

John G. Hildebrand

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 Spouse: Gail D. Burd, Ph.D.

Education

- 1964 A.B. Harvard University (Biology – mentors: John Law & Konrad Bloch)
- 1966 Harvard Medical School, summer training program in general pathology
- 1969 Ph.D. Rockefeller University (Biochemistry – mentors: Leonard Spector & Fritz Lipmann)
- 1969-71 Postdoctoral Fellow, Harvard Medical School, Department of Neurobiology
(mentor: Edward Kravitz)
- 1977 Cold Spring Harbor Laboratory course, Methods in Cellular Neurophysiology
- 1993 DNA Methods Course, University of Arizona Division of Biotechnology

Employment**Present Positions**

- 2014-now Foreign Secretary, U.S. National Academy of Sciences
- 2010-now Honors Professor, University of Arizona
- 1989-now Regents Professor, University of Arizona
- 1985-now Professor of Neuroscience, Chemistry & Biochemistry, Ecology & Evolutionary Biology, Entomology, and Molecular & Cellular Biology, University of Arizona

Previous Positions

- 2009-13 founding Head, Dept. of Neuroscience (formerly ARL Div. Neurobiology), Univ. of Arizona
- 2010-12 Chairman, Executive Committee, UA School of Mind, Brain and Behavior
- 1986-97 Chairman, UA Committee on Neuroscience, University of Arizona
- 1985-2009 founding Director, Arizona Research Laboratories Division of Neurobiology, Univ. of Arizona
- 1981-86 Adjunct Professor, Rockefeller University
- 1980-85 Professor of Biological Sciences, Columbia University
- 1980-81 Visiting Professor of Neurobiology, Harvard Medical School
- 1980-97 Associate in Behavioral Biology, Museum of Comparative Zoology, Harvard University
- 1977-80 Associate Professor of Neurobiology, Harvard Medical School
- 1972-77 Assistant Professor of Neurobiology, Harvard Medical School
- 1970-80 Tutor in Biochemical Sciences, Department of Biochemistry and Molecular Biology and Eliot House, Harvard University
- 1970-71 Instructor in Neurobiology, Harvard Medical School

Honors**Academies and Learned Societies**

- 2014 Elected Member, American Philosophical Society
- 2011 Elected Foreign Member, Royal Norwegian Society of Sciences and Letters Academy (Trondheim)
- 2007 Elected Member, U.S. National Academy of Sciences
- 2001 Elected Fellow, American Academy of Arts and Sciences
- 1999 Elected Foreign Member, Norwegian Academy of Science and Letters (Oslo)
- 1998 Elected Member, German National Academy of Sciences ‘Leopoldina’

Honorary Degree

- 2000 *Laurea honoris causa*, Università degli Studi di Cagliari, Italy

Awards, Prizes, and Other Honors

- 2016 Wigglesworth Memorial Award, Royal Entomological Society, London
- 2015 Nu Rho Psi, the National Honor Society in Neuroscience (elected faculty member)
- 2014 Galileo Circle Fellow, University of Arizona College of Science
- 2013 University of Arizona Graduate Interdisciplinary Programs Honored Faculty Award
- 2012 Fellow, International Society for Neuroethology
- 2012 Honorary Fellow, Royal Entomological Society of London
- 2012 AChemS Max Mozell Award for Outstanding Achievement in the Chemical Senses
- 2011 Westlake Friendship Award (“the highest award given to foreign experts by the government of Zhejiang Province,” People’s Republic of China)
- 2009 Honorary Professor, Wenzhou Medical College, Wenzhou, Zhejiang, P.R. China
- 2008 Fellow, Entomological Society of America
- 2008 Einstein Professorship, Chinese Academy of Sciences, P.R. China
- 2006 Lifetime Achievement Award, Am. Psychol. Assoc., Diversity Program in Neuroscience
- 2006 Outstanding Service Award for Contributions to the Biological Sciences, AIBS
- 2006 Henry and Phyllis Koffler Prize for Research/Scholarship/Creative Activity, Univ. of Arizona
- 2006 Silver Medal, International Society of Chemical Ecology (ISCE’s highest award)
- 2005 Manheimer Award, Monell Chemical Senses Center, Philadelphia, PA
- 2000 University of Arizona Mortar Board National Senior Honor Society Faculty Award
- 1997 Humboldt Research Award, Alexander von Humboldt-Stiftung, Germany
- 1997 IFF Award for Innovative Research in the Chemoreception Sciences
- 1997 Founders Memorial Award, Entomological Society of America
- 1991 Wellcome Visiting Professorship, Meharry Medical College, Nashville, TN
- 1990 Max Planck Research Award of the Max-Planck-Gesellschaft & A. von Humboldt-Stiftung
- 1990 R.H. Wright Award in Olfactory Research
- 1989 Awarded Regents Professorship, University of Arizona
- 1986 Elected Fellow, American Association for the Advancement of Science (AAAS)
- 1986 MERIT Award, NIAID, NIH
- 1986 Javits Neuroscience Award, NINCDS, NIH (later changed to Pepper Award, NIDCD)
- 1984 Elected Fellow, Royal Entomological Society (London)
- 1973-77 Alfred P. Sloan Foundation Postdoctoral Research Fellowship
- 1972-77 Established Investigatorship of the American Heart Association
- 1969-72 Helen Hay Whitney Foundation Postdoctoral Research Fellowship
- 1967 Elected to Sigma Xi, Rockefeller University
- 1964 Elected to Phi Beta Kappa, Harvard College
- 1964 A.B. *Magna cum laude*, Harvard College

Honorific Lectureships

- 2017 James C. Smith Lecturer, Florida State University, Tallahassee, FL
- 2016 Wigglesworth Memorial Lecturer of the Royal Entomological Society, International Congress of Entomology, Orlando, Florida
- 2014-16 Sigma Xi Distinguished Lecturer
- 2012 Distinguished Lecturer, Max-Planck-Institut für Neurobiologie, Munich (Martinsried), Germany
- 2012 Lawrence Gilbert Distinguished Lecturer, Univ. of North Carolina
- 2012 2012 Walter F. Heiligenberg Lecturer, Univ. California-San Diego
- 2011 First Hector Maldonado Memorial Lecturer, Argentinian Society for Neuroscience (SAN)
- 2011 Siemens Stiftung Lecturer, Munich, Germany
- 2009-10 Phi Beta Kappa Visiting Scholar
- 2009 Martinez-Townsel Lecturer, Marine Biological Laboratory, Woods Hole, MA
- 2008 Charles Doane Lecturer, University of Wisconsin, Madison, Dept. of Entomology
- 2008 Grass Foundation Lecturer, South East Nerve Net annual meeting, Atlanta
- 2007 Ernst Florey Lecture, International Society for Invertebrate Neurobiology, Hungary
- 2007 Neuroscience Distinguished Lecturer, Colby College, Waterville, ME
- 2007 Edward A. Kravitz Lecturer, Marine Biological Laboratory, Woods Hole, MA

- 2006 Silver Medal Lecture, International Society of Chemical Ecology
 2005 Mastertaste-Manheimer Lecturer, Monell Chemical Senses Center, Philadelphia
 2004 Cajal Lecturer, Cajal Institute, Madrid, Spain
 2003 Bobby Pass Student Choice Speaker, Dept. of Entomology, University of Kentucky
 2003 Padykula Lecturer, Wellesley College, Wellesley, MA
 2003 Class of 1960 Neuroscience Scholar Lecturer, Williams College, Williamstown, MA
 2002 Grandpierre Memorial Lecturer, Dept. of Chemistry, Columbia University
 2001 Alfred M. Boyce Lecturer, University of California - Riverside
 1999 Grass Foundation Lecturer, Eastern Nerve Net annual meeting, Woods Hole, MA
 1998 Grass Foundation Lecturer, Halifax, NS, Chapter, Society for Neuroscience
 1995 Felix Santschi Lecturer, Universität Zürich, Switzerland
 1995 Kenneth D. Roeder Memorial Lecturer, Tufts University
 1995 King Solomon Lecturer, Hebrew University, Jerusalem
 1992 Jan de Wilde Memorial Lecturer, University of Wageningen, Netherlands
 1992 Distinguished Lecturer, Boyce Thompson Institute, Cornell University
 1991 D.T. Rolf Lecturer, Meharry Medical College, Nashville, TN
 1990 Spencer Memorial Lecturer, University of British Columbia
 1988 Grass Foundation Lecturer, Central Illinois Chapter, Society for Neuroscience
 1986 Ralph W. Gerard Lecturer in Neurosciences, University of California – Irvine
 1985 Givaudan Lecturer, Association for Chemoreception Sciences
 1985 Lang Lecturer, Marine Biological Laboratory, Woods Hole, MA

