

Curriculum Vitae

Name: Douglas Alan Baxter

Present Title: Adjunct Professor (non-tenured research appointment)
 Department of Neurobiology and Anatomy
 The University of Texas-Houston Medical School
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<http://nba.uth.tmc.edu/homepage/baxter/>
<http://nba.uth.tmc.edu/snnap/>

Citizenship: U.S.A.

Undergraduate Education:

1972-1975 B.A. (Biology) The University of Texas at Austin

Graduate Education:

1975-1981 Ph.D. (Zoology) The University of Texas at Austin (Dr. George D. Bittner)

Postgraduate Training (mentor):

6/81-6/82 Postdoctoral Fellow, Department of Neurology, Baylor College of Medicine, Houston TX (Dr. Daniel Johnston)

7/82-12/84 Postdoctoral Fellow, Division of Neuroscience, Beckman Research Institute of the City of Hope, Duarte CA (Dr. Thomas H. Brown)

Academic / Research Appointments:

1/85-1/87 Senior Research Associate, Department of Physiology and Cell Biology, The UTHealth, Houston TX (Dr. John H. Byrne)

2/87-12/90 Research Scientist, Department of Neurobiology and Anatomy, UTHealth, Houston TX (Dr. John H. Byrne)

1/91-8/95 Senior Research Scientist, Department of Neurobiology and Anatomy, UTHealth, Houston TX (Dr. John H. Byrne)

9/95 – 8/00 Assistant Professor of Neurobiology and Anatomy (non-tenured research appointment), Department of Neurobiology and Anatomy, UTHealth, Houston TX

12/95-12/08 Member of the Graduate School of Biomedical Sciences Faculty, UTHealth, Houston TX

9/00 – 9/05 Associate Professor of Neurobiology and Anatomy (non-tenured research appointment), Department of Neurobiology and Anatomy, UTHealth, Houston TX

9/05 – 2/11 Professor of Neurobiology and Anatomy (non-tenured research appointment), Department of Neurobiology and Anatomy, UTHealth, Houston TX

2/11 – present Adjunct Professor of Neurobiology and Anatomy, Department of Neurobiology and Anatomy, UTHealth, Houston TX

Institutional Affiliations and Memberships in Professional Organizations:

- 1979 - present Member of the Society for Neurosciences
- 1992 – 2005 Member, Houston Society for Engineering in Medicine and Biology
- 1994 – present Member, Neuroscience Research Center, UTHealth
- 2005 -2007 Member, Faculty for Undergraduate Neuroscience
- 1997 – 2006 Chapter Representative for the Houston Chapter of the Society for Neuroscience
- 1997 – 2002 Member of the International Society for Neuroethology
- 2001 - 2007 Member of the Center for Computational Biomedicine, UTHealth

Honors and Awards:

- 1975 B.A. with Honors
- 1981 Postdoctoral Fellowship (NIH)
- 1982 Postdoctoral Fellowship (NIH)
- 1984 New Investigator Award (NIH)

Service on National/International Grant Review Panels:

- Ad hoc* reviewer for the New Zealand Neurology Foundation: 1994, 1999, 2001.
- Ad hoc* reviewer for Medical Research Council of Canada:, 1992, 1995.
- Member of the National Institutes of Health: Biobehavioral and Behavioral Processes: Special Emphasis Panel (ZRG1 BBBP-J03 M, Animal Behavior): 2005.
- Ad hoc* reviewer for National Science Foundation, Division of Integrative Biology and Neuroscience (IBN) and Integrative Organismal Biology (IOB): 2001, 2002, 2004, 2005, 2006, 2009.
- Ad hoc* reviewer for the University of Houston GEAR program: 2005.
- Member of the National Institute of Neurological Disorder and Stroke Fellowship Review panel (ZNS1-M39), 2006.
- Ad hoc* review for U.S. Civilian Research and Development Foundation: 2006.
- Member of the National Institutes of Health: Shared Instrumentation Grant Review panels: 2009 (ZRG1 BST-M30); 2010 (ZRG1 BST-F30).

