore, MD
- P26 196 RESPONSE PROFILES OF OLFACTORY RECEPTOR NEURONS IN XENOPUS LAEVIS TADPOLES: A THEORETICAL ANALYSIS
Manzini I.¹, Schild D.¹ ¹Department of Molecular Neurophysiology, University of Goettingen, Goettingen, Germany

- P27 197 INVESTIGATIONS ON PRESENCE AND FUNCTION OF NITRIC OXIDE IN THE OLFACTORY SYSTEM OF MICE
Brunert D.¹, Kleinbongard P.², Kelm M.², Hans H.¹, Christian H. W.¹ ¹Department of Cellphysiology, Ruhr-University Bochum, Bochum, Germany; ²Department of Cardiology, Heinrich-Heine Universität Düsseldorf, Düsseldorf, Germany
- P28 198 DETERMINING THE LOCATION OF CNG CHANNELS IN OLFACTORY CILIA
Flannery R.¹, French D.², Krantz W.B.³, Groetsch C.W.⁴, Kleene S.J.⁵ ¹University of Cincinnati, Milford, OH; ²Mathematics, University of Cincinnati, Cincinnati, OH; ³Chemical Engineering, University of Cincinnati, Cincinnati, OH; ⁴Mathematical Sciences, University of Cincinnati, Cincinnati, OH; ⁵Cell Biology, Neurobiology, and Anatomy, University of Cincinnati, Cincinnati, OH
- P29 199 GONADOTROPIN RELEASING HORMONE (GNRH) MODULATION OF OLFACTORY RESPONSES IN COHO SALMON.
Athos J.¹, Dickey J.¹, Hodges N.¹, Swanson P.¹, Dittman A.¹ ¹Northwest Fisheries Science Center, Seattle, WA
- P30 200 CYCLIC-AMP DYNAMICS AND ADENYLYL CYCLASE ACTIVITIES WITHIN THE OLFACTORY CILIA
Takeuchi H.¹, Kurahashi T.¹ ¹Frontier Biosciences, Osaka University, Osaka, Japan

Olfactory Regeneration (North Ballroom)

- P31 201 THE ROLE OF TRANSPORTER PROTEINS IN RELEASE OF THE NEUROMODULATOR ATP IN THE MOUSE OLFACTORY EPITHELIUM
Brown B.¹, Hegg C.¹ ¹Physiology, University of Utah, Salt Lake City, UT
- P32 202 MOLECULAR EVENTS DURING REGENERATION OF OLFACTORY SENSORY NEURONS
Mcclintock T.S.¹, Shetty R.¹, Bose S.C.¹ ¹Physiology, University of Kentucky, Lexington, KY
- P33 203 DELAYED OLFACTORY NERVE REGENERATION IN APOE-DEFICIENT MICE
Nathan B.P.¹, Nisar R.¹, Short J.¹, Grissom E.¹, Struble R.² ¹Biological Sciences, Eastern Illinois University, Charleston, IL; ²School of Medicine, Southern Illinois University, Charleston, IL

- P34 204 RECOVERY AFTER OLFACTORY AXOTOMY IN MICE: PHARMACOLOGIC AND GENETIC EFFECTS
Kern R.C.¹, Raviv J.R.¹, Conley D.B.¹, Robinson A.M.¹
¹Otolaryngology-HNS, Northwestern University, Chicago, IL
- P35 205 EASE ANALYSIS OF GENE EXPRESSION PROFILES FROM MURINE OLFACTORY MUCOSA FOLLOWING TARGET ABLATION
Borders A.S.¹, Getchell M.², Liu H.³, Stromberg A.J.³, Getchell T.¹
¹Physiology, University of Kentucky, Lexington, KY; ²Anatomy and Neurobiology, University of Kentucky, Lexington, KY; ³Statistics, University of Kentucky, Lexington, KY
- P36 206 REMODELING OF THE OLFACTORY BULB AND EPITHELIUM IN RESPONSE TO NMDA-MEDIATED EXCITOTOXICITY
Fung F.¹, Currie E.¹, Roskams J.¹ ¹Zoology, University of British Columbia, Vancouver, British Columbia, Canada
- P37 207 ALTERED CHEMOKINE EXPRESSION PROFILES FOLLOWING TARGET ABLATION IN THE OLFACTORY EPITHELIUM OF SCAVENGER RECEPTOR A-DEFICIENT MICE
Getchell M.L.¹, Li H.², Vaishnav R.A.³, De Villiers W.⁴, Stromberg A.J.², Getchell T.V.³ ¹Anatomy and Neurobiology, University of Kentucky, Lexington, KY; ²Statistics, University of Kentucky, Lexington, KY; ³Physiology, University of Kentucky, Lexington, KY; ⁴Internal Medicine, University of Kentucky, Lexington, KY
- P38 208 PROTEOMIC AND TRANSCRIPTIONAL ANALYSIS OF AGING IN MURINE OLFACTORY EPITHELIUM
Vaishnav R.A.¹, Poon H.F.², Butterfield D.A.², Getchell M.L.³, Getchell T.V.¹ ¹Physiology, University of Kentucky, Lexington, KY; ²Chemistry, University of Kentucky, Lexington, KY; ³Anatomy and Neurobiology, University of Kentucky, Lexington, KY
- P39 209 EXPRESSION OF PAX6 IN OLFACTORY EPITHELIUM
Guo Z.¹, Manglapus G.¹, Harris M.¹, Schwob J.E.¹ ¹Anatomy & Cellular Biology, Tufts University, Boston, MA
- P40 210 ANALYSIS OF THE SPATIAL ORGANIZATION OF THE RETINALDEHYDE DEHYDROGENASES IN THE ADULT OLFACTORY MUCOSA
Peluso C.E.¹, Drager U.², Schwob J.E.¹ ¹Anatomy & Cellular Biology, Tufts University, Boston, MA; ²Shriver Center, University of Massachusetts Medical School (Worcester), Worcester, MA

Multimodal Neurophysiology & Behavior (North Ballroom)

- P41 211 ELECTRICAL ACTIVITY OF LOCAL OLFACTORY INTERNEURONS IN THE CRAYFISH BRAIN IS MODIFIED BY HYDRODYNAMIC INPUT
Mellon D.¹ ¹Biology, University of Virginia, Charlottesville, VA
- P42 212 INTERACTIONS BETWEEN THE POSTERIOR PIRIFORM CORTEX, FORELIMB MOTOR CORTEX AND RED NUCLEUS DURING AN OLFACTORY GUIDED, SKILLED REACHING TASK
Hermer-Vazquez L.¹, Hermer-Vazquez R.¹ ¹Psychology, University of Florida, Gainesville, FL
- P43 213 CHEMOSENSORY EVENT-RELATED POTENTIALS: DIFFERENT FROM OTHER SENSES?
Olofsson J.K.¹, Ericsson E.¹, Murphy C.², Nordin S.¹ ¹Psychology, Umeå University, Umeå, Sweden; ²Psychology, San Diego State University, San Diego, CA
- P44 214 EAR AND NOSE: SIMILAR NETWORKS IN FAMILIARITY PROCESSING
Plailly J.¹, Tillmann B.¹, Royet J.¹ ¹Neuroscience, CNRS, Lyon, Rhone, France
- P45 215 THE AMYGDALA/PIRIFORM ENCODES INCENTIVE SALIENCE OF ODORS PREDICTING AN APPETITIVE DRINK
Mak Y.E.¹, Mcglone F.², Phillips N.³, Small D.M.¹ ¹Surgery, John B. Pierce Laboratory and Yale University, New Haven, CT; ²Cognitive Neuroscience, Unilever R&D, Merseyside, United Kingdom; ³Sensory Neuroscience, Unilever, Wirral, England, United Kingdom
- P46 216 SIMULTANEOUS GUSTATORY STIMULI MODULATE ORTHO- AND RETRONASAL OLFACTION
Welge-Lüssen A.C.¹, Husner A.¹, Klarhöfer M.², Small D.M.³, Thomas H.⁴ ¹ENT Department, University of Basel, Basel, Switzerland; ²MR Physics, University of Basel, Basel, Switzerland; ³Yale University, New Haven, CT; ⁴Smell and taste clinic, University of Dresden, Medical School, Dresden, Germany
- P47 217 ETHANOL-TASTE INTERACTION: THE ROLE OF SMELL
Otero-Losada M.E.¹ ¹LIS-Neurociencias, CONICET-Hospital de Clínicas, Buenos Aires, Argentina
- P48 218 OLFACTOMOTOR COUPLING DURING SKILLED REACHING IN RATS
Hermer-Vazquez R.¹, Hermer-Vazquez L.¹ ¹Psychology, University of Florida, Gainesville, FL

- P49 219 SURPRISING TONGUE: EFFECTS OF ELECTROTACTILE SENSORY SUBSTITUTION.
Danilov Y.¹, Tyler M.², Kamm K.L.³, Bachy-Rita P.⁴ ¹Wicab, Inc., Middleton, WI; ²R&D, Wicab, Inc., Middleton, WI; ³Occupational Therapy, University of Wisconsin-Milwaukee, Milwaukee, WI; ⁴Rehabilitation Medicine, University of Wisconsin-Madison, Madison, WI
- P50 220 THE PH OF CHEMICAL DEFENSES IN SEA HARE APLYSIA CALIFORNICA MODULATES BEHAVIOR AND CHEMOSENSORY RESPONSE IN THE SPINY LOBSTER PANULIRUS INTERRUPTUS
Shabani S.¹, Derby C.D.¹ ¹Biology, Georgia State University, Atlanta, GA
- P51 221 VERBAL CONTEXT INFLUENCES FLAVOR PERCEPTION
White T.L.¹ ¹Psychology, Le Moyne College, Syracuse, NY

Taste: Animal Behavior (South Ballroom)

- P52 222 AMILORIDE-ADULTERATED NACL TASTES LIKE KCL AND NA GLUCONATE TASTES LIKE NACL TO THE NA-DEPLETED RAT
St. John S.J.¹ ¹Psychology, Reed College, Portland, OR
- P53 223 LICK RESPONSIVENESS OF EIGHT MOUSE STRAINS TO SWEETENERS: EFFECTS OF ALLELIC VARIATION IN THE TAS1R3 GENE
Glendinning J.¹, Chyou S.¹, Onishi M.¹, Patel P.¹, Zheng K.¹ ¹Biological Sciences, Barnard College, Columbia University, New York, NY
- P54 224 OLEIC AND LINOLEIC ACID ALTERS LICKING RESPONSES TO SWEET, SOUR, SALT, AND BITTER TASTANTS IN RATS.
Labban C.¹, Anderson A.¹, O'Connor H.¹, Pittman D.¹ ¹Psychology, Wofford College, Spartanburg, SC
- P55 225 THE ROLE OF THE CHORDA TYMPANI NERVE IN THE DETECTION OF FREE FATTY ACIDS IN RATS.
Shields S.¹, Murchison L.¹, Wallace J.¹, Harris L.¹, Pittman D.¹ ¹Psychology, Wofford College, Spartanburg, SC
- P56 226 THE ROLE OF THE CHORDA TYMPANI NERVE IN LINOLEIC ACID DETECTION BY MALE AND FEMALE RATS
Stratford J.M.¹, Curtis K.S.¹, Contreras R.J.¹ ¹Program in Neuroscience, Florida State University, Tallahassee, FL

- P57 227 MICROSTRUCTURAL ANALYSIS OF NACL CONSUMPTION AFTER BRIEF DIETARY NA+ DEPRIVATION
Vaughn J.M.¹, Dietz D.¹, Curtis K.S.¹, Contreras R.J.¹ ¹Program in Neuroscience, Florida State University, Tallahassee, FL
- P58 228 RELATIONSHIPS BETWEEN INSULIN RELEASE AND TASTE.
Tonosaki K.¹ ¹Meikai University, School of Dentistry, in Japan, Sakatoshi, Japan, Japan
- P59 229 SODIUM CHLORIDE PREFERENCE IN TRPV1 KNOCKOUT MICE
Ruiz C.¹, Gutknecht S.¹, Mahaffey J.², Delay E.², Kinnamon S.¹ ¹Biomedical Sciences, Colorado State University, Fort Collins, CO; ²Regis University, Denver, CO
- P60 230 OROSENSORY DETECTION OF DIETARY LIPIDS : ROLE FOR THE FATTY ACID TRANSPORTER (FAT/CD36)
Laugrette F.¹, Pasilly-Degrace P.¹, Patris B.¹, Febbraio M.², Montmayeur J.¹, Besnard P.¹ ¹Centre National de la Recherche Scientifique, Dijon, France; ²Cellular Biology, Lerner Research Institute, Cleveland, OH
- P61 231 COMPARISON OF THE TASTES OF MSG AND GLYCINE
Westburg A.M.¹, Mitzelfelt J.D.¹, Delay E.R.¹ ¹Neuroscience Program, Psychology Dept., Regis University, Denver, CO
- P62 232 GENERALIZATION OF CONDITIONED TASTE AVERSION (CTA) TO MONOSODIUM GLUTAMATE (MSG) AND INOSINE MONOPHOSPHATE (IMP) IN 129P3/J AND C57BL/6BYJ MICE
Murata Y.¹, Bachmanov A.A.¹, Beauchamp G.K.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P63 233 PRELIMINARY ASSESSMENT OF SUCROSE AND MSG TASTE CAPABILITIES OF T1R3 KNOCKOUT MICE.
Delay E.R.¹, Hernandez N.P.¹, Heyer B.R.¹, Margolskee R.F.² ¹Neuroscience Prog., Dept. Psychology, Regis University, Denver, CO; ²Physiology & Biophysics, Mount Sinai School of Medicine, New York, NY
- P64 234 GENERALIZATION OF CTA BETWEEN MONOSODIUM GLUTAMATE AND L-PROLINE IN RATS
Duran B.L.¹, Vo L.N.¹, Koprowski S.M.¹, Delay E.R.¹ ¹Neuroscience Prog., Dept. Psychology, Regis University, Denver, CO

