

U. S.-CANADIAN ROSTER OF CHEMICAL SENSES SCIENTISTS

This partial listing of scientists engaged in research on chemical senses is intended to facilitate and encourage scientific communications. Research activities and addresses are current as of July, 1974.

- Ache, Barry W., Ph.D., Dept. Biol. Sciences, Florida Atlantic Univ., Boca Raton, Fla. 33432. Peripheral modulation (completed) and central projection (in progress) of olfactory afferents in the lobster, Panulirus.
- Amoore, John E., Ph.D., Western Regional Research Laboratory, U.S.D.A., Berkeley, Ca. 94710. Psychophysical, genetic and stereochemical "mapping" of specific anosmias, to identify human primary odors. Sweaty, spermous and musky primaries in progress. May 1974.
- Bardach, John E., Ph.D., Hawaii Institute of Marine Biology, P.O. Ex. 1346, Kaneohe, Hi. 96744.
- Beidler, Lloyd M., Dept. Biological Science, Florida State Univ., Tallahassee, Fla. 32306. Cell populations within taste bud. Olfactory axoplasmic flow. Species differences with sweeteners. Taste modifiers. Electrical stimulation.
- Bernard, Rudy A., Ph.D., Physiology Dept., Michigan State Univ., East Lansing, Mi. 48824. Peripheral taste interactions. Single fiber and intracellular receptor responses. Gustatory-gastric reflex connections and pathways. Salt taste and hypertension. (All in various stages of (in) completion).
- Beuerman, Roger W., Ph.D., 1973. Dept. Physiology & Biophysics, Univ. of Washington, Seattle 98195. Recently completed - Odor evoked slow potentials in the turtle olfactory bulb. In progress - Trigeminal innervation of the nose and associated reflexes.
- Brand, Joseph G., PhD., Monell Center, 3500 Market Street, Philadelphia, Pa. 19104. Biochemical interactions between bitter stimuli and bovine taste bud tissue. Initiating study of taste related physical properties of taste bud cells and plasma membranes.
- Bradley, Robert M., Dept. Oral Biology, School of Dentistry, Univ. of Michigan, Ann Arbor, Mi. 48104. Ontogenesis of taste. Development of taste preference. Electrophysiology of developing tastebuds. Histology of developing taste system. Fetal swallowing in utero. Modification of fetal swallowing by taste substances. Work is in progress.
- Braun, J. Jay, Ph.D., Dept. of Psychology, Arizona State Univ., Tempe, Arizona 85281. Associative taste-odor interactions in rats. (4 preliminary studies completed) Associative taste properties and the gustatory neocortex (several completed studies, further research underway).
- Cagan, Robert H., PhD., Monell Chemical Senses Ctr., Univ. of Pennsylvania, 3500 Market St., Philadelphia, Pa. 19104. Biochemical mechanisms of specificity transduction in taste and olfactory receptors. Continuing studies.
- Cain, William S., Ph.D., John B. Pierce Foundation, 290 Congress Ave., New Haven, Conn. 06519. Olfactory psychophysics.