Other National and International Activities:

1. *Ad hoc* reviewer for *Journal of Neurophysiology*.
2. *Ad hoc* reviewer for *Journal of Neuroscience*.
3. *Ad hoc* reviewer for *Neuroscience*.
4. *Ad hoc* reviewer for *Learning and Memory*.
5. *Ad hoc* reviewer for *Journal of Experimental Biology*.
6. *Ad hoc* reviewer for *Neural Networks*.
7. *Ad hoc* reviewer for *Brain Research*.
8. *Ad hoc* reviewer for *Neuroscience*.
9. *Ad hoc* reviewer for *Journal of Computational Neuroscience*.
10. *Ad hoc* reviewer for *Journal of Membrane Biology*.
11. *Ad hoc* reviewer for *Drug Discovery Today*.
12. *Ad hoc* reviewer for *Cognitive Neuroscience*
13. *Ad hoc* reviewer for *Synapse*
14. *Ad hoc* reviewer for *Neuroinformatics*
15. *Ad hoc* reviewer for *Proceedings of the 2006 International Symposium on Mathematical and Computational Biology*.

16. *Ad hoc* reviewer for *SIMULATION: Transactions of the Society for Modeling and Simulation International*.
17. *Ad hoc* reviewer for *IEEE Transactions on Automatic Control*.
18. *Ad hoc* reviewer for *JUNE*.
19. *Ad hoc* reviewer for *PLoS Computational Biology*
20. *Ad hoc* reviewer for *European Journal of Neuroscience*
21. Invited speaker at Review of USAF Sponsored Basic Research in Neuroscience, San Antonio, TX, 1987.
22. Neuroscience Program Director for the Annual Houston Conference on Biomedical Engineering Research, Houston, TX 1993, 1995, 1997, 1998, 2005.
23. Invited speaker at Metroplex Institute for Neural Dynamics (MIND) Conference on Oscillations in Neural Systems, Arlington, TX, 1994.
24. Invited speaker at First World Congress on Computational Medicine, Public Health and Biotechnology, Austin, TX, 1994.
25. Invited speaker at the workshop on Planning for Aquatic Research in Space, Center for Advanced Studies in Space Life Sciences, Marine Biological Laboratory, Woods Hole, MA, 1996.
26. Invited Keynote Speaker at the Purdue University Neuroscience Retreat, West Lafayette, IN, 1996.
27. Invited speaker at Conference on Cell & Molecular Biology of *Aplysia* & Related Invertebrates, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY, 1997.
28. Invited speaker at Mountain Central Conference, Texas Occupational Therapy Association, Corpus Christi, TX 2000.
29. Invited speaker at National Conference of the American Occupational Therapy Association, Philadelphia, PA, 2001.
30. Organizer of a symposium entitled "Using SNNAP: A General Purpose Simulator for Neural Networks and Action Potentials" at the 31st Annual Meeting of the Society for Neuroscience, 2001
31. Invited speaker at the Central European Conference of Neurobiology, Krakow, Poland, 2001.
32. Invited participant at Bio-Computation Principal Investigators' Meeting, sponsored by DARPA and NSF, 2001.
33. Invited participant at workshop on *The Mathematics for the Genomes to Life Program*, sponsored by the Department of Energy, 2002.
34. Member of the Society for Neuroscience Membership and Chapters Committee (MCC), 2005-2008.
35. Member (liaison) of the Society for Neuroscience Public Education and Communication Committee (PECC), 2005-2008
36. Member Steering Committee for 22nd Annual Houston Conference on Biomedical Engineering Research, Houston, TX, 2005.
37. Member Program Committee for Cold Spring Harbor Conference on Learning and Memory, 2005.
38. Participant of workshop entitled "Resources for Teaching Neuroscience" at the 2006 Annual Meeting of the Society for Neuroscience.
39. Invited speaker in the Department of Physiology at the University of Pisa, Italy, 2007.

