Curriculum Vitae

RONALD MORGAN HARRIS-WARRICK

William T. Keeton Professor in Biological Sciences
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Biographical Data:

Birthplace - Berkeley, California
Birthdate - July 28, 1949
Citizenship - U.S.A.
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Education: B.A. Biological Sciences, Stanford University, 1970

Ph.D. Genetics, Stanford University School of Medicine, 1976
Thesis advisor: Dr. Joshua Lederberg; Title: "DNA segmentation and sequence heterology in transformation of Bacillus subtilis"

Work Experience:

1970-73	Research Assistant, Department of Genetics, Stanford University School of Medicine; Advisor: Dr. Joshua Lederberg
1976-78	NIH Postdoctoral Fellow, Department of Neurobiology, Stanford University, School of Medicine; Advisor: Dr. Eric M. Shooter
1978-80	Muscular Dystrophy Association Postdoctoral Fellow, Department of Neurobiology, Harvard Medical School, Boston, Massachusetts; Advisor: Dr. Edward A. Kravitz
1980-86	Assistant Professor, Section of Neurobiology and Behavior, Cornell University, Ithaca, New York
1986-1992	Associate Professor, Section of Neurobiology and Behavior, Cornell University, Ithaca, New York
1986-87	Visiting Scientist, Laboratoire de Neurobiologie, Ecole Normale Superieure, Paris, France
1988-1991	Associate Chairman, Section of Neurobiology and Behavior, Cornell University, Ithaca, New York
1992-present	Professor, Department of Neurobiology and Behavior, Cornell University, Ithaca, New York
1994	Visiting Professor, Department of Molecular and Cellular Physiology, Stanford University School of Medicine
2001-2002	Visiting Professor, Department of Neuroscience, Karolinska Institute, Stockholm Sweden
2002- 2005	Chairman, Department of Neurobiology and Behavior, Cornell University, Ithaca NY

2006	Visiting Professor, Université de Pierre et Marie Curie, Paris, France
2009	Visiting Professor, Zoologisches Institut, Universität zu Köln, Germany
2013	William T. Keeton Professor in Biological Sciences
2014	Visiting Professor, Institut de Neurosciences de la Timone, Aix-Marseille Université, Marseille, France

Awards, Honors:

Phi Beta Kappa, 1969
Graduation with Great Distinction and Departmental Honors, Stanford University, 1970
Stephen Fox Memorial Award (outstanding senior in Biological Sciences), Stanford University, 1970
John Simon Guggenheim Fellowship, 1986-87
Gamma Sigma Delta, 1991
Dupont Lecturer, University of Arizona, 1995
Symposium Organizer and Speaker, Society of Neurosciences Annual Meeting, 1996, 2008.
Plenary Lecturer, Gottingen Neurobiology Conference, Germany, March 1998
NIH Senior Postdoctoral Fellow, Stockholm Sweden, 2001-2002
Scholar in Residence, Woods Hole Marine Biology Laboratory, 2005
Jacob Javits Neuroscience Investigator Award, NIH, 2006-2013
Fellow, American Association for the Advancement of Science, 2005
Fellow, American Psychological Society, 2007
SUNY Chancellor's Award for Excellence in Teaching, 2007
Louis and Edith Edgerton Career Teaching Award, Cornell University, 2008
Stephen H. Weiss Presidential Fellow, Cornell University, 2008
Menschel Distinguished Teaching Fellow, 2010, 2013
Cornell University PhD Graduation Ceremony Speaker, 2010
William T. Keeton Professor in Biological Sciences, Cornell University, 2013
Harry T. Stinson Award for Outstanding Service to Biology Students, 2014
Chercheur Invité, Institut de la Timone, Aix/Marseille Université, Marseille, France, 2014.

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6. Harris-Warrick, R.M., M. Bothwell and E.M. Shooter. Subunit interactions of 7S Nerve Growth Factor regulating the binding of NGF to receptors on embryonic chick sensory neurons. J. Biol. Chem., 255: 11284-11289 (1980).

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10. Riopelle, R.J., A. Sutter, R.M. Harris-Warrick, M. Klearman and E.M. Shooter. Receptor interactions of Nerve Growth Factor. Adv. Neurol., 299: 133-148 (1981).

11. Kravitz, E.A., S. Glusman, M. Livingstone and R.M. Harris-Warrick. Serotonin in the lobster nervous system. Mechanism of action at neuromuscular junctions and preliminary behavioral studies. In B.L. Jacobs and A. Gelperin, eds., Serotonin: Neurotransmission and Behavior, MIT Press, Cambridge, Mass., pp. 189-210 (1981).

