

April, 2012

CURRICULUM VITA

Jacqueline N. Crawley, Ph.D.

Chief, Laboratory of Behavioral Neuroscience
Intramural Research Program
National Institute of Mental Health
Building 35 Room 1C-903
Bethesda, MD 20892-3730 USA
Phone 301-496-7855
FAX 301-480-4630
crawleyj@mail.nih.gov
<http://intramural.nimh.nih.gov/lbn>

EDUCATION

- 1967-71 B.A., Biology, University of Pennsylvania, Philadelphia, PA
1971-76 Ph.D., Zoology, University of Maryland, College Park, MD
1976-79 Postdoctoral, Yale University School of Medicine, New Haven, CT

PROFESSIONAL EMPLOYMENT

- 2003-present Chief, Laboratory on Behavioral Neuroscience
Intramural Research Program,
National Institute of Mental Health, Bethesda, MD
- 1996-Present Adjunct Professor, Department of Pharmacology
Georgetown University School of Medicine, Washington, DC
- 2003-2008 Adjunct Professor, Department of Psychiatry
University of North Carolina School of Medicine at Chapel Hill
- 2003-2008 Research Professor, Department of Psychology
University of North Carolina at Chapel Hill
- 2001-2003 Chief, Section on Behavioral Genomics
IRP, National Institute of Mental Health, Bethesda, MD
- 1993-2000 Chief, Section on Behavioral Neuropharmacology
Experimental Therapeutics Branch, Intramural Research Program
National Institute of Mental Health, Bethesda, MD
- 1993-94 Acting Deputy Director, Intramural Research Program
National Institute of Mental Health, Bethesda, MD
- 1983-93 Chief, Unit on Behavioral Neuropharmacology, Tenured 1988
Clinical Neuroscience Branch/Experimental Therapeutics Branch National Institute of
Mental Health, Bethesda, MD

- 1981-83 Senior Neurobiologist, Central Research and Development
E.I. DuPont de Nemours and Company, Wilmington, DE
- 1979-81 Pharmacology Research Associate Program Training Fellow
Clinical Psychobiology Branch, National Institute of Mental Health,
and National Institute of General Medical Sciences, Bethesda, MD
- 1976-79 Biological Sciences Training Program Fellow
Neuropsychopharmacology Unit, Department of Psychiatry
Yale University School of Medicine, New Haven, CT

AWARDS AND HONORS

- 2011 Distinguished Scientist Award, International Behavioural and Neural Genetics Society
- 2011 Special Achievement Award, National Institute of Mental Health
- 2011 Fellow, American Association for the Advancement of Science
- 2010 National Institute of Mental Health Director's Merit Award
- 2010 President, International Behavioural and Neural Genetics Society
- 2009 Autism Awareness Day Keynote Award, University of Albany
- 2008 Howard Hughes Medical Research Institute Preceptor Award,
Student Internship Program
- 2005 Fleur Strand Lecture Award, Summer Neuropeptide Conference
- 2005 Marjorie A. Myers Lifetime Achievement Award, International Behavioral Neuroscience
Society
- 2005 Howard Hughes Medical Research Institute Preceptor Award,
Student Internship Program
- 2004 Society for Neuroscience Service Award, Chair of Membership Committee, 2001-2004
- 2003 Gladstone Institute of Neurological Disease Distinguished Scholar Award
- 2002 NIMH Director's Merit Award
- 2001 U.S. Department of Health and Human Services, Public Health Service,
National Institutes of Health, Special Act or Service Award in Recognition
and Appreciation of Special Achievement
- 2000 Howard Hughes Medical Research Institute Preceptor Award, Student Internship
Program
- 2000 ISI Citation Classic
Crawley and Corwin, Biological actions of cholecystokinin, Peptides 14:731-755, 1994

- 1999 National Institute of Mental Health Special Service Award
- 1999 Summer Neuropeptide Conference Organizers Award
- 1998 Howard Hughes Medical Research Institute Student and Teacher Internship Award
- 1993 Mathilde Solowey Lecture Award in Neuroscience
- 1993 National Institute of Mental Health Special Service Award
- 1979 Pharmacology Research Associate Training award, National Institute of General Medical Sciences
- 1976 Biological Sciences Training Program Research award, Yale University School of Medicine
- 1975 Graduate Research Fellowship, University of Maryland
- 1971 Graduate Teaching Fellowship, University of Maryland
- 1967 Mayor's Scholarship, University of Pennsylvania

