DATES OF FUTURE MEETINGS

April 25 – 29, 2001
April 24 – 28, 2002
April 9 – 13, 2003

THE ASSOCIATION FOR CHEMORECEPTION SCIENCES PRESENTS

IMPRESSIONS ON A NEW CENTURY OF OLFCTION AND TASTE

A COLOSSAL FEAST FOR THE SENSES
SARASOTA, FLA. 2000 A.D.
The Association is also grateful for the generous support of its corporate sponsors:

Seventh International Flavors and Fragrances Award for Research in Olfaction
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Twenty-Second Annual Givaudan-Roure Lectureship
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Fifteenth Annual Takasago Award for Research in Olfaction
Takasago Corporation

Ninth Annual Moskowitz Jacobs Award for Research in Psychophysics of Taste and Olfaction
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Seventh Annual Award to Promising Young Researchers in the Field of Gustation
Ajinomoto USA

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Susan Sullivan, Chuck Wysocki, Steven Youngentoub
Wednesday, April 25, 2000

ASSOCIATION FOR CHEMORECEPTION SCIENCES
Twenty-Second Annual Meeting

12:00-4:30 PM  Executive Committee Meeting
5:00-7:30 PM  Registration (Long Boat & Gallery)
6:00-6:30 PM  Minority Fellows Organization Meeting (State Room)
              Organizer: J. Caprio
6:30-8:00 PM  Opening Buffet (Sara and Outdoors)
8:00-8:30 PM  Welcome, Opening Remarks & Awards Ceremony
              (Hernando Desoto Room)
              D. Hill, President
8:30-9:30 PM  Givaudan-Roure Lecture (Hernando North and South)
              Dr. Mu-Ming Poo
              Synaptic Modification by Correlated Activity: Hebb’s Postulate
              Revisited
              Chairperson: S. Firestein
9:30 PM  Social Gathering and Cash Bar (Gallery)
9:30 PM  Organizational Meeting for Students with Travel Awards
              (Hernando Desoto Room)
              Organizer: A.J. Nighorn, Student Services Coordinator
Thursday, April 27, 2000

Continental Breakfast  7:30 AM-9:00 AM

SLIDES

Thursday Morning - 8:00 am - 9:30 am

Human Chemoreception I: Oral/Nasal Stimulation
Chairperson: Chuck Wysocki

8:00 am  2  EFFECTS OF ALKALINE PH ON THE APPARENT MOLAR COMPRESSIBILITIES OF SWEETENERS
Birch G. G.1, Haywood K. A.1, Salzedo K. 3 1The University of Reading, Reading, United Kingdom

8:15 am  3  COVARIATION IN HUMAN BITTERNESS PERCEPTION TO ELEVEN COMPOUNDS
Delwiche J. F.1, Bulalic Z.1, Breslin P. A. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

8:30 am  4  AQUEOUS-ETHANOL SOLUTION PROPERTIES OF CHLORHEXIDINE DIGLUCONATE
Portmann M. O. 1, Alexander S. E. 1, McConville P. S. 1, Parke S. 2, Birch G. G. 2, Ames J. 3 1SmithKline Beecham Consumer Healthcare, Weybridge, United Kingdom, 2Reading University, Reading, United Kingdom

8:45 am  5  PSYCHOPHYSICAL INVESTIGATIONS OF IBUPROFEN: EFFECTS OF ORAL PH, BUFFERING, AND SALIVA
Breslin P. A. 1, Green B. G. 2 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2The John B. Pierce Laboratory, New Haven, CT, USA

9:00 am  6  THE TASTE OF FAT AND ITS METABOLIC IMPLICATIONS
Mates R. D. 1 1Purdue University, West Lafayette, IN, USA

9:15 am  7  SUB-THRESHOLD INTEGRATION OF TASTE AND SMELL
Dalton P. 1, Doolittle N. 1, Nagata H. 1, Breslin P. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2Japan Tobacco, Tokyo, Japan

9:45 am - 12:15 pm  Symposium: Olfaction in Drosophila: From Receptors to Behavior
Chairperson: Robert Anholt

Min-Su Kim and Dean Smith
University of Texas Southwestern Medical Center, Dallas, TX, USA
"THE DROSOPHILA ODORANT-BINDING PROTEIN LUSH IS REQUIRED FOR NORMAL OLFACTORY BEHAVIOR"

Mid morning coffee available  9:30-9:45AM

POSTERS

Thursday Morning - 8:00 am - 12:00 pm

Feeding and Reproductive Behavior

P1  13  FEEDING RESPONSE OF THE MUD SNAIL, ILYANASSA OBSOLETA TO SUCROSE AND DEXTROSE
Davis K., McClary M. 1 1Bloomfield College, Bloomfield, NJ, USA, 2Bloomfield College, Bloomfield, NJ, USA

P2  14  ACID ACCEPTANCE IN 28 MOUSE STRAINS
Bachmanov A. A. 1, Tordoff M. G. 1, Beauchamp G. K. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P3  15  EFFECTS OF ICY NPV ADMINISTRATION ON SUCROSE TASTE REACTIVITY
Baird J. P. 1, Travers J. B. 1, Travers S. P. 1 1Ohio State, Columbus, OH, USA

P4  16  CHANGES IN THE RATE OF LICKING CONCENTRATED NACL SOLUTIONS DURING DIETARY NA+ DEPRIVATION PRECEDE INCREASED 24-HOUR DEPRIVATION-INDUCED NACL INTAKE
Curtis K. S. 1, Krause E. G. 2, Contreras R. J. 1 1Florida State University, Tallahassee, FL, USA

This symposium was supported in part by a generous donation from Rhone-Poulenc Inc.
P5 17 MICE SUPPRESS MALARIA INFECTION THROUGH VOLUNTARY INGESTION OF A BITTER CHEMOTHERAPY AGENT
Glendinning J. I., Vitazkova S. K., Paul A.2, Long E.1 1Barnard College, Columbia University, New York, NY, USA, 2Columbia University, New York, NY, USA

P6 18 THE EFFECTS OF TEMPERATURE CUES ON INGESTIVE BEHAVIOR IN THE RAT
Smith P. L.1, Henderson R. P.1, Smith J. C. 1The Florida State University, Tallahassee, FL, USA

P7 19 EVALUATIONS OF ATTRACTANTS AND REPELLENTS IN NORWAY RATS
Shumake S. A., Abdel-Hakim Farag A. K.2 1National Wildlife Research Center, Fort Collins, CO, USA, 2Egypt-Mesoufia University, Cairo, Egypt

P8 20 EFFECT OF PRIMARY AND SECONDARY REPELLENTS ON CONDITIONAL AVOIDANCE LEARNING IN EUROPEAN STARLINGS
Clark L.1, Sayre R.1 1USDA National Wildlife Res Ctr, Fort Collins, CO, USA

P9 21 SPERMIAED MALE SEA LAMPEYS RELEASE A SEX PHEROMONE THAT FUNCTIONS AS AN ATTRACTANT FOR OVULATED FEMALE SEA LAMPEYS
Sieken M. J., Li W. 1Michigan State University, East Lansing, MI, USA

P10 22 INDIVIDUAL COMPONENTS OF THE GOLDFISH PRE-OVULATORY PHEROMONE ELICIT DIFFERENT BEHAVIORAL RESPONSES: A FIRST STEP TO UNDERSTANDING THE ROLE OF MIXTURES IN A VERTEBRATE PHEROMONE
Polking K. R., Sorensen P. W. 1University of Minnesota, St. Paul, MN, USA

P11 23 INITIAL STUDIES ON THE SOURCE AND CYCLIC RELEASE PATTERN OF (Z)-7-DODECENYL ACETATE, THE PREOVULATORY PHEROMONE OF FEMALE ASIAN ELEPHANTS
Rasmussen L. E., Goodwin T. E. 1Oregon Graduate Institute, Portland, OR, USA, 2Hendrix College, Hendrix College, AR, USA

P12 24 URINARY AND TRUNK MUCUS PROTEIN CARRIERS OF (Z)-7-DODECENYL ACETATE, THE SEX PHEROMONE OF THE ASIAN ELEPHANT
Lazar J.1, Prestwich G. D.2, Rasmussen L. E.2 1University of Utah, Salt Lake City, UT, USA, 2Oregon Graduate Institute, Beaverton, OR, USA

P13 25 SILEFRIN, A FEMALE-ATTRACTING PHEROMONE IN THE ABDOMINAL GLAND OF THE SWORD-TAILED NEWT, CYNOPS ENICALUDA
Kikuyama S.1, Yamamoto K.1, Hayashi T.2, Ohe Y.2, Hayashi H.4, Toyoda F.3, Kawai Y.1, Hashinuma H.1, Kawahara G.1, Iwata T.1 1Waseda University, Tokyo, Japan, 2Gunma College of Technology, Maebashi, Japan, 3Gunma University, Maebashi, Japan, 4Gunma Prefectural College of Health Sciences, Maebashi, Japan, 5Nara Medical University, Kashihara, Japan

P14 26 COURTSHIP PHEROMONE EFFECTS ON FEMALE RECEPTIVITY IN PLETHODONTID SALAMANDERS
Rollmann S. M.1, Houch L. D.2, Feldhoff R. C.3 1University of Chicago, Chicago, IL, USA, 2Oregon State University, Corvallis, OR, USA, 3University of Louisville, Louisville, KY, USA

P15 27 PREDATOR ODORS AND THEIR EFFECTS ON THE REPRODUCTION SUCCESS OF PHODOPUS HAMSTERS
Apfelbach R., Cherapanova E. V., Wiest H., Vasilieva N. Y.2 1University of Tübingen, Tübingen, Germany, 2Russian Academy of Sciences, Moscow, Russian Federation

P16 28 HORMONAL MECHANISMS OF LITTER REDUCTIONS IN RODENTS UNDER PREDATOR ODOR INFLUENCE
voznessenskaya V. V., Naidenko S. V., Feokistova N. Y., Miller L.2, Clark L.2 1A.N. Severtsov Institute of Ecology & Evolution, Moscow, Russian Federation, 2National Wildlife Research Center, Fort Collins, CO, USA

Central Olfactory Pathways - Sensory Responses

P17 29 IMPROVED ODORANT DISCRIMINATION IN AN ARTIFICIAL NOSE THROUGH FEEDBACK CONTROL OF ENVIRONMENTAL SAMPLING
White J.1, Kauer J. S.1 1Tufts Medical School, Boston, MA, USA

P18 30 GENETICALLY DETERMINED BODY ODORS EVOKE DISTINCT PATTERNS OF NEURAL ACTIVITY IN THE MAIN OLFACTORY BULB
Schafer M. L., Restrepo D.1 1University of Colorado Health Science Center, Denver, CO, USA

P19 31 RESPONSES TO OLFACTORY AND INTRANASAL TRIGEMINAL STIMULI: RELATION TO THE RESPIRATORY CYCLE
Hummel T.1, Streile G.1, Di Benedetto M.2 1University of Dresden, 01307 Dresden, Germany, 2University of Virginia, Charlottesville, 22901, VA, USA

P20 32 ODOR-SPECIFIC REGIONAL ACTIVATION OF RAT PIRIFORM CORTEX
Ilg K. R., Haberly L. B.1 1University of Wisconsin, Madison, WI, USA

P21 33 ENSEMBLE CODES FOR DYNAMIC OLFACTORY STIMULI RECORDED WITH MULTICHANNEL SILICON MICROPROBES IN THE MOTH ANTENNAL LOBE
Christensen T. A., Pawlowski V. M., Lei H., Hildebrand J. G.1 1The University of Arizona, Tucson, AZ, USA

P22 34 TRANSIENT SYNCHRONIZATION OF GLOMERULAR OUTPUT NEURONS IS MODULATED BY ODORYNAMICS IN THE MOTH ANTENNAL LOBE
Lei H., Christensen T. A., Hildebrand J. G.1 1The University of Arizona, Tucson, AZ, USA
P23 35 OLFACTORY CONDITIONING IN MANDELA SECTA: EVOLUTION OF NEURAL ENSEMBLE PATTERNS IN THE ANTENNAL LOBE BEFORE, DURING, AND AFTER LEARNED ASSOCIATION TO ODORS
Daly K.1, Christensen T. A.1, Pawlowski V. M.2, Smith B. H.1, Hildebrand J. G.3 1Ohio State University, Columbus, OH, USA, 2The University of Arizona, Tucson, AZ, USA

P24 36 NITRIC OXIDE AFFECTS SYNAPTIC EFFICACY IN THE ANTENNAL LOBE OF MANDELA SECTA
Collmann C.1, Christensen T. A.1, Nighorn A. J.1 1University of Arizona, Tucson, AZ, USA