Service on Graduate Student Committees:

1. Member of student Advisory/Examination/Supervisory Committees within the GSBS:

Hilde A. Lechner	1996 - 1998	Candidate for Ph.D. (Neurosci., UTHSC)
Frederick D. Lorenzetti	1998 - 2005	Candidate for Ph.D. (Neurosci., UTHSC)
Eric Robson	1999 - 2000	Candidate for Ph.D. (Neurosci., UTHSC)
Jeannie Chin	1999 - 2001	Candidate for Ph.D. (Neurosci., UTHSC)
Diasinou Fioravante	2000 - 2004	Candidate for Ph.D. (Neurosci., UTHSC)
Evangelos Antzoulatos	2001 - 2007	Candidate for Ph.D. (Neurosci., UTHSC)
Behrang Amini	2001 - 2004	Candidate for M.D./Ph.D. (Neurosci., UTHSC)
Fredy Reyes	2001 - 2006	Candidate for Ph.D. (Neurosci., UTHSC)
Brian S. Lo	2001 - 2003	Candidate for Ph.D. (Neurosci., UTHSC)
Georgios Kalantzis	2005 - 2006	Candidate for Ph.D. (Neurosci. UTHSC)
2. Member of Student Advisory/Examinations/Supervisory Committees at other Institutions:

Robert Butera	1995 – 1996	Candidate for Ph.D. (Computer Science, Rice Univ.)
Wenqing Huang	1999 - 2000	Candidate for M.S. (Computer Science, Univ. Houston)

Service to the Department and to the Institution:

1. Faculty supervisor of the Office of Informatics, 1997-2011.
2. Faculty supervisor of the Computational Neuroscience Core Facility, 1997-2005.
3. Member of Search Committee for new faculty in the area of computational neuroscience, 2002.
4. Member of Research Subcommittee of the Information Technology Governance Council: Design and Implementation of Multi-Tier Storage Array, 2005-2008.
5. Member of Information Technology Governance Council: Grants Management Working Group, April through August of 2007.
6. Member of Advisory Committee for High Performance Computer Cluster at the School of Health Information Sciences, 2003 – 2009.

Service to Community:

1. Laboratory demonstrations for students from Ross Sterling High School, February 1992.
2. Laboratory demonstrations for students from Kemper High School, March 1992.
3. Laboratory demonstrations for students from Lamar, Klein High School and the High School for Health Professions, October 1992.
4. Laboratory demonstrations for Honors II Biology students from Scarborough High School, April 1993.
5. Laboratory demonstrations for the faculty from University of Texas System colleges, October 1994.
6. Laboratory demonstrations for students from the Upward Bound Regional Math/Science Center at East Central University; Ada, OK, July 1994.
7. Laboratory demonstrations for students from a summer research program for recent High School graduates, June 1995.
8. Laboratory demonstrations for students from the National Youth Leadership Forum on Medicine, June 1995.
9. Laboratory demonstrations for students from the National Youth Leadership Forum on Medicine, July 1995.

10. Laboratory demonstrations for students from the Upward Bound Regional Math/Science Center at East Central University; Ada, OK, July 1995.
11. Laboratory demonstrations for visiting faculty members from: West Texas A&M Univ., Tarleton State Univ., UT-Pan American, Stephen F. Austin State Univ., Sam Houston State Univ., University of St. Thomas, Texas A&M Univ.-Kingsville, and Trinity Univ., November 1995.
12. Lecture and demonstrations on The Human Brain for students at Edgewood Elementary, Houston TX, December 1995.
13. Laboratory demonstrations for students from the National Youth Leadership Forum on Medicine, June and July 1996.
14. Laboratory demonstrations for students from a summer research program for recent High School graduates, July 1996.
12. Lecture and demonstrations on the human brain for students at Edgewood Elementary, Houston TX, November 1996.
13. Laboratory demonstration for students from Landrum Middle School, Spring Branch I.S.D., May 1997.
14. Lecture and demonstrations on the human brain for students at Buffalo Creek Elementary, Houston TX, November 1997.
15. Laboratory demonstrations for students from a summer research program for recent High School graduates, June 1998.
16. Invited speaker to Pi Theta Epsilon (a profession organization of occupational therapists at Texas Woman's University), November 1999.
17. Laboratory demonstration for HEADSUP program, July 2008.