Memberships in Professional Scientific Societies

- American Association for the Advancement of Science (AAAS, Fellow)
 American Chemical Society (recognized for more than 50 years of membership)
 American Institute of Biological Sciences (AIBS)
 American Physiological Society
 American Society for Biochemistry and Molecular Biology
 Animal Behavior Society
 Association for Chemoreception Sciences (AChemS; past President)
 Entomological Society of America (Fellow)
 European Chemoreception Research Organization (ECRO)
 Faculty for Undergraduate Neuroscience (FUN)
 International Brain Research Organization (IBRO)
 International Society of Chemical Ecology (past President)
 International Society for Neuroethology (Fellow; past President)
 New York Academy of Sciences
 Royal Entomological Society (UK, Fellow; awarded Honorary Fellowship in 2012)
 Society for Integrative and Comparative Biology (SICB)
 Society for Neuroscience (past Treasurer)

Other Professional Positions and Service

Academies and Learned Societies [NOTE: "NASEM" refers to the National Academies of Sciences, Engineering and Medicine, formerly NRC]

- 2017-now member, NAS Campaign Planning Group
 2017-now member, Patrick Suppes Prize Selection Committee in Psychology, American Philosophical Society
 2015-now chair, Oversight Committee for the NASEM Arab-American Frontiers in Science, Engineering, and Medicine
 2014-now member, Class II Committee, American Philosophical Society
 2014-now member, Lashley Prize Committee, American Philosophical Society
 2014-now ex-officio member, NASEM Committee on Human Rights
 2014-now ex-officio member, NASEM Committee for Division of Earth and Life Studies
 2014-now ex-officio member, NASEM Committee for Division of Policy and Global Affairs

2014-now ex-officio member, NAS Committee on International Security and Arms Control
 2014-now member, NASEM Board on International Scientific Organizations
 2014-now elected Foreign Secretary, National Academy of Sciences
 2013-now member, NASEM Committee on Science, Engineering, Medicine & Public Policy (COSEMPUP)
 2013-now ex-officio member, NASEM Board on Life Sciences
 2013-now American Academy of Arts & Sciences Affiliate representative to the AAAS
 2013-now member, NAS Committee on Publications
 2012-14 elected member, NAS Council
 2011-14 member, NAS Temporary Nominating Group (Class VI)
 2009-now NAS representative to IBRO Governing Council
 2008 member, NAS Nominating Committee
 2004-10 co-chair, Committee on Science in the Liberal Arts Curriculum, Am. Acad. Arts & Sciences
 2003-now member, Committee on Studies & Publications, American Academy of Arts & Sciences
 1991 member, National Academy of Sciences Advisory Panel for *The Infinite Voyage*
 1984-85 invited workshop participant, NAS Committee on Models in Biomedical Research

Scientific Societies, Agencies, etc.

2016 Co-Organizer and Co-Chair, Vector Biology Session, 2016 World Life Science Conference of the China Association of Science & Technology (CAST), Beijing
 2014-now Chair, Nominating Committee, IBRO
 2013-14 member, Program Committee, Annual Meeting, International Society of Chemical Ecology
 2013-14 Co-Chair, Academic Committee, Tenth Conference of the Chinese Assoc. of Chem. Ecology
 2013-18 member, Society for Neuroscience Finance Committee
 2010-14 Soc. for Neuroscience representative to the FENS-IBRO Neuroscience Schools Committee
 2008-now member, US/Canada Regional Committee of IBRO
 2007-12 Councilor, International Society for Neuroethology
 2005-10 Chairman, Membership Committee, International Society for Neuroethology
 2004-06 Education Committee, International Society for Neuroethology
 2004-05 Chairman, Section on Neuroscience, AAAS (Chairman-Elect, 2003-04)
 2002-09 member, International Affairs Committee, Society for Neuroscience (also the US/Canada Regional Committee of IBRO)
 2002-03 President, Association for Chemoreception Sciences (AChemS)
 2001-10 Chairman, Board of Schools, International Brain Research Organization (IBRO)
 1999-2002 member, Council of the Gordon Research Conferences
 1998-99 Chairman, Electorate Nominating Committee, AAAS Section on Neuroscience
 1998-2001 member, Social Issues Committee, Society for Neuroscience
 1998-99 President, International Society of Chemical Ecology (Vice President, 1997-98)
 1998 member, Gerard Prize Selection Committee, Society for Neuroscience
 1997-99 Founding Chairman, Gordon Research Conference on Neuroethology (Oxford, 1999)
 1995-98 President, International Society for Neuroethology (Past-President, 1998-2001)
 1995-98 Member-at-Large, Neuroscience Section Steering Group, AAAS
 1995 Organizer and Chairman, Ciba Foundation/WHO Symposium on Mosquito Olfaction
 1993-97 member, Publications Committee, Society for Neuroscience
 1993-now member, Dana Alliance for Brain Initiatives, Dana Foundation
 1993-95 Councilor, Association for Chemoreception Sciences
 1993-98 Chair, Committee on Developing Countries, Assoc. of Neurosci. Depts. & Programs
 1992-94 Treasurer-Elect (1992-93) and Treasurer (1993-94), Society for Neuroscience
 1992-93 Chair, International Brain Research Organization Committee on Developing Countries
 1991-99 Councilor, International Society for Invertebrate Neurobiology
 1990-92 Chair, International Program Committee, 3rd International Congress of Neuroethology
 1990-93 member, Government and Public Affairs Committee, Society for Neuroscience
 1990-2009 member, Advisory Committee, APA/ANDP/NIMH Diversity Program in Neuroscience
 1989-90 member, Selection Committee, Young Investigator Award, Society for Neuroscience
 1989 member, Prize Committee, International Society for Neuroethology

1989-92 member, Steering Committee, Complex Systems Summer School, Santa Fe Institute
 1988-89 President, Association of Neuroscience Departments and Programs (ANDP)
 1988-89 member, International Program Committee, 2nd International Congress of Neuroethology
 1987-90 Chairman, Membership Committee, Society for Neuroscience
 1986-87 member, Program Committee, Association for Chemoreception Sciences
 1986-88 member, Program Committee, American Society for Neurochemistry
 1982-83 Chairman, Program Committee, Society for Neuroscience
 1979-80 member, Nominating Committee, Society for Neuroscience
 1978-81 member, Program Committee, Society for Neuroscience

Editorial Boards

2006-10 *TheScientificWorld Journal*
 2003-05 *Neuroscience Letters*
 2001-16 *Journal of Chemical Ecology*
 2000-14 *Journal of Insect Science*
 1997-2013 *Chemoecology*
 1994-now *Invertebrate Neuroscience*
 1990-now *Journal of Comparative Physiology A*
 1989-95 *Journal of Comparative Neurology*
 1989-92, '96-03 *Journal of Neurophysiology*
 1988-89 *Journal of Experimental Biology*
 1986-93 *Journal of Insect Behavior*
 1983-94 *International Journal of Insect Morphology and Embryology*
 1983-90 *Archives of Insect Biochemistry and Physiology*
 1983-2013 *Quarterly Review of Biology*
 1981-89 *Journal of Neurochemistry*
 1981-91 *Trends in Neurosciences*
 1981-91 *Annual Review of Neuroscience*
 1981-84 *Neuroscience Commentaries* (Editor)
 1980-88 *Journal of Neuroscience* (Section Editor, Developmental Neuroscience, 1983-88)
 1977-90 *Insect Biochemistry*

Federal Government Agencies

2009-12 member, Alan T. Waterman Award Selection Committee, NSF
 2007 member, Workshop on Neuroscience and the Physical Sciences, NSF
 1995-96 Co-Chairman, Special Committee to Review Training Programs, NINDS-NIH
 1994 Chairman, Program Project Site Visit Team, Morehouse Medical School, NINDS
 1992 member, Invertebrate Zoology Task Group, NSF
 1989-91 Chairman, Advisory Committee for Biological, Behavioral & Social Sciences, NSF
 1989 member, Oversight Review Committee, Div. of Behavioral & Neural Sciences, NSF
 1986-88 member, Committee on Recommendations for U.S. Army Basic Scientific Research
 1983 member, Neuroscience Workshop, Office of Technology Assessment, U.S. Congress
 1983 member, Neurobiology Program Review Committee, NSF
 1974-77 member, Advisory Panel for Neurobiology, NSF