P25 37 INHIBITION IS A MAJOR NEURAL ACTION COMMUNICATED TO THE CRAYFISH OLFACATORY FOREBRAIN BY ACCESSORY LOBE PROJECTION NEURONS IN RESPONSE TO ANTENNAL STIMULATION
Mellon D.1 1University of Virginia, Charlottesville, VA, USA

P26 38 IDENTIFIED PHEROMONES EVOKE DISTINCTIVE SPATIAL MAPS OF ACTIVITY THAT ARE INDEPENDENT OF CONCENTRATION IN THE GOLDFISH OLFACATORY BULB.
Hanson L. R.1, Cohen Y.1, Sorensen P. W.1 1University of Minnesota, St. Paul, MN, USA

P27 39 SPATIAL PATTERNS OF OLFACATORY BULBAR RESPONSES TO PUTATIVE ODORANTS IN A MARINE TELEOST
Mama R. R.1, Kawamura G.1 1Kagoshima University, Kagoshima 890-0056, Japan

P28 40 CHANGES IN SPATIO-TEMPORAL PROPERTIES OF ODOR RESPONSES FROM MULTIPLE ODOR PRESENTATIONS IN THE TURTLE BULB
Zochowski M.1, Cohen L. B.1, Wachowiak M.1 1Yale University School of Medicine, New Haven, CT, USA

Quick Lunch Cart available in the Gallery 12:15-1:00 PM
Awards Symposium (Sara) 7:00PM-8:30PM

Thursday Evening - 8:45 pm - 10:00 pm

Olfactory Coding/OR Functional Studies Slide Session
Chairperson: Debra Fadool

8:45 pm 41 DETERMINANTS OF ACTIVITY FOR ALDEHYDES AT THE MAMMALIAN OCTANAL RECEPTOR 17
Araneida R. C.1, Kini A.1, Firestein S.1 1Columbia University, New York, NY, USA
P4 48 ODOR IDENTIFICATION: HOW TO TELL IF SUBJECTS ARE RIGHT WITHOUT LOOKING AT THEIR RESPONSES
Wise P. M. 1, Cain W. S. 1 1Dept. Surgery, U.C. San Diego, La Jolla, CA, USA

P5 49 EFFECTS OF MASKING ON ODOR IDENTIFICATION
Laudano A. 1, Gent J. P. 1, Frank M. E. 1, Hettinger T. P. 1 1UCons Health Center, Farmington, CT, USA

P6 50 AMELIORATING SWINE SLURRY ODORS: AN ANALYTICAL AND SENSORY APPROACH
Bazemore R. A. 1, Wysocki C. J. 1, Pitcher P. 2, Parsons T. 3, Lawley H. 1, Connolly L. 1, Louie J. 1, Murry S. 1, Preti G. 1, 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2Department of Animal Biology, School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, USA, 3H&R Florasynth Inc., Teterboro, NY, USA, 4Department of Dermatology, School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

P7 51 FEEDING OF SWINE TO AMELIORATE ODORS: AN ANALYTICAL AND SENSORY APPROACH
Wysocki C. J. 1, Preti G. 1, Bazemore R. 1, Pitcher P. 1, Parsons T. 3, Connolly L. 1, Louie J. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, USA, 3School of Medicine, University of Pennsylvania, Philadelphia, PA, USA

P8 52 THE UNPLEASANTNESS OF MIXED AND UNMIXED MALODORS: ASSESSMENT BY THREE METHODS
Dusay M. E. 1, Gesteland R. J. 2, Frank R. A. 1 1University of Cincinnati, Department of Biology, Cincinnati, OH, USA, 2University of Cincinnati, Department of Cell Biology, Cincinnati, OH, USA

P9 53 THE INFLUENCE OF BELIEF VERSUS CONTENT ON THE PERCEPTION OF NATURAL AND SYNTHETIC ODORS
Hvez R. S. 1, von Clef J. C. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P10 54 RECOLLECTIVE EXPERIENCE OF ODORS AND WORDS: EFFECTS OF LEVEL OF PROCESSING, RETENTION INTERVAL, AND ODOR IDENTIFIABILITY
Olsson M. 1, Lundgren E. B. 1, Karlsson A. S. 1, Soares S. C. 1 1Uppsala University, Uppsala, Sweden

P11 55 VERBAL-COGNITIVE STRATEGY CAN INFLUENCE ODOR IDENTIFICATION
Bell G. A. 1, Paton J. E. 2 1Centre for Chemosensory Research, University of New South Wales, Sydney, Australia, 2Dept Food Science and Technology, University of New South Wales, Sydney, Australia

P12 56 MOOD, PERSONALITY, AND ODOR PERCEPTION
Chen D. 1, Dalton P. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P13 57 ODOR CHARACTERISTICS OF BREASTFEEDING CHEMOSIGNALS
Bulviant S. 1, Spencer N. A. 1, Jacob S. 1, Sellarigren S. 1, Mennella J. A. 2, McClintock M. K. 1 1The University of Chicago, Chicago, IL, USA, 2Monell Chemical Senses Center, Philadelphia, PA, USA

P14 58 EFFECTS OF SOME HUMAN ASSOCIATED ODORS ON THE BEHAVIOUR IN THE INITIAL ENCOUNTER
Maiworm R. E. 1, Langthaler W. 1 1Dep. of Psychology, D-48149 Minden, Germany

P15 59 EFFECTS OF THE PUTATIVE PHEROMONE 4,16-ANDROSTADION-3-ONE ON PSYCHOLOGICAL AND PSYCHOPHYSIOLOGICAL VARIABLES: WEAK EVIDENCE
Lundstrom N. J. 1, Olsson M. J. 1, Larsson M. 1, 1Uppsala University, Uppsala, Sweden, 2Karolinska Institute, Stockholm, USA

Multimodal Sensory Inputs

P16 60 EARLY LEARNING ABOUT THE SENSORY PROPERTIES OF ALCOHOL
Garcia P. J. 1, Mennella J. A. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P17 61 SENSORY CONSEQUENCES OF OCCUPATIONAL EXPOSURE TO ISOPROPYL ALCOHOL
Smeets M. A. 1, Dalton P. H. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P18 62 UNILATERAL ANESTHESIA OF THE CHORDA TYMPANI NERVE SUGGESTS TASTE MAY LOCALIZE RETRONASAL OLFACTATION
Fast K. 1, Tie K. 1, Bartoshuk L. M. 1,1, Kvotn J. F. 1, Duffy V. B. 1,2 1Yale University School of Medicine, New Haven, CT, USA, 2University of Connecticut, Storrs, CT, USA

P19 63 BUBBLE, BUBBLE: PERCEPTION OF A CARBONATED BEVERAGE ACROSS THE LIFESPAN
Pelchat M. L. 1, Jagow C. 1, Loreto I. 1, Schaefer S. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P20 64 COLOR AFFECTS PERCEIVED FLAVOR INTENSITY
Zellner D. A. 1, Martin N. 1, Hamer-Deithorn A. S. 1 1Shippensburg University, Shippensburg, PA, USA

P21 65 INTERACTION OF FAT WITH A RANGE OF TASTANTS AND TRIGEMINAL STIMULANTS
Song H. 1Centre for Chemosensory Research, UNSW, Eveleigh, Australia, 2Department of Food Science & Technology, UNSW, Sydney, Australia, 3CRC for International Food Manufacture & Packaging Science, Australia
P22 66 INFLUENCE OF EVERYDAY ACTIVITIES ON THE VIGILANCE STATE IN HUMANS Rennert B.1, Kaegler M.2, Roscher S.1, Ahne G.1, Klueger S.1, Nordmann C.1, Kobal G.1 1Institute of Experimental and Clinical Pharmacology and Toxicology, University of Erlangen-Nuremberg, 91054 Erlangen, Germany, 2IN BiFO Institut für Biologische Forschung GmbH, 51149 Cologne, Germany

P23 67 PRE- AND POST-NATAL EXPOSURE TO THE FLAVOR OF CARROTS AFFECTS THE INFANTS’ ACCEPTANCE OF CARROT-FLAVORED CEREAL Jagnow C.1, Simon C. M.2, Beauchamp G. K.1, Mennella J. A.1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P24 68 DEVELOPMENT OF BRIEF METHODS TO CLASSIFY INDIVIDUALS BY PROP TASTER STATUS Tepper B. J.1, Christensen C. M.2, Cao J.1 1Rutgers University, New Brunswick, NJ, USA, 2Colgate-Palmolive Co., Piscataway, NJ, USA

P25 69 TRANSMISSION OF OLFACTORY INFORMATION FROM THE EPITHELIUM TO THE BULB OCCURS VIA GLUTAMATE RELEASE IN ZEBRAFISH Edwards J. G.1, Lipschitz D. L.1, Michel W. C.1 1University of Utah, SLC, UT, USA

P26 70 THE SPATIAL ORGANIZATION OF OLFACCTOR RECEPTOR AXONS AND OF SEROTONERGIC (5HT) FIBERS IN THE GLOMERULAR AND MITRAL CELL LAYER OF THE OLFACTORY BULB IN THE LARVAL LAMPREY Zielinski B.1, Wolak T.1, Moretti N. 2 1University of Windsor, Windsor, ON, Canada, 2University of Ancona, Ancona, Italy

P27 71 IMMUNOLOCALIZATION OF OLFACTORY CYCLIC NUCLEOTIDE GATED CHANNEL A-SUBUNIT (OCNCA) IN MOUSE OLFACTORY BULB AND CORTEX Blinder K. J.1, Leinders-Zufall T.1, Pumplin D. W.1, Ronnett G. V.2, Zufall F.1 1University of Maryland School of Medicine, Baltimore, MD, USA, 2Johns Hopkins University, Baltimore, MD, USA

P28 72 DISTRIBUTION OF IGF-IR IN THE OLFACTORY BULB Ferrari C. C.1, Pixley S. K.1 1University of Cincinnati, Cincinnati, OH, USA

P29 73 EXPRESSION PROFILES OF SELECTED CELL POPULATIONS IN THE MOUSE OLFACTORY BULB Bovolin P. 1,2, Puche A. C.1, Karatova Z.1, Szabo G.1, Margolis F. L.1, Shipley M. T.1 1University of Maryland, Baltimore, MD, USA, 2University of Turin, Torin, Italy

P30 74 MATHEMATICAL MODELS OF IONIC DIFFUSION IN OLFACCTOR GLOMERULI Rado-Goriely A.1, Secomb T. W.1, Tolbert L. P.1 1University of Arizona, Tucson, AZ, USA

P31 75 BILATERAL NEURONS CONNECTING HOMOTOPIC AREAS OF THE TWO ANTENNAL LOBES IN THE FEMALE MOTH HELIOTIS VIRESCENS Berg B. G.1, Miller D.2, Mustaparta H.1 1Norwegian University of Science and Technology, Trondheim, Norway, 2Freie Universitaet, Berlin, Germany

P32 76 CHARACTERIZATION OF A NOVEL SET OF SMALL GLOMERULAR-LIKE STRUCTURES IN THE MOUSE MAIN OLFACTORY BULB Lipscomb B. W.1, Greer C. A.1 1Yale Univ. Sch. Med., New Haven, CT, USA

P33 77 THE EMERGENCE OF COMPARTMENTAL ORGANIZATION IN OLFACTORY BULB GLOMERULI DURING POSTNATAL DEVELOPMENT Kim H.1, Greer C. A.1 1Yale Univ. Sch. Med., New Haven, CT, USA

P34 78 BMPS AND BMP-ANTAGONISTS IN THE OLFACTORY SYSTEM Cummings D. M.1, Behrens M.1, Modena C.1,2, Venkatraman G.2, Tian Y.1, Margolis F. L.1 1University of Maryland School of Medicine, Baltimore, MD, USA, 2University of Torino, Torino, Italy

P35 79 RADIAL GLIA DEVELOPMENT IN THE OLFACTORY BULB: A ROLE IN GLOMERULAR FORMATION? Puche A. C.1, Shipley M. T.1 1University of Maryland, Baltimore, MD, USA

P36 80 OLFACTORY BULB PROGENITOR CELLS IN ADULT MICE EXPRESS THE DOPAMINE PHENOTYPE DURING MIGRATION Liu N.1, Berlin R. A.1, Son J. H.1, Baker H.1 1Well Med Coll Cornell Univ at Burke Med Res Inst, White Plains, NY, USA

P37 81 FUNCTION REGULATES CELL SURVIVAL IN THE DEVELOPING OLFACTORY BULB Fiske B. K.1, Brunjes P. C.1 1University Of Virginia, Charlottesville, VA, USA