EDITORIAL BOARD MEMBERSHIPS

- Autism Research* (2007-present)
- Annali dell'Istituto Superiore di Sanità* (2011-present)
- Behavioral Neuroscience* (2002-present)
- Behavioural Brain Research* (2003-present)
- Current Psychiatry Reviews* (2004-present)
- European Journal of Pharmacology* (past member)
- Depression and Anxiety* (1994-2004)
- Drug Discovery Today: Disease Mechanisms* (2004-present)
- European Journal of Pharmacology* (1994-2002)
- Frontiers in Behavioral Neuroscience* (2007-present)
- Genes, Brain and Behavior* (2001-present)
- Journal of Molecular Neuroscience* (1999-present)
- Journal of Neuroendocrinology* (1988-1996)
- Journal of Pharmacology and Experimental Therapeutics* (1999-2006)
- Neuropeptides* (2011-present) (Editor-in-Chief 1997-2011)
- Neuropsychopharmacology* (1999-2002)
- Open Journal of Neuroscience* (2011-present)
- Pharmacology Biochemistry and Behavior* (1988-present)
- Psychopharmacology* (1999-2009)
- The Open Pharmacology Journal* (2007-present)
- Reviews in the Neurosciences* (2005-present)
- Trends in Pharmacological Sciences* (1990-present)
- Wiley Current Protocols in Neuroscience* (1997-2004)

PROFESSIONAL SERVICE: SCIENTIFIC SOCIETIES

2011-2014	Member, Awards Committee, International Behavioural and Neural Genetics Society
2009-present	Member, Scientific Council, National Alliance for Research on Schizophrenia and Depression (NARSAD; Brain and Behavior Research Foundation)
2009-2010	President, International Society for Behavioural and Neural Genetics (IBANGS)
2007-2008	Chair, Program Committee, International Behavioral Neuroscience Society (IBNS)
2007-2009	Member, Program Committee, International Meeting for Autism Research (IMFAR)
2004-2006	Member, Program Committee, American College of Neuropsychopharmacology (ACNP)
2004	Co-Organizer, Galanin 2004, Third International Conference on Galanin and its Receptors, San Diego, CA
2003–2005	Member, Board of Trustees, Association for Assessment and Accreditation of Laboratory Animal Care International, Representative from the International Behavioral Neuroscience Society
2001-2004	Co-Chair, Membership Committee, Society for Neuroscience
2003-2007	Program Committee member, International Behavioral Neuroscience Society
2000-2001	President, International Behavioral Neuroscience Society
2000-2001	Program Committee member, International Behavioural and Neural Genetics Society
1993-1998	Organizer, Summer Neuropeptide Conference annual meetings
1998-2004	Membership Committee, member, Society for Neuroscience
1995-2004	Council Member, International Behavioral Neuroscience Society
1994-present	Council Member, International Neuropeptide Society
1996-1999	Committee on the Use of Animals, member, American College of Neuropsychopharmacology
1991-1994	Credentials Committee, member, American College of Neuropsychopharmacology
1987	President, Potomac Chapter, Society for Neuroscience

PROFESSIONAL SERVICE: GRANT REVIEWING

- Ongoing Ad Hoc for Grant Review Committees including:
 NIMH, NICHD, NIDA, NIAAA, NIA, NSF, VA
 Autism Speaks, Canadian Medical Research Council, European Science 2000,
 NARSAD, US-Israeli Binational Science Foundation, United Kingdom Medical
 Research Council
- 1989-1992 Panel Member, National Science Foundation
 Neural Mechanisms of Behavior Review Panel

PROFESSIONAL SERVICE: INTRAMURAL

- 2007-present Chair, Behavior Subcommittee, NIH Neuroscience Seminar Series
- 2007-present NIMH IRP Tenure and Promotions Committee
- 2006-present Trans-NIH IRP Initiatives Committee
- 2004-present Behavioral Investigator Review Panel, NIH Tenure Committee
- 2000-present Porter Neuroscience Research Center building design consultant
- 2000-present NIH Committee for Priority Setting for Mouse Genomic and Genetic
 Resources, member
- 1999-2003 NIMH IRP Tenure and Promotions Committee
- 1998-2002 NIH Behavioral and Social Sciences Research Coordinating Committee,
 Intramural Representative
- 1987-1992 NIMH Animal Care and Use Committee member
 1991-1992 Chair, NIMH Animal Care and Use Committee
 1998-1999 Chair, NIMH Animal Care and Use Committee
- 1990-2002 NIMH Representative, 10A Animal Facilities Users Committee
- 1990-present NIMH Women Scientists Group
 1991-1992 Chair, NIMH Women Scientists Group
 1994-1996 Chair, NIMH Women Scientists Group
- 1994-1996 NIMH Representative, NIH Women Scientists Advisory Committee
- 1997-1999 Chair, Working Group on Behavioral Assessment of Mutant Mice, NIH Office of
 Behavioral and Social Sciences Research
- 1997-1998 Representative on Behavioral Studies, Mouse Phenotyping Facility Proposal, NIH
 Shared Resources Subcommittee of Scientific Directors
- 1996-present Member, NIMH Search Committees for Tenure-Track and Senior Investigators
- 1996-present Member, NIAAA Search Committee for Tenure-Track Investigators (Chair in 1996)