Foundations

2005-06 member, Presidential Advisory Panel for Research, The Research Corporation
 2001-07 Trustee, Grass Foundation
 1992-10 member, Prize Selection Committee, Capranica Foundation (Chair every third year)
 1985 Overseer for Grass Fellows Program, Grass Foundation
 1984-2016 Consultant, Sherman Fairchild Foundation

Industry

1989, 1993 Consultant, Merck Research Laboratories

1984-91 Consultant, Monsanto Company
 1982 Consultant, DuPont Corporation

Institutional Service and Administration

University of Arizona

2018 member, Search Committee for horn instructor, School of Music
 2015 member, Search Committee for low-brass instructor, School of Music
 2013-15 member, Advisory Board of the School of Mind, Brain and Behavior
 2012-now member, Graduate and Professional Student Council Advisory Council
 2011-12 member, Advisory Council for the UofA Presidential search
 2011-13 member, Dean's Board of Advisors, UofA College of Science
 2010-11 member, Search Committee for Dean, College of Agriculture and Life Sciences
 2010-14 member, Research Policy Committee
 2009-11 member, Executive Committee, Grad. Interdisc. Prog. in Entomology & Insect Science
 2009-13 member, Executive Committee, School of Mind, Brain, and Behavior (Chair, 2010-12)
 2008-09 member, planning team for School of Mind, Brain, and Behavior
 2008 member, Academic Program Review Committee for Department of Neurology
 2008-11 member, University of Arizona Strategic Advancement Committee
 2007-09 member, University of Arizona Science Center Task Force
 2007-13 member, B2 Institute Steering Committee, College of Science
 2005 member, search committee for Director of Development, UAPresents
 2004-05 member, General Education Review Committee
 2004 member, Academic Program Review Self-Study Team, GIDP in Insect Science
 2004 member, Faculty Senate committee to review School of Planning
 2002-06 co-founder and member, Regents Professors' Focused Excellence Task Force
 2001-02 Co-Chair, Organizing Committee, 4th Internat. Symposium on Molecular Insect Science
 2000-now elected member, Committee of Eleven (University faculty governance committee)
 1998-99 member, Team on Research for University of Arizona NCA Re-Accreditation
 1998-2012 member, Coordinating Committee, Program for Academic Leadership
 1998-99, '01-03 elected member, Graduate Interdisciplinary Programs Advisory Council
 1997-2003 member, Graduate Student Admission & Recruitment Committee, Graduate Interdisciplinary Program in Neuroscience (chairman 1997-2000)
 1997-98 Co-Chair, Organizing Committee, 3rd Internat. Symposium on Molecular Insect Science
 1997-2002 member, Sponsored Projects Services Users Group
 1997-2001 member, Executive Committee, Interdisciplinary Research Training Group on Plant-Insect Interactions
 1996-now Faculty Representative to the Federal Demonstration Partnership
 1996-now Regents Professorship Advisory Committee (chairman 1999-present)
 1994 member, Provost's Planning Group for Undergraduate Core Curriculum Development
 1994-09 member, faculty of the Graduate Interdisciplinary Program (GIDP) in Insect Science
 1993 member, Selection Committee, Dept. Awards for Outstanding Achievement in Undergraduate Education
 1993-94 member, Search Committee for Head, Department of Physics
 1991-92 member, Task Force on Undergraduate Education
 1991-93 member, faculty of the Graduate Interdisciplinary Program in Physiological Sciences
 1991-92 member, University Relations Advisory Board
 1991-96 member, Advisory Board, Institute for Neurogenic Communication Disorders
 1990-91 member, Search Committee for President
 1990-94, 2000- elected Faculty Senator
 1990-92 member, Laboratory Safety Committee
 1990 member, Special Committee on Faculty Participation in University Governance
 1989-92 member, International Programs Advisory Committee
 1989 Chairman, Search Committee for Director, Center for Insect Science
 1989 Vice Chairman, Search Advisory Committee for Provost

1989-2006 member, Advisory Committee for Vice President for Research
 1989-92 member, University Research Collections and Systematics Committees
 1988 member, Search Advisory Committee for Vice President for Research
 1988 member, Internal Review Committee, Department of Speech & Hearing Sciences
 1987 member, Committee to Review Graduate Programs in the Biological Sciences
 1986-87 Chairman, Search Committee for Head for Dept. of Microbiology & Immunology
 1986-91 member, Executive Committee, Center for Complex Systems
 1986-now member, Executive Committee, & Co-Founder, Center for Insect Science
 1986-2000 member, Committee of Biological Sciences Department Heads (Chairman, 1987-88)
 1986-2003 member, Executive Committee, Committee on Neuroscience
 1986-97 Founding Chairman, University Committee on Neuroscience

Marine Biological Laboratory, Woods Hole

2012 Chairman, Review Committee for the Whitman Center
 2004 Scholar-in-Residence, Neural Systems & Behavior Course
 1996-now Instructor in Summer Program in Neuroscience, Excellence and Success (SPINES)
 1989 member, Committee to Review Gray Museum
 1986-87 member, Search Committee for Director
 1986-87 member, Committee on Laboratory Goals
 1984-89 member, Instruction Committee
 1984-85 member, Ad Hoc Housing Committee
 1984 member, Decennial Review Committee
 1983-88 member, Research Services Committee
 1981-89, 1993 elected member, Board of Trustees (Executive Committee, 1981-88)
 1980-84 Co-Director, Summer Neurobiology Course
 1980-2013 member of the Corporation (since 2013, the MBL Society)

Columbia University

1983-85 Chairman, Graduate Studies Committee, Dept. of Biological Sciences
 1983-84 member, Provost's Task Force on Scientific Research
 1982-83 member, Executive Committee, Graduate School of Arts and Sciences
 1982-83 member, Psychiatry Chair Search Committee
 1981-85 member, Horwitz Prize Committee
 1980-85 member, Biology Appointments and Promotions Committee
 1980-85 Chairman, Biology Library Committee
 1980-83 Chairman, Neurobiology Search Committee

Harvard University

2005-06 Advisory Committee, Center for Brain Science
 1992-95 Advisory Comm., NINDS Program Project Grant (E. Kravitz, PI), Dept. of Neurobiology
 1977-80 member, Committee on Cell and Developmental Biology
 1972-80 Chairman, Library Committee, Department of Neurobiology

Rockefeller University

1996 Chairman, Committee on the Future of the Field Research Center
 1983-84 Co-Chairman, Graduate Program 25th Anniversary Committee
 1970-73 member, Board of Trustees (Alumnus Trustee)

Other Institutions (including State and Foreign Governments)

2014 member, Program Review team, Keck Center, North Carolina State University
 2014 member, Site Visit Team, UCLA Dept. of Integrative Biology & Physiology
 2012 member, Academic Program Review Panel, Dept. of Biology, U. Maryland
 2010-14 member, External Advisory Committee, Institute of Neurobiology, U. Puerto Rico
 2009 member, Selection Committee for 25th International Prize for Biology, JSPS, Japan