- P65 235 P2X2/P2X3 DOUBLE KNOCKOUT MICE DO NOT RESPOND TO MOST TASTE STIMULI
Barrows J.¹, Danilova V.², Hellekant G.², Kinnamon S.³, Finger T.¹
¹Cell and Developmental Biology, University of Colorado Health Sciences Center, Denver, CO; ²Animal Health and Biomedical Sciences, University of Wisconsin-Madison, Madison, WI; ³Biomedical Sciences, Colorado State University, Fort Collins, CO
- P66 236 REMOVAL OF BDNF FROM ADULT TASTE BUDS CAUSES SUBTLE BEHAVISLIDES AND ANATOMICAL CHANGES IN MICE.
Vigers A.J.¹, Kwok L.¹, Jones K.R.², Finger T.E.¹ ¹Cellular and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO; ²Molecular, Cellular and Developmental Biology, University of Colorado, Boulder, CO
- P67 237 TASTE EFFECTIVENESS AND PREFERENCE OF SUGAR ALCOHOLS IN C57BL/6 MICE
Sako N.¹, Gibo R.², Sugimura T.¹, Yamamoto T.² ¹SLIDES Physiology, Asahi University School of Dentistry, Mizuho, Gifu, Japan; ²BehaviSLIDES Physiology, Graduate School of Human Sciences, Osaka University, Osaka, Japan

Taste: Molecular Studies (South Ballroom)

- P68 238 GROUP IIA PHOSPHOLIPASE A2 IS PREDOMINANTLY EXPRESSED IN MATURE TASTE RECEPTOR CELLS OF RAT CIRCUMVALLATE PAPILLAE.
Ooike H.¹, Matsumoto I.², Abe K.¹ ¹Applied Biological Chemistry, University of Tokyo, Bunkyo-ku, Tokyo, Japan
- P69 239 DO MONKEYS TASTE LIKE HUMANS?
Parry C.¹, Erkner A.¹, Le Coutre J.¹ ¹Nestle Research Center, Lausanne 26, VD, Switzerland
- P70 240 REGULATING CALCIUM IN TASTE CELLS: EXPRESSION OF CALCIUM ATPASES
Medler K.¹ ¹Biological Sciences, University at Buffalo, Buffalo, NY
- P71 241 TASTE-CELL SPECIFIC OVER-EXPRESSION OF BDNF IN MICE LEADS TO THE SUPERTASTER MORPHOLOGICAL PHENOTYPE
Nosrat C.A.¹, Margolskee R.², Nosrat I.¹ ¹Laboratory of SLIDES Neurobiology, Biologic & Materials Sciences, University of Michigan, Ann Arbor, MI; ²Medicine, Mount Sinai School of Medicine, New York, NY

- P72 242 FUNCTIONAL CHARACTERIZATION OF A RAT MGLUR1 VARIANT FROM VALLATE PAPILLAE
San Gabriel A.M.¹, Uneyama H.¹, Torii K.¹, Yoshie S.² ¹Ajinomoto Co., Inc., Kawasaki-shi, Japan; ²Department of Anatomy, Nippon Dental Univeristy, Niigata-shi, Japan
- P73 243 DIETARY NACL-INDUCED CHANGES IN THE ALDOSTERONE-REGULATED SALT TASTE TRANSDUCTION PATHWAY
Burks C.A.¹, Hansen D.R.¹, Putnam N.J.¹, Taylor J.R.¹, Gilbertson T.A.¹ ¹Biology & The Center for Integrated BioSystems, Utah State University, Logan, UT
- P74 244 TASTE RESPONSES IN MICE LACKING AQP5
Spray K.J.¹, Davis T.J.¹, Menon A.G.², Gilbertson T.A.¹ ¹Biology & The Center for Integrated BioSystems, Utah State University, Logan, UT; ²Molecular Genetics, Biochemistry and Microbiology, University of Cincinnati College of Medicine, Cincinnati, OH
- P75 245 TRANSSYNAPTIC TRANSPORT OF WHEAT GERM AGGLUTININ EXPRESSED IN A SUBSET OF TYPE II TASTE CELLS OF TRANSGENIC MICE
Damak S.¹, Margolskee R.F.² ¹Nestle Research Center, Lausanne, VD, Switzerland; ²Department of Physiology and Biophysics, Howard Hugues Medical Institute, Mount Sinai School of Medicine, New York, NY
- P76 246 WHITHER THE SWEET TASTE IN CATS
Li X.¹, Li W.¹, Wang H.¹, Cao J.¹, Huang L.¹, Bachmanov A.A.¹, Reed D.R.¹, Legrand-Defretin V.², Beauchamp G.K.¹, Brand J.G.¹ ¹Monell Chemical Senses Center, Philadelphia, PA; ²The WALTHAM Center for Pet Nutrition, Melton Mowbray, Leicestershire, United Kingdom
- P77 247 IDENTIFICATION OF VOLTAGE-GATED PH-SENSITIVE CHLORIDE CHANNELS IN TASTE BUD CELLS
Huang L.¹, Cao J.¹, Wang H.¹, Vo L.A.¹, Brand J.G.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P78 248 MOLECULAR STUDIES OF THE GUSTDUCIN-PHOSPHODIESTERASE 1A INTERACTION
Benard O.¹, Max M.¹, Margolskee R.F.² ¹Dept. of Physiology and Biophysics, Mount Sinai School of Medicine, New York, NY; ²Dept. of Physiology and Biophysics, Howard Hughes Medical Institute, Mount Sinai School of Medicine, New York, NY
- P79 249 THE ROLE OF CALCIUM-SENSITIVE ADENYL CYCLASE IN TASTE BUDS
Trubey K.¹, Culpepper S.¹, Maruyama Y.¹, Chaudhari N.¹ ¹Physiology and Biophysics, University of Miami, Miami, FL

- P80 250 DIET-INDUCED CHANGES IN EXPRESSION OF FATTY ACID-SENSITIVE POTASSIUM CHANNELS IN RAT TASTE BUDS
Hansen D.R.¹, Burks C.A.¹, Gilbertson T.A.¹ ¹*Biology & The Center for Integrated Biosystems, Utah State University, Logan, UT*
- P81 251 IDENTIFICATION AND CHARACTERIZATION OF HUMAN SWEET RECEPTOR BINDING SITES FOR AGONISTS AND ANTAGONISTS
Jiang P.¹, Cui M.¹, Zhao B.¹, Liu Z.², Snyder L.A.¹, Benard L.M.², Osman R.¹, Max M.¹, Margolskee R.F.² ¹*Department of Physiology and Biophysics, Mount Sinai School of Medicine, New York, NY*; ²*Department of Physiology and Biophysics, HHMI, Mount Sinai School of Medicine, New York, NY*
- P82 252 X-RAY CRYSTALLOGRAPHIC STUDIES OF THE SINGLE CHAIN MONELLIN MNEI: IMPLICATIONS FOR INTERACTIONS WITH T1R TASTE RECEPTORS.
Hobbs J.R.¹, Munger S.D.², Conn G.L.¹ ¹*Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom*; ²*Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD*
- P83 253 CODING SEQUENCE VARIATION IN HUMAN SWEET AND UMAMI TASTE RECEPTOR GENES
Kim U.¹, Wooding S.², Riaz N.³, Ricci D.³, Jorde L.², Drayna D.⁴ ¹*Biology, Kyungpook National University, Dae-gu, South Korea*; ²*Human Genetics, University of Utah, Salt Lake City, UT*; ³*NIDCD, National Institutes of Health, Rockville, MD*; ⁴*National Institute on Deafness and Other Communication Disor, National Institutes of Health, Rockville, MD*
- P84 254 MEASURING LIGAND BINDING TO THE MOUSE T1R2 N-TERMINAL DOMAIN
Vigues S.¹, Hobbs J.², Nie Y.¹, Conn G.L.², Munger S.D.¹ ¹*Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD*; ²*Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom*
- P85 255 T1R3 BINDS SWEET LIGANDS AT PHYSIOLOGICAL CONCENTRATIONS
Nie Y.¹, Hobbs J.R.², Vigues S.¹, Conn G.L.², Munger S.D.¹ ¹*Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD*; ²*Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom*
- P86 256 FUNCTIONAL CHARACTERIZATION OF THE HUMAN T2R7, T2R14, T2R43, AND T2R47 BITTER RECEPTORS.
Sainz E.¹, Gutierrez J.¹, Battey J.F.¹, Northup J.K.¹, Sullivan S.L.¹ ¹*National Institute on Deafness and Other Communication Disorders, National Institutes of Health, Rockville, MD*

Taste: Clinical (South Ballroom)

- P87 257 TRIGEMINAL NERVE RESPONSE IN HUMANS FOR 3M NACL SOLUTIONS, STUDIED BY MEG
Komiyama A.¹, Kobayakawa T.², Goto N.², Saito S.², Ikeda M.¹ ¹*Otolaryngology, Nihon University Tokyo, Tokyo, Japan*; ²*National Institute of Advanced Industrial Science and Technology, Ibaraki, Japan*
- P88 258 OBJECTIVE ASSESSMENT OF TERBINAFINE-INDUCED TASTE LOSS
Doty R.L.¹, Haxel B.R.², Barbash S.E.¹ ¹*Smell and Taste Center, University of Pennsylvania, Philadelphia, PA*; ²*Otorhinolaryngology, University of Mainz, Mainz, Germany*
- P89 259 SUBSTANCE AND TONGUE-REGION SPECIFIC LOSS IN BASIC TASTE-QUALITY IDENTIFICATION IN ELDERLY ADULTS
Nordin S.¹, Brämerson A.², Hummel T.³, Bringlöv E.¹, Kobal G.⁴, Bende M.² ¹*Department of Psychology, Umeå University, Umeå, Sweden*; ²*Department of Otorhinolaryngology, Central Hospital, Skövde, Sweden*; ³*University of Dresden, Dresden, Germany*; ⁴*Department of Clinical and Experimental Pharmacology, University of Erlangen-Nürnberg, Erlangen, Germany*
- P90 260 CONFOCAL MICROSCOPY OF THE PERIPHERAL GUSTATORY SYSTEM: COMPARISON BETWEEN HEALTHY SUBJECTS AND PATIENTS SUFFERING FROM TASTE DISORDERS DURING RADIOCHEMOTHERAPY
Just T.¹, Bombor I.², Fietkau R.², Guthoff R.³, Hummel T.⁴, Pau H.¹ ¹*Otorhinolaryngology, University of Rostock, Rostock, Germany*; ²*Radiotherapy, University of Rostock, Rostock, Germany*; ³*Ophthalmology, University of Rostock, Rostock, Germany*; ⁴*University of Dresden, Dresden, Germany*
- P91 261 GLOSSOPHARYNGEAL SENSORY NEUROPATHY: IMPLICATION IN DYSGEUSIA AND GLOSSODYNIA
Pitovski D.Z.¹, Enrich S.¹ ¹*Otolaryngology, Wake Forest University, Winston-Salem, NC*
- P92 262 TASTE SENSE IS ABNORMAL IN IDIOPATHIC PARKINSON'S DISEASE
Shah M.¹, Fernando M.¹, Findley L.¹, Hawkes C.¹ ¹*Essex Neuroscience Centre, Romford, Essex, United Kingdom*
- P93 263 CHANGES IN SWEET TASTE IN WOMEN WITH GESTATIONAL DIABETES MELLITUS
Belzer L.¹, Tepper B.¹, Ranzini A.² ¹*Food Science, Rutgers, The State University of New Jersey, New Brunswick, NJ*; ²*Maternal and Fetal Medicine, St. Peter's University Hospital, New Brunswick, NJ*

Trigeminal (South Ballroom)

- P94 264 NASAL IRRITANT SENSITIVITY: INVERSE RELATIONSHIP BETWEEN SENSORY ACUITY AND PHYSIOLOGIC REACTIVITY
Shusterman D.J.¹ ¹Medicine, University of Washington, Seattle, WA
- P95 265 RETRONASAL SMELLING: AN SLIDES CAVITY COMPONENT
Dragich A.M.¹, Halpern B.P.² ¹Dept. of Food Sci. & Tec., University of California, Davis, Davis, CA; ²Neurobiology and Behavior, Cornell University, Ithaca, NY
- P96 266 TEMPORAL INTEGRATION OF NASAL IRRITATION FROM AMMONIA AT THRESHOLD AND SUPRA-THRESHOLD LEVELS
Wise P.M.¹, Canty T.M.¹, Wysocki C.J.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P97 267 QUANTIFICATION OF THE EFFICACY OF VAPORS TO ELICIT NASAL CHEMESTHESIS IN ANOSMICS
Cometto-Muniz J.E.¹, Cain W.S.¹, Abraham M.H.² ¹Chemosensory Perception Laboratory, Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA; ²Chemistry, University College London, London, United Kingdom
- P98 268 ODOR AND IRRITATION FROM COMPLEX MIXTURES OF AROMATIC HYDROCARBONS AND THEIR MAIN CONSTITUENTS
Schmidt R.¹, Medeiros A.M.², Daughtrey W.C.², Jarnot B.M.², Cain W.S.¹ ¹Surgery (Otolaryngology), University of California, San Diego, La Jolla, CA; ²ExxonMobil Biomedical Sciences, Inc., and Exxon Chemical Company, Annandale, NJ
- P99 269 CHEMESTHETIC RESPONSIVENESS IS INDEPENDENT OF THERMAL TASTE AND CHEMICAL TASTE.
Green B.¹, Alvarez-Reeves M.¹, George P.¹, Akirav C.¹ ¹The John B. Pierce Laboratory, New Haven, CT
- P100 270 CAN A SINGLE PROCESS ACCOUNT FOR BOTH SENSITIZATION AND DESENSITIZATION EFFECTS TO SLIDES IRRITATION?
McBurney D.H.¹, Balaban C.D.², Affeltranger M.A.³ ¹Psychology, University of Pittsburgh, Pittsburgh, PA; ²Otolaryngology, Cell Biology, and Communications Disorders, University of Pittsburgh, Pittsburgh, PA; ³Psychology, Bethany College, Bethany, WV