12. Bergman, H., S. Glusman, R.M. Harris-Warrick, E.A. Kravitz, I. Nussinovitch and R. Rahamimoff. Noradrenaline augments tetanic potentiation of transmitter release by a calcium-dependent process. Brain Res. 214: 200-204 (1981).

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21. Harris-Warrick, R.M. and A.H. Cohen. Serotonergic modulation of fictive swimming in the lamprey spinal cord. J. Exp. Biol. 116: 27-46 (1985).

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neocortex. Cerebral Cortex, 21: 708-718 (2010).

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133. Kwan, A.C., S.B. Dietz, G. Zhong, R. M. Harris-Warrick and W. W. Webb. Spatiotemporal dynamics of rhythmic spinal interneurons measured with two-photon calcium imaging and coherence analysis. *J. Neurophysiol.*, 104:3323-33. (2010)

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152. Shevtsova, N.A., A. E. Talpalar, S. N. Markin, R. M. Harris-Warrick, O. Kiehn and I. A. Rybak, "Organization of left-right coordination of neuronal activity in the mammalian spinal cord: Insights from computational modeling", J. Physiol., in press (2015).

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1) NINDS Grant #R37 NS17323-32, "Neurotransmitters, Neuromodulators and Motor Systems", 4/1/14 – 3/31/18, current year direct costs $218,750.

2) NINDS Grant # 1 RO1NS081713-01, "CRCNS: Organization of the locomotor CPG in the rodent spinal cord." 8/1/12-6/30/17. $237,500 annual direct costs. R. Harris-Warrick and I. Rybak (Drexel University), co-PIs.

Seminars and Talks 1990-2015:

1990 Winter Conference on Brain Research - workshop (organizer and talk)
Second International Conference on Stomatogastric Nervous System, Brandeis U.

(co–organizer and talk)

1991 University of Pennsylvania, Department of Biology
Neurotox '91, Southampton, England-symposium talk
University of Wisconsin at Madison, Neuroscience Program
Winter Conference on Brain Research - workshop
Dartmouth Medical College, Department of Biochemistry (Dunaway-Burnham Lecturer)
Brandeis University, Department of Biology

1992 University of Washington, Department of Biology
University of Oregon, Department of Biology
Winter Conference on Brain Research -panel presentation
Third International Congress of the International Society for Neuroethology: Plenary lecture
Cornell Veterinary College, Department of Physiology

1994: Winter Conference on Brain Research, workshop presentation
SUNY Geneseo, Department of Biology
Colgate University, Department of Psychology
Department of Molecular and Cellular Physiology, Stanford University School of Medicine

1995: Keystone Symposium on Synapse Formation and Function, Tamarron, CO
Department of Neurobiology and Anatomy, University of Texas at Houston, TX
Dupont Lecturer, Department of Neurosciences, University of Arizona, Tucson, AZ (3 lectures over a 5 day period).
International Symposium on Neurons, Networks and Motor Behavior, Tucson, AZ

1996: Department of Physiology, University of North Carolina at Chapel Hill, NC
Neuroscience Program, UCLA, Los Angeles, CA
Symposium organizer and speaker, Society for Neuroscience, Washington DC

1997: Whitney Marine Laboratory, University of Florida
Department of Biology, University of the Virgin Islands
Neuroscience Program, University of California at San Francisco
Department of Biology, Wesleyan University,
Invited symposium speaker, Midwest Nerve Net, University of Minnesota
Department of Biology, Karolinska Institute, Stockholm, Sweden
Department of Physiology, Panum Institute, University of Copenhagen, Denmark
Invited symposium speaker, 5th International Conference on Invertebrate Neurochemistry and Neurophysiology, Eilat, Israel
Invited symposium speaker, International meeting on “Neural networks, past and future”, Arcachon, France
Program in Molecular Medicine, University of Texas Health Science Center at San Antonio

Department of Biology, Brock University, London Ontario, Canada
Department of Biology, Georgia State University, Atlanta
Volen Center for Complex Systems, Brandeis University

1998: New York Academy of Sciences Conference, "Neural mechanisms for generating locomotor activity"; conference co-organizer, symposium speaker, chair of symposia.
Gottingen Neurobiology Conference, Gottingen, Germany, March 1998: Plenary speaker.
Department of Biology, SUNY Albany
Program in Dynamical Systems, UCSD
International Society for Neuroethology Triennial meeting, San Diego: Symposium
organizer and speaker.
Neuroscience Program, University of Illinois, Champaign-Urbana
Neuroscience Program, University of Minnesota, Minneapolis