- Fishman, Irving Y., Grinnell College, Grinnell, Ia., 50112. Preference behavior of squirrels, bats, and other small mammals. Electrophysiological responses of small mammals, including extra-tongue receptors. All very nearly completed.
- Frazier, James L., Ph.D., Dept. of Entomology, Mississippi State Univ., Miss. State, Miss. 39762. Inhibition of olfaction in the moth Heliothis virescens by sulfhydryl reagents (50% complete). The coding of plant chemicals by insect olfactory receptors (10% complete).
- Fregly, Melvin J., Ph.D., Dept. Physiology, Univ. Florida, Coll. Medicine, Gainesville, Fla., 32610. Endocrine influences in salt appetites; regulation of fluid and food intakes.
- Gaffey, C. T., Ph.D., Lawrence Berkeley Lab., University of California, Berkeley, Ca.
- Gesteland, Robert C., Ph.D., Dept. of Biological Sciences, Northwestern Univ., Evanston, Il., 60201. Intracellular olfaction, taste responses (mudpuppy), single olfactory units (rat). Intensity coding (frog nose), responses of olfactory organs grown in culture.
- Graziadei, Pasquale P.C., MD., Dept. of Biological Science, Unit I, Florida State Univ., Tallahassee, Fla. 32306. Dynamics of olfactory receptors and their central connections in the olfactory bulb glomeruli.
- Guth, Lloyd, M.D., Nat. Institutes of Health, Bldg. 9, Rm. 1E125, Bethesda, Md. 20014. Previous research has dealt with the neurotrophic regulation of induction of taste buds on the mammalian tongue. No experiments are currently in progress.
- Harper, Kenneth, B.S., M.S. Zoology Department, University of Michigan, Ann Arbor, Mi. 48104. Electrophysiology of kangaroo rat chorda tympani. Central mechanisms of sweet coding.
- Henkin, Robert I., M.D., Ph.D., NIH, Bethesda, Md. 20014. Biochemistry of taste receptors. Clinical problems in taste and smell. Metal ions and taste.
- Hodgson, Edward S., Ph.D., Dept. of Biology, Tufts Univ., Medford, Mass. 02155. Electrophysiology of taste and smell in insects and sharks. Single cell recordings (insects) and EEG (sharks).
- Hyde, R. J., M.S. (Ph.D. candidate) Dept. of Anatomy, School of Vet. Med., Univ. of California, Davis, CA. 95616. Effect of gustatory & olfactory stimuli on salivary flow rates and composition in humans and dogs.
- Hyman, Angela, B.S. (graduate fellow). The Rockefeller Univ., New York, N.Y. 10021. Electrophysiology of olfactory receptor cells.
- Jakinovich, William. Proctor and Gamble Co., Miami Valley Lab., Cincinnati, Ohio. Gustation: sugar reception in various animals--vertebrates and invertebrates. Description of receptor specificity.
- Johnston, James W. Jr., Ph.D., 8940 Jones Mill Rd., Chevy Chase, Md. 20015. Olfactory and sapid vertebrate repellents.

- Caprio, John, doctoral grad. student, Dept. of Biol. Science, Bio Unit I, Florida State Univ., Tallahassee, Fl. 32306. Research interests: Chemoreception in fishes; sensitivity, range, and structure-activity relations of amino acids and derivatives on olfactory and gustatory receptors of catfish. Research on gustatory sense nearly completed.
- Cardello, Armand V., M.S., 211 Middlesex House, Dept. of Psychology, Univ. of Massachusetts, Amherst, Mass. 01002. Psychophysical research in taste; scaling of intensity; quality changes as a function of concentration; individual differences in sensitivity.
- Cheal, Mary-Lou, Ph.D., Zoology Department, University of Michigan, Ann Arbor, Mi. 48104. Electrophysiology activity associated with young taste receptor cells. Effects in rodents of early exposure to odors.
- Costanzo, Richard M., (PhD. by Sept. 1974), Dept. Physiology/Upstate Med. Ctr., Syracuse, N.Y. 13210. Olfaction: study single units in the olfactory bulb.
- Davis, Richard G., Ph.D., VA Hospital, 13000 North 30th, Tampa, Fla. 33612. Behavioral identification of selective receptor systems; cognitive processing of olfactory experiences; human brain electrophysiological responses to odors.
- Dateo, George P. Jr., Ph.D., U.S. Army Natick Labs, PRL, Natick, Ma. 01760. Isolation of sex pheromones. Isolation of natural substances of plant origin that affect sweet taste. Isolation and characterization of an anti-sweet substance, possibly similar to gymnemic acid.
- Davis, Edward E., M.A., Stanford Research Inst., Menlo Park, CA. 94025. Electrophysiological study of mosquito chemoreceptors and thermoreceptors with respect to host attractancy and the mechanism of insect repellency.
- Dzendolet, Ernest, Ph.D., Dept. of Psychology, Univ. of Massachusetts, Amherst, Mass. 01002. Gustation: The relationship between stimulus structure, stimulus quality, and the initial receptor events.
- Engen, Trygg, Psychology Dept., Brown Univ., Providence, R.I. 02912. The sense of smell in man. Odor preference, memory and recognition. The effects of various and sundry factors on man's ability to detect odors.
- Epple, Gisela, Ph.D., Monell Chemical Senses Center, Univ. of Pennsylvania, Philadelphia, Pa. 19104. Study of the role of scent marking behavior and of body odors in the communicatory system of primates.
- Erickson, Robert P., Ph.D., Psychology & Physiology, Duke Univ., Durham, N.C. 27706. Neural coding, especially in taste. Taste anatomy, psychophysics and physiology. General problems in neural coding.
- Farbman, Albert I., D.M.D., Ph.D., Dept. of Anatomy, Northwestern Univ., 303 E. Chicago Ave., Chicago, Ill. Differentiation of taste buds and olfactory receptors in organ culture, and in vivo.
- Fischer, Roland, Ph.D., Maryland Psychiatric Res. Ctr., P.O. Box 3235, Baltimore, Md. 21228. Ongoing research and exploration of pharmacological and personality correlates of taste-sensitivity--using system's approach--for clinical applicability (including biofeedback).