- P101 272 TEMPSLIDES CHARACTERISTICS AND REGIONAL SENSITIVITY OF TINGLE COMPOUNDS
Simons C.T.¹, Ward C.D.¹ ¹Research & Development, Givaudan Flavors, Cincinnati, OH
- P102 273 TRIGEMINAL FUNCTION IN CHILDREN
Kemper W.¹, Hummel T.², Laing D.G.³ ¹Pediatrics, Sydney Children's Hospital, Randwick, New South Wales, Australia; ²University of Dresden, Dresden, Germany; ³Women and Children's Health, University of New South Wales, Randwick, New South Wales, Australia
- 11:30 AM - 1:00 PM **Cash Lunch Cart (Prefunction Area)**
- 12:45 PM - 2:30 PM **ACHEM'S Business Meeting (The Keys)**
- 2:00 PM **4th Annual Ultimate Frisbee Tournament**
Lido Beach (in front of Holiday Inn)
- 6:00 PM - 8:30 PM **Registration (Registration Area)**

SYMPOSIA**Friday - 7:00 PM - 8:15 PM (South Ballroom)****Polak Young Investigator Taste Symposium**
Linda Barlow, Symposium Chair

- 7:00 274 THE GUSTATORY RECEPTOR 5A REGION IN DROSOPHILA MELANOGASTER REVEALS INTEGRATED GENETIC NETWORKS FOR GUSTATORY PERCEPTION, STARVATION RESISTANCE AND LONGEVITY
Rollmann S.M.¹, Magwire M.M.², Yamamoto A.¹, Mackay T.F.², Anholt R.R.³ ¹Zoology and W. M. Keck Center for BehaviorSLIDES Biology, North Carolina State University, Raleigh, NC; ²Genetics and W. M. Keck Center for BehaviorSLIDES Biology, North Carolina State University, Raleigh, NC; ³Zoology, Genetics and W. M. Keck Center for BehaviorSLIDES Biology, North Carolina State University, Raleigh, NC

Friday, April 15, 2005

- 7:15 275 ALLELIC VARIATION OF THE TAS1R3 GENE AFFECTS
TASTE-EVOKED RESPONSES IN THE NUCLEUS OF THE
SOLITARY TRACT OF MICE.
McCaughey S.A.¹, Bachmanov A.A.¹ ¹*Monell Chemical Senses
Center, Philadelphia, PA*
- 7:30 276 A COMBINATORIAL CODE FOR BITTER TASTE
RECEPTORS
Bufe B.¹, Kuhn C.¹, Brockhoff A.¹, Behrens M.¹, Krautwurst D.¹,
Appendino G.², Meyerhof W.¹ ¹*Molecular Genetics, German
Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal,
Germany*; ²*DISCAFF, 2Università del Piemonte Orientale,
Novara, Italy*
- 7:45 277 ACID BLOCK OF TRPM5, A TRANSIENT RECEPTOR
POTENTIAL CHANNEL INVOLVED IN BITTER, SWEET
AND AMINO ACID TRANSDUCTION
Liman E.¹, Liu D.¹ ¹*Biological Sciences, University of Southern
California, Los Angeles, CA*
- 8:00 278 NASACCHARIN BOTH STIMULATES AND INHIBITS THE
HTAS1R2-TAS1R3 SWEET TASTE RECEPTOR IN VIVO AND
IN VITRO: EVIDENCE SUPPORTING AN ALLOSTERIC
MODEL OF A TAS1R HETERODIMER RECEPTOR.
Galindo-Cuspinera V.¹, Winnig M.², Bufo B.², Meyerhof W.²,
Breslin P.A.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA*;
²*Molecular Genetics, German Institute of Human Nutrition
Potsdam-Rehbruecke, Nuthetal, Germany*

8:00 PM - 8:30 PM **Evening Break** (*Prefunction Area*)

SYMPOSIA

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

**Odor Signals >From the Immune System: How the Nose Detects Genetic
Individuality**
Frank Zufuall, Symposium Chair

- 8:30 279 CHEMOSENSORY DETECTION OF HISTOCOMPATIBILITY
PHENOTYPES: RESPONSES AND FUNCTIONS
Potts W.K.¹ ¹*Biology, University of Utah, Salt Lake City, UT*

	Wednesday April 13, 2005		Thursday April 14, 2005		Friday April 15, 2005		Saturday April 16, 2005		Sunday April 17, 2005		
7:00 AM			Registration: 7 am-3 pm & 6-8:30 pm		Registration: 7 am-1 pm & 6-8:30 pm		Registration: 7 am-3 pm & 6-7:30 pm		Registration: 8 am-1 pm		7:00 AM
8:00 AM			Continental Breakfast 7:30-9:00		Continental Breakfast 7:30-9:00		Continental Breakfast 7:30-9:00				8:00 AM
9:00 AM			8:00-9:00 <i>Slide Session</i> Cellular & Molecular <i>South Ballroom</i>	8:00-12:00 <i>Poster Session & Exhibits</i> • Computational Approaches	8:00-12:00 <i>Poster session</i> • Taste: Animal Behavior	8:00-12:00 <i>Poster Session & Exhibits</i> • Olfactory CNS	8:00-9:00 <i>Slide Session</i> Chemosensory Behavior	8:00-12:00 <i>Poster session & Exhibits</i> • Peripheral Taste Physiology	Continental Breakfast 8:00-10:00		9:00 AM
10:00 AM			9:15-10:15 <i>Slide Session</i> Chemosensory Dev. <i>South Ballroom</i>	• Olfaction: Central Anatomy	• Taste: Molecular Studies	• Olfactory Receptor Neurons	9:15-10:15 <i>Slide Session</i> Imaging the Neural Code <i>South Ballroom</i>	• Taste: Neurotransmitters and Modulators			10:00 AM
11:00 AM	10:00am-12:00pm Educational Outreach <i>GWIZ Science Center</i>		10:30-12:30 <i>Symposium</i> Coding in the Taste System: New Perspectives on an Old Problem <i>South Ballroom</i>	• Olfaction: Peripheral Anatomy	• Taste: Clinical	• Olfactory Regeneration	10:30-12:30 <i>Symposium</i> Mapping Olfactory Bulb <i>South Ballroom</i>	• Ion Channels, Rafts & Pumps • Human Sensory Perception <i>North Ballroom</i>	10:30-1:00 <i>Symposium</i> Receptors Symposium Session I <i>South Ballroom</i>		11:00 AM
12:00 PM				• Pheromones/VNO <i>North Ballroom</i>	• Trigeminal	• Multimodal Neurophysiology & Behavior <i>North Ballroom</i>					12:00 PM
1:00 PM	12:00-3:30 Executive Committee <i>Executive Board Room</i>		12:30-2:00 Minority and Clinical Travel Awardee Luncheon <i>Executive Board Room</i>		12:45-2:30 AChemS Business Meeting <i>The Keys</i>		12:30-2:00 Clinical Luncheon (ticketed event) <i>The Keys</i>				1:00 PM
2:00 PM											2:00 PM
3:00 PM			3:00-4:30 <i>NIH Workshop</i> Funding Opportunities for Young Investigators <i>South Ballroom</i>		2:00 4 th Annual Ultimate Frisbee Tournament – Lido Beach				2:30-4:30 <i>Symposium</i> Receptors Symposium Session II <i>South Ballroom</i>		3:00 PM
4:00 PM	3:30-7:30 Registration <i>Prefunction Area</i>	4:00-5:00 Long Range Planning <i>Exec Board Rm</i>			Workshop Applying Molecular Techniques CANCELLED		3:00-5:00 <i>Workshop</i> Nasal Chemesthetic Variability <i>Ringling Room</i>				4:00 PM
5:00 PM											5:00 PM
6:00 PM											6:00 PM
7:00 PM			6:30-8:00 Opening Buffet (ticketed event) <i>North Ballroom</i>								
8:00 PM	Welcome & Awards Givaudan Lecture Jeffrey Friedman Leptin and the Regulation Of Body Weight <i>South Ballroom</i>		7:00-11:00 <i>Poster session</i> • Taste: Human Sensory Performance • Taste: Development • Feeding & Drinking	7:00-11:00 <i>Poster Session & Exhibits</i> • Olfactory Bulb: Neurophysiology • Human Olfactory Performance • Trigeminal: Cellular • Trigeminal: Neurophysiology	7:00-8:15 Polak Young Investigator Taste Symposium <i>South Ballroom</i>	7:00-11:00 <i>Poster Session & Exhibits</i> • Olfactory Clinical • Olfactory Development • Central Taste	7:00-9:15 <i>Presidential Symposium</i> Obesity: Biological Determinants of Ingestive Behavior <i>South Ballroom</i>	7:00-11:00 <i>Poster Session</i> • Olfactory and VNO Receptors • Chemical Ecology & Social Recognition • Olfactory Behavior	7:00-9:15 <i>Symposium</i> Receptors Symposium Session III <i>South Ballroom</i>		8:00 PM
9:00 PM					8:30-10:30 <i>Symposium</i> Odor Signals from the Immune System <i>South Ballroom</i>		9:30-10:30 Nobel Reception Sponsored by NIH NIDCD <i>South Ballroom & Prefunction Area</i>				9:00 PM
10:00 PM	Social Gathering & Cash Bar <i>Prefunction Area</i>	Organization meeting for students with travel awards <i>North Ballroom</i>							9:30-10:30 <i>Social</i> Closing Reception Sponsored by Senomyx <i>Prefunction Area</i>		10:00 PM
11:00 PM											11:00 PM

- 9:00 280 ENCODING IMMUNE SYSTEM SIGNALS BY THE MAMMALIAN NOSE: THE SCENT OF GENETIC COMPATIBILITY
Zufall F.¹ *¹Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD*
- 9:30 281 COMBINATORIAL COEXPRESSION OF NEURAL AND IMMUNE MULTIGENE FAMILIES IN MOUSE VOMERONASAL SENSORY NEURONS
Mombaerts P.¹ *¹The Rockefeller University, New York, NY*
- 10:00 282 EVOLUTION OF MOLECULAR MECHANISMS INFORMING ABOUT GENETIC INDIVIDUALITY: FROM INTERINDIVIDUAL TO INTERCELLULAR DISCRIMINATION
Boehm T.¹ *¹Max-Planck-Institute of Immunobiology, Freiburg, Germany*

POSTERS

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

Olfactory: Clinical

- P1 283 "OLFACTORY TRAINING" IN PATIENTS WITH OLFACTORY LOSS
Hummel T.¹, Rissom K.¹, Müller A.¹, Reden J.¹, Weidenbecher M.², Hüttenbrink K.³ *¹Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany; ²Otorhinolaryngology, University of Erlangen-Nürnberg, Erlangen, Germany; ³Otorhinolaryngology, University of Cologne, Köln, Germany*
- P2 284 ODOR JUDGEMENTS IN PATIENTS WITH ALCOHOL-DEPENDENCE
Rupp C.I.¹, Fleischhacker W.¹, Hausmann A.¹, Hinterhuber H.¹, Kurz M.¹ *¹Department of Psychiatry, Innsbruck Medical University, Innsbruck, Austria*
- P3 285 JAPANESE ODOR STICK IDENTIFICATION TEST (OSIT-J): COMPARISON OF DATA FROM U.S. AND JAPANESE SUBJECTS
Kobayashi M.¹, Saito S.², Kobayakawa T.², Deguchi Y.³, Costanzo R.M.¹ *¹Physiology, Virginia Commonwealth University School of Medicine, Richmond, VA; ²Neuroscience Research Institute, National Institute of Advanced Industrial Science and Technology, Tsukuba, Ibaraki, Japan; ³Central Research Laboratory, Takasago International Corporation, Hiratsuka, Kanagawa, Japan*