1999: Winter Conference on Brain Research: Symposium presentation and workshop presentation.
International Conference, "Frontiers in Crustacean Neurobiology", Hamburg, Germany, Session organizer and speaker
SFB Symposium, "Lessons learned from small systems", Berlin, Germany, symposium speaker
Gordon Conference on Neuroethology: Behavior, Evolution and Neurobiology, Oxford, England, symposium speaker
University of Pennsylvania, Program in Neuroscience, Seminar
NINDS, Internal Neuroscience seminar series
Keynote Speaker, Science Teachers Association of New York State annual conference
Cornell University, Department of Neurobiology and Behavior

2000: SUNY Health Science Center at Syracuse, Department of Neuroscience
University of Washington, Annual Speaker of the Undergraduate Program in Neurosience
Mount Sinai School of Medicine, Department of Physiology and Biophysics
University of Texas at Austin, Department of Neuroscience

2001: Department of Biology, Ithaca College, seminar
Karolinska Institute, Stockholm Sweden, seminar
University of Miami, 2nd Annual Distinguished Lecture in Marine Neuroscience

2002: Department of Neurobiology, Freie Universität Berlin, Germany
Department of Biology, University of Cologne, Germany
Department of Biology, Indiana University
Co-organizer and lecture, Woods Hole Symposium to Honor Edward Kravitz

2003: Oregon Health Sciences Center, Eugene Oregon
Department of Neurosciences, University of Calgary
Winter Conference on Brain Research, invited symposium talk
Neuroscience Program, Dalhousie University, Halifax, Nova Scotia
Göttingen Neuroscience Conference, Göttingen, Germany, invited symposium Speaker
International Brain Research Organization conference, Prague, Czech Republic,

invited symposium speaker

2004: Institute of Neurobiology, San Juan, Puerto Rico
Department of Neuroscience, University of Rochester Medical School
Department of Neurobiology, Harvard Medical School, Boston, MA
Neuroscience Program, University of California at Davis, CA
Neuroscience Program, University of Pennsylvania, Philadelphia, PA
Department of Biology, Bryn Mawr College, PA

2005: Winter Conference on Brain Research, invited symposium talk
Department of Biology, University of Virginia, seminar
Department of Biology, University of South Dakota, Seminar
Hotchkiss Brain Institute Symposium on Motor Systems, University of Calgary, April 2005, invited symposium talk
Kananaskis Conference, "Genetic Dissection of Spinal Cord Development and Function", Invited speaker, April 2005.
University of Virginia, Deparment of Biology, seminar October, 2005

2006: Department of Neuroscience, Université René Descartes, Paris, France, seminar
Department of Neuroscience, Université Pierre et Marie Curie, Paris France, seminar
Department of Neuroscience, Hopital Salpetrière, Paris, France, seminar
Department of Biology, Columbia University, seminar
Institute of Zoology, University of Cologne, Germany, seminar
Department of Biology, University of Wisconsin, seminar, September, 2006
Department of Neuroscience, Weill Cornell Medical College, seminar, Nov., 2006
Department of Biology, University of Buffalo, seminar, Nov. 2006
Wenner –Gren Foundation symposium, "Networks in Motion", Stockholm, Sweden, August 2006
Plenary Speaker, Puerto Rico Neuroscience Conference, San Juan, Dec., 2006

2007: Invited Speaker, International Congress on Spinal Cord Research Madison MI June 2007.
Co-Chair, International Congress of Neuroethology, Vancouver, BC July 2007
Department of Physiology, Emory University, December 2007

2008: Department of Physiology, University of Montreal, March 2008
Department of Neuroscience, University of Chicago, April, 2008
Invited Speaker, Christopher and Dana Reeve Foundation Conference on Spinal Cord Injury, Atlanta, May 2008
Session Chair, Nobel Forum Symposium on Neurobiology, Stockholm, June 2008
Inaugural Speaker, Chris Comer Undergraduate Neuroscience Research Symposium, University of Illinois at Chicago, Oct. 2008
Department of Neuroscience, University of Illinois at Chicago, Oct. 2008
Invited Speaker, 2nd Annual Symposium on Motor Systems, NIH, Nov. 2008
Symposium Speaker, Society for Neuroscience Annual Meeting, Nov. 2008
Invited Speaker, Symposium on Rhythmic Processes in Insects, Freie Universitat Berlin, Germany, December 2008

2009: University of Wurzburg, Department of Physiology, April, 2009
Invited speaker, "Run, Breathe, Chew: Neural Basis of Rhythmic Movements", Montreal, May, 2009
Zoologisches Institut, University of Cologne, June 2009
Department of Neurobiology and Behavior, Cornell University, August 2009