P38 82 CELL DEATH IN THE OLFACTORY BULB OF ADULT ZEBRAFISH FOLLOWING PERIPHERAL DEAFFERENTATION Byrd C. A.1, VanKirk A. M.1 1Western Michigan University, Kalamazoo, MI, USA

P39 83 NEURONS GENERATED IN THE OLFACTORY BRAIN OF ADULT DECAPOD CRUSTACEANS: LONG TERM SURVIVAL AND INFLUENCE OF SENSORY INPUT Schmidt M.1, Hansen A.1 1Universitat Hamburg, Hamburg, Germany

P40 84 GENETICALLY MARKED MITRAL/TUFTED CELLS IN THE MOUSE OLFACTORY BULB Waltz A.1, Mombuert P.1 1The Rockefeller University, New York, NY, USA
P41  DIFFERENTIAL EXPRESSION OF X-DLL3 AND PAX-6 GENES IN THE DEVELOPING OLFACTORY EPITHELIUM OF THE AFRICAN CLAWED FROG XENOPUS LAEVIS
Franco M. D., Pape M. P., Burd G. D. 1 University of Arizona, Tucson, AZ, USA

Friday, April 28, 2000

Continental Breakfast 7:30 AM-9:00 AM

SLIDES

Friday Morning - 8:00 am - 10:00 am

Human Chemoreception II: Nasal Stimulation
Chairperson: Nancy Rawson

8:00 am  86  THE ANALYSIS OF ODOR MIXTURES BY HUMANS: EVIDENCE FOR A CONFIGURATIONAL PROCESS
Laing D. G., Jinks A. L. 1 University of Western Sydney, Richmond, Australia,
2 University of Western Sydney, Richmond, Australia

8:15 am  87  PERFORMANCE EFFECTS OF SUBCONSCIOUSLY PERCEIVED ODORS:
THE INFLUENCE OF PLEASANTNESS, FAMILIARITY AND ODOR IDENTIFICATION
Kvster E. P., Degel J. 1 University of Utrecht, Netherlands, Utrecht, Netherlands,
2 Im Research, Pforzheim, Germany

8:30 am  88  EFFECTS OF ODOR ADMINISTRATION ON OBJECTIVE AND SUBJECTIVE MEASURES OF PHYSICAL PERFORMANCE IN ATHLETES
Raudenbush B. 1, Meyer B. 1, Eppich W. 1 Wheeling Jesuit University, Wheeling, WV, USA

8:45 am  89  COMPARISON OF BRAIN ACTIVITY INDUCED BY SENSATION AND IMAGINATION
Kettenmann B. 1, Wiesmann M. 2, Heuberger E. 3, Youssy L. 1, Nolte A. 2, Ilmberger J. 3,
Youssy T. 1, Kobal G. 1 1 Dept. of Pharmacology, University of Erlangen-Nuremberg,
Erlangen, Germany, 2 Dept. of Neuroradiology, University of Munich, Munich,
Germany, 3 Dept. of Physical Medicine, University of Munich, Munich, Germany

9:00 am  90  SPECIFIC AND UNSPECIFIC NOCICEPTIVE CHANNELS IN THE COMMON CHEMICAL SENSE: NEW EVIDENCE FOR POLYMODAL CHEMICAL NOCICEPTORS IN THE TRIGEMINAL SYSTEM
Kobal G., Renner B., Hilberg O., Ayabe-Kanamura S., Parvez L. 1 University of Erlangen-Nuremberg, D-91054 Erlangen, Germany, 2 Environmental Institute
University Aarhus, Aarhus, Denmark, 3 National Institute of Bioscience and Human
Technology, Tsukuba, Japan

9:15 am  91  STIMULUS-RESPONSE FUNCTIONS FOR OLFACTORY AND TRIGEMINAL DETECTABILITY: PROBING INTO THE RULES OF CHEMOSENSORY AGONISM IN BINARY MIXTURES
Cometto-Muniz J. E., Cain W. S., Abraham M. H., Gola J. M. 1 Chemosensory Perception Laboratory, Dept. of Surgery (Otolaryngology), University of California,
San Diego, La Jolla, CA, USA, 2 University College London, London, United Kingdom

30 am  92  PUNGENCY FROM ESTERS: CORRELATIONS WITH PHYSICOCHEMICAL INDICES AND CORRESPONDENCE WITH THE NEGATIVE MUCOSAL POTENTIAL
Cain W. S., Wise P. M., Lee N. S., Ahn B. H., Schmidt R., Cometto-Muniz J. E., Gola J. M., Abraham M. H. 1 Chemosensory Perception Laboratory, Dept. of Surgery (Otolaryngology), UCSD, San Diego, CA, USA, 2 Chemistry Dept.,
University College London, London, United Kingdom

9:45 am  93  BUTANOL DETECTION AND LATERALIZATION: CONSCIOUS AND UNCONSCIOUS MECHANISMS
Radil T., Wysocki C. J. 1 Institute of Physiology, Czech Academy of Sciences,
Prague, PA, Czech Republic, 2 Monell Chemical Senses Center, Philadelphia,
PA, USA

10:00 am - 12:00 pm

SYMPOSIUM: Cortical Information Processing in the Olfactory System
Chairperson: Donald Wilson

94  Dr. L. B. Haberly
University of Wisconsin, Madison, WI, USA
"ANATOMY AND PHYSIOLOGY OF PIRIFORM CORTEX SUGGEST FUNCTIONAL ROLES EQUIVALENT TO HIGHER ORDER CORTEX IN OTHER SENSORY SYSTEMS"

95  Dr. D. A. Wilson
University of Oklahoma, Norman, OK, USA
"DYNAMIC ODOR RECEPTIVE FIELDS IN RAT PIRIFORM CORTEX"

96  Dr. M. E. Hasselmo
Boston University, Boston, MA, USA
"NEUROMODULATION AND THE FUNCTIONAL DYNAMICS OF PIRIFORM CORTEX"

97  Dr. E. T. Rolls
University of Oxford, Oxford, United Kingdom
"RULES OF FORMATION OF THE OLFAC TORY REPRESENTATIONS FOUND IN THE ORBITOFRONTAL CORTEX OF PRIMATES"
Friday Morning - 8:00 am - 12:00 pm

Gustatory Receptor and Cell Function - Poster Session 1

P1 98 EARLY TASTE BUD CHANGES INDUCED BY RADIATION DAMAGE
Nelson G. M. 1 1Univ. of Alabama at Birmingham, Birmingham, AL, USA

P2 99 TYPE III IP3 RECEPTORS ARE IN RAT TASTE CELLS
Clapp T. R., Stone L. M., Kimmammon S. C. 1 1Colorado State University, Fort COLLiUS, CO, USA, 2Rocky Mountain Taste and Smell Center, Denver, CO, USA

P3 100 FUCOSYLTRANSFERASES RELATED TO THE LEWIS-B CARBOHYDRATE EPITOPE IN RAT TASTE-BUD CELLS
Pumplin D. W. 1 1Univ. of Maryland, Baltimore, Baltimore, MD, USA

P4 101 A SUBSET OF POSTERIOR TASTE RECEPTOR CELLS EXPRESSING CCK OR VIP CO-LOCALIZE WITH THE PUTATIVE TASTE RECEPTOR TR2
Shen T., Kaya N., Herness S. 1 1Ohio State University, Columbus, OH, USA

P5 102 THE ROLE OF CELL CONTACTS IN THE DEVELOPMENT OF AMPHIBIAN TASTE BUDS
Parker M. A., Barlow L. A. 1,2 1Department of Biological Sciences, University of Denver, Denver, CO, USA, 2Rocky Mountain Taste and Smell Center, University of Colorado Health Sciences Center, Denver, CO, USA

P6 103 EXPRESSION OF GUSTDUCIN IN THE "GESCHMACKSTREIFEN" OF INBRED MOUSE STRAINS
Christy R. C., Smith D. V., Boughter J. D. 1 1University of Maryland School of Medicine, Baltimore, MD, USA

P7 104 THE CKIT RECEPTOR AND SCF REGULATE THE DEVELOPMENT OF A SUBSET OF TASTE CELLS
McLaughlin S. K. 1 1SUNY @ Stony Brook, Stony Brook, NY, USA

P8 105 BRAIN DERIVED NEUROTROPIC FACTOR (BDNF) IS PRESENT IN DIVERSE TASTE CELL TYPES OF ADULT MICE
Yee C. L., Jones K. R., Finger T. E. 1 1University of Colorado Health Sciences Center, Denver, CO, USA, 2University of Colorado at Boulder, Boulder, CO, USA

P9 106 TGFβ SIGNALING IN GUSTATORY DEVELOPMENT
Hall J. M. 1, Finger T. E. 1 1University of Colorado Health Sciences Center, Denver, CO, USA

P10 107 TASTE BUD DIFFERENTIATION PRECEDES THE APPARENT DEVELOPMENT OF FUNGIIFORM PAPILAE
Mbiene J. P. 1 1Baylor College of Dentistry-TAMUS Health Center, Dallas, TX, USA

Friday, April 28, 2000
OMP TAKES A PARTNER
Behrens M.1, Margolis J. W.1, Baldissari D. M.1, Thompson R. B.1, Margolis F. L.1
1University of Maryland School of Medicine, Baltimore, MD, USA

PHARMACOLOGICAL CHARACTERIZATION OF EOG RESPONSES IN CONTROL AND OMP-NULL MICE
Ivic L., Pyrski M.2, Richards L.2, Margolis F. L.2, Firestein S.1 1Columbia University, New York, NY, USA, 2University of Maryland, Baltimore, MD, USA

ODORA CELLS ARE NOT ELECTRICALLY EXCITABLE
Atalarre R.1, Lucero M. T.1 1University of Utah, Salt Lake City, UT, USA

FUNCTIONAL EXPRESSION OF OLFACTORY RECEPTORS IN CULTURED OLFACOTORY SENSORY NEURONS
Zhang X.1, Firestein S.1 Columbia University, New York, NY, USA

EFFECTS OF 8-BROMO CYCLIC NUCLEOTIDES ON ION CURRENTS IN CULTURED OLFACOTORY RECEPTOR NEURONS OF THE HAWKMOTH MANDUCA SEXTA
Dolzer J.1, Stengl M.1 1Philips Universität, Marburg, Germany

SPONTANEOUS GATING OF THE OLFACOTORY CYCLIC-NUCLEOTIDE-GATED CHANNEL
Kleene S. J.1 1University of Cincinnati, Cincinnati, OH, USA

BIOPHYSICAL AND PHARMACOLOGICAL ANALYSIS OF OLFACOTORY GENERATOR CURRENTS INDUCED BY 'IP3-ODORS'
Lane A. P.1, Bock R.1, Chen S.1, Leinders-Zufall T.1, Zufall F.1 1University of Maryland School of Medicine, Baltimore, MD, USA

MODULATION OF THE VOLTAGE-GATED SODIUM CONDUCTANCE IN MOUSE OLFACOTORY SENSORY NEURONS BY FORSKOLIN
Frenz C. T.1, DiNunno P. H.1, Dionne V. E.1 1Boston University Marine Program, Woods Hole, MA, USA

THE TIME COURSE OF THE ELECTROOLFACTOGRAM
Scott J. W.1, Scott-Johnson P. E.1,2, Brierley T.1 1Emory University, Atlanta, GA, USA, 2Spelman College, Atlanta, GA, USA

OLFACTORY RECEPTOR CELL SUPPRESSION INDUCED BY CELL DEPOLARIZATION IN BULLHEAD CATFISH
Stenovec M.1, Koc ce A.1, Valentinic T.1 1University of Ljubljana, Ljubljana, Slovenia

CHEMOSENSORI STIMULI FOR THE CRAYFISH PROCAMBARUS CLARKII
Corotto F. S.1, Gentilozzi M. R.1 1North Georgia College and State University, Dahlonega, GA, USA

CHEMORECEPTOR CELLS AS CONCENTRATION SLOPE DETECTORS
Zettler E.1, Voigt R.1, Atema J.1 1Boston University Marine Program, Woods Hole, MA, USA

ANALYSIS OF OPEN PROBABILITIES AND I-V RELATIONS OF SINGLE CHANNELS IN IDENTIFIED C ELEGANS CHEMOSENSORI NEURONS
Nickell W. T.1, Pun R. Y.1, Kleene S. J.1 1University of Cincinnati College of Medicine, Cincinnati, OH, USA

MAPPING ION FLUX ASSOCIATED WITH THE OLFACOTORY SENSILLA OF THE BLUE CRAB, CALLINECTES SAPIDUS
Gleeson R. A.1, Hammar K.2, Smith P. J.2 1University of Florida, St. Augustine, FL, USA, 2BioCurrents Research Center, Woods Hole, MA, USA