- 2006 member, Review Committee for the Biological Intelligence Main Research Theme of the Beckman Institute, University of Illinois at Champaign/Urbana
- 2006 member, Academic Program Review Panel, Dept. of Biology, Georgia State Univ.
- 2004-14 member, External Advisory Committee, State of Maine NIH IDEa Network of Biomedical Research Excellence
- 2001 consultant on interdisciplinary programs, East Carolina University, NC
- 2000-08 member, External Advisory Committee, Meharry Medical College, Center for Molecular and Behavioral Neuroscience and NINDS-sponsored Specialized Neuroscience Research Program
- 2000-08 member, External Advisory Committee, NIMH R25 Grant, Meharry Medical College
- 2000-04 member, External Advisory Committee, University of Puerto Rico's NIH-supported Center of Biomedical Research Excellence
- 2000 Chairman, External Review Committee, RIKEN Brain Science Institute, Japan
- 1999 Chairman, External Review Committee, Sec. of Neurobiol & Behavior, Cornell Univ.
- 1998 member, External Review Committee, Dept. of Biology, Univ. of Virginia
- 1997 member, External Review Committee, Ph.D. Program in Neurosciences, UCSD
- 1997 member, External Advisory Committee, School of Integrative Biology, Univ. of Illinois
- 1996-2007 member, Consiglio Scientifico, Stazione Zoologica, Naples, Italy
- 1996-99 member, External Advisory Committee, MBRS Program, Meharry Medical College
- 1996 External Reviewer for Life Sciences Consortium, Pennsylvania State University
- 1995-98 member, Fachbeirat, Max-Planck-Institut für Verhaltensphysiologie, Seewiesen
- 1995 member, Organizing Committee, 1995 Workshop, Krasnow Institute for Advanced Study, George Mason University
- 1994 reviewer, graduate programs, School of Biol. Sci., Univ. of California-Irvine
- 1993-94 SERC Invertebrate Neuroscience Initiative Review Panel, UK
- 1993 external reviewer for Doctoral Program in Neuroscience, SUNY-Syracuse
- 1993-95 RCMI External Advisory Committee, Meharry Medical College, Nashville, TN
- 1992-99 member, Steering Committee, Sussex Centre for Neuroscience, Univ. of Sussex, UK
- 1992 reviewer for Doctoral Program in Neuroscience, University of Miami
- 1990-95,
- 2007-12 member, Scientific Advisory Board, Whitney Marine Laboratory, Univ. of Florida
- 1989 Chairman, Biological Sciences Panel, Texas Advanced Technology/Advanced Research Program, Texas Higher Education Coordinating Board
- 1981-86 member, Yale University Council Committee on Sciences – Biological

Activities Outside Academe and Science (Community Service, etc.)

- 2013-now member, Community Advisory Board, Arizona Public Media
- 2013-now elected member, Cosmos Club (Washington DC)
- 2012-14 volunteer science teacher, J.B. Wright Elementary School, Tucson Unified School District
- 2012-14 member, Ambassadors of the Arizona Friends of Chamber Music
- 2005-now member, Program Committee, UAPresents (performing arts presenting organization)
- 2003-05,
- 2014-15 member, search committee for Director, UAPresents
- 2003-10,
- 2012-14
- 2016-now member, Advisory Board, UAPresents
- 1990-now occasional speaker at local alumni clubs, retirement communities, school groups, etc.

Activities in Education

Extramural

- 2012 faculty member, FENS-SfN-IBRO Bertinoro School on Chemical Senses, Bertinoro, Italy
- 2011 Co-Director, Second IBRO-Kemali Neuroscience School, Stazione Zoologica, Naples
- 2009 faculty member, IBRO Neuroscience School, Instituto Estable, Montevideo, Uruguay
- 2007 faculty member, IBRO Latino American School of Neuroethology, Buenos Aires
- 2003 faculty member, IBRO Neuroscience School, Instituto Estable, Montevideo, Uruguay

- 2002 faculty member, School and Conference on Chemical Senses: Molecules to Perception, Abdus Salam International Centre for Theoretical Physics, Trieste, Italy
- 2002 faculty member, International Course on Experimental Approaches in Neuroethology, University of Chile, Santiago and Valparaiso

University of Arizona

- 2012-14 co-instructor (1 of several), NRSC 560, 'Systems Neuroscience'
- 2012-14 co-instructor (1 of 2), Neuroscience (NROS) 307, 'Cellular Neurophysiology'
- 2011-now co-instructor (1 of 2), HNRS 195I, 'Biomedical Ethics, Health Policy and Society'
- 2011-16 occasional lecturer on chemical senses for Neurosurgery Residents
- 2010 co-instructor (1 of 2), HNRS 195I-004, 'The Brain—the Organ that Makes Us Human'
- 2008-10 co-instructor (1 of 4), Integrated Science 195A
- 1998-2000 &
2004-11 co-instructor, Neuroscience (NRSC) 589, 'Principles of Systems Neurobiology'
- 1992-97 course instructor, Neuroscience (NRSC) 195H, Honors First-Year Colloquium, 'The Brain'
- 1992-2011 instructor (1 of 2), MCB (also BIOC and NRSC) 407 (formerly 461), 'Neurobiology'
- 1988-90 instructor (1 of 3), NRSC (also BIOC, MCB, and PSIO) 588, 'Principles of Cellular and Molecular Neurobiology'
- 1989-91 instructor (1 of 3), NRSC 701, 'Communication in Neuroscience'
- 1986-97 Chairman, Committee on Neuroscience & Founding Director, Graduate Interdisciplinary Program in Neuroscience

Postdoctoral Research Associates

- Rella Abernathy, Ph.D. (1995-96) [co-advisor: Dr. Elizabeth Bernays], UA Plant-Insect Group Postdoctoral Fellowship, *currently Integrated Pest Management Coordinator, City of Boulder CO*
- Rachel Bober, Ph.D. (2011-12), Vaadia-BARD Postdoctoral Fellow (Israel), *currently an officer of the Science and Technology Youth Center in the The Center for Pre-University Education at the Technion Institute of Technology*
- Thomas A. Christensen, Ph.D. (1983-87), *retired*
- Cécile Faucher, Ph.D. (2011-13), *currently working for Thermo-Fisher Scientific in Germany*
- Ann Fraser, Ph.D. (1998-2001), fellow, UA/NSF Plant-Insect Group Training Program, *currently Associate Professor, Kalamazoo College, Michigan*
- Nicholas J. Gibson, Ph.D. (1995-2006) [co-advisor: Dr. L.P. Tolbert], *retired*
- Corinna (Thom) Gilley, Ph.D. (2002-05) Deutsche Akademische Austauschdienst Fellow & Feodor Lynen Fellow of the A. von Humboldt Stiftung, *currently science writer & editor, New Jersey*
- John R. (Jack) Gray, Ph.D. (1999-2001) [co-advisor: Dr. M.A. Willis], *currently Assoc. Prof. of Biology and Vice-Dean Research, Scholarly and Artistic Work, University of Saskatchewan*
- Pablo G. Guerenstein, Ph.D. (1999-2008), *currently Adjunct Investigator, National Research Council (CONICET, CICyTTP), Diamante, Entre Rios, Argentina*
- Susannah Hannaford, Ph.D. (1993-94) [co-advisor: Dr. T.A. Christensen], *currently Professor of Biology, University of Puget Sound*
- Eric Hanneman, Ph.D. (1988-90), American Cancer Society Postdoctoral Fellow, *currently research staff, Cooperative Institute for Marine Resources Studies, Oregon State University*
- Bill S. Hansson, Ph.D. (1989-90), Swedish government fellowship, *currently Director, Max-Planck-Institut für Chemische Oekologie, Jena, Germany, and Vice President of the Max-Planck Gesellschaft*
- Jon H. Hayashi, Ph.D. (1986-90), NIH Postdoctoral Fellow, *currently faculty member, Paradise Valley Community College, Phoenix AZ; formerly Research Scientist, FMC, New Jersey*