- P4 286 RECOVERY OF OLFACTORY FUNCTION FOLLOWING CLOSED HEAD INJURY OR INFECTIONS OF THE UPPER RESPIRATORY TRACT
Reden J.¹, Müller A.¹, Konstantinidis I.¹, Landis B.² ¹University of Dresden Medical School, Dresden, Germany; ²ORL, University of Geneva, Geneva, Switzerland
- P5 287 SEASONALITY OF POST-INFECTIOUS OLFACTORY DYSFUNCTION: RETROSPECTIVE STUDY OF 461 PATIENTS
Konstantinidis I.¹, Müller A.², Frasnelli J.², Reden J.² ¹ORL Department, AHEPA University Hospital, Thessaloniki, Greece; ²Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden, Medical School, Dresden, Germany
- P6 288 MEASURING IMPLICIT BELIEFS ABOUT ODORS AND HEALTH: THE "MYSTERIOUS MACHINE" TASK
Smeets M.¹, Bulsing P.¹ ¹Faculty of Social Sciences, Utrecht University, Utrecht, Netherlands
- P7 289 SIMILARITIES AND DIFFERENCES IN ODOR IDENTIFICATION AND SNIFF SUPPRESSION IN PARKINSON'S DISEASE
Bailie J.M.¹, Rybalsky K.A.¹, Revilla F.J.², Gesteland R.C.³, Frank R.A.¹ ¹Psychology, University of Cincinnati, Cincinnati, OH; ²Neurology, University of Cincinnati, Cincinnati, OH; ³Cell Biology, Neurobiology & Anatomy, University of Cincinnati, Cincinnati, OH
- P8 290 OLFACTORY FUNCTIONS IN ASYMPTOMATIC CARRIERS OF THE HUNTINGTON DISEASE MUTATION
Larsson M.¹, Lundin A.², Robins Wahlin T.³ ¹Psychology, Stockholm University, Stockholm, Sweden; ²Rehabilitation Medicine, Danderyd Hospital, Stockholm, Sweden; ³Neurotec, Karolinska Institute, Stockholm, Sweden
- P9 291 A 10-ITEM SMELL IDENTIFICATION SCALE FOR EARLY DETECTION OF ALZHEIMER'S DISEASE
Tabert M.H.¹, Liu X.², Doty R.L.³, Serby M.⁴, Albers M.W.⁵, Devanand D.P.¹ ¹Psychiatry, Columbia University College of Physicians and Surgeons, New York, NY; ²Biostatistics, Columbia University, New York, NY; ³Otorhinolaryngology, University of Pennsylvania School of Medicine, Philadelphia, PA; ⁴Psychiatry, Beth Israel Medical Center, New York, NY; ⁵Neurology, Columbia University College of Physicians and Surgeons, New York, NY

- P10 292 THE EFFECT OF GENDER AND THE APOLIPOPROTEIN E EPSILON 4 ALLELE ON RECOGNITION MEMORY FOR OLFACTORY AND VISUAL STIMULI IN PATIENTS DIAGNOSED WITH ALZHEIMER'S DISEASE AND HEALTHY OLDER ADULTS
Gilbert P.¹, Sundermann E.², Murphy C.² ¹Head and Neck Surgery, University of California, San Diego, San Diego, CA; ²Psychology, San Diego State University, San Diego, CA
- P11 293 DIFFERENCES BETWEEN ORTHONASAL AND RETRONASAL OLFACTION IN PATIENTS WITHOUT NASAL POLYPOSIS
Landis B.¹, Heilmann S.², Frasnelli J.³, Hummel T.³ ¹University Hospital of Geneva, Geneva, Switzerland; ²ENT, University of Dresden, Dresden, Germany; ³University of Dresden, Dresden, Germany
- P12 294 ODORIZATION OF THE INCUBATOR PREVENTS APNEAS IN PREMATURE INFANTS
Marlier L.¹, Gaugler C.², Messer J.² ¹Centre National de la Recherche Scientifique UMR5170, Strasbourg, France; ²Pediatric II, Centre Hospitalier Universitaire, Strasbourg, France
- P13 295 THE IMPACT OF INFLAMMATION ON THE OLFACTORY EPITHELIUM IN PATIENTS WITH CHRONIC RHINOSINUSITIS
Galioto A.¹, Yee K.K.¹, Ozdener H.¹, Rawson N.E.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P14 296 RETRONASAL TRANSPORT AND ACTIVE NASAL BLOCKING: IMPLICATIONS FOR EXPOSURE STUDIES
Greene G.J.¹, Kipen H.¹ ¹Environmental and Occupational Medicine, University of Medicine and Dentistry of New Jersey, Piscataway, NJ
- P15 297 ASSESSMENT OF STRATEGIES FOR OPTIMIZING PARKINSON'S DISEASE DETECTION USING UPSIT ITEM ANALYSIS
Barbash S.E.¹, Moberg P.J.², Doty R.L.¹ ¹Smell and Taste Center, University of Pennsylvania, Philadelphia, PA; ²Psychiatry, University of Pennsylvania, Philadelphia, PA
- P16 298 OLFACTORY FUNCTIONING FOLLOWING ANTEROMEDIAL TEMPORAL LOBE RESECTION
Olsson M.J.¹, Geigant M.¹, Jones-Gotman M.², Lundstrom J.N.¹, Ahs F.¹, Moeller P.³, Fredrikson M.¹, Kumlien E.⁴ ¹Psychology, Uppsala University, Uppsala, Sweden; ²McGill University, Montreal, Quebec, Canada; ³Food Science, Sensory Science, Royal Veterinary and Agricultural University, Frederiksberg C, Denmark; ⁴Department of Neuroscience, Uppsala University, Uppsala, Sweden

- P17 299 LONG-TERM CHANGES IN OLFACTORY FUNCTION IN PATIENTS WITH CHEMOSENSORY DISTURBANCES EVALUATED AT THE UNIVERSITY OF PENNSYLVANIA SMELL AND TASTE CENTER FROM 1980 TO 2004
London B.T.¹, White B.¹, Fisher A.¹, Nabet B.¹, Klaitis D.¹, Kerr K.L.¹, Iqbal Z.¹, Tourbier I.A.¹, Neff J.K.¹, Doty R.L.¹ ¹Smell and Taste Center, University of Pennsylvania, Philadelphia, PA
- P18 300 THE INFLUENCE OF PHARMACO-RESISTANT TEMPSLIDES LOBE EPILEPSY AND TEMPSLIDES LOBE RESECTION ON OLFACTION
Neff J.K.¹, Owzar K.², Roalf D.R.³, Sharan A.⁴, Michael S.⁵, Korczykowski M.⁶, Baltuch G.⁷, French J.A.⁶, Natasha M.¹, Moberg P.J.⁸, Bruce T.⁸, Doty R.⁹ ¹Otorhinolaryngology, University of Pennsylvania, Philadelphia, PA; ²Neuropsychiatry, University of Pennsylvania, Philadelphia, PA; ³Psychiatry-Neuropsychiatry, University of Pennsylvania, Philadelphia, PA; ⁴Neurosurgery, Thomas Jefferson University, Philadelphia, PA; ⁵Neurology, Thomas Jefferson University, Philadelphia, PA; ⁶Neurology, University of Pennsylvania, Philadelphia, PA; ⁷Neurosurgery, University of Pennsylvania, Philadelphia, PA; ⁸Psychiatry, University of Pennsylvania, Philadelphia, PA; ⁹Smell and Taste Center, University of Pennsylvania, Philadelphia, PA
- P19 301 OLFACTORY-TRIGEMINAL INTERACTION: EVIDENCE FROM PATIENTS WITH CONGENITAL ANOSMIA
Schuster B.¹, Frasnelli J.¹, Hummel T.¹ ¹Smell & Taste Clinic, Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany
- P20 302 RELATIONSHIPS AMONG THREE TESTS OF HUMAN OLFACTORY FUNCTION IN A CLINICAL SETTING
Tourbier I.A.¹, Moberg P.J.², Doty R.L.¹ ¹Smell and Taste Center, University of Pennsylvania, Philadelphia, PA; ²Smell and Taste Center, Department of Psychiatry, University of Pennsylvania, Philadelphia, PA
- P21 303 THE EFFECT OF ESTROGEN AND ITS INTERACTION WITH THE APOE EPSILON 4 GENOTYPE ON OLFACTORY FUNCTIONING IN NONDEMENTED ELDERLY FEMALES AND FEMALES DIAGNOSED WITH ALZHEIMER'S DISEASE
Sundermann E.E.¹, Gilbert P.², Murphy C.¹ ¹Psychology, San Diego State University, San Diego, CA; ²Head and Neck Surgery, University of California, San Diego, San Diego, CA

- P22 304 NUMERICAL MODELING OF ORTHO- VS. RETRO-NASAL AIRFLOW AND ODORANT DELIVERY AMONG RHINOSINUSITIS PATIENTS
Zhao K.¹, Hummel T.², Landis B.³, Dalton P.¹ ¹Monell Chemical Senses Center, Philadelphia, PA; ²Dept. of Otorhinolaryngology, University of Dresden, Dresden, Germany; ³Dept. of Otorhinolaryngology, University Hospital of Geneva, Geneva, Switzerland
- P23 305 SENSITIVITY AND SPECIFICITY OF THE 3-ITEM QUICK SMELL IDENTIFICATION TEST TM (Q-SIT)
Jackman A.H.¹, Neff J.K.², Tourbier I.A.², Barbash S.², Armstrong D.², Doty R.L.³ ¹Otorhinolaryngology Head & Neck Surgery, University of Pennsylvania, Philadelphia, PA; ²Otorhinolaryngology, University of Pennsylvania, Philadelphia, PA; ³Smell and Taste Center, University of Pennsylvania, Philadelphia, PA

Olfactory Development

- P24 306 ROLE OF NITRIC OXIDE IN NEURONAL DIFFERENTIATION OF THE OLF442 OLFACTORY CELL LINE
Astorga G.¹, Sulz L.¹, Mackay-Sim A.², Bacigalupo J.¹ ¹Millennium Institute CBB, University of Chile, Santiago, Chile; ²School of Biomolecular and Biomedical Science, Griffith University, Brisbane, Queensland, Australia
- P25 307 OLFACTORY EPITHELIUM PROMOTES MITRAL CELL DENDRITIC OUTGROWTH
Tran H.¹, Chen H.¹, Posthumus J.¹, Gong Q.¹ ¹Cell Biology and Human Anatomy, University of California, Davis, CA
- P26 308 METAMORPHOSIS OF AN OLFACTORY 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
- P27 309 SUPPLEMENTATION WITH RETINOIC ACID LEADS TO RECOVERY OF OMP+ NEURON POPULATION IN VAD OE
Asson-Batres M.A.¹, Smith W.B.¹, Davis G.B.¹ ¹Biological Sciences, Tennessee State University, Nashville, TN
- P28 310 GLUTAMATE-SCAVENGING GLIA DURING OLFACTORY BULB DEVELOPMENT
Jones B.J.¹, Richter M.¹, Roskams J.¹ ¹Zoology, University of British Columbia, Vancouver, British Columbia, Canada

- P29 311 MOLECULAR DEVELOPMENT OF THE MOUSE SEPTAL ORGAN
Tian H.¹, Ma M.¹ ¹Neuroscience, University of Pennsylvania, Philadelphia, PA
- P30 312 IDENTIFICATION OF CELL SURFACE ANTIGEN EXPRESSED BY GLOBOSE BASAL CELLS
Jang W.¹, Kim K.², Schwob J.E.¹ ¹Anatomy & Cellular Biology, Tufts University, Boston, MA; ²Molecular Biotechnology, Konkuk University, Seoul, South Korea
- P31 313 MULTIPOTENT STEM CELLS FROM ADULT OLFACTORY MUCOSA
Murrell W.¹, Feron F.¹, Wetzig A.¹, Cameron N.¹, Splatt K.¹, Bellette B.¹, Bianco J.¹, Perry C.², Lee G.³, Mackay-Sim A.¹ ¹School of Biomolecular and Biomedical Science, Griffith University, Brisbane, Queensland, Australia; ²Department of Otolaryngology - Head and Neck Surgery, Princess Alexandra Hospital, Brisbane, Queensland, Australia; ³Department of Neurosurgery, Royal Adelaide Hospital, Adelaide, South Australia, Australia
- P32 314 IMMEDIATE EARLY GENE EXPRESSION IN THE ZEBRAFISH OLFACTORY EPITHELIA
Mckenzie M.G.¹, Rivard M.V.¹, Whitlock K.E.¹ ¹Dept. of Molecular Biology and Genetics, Cornell University, Ithaca, NY
- P33 315 GNT1 GLYCOSYLATION IS REQUIRED FOR AXON CONNECTIVITY WITH THE OLFACTORY BULB
Henion T.R.¹, Raitcheva D.¹, Grosholz R.¹, Hennet T.², Schwarting G.A.¹ ¹Shriver Center, University of Massachusetts Medical School (Worcester), Waltham, MA; ²Inst. of Physiology, University of Zurich, Zurich, Switzerland
- P34 316 ANALYSIS OF KALLMANN GENE FUNCTION IN THE DEVELOPING ZEBRAFISH
Kim H.K.¹, Smith K.¹, Whitlock K.¹ ¹Dept. Molecular Biology and Genetics, Cornell University, Ithaca, NY
- P35 317 DIFFERENTIAL GENE EXPRESSION IN THE DEVELOPING MOUSE OLFACTORY BULB
Cheng T.¹, Gong Q.² ¹Cell Biology and Human Anatomy, University of California, Davis, Davis, CA; ²Med-Cell Biology and Human Anatomy, University of California, Davis, Davis, CA
- P36 318 MOLECULAR CLONING AND CHARACTERIZATION OF PRONEURAL GENES IN THE OLFACTORY ORGAN OF SPINY LOBSTERS, PANULIRUS ARGUS.
Chien H.¹, Liu H.¹, Schmidt M.¹, Tai P.C.¹, Derby C.D.¹ ¹Biology, Georgia State University, Atlanta, GA

- P37 319 SOCIAL EXPERIENCE REDUCES POSTEMBRYONIC NEUROGENESIS IN THE OLFACTORY SYSTEM OF JUVENILE CRAYFISH PROCAMBARUS CLARKII.
Johnstone L.M.¹, Song C.K.¹, Schmidt M.¹, Edwards D.H.¹, Derby C.D.¹ ¹Biology, Georgia State University, Atlanta, GA