Department of Neuroscience, Albert Einstein School of Medicine, October 2009

2010: Department of Molecular Medicine, Cornell University, March 2010
Department of Physiology, University of Alberta, April, 2010
Cornell Institute of Biology Teachers, April 2010
Invited Speaker, Symposium on Spinal Motor Networks, Dalhousie University, October 2010

2011: Symposium organizer and speaker, "Role of Identified Interneurons in the Rodent Spinal Locomotor Network", Winter Conference on Brain Research, Keystone CO, January 2011
Department of Biological Sciences, Brock University, Canada, Februrary 2011.
Invited speaker, Kananaskis Conference on Spinal Cord Research, Kananaskis, Canada, March 2011
Invited Speaker, Mathematical Biosciences Institute, "New Developments in Dynamical Systems Arising from the Biosciences", Ohio State University, March 2011

2012: Invited Speaker, "Complexity of synaptic neuromodulation in a small neural network." Cold Spring Harbor-Asia Symposium on Invertebrate Neurobiology, Suzhou, China, June 2012.
Invited Speaker, Symposium honoring Dr. Frederic Nagy, Bordeaux, France, September 2012.

2013: Invited speaker, "Will to Win" Conference on Spinal Cord Research, Winnepeg, Canada, May 2013
Invited speaker, Conference on Collaborative Research in Computational Neuroscience, Boston, MA, June 2013
Seminar, University of Minnesota, Department of Neuroscience, October, 2013

2014: Poster Presentation, Winter Conference on Brain Research, January 2014
Seminar, University of Missouri-Columbia, Department of Biological Science, April 2014
Seminar, Institut de Neuroscience de la Timone, Université Aix-Marseille, France, November 2014

2015: Panel organizer and speaker, Winter Conference on Brain Research, Big Sky, Montana, January 2015
Seminar, Drexel University School of Medicine, April 2015
Invited speaker, Kentucky Spinal Cord and Head Injury Research Trust Symposium, University of Louisville, May 2015

Memberships in Scientific Societies:

Society for Neuroscience
American Association for the Advancement of Science
International Society for Neuroethology
New York Academy of Sciences

Outside Professional Activities:

Editorial Board: Journal of Neurophysiology, 1998--; Associate Editor, 1999-2009. Journal of Comparative Physiology A, 2002-present. Frontiers in Neural Circuits, Associate Editor 2008- Present

Grant Proposal Reviews: NSF, NIH (ad hoc reviewer for program project grants and training grants, member of Neurology B1 Study Section in 10/96; member of Genetics study section, 4/98; member of special emphasis panel ZNS1, 6/98 and 2/99; regular member of IFCN-5 (SMI) study section, 9/98-6/04; Human Frontiers Science Program ; SERC (England); NSERCC (Canada), US-Israel Binational Science Foundation; Selection committee, NIH Director's Pioneer Awards, 2007-2008; Member ZRG F03B Study Section, NIH, 2009-13.

Manuscript Reviews: Nature, Science, P.N.A.S., J. Neurophysiol., Trends in Neuroscience , J. Neurochem., Brain Research, J. Neurobiol., Can. J. Zool., J. Comp. Physiol., J. Neurosci., Neuroscience

Conference organization:

Second International Conference on the Stomatogastric Nervous System, Brandeis University, July 28-31, 1990, co-organizer with Eve Marder

Winter Conference on Brain Research: Member, Program Committee

Society for Neuroscience Annual Meeting: Organizer of Symposium on "Modulation of Neuronal Excitability and Behavior", Nov., 1996

New York Academy of Sciences, Co-organizer of conference on "Neuronal mechanisms for generating locomotor activity" New York, March 20-23, 1998

Cornell University, organizer of conference, "Structure and Function at the Neuromuscular Junction", November, 2000

Woods Hole, MA, co-organizer of conference to honor Edward Kravitz, November, 2002

Member, Program Committee and Long-Range Planning Committee, International Society for Neuroethology 2002-2006

Member, Program Committee, Society for Neuroscience 2003-2007

Co-Chair, International Congress for Neuroethology, Vancouver, BC, July 2007

Member, Executive Committee and Counselor, International Society for Neuroethology, 2005-2010

Chair, Awards Selection Committee, International Society for Neuroethology, 2011-2012

Teaching:

BioNB2220, "Introduction to Neuroscience", 6-10 lectures annually since 1981

BioNB3920, "Drugs and the Brain", taught every other year since 1998.

BioNB4200, "The Neurobiology of Schizophrenia", 2010, 2014

BioNB4200/7200, "Spinal Networks for Locomotion", 2008

BioNB4200/7200, "Mechanisms of Ion Channel Function", 2004

BioNB 4200/7200, "Molecular Neurobiology", 2000

BioNB497, "Neurochemistry", 1981- 1995