- Akira Hishinuma, M.D., Ph.D. (1986-87), *currently Professor, Dept. of Infection Control and Clinical Laboratory Medicine, Dokkyo University School of Medicine, Japan*
- Uwe Homberg, Ph.D. (1984-88), Deutsche Forschungsgemeinschaft fellow, *currently Professor Emeritus of Zoology, Universität Marburg, Germany*
- Haruhiko Itagaki, Ph.D. (1986-90), NIH Postdoctoral Fellow 1987-90, *currently Professor of Biology, Kenyon College, Ohio*
- Nicole Kalberer, Ph.D. (2000-01), holder of a Swiss postdoctoral fellowship, *currently Research Associate, Zool. Institute, Univ. of Basel, Switzerland*
- Ryohei Kanzaki, Ph.D. (1987-90) [co-advisor: Dr. E.A. Arbas], *currently Professor, Graduate School of Information Science & Technology, University of Tokyo,*
- Jane Roche King, Ph.D. (1996-2001), *currently science writer & editor*
- Peter Kloppenburg, Ph.D. (1991-96), Deutsche Forschungsgemeinschaft fellow, *currently Professor of Animal Physiology, Zoologisches Institut, Universität zu Köln, Germany*
- Herman K. Lehman, Ph.D. (1988-93), *currently Professor of Biology, Hamilton College, Clinton, NY*
- Hong Lei, Ph.D. (1999-2004), *currently Assoc. Research Prof., School of Life Sciences, Arizona State University, Tempe*
- Wendy L. Mechaber, Ph.D. (1995-2003), *currently independently employed, Sherborn, MA*
- Robert F. Mitchell, Ph.D. (2012-15) Univ. of AZ Center for Insect Science PERT Fellow, *currently Assistant Professor of Biology, Univ. of Wisconsin-Oshkosh*
- Alan Nighorn, Ph.D. (1993-98), [co-advisor until 1997: Dr. David B. Morton], NIH Training Grant Postdoctoral Fellow, *currently Distinguished Professor & Head, Dept. of Neuroscience, University of Arizona*
- Mark G. Novak, Ph.D. (1992-94) [co-advisor: Dr. J. Ribeiro], UA Center for Insect Science Postdoctoral Fellow, *currently Supervising Public Health Biologist, Vector-Borne Disease Section (Northern Region), California Dept. of Health Services, Elk Grove, CA*
- Robert A. Raguso, Ph.D. (1995-97) [co-advisor: Dr. Mark A. Willis], trainee on the Center for Insect Science NIH Training Grant, *currently Professor, Dept. of Neurobiology & Behavior, Cornell University*
- Carolina E. Reisenman, Ph.D. (2001-07) Pew Latin American Scholar, *currently Associate Researcher, Dept. of MCB, Univ. of California, Berkeley*
- Jeffrey A. Riffell, Ph.D. (2004-10) Univ. of AZ Center for Insect Science PERT Fellow, *currently Associate Professor of Biology, Univ. of Washington*
- Wolfgang Rössler, Dr. rer. nat. (1995-99) [co-advisor: Dr. L.P. Tolbert], Deutsche Forschungsgemeinschaft fellow, *currently Professor, Biocenter, University of Würzburg, Germany*
- Vonnie D.C. Shields, Ph.D. (1995-2000), *currently Professor of Biological Sciences, Towson University, Maryland*
- Sakiko Shiga, Ph.D. (1998-99) [co-advisor: Dr. N.T. Davis], *currently Professor of Biological Sciences, Osaka University, Japan*
- Brian H. Smith, Ph.D. (1988-90), NIMH Postdoctoral Fellow, *currently Professor, School of Life Sciences, Arizona State University, Tempe AZ*
- Jordanna Sprayberry, Ph.D. (2006-08) Univ. of Arizona Center for Insect Science PERT Fellow, *currently Associate Professor of Biology, Muhlenberg College, Allentown, PA*
- Xue Jun Sun, Ph.D. (1991-94) [co-advisor: Dr. L.P. Tolbert], Center for Insect Science Postdoctoral Fellow, *currently Staff Scientist, University of Alberta, Edmonton, Canada*
- Neil J. Vickers, Ph.D. (1995-98) [co-advisor: Dr. T.A. Christensen], *currently Professor of Biology, University of Utah*

- Brian R. Waldrop, Ph.D. (1984-87), *currently Director, College of Arts & Sciences Student Advisement and Services, University of Buffalo, NY*
- Mark A. Willis, Ph.D. (1998-2001), *currently Professor and Chair of Biology, Case Western Reserve Univ., Cleveland, OH*
- Fumio Yokohari, Ph.D. (1988-89) [co-advisor: Dr. L.P. Tolbert], *currently Professor, University of Fukuoka, Japan*

Graduate Students

- Aaron Beyerlein, M.S. in Entomology and Insect Science (M.S. conferred 2011), *currently R&D Specialist II at Bayer CropScience, Carrboro, North Carolina*
- Andrew Dacks, Ph.D. in Insect Science (Ph.D. conferred 2007) [co-advisor with Dr. T.A. Christensen], *currently Assistant Prof. of Biology, West Virginia U.*
- Thomas Heinbockel, Ph.D. in Neuroscience (Ph.D. conferred 1997), *currently Professor and Director of Graduate Studies, Dept. of Anatomy, Howard Univ. Coll. of Medicine, Washington, DC*
- Joshua P. Martin, Ph.D. Neuroscience (Ph.D. conferred 2012), *currently Assistant Prof. of Biology, Colby College, ME*
- Katja Selchow, Ph.D. in Neuroscience (Ph.D. conferred 1998), *currently an airline pilot*
- Kenneth A. Sorensen, Ph.D. in Molecular & Cellular Biology (Ph.D. conferred 1993), *currently Co-Founder & Director, American Stem Cell Corporation, Los Angeles, CA*
- Monika Stengl, Ph.D. in Molecular & Cellular Biology (Ph.D. conferred 1990), *currently Professor of Zoology, Universität Kassel, Germany*

Visiting Students

- Martin Brill (2009), Universität Würzburg, Germany
- Davide Dulcis (1999-2000) [co-advisor with Dr. N.T. Davis], Univ. of Cagliari, Italy
- Alex Eaton-Mordas (2005), Dept. of Ecology & Evolutionary Biol, Univ. of Arizona
- Edwin van der Jagt (1994-95) [co-advisor with Dr. N.T. Davis], University of Utrecht, The Netherlands (Dutch Gov. fellowship)
- Elizabeth Pasch (2008), Universität Würzburg, Germany
- Marco Rosales (2004-05), Pima Community College, Tucson, AZ
- Nadia Scascighini (2000), Swiss Federal Institute of Technology (ETH) Zürich
- Paolo Solari (1998), University of Cagliari, Italy
- Erich Staudacher (1991), Max-Planck-Institut für Verhaltensphysiologie, Germany
- Michiel van Wijk (1999), Agricultural University, Wageningen, The Netherlands
- Ning Zhang (2014), China Agricultural University, Beijing

Undergraduate Research Assistants [co-advisors: ¶Dr. T. Christensen, §Dr. N. Davis, °Dr. H. Lehman, †Dr. H. Lei, ‡Dr. W. Mechaber, ◆Dr. R. Mitchell, #Dr. A. Nighorn, ΔDr. C. Reisenman, ◇Dr. J. Riffell]

- ◆Arthur Abougou, Allison Agajanian, †Angelica Alvarez, †Arshed Al-Obeidi, ◆Lauren Amos, ◆Tiffany Bledsoe, †Nyssa Burdick, ‡Christopher Capaldo, †Hong-Yan (Vicki) Chiu, Dawn Clark, ◇Eleni Constantopoulos, ¶Christine Cuzzocrea, Engracia Dang, ΔBianca Demara, Charleston Dick, Erik Dillingham, ¶Sarah Dixon, ¶Dan Doty, Kristin Duffy, †Petimat Dudurkaeva, ‡Damian Elias, †Jessica Fletcher, ◇ΔAndrew Flores, °Zoe Forester, Robyn Forkos, Kim Frank, ¶Sabrina Geoffrion, ¶Nicole Giedinghagen, §Marianne Go, ◇ΔBreena Goodwin, §Tushara Gunatilaka, ‡Darien Hall, ‡Jennifer Hill, †JungMin Kim, #Eric Kennedy, Clint Kleppe, ‡Gina Kraft, †Laura Kulas, §George Lai, Emily Landeen, ¶Jason Lashbrook, ΔYan Mei Lee, #Dominique Leitner, Sara Lewis, Chris Ludwig, Jeff Ludwig, †Yessenia Magana, ‡Kristen McCoy, ◇ΔDavid Mikles, Cristina Murguic, Kayla Peck, ◇ΔAdrian Pesque, Anastasia Peterson, #David Rivers, †Aracely Romero, †Naghmeah Saghafi, Hetal Shah, †Bradley Shane, Stephen Shipman, †Yeeck Sim, Katie Skinner, ‡Tracey Smart, #Matt Stoker, #Sylvia Thompson, Andrew Tseng, ◇ΔMeredith Tuinstra, #Maggie Villamana, Andrew Waters, †Angela Wu, †Weijie Xiang, †Jinglei Zhang

High-School Research Assistant [co-advisor: ☼Dr. C. Faucher] ☼Monica Seng

Visiting Scientists

Rafael Cantera (1989-90), University of Stockholm, Sweden
 William Conner (2004), Wake Forest University, North Carolina
 Blanka Kalinova (1993), Czech Academy of Sciences, Prague
 Le Kang (2010), Chinese Academy of Sciences, Institute of Zoology, Beijing
 Alison Mercer (several periods during 1992-96), University of Otago, New Zealand
 B.K. Mitchell (1990, 1996), University of Alberta, Edmonton, Canada
 R. Alexander Steinbrecht (1994), Max-Planck-Institut f. Verhaltensphysiologie, Seewiesen
 Chenzhu Wang (2010), Chinese Academy of Sciences, Institute of Zoology, Beijing
 Yanxue Yu (2014), Chinese Academy of Plant Inspection and Quarantine, Beijing