Central Taste

- P38 320 GUSTATORY NEURAL RESPONSES IN THE MEDIAL ORBITOFRONTAL CORTEX OF THE OLD WORLD MONKEY
Pritchard T.C.¹, Edwards E.M.¹, Hilgert K.¹, Gavlick A.¹, Maryniak T.D.¹, Schwartz G.J.², Scott T.R.³ ¹Neural and BehaviorSLIDES Sciences, Pennsylvania State University, Hershey, PA; ²Medicine, Albert Einstein College of Medicine, Bronx, NY; ³College of Sciences, San Diego State University, San Diego, CA
- P39 321 FUNCTIONAL CHOLINERGIC RECEPTORS IN THE NUCLEUS OF THE SOLITARY TRACT OF THE RAT
Uteshev-Gaarde V.V.¹, Smith D.V.¹ ¹Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN
- P40 322 REPRESENTATION OF BITTER TASTING CHEMICALS IN THE RAT NST
Geran L.C.¹, Travers S.P.¹ ¹SLIDES Biology, Ohio State University, Columbus, OH
- P41 323 EFFECT OF SEROTONIN ON MEMBRANE PROPERTIES OF NEURONS OF THE RAT INFERIOR SALIVATORY NUCLEUS
Suwabe T.¹, Bradley R.M.¹ ¹Biologic & Materials Sciences, University of Michigan, Ann Arbor, MI
- P42 324 RESPONSES OF GUSTATORY NEURONS IN THE GENICULATE GANGLION TO L-MSG AND LINOLEIC ACID
Breza J.M.¹, Curtis K.S.¹, Contreras R.J.¹ ¹Program in Neuroscience, Florida State University, Tallahassee, FL
- P43 325 INTRACELLULAR CHARACTERIZATION OF TASTE-RESPONSIVE NEURONS OF THE HAMSTER SOLITARY NUCLEUS
Li C.X.¹, Li C.S.¹, Smith D.V.¹, Waters R.S.¹ ¹Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN

- P44 326 CODING OF BITTER STIMULI BY CENTRAL GUSTATORY NEURONS
Smith D.V.¹, Brasser S.M.¹, Mozhui K.¹, Rubrum A.M.¹, Lemon C.H.¹ ¹*Anatomy and Neurobiology, University of Tennessee Health Science Center, Memphis, TN*
- P45 327 RESPONSE PROPERTIES OF CELLS IN THE RAT NUCLEUS OF THE SOLITARY TRACT FOLLOWING GLOSSOPHARYNGEAL NERVE STIMULATION: EVIDENCE OF MODULATORY ACTIVITY AND THE CONVERGENCE OF INPUT FROM THE HYPOGLOSSAL NERVE
Hallock R.M.¹, Di Lorenzo P.M.¹ ¹*Psychology, Binghamton University, Binghamton, NY*
- P46 328 RESPONSES IN THE NUCLEUS OF THE SOLITARY TRACT TO TASTE STIMULI OF SIMILAR QUALITY CAN VARY INDEPENDENTLY ACROSS REPEATED TRIALS
Roussin A.T.¹, Di Lorenzo P.M.¹ ¹*Psychology, Binghamton University, Binghamton, NY*
- P47 329 EFFECTS OF MARGINAL ZINC DEFICIENCY ON NACL PREFERENCE AND OXYTOCIN SECRETION IN SD RATS
Goto T.¹, Suzuki H.¹, Shirakawa H.², Furukawa Y.², Komai M.² ¹*Department of Biotechnology, School of Science and Engineering, Ishinomaki Senshu University, Ishinomaki, Japan; ²Lab of Nutrition Faculty Agriculture, Tohoku University, Sendai, Miyagi, Japan*
- P48 330 A SYSTEMS-LEVEL REPRESENTATION OF APPETITE
De Araujo I.¹, Pereira A.¹, Riberio S.¹, Nicolelis M.A.¹, Simon S.A.² ¹*Neurobiology, Duke University, Durham, NC; ²Anesthesiology, Duke University, Durham, NC*
- P49 331 EXTENSIVE ANATOMICAL OVERLAP OF GREATER SUPERFICIAL PETROSAL (GSP) AND IXTH NERVE TERMINAL FIELDS IN HAMSTER SOLITARY NUCLEUS (NTS)
Stewart R.¹, Chastain M.¹, Selby A.¹, Stewart J.¹ ¹*Psychology, Washington and Lee University, Lexington, VA*
- P50 332 IONOTROPIC GLUTAMATE RECEPTOR EXPRESSION IN PREGANGLIONIC NEURONS OF THE RAT INFERIOR SALIVATORY NUCLEUS
Kim M.¹, Chiego, Jr. D.J.², Bradley R.M.³ ¹*Nursing, Chonnam University Medical School, Gwangju, South Korea; ²Cariology, Restorative Sciences & Endodontics, University of Michigan, Ann Arbor, MI; ³Biologic & Materials Sciences, University of Michigan, Ann Arbor, MI*

- P51 333 TASTE REACTIVITY AND NST FOS EXPRESSION IN "GIN" MICE
Travers J.¹, Herman K.¹, Yoo J.¹, Travers S.P.¹ ¹*SLIDES Biology, Ohio State University, Columbus, OH*
- P52 334 ORGANIZATION OF BARBEL-BASED FACIAL TASTE SYSTEM IN WEATHER LOACH
Barry M.A.¹, Tehrani N.¹, Ma P.M.¹ ¹*Dept. of Biology, Queens College, Flushing, NY*

Saturday, April 16, 2005

- 7:00 AM - 3:00 PM **Registration (Registration Area)**
- 7:30 AM - 9:00 AM **Continental Breakfast (Prefunction Area)**

SLIDES

Saturday - 8:00 AM - 9:00 AM (South Ballroom)

Chemosensory Behavior
Richard Vogt, Session Chair

- 8:00 335 TOWARD THE OLFACTORY CODE IN THE BEHAVING MOUSE
Rinberg D.¹, Koulakov A.², Ollinger F.¹, Gelperin A.¹ ¹*Monell Chemical Senses Center, Philadelphia, PA; ²Cold Spring Harbor Laboratory, Cold Spring Harbor, NY*
- 8:15 336 CHEMOTOPY PREDICTS OLFACTORY DISCRIMINATION IN ZEBRAFISH (DANIO RERIO)
Miklavc P.¹, Valentincic T.¹ ¹*Biology, University of Ljubljana, Ljubljana, Slovenia*
- 8:30 337 CHEMICAL SIGNALS AND CHEMOSENSORY PATHWAYS INVOLVED IN SPINY LOBSTER SHELTERING BEHAVIOR
Horner A.J.¹, Derby C.D.¹ ¹*Biology, Georgia State University, Atlanta, GA*

- 8:45 338 MECHANISMS OF SPERM NAVIGATION IN TURBULENT FLOW
Riffell J.¹, Zimmer R.² ¹ARL Division of Neurobiology, University of Arizona, Tucson, AZ; ²Ecology and Evolution, University of California, Los Angeles, Los Angeles, CA

SLIDES

Saturday - 9:15 AM - 10:15 AM (South Ballroom)

Imaging the Neural Code
Dana Small, Session Chair

- 9:15 339 EFFECTS OF FEEDING ON RESPONSES IN OLFACTORY BULB REVEALED BY FMRI
Xu F.¹, Schafer J.¹, Rothman D.L.¹, Hyder F.¹, Shepherd G.M.¹ ¹Yale University, New Haven, CT
- 9:30 340 BRAIN MECHANISMS FOR EXTRACTING SPATIAL INFORMATION FROM SMELL.
Porter J.A.¹, Anand T.², Johnson B.², Mainland J.³, Khan R.M.³, Sobel N.³ ¹Biophysics Graduate Group, University of California, Berkeley, Berkeley, CA; ²Bioengineering, University of California, Berkeley, Berkeley, CA; ³Helen Wills Neuroscience Institute, University of California, Berkeley, Berkeley, CA
- 9:45 341 DISSOCIABLE CODES OF ODORANT STRUCTURE AND ODOR QUALITY IN HUMAN PIRIFORM CORTEX
Gottfried J.A.¹, Winston J.S.², Dolan R.J.² ¹Cognitive Neurology & Alzheimer's Disease Center, Chicago, IL; ²Functional Imaging Laboratory, London, United Kingdom
- 10:00 342 AN APPLICATION FOR QUANTITATIVE ANALYSES AND COMPARISONS OF RODENT FMRI ODOR MAPS
Liu N.1, Xu F.2, Miller P.L.1, Shepherd G.M.2 ¹Center for Medical Informatics, Yale University, New Haven, CT; ²Neurobiology, Yale University, New Haven, CT

10:00 AM - 10:30 AM Coffee Break (Prefunction Area)

SYMPOSIA

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

Mapping Olfactory Bulb
Diego Restrepo, Session Chair

- 10:30 343 GUIDELINES FOR ODOR MAP-MAKING
Shepherd G.M.¹, Xu F.¹, Liu N.¹, Hyder F.¹, Rothman D.L.¹ ¹Yale University, New Haven, CT
- 10:50 344 TESTING PREDICTIONS OF A COMBINATORIAL IDENTITY CODE
Leon M.¹, Johnson B.² ¹Psychobiology, University of California, Irvine, Irvine, CA; ²Neurobiology and Behavior, University of California, Irvine, Irvine, CA
- 11:10 345 MOLECULAR-FEATURE CLUSTERS IN THE ODOR MAPS OF THE OLFACTORY BULB.
Mori K.¹, Takahashi Y.K.¹, Igarashi K.¹ ¹Dept. of Physiology, University of Tokyo, Tokyo, Japan
- 11:30 346 ENCODING NATURAL SCENES IN THE MOUSE MAIN OLFACTORY BULB
Katz L.C.¹ ¹Neurobiology, Duke University Medical Center, Durham, NC
- 11:50 347 NATURAL ODOR MAPS IN THE MAIN OLFACTORY BULB
Restrepo D.¹, Lin W.¹, Salcedo E.¹, Margolskee R.² ¹Cell and Developmental Biology, University of Colorado Health Sciences Center at Fitzsimons, Aurora, CO; ²Physiology and Biophysics, Mount Sinai School of Medicine, New York, NY
- 12:10 348 GLOMERULAR ORGANIZATION AND TEMPORAL DYNAMICS OF ODOR MAPS IMAGED WITH RECEPTOR NEURON-SPECIFIC PROBES
Wachowiak M.¹, McGann J.P.¹, Verhagen J.¹ ¹Boston University, Boston, MA

POSTERS

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

Peripheral Taste Physiology

- P1 349 REGULATION OF ENAC BY INTRACELLULAR CHLORIDE IN TASTE CELLS
Baquero A.¹, Gilbertson T.A.¹ ¹Biology & The Center for Integrated BioSystems, Utah State University, Logan, UT
- P2 350 THE POSSIBLE ROLE OF SPIKING TASTE RECEPTOR CELLS ON GUSTATORY SENSORY TRANSMISSION
Yoshida R.¹, Shigemura N.¹, Yasumatsu K.¹, Ninomiya Y.¹ ¹SLIDES Neuroscience, Kyushu University, Fukuoka, Japan
- P3 351 POLYMORPHISMS OF ENAC SUBUNITS: ABSENCE OF RELATION TO MOUSE STRAIN DIFFERENCES IN AMILORIDE-SENSITIVE SALT RESPONSES
Shigemura N.¹, Bachmanov A.A.², Sadamitsu C.¹, Yasumatsu K.¹, Yoshida R.¹, Beauchamp G.K.², Ninomiya Y.¹ ¹SLIDES Neuroscience, Kyushu University, Fukuoka, Japan; ²Monell Chemical Senses Center, Philadelphia, PA
- P4 352 ANTAGONISTIC ACTIONS OF NEUROPEPTIDES CCK AND NPY ON RAT TASTE RECEPTOR CELLS.
Herness S.¹, Zhao F.², Cao Y.² ¹SLIDES Biology, Ohio State University, Columbus, OH; ²College of Dentistry, Ohio State University, Columbus, OH
- P5 353 OSCILLATIONS IN CHORDA TYMPANI RESPONSES TO SUCROSE AND DULCIN
Hettinger T.P.¹, Formaker B.K.¹, Frank M.E.¹ ¹Neurosciences, SLIDES Diagnosis, UCONN Health Center, Farmington, CT
- P6 354 MECHANISMS UNDERLYING ADAPTATION OF THE RESPONSE OF TASTE RECEPTOR CELLS TO CAFFEINE.
Zhao F.¹, Herness M.S.¹ ¹SLIDES Biology, Ohio State University, Columbus, OH
- P7 355 EFFECT OF ETHANOL ON THE VR-1 VARIANT AMILORIDE-INSENSITIVE SALT TASTE RECEPTOR
Lyll V.N.¹, Heck G.L.¹, Phan T.T.¹, Mummalaneni S.N.¹, Malik S.A.¹, Vinnikova A.K.¹, Desimone J.A.¹ ¹Physiology, Virginia Commonwealth University, Richmond, VA