IDENTIFICATION OF A NON-AESTHETASC SENSILLUM THAT IS A BUNDANT ON THE OLFACOTORY ORGAN OF THE SPINY LOBSTER PANULIRUS ARGUS
Cate H. S.1, Derby C. D.1 1Georgia State University, Atlanta, GA, USA

BIOCHEMICAL AND MOLECULAR EVIDENCE FOR A PARAMECIUM GLUTAMATE RECEPTOR
Bergeron A. L.1, Van Houten J. L.1 1University of Vermont, Burlington, VT, USA

ESTIMATING THE NUMBER OF OLFACOTORY RECEPTOR NEURONS IN ADULT MALE HAMSTERS WITH THE OPTICAL FRACTIONATOR
Schoenfeld T. A.1 1Mass Medical School, Worcester, MA, USA

RGS PROTEIN EXPRESSION IN THE OLFACOTORY SYSTEM
Dennis J. C.1, Williams S.1, Wolfe K.1, Dix N.1, Srikumar D.1, Srinrari S.2, Kehrli J.2, Vodyanoy V.1, Morrison E. 1.1 1Auburn University, Auburn, AL, USA, 2NIADD, NIH, Bethesda, MD, USA

RESPONSES FROM ANTENNAL SENSILLAS IN THE ORNATE MOTH TO OLFACOTORY SIGNALS
Grant A. J.1, 2, O’Connell R. J.1 1Univ. Mass. Med. School, Worcester, MA, USA, 2American Biophysics Corp., East Greenwich, RI, USA

Quick Lunch Cart available in the Gallery 12:15-1:00 PM

SLIDES

Friday Evening - 7:00 pm - 8:00 pm

OR Gene Family Slide Section
Chairperson: Susan Sullivan

MOLECULAR EVOLUTION OF THE NEMATODE ODR-10 CHEMORECEPTOR SUPERFAMILY OF MORE THAN 800 GENES AND PSEUDOGENES
Robertson H. M.1 1University of Illinois at Urbana, Urbana, IL, USA
Friday, April 28, 2000

7:15 pm 137  GENOMIC ANALYSIS OF ORTHOLOGOUS MOUSE AND HUMAN OLFATORY RECEPTOR LOCI INDICATES CLUSTER STABILITY YET MINIMAL CONSERVATION BEYOND THE CODING SEQUENCE
Lane R. P. 1, Cutforth T. 2, Athanasiou M. 3, Friedman C. 1, Young J. 1, Evans G. 3, Axel R. 3, Trask B. J. 1, Hood L. 1 1University of Washington, Seattle, WA, USA, 2Columbia University College of Physicians and Surgeons, New York, NY, USA, 3University of Texas Southwestern Medical Center, Dallas, TX, USA

7:30 pm 138  COMMON AND VARIABLE FEATURES IN THE STRUCTURE OF OLFATORY RECEPTOR GENES
Sossinsky A. 1, Gussman G. 2, Lancel D. 1 1Weizmann Institute of Science, Rehovot, Israel

9:00 pm 139  MOLECULAR CHARACTERIZATION OF ODORANT RECEPTORS FROM THE FISH
Specia D. J. 1, Dittman A. H. 1, Lin D. M. 1, Ngai J. 1 1University of California, Berkeley, CA, USA, 2University of Minnesota, St. Paul, MN, USA

8:00 am - 10:30 am

PRESIDENTIAL SYMPOSIUM: The Role of Innervation in Induction and Differentiation of Taste Organs: Revisited
Chairperson: David Hill

140  Dr. L. A. Barlow
University of Denver, Denver, CO, USA
"THE ROLE OF NERVES IN THE INDUCTION OF TASTE BUDS: A CONCEPT REVISITED"

141  Dr. C. M. Mistrutta
University of Michigan, Ann Arbor, MI, USA
"EARLY DEVELOPMENT AND DIFFERENTIATION OF TASTE ORGANS AND INNERVATING GANGLIA: INDEPENDENT AND INTERDEPENDENT REGULATORY FACTORS"

140  Dr. C. Nosrat
University of Michigan, Ann Arbor, MI, USA
"TROPHIC FACTORS IN THE DEVELOPING PERIPHERAL GUSTATORY SENSE ORGANS"

141  Dr. A. L. Farhman
Northwestern University, Evanston, IL, USA
"NEUROTROPHIN RECEPTORS IN SINGLE GENICULATE GANGLION NEURONS"

142  Dr. D. L. Hill
University of Virginia, Charlottesville, VA, USA
"NEURON/TARGET MATCHING BETWEEN CHORDA TYMPANI NEURONS AND TASTE BUDS DURING POSTNATAL RAT DEVELOPMENT"

Friday Evening coffee and soda available from 8:00PM - 8:15PM

POSTERS

Friday Evening - 7:00 pm - 10:00 pm

Human Chemoreception II (Poster Session) Taste

P6 143  PERFORMANCE OF DIFFERENT MODELS TO FIT TIME-INTENSITY DATA
Calviño A. M. 1,2, Tamasi O. P. 1,2, Garrido D. 1, Hough G. 3 1Facultad de Farmacia y Bioquímica, UBA, Junín 956, 1131, Argentina, 2QUIMEFA-PROSIVAD, CONICET, 1113 Buenos Aires, Argentina, 3Instituto Superior Experimental de Tecnología Alimentaria, 6500 de Julio, Argentina

P7 144  THE ROLE OF THE RESPONSE CONTEXT IN THE VALIDATION OF INTERVAL SCALING: IMPLICATIONS FOR THE USE OF FUNCTIONAL MEASUREMENT IN THE ASSESSMENT OF TASTE MIXTURE EFFECTS
Biot W. K. 1, Stevens D. A. 1 1Clark University, Worcester, MA, USA

P8 145  RELIABILITY OF INDIRECT SCALING TESTS WITH RESPECT TO THE INTENSITY AND PLEASANTNESS OF SUGAR (IN 4 AND 5 YEAR OLDS)
Liem D. G. 1, de Graaf C. 1 1Division of Human Nutrition and Epidemiology, Wageningen University, Wageningen, Netherlands

P9 146  INFLUENCES OF SEX, AGE, SMOKING HISTORY, AND SELECTED DISEASES ON A STANDARDIZED TEST OF REGIONAL TASTE FUNCTION
Connelly T. 1, Heuber M. 1, Kroger H. 1, Harding R. 1, Moberg P. J. 1, Doty R. L. 1 1University of Pennsylvania, Philadelphia, PA, USA

P10 147  PROP TASTE INTENSITY RATINGS IN NORMOSMIC AND ANOSOMIC PEOPLE
Bronner F. 1, Formaker B. K. 1, Hettinger T. P. 1, Frank M. E. 1 1UC San Diego Health Center, Farmington, CT, USA

P11 148  GENETIC VARIATION IN TASTE: ASSOCIATIONS WITH ALCOHOL SENSATION AND INTAKE
Duffy V. B. 1, Peterson J. M. 1 1University of Connecticut, Storrs, CT, USA

P12 149  INCREASED TASTE SENSITIVITY IN PATIENTS WITH RIGHT TEMPORAL LOBE EPILEPSY
Small D. M. 1, Homanchuk J. 1, Zatorre R. J. 1, Jonesgotman M. 1 1McGill University/ Montreal Neurological Institute, Montreal, PQ, Canada
P13 150  GENETIC VARIATION IN TASTE: ASSOCIATIONS WITH SWEETNESS INTENSITY, SWEET LIKING, AND SWEET FOOD ACCEPTANCE
Peterson J. M.1, Duffy V. B.1 1University of Connecticut, Storrs, CT, USA

P14 151  VALID ACROSS-GROUP COMPARISONS: SUPERTASTERS PERCEIVE THE MOST INTENSE TASTE SENSATIONS BY MAGNITUDE MATCHING OR THE LMS SCALE
Bartoshuk L. M.1, Green B. G.1, Snyder D. J.2, Luchcina L. A.4, Hoffman H. J.5, Weiffenbach J. M.6, Ko C. W.5 1Yale University School of Medicine, New Haven, CT, USA, 2John B. Pierce Foundation, New Haven, CT, USA, 3Florida State University, Tallahassee, FL, USA, 4Unilever Research USA, Edgewater, NJ, USA, 5National Institutes of Health, Washington, DC, USA

P15 152  BITTER-SWEET AGE, SEX AND PROP (6-N-PROPYLTHIOURACIL) EFFECTS: A ROLE FOR MENOPAUSE?
Weiffenbach J. M.1, Duffy V. B.2 1National Institutes of Health, Bethesda, MD, USA, 2Yale University School of Medicine, New Haven, CT, USA, 3University of Connecticut, School of Allied Health Professions, Storrs, CT, USA, 4University of Virginia, Charlottesville, VA, USA

P16 153  DIFFERENTIAL PERCEPTIONS OF INTENSITY FOR THE FOUR BASIC TASTE QUALITIES IN PROP SUPERTASTERS VERSUS NONTASTERS
Ko C. W.1, Hoffman H. J.1, Luchcina L. A.2, Snyder D. J.3, Weiffenbach J. M.4, Bartoshuk L. M.5 1National Institute on Deafness and Other Communication Disorders (NIDCD), NIH, Bethesda, MD, USA, 2Unilever Research USA, Edgewater, NJ, USA, 3Florida State University, Tallahassee, FL, USA, 4National Institute of Dental and Craniofacial Research (NIDCR), NIH, Bethesda, MD, USA, 5Yale University School of Medicine, New Haven, CT, USA

P17 154  THE EFFECT OF COMPOUND-SPECIFIC SENSITIVITY AND CARRY-OVER EFFECTS ON BITTERNESS PERCEPTION
Cubero-castillo E. M.1, Noble A. C.2 1University of California, Davis, CA, USA, 2University of California, Davis, CA, USA

P18 155  INDIVIDUAL DIFFERENCES IN BITTER TASTE PERCEPTION OF SACCHARIN AND ACESULFAM-K
Sposato D. J.1, Lawless H. T.1 1Cornell University, Ithaca, NY, USA

P19 156  TASTE MIXTURE INTERACTIONS AS A FUNCTION OF PROP TASTER STATUS
Prescott J.1, Ripandelli N.1 1University of Otago, Dunedin, New Zealand, 2University of Otago, Dunedin, New Zealand

P20 157  COLD-INDUCED TASTE PHANTOMS
Green B. G.1, Cruz A.1 1John B. Pierce Laboratory, New Haven, CT, USA, 2Yale School of Medicine, New Haven, CT, USA

P21 158  MAPPING THE TACTILE AND THERMAL PROPERTIES OF THE INTRA-ORAL SURFACE
Chopra A.1, McGlone F.1, Dvorak M.1, Natarajan V.1 1Unilever Research, Wirral, United Kingdom

P22 159  RINSING WITH CHLORHEXIDINE DEGRADES HUMAN TASTE-STIMULUS IDENTIFICATION
Gent J. E.1, Frank M. E.1, Hettinger T. P.1 1University of Connecticut Health Center, Farmington, CT, USA

P23 160  IMPACT OF CHLORHEXIDINE ON HUMAN TASTE PERCEPTION
Tharp C. D.1, Breslin P. A.1 1Monell Chemical Senses Center, Philadelphia, PA, USA

Functional Studies and Neuromodulation of Central Pathways

P24 161  DIRECT EXCITATION OF MITRAL CELLS BY ACTIVATION OF ALPHA-1-ADRENERGIC RECEPTORS IN RAT OLFACTORY BULB SLICES
Hayar A. M.1, Shipley M. T.1, Ennis M.1 1University of Maryland, Baltimore, MD, USA

P25 162  A PERSISTENT SODIUM CURRENT GENERATES UP-STATE PLATEAU POTENTIALS AND ACTIVE SUBTHRESHOLD RESPONSES TO OLFACTOR Y NERVE (ON) INPUT IN MITRAL CELLS OF THE MAIN OLFACTORY BULB (MOB)
Heyward P. M.1, Ennis M.1, Shipley M. T.1 1University of Maryland, Baltimore, MD, USA

P26 163  DIFFERENTIAL Expression and MODULATION of AMPA AND KAINATE RECEPTORS in MITRAL/Tufted CELLS and INTERNEURONS of the RAT OLFACTORY BULB
Horning M. S.1, Short J. J.1, Trombley P. Q.1 1Florida State University, Tallahassee, FL, USA

P27 164  DIFFERENTIAL EFFECTS OF ADAPTOR PROTEINS ON THE MODULATION OF AN OLFACTORY BULB ION CHANNEL BY V-SRC KINASE
Cook K. K.1, Nakamura T.2, Fadool D. A.1 1Florida State University, Tallahassee, FL, USA, 2Sumitomo Electric Industries, Yokohama, Japan