Columbia University

1984 instructor, Biology G9007, Special Topics in Developmental Neurobiology
 1982-84 instructor, Biology G4006, Biochemistry of Nerve Cells
 1981-84 instructor, Biology G4004, Biology of Nerve Cells

Postdoctoral Fellows

Ian D. Harrow, Ph.D. (1981-84), *currently Founder, Director & Principal Consultant at Ian Harrow Consulting Ltd., UK*
 Sally G. Hoskins, Ph.D. (1982-85), *currently Professor of Biology, City College of New York*
 Timothy G. Kingan, Ph.D. (1980-83), *last known position: U.S. Patent and Trademark Office*

Graduate Student

Akira Hishinuma, M.D., Ph.D. (Ph.D. conferred 1986), *currently Professor, Dept. of Clinical Laboratory Medicine, Dokkyo University School of Medicine, Japan*

Undergraduate Research Students

Jeffrey E. Arle, Carla Cerami, Annemarie I. Coffman, Tristan Davies, Dennis Deltoro, Claire Kedeshian, William Korn, Robert Kovelman, Art Papier, Paul Quartararo

Harvard University

1979 course director and instructor, Biology 25, Neurobiology
 1977 instructor, Eliot 111, Senior Seminar in Developmental Neurobiology
 1976-80 instructor, Biology 126, Biochemistry of Nerve Cells (with E.A. Kravitz)
 1975-77 instructor, Biology 240, Invertebrate Behavior (with Bert Hölldobler)
 1973 co-instructor, Neurobiology 206, Physiology of Synaptic Transmission
 1971-73 lecturer in Neurobiology 210, Introductory Neurobiology
 1963-64 teaching Assistant in Natural Sciences 5 (General Biology)

Postdoctoral Fellows

Scott M. Camazine, M.D., Ph.D. (1978-79), *currently physician in private practice*
 Nikolai E. Klemm, Ph.D. (1978), *current position unknown*
 Steven G. Matsumoto, Ph.D. (1977-80), NIH Postdoctoral Fellow, *currently Associate Professor, Oregon Health & Science University*
 Gerald D. Maxwell, Ph.D. (1975-79), NIH Postdoctoral Fellow, *currently Professor Emeritus of Neuroscience, University of Connecticut Medical School*
 Margaret C. Nelson, Ph.D. (1975-79), *currently a free-lance writer and illustrator*
 David J. Prescott, Ph.D. (1974-75), *retired from faculty of Biology, Bryn Mawr College*
 Leslie P. Tolbert, Ph.D. (1978-81), NIH Postdoctoral Fellow, *currently Regents Professor of Neuroscience, Univ. of Arizona*

Graduate Students

Karla S. Kent, Ph.D. (Ph.D. conferred 1985), *currently Professor of Integrative Biosciences, and Director of Quality Assurance, Oregon Health & Science University*

Joshua R. Sanes, Ph.D. (Ph.D. conferred 1975), *currently Professor of Molecular & Cellular Biology, Harvard University, Cambridge, MA*

Anne M. Schneiderman, Ph.D. (Ph.D. conferred 1984), *currently an attorney in private practice, Ithaca, New York*

Undergraduate Research Students

Paul J. Deutsch, Margaret Drickamer, Marcia M. Moore, Erik S. Schweitzer, Jonathan F. Tait

Rockefeller University

1965-67 instructor, Summer Biology Program for high school students

Marine Biological Laboratory

1996-now instructor, summer SPINES program

1988 lecturer, Methods in Computational Neuroscience Course

1985 lecturer, Neural Systems and Behavior Course

1984 lecturer, Review and Update in Neurobiology for Neurosurgeons

1980-84 Co-Director and instructor, Summer Neurobiology Course

1978-79 instructor, Summer Neurobiology Course

Research

My research long has combined neurobiology, animal behavior, and chemical and sensory ecology and used neurophysiological, behavioral, chemical-ecological, anatomical, molecular and developmental approaches in a multidisciplinary program investigating the information-processing mechanisms, behavioral roles, functional organization, and postembryonic development of the olfactory system in insects. This work has sought to discover fundamental principles and mechanisms common to many or all nervous systems and at the same time to understand the olfactory bases of beneficial and harmful behaviors of insects that impact human health and welfare. Areas of principal interest have included: processing of olfactory information in neural circuits in the brain; sensory control of insect-host interactions, especially feeding, mating, and oviposition behaviors; chemical ecology and behavioral aspects of insect-hostplant interactions; and the biology and behavior of Triatomine (“kissing”) bugs that are known or potential vectors of Chagas Disease. My research program was funded through competitive research grants from federal agencies throughout the period 1972-2014, including funding from NIH, NSF, USDA, and DoD. I have also received research support from NATO and the University of Arizona as well as private sources including the American Heart Association, the A.P. Sloan Foundation, Monsanto Company, and the Hasselblad Foundation. My laboratory closed in May, 2016.

Invited Lectures and Seminars (2000-present)

- 2000 Institute of Zoology, University of Vienna, Austria
 Columbia University at Biosphere II, Arizona
 Bellagio Conference: Building a Community to Foster New Approaches to the Study of Genes, Brain, and Behavior with Honey Bees, Bellagio, Italy
 University of Ulm, Faculty of Biology, Germany
 University of Illinois Neuroscience Program, Champagne/Urbana, IL
 Chemical Signals in Vertebrates IX conference, Krakow, Poland
 17th Annual Meeting of the International Society of Chemical Ecology, Poços de Caldas, Brazil
 Plenary Lecturer, Japan Neuroscience Meeting, Yokohama
 Osaka City University, Dept. of Biology, Japan

- Max-Planck-Institut für Chemische Ökologie conference “Insect Chemical Ecology in the Molecular Age,” Tegernsee, Germany
 Stazione Zoologica ‘Anton Dohrn’ di Napoli, international symposium “Biological Sciences: Challenges for the XXI Century”
 “Learning from Nature”: A Symposium Celebrating the Career of Thomas Eisner, Cornell Univ.
 9th Annual Puerto Rico Neuroscience Conference, University of Puerto Rico, San Juan
- 2001 University of Utah, Neuroscience Seminar Series
 Symposium on Systems & Cognitive Neuroscience, Rockefeller University
 Cajal Neuroscience Research Center, University of Texas - San Antonio
 Alfred M. Boyce Lecture, University of California - Riverside
 Biozentrum, University of Würzburg, Germany
 University of Hohenheim/Stuttgart, Germany
 Plenary Lecturer, 6th International Congress of Neuroethology, Bonn, Germany
 Plenary Lecturer, 1st Central European Conference on Neurobiology, Krakow, Poland
 Plenary Lecturer, XXVII International Ethological Conference, Tübingen, Germany
 Neuroscience Program, Michigan State University, East Lansing, MI
- 2002 University of Chile, Santiago, Faculty of Science
 Gordon Research Conference on the Biology, Chemistry, and Evolution of Floral Scent
 University of Florida Center for Smell and Taste, Gainesville
 Abdus Salam International Center for Theoretical Physics, Trieste, Italy
 Max-Planck-Institut, Seewiesen, Germany
 Department of Genetics, Universität Bayreuth, Germany
 Plenary Lecturer, Annual Meeting of the International Society for Behavioral Endocrinology
 Department of Cell Biology & Anatomy, University of Arizona College of Medicine, Tucson
 Program in Neuroscience, University of Massachusetts Medical School, Worcester MA
 Department of Chemistry, Columbia University, NY
 Department of Biology, Vanderbilt University, Nashville TN
- 2003 National Academy of Sciences Sackler Symposium on Chemical Communication in a Post-Genomic World, Irvine, CA
 Neuroscience Program, Brown University, Providence, RI
 IBRO Escuela de Neurociencia, Instituto Estable, Montevideo, Uruguay [2 lectures]
 Neuroscience Program, Williams College, Class of 1960 Neuroscience Scholar Lecture
 Department of Neurobiology, Duke University Medical School
 Neuroscience Program, University of Maryland School of Medicine
 Neuroscience Program, UCLA
 Department of Biology, Wellesley College, MA [2 lectures, including honorific lecture— see honors and awards]
 Department of Neurobiology & Behavior, Cornell University, Ithaca, NY [2 lectures]
 Department of Entomology and Center for Ecology, Evolution & Behavior, University of Kentucky [2 lectures, including honorific lecture— see honors and awards]
- 2004 Instituto Cajal, Madrid, Spain [2004 Cajal Lecturer – see honors and awards]
 1st Neuroscience Symposium, International Institute for Neuroscience of Natal, Brazil
 VI Argentine Neuroscience Workshop, Cordoba, Argentina
 1881st Stated Meeting, American Academy of Arts & Sciences, Cambridge, MA
 24th Blankenese Conference “From Genes to Therapy,” Hamburg, Germany
 14th International Symposium on Olfaction and Taste, Kyoto, Japan
 Marine Biological Laboratory, Woods Hole, MA
 7th International Congress of Neuroethology, Nyborg, Denmark
 Univ. of Colorado Health Sciences Center Neuroscience Program Retreat [keynote speaker]