Sponsorship of Postdoctoral Fellows / Research Associates:

Paul D. Smolen, Ph.D.	1996-2000
Viren Patel, Ph.D.	1997
Chaun Luo, Ph.D.	1997
Romuald Nargeot	1996-2001
Yidao Cai, Ph.D.	1999 – 2004
Bjoern Brembs, Ph.D.	2000 – 2003
Xintian Yu, Ph.D.	2000 - 2004
Mark Flynn, Ph.D.	2000 – 2003
Randall Hayes, Ph.D.	2001 – 2004
Daniel Wüstenberg, Ph.D.	2002 – 2005
Riccardo Mozzachiodi, Ph.D.	2001 - 2007
Evyatar Av-Ron, Ph.D.	2002 – 2006
Mohamed Habib, Ph.D.	2004
Enrico Cataldo, Ph.D.	2005 – 2006
Hao Song	2005 - 2007
Fred Lorenzetti, Ph.D.	2006 – 2010
Hsin-Mei Chen, Ph.D.	2008 - 2010
Yili Zhang, Ph.D.	2008 – 2011
Lian Zhou, Ph.D.	2008 – 2011

Sponsorship of Visiting Scientists:

Houjin Chen, Professor	1998-2003
Department of Electrical and Computer Engineering	
Northern Jiatong University	

Beijing, P.R. China	
Asaf Malik Department Life Sciences Bar-Ilan University Israel	2000
James Watrous, Professor Biology Department St. Joseph's University Philadelphia, PA USA	2001-2002
Marcello Brunelli, Professor Department Physiology and Biochemistry University of Pisa Italy	2002
Enrico Cataldo, Researcher Neurobiology and Computational Neurobiology Department Physiology and Biochemistry University of Pisa Italy	2006

Teaching Experience:

1975-1978	Teaching Assistant (Lecture & Laboratory) Human Anatomy and Physiology, Department of Zoology, The University of Texas at Austin
1978-1980	Assistant Instructor (Lecture & Laboratory) Vertebrate Physiology, Department of Zoology, The University of Texas at Austin
1980-1981	Instructor (Lecture & Laboratory) Human Anatomy and Physiology, Department of Biology, Austin Community College
1991	Contributing Lecturer in graduate course on <i>The Neurobiology of Aplysia</i> , Department of Zoology, The University of Texas at Austin
1996	Guest Lecturer in undergraduate course on <i>Bioengineering I</i> , Department of Electrical and Computer Engineering, Rice University, Houston, TX
1996-present	Contributing Lecturer in graduate course on <i>Current Topics in Neuroscience</i> , Department of Neurobiology and Anatomy, The University of Texas-Houston Medical School
1997	Contributing Lecturer in undergraduate course on <i>Psychobiology</i> , Department of Psychology, Rice University, Houston, TX
1997-2006	Contributing Lecturer in graduate course on <i>Cellular Neuroscience: Biophysics</i> , Dept. of Neurobiology and Anatomy, The University of Texas-Houston Medical School
1998-2006	Contributing Lecturer in graduate course on <i>Systems Neuroscience</i> , Dept. of Neurobiology and Anatomy, The University of Texas-Houston Medical School
1998	Contributing Lecturer in graduate course on <i>Neural Mechanisms of Voluntary Movement</i> , Department of Health and Human Performance, University of Houston
2001	Contributing Lecturer in graduate course on <i>Rehabilitation of Motor Control</i> , Department of Health and Human Performance, University of Houston