P28 165  ANALYSIS OF DOUBLE SPIKES IN MITRAL CELL PRIMARY DENDRITE
Chen W. R.1, Midggaard J.2, Shen G. Y.1, Hines M. L.1, Shepherd G. M.1 1Yale University, New Haven, CT, USA, 2University of Copenhagen, Copenhagen, Denmark
THE PROPERTIES OF GRANULE CELL DENDRITIC SPINES IN CULTURE
Gabeau D.1, Greer C. A.1 1Yale Univ. Sch. Med., New Haven, CT, USA

TIME-DEPENDENT NEUROMODULATION OF OLFACTORY BULB NEURON CURRENT BY RECEPTOR-LINKED TYROSINE KINASES AND RELATED GROWTH FACTORS
Tucker K.1, Person D. J.2, Fadool D. A.1 1Florida State University, Tallahassee, FL, USA, 2Auburn University, Auburn, AL, USA

FUNCTIONAL DEVELOPMENT OF CONNECTIVITY BETWEEN THE VNO AND AOB
Johnson E. W.1 1Idaho State University, Pocatello, ID, USA

NORADRENERGIC MODULATION OF DENDRODENDritic SYNAPtic TRANSMISSION IN THE RAT ACCESSORY OLFACTORY BULB
Jia C.1, Shepherd G. M.1 1Section of Neurobiology, Yale University Medical School, New Haven, CT, USA

SENSITIZATION, DESENSITIZATION AND STIMULUS-INDUCED RECOVERY OF RESPONSES OF RAT TRIGEMINAL CAUDALIS (VC) NEURONS TO REPEATED ORAL APPLICATION OF CAPSAICIN
Dessirier J. M.1, Simons C. T.1, Carstens E.1 1UC Davis, Davis, CA, USA

EXPRESSION PATTERN OF THE PROTEIN CODED BY THE IMMEDIATE-EARLY GENE ARCIN THE ACCESSORY OLFACTORY BULB AFTER EXPOSURE TO PHEROMONAL STIMULI
Matsouka M.1,2, Sugiura H.2, Yamagata K.2, Ichikawa M.2,3 1Japan Society for the Promotion of Science, Chiyoda-ku, Japan, 2Tokyo Metropolitan Institute for Neuroscience, Fuchu, Japan, 3CREST of the Japan Science and Technology Corporation, Kawaguchi, Japan

FEMALE-SOILED BEDDING C-FOS IMMUNOREACTIVITY IN THE VENTRAL PART OF THE PREMAMMARY NUCLEUS (PMV) OF THE MALE MOUSE
Yokosuka M.1, Matsouka M.2, Ohtani-Kaneko R.1, Iigo M.1, Haru H.1, Hirata K.1, Mori Y.1, Ichikawa M.2 1St. Marianna University School of Medicine, Kawasaki, Japan, 2Tokyo Metropolitan Inst. for Neurosci, Tokyo, Japan, 3The University of Tokyo, Tokyo, Japan

FOS EXPRESSION IN MEDIAL PREOPTIC AREA DUE TO INTRACEREBRAL LHRH INJECTION IN INTACT MALE HAMSTERS AND THOSE WITH VOMERONASAL LESIONS BEFORE OR AFTER EXPERIENCE
Westberry J. M.1, Meredith M.1 1Florida State University, Tallahassee, FL, USA

IDENTIFICATION OF MESSENGER RNAs ENRICHED IN THE LOBSTER OLFACTORY ORGAN
Hollins B.1, Schweder D.1, McClintock T.1 1University of Kentucky, Lexington, KY, USA

CIRCADIAN CONTROL OF OBP TRANSCRIPT LEVELS IN DROSOPHILA MELANOGASTER
Dryer L.1, Krishnan B.1, Hardin P. E.1, Dryer S. E.1 1University of Houston, Houston, TX, USA

SENSORY NEURON MEMBRANE PROTEIN (SNMP) DIVERSITY IN THE SPHINX MOTH MANIUSA SEXTA
Rogers M. E.1, Krieger J.1, Vogt R. G.1 1Department of Biological Sciences, University of South Carolina, Columbus, SC, USA, 2Institute for Zoophysiology, University of Stuttgart Hohenheim, Stuttgart, Germany

IMMUNOLOCALIZATION OF FIVE ODORANT-BINDING PROTEINS ON THE ANTENNAE OF DROSOPHILA MELANOGASTER
Steinbrecht A.1, Shanbhag S. R.1, Carlson J. R.2, Pikielny C. W.4, Smith D. P.5 1Max-Planck-Institut fur Verhaltensphysiologie, D-82319 Seewiesen, Germany, 2Max-Planck-Institut fur Verhaltensphysiologie, D-82319 Seewiesen, Germany, 3Department of Biology, Yale University, New Haven, CT, USA, 4Dept. of Neuroscience and Biology, RW Johnson Medical School, Piscataway, NJ, USA, 5Dept. of Pharmacology, Univ. of Texas South West Medical Center, Dallas, TX, USA

RESPONSE OF DROSOPHILA MALES TO FEMALE PHEROMONES INVOlves SPECIALIZED CHEMOSENSory HAIRS ON THE MALE FRONT LEGS
Pikielny C. W.1, Park S. K.2, Falowski S. M.1, Linares T.1, Wang Q.1 1Robert Wood Johnson Med Sch/UMDNJ, Piscataway, NJ, USA

MOLECULAR GENETICS OF OLFACCTION IN THE MALARIA VECTOR MOSQUITO ANOPELES GAMBIAE
Zwiebel L. J.1, Fox A. N.1, Merrill C. E.1, Pitts R. J.1 1Vanderbilt University, Nashville, TN, USA
CELL TURNOVER IN THE VOMERONASAL EPITHELIUM: EVIDENCE FOR DIFFERENTIAL MIGRATION AND MATURATION OF SUBCLASSES OF VOMERONASAL NEURONS IN THE ADULT OPPOSUM
Martinez-Marcos A.1, Ubeda-Banon I.1, Halpern M.1 1HSC Brooklyn, SUNY, Brooklyn, NY, USA

AGING ALTERS GENE EXPRESSION PROFILES IN THE RAT OLFACTORY MUCOSA
Robinson A. M.1, Conley D. B.1, Kuter D. I.1, Kern R. C.1 1Northwestern University, Chicago, IL, USA

APOLIPOPROTEIN E PEPTIDE INCREASES INTERNAL CALCIUM IN MATURE OLFATORY RECEPTOR NEURONS TAKEN FROM ADULT RATS
Koster N. L.1, Crutcher K. A.1, Pixley S. K.1 1University of Cincinnati, Cincinnati, OH, USA

AN IN VITRO SYSTEM TO STUDYafferENT INFLUENCE ON TARGET NEUROGENESIS
Gong Q.1, Farbman A. I.1 1Northwestern University, Evanston, IL, USA

SEMAPHORIN 3A IS REQUIRED FOR NORMAL GUIDANCE OF Olfactory Axons in Mice
Schwarting G. A.1, Kostek C.1, Ahmad N.1, Dibble C.1, Pays L.1, Puschel A. W.2 1The Shriver Center, Waltham, MA, USA, 2Max-Planck-Institute for Brain Research, Frankfurt, Germany

DIFFERENTIAL EXPRESSION OF GAL-NCAM, A NEW NCAM GLYCOFORM IN THE RAT Olfactory System
Pays L.1, Schwarting G. A.1 1The Shriver Center, Waltham, MA, USA

EXPRESSION OF THE INTERMEDIATE FILAMENT PROTEIN, NESTIN, IN THE MATURE Olfactory NEUROEPITHELIUM
Cunningham A. M.1, Khan M.1, Doyle K. L.1 1Garvan Institute of Medical Research, Sydney, Australia

EFFECT OF VITAMIN A ON THE MRNA EXPRESSION LEVELS OF Olfactory Marker Protein
Adenju A. O.1, Zeng M.1, Asson-Batres M. A.1 1Tennessee State University, Nashville, TN, USA

EXPRESSION OF CELLULAR RETINOIC ACID BINDING PROTEINS IN MATURE RAT Olfactory Epithelium
Ahmad O., Ong D. E., Asson-Batres M. A. 1Tennessee State University, Nashville, TN, USA, 2Vanderbilt University, Nashville, TN, USA

VITAMIN A IN Olfactory Mucosa and its Effect on Gene Expression in Neurons in Vivo
Asson-Batres M. A.1, Ahmad O.1, Aderoju A. O.1, Zeng M.1 1Tennessee State University, Nashville, TN, USA

POSTERS

Saturday Morning - 8:00 am - 12:00 pm

Offactory Function Aging/Apoptosis/Neurogenesis Poster Session

P1 184 DYNAMICS OF Olfactory Receptor Neuron Turnover in the Spiny Lobster
Harrison P. J.1, Cate H. S.1, Swanson E. S.1, Derby C. D.1 1Georgia State University, Atlanta, GA, USA

P2 185 TEMPORAL PROFILE OF BAX AND BCL-2 GENE EXPRESSION FOLLOWING BILATERAL BULBECTOMY IN THE RAT: A MODEL FOR EXAMINING THE MOLECULAR REGULATION OF NEURONAL APOPTOSIS
Kutler D. I.1, Robinson A. M.1, Conley D. B.1, Kern R. C.1 1Northwestern University, Chicago, IL, USA
P13 196 ANALOGS THAT CROSS-ADAPT TO ANDROSTENONE MAY USE DIFFERENT OLFACTORY PATHWAYS
Yee K. K. 1, Wysocki C. J. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P14 197 TEMPORALLY REGULATED EXPRESSION OF LEUKEMIA INHIBITORY FACTOR RECEPTOR IN PRESUMED GLOBOSE BASAL CELLS AND ENSHEATHING CELLS FOLLOWING OLFACTORY BULCETOMY IN MICE
Nan B. 1, Getchell M. L. 1, Getchell T. V. 1 1University of Kentucky, Lexington, KY, USA

P15 198 STEROID CONTROL OF CELL PROLIFERATION AND NEUROGENESIS IN THE OLFACTORY EPITHELIUM OF THE HAWK MOTH MANDUCA SEXTA
Vogt R. G. 1, Franco M. 1 1University of South Carolina, Columbia, SC, USA, 2University of Arizona, Tucson, AZ, USA

P16 199 GROWTH AND PROLIFERATION IN THE ANTENNAL IMAGINAL DISC DURING THE FINAL LARVAL INSTAR OF THE HAWK MOTH MANDUCA SEXTA
Franchini J. L. 1, Vogt R. G. 1 1University of South Carolina, Columbia, SC, USA

P17 200 ALTERATIONS IN OLFACTORY MUCOSAL DIFFERENTIATION AND PROLIFERATION INDUCED BY THE HERBICIDE ALACHLOR
Genter M. B. 1, Burman D. M. 2, Aronov B. J. 3 1University of Cincinnati, Cincinnati, OH, USA, 2University of Cincinnati, Cincinnati, OH, USA, 3Children's Hospital Medical Center, Cincinnati, OH, USA

P18 201 EXPRESSION OF GALECTINS 1 AND 3 AND OLFACTORY MARKER PROTEIN (OMP) IN HUMAN OLFACTORY EPITHELIUM
Heilmann S. K. 1, Hummel T. 1, Margolis F. L. 2, Kasper M. 3 1Department of Otorhinolaryngology, University of Dresden Medical School, Dresden, Germany, 2Department of Anatomy and Neurobiology, University of Maryland at Baltimore School of Medicine, Baltimore, MD, USA, 3Department of Anatomy, University of Dresden Medical School, Dresden, Germany

P19 202 NEUROGENESIS IN THE VOMERONASAL EPITHELIUM OF ADULT RATS: EVIDENCE FOR DIFFERENT MECHANISMS FOR GROWTH AND NEURONAL TURNOVER
Ubeda-Banom L. 1, Martinez-Marcos A. 2, Deng L. 1, Halpern M. 1 1HSC Brooklyn, SUNY, Brooklyn, NY, USA

P20 203 EVIDENCE FOR BIDIRECTIONAL CONTROL OF CELL PROLIFERATION IN THE OLFACTORY EPITHELIUM
Mirich J. M. 1, Brunjes P. C. 1 1University of Virginia, Charlottesville, VA, USA

P21 204 THE POSSIBLE ROLE OF CASPASES IN OLFACTORY CELL DEATH
Suzuki Y. 1, Farbman A. L. 2 1Health Sci. Univ. Hokkaido, Ishikari-Tobetsu, Japan, 2Northwestern University, Evanston, IL, USA