- 2005 University of Vienna [*Austrian Neuroscience Society Lecture*]
 Texas A&M University, Department of Entomology
 Institut de Recherche sur la Biologie de l’Insecte, University of Tours, France
 25th Blankenese Conference “Signalling in Sensory Systems,” Hamburg, Germany
 Institute Colloquium, Biozentrum, University of Würzburg, Germany
 Monell Chemical Senses Center, Philadelphia [*Manheimer Lecture*]
 Marine Biological Laboratory, Woods Hole, MA
- 2006 Bullock Memorial Symposium, University of California – San Diego
 Fachbereich Biologie, University of Marburg, Germany
 Silver Medal Plenary Lecture, Annual Meeting of Internat. Soc. of Chem. Ecology, Barcelona
 Marine Biological Laboratory, Woods Hole, MA
 School of Life Sciences, Arizona State University, Tempe
 Department of Biology, University of Washington, Seattle
 University of Houston, Department of Biology & Biochemistry, Houston, TX
 American Philosophical Society, invited speaker for General Meeting, San Francisco
- 2007 University of Arizona, Community Lecture
 University of British Columbia, Brain Research Centre, Vancouver
 University of Texas at San Antonio [*keynote speaker at Neuroscience Program Retreat*]
 University of Illinois at Champaign/Urbana, Neuroscience Program
 University of California at Davis, Department of Entomology
 Max-Planck-Institute for Chemical Ecology, Jena, Germany
 Marine Biological Laboratory, Woods Hole [*Edward A. Kravitz Lecture*]
 Annual Meeting of the Trustees of the Grass Foundation, Woods Hole [*keynote lecture*]
 International Brain Research Organization (IBRO) Congress, Melbourne [*symposium speaker*]
 International Society for Invertebrate Neurobiology, Tihany, Hungary [*Ernst Florey Lecture*]
 Colby College, Waterville, ME [*Neuroscience Distinguished Lecturer*]
 Pennsylvania State University, College Park, PA, Department of Entomology
 Wellesley College, Dept. of Biology, Wellesley MA
- 2008 University of Florida, Dept. of Entomology & Nematology
 North Carolina State University, W.M. Keck Center for Behavioral Biology
 2008 South East Nerve Net, Atlanta [*Grass Foundation Lecturer*]
 SUNY Upstate Medical University [*plenary speaker, Max Mozell Celebration*]
 Dept. of Biological Sciences, University of Notre Dame, Indiana
 28th Blankenese Conference/Minerva Gentner Symposium, “Sensory Signaling and Neural
 Information Processing,” Hamburg, Germany
 Gordon Research Conference on Neuroethology, Oxford, UK
 Chinese Academy of Sciences, Institute of Zoology, Beijing
 Chinese Academy of Sciences, Institute of Neuroscience, Shanghai
 Wenzhou Medical College, Wenzhou, Zhejiang, China
 University of Wisconsin, Madison, Dept. of Entomology [*2008 Charles Doane Lecturer*]
- 2009 University of Texas – Austin, Section of Neurobiology
 3rd Annual ASU-BNI Neuroscience Symposium, Phoenix, AZ
 Czech Academy of Sciences, Biology Center, Ceske Budejovice
 Society for Experimental Biology meeting, Glasgow, Scotland [*symposium speaker*]
 Marine Biological Laboratory, Woods Hole [*Martinez-Townsel Lecture*]
 International Society of Chemical Ecology Annual Meeting, Neuchâtel, Switzerland
 European Chemoreception Research Organization annual meeting, Villasimius, Sardinia
 Society for Neuroscience annual meeting, Chicago [*symposium organizer, chair, and speaker*]
 Trinity University, San Antonio TX [*Phi Beta Kappa Visiting Scholar*]

- Wenzhou Medical College, Wenzhou, Zhejiang, China
 Beijing International Meeting on Research in Taste & Smell, Chinese Academy of Sciences
 Program in Neuroscience, University of Massachusetts Medical School, Worcester, MA
- 2010 Stanford University Institute for Neuro-Innovation
 Pomona College, Claremont, CA [*Phi Beta Kappa Visiting Scholar*]
 Tennessee State University, Dept. of Biological Sciences
 Florida State University, Tallahassee [*Phi Beta Kappa Visiting Scholar*]
 Allegheny College, Meadville, PA [*Phi Beta Kappa Visiting Scholar*]
 Symposium in honor of Michael Arbib, "Multidisciplinary Approaches to Understanding the
 Mind and Brain," Tucson, AZ
 International Symposium in Honeybee Neuroscience, Berlin
 University of Oklahoma, Dept. of Zoology [*Presidential Dream Course in Neuroethology*]
 Yale University, Dept. of Cellular & Molecular Physiology
 University of Georgia, Dept. of Entomology
 Emory University, Neuroscience & Behavioral Biology Program
- 2011 Association of Anatomy, Cell Biology & Neurobiology Chairpersons Annual Meeting, Tucson
 8th International Congress of Comparative Physiology & Biochemistry, Nagoya, Japan [*plenary*]
 Gordon Research Conference on Neuroethology, Stonehill College, MA
 International Symposium on Invertebrate Neurobiology, Tihany, Hungary
 International Symposium on Molecular Insect Science, Amsterdam
 US-China Workshop on Insect Olfaction, Chinese Academy of Sciences, Beijing
 5th Asian-Pacific Conference on Chemical Ecology, Beijing [*plenary lecturer*]
 Argentinian Society for Neuroscience (SAN) Annual Meeting, Cordoba [*First Hector
 Maldonado Memorial Lecturer*]
 Siemens Stiftung Lecture, Munich, Germany
- 2012 UC-San Diego [*2012 Walter F. Heiligenberg Lecture*]
 University of North Carolina, Dept. of Biology [*2012 Lawrence Gilbert Distinguished Lecture*]
 American Association of Anatomists annual meeting, San Diego
 Max-Planck-Institut f. Neurobiologie, Munich [*Distinguished Lecturer*]
 Norwegian University of Science & Technology, Trondheim [*symposium speaker*]
 Washington University, St. Louis, Dept. of Biology
 Latin American Association for Chemical Ecology Annual Meeting, Cordoba [*plenary lecturer*]
- 2013 Yale Club of Southern Arizona
 University of Cincinnati, Dept. of Biology
 Universität Würzburg, Biozentrum
 Universität zu Köln, Institute of Zoology
 Universität Kassel, Dept. of Animal Physiology
 University of Sydney, Australia, School of Biological Sciences
 International Chemical Ecology Conference (ICEC2013), Melbourne, Australia
 Louisiana State University, Dept. of Biological Sciences
 University of Chicago, Dept. of Neurobiology
 Kuffler Symposium, Rockefeller University
- 2014 Confluence Center, University of Arizona
 Symposium on Biologically Inspired Robotics, AAAS Annual Meeting [*organizer & chair*]
 West Virginia University, Dept. of Biology
 Chilean Society for Neuroscience Annual Meeting, Valdivia [*plenary speaker*]
 University of Santiago, Chile
 2014 Inter-Academy Seoul Science Forum

- 2015 College of Charleston, SC [*Sigma Xi Darwin Week Lecturer*]
Northern Michigan University, Marquette, MI [*Sigma Xi Lecturer*]
Kansas State University, Manhattan, KS [*Sigma Xi Lecturer*]
Physics Teachers of Southern Arizona meeting
- 2016 University of Michigan, Ann Arbor [*Sigma Xi Lecturer*]
Lamar University, Beaumont, TX [*Sigma Xi Lecturer*]
Case Western Reserve University, Cleveland OH
NIH IRACDA Conference, Tucson, AZ
2016 XXV International Congress of Entomology, Orlando FL [*Wigglesworth Lecturer*]
Department of Neurobiology, Harvard Medical School, Boston [*50th anniversary celebration*]
- 2017 Florida State University, Tallahassee [*2017 James C. Smith Lecture*]
University of New England, Biddeford, ME, Center for Excellence in the Neurosciences
Israeli Entomological Society Annual Meeting in honor of Rachel Galun [*plenary lecture*]
- 2018 Yale Club of Southern Arizona