- Kare, Morley R., B.A., M.S.A., Ph.D., Monell Chemical Senses Ctr., Univ. of Pennsylvania, Philadelphia, Pa. 19104. Comparative aspects of taste. Role of taste in malnutrition and undernutrition.
- Kutyna, Francis A., Ph.D., Dept. of Physiology, Mich. State Univ., E. Lansing, Mi. 48824. Studies on peripheral modification of sensory input in taste buds and carotid body chemoreceptors utilizing intracellular recording methods. Interpretation of data incomplete.
- McDonald, Donald, M.D., Ph.D., Cardiovascular Res. Institute, Rm. 1315-M, Univ. of California, San Francisco, CA 94143. Ultrastructural and neurophysiological studies of vascular chemoreceptors (carotid body). Reciprocal synapses interconnecting sensory nerve endings and glomus cells.
- Maller, Owen, Monell Chem. Senses Ctr. Univ. of Pennsylvania, 3500 Market St., Philadelphia, Penn. 19104. Abnormalities of taste and smell perception in humans. Ontogeny of taste and odor preferences. Chemical information from foods and feeding behavior.
- Margolis, Frank L., Roche Institute of Molecular Biology, Nutley, N.J. 07110. Biochemical studies of primary olfactory pathway. Identification of specific macro and micromolecular markers and study of their function.
- Meredith, Michael, Ph.D.(pending), Monell Chemical Senses Ctr., Univ. of Pennsylvania, 3500 Market St., Philadelphia, Pa. 19104. Single olfactory bulb units (goldfish). Temporal pattern similarity correlates with physicochemical similarity: some changes with concentration: Writing up.
- Mistretta, Charlotte M., Ph.D., Dept. of Oral Biology, School of Dentistry, Univ. of Michigan, Ann Arbor, Mi. 48104. Development of the sense of taste in fetal sheep using histological, electrophysiological, and behavioral techniques.
- Muetterties, Earl L., Ph.D. Dept. of Chemistry, Cornell University, Ithaca, N.Y. 14850. Olfaction mechanism and mammalian pheromones. Current: Chemical and behavioral study of female hamster sex pheromones.
- Murray, Raymond G., Ph.D., Myers Hall 263, Indiana University, Bloomington, Ind. 47401. Fine structure and histochemistry of rabbit foliate taste buds. Other mammalian, fish, and amphibian taste organs examined and compared.
- Norgren, Ralph, Ph.D., The Rockefeller University, New York, N.Y. 10021. Central projections of taste system in relation to consummatory behavior.
- Oakley, Bruce, Ph.D., Zoology Department, University of Michigan, Ann Arbor, Mi. 48104. Development of taste and olfaction. Salmon homing. Current: function of young taste receptor cells, comparative taste physiology of desert rodents.
- O'Connell, Robert J., Ph.D., Rockefeller University, New York, N.Y. 10021. Continuing investigation of quality coding in olfactory receptors. Current: Temporal analysis of unitary discharges and responses to mixtures of odors.
- Pangborn, Rose Marie, M.S., Food Science, University of California, Davis, CA 95616. Psychophysics. Sensory analysis of foods, beverages. Influence of sensory stimuli on human parotid secretion. Cultural food patterns.
- Pfaffmann, Carl, Ph.D. Rockefeller University, New York, N.Y. 10021.
- Price, Steven, Ph.D., Dept. of Physiology, Medical College of Virginia, Richmond, Va., 23298. Taste receptor proteins. Molecular genetic approach to olfactory receptors.