P22 205 CASPASES 3 AND 9 CARRY A PRO-APOPTOTIC SIGNAL FROM SYNAPSE TO CELL BODY IN OLFACTORY RECEPTOR NEURONS
Cowan C. 1, Thai J. 1, Kaufman S. 2, Krajewski S. 3, Reed J. 1, Nicholson D. 4, Roskams J. 1 1Centre for Molecular Medicine and Therapeutics, Dept. of Psychiatry, University of British Columbia, Vancouver, BC, Canada, 2Dept. of Oncology, Mayo Clinic, Rochester, NY, USA, 3Burnham Institute, La Jolla, San Diego, CA, USA

Human Clinical

P23 206 THE IMPACT OF CHEMOSENSORY DYSFUNCTION ON QUALITY OF LIFE
Varga E. K. 1, Breslin P. A. 1, Cowart B. J. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P24 207 IMPACT OF OLFACTORY IMPAIRMENT ON QUALITY OF LIFE AND DISABILITY
Miwa T. 1, Tsukutani T. 1, Furukawa M. 1, Reiter E. R. 2, DiNardo L. J. 2, Costanzo R. M. 3 1School of Medicine, Kanazawa University, Kanazawa, Japan, 2Virginia Commonwealth University, Medical College of Virginia Campus, Richmond, VA, USA

P25 208 THE USE OF LABELED MAGNITUDE SCALING FOR LONG-TERM CLINICAL ASSESSMENT
Linschoten M. R. 1, Jafek B. W. 1 1Rocky Mountain Taste and Smell Center, Denver, CO, USA

P26 209 RETEST RELIABILITY OF ALCOHOL SNIFF TEST
Alpert J. 1, Hirsch A. R. 1 1Smell & Taste Treatment and Research Foundation, Chicago, IL, USA

P27 210 THE ALCOHOL SNIFF TEST COMPARED TO THE UNIVERSITY OF PENNSYLVANIA SMELL IDENTIFICATION TEST
Hirsch A. R. 1, Colavincenzo M. L. 1 1Smell & Taste Treatment and Research Foundation, Chicago, IL, USA

P28 211 DEVELOPMENT OF THE SMELL THRESHOLD TEST™ (SST): A COMMERCIALY-AVAILABLE TEST OF ODOR DETECTION THRESHOLD SENSITIVITY
Dwyer L. 1 1University of Pennsylvania, Philadelphia, PA, USA

P28 212 THE DEVELOPMENT OF A COMPACT DIGITAL OLFACTORIMETER
Hayes D. J. 1, Achiriloaie I. 1, Comparini N. 1, Stewart R. M. 2, Taylor D. W. 1 1MicroFab Technologies, Inc., Plano, TX, USA, 2Presbyterian Hospital of Dallas, Dallas, TX, USA
P30 213 TRIMETHYLAMINURIA IN REFERRED PATIENTS WITH IDIOPATHIC BODY AND ORAL MALODOR
Preti G.1,2, Lawley H. J.1, Swiegert K. L.1, Tjoa S.4, Fennessey P. V.3, Fakhrazadeh S.1 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2Department of Dermatology, Univ. of Pennsylvania, Philadelphia, PA, USA, 3Department of Pediatrics and Pharmacology, Univ. of Colorado Health Sciences Center, Denver, CO, USA, 4Department of Pediatrics and Clinical Mass Spectrometry, Univ. of Colorado Health Sciences Center, Denver, CO, USA

P31 214 ODORANT PLEASANTNESS, INTENSITY AND FAMILIARITY IN PATIENTS WITH SEASONAL AFFECTIVE DISORDER
Postolache T. T.1, Luo M.1, Jimma L. A.1, Turner E.1, Rosenthal N. E.1 1NIMH/NIH, Rockville, MD, USA

P32 215 THE RELATIONSHIP BETWEEN THE LOSS OF PERCEPTUAL INTENSITY AND WATER SOLUBILITY IN SUBJECTS WITH COLD S
Landry A. L.1, Hornung D. E.1,2, Kurtz D. B.2 1St. Lawrence University, Canton, NY, USA, 2SUNY Health Science Center, Syracuse, NY, USA

P33 216 TASTE FUNCTION IN XEROSTOMIA BEFORE AND AFTER SALIVA REPLACEMENT THERAPY
Tennel A.1, Quint C.1, Pabinger S.1, Ahne G.2, Hummel T.3 1University of Vienna, Vienna, Austria, 2University of Erlangen-Nurnberg, Erlangen, Germany, 3University of Dresden, Dresden, Germany

P34 217 THE RELATIONSHIP BETWEEN OLFACTORY ACUITY AND CHRONIC SINUSITIS
Toth J.1, Temmel A.1, Quint C.1, Pabinger S.1, Schickinger-Fischer B.1, Franzelli S.1 1University of Vienna, Medical School, Vienna, Austria

P35 218 OLFACTORY FUNCTION AND CIRRHOSIS OF THE LIVER
Pabinger S., Temmel A., Quint C., Munda P., Ferenci P., Hummel T. 1University of Vienna, Vienna, Austria, 2University of Dresden, Dresden, Germany

P36 219 THE OLFACTORY SYSTEM IN LARYNGECTOMES: CHEMOSENSORY EVOKED POTENTIALS AND PSYCHOPHYSICAL TESTING
Welge-Luesken A. C., Wolfensberger M., Kobal G. 1Dept. of Otolaryngology, University Hospital Basel, Basel, Switzerland, 2Dept. of Otolaryngology, University Hospital Basel, Basel, Switzerland, 3Dept. of Experimental and Clinical Pharmacology and Toxicology, University of Erlangen-Nurnberg, Erlangen, Germany

P37 220 OLFACTORY FUNCTION AND ADAPTATION FOLLOWING LONG-TERM OCCUPATIONAL EXPOSURE TO STYRENENE
Dalton P.1, Lees P. S.2, Cowart B. J.1, Dilks D. D.1, Gould M.1, Stefaniak A.2, Emmett E.3 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2Johns Hopkins University, Baltimore, MD, USA, 3University of Pennsylvania Medical Center, Philadelphia, PA, USA

P38 221 OLFATORY QUALITY DISCRIMINATION DEFICITS IN SCHIZOPHRENIA USING THE "SNIFFIN' STICKS"
Rupp C.1, Klimbacher M.1, Scholtz A.1, Lechner T.1, Walsh T.1, Kremser C.1, Hinterhuber H.1 1University Clinics of Innsbruck, Innsbruck, Austria

P39 222 EFFECT OF THE NMDA ANTAGONIST CAROVERINE ON NON-CONDUCTIVE OLFACTORY DISORDERS: A PRELIMINARY STUDY
Quint C.1, Temmel A. F.1, Hummel T.2, Ehrenberger K.1 1University of Vienna, Vienna, Austria, 2University of Dresden, Dresden, Germany

P40 223 FALLS FROM THE HOOD: A PREVENTABLE CAUSE OF CHEMOSENSORY DYSFUNCTION
Naderjah R., Hirsch A. R. 1University of Chicago Hospital, Chicago, IL, USA, 2Smell & Taste Treatment and Research Foundation, Chicago, IL, USA

P41 224 EFFECTS OF MEDIOTEMPORAL AND INSULAR LESIONS ON TASTE AND SMELL
Jonesgutan M. K.1, Small D. M.1, Sziklas V.1, Dubu E.1, Bernasconi N.1, Bernasconi A.1, Andermann F.1 1McGill University/Montreal Neurological Institute, Montreal, PQ, Canada

P42 225 ANOSMIA DUE TO INHALATIONAL ZINC: A CASE REPORT
DeCook C. A., Hirsch A. R. 1Rush Medical College, Chicago, IL, USA, 2The Smell and Taste Treatment and Research Foundation, Chicago, IL, USA

Quick Lunch Cart available in the Gallery 12:15-1:00 PM

Saturday Evening - 7:00 pm - 8:45 pm

Gustatory Receptor Cell Function - Slide Presentation
Chairperson: Andrew Spielman/Joe Brand

7:00 pm 226 NEW GENE SPECIFICALLY EXPRESSED IN RHESUS MONKEY TASTE BUDS BY DIFFERENTIAL SCREENING OF TASTE BUDS AND ADJACENT EPITHELIUM CDNA LIBRARIES FROM LASER CAPTURE MICRODISSECTED TISSUE
Neira M.1, Danilova V.2,3, Hellekant G.2,3, Azem E. A.1 1Department of Medicine University of Wisconsin, Madison, WI, USA, 2Department of Animal Health and Biomedical Sciences University of Wisconsin , Madison, WI, USA, 3Wisconsin Regional Primate Center University of Wisconsin, Madison, WI, USA

7:15 pm 227 A NOVEL METABOTROPIC GLUTAMATE RECEPTOR FUNCTIONS AS A TASTE RECEPTOR
Chaudhari N.1, Landin A.1, Roper S. D.1 1University of Miami School of Medicine, Miami, FL, USA
7:30 pm 228 CLONING AND FUNCTIONAL CHARACTERIZATION OF GENES EXPRESSED IN GUSTDUCIN-POSITIVE TASTE RECEPTOR CELLS
Huang L.,1 Shanker Y. G.,1, Dubauskaitė J.,1 Zheng J. Z.,1 Yan W.,2 Rosenzweig S.2, Spielman A.1,2, Max M.1, Margolkskee R. F.1,1 Department of Physiology and Biophysics, Howard Hughes Medical Institute, Mount Sinai School of Medicine, New York, NY, USA, 2Basic Science Division, New York University College of Dentistry, New York, NY, USA

7:45 pm 229 MAMMALIAN BITTER TASTE RECEPTORS
Adler E.1,2, Hoon MA1, Mueller KL1, Chandrasekhar J1, Ryba N2, Zuker J1 Ambrx Inc., La Jolla, CA, USA, 2NIDCR, NIH, Bethesda, MD, USA, UCSD, La Jolla, CA, USA

8:00 pm 230 RANDOM DISTRIBUTION OF GUSTATORY SENSITIVITIES ACROSS RAT TASTE RECEPTOR CELLS AND BRAINSTEM NEURONS
Smith D. V.1, Zhang H.2, Boughter J. D.1, St. John S. J.1, Gilbertson T. A.2 1University of Maryland School of Medicine, Baltimore, MD, USA, 2Pennington Biomedical Research Center, Baton Rouge, LA, USA

8:15 pm 231 A CATIONIC CHANNEL IN THE BULLFROG TASTE RECEPTOR CELLS DIRECTLY GATED BY BITTER-TASTE SUBSTANCES
Tsunenari T.1, Kurahashi T.2,3, Kaneko A.1 1Department of Physiology, Keio University School of Medicine, Shinjuku, Tokyo 160-8582, Japan, 2Department of Biophysical Engineering, Graduate School of Engineering Science, Osaka University, Toyonaka, Osaka 560-8531, Japan, 3Precursory Research for Embryonic Science and Technology, Japan Science and Technology Corporation, S端正 Life Science Center 10F, Sin-Senri, Toyonaka 565-0082, Japan

8:30 pm 232 DETECTION OF DIETARY FAT BY THE GUSTATORY SYSTEM: BEHAVIORAL AND ELECTROPHYSIOLOGICAL PROPERTIES OF LINOLEIC ACID IN RATS
Pittman D. W.1, Curtis K. S.1, Hawarah E.1, Werner R. M.1, Smith J. C.1, Contreras R. J.1 1The Florida State University, Tallahassee, FL, USA

Saturday Evening April 29, 2000

SLIDES

Saturday Evening - 8:45 pm - 10:15 pm

Human Chemoreception III: Nasal Stimulation
Chairperson: Chuck Wysocki

8:45 pm 233 CHEMOSENSORY ALTERATION OF BRAIN ACTIVITY DURING MATH TASKS
Lorig T. S.1, Malin E. L.1 1Washington and Lee University, Lexington, VA, USA

9:00 pm 234 OLFATORY EVENT-RELATED POTENTIALS IN DEMENTIA
Murphy C.1,2, Morgan C.1,2 1San Diego State University, San Diego, CA, USA, 2University of California, San Diego, CA, USA

9:15 pm 235 HOW GOOD IS YOUR SENSE OF SMELL? AWARENESS OF OLFATORY ABILITY IN PATIENT GROUPS
White T. L.1, Kurtz D. B.1 1SUNY Upstate Medical University, Syracuse, NY, USA

9:30 pm 236 EFFECTS OF BREASTFEEDING CHEMOSIGNALS ON THE HUMAN MENSTRUAL CYCLE
Spencer N. A.1, Jacob S.1, Sellergren S. A.1, Bullivant S. B.1, Menemulla J. A.2, McCrill M. K.1 1University of Chicago, Chicago, IL, USA, 2Monell Chemical Senses Center, Philadelphia, PA, USA