PUBLICATIONS

John G. Hildebrand

h-Index 78; >15800 citations (3/18 – Google Scholar data)

Books

- Hall ZW, Hildebrand JG, Kravitz EA (eds) (1974) *Chemistry of Synaptic Transmission: Essays and Sources*. Newton MA, Chiron Press
- Sattelle DB, Hall LM, Hildebrand JG (eds) (1980) *Receptors for Neurotransmitters, Hormones and Pheromones in Insects*. Amsterdam, Elsevier/North Holland
- Hagedorn HH, Hildebrand JG, Kidwell MG, Law JH (eds) (1990) *Molecular Insect Science*. New York, Plenum
- Ciba Foundation Symposium 200 (1996) *Olfaction in Mosquito-Host Interactions*. West Sussex, UK, Wiley [meeting and book organized by JGH]
- Meinwald J, Hildebrand JG (eds) (2010) *Science and the Educated American: A Core Component of Liberal Education*. American Academy of Arts and Sciences [available as a book or as a downloadable PDF: <http://www.amacad.org/publications/scienceSLAC.aspx>]

Original Reports

- Hildebrand JG, Law JH (1964) Fatty acid distribution in bacterial phospholipids; The specificity of the cyclopropane synthetase reaction. *Biochem* 3:1304-1308
- Hildebrand JG, Spector LB (1969) Succinyl phosphate and the succinyl Coenzyme A synthetase reaction. *J Biol Chem* 244:2606-2613
- Hildebrand JG (1969) *Succinyl phosphate and the succinyl Coenzyme A synthetase reaction*. Ph.D. dissertation, Rockefeller University
- Walsh CT, Hildebrand JG, Spector LB (1970) Succinyl phosphate: its non-enzymatic hydrolysis and reaction with Coenzyme A. *J Biol Chem* 245:5699-5708
- Hildebrand JG, Barker DL, Herbert E, Kravitz EA (1971) Screening for neurotransmitters: a rapid radiochemical procedure. *J Neurobiol* 2:231-246
- Barker DL, Herbert E, Hildebrand JG, Kravitz EA (1972) Acetylcholine and lobster sensory neurones. *J Physiol (Lond)* 226:205-229
- Hildebrand JG, Townsel JG, Kravitz EA (1974) Distribution of acetylcholine, choline, choline acetyltransferase and acetylcholinesterase in regions and single, identified axons of the lobster nervous system. *J Neurochem* 23:951-963
- Sanes JR, Hildebrand JG (1975) Nerves in the antennae of pupal *Manduca sexta* (Lepidoptera: Sphingidae). *Wilhelm Roux' Archiv* 178:71-78
- Sanes JR, Hildebrand JG (1976) Structure and development of antennae in a moth, *Manduca sexta*. *Devel Biol* 51:282-299

- Sanes JR, Hildebrand JG (1976) Origin and morphogenesis of sensory neurons in an insect antenna. *Devel Biol* 51:300-319
- Sanes JR, Hildebrand JG (1976) Acetylcholine and its metabolic enzymes in developing antennae of the moth, *Manduca sexta*. *Devel Biol* 52:105-120
- Sanes JR, Hildebrand JG, Prescott DJ (1976) Differentiation of insect sensory neurons in the absence of their normal synaptic targets. *Devel Biol* 52:121-127
- Schweitzer ES, Sanes JR, Hildebrand JG (1976) Ontogeny of electroantennogram responses in the moth *Manduca sexta*. *J Insect Physiol* 22:955-960
- Sanes JR, Prescott DJ, Hildebrand JG (1977) Cholinergic neurochemical development of normal and deafferented antennal lobes during metamorphosis of the moth, *Manduca sexta*. *Brain Res* 119:389-402
- Prescott DJ, Hildebrand JG, Sanes JR, Jewett S (1977) Biochemical and developmental studies of acetylcholine metabolism in the central nervous system of the moth, *Manduca sexta*. *Comp Biochem Physiol* 56C:77-84
- Maxwell GD, Tait JF, Hildebrand JG (1978) Regional synthesis of neurotransmitter candidates in the CNS of the moth *Manduca sexta*. *Comp Biochem Physiol* 61C:109-119
- Hildebrand JG, Hall LM, Osmond BC (1979) Distribution of binding sites for ¹²⁵I-labeled α -bungarotoxin in normal and deafferented antennal lobes of *Manduca sexta*. *Proc Natl Acad Sci USA* 76:499-503
- Starratt AN, Dahm KH, Allen N, Hildebrand JG, Payne TL, Rölller H (1979) Bombykal, a sex pheromone of the sphinx moth *Manduca sexta*. *Z Naturforsch* 34C:9-12
- Maxwell GD, Moore MM, Hildebrand JG (1980) Metabolism of tyramine in the central nervous system of the moth *Manduca sexta*. *Insect Biochem* 10:657-665
- Maxwell GD, Hildebrand JG (1981) Anatomical and neurochemical consequences of deafferentation in the development of the visual system of the moth *Manduca sexta*. *J Comp Neurol* 195:667-680
- Matsumoto SG, Hildebrand JG (1981) Olfactory mechanisms in the moth *Manduca sexta*: response characteristics and morphology of central neurons in the antennal lobes. *Proc Roy Soc Lond B* 213:249-277
- Tolbert LP, Hildebrand JG (1981) Organization and synaptic ultrastructure of glomeruli in the antennal lobes of the moth *Manduca sexta*: a study using thin sections and freeze-fracture. *Proc Roy Soc Lond B* 213:279-301
- Schneiderman AM, Matsumoto SG, Hildebrand JG (1982) Trans-sexually grafted antennae influence development of sexually dimorphic neurones in moth brain. *Nature* 298:844-846
- Tolbert LP, Matsumoto SG, Hildebrand JG (1983) Development of synapses in the antennal lobes of the moth *Manduca sexta* during metamorphosis. *J Neurosci* 3:1158-1175
- Kingan TG, Hildebrand JG (1985) γ -Aminobutyric acid in the central nervous system of metamorphosing and mature *Manduca sexta*. *Insect Biochem* 15:667-675
- Hoskins SG, Homberg U, Kingan TG, Christensen TA, Hildebrand JG (1986) Immunocytochemistry of GABA in the antennal lobes of the sphinx moth *Manduca sexta*. *Cell Tiss Res* 244:243-252

- Kent KS, Harrow ID, Quartararo P, Hildebrand JG (1986) An accessory olfactory pathway in Lepidoptera: the labial pit organ and its central projections in *Manduca sexta* and certain other sphinx moths and silk moths. *Cell Tiss Res* 245:237-245
- Schneiderman AM, Hildebrand JG, Brennan MM, Tumlinson JH (1986) Trans-sexually grafted antennae alter pheromone-directed behavior in a moth. *Nature* 323:801-803
- Kent KS, Hildebrand JG (1987) Cephalic sensory pathways in the central nervous system of larval *Manduca sexta* (Lepidoptera: Sphingidae). *Phil Trans Roy Soc B* 315:1-35
- Homberg U, Kingan TG, Hildebrand JG (1987) Immunocytochemistry of GABA in the brain and suboesophageal ganglion of the sphinx moth *Manduca sexta*. *Cell Tiss Res* 248:1-24
- Christensen TA, Hildebrand JG (1987) Male-specific, sex pheromone-selective projection neurons in the antennal lobes of the moth *Manduca sexta*. *J Comp Physiol A* 160 553-569
- Waldrop B, Christensen TA, Hildebrand JG (1987) GABA-mediated synaptic inhibition of projection neurons in the antennal lobes of the sphinx moth *Manduca sexta*. *J Comp Physiol A* 161:23-32
- Kent KS, Hoskins SG, Hildebrand JG (1987) A novel serotonin-immunoreactive neuron in the antennal lobe of the sphinx moth *Manduca sexta* persists throughout postembryonic life. *J Neurobiol* 18:451-465
- Hishinuma A, Hockfield S, McKay R, Hildebrand JG (1988) Monoclonal antibodies reveal cell-type-specific antigens in the sexually dimorphic olfactory system of *Manduca sexta*. I. Generation of monoclonal antibodies and partial characterization of the antigens. *J Neurosci* 8:296-307
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