2003 Member, NIDA Search Committee for Tenure-Track Investigators

EXTERNAL MENTORING

2008 – present Mentor, NIH K Award, Murine genetic models of autism, PI Jeremy Veenstra-VanderWeele, Vanderbilt University

2006-2008 Mentor, NARSAD Award to Mark Zylka, Neuroscience Center, University of North Carolina

TEACHING

2004-2008 Member, Curriculum in Neurobiology, Graduate training program, University of North Carolina at Chapel Hill

2004-2007 Lecturer, Behavioral Neuroscience, University of North Carolina Department of Psychology

2002-present Lecturer, Neurobiology of Mental Illness, FAES Graduate Program at NIH

1991-2008 Lecturer, Georgetown University Graduate Course in Neuropharmacology

1988-present Lecturer, George Washington University Graduate Course in Neuropharmacology

1979-1986 Lecturer, New Tools in Biological Psychiatry, FAES Graduate Program at NIH

MEMBER OF Ph.D. DISSERTATION COMMITTEES (completion date)

2009 Rose-Marie Karlsson, Karolinska Institute-NIH graduate program

2008 Edward Billingslea, Georgetown University

2008 Elizabeth Hess, University of North Carolina

2000 Ruth Bariantos, George Washington University

2000 David Ault, George Washington University

2000 Annika Thorsell, Karolinska Institutet

1998 Kimberly Simpson, Hahnemann University

1993 James Auta, Georgetown University

1992 Christian Heidebreder, University of Louvain, Belgium

1992 Muriel Derrain, University Renes Descartes, France

1991 Sharon Richardson, Howard University

1990 Linda Weiss-Wunder, University of Pennsylvania

SCIENTIFIC ADVISORY BOARDS

2009-present Member, Scientific Council, National Alliance for Research on Schizophrenia and Depression

2008-present Member, External Advisory Committee, Functional Assessment Core, Gladstone Institute, University of California San Francisco

- 2008-present Member, External Advisory Committee, NeuroTherapeutics Research Institute, University of California Davis
- 2008-present Member, External Advisory Committee, Behavioral and Functional Neuroscience, Laboratory, Stanford University
- 2003 Member, Scientific Advisory Board, Alzheimer Research Consortium, New York, NY
- 2003 Member, Scientific Advisory Board, Gladstone Institute of Neurological Disease, San Francisco, CA

PROFESSIONAL SOCIETY MEMBERSHIPS

American Association for the Advancement of Science
 American College of Neuropsychopharmacology
 Association for Psychological Science (Fellow)
 Behavior Genetics Association
 European Neuropeptide Club
 International Behavioral and Neural Genetics Society
 International Behavioral Neuroscience Society (Fellow)
 International Neuropeptide Society (Founding Member)
 International Society for Autism Research
 National Alliance for Research in Schizophrenia and Affective Disorders (NARSAD) Council
 Society for Behavioral Neuroendocrinology
 Society for Neuroscience

CONSULTANTSHIPS TO INDUSTRY

- 1997-2000 Consultant, Helicon Inc., Cold Spring Harbor, NY
- 1996-1999 Consultant, R.W. Johnson Pharmaceutical Research Institute, Spring House, PA

NIH COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT

- 1999-2000 Pharmacopeia, Inc., Cranbury, NJ
 “Development of Biologically Active, Subtype-Selective, Nonpeptide Galanin Receptor Agonists and Antagonists”

NIH ROYALTIES RECEIVED

Dishevelled-1 null mutant mice licensed by Dr. Anthony Winshaw-Boris, NHGRI, to Merck Neuroscience Research Centre, Terlings Park, Harlow, England, UK, 1999
 Neurosciences Research, SmithKline Beecham, Harlow, England, UK, 2000

FUNDING

A. NIMH Intramural

1 ZIA MH02179-24 Animal Models of Neuropsychiatric Disorders
NIMH Intramural Research Program to Laboratory of Behavioral Neuroscience
PI Jacqueline Crawley
FY 2010-2011: \$1,054,485 direct costs, \$552,993 indirect charges

B. Foundation and Industry Grants

Intramural Principal Investigators at the National Institutes of Health are permitted to accept funding from private foundations and from pharmaceutical companies, in accordance with NIH policies and with approval from ethics officers.