9:45 pm 237 DECREASED OLFATORY ABILITY IDENTIFIED IN SUSCEPTIBLE FARM WORKERS
Snyder M. C.1, Leopold D. A.1, Chiu B. C.1, Lembert R.1 1University of Nebraska Medical Center, Omaha, NE, USA

10:00 pm 238 INFLUENCE OF KNOWLEDGE ON THE PERCEPTION OF EVERYDAY ODORS
Hudson R. E.1, Distel H.2 1Univ. Nac. Autonoma de Mexico, Mexico City, Mexico, 2Univ. Freiburg, Freiburg, Germany

Saturday Evening coffee and soda available from 8:00PM - 8:15PM

POSTERS

Saturday Evening - 7:00 pm - 10:00 pm

Olfactory Receptor - Odor Chemical Structure/Function Studies Poster Session

P1 239 MOLECULAR CHARACTERIZATION OF ODORANT RESPONSIVE CULTURED HUMAN Olfactory CELLS
Gomez G.1, Hahn C.2, Rawson N.1 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2University of Pennsylvania, Philadelphia, PA, USA

P2 240 A NOVEL ISOLATION SYSTEM FOR HUMAN Olfactory RECEPTOR CELLS
Murrow B. W.1, Restrepo D.1, Jafek B. W.1 1University of Colorado Health Sciences Center, Denver, CO, USA

P3 241 OLFATORY NEURON SUBTYPES DISPLAY UNIQUE AMINO ACID PROFILES BUT OVERLAPPING ODOR SENSITIVITIES
Lucero M. T.1, Michel W. C.1 1University of Utah, Salt Lake City, UT, USA
P4 242 VISUALIZING ODOR RESPONSES OF MOUSE OLFACTORY RECEPTOR NEURONS IN AN INTACT EPITHELIAL PREPARATION
Ma M.1, Shepherd G. M.1 1Yale University Sch of Med, New Haven, CT, USA

P5 243 IDENTIFICATION OF MULTIPLE ORS THAT RECOGNIZE SPECIFIC ODORANTS
Malmierca M.1,2, Heron J.1, Sato T.1, Buck L.1 1Howard Hughes Medical Institute/Harvard Medical School, Boston, MA, USA, 2Life Electronics Research Center, Amagasaki, Japan

P6 244 TOPOGRAPHY OF PROJECTIONS OF OLFACTORY NEURONS EXPRESSING HIGHLY RELATED ODORANT RECEPTORS
Strotmann J.1,2, Conzelmann S.1, Beck A.1, Feintraus P.3, Breer H.1, Mombaerts P.1 1Universität Hohenheim, Garbenstrasse 30, 70593 Stuttgart, Germany, 2Rockefeller University, 1230 York Avenue, New York, NY, USA

P7 245 H-LACZ6, A MOUSE MODEL TO STUDY THE EXPRESSION OF ODORANT RECEPTOR GENES?
Pyszki M. M.1, Margolis F. L.1 1UMAB, Baltimore, MD, USA

P8 246 MOLECULAR MODEL OF A MOUSE OLFACTORY RECEPTOR REPLICATES EXPERIMENTAL ODOR RESPONSES FOR ALIPHATIC ALCOHOLS AND ACIDS
Floriano W. B.1, Singer M. S.2, Nagarajan V.1, Goddard III W. A.1, Shepherd G. M.2 1California Institute of Technology - Materials and Process Simulation Center, Pasadena, CA, USA, 2Yale University School of Medicine, New Haven, CT, USA

P9 247 CHARACTERIZATION OF MOUSE OLFACTORY RECEPTORS THAT RECOGNIZE A COMMON ODORANT MOLECULE
Touhara K.1, Inuki K.1 1The University of Tokyo, Tokyo, Japan

P9 248 PROTEIN STRUCTURE PREDICTION FROM SEQUENCE INFORMATION: APPLICATIONS TO THE CHEMICAL SENSES
Singer M. S.1, Vriend G.2, Bywater R.3 1Yale School of Medicine, New Haven, CT, USA, 2European Molecular Biology Laboratory, Heidelberg, Germany, 3Novo Nordisk, Copenhagen, Denmark

P10 249 STATISTICAL EVALUATION OF OLFACTORY RECEPTOR NEURON RESPONSE TO CHEMICAL STIMULATION
Blejec A.1 1National Institute of Biology, Ljubljana, Slovenia

P11 250 CLONING OF AN Aedes aegypti ODORANT-BINDING PROTEIN FROM AN ANTENNAL EXPRESSED SEQUENCE TAG (EST) LIBRARY
Bobbitt J. D.1, Rogers M. E.1, Vogt R. G.1 1University of South Carolina, Columbia, SC, USA

P12 251 SELECTIVE BLOCKADE OF CHEMOSENSITIVE TRIGEMINAL AFFERENTS BY GUANETHIDINE
Alimohammadi H.1, Silver W. L.1 1Wake Forest University, Winston-Salem, NC, USA

P13 252 REPELLENT COMPOUNDS STIMULATE INTRACELLULAR CALCIUM IN CULTURED CHICK TRIGEMINAL NEURONS
Kirifides M. L.1, Bryant B. P.1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P14 253 CAPSAICIN SELECTIVELY MODULATES VOLTAGE-GATED SODIUM CURRENTS (VGSC) IN RAT TRIGEMINAL GANGLION (TG) NEURONS THROUGH CAMP AND PKC MEDIATED PATHWAYS
Liu L.1, Li L.1, Simon S. A.1 1Duke University, Durham, NC, USA

P15 254 ELECTRICAL RESPONSES TO VANILLIN AND CARBON DIOXIDE IN NASAL MUCOSA OF RATS INJECTED WITH 3-METHYLLINOLE
Kratskin L.1, Hummel T.2, Hastings L.1, Doty R.1 1Smell and Taste Center, University of Pennsylvania School of Medicine, Philadelphia, PA, USA, 2Department of Ottonholaryngology, Dresden University Medical School, Dresden, Germany

P16 255 GNRH IS PRESENT IN RAT NASAL GLANDS FOLLOWING GONADECTOMY
Joshi N.2, Wirsig-Wichmann C. R.1 1University of Oklahoma, Oklahoma City, OK, USA, 2Oklahoma School of Science and Mathematics, Oklahoma City, OK, USA

P17 256 IMMUNOHISTOCHEMICAL CHARACTERIZATION OF THE ADULT HUMAN VOMERONASAL ORGAN
Witt M.1, Knecht M.1, Kasper M.1, Hummel T.1 1Technische Universität Dresden, 01307 Dresden, Germany

P18 257 THE OLFACTORY EPITHELIUM OF JUVENILE CHANNEL CATFISH (ICHTALURUS PUNCTATUS) BECOMES SENSITIZED TO A SPECIFIC F-PROSTAGLANDIN WHEN FISH ARE TREATED WITH AN ANDROGENIC STEROID HORMONE
Davis C. P.1, Sorensen P. W.1 1University of Minnesota, St. Paul, MN, USA

P19 258 VOLTAGE-DEPENDENT AND ODOR-ACTIVATED CURRENTS IN OLFACTORY RECEPTOR NEURONS OF SEA LAMPEYS
Liachka F. W.1, Li W.2, Teeter J. H.1 1Monell Chemical Senses Center, Philadelphia, PA, USA, 2Michigan State University, East Lansing, MI, USA
P20 259 THE OTHER SENSE IN OLFACTORY SEARCH BEHAVIOUR: RESPONSES OF MECHANOSENSORY LATERAL LINE AFFERENTS TO FLOW  
Voigt R. 1,2, Carton A. G. 2, Montgomery J. 1,2 1Boston University Marine Program, Woods Hole, MA, USA, 2University of Auckland, Auckland, New Zealand

P21 260 ELECTRON IMUNOCYTOCHEMICAL STUDY OF GIIA AND GOA IN THE VOMERONASAL SENSORY EPITHELIUM  
Yoshida-Matsuoka J. 1,2, Matsuoka M. 2, Costanzo R. M. 1, Ichikawa M. 2 1CREST of the Japan Science and Technology Corporation, Fuchu, Japan, 2Tokyo Metropolitan Institute for Neuroscience, Fuchu, Japan, 3Virginia Commonwealth University, Richmond, VA, USA

P22 261 IMMUNOHISTOCHEMICAL LOCALIZATION OF G2 IN A SUBSET OF GOLDFISH AND CATFISH OLFATORY RECEPTOR NEURONS AND BULBAR GLOMERULI  
Anderson K. T. 1, Finger T. E. 1 1Univ. Colorado Health Sci. Ctr., Denver, CO, USA

P23 262 DO AMINO ACIDS STIMULATE CILIATED OR MICROVILLAR OLFATORY SENSORY NEURONS?  
Lipschitz D. L. 1, Michel W. C. 1 1University of Utah, Salt Lake City, UT, USA

P24 263 RESTRICTED DISTRIBUTION AND CHEMOSPECIFICITY OF PHEROMONE-SENSITIVE OLFACTORY RECEPTOR NEURONS IN THE GOLDFISH OLFACTORY EPITHELIUM  
Sorensen P. W., Caprio J. 1University of Minnesota, St. Paul, MN, USA, 2Louisiana State University, Baton Rouge, LA, USA

Poster session -Animal Perception: Olfaction and Taste

P25 264 ONSET OF CHEMOSENSORY COMPETENCE IN ZEBRAFISH  
Shapiro J. E. 1, Michel W. C. 1 1Univ of UT, Salt Lake City, UT, USA

P26 265 REGENERATED OLFATORY ORGAN ENABLES A COMPLETE RECOVERY OF OLFACTORY DISCRIMINATION IN BROWN BULLHEAD CATFISH  
Valenticincić T. 1, Stenovec M. 1 1University of Ljubljana, Ljubljana, Slovenia

P27 266 THE ROLE OF ANTENNUAR SENSILLA IN CHEMO-ORIENTATION OF SPINY LOBSTERS IN A LARGE FLUME  
Horner A. J., Ngo V., Steuiller P., Keller T., Weissburg M., Derby C. D. 1Georgia State University, Atlanta, GA, USA, 2Georgia Institute of Technology, Atlanta, GA, USA

P28 267 THE AESTHETASC PATHWAY IS NOT NECESSARY FOR DISCRIMINATION OF FOOD ODOR MIXTURES BY SPINY LOBSTERS  
Steuiller P., Radman D., Hamidani G. 1, Derby C. D. 1 1Georgia State University, Atlanta, GA, USA

P29 268 INITIAL STUDIES OF CHEMOSENSORY BEHAVIOR OF MICE DEFICIENT FOR SUBUNIT 1 OF THE CYCLIC NUCLEOTIDE-GATED CHANNEL  
Arellano J. A. 1, Restrepo D. 2, Delay E. 3 1University of Colorado Health Sciences Center, Denver, CO, USA, 2University of Colorado Health Sciences Center, Denver, CO, USA, 3Regis University, Denver, CO, USA

P30 269 OLFACTORY IMPAIRMENT IN HOMOLOGOUS RECOMBINANT MICE DEFICIENT IN THE A SUBUNIT OF G2  
Luo A. H. 1, Wekesa K. S. 1, Vandenberg J. G. 1, Anholt R. R. 1 1North Carolina State University, Raleigh, NC, USA

P31 270 OLFACTORY DISCRIMINATION PERFORMANCE IN MONKEYS, HUMANS AND HONEYBEES: MAMMALS AND INSECTS SHARE COMMON PRINCIPLES OF ODOR QUALITY PERCEPTION  
Laska M., Galizia C. G. 1University of Munich, Munich, Germany, 2Free University of Berlin, Berlin, Germany

P32 271 USE OF “ELECTRIC ODORS” AS A DISCRIMINATIVE CUE: COMPARISON OF STIMULATION OF THE LATERS NFRACT AND PIRIFORM CORTEX ASSOCIATION FIBERS  
Stripling J. S. 1, Cauthorn J. L. 1 1University of Arkansas, Fayetteville, AR, USA

P33 272 MHC-DETERMINED ODOR TYPES MODULATE MOTHER-OFFSPRING RELATIONS IN MICE  
Yamazaki K., Curran M. 1, Beauchamp G. K. 1 1Monell Chemical Senses Center, Philadelphia, PA, USA

P34 273 COMPARING BRIEF-ACCESS TASTE TESTS TO PREFERENCE TESTS IN INBRED AND CONGENIC MICE  
Noel D. T. 1, Ndubizu O. 1, Smith D. V. 1, Boughter J. D. 1 1University of Maryland School of Medicine, Baltimore, MD, USA, 2University of Maryland, Baltimore County, Baltimore, MD, USA