- Rieke, Carl Kalman, Ph.D., Dept. of Anatomy, Hahnemann Med. College, 235 N. 15th ST., Philadelphia, Pa. 19102. Centrifugal regulation of olfaction. Avian olfactory system--structurally and functionally.
- Samanen, David W., M.S., Dept. Physiology, Michigan State University, E. Lansing, Mi. 48823. Peripheral whole nerve and single fiber electrophysiology, and TEM, SEM and light microscopy of the taste system of Necturus (mudpuppy).
- Sanchez, Thomas, B.A. Department of Zoology, University of Michigan, Ann Arbor, Mi. 48104. Functional morphology of insect chemoreceptors. Research underway.
- Schafer, Rollie, Ph.D., Department of Zoology, University of Michigan, Ann Arbor, Mi. 48104. Developmental neurobiology of pheromone receptors in insects; functional chemistry of odorant-acceptor site interaction. Research well along.
- Schiffman, Susan, Ph.D., c/o Dept. of Psychology, Duke University, Durham, N.C. 27706. Physico-chemical and psychological dimensions of taste and olfaction, employing psychophysical methods and multidimensional scaling methods for analysis; also interested in problems of neural coding.
- Seabrook, W. D., Ph.D., Dept. Biology, Univ. of New Brunswick, Fredericton, N.B. CANADA.
- Shallenberger, R. S., Ph.D., Cornell University, Geneva, N.Y. 14450. Deducing the stereochemistry of the initial interaction between a compound and receptor sites for taste and smell. Elucidation of the chemical basis of taste and odor.
- Slifer, Eleanor H., Ph.D., 308 Lismore Ave., Glenside, Pa. 19038. Fine structure of insect chemoreceptors. Results published for all major orders; work in progress on remaining orders.
- Smith, David V. Ph.D., Dept. Psychology, Box 3415, Univ. Sta., Univ. of Wyoming, Laramie, Wyo. 82071. Electrophysiological studies of the process of adaptation in rat chorda tympani nerve; use of cross adaptation procedures to investigate nature of taste quality coding in hamsters.
- Stone, Herbert, Ph.D., Stanford Res. Institute, 333 Ravenswood Ave., Menlo Park, CA 94025. Olfactometric techniques, odor perception, adaptation-recovery in man; taste-structure relationships also in man.
- Stuerckow, Brunhild, Ph.D., Dept. of Biology, Assoc. Prof., Northeastern University, Boston, Ma. 02115. Resistance measurements of taste hair tips of flies under different physiological and stimulative conditions.
- Thiessen, Delbert D., Ph.D., Dept. Psychology, University of Texas, Austin, TEX 78712. Hormonal, brain and social control of territorial scent marking in the Mongolian gerbil.
- Tucker, Don., Ph.D., Biol Sci. Unit I, Florida State University, Tallahassee, Fla. 32306.
- Turk, Amos, Ph.D., Dept. of Chemistry, The City College, N.Y., N.Y. 10031. Studies of gas and vapor dilution; applications of gas tracing.

- Wang, Michael, Ph.D., Temple University School of Medicine, Philadelphia, PA 19140.
Single and multiple papilla stimulation. Recording from single chorda tympani fibers. Study of interaction between stimuli presented in combinations.
- Weiffenbach, James M., Ph.D., NIH Bldg., 10 Rm. 5N210, Bethesda, Maryland 20014.
Lingual sensitivity of the neonate human to tastants evaluated by reflex tongue movements. Glucose solution - water discrimination complete other tastant discriminations in progress.
- Wenzel, Bernice M., Ph.D., Dept. of Physiology, School of Medicine, University of California, Los Angeles, CA 90024. Mapping olfactory pathway in pigeon by electrophysiological and neuroanatomical methods; bulbar outflow almost completed. Limbic functions of olfactory system; in progress.
- Wright, R. H., Ph.D., D.Sc., 6822 Blenheim St., Vancouver, Canada, V6N 1R7. Consulting ophthalmologist, specializing in the molecular basis of olfactory specificity, and development of selectively effective insect attractants, anti-attractants and repellents.
- Yahr, Pauline Ph.D., Dept. of Psychobiology, University of California, Irvine, CA 92664.
Studies of mammalian social behavior influenced by olfactory signals emphasizing hormonal control of pheromone production and of responses odors elicit.
- Zalewski, Andrew A., M.D. NIH, Bethesda, Md. 20014. Development of taste receptors. Immunology.