Current external funding:

Simons Foundation SFARI Award, 2009-2011
The Role of SHANK3 in Autism Spectrum Disorders
PI Joseph Buxbaum, Mt. Sinai School of Medicine, New York, NY
Co-PI Jacqueline Crawley, \$38,880/year direct costs to LBN, NIMH

New Jersey Governor's Council for Medical Research and Treatment of Autism, 2010-2012
Developmental Role of Engrailed-2 in Regulation of Forebrain-Projecting Monoamine Systems
PI Emanuel DiCicco-Bloom, Robert Wood Johnson Medical School, University of Medicine and Dentistry
New Jersey, Piscataway, NJ
Co-PI Jacqueline Crawley, \$44,800/year direct costs to LBN, NIMH

Pfizer Global Research Inc., Academic Collaboration Award, 2010-2012
Gene Discovery and Neurodevelopmental Analysis in a Mouse Model of Autism
PI Elliott Sherr, University of California San Francisco
Co-PI Jacqueline Crawley, \$79,000/year direct costs to LBN, NIMH

C. Co-Investigator on Extramural NIH Grants

Intramural Principal Investigators at the National Institutes of Health are prohibited from accepting funding from extramural grants. Intramural PIs can be listed on NIH extramural grants as unfunded investigators.

Unfunded Co-Investigator on:

R01 MH081845-01A2, 2009-2013
The Genetic Control of Social Behavior in the Mouse
PI Robert Blanchard, University of Hawaii at Manoa

OF14 ISS-NIH Partnership Award, 2006-2010
Neurobehavioral Phenotyping of Genetically Modified Mouse Models of Mental Retardation
PI Laura Ricceri, Istituto Superiore di Sanita, Rome, Italy

5R01MH061696-05, 2002-2007
Studies to Advance Autism Research and Treatment (STAART)
PI Joseph Piven, University of North Carolina
Project 4 Gene Dissection of Autism-Related Behaviors in Mice, PI Terry Magnuson

Letter of Intent submitted June 16, 2010:
U19 NIH National Cooperative Drug Discovery and Development Group proposal
Translational Discovery of Novel Treatments for Autism Using Genetic Mouse Models

D. Consultant on External Grants

Intramural Principal Investigators at the National Institutes of Health are prohibited from accepting financial compensation as consultants on extramural grants. Intramural PIs can be listed on NIH extramural grants as unfunded advisors.

Behavioral Advisor to Mouse Behavioral Core Facilities at Case Western Reserve University, Gladstone Institute at University of California San Francisco, Harvard University, Stanford University, Vanderbilt University (ongoing)

External Advisory Committee member, NeuroTherapeutics Research Institute, University of California Davis School of Medicine (ongoing)

Behavioral Advisor to NIH R01 grant, Neurochemical and behavioral activity of NAAG in animal models of schizophrenia, PI Joseph Neale, Georgetown University, 2008-2013

Behavioral Advisor to P30 Developmental Disabilities Research Center, PI Joseph Piven, University of North Carolina, 2008-2013

Behavioral Advisor to AALAS grant, Communal nesting in mice, PI Kathleen Heiderstadt, Pennsylvania State University, 2009-2012

Behavioral Advisor to NIH R01 grant, Neonatal seizure therapy and susceptibility to schizophrenia, PI Alexei Kondratyev, Georgetown University School of Medicine, 2007-2010

Consultant to Center Grant, Johns Hopkins University, Dr. John Gearhardt, Principal Investigator, 1998-2001

Consultant to Program Project Grant, Georgetown University, Dr. Richard Gillis, Principal Investigator, 1992-96