P35 274 SODIUM CHLORIDE TASTE DETECTION PERFORMANCE OF C57BL/6J MICE IN AN OPERANT CONDITIONING PARADIGM  
Eylam S. 1, Spector A. C. 1 1University of Florida, Gainesville, FL, USA

P36 275 DISCRIMINATION BETWEEN SUCROSE TASTE AND MONOSODIUM GLUTAMATE TASTE IN RATS  
Delay E. R. 1, Stapleton J. R. 1, Luellig M. E. 1, Roper S. D. 2 1Regis University, Denver, CO, USA, 2University of Miami School of Medicine, Miami, FL, USA

P37 276 CORN OIL/MINERAL OIL DISCRIMINATION BY THE RAT  
Smith J. C. 1, Hawarah E. K. 2, Riccardi C. J. 3 1The Florida State University, Tallahassee, FL, USA, 2The Florida State University, Tallahassee, FL, USA, 3The Florida State University, Tallahassee, FL, USA

P38 277 SHORT-TERM TASTE SPECIFICITY IN CONDITIONED TASTE AVERSION  
Howard K. 1, Houp T. A. 1 1Florida State University, Tallahassee, FL, USA
THE GENERALIZATION OF TASTE AVERSIONS TO MIXTURES OF SUCROSE, SODIUM CHLORIDE, AND QUININE HCL. IN HAMSTERS
Formaker B. K.,1 Hettinger T. P.,1 Frank M. E.1 1Univ. of Connecticut Health Center, Farmington, CT, USA

BILATERAL LESIONS OF THE PARABRACHIAL NUCLEUS REVERSE THE NA+ AVLERSION OF FISCHER-344 RATS
Clarke S. N.,1 Halsell C. B.1, Bernstein I. L.1 1University of Washington, Seattle, WA, USA

THE ROLE OF SUBSTANCE-P IN SIGNALING THE PRESENCE OF THE ORAL IRRITANT CAPSAICIN
Simons C. T.,1 Dessirier J. M.,1 Carstens E.1 1University of California, Davis, CA, USA

Sunday, April 30, 2000

Continental Breakfast 7:30 AM-9:00 AM

SLIDES

Sunday Morning - 9:00 am - 10:15 am

Olfactory Bulb Function (Slide)
Chairperson: John Scott

SYSTEMATIC DIFFERENCES IN GLOMERULAR RESPONSES TO ORGANIC ACID ODORANTS POSSESSING DISTINCT HYDROCARBON STRUCTURES
Johnson B. A.,1 Leon M.1 1University of California, Irvine, Irvine, CA, USA

SPATIAL PATTERNS OF OLFACTORY RECEPTOR NEURON INPUT TO TURTLE OLFACTORY BULB GLOMERULI IMAGED WITH CALCIUM-SENSITIVE DYES
Wachowiak M.1, Cohen L. B.1, Zochowski M.1 1Yale University, New Haven, CT, USA

PERIPHERAL OLFACTORY PROJECTIONS ARE DIFFERENTIALLY AFFECTED IN MICE DEFICIENT IN A CYCLIC NUCLEOTIDE-GATED CHANNEL SUBUNIT
Zheng C.,1 Feinstein P.1, Bozza T.1, Rodriguez I.1, Mombaerts P.1 1The Rockefeller University, New York, NY, USA

9:45 am 284 ODOR ELICITED ACTIVITY PATTERNS IN RAT MAIN OLFACTORY BULB MAPPED BY FUNCTIONAL MAGNETIC RESONANCE IMAGING
Xu F.,1 Kida I.2, Hyder F.3, Greer C. A.3, Shepherd G. M.1, Shulman R. G.2 1Section of Neurobiology, Yale University, New Haven, CT, USA, 2MRC, Yale University, New Haven, CT, USA, 3Department of Neurosurgery, Yale University, New Haven, CT, USA

10:00 am 285 TWO-PHOTON MICROSCOPY OF THE DEVELOPING OLFACTORY SYSTEM
Zheng C.,1 Potter S. M.2, Feinstein P.1, Fraser S. E.2, Mombaerts P.1 1The Rockefeller University, New York, NY, USA, 2California Institute of Technology, Pasadena, CA, USA

Sunday, April 30, 2000

SLIDES

Sunday Morning - 10:30 am - 11:45 am

Vomeronasal Transduction Slide Session
Chairperson: Mary Lucero

10:30 am 286 A NOVEL METHOD FOR RAPID SCREENING OF PUTATIVE ACTIVATORS OF VOMERONASAL RECEPTOR NEURONS
Lepre M.,1 Firestein S.1 1Columbia University, New York, NY, USA

10:45 am 287 MOUSE VOMERONASAL NEURONS ARE HIGHLY SELECTIVE AND ULTRASENSITIVE PHEROMONE DETECTORS
Leinders-Zufall T.1, Lane A. P.1, Puche A. C.1, Ma W.2, Novotny M. V.2, Shipley M. T., Zufall F.1 1University of Maryland School of Medicine, Baltimore, MD, USA, 2Indiana University, Bloomington, IN, USA

11:00 am 288 ADENOSINE-CYCLIC MONO PHOSPHATE SIGNALLING IN RAT VOMERONASAL ORGAN: ROLE OF ADENYLYL CYCLASE SUBTYPE VI

11:15 am 289 SEXUAL DIMORPHISM AND DEVELOPMENTAL EXPRESSION OF SIGNAL TRANSDUCTION MACHINERY IN THE VOMERONASAL ORGAN
Fadool D. A.1, Person D. J.2, Murphy F. A.2 1Florida State University, Tallahassee, FL, USA, 2Auburn University, Auburn, AL, USA

11:30 am 290 VNO-RELATED RECEPTORS IN ZEBRAFISH
Matsumori H.,1 Buck L. B.1 1Harvard Medical School, Boston, MA, USA
**Mid morning coffee available**  
**10:15AM-10:30AM**

**POSTERS**

**Sunday Morning - 9:00 am - 12:00 pm**

**Taste: Central Pathways — Poster**

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<td>State University of New York at Binghamton, Binghamton, NY, USA</td>
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<td>Regis University, Denver, CO, USA, University of Connecticut School of Dental Medicine, Farmington, CT, USA, University of Miami School of Medicine, Miami, FL, USA</td>
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<td>Monell Chemical Senses Center, Philadelphia, PA, USA; Tokyo University of Pharmacy and Life Science, Tokyo, Japan</td>
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<td>Monell Chemical Senses Center, Philadelphia, PA, USA; Department of Psychology and School of Veterinary Medicine, University of Pennsylvania, Philadelphia, PA, USA</td>
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Reich C. G. 1, Di Lorenzo P. M. 1 4Binghamton University, Binghamton, NY, USA

Gustatory Receptor Cell Function - Poster Session 2

P18 308 BIOPHYSICAL PROPERTIES AND RESPONSES TO GLUTAMATE RECEPTOR AGONISTS OF IDENTIFIED SUBPOPULATIONS OF RAT GENICULATE GANGLION NEURONS
King M. S. 1, Bradley R. M. 2 2Stetson University, DeLand, FL, USA, 2University of Michigan, Ann Arbor, MI, USA

P19 309 REAL-TIME MEASUREMENT OF NEUROTRANSMITTER RELEASE FROM RAT TASTE BUDS
Jafri S. 1, Roper S. D. 1 1University of Miami School of Medicine, Miami, FL, USA

P20 310 CALCIUM IMAGING REVEALS SYNAPTIC GLUTAMATE RECEPTORS IN TASTE CELLS
Caicedo A. 1, Johnson D. M. 1, Jafri M. S. 1, Roper S. D. 1 1University of Miami, Miami, FL, USA

P21 311 A NEW APPROACH FOR IMAGING CAL2 IN TASTE CELLS REVEALS SYNAPTIC GLUTAMATE RECEPTORS
Caicedo A. 1, Johnson D. M. 1, Jafri M. S. 1, Roper S. D. 1 1University of Miami School of Medicine, Room 4045, Miami, FL, USA

P22 312 IONIC DEPENDENCE OF THE PROTON-ACTIVATED CURRENT IN RAT VALLATE TASTE CELLS
Lin W. 1, 2, Ogura T. 1, 2, Kinnaman S. C. 1, 2 1Colorado State University, Fort Collins, CO, USA, 2Rocky Mountain Taste and Smell Center, University of Colorado Health Sciences Center, Denver, CO, USA

P23 313 ACETYLCHOLINE INCREASES INTRACELLULAR CALCIUM LEVELS VIA MUSCARINIC RECEPTORS IN TASTE RECEPTOR CELLS
Ogura T. 1Colorado State Univ, Fort Collins, CO, USA, 2The Rocky Mountain Taste and Smell Center, University of Colorado Health Sciences Center, Denver, CO, USA

P24 314 CHOLECYSTOKININ INCREASES INTRACELLULAR CALCIUM LEVELS IN RAT POSTERIOR TASTE RECEPTOR CELLS
Lu S. 1, Kaya N. 1, Hersness S. 1 1Ohio State University, Columbus, OH, USA

P25 315 LINGUAL SURFACE PH AFFECTS INTRACELLULAR PH (pH) IN POLARIZED TASTE RECEPTOR CELLS (TRCs)
Feldman G. M. 1, 2, Lyall V. 1, Eresco G. L. 1, Phan D. 1, Desai N. 1, Montrose M. M. 1, DeSimone J. A. 1, 2Virginia Commonwealth University, Richmond, VA, USA, 2McGuire Veterans Affairs Medical Center, Richmond, VA, USA, 4Indiana University, Indianapolis, IN, USA

P26 316 NA- H+ EXCHANGE ACTIVITY IN THE BASOLATERAL MEMBRANE OF TASTE RECEPTOR CELLS (TRCs)
Lyall V. 1, Eresco G. L. 1, Phan D. 2, Desai N. 2, Montrose M. M. 1, DeSimone J. A. 1, Feldman G. M. 1, 2Virginia Commonwealth University, Richmond, VA, USA, 2McGuire Veterans Affairs Medical Center, Richmond, VA, USA, 4Indiana University, Indianapolis, IN, USA

P27 317 AQUaporin EXPRESSION AND HYPOSMOTIC-INDUCED CURRENTS IN NON-LINGUAL TASTE BUDS
Kim I. 1, Siears N. D. 1, Nkonova L. 1, Gilbertson T. A. 1 1Pennington Biomedical Research Center, Baton Rouge, LA, USA

P28 318 HYPOSMOTIC STIMULI ACTIVATE A CHLORIDE CURRENT IN TASTE CELLS
Gilbertson T. A. 1, Siears N. D. 1, Mercante J. W. 1, Zhang H. 1, Kim I. 1 1Pennington Biomedical Research Center, Baton Rouge, LA, USA

P29 319 THE ROLE OF ROD A-TRANSDUCIN IN TASTE SIGNAL TRANSDUCTION
He W. 1, 2, Morgulskee R. F. 1, 2, Damak S. 2 1Howard Hughes Medical Institute, New York, NY, USA, 2Mount Sinai Medical School, New York, NY, USA

P30 320 BITTER TASTE TRANSDUCTION USES TWO SECOND MESSENGER SYSTEMS
Yan W. 1, Rosenzweig S. 1, Brand J. G. 1, 2, Spielman A. I. 1, 2 1New York University College of Dentistry, New York, NY, USA, 2Monell Chemical Senses Center, Philadelphia, PA, USA, 3U. of PENN & V. A. Med. Centr., Philadelphia, PA, USA

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Landin A. 1, Chaudhuri N. 1 1University of Miami School of Medicine, Miami, FL, USA

P32 322 CAPSAICIN (VR1) RECEPTORS IN TASTE BUDS: FUNCTION AND LOCALIZATION
Liu L. 1, Simon S. A. 1, Böttger B. 2, Finger T. E. 2 1Dept. Neurobiology, Duke University, Durham, NC, USA, 2Rocky Mountain Taste & Smell Ctr., U. Colo. Health Sci Ctr., Denver, CO, USA

P33 323 APPLICATION OF SEMLIK FOREST VIRUS SYSTEM FOR EXPRESSION OF ODORANT AND TASTE RECEPTORS
Monastyrskaia K. 1, Landstorn K. 2, Acuna G. 1, Schilling B. 1, Muot V. 2 1Givaudan Roure Research Ltd., Duebendorf, Switzerland, 2Pharma Division, F.Hoffmann-La Roche Ltd., Basel, Switzerland, 3Roche Genetics, F.Hoffmann-La Roche Ltd., Basel, Switzerland

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