- 2001 Contributing Lecturer in graduate course on *The Neuroscience of Rehabilitation*, Department of Occupational Therapy, Texas Woman's University
- 2008-present Contributing lecturer in *Seminar in the Neurobiology of Learning and Memory*, Department of Neurobiology and Anatomy, The University of Texas Medical School at Houston

Other Educational and Mentoring Activities:

- 1995 Supervised graduate tutorial of Charles Hipskind, Neuroscience Program, University of Texas-Houston Medical School
- 1995 Supervised undergraduate tutorial of James Carson, *Bioengineering I*, Department of Electrical and Computer Engineering, Rice University
- 1996 Mentor, University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Nichole Rust, University of Idaho)
- 1996 Mentor, University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Ellis Giles, Rice University)
- 1996–1997 Supervised undergraduate tutorials of Samuel D. Swiderski, *Bioengineering I and II*, Department of Electrical and Computer Engineering, Rice University
- 1997 Supervised Undergraduate Tutorial of Pavlos A. Pavlou, *Bioengineering II*, Department of Electrical and Computer Engineering, Rice University
- 1997 Mentor, University of Texas-Houston Medical School, Summer Research Program for High School Teachers (Dr. S.S. Uppal, Davis High School, Houston I.S.D.)
- 1997 Mentor, The University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Andrew Owens, University of Southern California)
- 1997 Supervised graduate tutorial of Fred Lorenzetti, Neuroscience Program, The University of Texas-Houston Medical School
- 1998 Supervised graduate tutorial of Tara Ginsberg, Neuroscience Program, The University of Texas-Houston Medical School
- 1999 Mentor, The University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Melissa L. Scherr, University of Wyoming)
- 1999 Mentor, The University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Marcelle Rousseau, Tulane University)
- 1999 Mentor, The University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Elizabeth Wilkinson, Mount Holyoke College)
- 2000 Supervised graduate tutorial of Evangelos Antzoulatos, Neuroscience Program, The University of Texas-Houston Medical School
- 2001 Supervised graduate tutorial of Brian S. Lo, Neuroscience Program, The University of Texas-Houston Medical School
- 2003 Participant in GSBS Speakers Bureau Program: Physics Department at Steven F. Austin University
- 2004 Sponsor of graduate student in the UT Center for Biomedical Engineering Summer Internship Program
- 2006 Sponsor of graduate student in the UT Center for Biomedical Engineering Summer Internship Program
- 2006 Mentor, The University of Texas-Houston Medical School, Summer Research Program for First Year Medical Students (Rebecca Lee, UT-Houston Medical School)
- 2009 Mentor, The University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Sung Ji Ahn, The University of Texas at Austin)

- 2009 Mentor, The University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Curtis Neveu, Oklahoma State University)
- 2009 Mentor, The University of Texas-Houston Medical School, Summer Research Program for First Year Medical Students (Irving Basenz, UT-Houston Medical School)
- 2009 Mentor, The University of Texas-Houston Medical School, MD/PhD Tutorial (Charles Beam)
- 2010 Mentor, The University of Texas-Houston Medical School, Summer Research Program for Undergraduates (Hadas Friedman, Illinois Institute of Technology)
- 2010 Mentor, The University of Texas-Houston Medical School, Summer Research Program for First Year Medical Students (Aaron Russell, UT-Houston Medical School)

Current Grant Support:

National Institutes of Health (Research Grant)

Title: Modeling Gene Regulation Essential for Long-Term Plasticity
PI: John H. Byrne
Co-PI: Paul Smolen
Grant Number: R01-NS073974
Period of Support: 05/01/11 to 04/30/17
Total Direct Cost: \$984,375

The University of Texas System Neuroscience and Neurotechnology Research Institute