- P8 356 EFFECT OF PH AND CELL VOLUME ON THE PHASIC CHORDA TYMPANI RESPONSE TO ACID STIMULATION
Desimone J.A.¹, Mummalaneni S.N.¹, Phan T.T.¹, Pasley H.¹, Heck G.L.¹, Lyall V.¹ ¹Physiology, Virginia Commonwealth University, Richmond, VA
- P9 357 IS THE VANILLOID RECEPTOR -1 (VR-1) VARIANT A HAMSTER TASTE RECEPTOR?
Warner G.¹, Formaker B.¹, Frank M.E.¹, Hettinger T.¹ ¹SLIDES Diagnosis, University of Connecticut, Farmington, CT
- P10 358 SINGLE CELL RT-PCR AND FUNCTIONAL CHARACTERIZATION OF MOUSE CIRCUMVALLATE TASTE CELLS
Defazio R.A.¹, Dvoryanchikov G.¹, Roper S.¹, Chaudhari N.¹ ¹Physiology and Biophysics, University of Miami, Miami, FL
- P11 359 UPREGULATION OF LINGUAL CHEMOKINES AND ADHESION MOLECULES FOLLOWING UNILATERAL CHORDA TYMPANI NERVE SECTION
Cavallin M.A.¹, Mccluskey L.P.¹ ¹Physiology, Medical College of Georgia, Augusta, GA
- Taste: Neurotransmitters & Modulators**
- P12 360 MOUSE TASTE BUDS RELEASE ATP FOLLOWING STIMULATION BY BITTER AND SWEET TASTANTS
Stone L.M.¹, Kinnamon S.C.¹ ¹Biomedical Sciences, Colorado State University, Fort Collins, CO
- P13 361 THE ATPASE OF TASTE BUDS IS NUCLEOSIDE TRIPHOSPHATE DIPHOSPHOHYDROLASE-2 (NTPDASE2)
Bartel D.L.¹, Lavoie E.G.², Sullivan S.L.³, Sévigny J.², Finger T.E.¹ ¹Rocky Mountain Taste & Smell Center, University of Colorado Health Sciences Center, Aurora, CO; ²Centre recherche en Rhumatologie-Immunologie, University of Laval, Sainte-Foy, Quebec, Canada; ³NIDCD, NIH, Rockville, MD
- P14 362 ATP AND GLUTAMATE: PARACRINE TRANSMITTERS IN MOUSE VALLATE TASTE BUDS
Huang Y.J.¹, Maruyama Y.¹, Pereira E.¹, Roper S.D.¹ ¹Physiology & Biophysics, University of Miami School of Medicine, Miami, FL
- P15 363 NEUROKININ 1 RECEPTORS IN LINGUAL SALIVARY GLAND ACINAR CELLS
Kim K.¹, Park D.¹, Kim S.¹, Lee C.¹, Chung K.¹, Cho Y.¹ ¹Physiology and Neuroscience, Kangnung National University, Kangnung, Kangwon-do, South Korea

- P16 364 GLUTAMATE-INDUCED CALCIUM RESPONSES IN MOUSE VALLATE TASTE RECEPTOR CELLS
Maruyama Y.¹, Pereira E.¹, Chaudhari N.¹, Roper S.D.¹
¹*Physiology & Biophysics, University of Miami, Miami, FL*
- P17 365 CO-OCCURRENCE OF CALCIUM BINDING PROTEINS AND CALCIUM-FLUXING GLUTAMATE RECEPTORS IN THE PRIMARY GUSTATORY NUCLEUS OF GOLDFISH
Ikenaga T.¹, Huesa G.¹, Finger T.E.¹ ¹*Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO*
- P18 366 GABA AS AN INHIBITORY TRANSMITTER IN THE TASTE BUD.
Cao Y.¹, Zhao F.¹, Herness M.S.¹ ¹*SLIDES Biology, Ohio State University, Columbus, OH*
- P19 367 DO TRPM5 EXPRESSING CELLS HAVE CLASSICAL SYNAPSES?
Clapp T.R.¹, Margolskee R.F.², Kinnamon S.C.¹ ¹*Biomedical Sciences, Colorado State University, Fort Collins, CO;*
²*Physiology and Biophysics, Howard Hughes Medical Institute, Mount Sinai School of Medicine, New York, NY*
- P20 368 A QUANTITATIVE STUDY OF SYNTAXIN-1 IMMUNOREACTIVITY IN RAT TASTE BUDS: COLOCALIZATIONS WITH -GUSTDUCIN, PLC2, SYNAPTOBREVIN-2, PGP 9.5, AND 5-HT
Yang R.¹, Thomas S.¹, Ma H.¹, Schmidt K.¹, Kinnamon J.C.¹
¹*Department of Biological Sciences, University of Denver, Denver, CO*
- P21 369 IMMUNOREACTIVITY TO SENSORY TRANSDUCTION AND SYNAPTIC PROTEIN MARKERS IN THE TASTE BUDS OF MOUSE AND RAT CIRCUMVALLATE PAPILLAE: A QUANTITATIVE COMPARISON
Ma H.¹, Yang R.¹, Thomas S.¹, Kinnamon J.C.¹ ¹*Department of Biological Sciences, University of Denver, Denver, CO*
- P22 370 PRESYNAPTIC CA⁺⁺-FLUXING GLUTAMATE RECEPTORS ON PRIMARY AFFERENT TERMINALS IN GOLDFISH.
Huesa G.¹, Ikenaga T.¹, Finger T.E.¹ ¹*Cell and Devel. Biology, University of Colorado Health Sciences Center, Aurora, CO*

- P23 371 REGIONAL LOCALIZATION PATTERNS OF GLYCOCONJUGATE VARY AMONG PAPILLAE IN VARIOUS MAMMALIAN ANIMALS
Taniguchi K.¹, Koida A.¹, Hirasawa Y.¹, Saito T.R.², Tsujio M.¹, Yoshioka K.¹, Mutoh K.¹ ¹*Department of Veterinary Anatomy, Kitasato University, Towada, Aomori, Japan;* ²*Department of Laboratory Animal Science, Nippon Veterinary and Animal Science University, Musashino, Tokyo, Japan*
- P24 372 MAILLARD PEPTIDES ARE A CLUE TO THE KOKUMI TASTE OF THE TYPICAL KOREAN SOY SAUCE, GANJANG
Rhyu M.¹, Ogasawara M.², Kim E.³, Nakakuki H.² ¹*Korea Food Research Institute, Seongnam-si, Gyeonggi-do, South Korea;*
²*Food Creation Center, Kyowa Hakko Co., Ltd, Ibaraki, Japan;*
³*Food Function Research Division, Korea Food Research Institute, Seongnam-Si, Gyeonggi-Do, South Korea*

Ion Channels, Rafts & Pumps

- P25 373 OLFACTORY PHYSIOLOGY AND BEHAVIOR OF MICE WITH ALTERATIONS IN METABOLISM OR WEIGHT
Das P.¹, Parsons A.², Scarborough J.¹, Hoffman J.¹, Wilson J.¹, Thompson R.N.¹, Kennett J.¹, Overton J.M.², Fadool D.A.¹ ¹*Dept. Biol. Sci., Prog. in Neurosci., Florida State University, Tallahassee, FL;* ²*Dept. Nutr., Food, & Exercise Sci.; Prog. in Neurosci., Florida State University, Tallahassee, FL*
- P26 374 ADAPTOR PROTEINS PERTURB OLFACTORY BULB K CHANNEL MODULATION BY RECEPTOR TYROSINE KINASES.
Marks D.R.¹, Colley B.S.¹, Das P.¹, Fadool D.A.¹ ¹*Dept. Biol. Sci., Program in Neurosci. & Mol. Biophysics, Florida State University, Tallahassee, FL*
- P27 375 DIFFERENTIAL MODULATION OF KV1.3 AND KV1.5 CHANNELS BY BDNF AND INSULIN SIGNALING IN THE OLFACTORY BULB.
Colley B.S.¹, Fadool D.A.¹ ¹*Dept. Biol. Sci, Prog. in Neurosci. & Mol. Biophysics, Florida State University, Tallahassee, FL*
- P28 376 ARACHIDONIC ACID STIMULATES A CA²⁺-ACTIVATED K⁺ CURRENT IN MOUSE VNO NEURONS
Zhang P.¹, Delay R.¹ ¹*Biology, University of Vermont, Burlington, VT*

- P29 377 SINGLE CA²⁺ ACTIVATED CL⁻ CHANNELS IN CHEMOSENSORY CILIA OF TOAD OLFACTORY RECEPTOR NEURONS
Delgado R.¹, Bacigalupo J.² ¹Biology Department, Faculty of Sciences, U of Chile, Millennium Institute for Advanced Studies in Cell Biology and Biotechnology, Region Metropolitana, Santiago, Chile; ²Biology Department, Faculty of Sciences, University of Chile, Region Metropolitana, Santiago, Chile
- P30 378 EFFECT OF ADENYL CYCLASE INHIBITORS ON ELECTROOLFACTOGRAM (EOG) RESPONSES IN RAT
Buntinas L.¹, Restrepo D.² ¹Cell and Developmental Biology, University of Colorado Health Sciences Center, Aurora, CO; ²Cell and Developmental Biology, University of Colorado Health Sciences Center, Denver, CO
- P31 379 FUNCTIONAL ROLE OF LIPID RAFT MICRODOMAINS IN CYCLIC NUCLEOTIDE-GATED CHANNEL ACTIVATION
Brady J.¹, Karpen J.¹, Brown R.L.¹, Martens J.² ¹Neurology, Oregon Health & Science University, Beaverton, OR; ²Pharmacology, University of Michigan, Ann Arbor, MI
- P32 380 LIPID RAFTS ORGANIZE CHEMOSENSORY SIGNALING IN PARAMECIUM
Ray K.¹, Pan Y.¹, Chandran S.¹, Johnstone C.², Yano J.¹, Vanhouten J.¹ ¹Biology, University of Vermont, Burlington, VT; ²University of New Hampshire, Durham, NH
- P33 381 THE ORGANIZATION OF PLASMA MEMBRANE CALCIUM PUMPS IN PARAMECIUM: IMPLICATIONS FOR SIGNAL TRANSDUCTION
Pan Y.¹, Yano J.¹, Vanhouten J.¹ ¹Biology, University of Vermont, Burlington, VT
- P34 382 PARAMECIUM RYANODINE RECEPTORS LOCALIZE TO MITOCHONDRIA AND CONTRIBUTE TO DEPOLARIZATION-MEDIATED SWIMMING BEHAVIOR
Brown H.J.¹, Gleaton A.¹, Weeraratne S.D.², Bell W.¹ ¹Biology, Virginia Military Institute, Lexington, VA; ²Biology, University of Vermont, Burlington, VT

Human Sensory Perception

- P35 383 BRAIN RESPONSE TO PUTATIVE PHEROMONES DIFFERS BETWEEN HOMO- AND HETEROSEXUAL MEN
Savic I.¹, Berglund H.², Lindstrom P.³ ¹Neurology, Karolinska Institute, Stockholm, Sweden; ²Medicine, Karolinska Institute, Stockholm, Sweden; ³Clinical Neuroscience, Karolinska Institute, Stockholm, Sweden
- P36 384 DISSOCIATING SOMATOSENSORY AND OLFACTORY CUES AS INPUTS TO THE OLFACTOMOTOR SYSTEM
Mainland J.D.¹, Young N.¹, Sobel N.¹ ¹Neuroscience, University of California, Berkeley, Berkeley, CA
- P37 385 PROP AND RETRONASAL OLFACTION
Bartoshuk L.M.¹, Christensen C.², Duffy V.³, Sheridan K.⁴, Small D.M.¹, Snyder D.¹ ¹Surgery, Yale University, New Haven, CT; ²Monell Chemical Senses Institute, Philadelphia, PA; ³School of Allied Health Sciences, University of Connecticut, Storrs, CT; ⁴Flavor Division, International Flavors and Fragrances, Inc., Dayton, NJ
- P38 386 ODOR CHARACTERISTICS PREDICT ODOR SIMILARITY
Luk C.¹, Berger E.¹, Johnson B.¹, Khan R.M.², Sobel N.² ¹Bioengineering, University of California, Berkeley, Berkeley, CA; ²Helen Wills Neuroscience Institute, University of California, Berkeley, Berkeley, CA
- P39 387 ADAPTATION & IDENTIFYING COMPONENTS OF OLFACTORY MIXTURES IN HUMANS
Goyert H.¹, Frank M.E.², Gent J.F.³, Hettinger T.P.² ¹Psychology, Cornell University, Ithaca, NY; ²Neurosciences, SLIDES Diagnosis, UCONN Health Center, Farmington, CT; ³Center for Perinatal, Pediatric and Environmental Epidemiology, Yale School of Medicine, New Haven, CT
- P40 388 LIFESPAN CHANGES IN SOURCE MEMORY FOR OLFACTORY STIMULI
Pirogovsky E.¹, Stull K.¹, Callahan B.¹, Morris A.¹, Rice J.¹, Herbert A.¹, Zanni A.¹, Vallejo F.¹, Gilbert P.E.², Murphy C.¹ ¹Psychology, San Diego State University, San Diego, CA; ²Department of Head and Neck Surgery, University of California, San Diego, San Diego, CA
- P41 389 TRANSFORMATIONS IN ODOR PERCEPT IDENTITY AS A FUNCTION OF INTENSITY.
Bremner E.A.¹, Mainland J.¹, Zelano C.², Khan R.M.¹, Sobel N.¹ ¹Neuroscience, University of California, Berkeley, Berkeley, CA; ²University of California, Berkeley, Berkeley, CA