PEER-REVIEWED PUBLICATIONS

1. [Lerner JN](#), Mellen SA, Waldron I, Factor RM: Neural redundancy and regularity of swimming beats in the scyphozoan medusae. *J Exp Biol* 55:177-185, 1971.
2. [Crawley JN](#), Schleidt WM, Contrera JF: Does social environment decrease propensity to fight in male mice? *Behav Biol* 15:73-83, 1975.
3. [Crawley JN](#) and Contrera JF: Intraventricular 6-hydroxydopamine lowers isolation-induced fighting behavior in male mice. *Pharmacol Biochem Behav* 4:381-384, 1976.
4. [Crawley JN](#), Hattox SE, Maas JW, Roth RH: 3-Methoxy-4-hydroxyphenethyleneglycol increase in plasma after stimulation of the nucleus locus coeruleus. *Brain Res* 141:380-384, 1978.
5. [Crawley JN](#), Maas JW, Roth RH: Increase in plasma MHPG following stimulation of the nucleus locus coeruleus. *Psychopharm Bull* 15:27-29, 1978.
6. [Crawley JN](#), Lavery R, Roth RH: Clonidine reversal of increased norepinephrine metabolite levels during morphine withdrawal. *Eur J Pharmacol* 57:247-259, 1979.

7. [Crawley JN](#), Roth RH, Maas JW: Locus coeruleus stimulation increases noradrenergic metabolite levels in rat spinal cord. *Brain Res* 166:180-184, 1979.
8. [Crawley JN](#), Maas JW, Roth RH: Evidence against specificity of electrical stimulation of the nucleus locus coeruleus in activating the sympathetic nervous system in the rat. *Brain Res* 183:301-311, 1980.
9. [Crawley JN](#), Roth RH, Maas JW: Biochemical evidence for simultaneous activation of multiple locus coeruleus efferents. *Life Sci* 26:1373-1378, 1980.
10. [Crawley JN](#) and Goodwin FK: Preliminary report of a simple animal behavior model for the anxiolytic effects of benzodiazepines. *Pharmacol Biochem Behav* 13:167-170, 1980.
11. [Crawley JN](#): Neuropharmacologic specificity of a simple animal model for the behavioral actions of benzodiazepines. *Pharmacol Biochem Behav* 15:695-699, 1981.
12. [Crawley JN](#), Hays SE, O'Donohue TL, Paul SM: Neuropeptide modulation of social and exploratory behaviors in laboratory rodents. *Peptides* 2:123-129, 1981.
13. [Crawley JN](#), Hays SE, Paul SM: Vagotomy abolishes the inhibitory effects of cholecystokinin on rat exploratory behavior. *Eur J Pharmacol* 73:379-380, 1981.
14. [Crawley JN](#), Hays SE, Paul SM, Goodwin FK: Cholecystokinin reduces exploratory behavior in mice. *Physiol Behav* 27:408-411, 1981.
15. [Crawley JN](#), Patel J, Marangos PJ: Behavioral characterization of two long-lasting adenosine analogs: Sedative properties and interaction with diazepam. *Life Sci* 29:2623-2630, 1981.
16. Skolnick P, Paul SM, [Crawley JN](#), Rice K, Barker S, Weber R, Cain M, Cook J: 3-Hydroxymethyl-beta-carboline antagonizes some pharmacologic actions of diazepam. *Eur J Pharmacol* 69:525-528, 1981.
17. Swann AC, [Crawley JN](#), Grant SJ, Maas JW: Noradrenergic stimulation in vivo increases (Na⁺,K⁺)-adenosine triphosphate activity. *Life Sci* 28:251-256, 1981.
18. [Crawley JN](#), Marangos PJ, Paul SM, Skolnick P, Goodwin FK: Purine benzodiazepine interaction: Inosine reverses diazepam-induced stimulation of mouse exploratory behavior. *Science* 22:725-727, 1981.
19. Cain M, Wever RW, Guzman F, Cook JM, Barker SA, Rice KC, [Crawley JN](#), Paul SM, Skolnick P: Beta-carbolines: Synthesis, neurochemical, and pharmacological actions on brain benzodiazepine receptors. *J Med Chem* 25:1081-1091, 1982.
20. [Crawley JN](#) and Davis LG: Baseline exploratory activity predicts anxiolytic responsiveness to diazepam in five mouse strains. *Brain Res Bull* 8:609-612, 1982.
21. [Crawley JN](#), Marangos JN, Stivers PJ, Goodwin FK: Chronic clonazepam administration induces benzodiazepine receptor subsensitivity. *Neuropharmacology* 21:85-90, 1982.
22. [Crawley JN](#), Rojas-Ramirez JA, Mendelson WB: The role of central and peripheral cholecystokinin in mediating appetitive behaviors. *Peptides* 3:535-538, 1982.