Title: Developing Integrated Methods for Analyzing Brain Circuits
PI: John H. Byrne
Proposal Number: 362804
Period of Support: 09/01/15 - 08/31/16
Total Direct Cost: \$100,000

Pending Grant Applications:

National Institutes of Health (Research Grant)

Title: Analyses of the Distributed Representation of Associative-Learning in an Identified Circuit Using a Combination of Single-Cell Electrophysiology and Multicellular Voltage-Sensitive Dye Recordings
PI: John H. Byrne
Application Number: 1 R01 NS101356-01
Requested Period of Funding: 04/31/2017 - 03/31/2022
Total Direct Costs Requested: \$1,250,000

National Institutes of Health (Research Grant)

Title: Modeling Gene Regulation Essential for Long-Term Plasticity
PI: John H. Byrne
Application Number: 1 R01 NS073974-06A1
Requested Period of Funding: 09/01/2016 - 08/31/2021
Total Direct Costs Requested: \$1,250,000

Previous Grant Support:

National Institutes of Health (Institutional Postdoctoral Training Grant)

Title: Program in Neuroscience
PI: n/a
Grant Number: T32 NS07182
Period of Support: 07/01/81 to 06/30/82
Total Direct Cost: \$16,400

National Institutes of Health (Individual Postdoctoral Fellowship)

Title: Postsynaptic Mechanisms of Hippocampal Neuroplasticity
PI: Douglas A. Baxter
Grant Number: F32 NS07190
Period of Support: 12/01/82 to 11/30/84
Total Direct Cost: \$35,508

National Institutes of Health New Investigator Research Award (Research Grant)

Title: Long-term Synaptic Potentiation: Behavior and Mechanism
PI: Douglas A. Baxter
Grant Number: R23 NS21561
Period of Support: 12/1/84 to 11/30/87
Total Direct Cost: \$110,820

National Center for Research Resource (Research Grant)

Title: Computational Models of Adaptive Neural Circuits
PI: Douglas A. Baxter
Grant Number: R01 RR11626.
Period of Support: 08/01/95 to 07/31/99
Total Direct Cost: \$308,917

National Center for Research Resource (Research Grant)

Title: Computational Models of Adaptive Neural Circuits
PI: Douglas A. Baxter
Co-PI: John H. Byrne
Grant Number: R01 RR11626.
Period of Support: 08/01/99 to 05/31/04
Total Direct Cost: \$493,492

National Center for Research Resource (Research Grant)

Title: Computational Models of Adaptive Neural Circuits
PI: Douglas A. Baxter
Co-PI: John H. Byrne
Grant Number: R01 RR11626.
Period of Support: 06/01/04 to 11/31/08
Total Direct Cost: \$450,000

Texas Higher Education Coordinating Board (Advanced Research Program)

Title: Cellular Analysis of a Neuronal Analogue of Operant Conditioning
PI: John H. Byrne
Co-PI: Douglas A. Baxter
Proposal Number: 011618-048
Period of Support: 01/01/96 to 08/31/98
Total Direct Cost: \$125,633

National Institutes of Mental Health (Research Grant)

Title: Cellular Mechanisms of Associative Learning
PI: John H. Byrne
Co-PI: Douglas A. Baxter
Grant Number: R01 MH58321
Period of Support: 04/01/98 to 03/31/03
Total Direct Cost: \$725,606

National Institutes of Mental Health (Research Grant)

Title: Cellular Mechanisms of Associative Learning
PI: John H. Byrne
Co-PI: Douglas A. Baxter
Grant Number: R01 MH58321
Period of Support: 04/01/03 to 03/31/08
Total Direct Cost: \$1,068,875

National Institutes of Health (Program Project Grant)

Title: Neural Models of Plasticity: Molecules to Networks
PI: John H. Byrne
Co-PI: Douglas A. Baxter
Grant Number: P01 NS38310
Period of Support: 07/01/99 to 5/31/05
Total Direct Cost: \$3,412,199