- P42 390 THE RESPONSIVENESS OF FMRI SIGNAL TO ODOR CONCENTRATION
Grunfeld R.¹, Wang J.¹, Meadowcroft M.¹, Ansel L.¹, Sun X.¹, Eslinger P.J.², Connor J.R.³, Smith M.B.¹, Yang Q.¹ ¹Radiology, Pennsylvania State University, Hershey, PA; ²Neurology, Pennsylvania State University, Hershey, PA; ³Neurosciences and Anatomy, Pennsylvania State University, Hershey, PA
- P43 391 EMOTIONAL FAMILIARITY AND THE DETECTION OF EMOTIONAL CHEMOSIGNALS
Chen D.¹, Zhou W.¹, Meusburger T.¹, Lucas N.¹ ¹Psychology, Rice University, Houston, TX
- P44 392 CHARACTERIZATION OF FMRI HEMODYNAMIC RESPONSE IN HUMAN CENTRAL OLFACTORY SYSTEM
Wang J.¹, Grunfeld R.¹, Meadowcroft M.¹, Ansel L.¹, Sun X.¹, Eslinger P.J.², Smith M.B.¹, Yang Q.X.¹ ¹Radiology, Pennsylvania State University, Hershey, PA; ²Neurology, Pennsylvania State University, Hershey, PA
- P45 393 THE EFFECT OF MAGNETIC FIELD ON OLFACTION
Telles C.¹, Zelano C.², Mainland J.¹, Khan R.¹, Sobel N.³ ¹Neuroscience, University of California, Berkeley, CA; ²Biophysics, University of California, Berkeley, CA; ³University of California, Berkeley, CA
- P46 394 INHIBITION OF BITTER TASTE BY ADENOSINE 5' MONOPHOSPHATE (AMP) IN NON-TASTERS AND SUPER-TASTERS OF PROP
White E.A.¹, Tepper B.J.¹ ¹Food Science, Rutgers, The State University of New Jersey, New Brunswick, NJ
- P47 395 THE INTERACTION BETWEEN EVALUATIVE AND PASSIVE RESPONSE TO TASTE IN THE HUMAN BRAIN
Bender G.¹, Mak Y.E.², Small D.M.² ¹Interdepartmental Neuroscience, Yale University, New Haven, CT; ²Surgery, John B. Pierce Laboratory and Yale University, New Haven, CT
- P48 396 DIFFERENTIAL BRAIN PATTERNS DURING INTENSITY AND PLEASANTNESS EVALUATION OF TASTE STIMULI
Cerf-Ducastel B.¹, Haase L.¹, Fowler A.¹, Nguyen L.¹, Machado A.¹, Arain Y.¹, Kemmotsu N.², Murphy C.² ¹Psychology, San Diego State University, San Diego, CA; ²Psychology, San Diego State University, Head and Neck Surgery, University of California San Diego, San Diego, CA
- P49 397 THE IMPACT OF AROMA ON PERCEPTION OF AGE
Hirsch A.R.¹, Ye Y.² ¹The Smell & Taste Treatment and Research Foundation, Chicago, IL; ²Illinois Mathematics and Science Academy, Aurora, IL

- P50 398 CHILDREN'S HEDONIC RESPONSE TO ALCOHOL ODORS ARE RELATED TO PARENTAL DRINKING AND SMOKING HABITS
Forestell C.A.¹, Steinmeyer A.¹, Howard J.¹, Mennella J.A.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P51 399 MORE THAN HEDONICS: COGNITIVE MEASURES IMPACTED BY SOME ODORS
Haviland-Jones J.¹, Wilson P.², Hudson J.A.¹, Freyberg R.³ ¹Psychology, Rutgers, The State University of New Jersey, Piscataway, NJ; ²La Salle University, Brick, NJ; ³Rutgers, The State University of New Jersey, Piscataway, NJ
- P52 400 THE MOLECULAR BASIS OF INDIVIDUAL RECOGNITION SCENTS USED IN DIFFERENT CONTEXTS
Hurst J.L.¹, Thom M.D.¹, Nevison C.M.², Beynon R.J.³ ¹Veterinary Clinical Science, University of Liverpool, Neston, United Kingdom; ²Life Sciences, Anglia Polytechnic University, Cambridge, United Kingdom; ³Veterinary Preclinical Science, University of Liverpool, Liverpool, United Kingdom

11:30 AM - 1:00 PM **Cash Lunch Cart** (*Prefunction Area*)

12:30 PM - 2:00 PM **Clinical Luncheon** (*The Keys*)
Clinical Luncheon Director, Thomas Hummel

3:00 PM - 5:00 PM **Workshop "Nasal Chemesthetic Variability"**
Workshop Chairs: Dennis Shusterman and Thomas Hummel
(*Ringling Room*)
Workshop Directors: Dennis Shusterman and Thomas Hummel

6:00 PM - 7:30 PM **Registration** (*Registration Area*)

SYMPOSIUM

Saturday - 7:00 PM - 9:15 PM (*South Ballroom*)

Presidential Symposium: Obesity: Biological Determinants of Ingestive Behavior
Mimi Halpern, Symposium Chair

7:00 INTRODUCTION
Sclafani A.¹ ¹Psychology, Brooklyn College of CUNY, Brooklyn, NY

7:15 401 HORMONES AND NEUROPEPTIDES INVOLVED IN ENERGY BALANCE
Woods S.C.¹ ¹Department of Psychiatry, University of Cincinnati, Cincinnati, OH

- 7:45 402 NEURAL MECHANISMS CONTROLLING FOOD INTAKE AND BODY WEIGHT: MIND VERSUS METABOLISM
Berthoud H.¹ *¹Neurobiology of Nutrition Laboratory, Pennington Biomedical Research Center, Louisiana State University System, Baton Rouge, LA*
- 8:15 403 CHEMOSENSORY CONTROLS OF FOOD INTAKE
Sclafani A.¹ *¹Psychology, Brooklyn College of CUNY, Brooklyn, NY*
- 8:45 404 REWARD MECHANISMS AND HEDONICS OF FEEDING BEHAVIOR
Levine A.S.¹ *¹Food Science and Nutrition, University of Minnesota, St. Paul, MN*

9:30 PM - 10:30 PM **NIH NIDCD Sponsored Nobel Reception (South Ballroom & Prefunction Area)**
Debra Fadool, Session Chair

POSTERS

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

Olfactory & VNO Receptors

- P1 405 FUNCTIONAL ANALYSIS OF A STABLY EXPRESSED HUMAN OLFACTORY RECEPTOR
Bieri S.¹, Valero A.¹, Schilling B.¹ *¹Givaudan Schweiz AG, Duebendorf, Zurich, Switzerland*
- P2 406 BOMBYKOL AND BOMBYKAL RECEPTORS IN THE SILK MOTH, BOMBYX MORI: A MOLECULAR MECHANISM OF SEX-PHEROMONE RECEPTION
Nakagawa T.¹, Sakurai T.², Nishioka T.³, Touhara K.¹ *¹Department of Integrated Biosciences, University of Tokyo, Chiba, Japan; ²Division of Applied Biosciences, Kyoto University, Kyoto, Japan; ³Division of Applied Life Sciences, Kyoto University, Kyoto, Japan*
- P3 407 ECTOPIC EXPRESSION OF OLFACTORY RECEPTOR GENES IN HETEROLOGOUS TISSUES
Lancet D.¹, Olender T.¹, Khen M.¹, Yanai I.¹, Feldmesser E.¹ *¹Molecular Genetics, Weizmann Institute of Science, Rehovot, Israel*

- P4 408 FUNCTIONAL EXPRESSION AND CHARACTERIZATION OF MOUSE ODORANT RECEPTORS IN XENOPUS OOCYTES
Abaffy T.¹, Matsunami H.², Luetje C.W.¹ *¹Pharmacology, University of Miami, Miami, FL; ²MGM, Duke University, Durham, NC*
- P5 409 OLFACTORY RESPONSES IN THE PROBOSCIS OF ANOPHELES GAMBIAE
Kwon H.¹, Ruetzler M.¹, Zwiebel L.¹ *¹Biological Sciences, Vanderbilt University, Nashville, TN*
- P6 410 ANTIBODIES RECOGNIZING OLFACTORY RECEPTOR SUBTYPES
Breer H.¹, Strotmann J.¹, Lévai O.¹, Schwarzenbacher K.¹, Fleischer J.¹ *¹Institute of Physiology, University of Hohenheim, Stuttgart, Germany*
- P7 411 ODORANT RECEPTOR HETERODIMERIZATION IN THE OLFACTORY SYSTEM OF DROSOPHILA
Neuhaus E.M.¹, Gisselmann G.¹, Farhat K.¹, Zhang W.¹, Stoertkuhl K.¹, Hatt H.² *¹Ruhr-Universitaet Bochum, Bochum, Germany; ²Cell Physiology, Ruhr-University Bochum, Bochum, Germany*
- P8 412 STRUCTURAL DETERMINANTS OF CITRONELLIC ODORANT RECOGNITION BY THE HUMAN OLFACTORY RECEPTORS OR1A1 AND OR1A2
Krautwurst D.¹, Schmiedeberg K.¹, Shirokova E.¹, Meyerhof W.¹, Weber H.², Schilling B.² *¹Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany; ²Fragrance Research Bioscience, Givaudan Schweiz AG, Duebendorf, Switzerland*
- P9 413 FUNCTIONAL EXPRESSION OF SEA LAMPREY OLFACTORY RECEPTORS
Lischka F.¹, Wu H.², Li W.², Teeter J.¹ *¹Monell Chemical Senses Center, Philadelphia, PA; ²Fisheries and Wildlife, Michigan State University, East Lansing, MI*
- P10 414 ASSESSING THE IMPORTANCE OF OLFACTION FOR SEA TURTLES BY USING ALLELIC VARIATION TO SHOW SELECTION ON OLFACTORY RECEPTOR GENES
Vieyra M.¹, Vogt R.¹ *¹Biological Sciences, University of South Carolina, Columbia, SC*
- P11 415 RELATIONSHIPS BETWEEN TRANSDUCTION PATHWAYS AND THE CHEMOSENSITIVITIES OF GOLDFISH OLFACTORY RECEPTOR NEURONS
Sato K.¹, Touhara K.², Sorensen P.W.³ *¹Integrated Biosciences, University of Tokyo, Kashiwa, Chiba, Japan; ²University of Tokyo, Chiba, Japan; ³University of Minnesota, Minneapolis, MN*

- P12 416 LOCATION OF LIGAND BINDING SITES ON ODORANT BINDING PROTEINS USING PHOTOAFFINITY PROBES AND MASS SPECTROMETRY
Greenwood D.¹, Rasmussen L.E.², Cooney J.³, Jensen D.³, Lazar J.⁴, Prestwich G.⁵ ¹HortResearch, Auckland, New Zealand; ²Chemical and Biological Sciences, Oregon Graduate Institute of Science & Technology, Beaverton, OR; ³HortResearch, Hamilton, New Zealand; ⁴Columbia University, New York, NY; ⁵University of Utah, Salt Lake City, UT
- P13 417 ODORANT SPECIFIC REQUIREMENT FOR ARRESTIN FUNCTION IN DROSOPHILA MELANOGASTER
Walker W.B.¹, Merrill C.² ¹Biological Sciences, Vanderbilt University, Nashville, TN; ²Neurobiology and Physiology, Northwestern University, Evanston, IL
- P14 418 MEDIATORS OF SPERM MOTILITY- ODORANT RECEPTOR EXPRESSION PROFILES OF HUMAN SPERM
Schwane K.¹, Spehr M.², Wawrzik M.¹, Riffell J.A.³, Zimmer R.K.³, Hatt H.¹ ¹Cell Physiology, Ruhr-University Bochum, Bochum, Germany; ²Anatomy and Neurobiology, University of Maryland at Baltimore, Baltimore, MD; ³Biology, University of California, Los Angeles, CA
- P15 419 DE-ORPHANING, FUNCTIONAL CHARACTERIZATION AND CAMP SIGNALLING OF FIVE HUMAN VIR-LIKE RECEPTORS.
Shirokova E.¹, Raguse J.², Meyerhof W.¹, Krautwurst D.¹ ¹Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany; ²Clinic and Policlinic for SLIDES and Maxillofacial Surgery and Plastic Surgery, Charité - Campus Virchow Hospital, Berlin, Germany
- P16 420 DNA STRUCTURAL CHANGES ARE ASSOCIATED WITH ODOR SENSING IN NOVEL DNA-BASED FLUORESCENT SENSORS.
Williams L.B.¹, Kauer J.S.¹, White J.E.¹ ¹Neuroscience, Tufts University, Boston, MA

Chemical Ecology and Social Recognition

- P17 421 THE DETERMINANTS OF DOMINANCE IN CRAYFISH: THE ROLE OF SOCIAL COMMUNICATION
Moore P.A.¹ ¹Biological Sciences, Bowling Green State University, Bowling Green, OH