23. [Crawley JN](#), Szara S, Creveling CR, Pryor GT: Development and evaluation of a video-monitored, computer-assisted system for automatic recording of social and exploratory behavior of small animals. *J Neurosci Methods* 5:235-247, 1982.
24. Marangos PJ and [Crawley JN](#): Chronic benzodiazepine treatment increases [³H] muscimol binding in mouse brain. *Neuropharmacology* 21:81-84, 1982.
25. Moody TW, [Crawley JN](#), Jensen RT: Pharmacology and neurochemistry of bombesin-like peptides. *Peptides* 3:559-563, 1982.
26. Rojas-Ramirez JA, [Crawley JN](#), Mendelson WB: Electroencephalographic analysis of the sleep-inducing actions of cholecystokinin. *Neuropeptides* 3:129-138, 1982.
27. Blumstein LK and [Crawley JN](#): Further characterization of a simple, automated exploratory model for the anxiolytic effects of benzodiazepines. *Pharmacol Biochem Behav* 18:37-40, 1983.
28. Charlton CG, Miller RL, [Crawley JN](#), Handelmann GE, O'Donohue TL: Secretin modulation of behavioral and physiological functions in the rat. *Peptides* 4:739-742, 1983.
29. [Crawley JN](#): Divergent effects of cholecystokinin, bombesin, and lithium on rat exploratory behaviors. *Peptides* 4:405-410, 1983.
30. [Crawley JN](#): Preliminary report of a new rodent separation model of depression. *Psychopharm Bulletin* 19:537-541, 1983.
31. [Crawley JN](#) and Beinfeld MC: Rapid development of tolerance to the behavioral actions of cholecystokinin. *Nature* 302:703-706, 1983.
32. [Crawley JN](#) and Moody TW: Anxiolytics block excessive grooming behavior induced by ACTH 1-24 and bombesin. *Brain Res Bull* 10:399-401, 1983.
33. [Crawley JN](#), Patel J, Marangos PJ: Adenosine uptake inhibitors potentiate the sedative effects of adenosine. *Neurosci Lett* 36:169-174, 1983.
34. Skolnick P, Paul S, [Crawley J](#), Lewin E, Lippa A, Clody D, Irmischer K, Saiko O, Minck KO: Antagonism of the anxiolytic action of diazepam and chlordiazepoxide by two novel pyrazolopyridines, EMD 39593 and EMD 41717. *Eur J Pharmacol* 88:319-327, 1983.
35. [Crawley JN](#) and Schwaber JS: Nucleus tractus solitarius lesions block the behavioral actions of cholecystokinin. *Peptides* 4:743-747, 1983.
36. [Crawley JN](#): Cholecystokinin accelerates the rate of habituation to a novel environment. *Pharmacol Biochem Behav* 20:23-27, 1984.
37. [Crawley JN](#): Evaluation of a proposed hamster separation model of depression. *Psychiatry Res* 11:35-47, 1984.
38. [Crawley JN](#): Preliminary report of a new rodent separation model of depression. *Prog Neuropsychopharmacol Biol Psychiatry* 8:447-457, 1984.
39. [Crawley JN](#), Blumstein LK, Baldino F: Anxiolytic-like properties of fominoben. *Eur J Pharmacol* 97:277-281, 1984.