National Institutes of Health (Program Project Grant)

Title: Computational Model of Cellular Plasticity
PI: Terry Crow
Co-PI: Douglas A. Baxter
Grant Number: P01 NS38310 (Component Project 2)
Period of Support: 07/01/99 to 5/31/05
Total Direct Cost: \$505,562

National Institutes of Health (Program Project Grant)

Title: Modeling Plasticity in Neurons and Neural Circuits
PI: Douglas A. Baxter
Grant Number: P01 NS38310 (Component Project 4)
Period of Support: 07/01/99 to 5/31/05
Total Direct Cost: \$558,488

National Institutes of Health (Program Project Grant)

Title: Modeling Plasticity in Neurons and Neural Circuits
PI: Douglas A. Baxter
Grant Number: P01 NS38310 (Computational Core Facility)
Period of Support: 07/01/99 to 5/31/05
Total Direct Cost: \$1,063,090

National Institutes of Health (Program Project Grant)

Title: Neural Models of Plasticity: Molecules to Networks
PI: John H. Byrne
Co-PI: Douglas A. Baxter
Grant Number: P01 NS38310
Period of Support: 07/15/05 to 6/30/11
Total Direct Cost: \$3,752,768

National Institutes of Health (Program Project Grant)

Title: Neural Models of Plasticity: Molecules to Networks
PI: Douglas A. Baxter
Grant Number: P01 NS38310 (Computational Core Facility)
Period of Support: 07/15/05 to 6/30/11
Total Direct Cost: \$1,167,193

National Institutes of Mental Health (Research Grant)

Title: Cellular Mechanisms of Associative Learning
PI: John H. Byrne
Co-PI: Douglas A. Baxter
Grant Number: R01 MH058321
Period of Support: 07/01/08 to 01/31/14
Direct Cost: \$1,125,000

Publications:

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1ty8unADsHsKY/bibliography/47289320/public/?sort=date&direction=ascending>

Abstracts:

1. Bittner, G.D., Segundo, J.P. and Baxter, D.A. Facilitation of transmitter release at crustacean synapses. *Soc. Neurosci. Abstr.* 4: 1874, 1978.
2. Baxter, D.A. and Bittner, G.D. Presynaptic inhibition of transmitter release at crayfish synapses. *Soc. Neurosci. Abstr.* 5: 1877, 1979.
3. Baxter, D.A. and Bittner, G.D. Mechanism for presynaptic inhibition in crayfish claw opener muscle. *Soc. Neurosci. Abstr.* 7: 439, 1981.
4. Bittner, G.D. and Baxter, D.A. Intracellular recordings from synaptic terminals during facilitation of transmitter release. *Soc. Neurosci. Abstr.* 9: 883, 1983.
5. Baxter, D.A. and Brown, T.H. Quantal analysis of long-term synaptic potentiation. *Soc. Neurosci. Abstr.* 9: 103, 1983.
6. Keenan, C., Barrionuevo, G., Baxter, D. and Brown, T. Quantal release parameters compared at the crayfish neuromuscular junction using a novel and conventional method. *Soc. Neurosci. Abstr.* 11: 514, 1985.
7. Baxter, D.A. and Byrne, J.H. Forskolin-modulated membrane currents in *Aplysia* tail sensory neurons. *Soc. Neurosci. Abstr.* 11: 787, 1985.