- P18 422 THE INTRINSIC AND EXTRINSIC FACTORS INVOLVED IN THE SOCIAL BEHAVIOR OF CRAYFISH
Bethann P.¹, Peters N.¹, Moore P.A.¹ ¹Department of Biological Sciences, Bowling Green State University, Bowling Green, OH
- P19 423 CHEMOSENSORY SIGNALS IN STREAM HABITATS: IMPLICATIONS FOR ECOLOGICAL INTERACTIONS
Zulandt T.J.¹, Wolf M.C.¹, Martin A.L.¹ ¹Biological Sciences, Bowling Green State University, Bowling Green, OH
- P20 424 SOCIAL COMMUNICATION AND ANALYSIS OF STATUS SPECIFIC URINE IN THE CRAYFISH, ORCONECTES RUSTICUS
Martin A.L.¹, Moore P.A.¹ ¹Biological Sciences, Bowling Green State University, Bowling Green, OH
- P21 425 EVOLUTION OF SOCIAL COMMUNICATION IN FLOWING SYSTEMS
Simon J.L.¹, Fero K.C.¹, Bergman D.A.², Redman C.N.¹, Moore P.A.¹ ¹Biological Sciences, Bowling Green State University, Bowling Green, OH; ²Physiology, University of Kentucky, Lexington, KY
- P22 426 ARGININE: A POTENT PREY ATTRACTANT TO PREDATORY NEWTS IN MOUNTAIN STREAMS.
Ferrer R.P.¹, Zimmer R.K.¹ ¹Department of Ecology and Evolutionary Biology, University of California, Los Angeles, Los Angeles, CA
- P23 427 A BLEND OF THREE NOVEL SULFATED STEROIDS RELEASED BY LARVAL SEA LAMPREY FUNCTIONS AS A POTENT PHEROMONE FOR MIGRATORY ADULTS
Fine J.M.¹, Hoyer T.R.², Sorensen P.W.¹ ¹Fisheries, Wildlife & Conservation Biology, University of Minnesota, St. Paul, MN; ²Chemistry, University of Minnesota, Minneapolis, MN
- P24 428 TIMING AND DURATION OF ODOR EXPOSURE IS CRITICAL FOR SUCCESSFUL OLFACTORY IMPRINTING IN SOCKEYE SALMON (ONCORHYNCHUS NERKA)
Dittman A.H.¹, Havey M.A.², May D.², Athos J.¹ ¹Northwest Fisheries Science Center, NOAA-Fisheries, Seattle, WA; ²School of Aquatic and Fishery Sciences, University of Washington, Seattle, WA
- P25 429 INTRASPECIFIC CHEMICAL SIGNALING IN THE SEA HARE APLYSIA CALIFORNICA: DEFENSIVE SECRETIONS ALSO CONTAIN CONSPECIFIC ALARM CUES
Kicklighter C.¹, Kamio M.¹, Prince E.², Kubanek J.², Derby C.¹ ¹Biology, Georgia State University, Atlanta, GA; ²Biology, Georgia Institute of Technology, Atlanta, GA

- P26 430 NEURONAL CONTROL OF ANTENNULAR GROOMING IN THE SPINY LOBSTER, *PANULIRUS ARGUS*
Schmidt M.¹, Derby C.¹ ¹*Biology, Georgia State University, Atlanta, GA*
- P27 431 DOES THE FREQUENCY OF OCCURRENCE OF ODORANTS IN THE CHEMICAL ENVIRONMENT DETERMINE OLFACTORY SENSITIVITY ? A STUDY WITH ACYCLIC MONOTERPENE ALCOHOLS IN THREE SPECIES OF NONHUMAN PRIMATES
Laska M.¹, Hoefelmann D.¹, Huber D.¹, Schumacher M.¹ ¹*University of Munich, Munich, Germany*
- P28 432 INCREASED CONSPECIFIC AND HETEROSPECIFIC VOCALIZATIONS IN RESPONSE TO AN AVIAN SOCIAL ODOR
Hagelin J.C.¹, Johnson J.E.¹, Strong A.L.¹, Saunders A.B.¹ ¹*Biology, Swarthmore College, Swarthmore, PA*
- P29 433 CHICKEN EMBRYOS ARE CAPABLE OF HABITUATING TO AN AVIAN SOCIAL ODOR
Simonet J.C.¹, Lyson T.R.², Hagelin J.C.¹ ¹*Biology, Swarthmore College, Swarthmore, PA*; ²*Swarthmore College, Swarthmore, PA*
- P30 434 SOCIAL BEHAVIOR AND ODOR FUNCTION OF A TANGERINE-SCENTED SEABIRD
Kett L.R.¹, Hagelin J.C.¹, Rasmussen L.E. L.² ¹*Biology, Swarthmore College, Swarthmore, PA*; ²*Biochemistry, Oregon Graduate Institute of Science & Technology, Beaverton, OR*
- P31 435 THE INFLUENCE OF PREDATOR ODORS ON MATERNAL BEHAVIOR OF RODENTS.
Voznessenskaya V.V.¹, Makarova A.M.¹, Voznesenskaia A.E.², Clark L.³ ¹*Institute of Ecology & Evolution RAS, Moscow, Russia*; ²*Physiology, Lomonosov Moscow State University, Moscow, Russia*; ³*Repellents, National Wildlife Research Center, Fort Collins, CO*

Olfactory Behavior

- P32 436 OLFACTORY RECOGNITION IN CANINES
Ross K.¹, Puchalski D.¹, Leitch A.¹, Hornung D.¹ ¹*Biology Department, St. Lawrence University, Canton, NY*

- P33 437 BEHAVISLIDES CONSEQUENCES OF NORADRENALINE SIGNALING BLOCKADE IN THE MAIN OLFACTORY BULB OF ADULT MICE
Doucette W.¹, Restrepo D.¹ ¹*University of Colorado Health Sciences Center, Aurora, CO*
- P34 438 EPIGENETIC IMPRINTING OF RASGRF1 AFFECTS ASSOCIATIVE ODOR LEARNING IN NEONATAL MICE.
Devito L.¹, Boudadi K.¹, Armstrong C.¹, Soloway P.², Cleland T.¹ ¹*Neurobiol & Behav, Ithaca, NY*; ²*Div Nutr Sci, Cornell University, Ithaca, NY*
- P35 439 ONTOGENY OF ODOR DISCRIMINATION: INTENSITY MODULATION OF OLFACTORY ACUITY EMERGES POSTNATALLY.
Fletcher M.¹, Wilson D.A.¹, Cleland T.² ¹*Zoology, University of Oklahoma, Norman, OK*; ²*Cornell University, Ithaca, NY*
- P36 440 THE ROLE OF CENTRIFUGAL PROJECTIONS TO THE OLFACTORY BULB IN OLFACTORY PROCESSING
Kiselycznyk C.¹, Linster C.¹ ¹*Cornell University, Ithaca, NY*
- P37 441 CHARACTERIZATION OF COMPOUNDS IN ANAL GLAND SECRETION OF NUTRIA (*MYOCASTOR COYPUS*)
Finckbeiner S.M.¹ ¹*Neurobiology and Behavior, Cornell University, Ithaca, NY*
- P38 442 EXPOSURE TO ODORS IMPROVES OLFACTORY DISCRIMINATION IN ADULT RATS
Mandairon N.¹, Kiselycznyk C.¹, Linster C.¹ ¹*Cornell University, Ithaca, NY*
- P39 443 A SIMPLE SHIFT IN PERIPHERAL OLFACTORY SPECIFICITY IS ASSOCIATED WITH DIVERGENT MALE MOTH BEHAVISLIDES PREFERENCE
Hillier K.N.¹, Vickers N.J.¹, Groot A.T.², Gould F.L.² ¹*University of Utah, Salt Lake City, UT*; ²*Entomology, North Carolina State University, Raleigh, NC*
- P40 444 GENETIC BASIS OF KIN RECOGNITION
Gerlach G.¹, Roberts S.¹, Hodgins-Davis A.¹ ¹*Marine Resources Center, Marine Biological Laboratory, Woods Hole, MA*
- P41 445 CRITICAL ROLE OF URINE-DERIVED FAMILIARITY ODOR IN MICE AGGRESSIVE BEHAVIOR
Nakamura K.¹, Kikusui T.¹, Takeuchi Y.¹, Mori Y.¹ ¹*Graduate School of Agricultural and Life Sciences, University of Tokyo, Bunkyo-ku, Tokyo, Japan*

- P42 446 EFFECT OF LEARNING ON FOS-ACTIVATION PATTERNS AND NEUROGENESIS IN THE OLFACTORY SYSTEM
Mcnamara A.M.¹, Bath K.G.², Cleland T.A.¹, Linster C.¹
¹Neurobiology & Behavior, Cornell University, Ithaca, NY;
²Psychology, Cornell University, Ithaca, NY
- P43 447 ODORS AS SIGNALS: HUMAN ODORTYPES
Yamazaki K.¹, Curran M.¹, Mennella J.¹, Kwak J.¹, Steinmeyer A.¹, Beauchamp G.K.¹ ¹Monell Chemical Senses Center, Philadelphia, PA
- P44 448 A RE-EXAMINATION OF ODOR MIXTURE QUALITY AND ITS ASSESSMENT
Kay L.M.¹, Bloom G.², Crk T.³, Thorngate J.³ ¹Psychology, University of Chicago, Chicago, IL; ²Neurobiology, University of Chicago, Chicago, IL; ³The College, University of Chicago, Chicago, IL
- P45 449 OLFACTORY PREFERENCES IN THE ZEBRAFISH
Smith K.M.¹, Newton L.¹, Whitlock K.E.¹ ¹Molecular Biology and Genetics, Cornell University, Ithaca, NY

Sunday, April 17, 2005

8:30 AM - 1:00 PM **Registration** (Registration Area)8:00 AM - 10:00 AM **Continental Breakfast** (Prefunction Area)

SYMPOSIA

Sunday - 10:00 AM - 1:00 PM (South Ballroom)

Receptors Symposium I
Peter Mombaerts, Symposium Chair

- 10:00 450 UNRAVELING SMELL
Buck L.¹ ¹Physiology and Biophysics, University of Washington, Seattle, WA
- 10:45 451 PHEROMONE RECEPTORS IN DROSOPHILA
Steven B.¹, Amrein H.¹ ¹Molecular Genetics and Microbiology, Duke University, Durham, NC

- 11:15 452 SEMI-MONOCLONAL EXPRESSION OF THE ODORANT RECEPTOR TRANSGENE
Serizawa S.¹, Miyamichi K.¹, Sakano H.¹ ¹Department of Biophysics and Biochemistry, University of Tokyo, Tokyo, Japan
- 11:45 453 CODING SEQUENCE VARIATION IN HUMAN SWEET AND UMAMI TASTE RECEPTOR GENES
Kim U.¹, Riaz N.¹, Drayna D.¹ ¹NIDCD, National Institutes of Health, Rockville, MD
- 12:15 454 DE-ORPHANING, FUNCTIONAL CHARACTERIZATION AND CAMP SIGNALLING OF FIVE HUMAN VIR-LIKE RECEPTORS
Krautwurst D.¹, Shirokova E.¹, Raguse J.², Meyerhof W.¹
¹Molecular Genetics, German Institute of Human Nutrition Potsdam-Rehbruecke, Nuthetal, Germany; ²Clinic and Policlinic for SLIDES and Maxillofacial Surgery and Plastic Surgery, Charité - Campus Virchow Hospital, Berlin, Germany

12:30 PM - 2:00 PM **Cash Lunch Cart** (Prefunction Area)

SYMPOSIUM

Sunday - 2:30 PM - 4:30 PM (South Ballroom)

Receptors Symposium II
Tim McClintock, Symposium Chair

- 2:30 455 COMBINATORIAL CODING GUIDES OLFACTORY BEHAVIOR IN DROSOPHILA LARVAE
Vosshall L.B.¹ ¹Rockefeller University, New York, NY
- 3:00 456 THE UNIQUE CONTRIBUTIONS OF T1R2 AND T1R3 TO THE DETECTION OF SWEET STIMULI
Munger S.D.¹, Nie Y.¹, Vignes S.¹, Hobbs J.², Conn G.L.²
¹Anatomy and Neurobiology, University of Maryland School of Medicine, Baltimore, MD; ²Faculty of Life Sciences, University of Manchester, Manchester, United Kingdom
- 3:30 457 DROSOPHILA OBP LUSH IS REQUIRED FOR ACTIVITY OF PHEROMONE-SENSITIVE NEURONS
Smith D.¹ ¹Pharmacology, University of Texas Southwestern Medical Center at Dallas, Dallas, TX

- 4:00 458 RTP1 AND 2 PROMOTE FUNCTIONAL CELL-SURFACE
EXPRESSION OF MAMMALIAN ODORANT RECEPTORS
Matsunami H.¹ *¹Molecular Genetics and Microbiology, Duke
University, Durham, NC*

4:30 PM - 7:00 PM **Dinner Break - on own**

SYMPOSIUM

Sunday - 7:00 PM - 9:15 PM (South Ballroom)

Receptors Symposium III

Leslie Voshall, Symposium Chair

- 7:00 459 A GENOMIC PERSPECTIVE ON THE EVOLUTION OF
OLFACTION IN PRIMATES
Gilad Y.¹ *¹Yale University, New Haven, CT*
- 7:30 460 THE MOLECULAR RESPONSE PROFILE OF AN ODORANT
RECEPTOR: DROSOPHILA OR22A.
Galizia G.¹ *¹University of California, Riverside, Riverside, CA*
- 8:00 461 MOLECULAR MECHANISMS UNDERLYING SEX-
PHEROMONE RECEPTION
Touhara K.¹ *¹Department of Integrated Biosciences, University of
Tokyo, Chiba, Japan*
- 8:30 462 OLFACTORY RECEPTORS
Axel R.¹ *¹Biochemistry and Molecular Biophysics, Columbia
University, New York, NY*

9:30 PM - 10:30 PM **Senomyx Sponsored Social Gathering (Prefunction
Area)**

- Abaffy, Tatjana, 408
Abe, Keiko, 238
Abraham, Michael H., 267
Ache, Barry W., 187, 192, 193
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Affeltranger, Mark A., 270
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