40. [Crawley JN](#), Hommer DW, Skirboll LR: Behavioral and neurophysiological evidence for a facilitatory interaction between co-existing transmitters: cholecystokinin and dopamine. *Neurochem Int* 6:755-760, 1984.
41. [Crawley JN](#), Kiss JZ, Mezey E: Bilateral midbrain transections block the behavioral effects of cholecystokinin on feeding and exploration in rats. *Brain Res* 322:316-321, 1984.
42. [Crawley JN](#), Ninan PT, Pickar D, Chrousos GP, Skolnick P, Paul SM: Behavioral and physiological responses to benzodiazepine receptor antagonists. *Psychopharmacol Bull* 403:20-24, 1984.
43. [Crawley JN](#) and Schwaber JS: Abolition of the behavioral effects of cholecystokinin following bilateral radio frequency lesions of the parvicellular subdivision of the nucleus tractus solitarius. *Brain Res* 295:289-299, 1984.
44. [Crawley JN](#), Skolnick P, Paul SM: Absence of intrinsic actions of benzodiazepine antagonists on a mouse exploratory model of anxiety. *Neuropharmacology* 23:531-537, 1984.
45. [Crawley JN](#), St Pierre S, Gaudreau P: Analysis of the behavioral activity of C- and N-terminal fragments of cholecystokinin octapeptide. *J Pharmacol Exp Therap* 230:438-444, 1984.
46. Hirsch MD, O'Donohue TL, Wilson R, Sawyer TK, Hruby VJ, Hadley ME, Cody WI, Knittel JJ, [Crawley JN](#): Structural-conformational modifications of α -MSH/ACTH4-10 provide melanaotropin analogues with highly potent behavioral activities. *Peptides* 5:1197-1201, 1984.
47. Skolnick P, Ninan P, Insel T, [Crawley JN](#), Paul S: A novel chemically-induced animal model of human anxiety. *Psychopathology* 17:25-36, 1984.
48. Squires RF, Saederup E, [Crawley JN](#), Skolnick P, Paul SM: Convulsant potencies of tetrazoles are highly correlated with actions on GABA/benzodiazepine/picrotoxin receptor complexes in brain. *Life Sci* 35:1439-1444, 1984.
49. Yachnis AT, [Crawley JN](#), Jensen RT, Moody TW: The antagonism of bombesin in the CNS by substance P analogues. *Life Sci* 35:1963-1969, 1984.
50. [Crawley JN](#): A monoamine oxidase inhibitor reverses the "separation syndrome" in a new hamster separation model of depression. *Eur J Pharmacol* 112:129-133, 1985.
51. [Crawley JN](#): Cholecystokinin potentiates dopamine-mediated behaviors in the nucleus accumbens, a site of CCK-DA coexistence. *Psychopharmacol Bull* 21:523-527, 1985.
52. [Crawley JN](#): Neurochemical investigation of the afferent pathway from the vagus nerve to the nucleus tractus solitarius in mediating the "satiety syndrome" induced by systemic cholecystokinin. *Peptides* 6:133-138, 1985.
53. [Crawley JN](#), Hommer DW, Skirboll LR: Topographical analysis of nucleus accumbens sites at which cholecystokinin potentiates dopamine induced hyperlocomotion in the rat. *Brain Res* 355:337-341, 1985.
54. [Crawley JN](#) and Kiss JZ: Paraventricular nucleus lesions abolish the inhibition of feeding induced by systemic cholecystokinin. *Peptides* 6:927-935, 1985.

55. [Crawley JN](#), Ninan PT, Pickar D, Chrousos GP, Linnoila M, Skolnick P, Paul SM: Neuropharmacological antagonism of the β -carboline-induced “anxiety” response in rhesus monkeys. *J. Neurosci* 5:477-485, 1985.
56. [Crawley JN](#), Olschowka JA, Diz DI, Jacobowitz DM: Behavioral investigation of the coexistence of substance P, corticotropin releasing factor, and acetylcholinesterase in lateral dorsal tegmental neurons projecting to the medial frontal cortex of the rat. *Peptides* 6:891-901, 1985.
57. [Crawley JN](#), Stivers JA, Blumstein LK, Paul SM: Cholecystokinin potentiates dopamine-mediated behaviors: Evidence for modulation specific to a site of coexistence. *J Neurosci* 5:1972-1983, 1985.
58. Drugan RC, Maier SF, Skolnick P, Paul SM, [Crawley JN](#): An anxiogenic benzodiazepine receptor ligand induces learned helplessness. *Eur J Pharmacol* 113:453-457, 1985.
59. Hommer DW, Palkovits M, [Crawley JN](#), Paul SM, Skirboll LR: CCK-induced excitation in the substantia nigra: Evidence for peripheral and central components. *J Neurosci* 5:1387-1392, 1985.
60. Angel I, Kiss A, Stivers JA, Skirboll LR, [Crawley JN](#), Paul SM: Regulation of [³H]mazindol binding to subhypothalamic areas: Involvement in glucoprivic feeding. *Brain Res Bull* 17:873-877, 1986.
61. [Crawley JN](#), Glowa JR, Majewska MD, Paul SM: Anxiolytic activity of an endogenous adrenal steroid. *Brain Res* 398:382-385, 1986.
62. [Crawley JN](#), Stivers JA, Hommer DW, Skirboll LR, Paul SM: Antagonists of central and peripheral behavioral actions of cholecystokinin. *J Pharmacol Exp Ther* 236:320-330, 1986.
63. [Crawley JN](#), Stivers JA, Martin JV, Mendelson WB: Cholinergic induction of seizures in the rat prefrontal cortex. *Life Sci* 38:2347-2354, 1986.
64. Drugan RC, Basile AS, [Crawley JN](#), Paul SM, Skolnick P: Inescapable shock reduces [³H]Ro5-4864 binding to “peripheral-type” benzodiazepine receptors in the rat. *Pharmacol Biochem Behav* 24:1673-1677, 1986.
65. Drugan RC, Skolnick P, Paul SM, [Crawley JN](#): Low doses of muscimol produce anticonflict actions in the lateral septum of the rat. *Neuropharmacology* 25:203-205, 1986.
66. Hommer DW, Stoner G, [Crawley JN](#), Paul SM, Skirboll LR: Cholecystokinin-dopamine coexistence: electrophysiological actions corresponding to cholecystokinin receptor subtype. *J Neurosci* 6:3039-3042, 1986.
67. Smith CB and [Crawley JN](#): Anxiolytic action of CGS 9896 on mouse exploratory behavior. *Eur J Pharmacol* 132:259-262, 1986.
68. Wolkowitz O, Sutton M, Koulu M, LaBarca R, Wilkinson L, Doran A, Pickar D, [Crawley J](#): Chronic corticosterone administration in rats: Behavioral and biochemical evidence of increased central dopaminergic activity. *Eur J Pharmacol* 122:329-338, 1986.
69. Suzdak PD, Glowa JR, [Crawley JN](#), Schwartz RD, Skolnick P, Paul SM: A selective imidazobenzodiazepine antagonist of ethanol in the rat. *Science* 234:1243-1247, 1986.
70. Suzdak PD, Glowa J, [Crawley JN](#), Schwartz RD, Skolnick P, Paul SM: Response to Miczek and Weerts. *Science* 235: 1127-1128, 1987.