8. Baxter, D.A. and Byrne, J.H. Serotonin-modulated membrane currents in *Aplysia* tail sensory neurons. *Soc. Neurosci. Abstr.* 12: 765, 1986.
9. Keenan, C.L., Baxter, D.A. and Brown, T.H. Multiplicative interaction between long-term potentiation and short-term facilitation in crayfish synapses. *Soc. Neurosci. Abstr.* 13: 1233, 1987.
10. Baxter, D.A. and Byrne, J.H. Modulation of membrane currents and excitability by serotonin and cAMP in pleural sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 13: 1440, 1987.
11. Cleary, L.J., Baxter, D.A. and Byrne, J.H. Myomodulin, a novel neuropeptide, modulates action potentials in pleural sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 13: 1440, 1987.
12. Baxter, D.A. and Byrne, J.H. Reduction of voltage-activated K⁺ currents by forskolin is not mediated by cAMP in pleural sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 14: 153, 1988.
13. Byrne, J.H., Buonomano, D., Corcos, I., Patel, S. and Baxter, D.A. Small networks of adaptive elements that reflect the properties of neurons in *Aplysia* exhibit higher-order features of classical conditioning. *Soc. Neurosci. Abstr.* 14: 840, 1988.
14. Raymond, J.L., Shulman, E.E., Baxter, D.A., Cleary, L.J. and Byrne, J.H. Differential effects of the peptide buccalin and serotonin on membrane currents, action potential duration, and excitability in pleural sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 15: 1284, 1989.
15. Critz, S.D., Baxter, D.A. and Byrne, J.H. Modulation of membrane currents by FMRFamide and myomodulin in tail sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 15: 993, 1989.
16. Baxter, D.A., Raymond, J.L., Buonomano, D.V. and Byrne, J.H. Operant conditioning can be simulated by small networks of neuron-like adaptive elements. *Soc. Neurosci. Abstr.* 15: 1263, 1989.
17. Baxter, D.A. and Byrne, J.H. Mathematical modeling of the serotonergic modulation of electrophysiological properties of sensory neurons in *Aplysia*. *Soc. Neurosci. Abstr.* 16: 1297, 1990.
18. Sugita, S., Baxter, D.A. and Byrne, J.H. Serotonin- and PKC-induced spike broadening in tail sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 17: 1590, 1991.
19. Baxter, D.A. and Byrne, J.H. Synaptic interactions among pattern generating neurons in buccal ganglia of *Aplysia*. *Soc. Neurosci. Abstr.* 17: 124, 1991.
20. Ziv, I, Baxter, D.A. and Byrne, J.H. Simulator for neural networks and action potentials (SNNAP): application to a central pattern generator. *Soc. Neurosci. Abstr.* 17: 125, 1991.
21. Canavier, C.C. Baxter, D.A., Clark, J.W. and Byrne, J.H. Simulations of action potentials, transmitter release, and plasticity of sensorimotor synapses in *Aplysia*. *Soc. Neurosci. Abstr.* 17: 1590, 1991.
22. White, J.A., Baxter, D.A. and J.H. Byrne. Quantitative analysis of the modulation by serotonin of the voltage-dependent potassium current in pleural sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 18: 714, 1992.
23. Sugita, S., Baxter, D.A. and Byrne, J.H. Activation of protein kinase C mimics serotonin-induced modulation of a voltage-dependent potassium current in pleural sensory neurons of *Aplysia*. *Soc. Neurosci. Abstr.* 18: 714, 1992.

24. Ziv, I., Baxter, D.A. and Byrne, J.H. Network model of a central pattern generator in the buccal ganglia of *Aplysia*. *Soc. Neurosci. Abstr.* 18: 1279, 1992.
25. Canavier, C.C., Baxter, D.A., Clark, J.W. and Byrne, J.H. Chaotic dynamics in a model neuron serve as putative memory mechanisms. *Soc. Neurosci. Abstr.* 18: 714, 1992.
26. Canavier, C.C., Baxter, D.A., Clark, J.W. and Byrne, J.H. Simulated effects of neuromodulators alter nonlinear and chaotic dynamics in a model neuron. *Biophys. J.* 64: A102, 1993.
27. Baxter, D.A. and Byrne, J.H. Serotonin inhibits rhythmic neural activity mediated via neurons B31/32 in the buccal ganglia of *Aplysia*. *Soc. Neurosci. Abstr.* 19: 349, 1993.
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