71. Angel I, Stivers JA, Paul SM, [Crawley JN](#): Site of action of anorectic drugs: Glucoprivic versus food deprivation induced-feeding. *Pharmacol Biochem Behav* 27:291-297, 1987.
72. Blumstein LK, [Crawley JN](#), Davis LG, Baldino F: Neuropeptide modulation of apomorphine-induced stereotyped behavior. *Brain Res* 404:293-300, 1987.
73. Drugan RC, Basile AS, [Crawley JN](#), Paul SM, Skolnick P: "Peripheral" benzodiazepine binding sites in the Maudsley reactive rat: Selective decrease confined to peripheral tissues. *Brain Res Bull* 18:143-145, 1987.
74. Drugan RC, [Crawley JN](#), Paul SM, Skolnick P: Buspirone attenuates learned helplessness behavior in rats. *Drug Devel Res* 10:63-67, 1987.
75. Kaltwasser MT and [Crawley JN](#): Oxytocin and cholecystokinin induce grooming behavior in the ventral tegmentum of the rat. *Brain Res* 426:1-7, 1987.
76. Kaltwasser MT, Petrack B, [Crawley JN](#): Potency of CR 1409, a new proglumide analog, on cholecystokinin-mediated behaviors and receptor binding. *Neurochem Int* 10:547-553, 1987.
77. [Crawley JN](#): Attenuation of dark-induced hyperlocomotion by a cholecystokinin antagonist in the nucleus accumbens. *Brain Res* 473:398-400, 1988.
78. Drugan RC, Basile AS, [Crawley JN](#), Paul SM, Skolnick P: Characterization of stress-induced alterations in [³H]Ro5-4864 binding to peripheral benzodiazepine receptors in rat heart and kidney. *Pharmacol Biochem Behav* 30:1015-1020, 1988.
79. Khosla S and [Crawley JN](#): Potency of L-364,718 as an antagonist of the behavioral effects of peripherally administered cholecystokinin. *Life Sci* 42:153-159, 1988.
80. Mastropaolo J and [Crawley JN](#): Behavioral evidence for increased cholinergic receptor sensitivity after nucleus basalis magnocellularis lesions in the rat. *Eur J Pharmacol* 153:301-304, 1988.
81. Mastropaolo J, Nadi NS, Ostrowski NL, [Crawley JN](#): Galanin antagonizes acetylcholine on a memory task in basal forebrain-lesioned rats. *Proc Natl Acad Sci USA* 85:9841-9845, 1988.
82. Merali Z, Merchant CA, [Crawley JN](#), Coy DH, Heinz-Erian P, Jensen RT, Moody TW: (D-Phe¹²) bombesin and substance P analogues function as central bombesin receptor antagonists. *Synapse* 2:282-287, 1988.
83. Stivers JA and [Crawley JN](#): Substance P antagonists block carbachol-induced "boxing" behavior at a site of coexistence in the rat prefrontal cortex. *Peptides* 9:117-121, 1988.
84. Stivers JA, Kaltwasser MT, Hill PS, Hruby VJH, [Crawley JN](#): Ventral tegmental oxytocin induces grooming. *Peptides* 9:223-231, 1988.
85. Stivers JA, Skirboll LR, Long R, [Crawley JN](#): Anatomical analysis of frontal cortex sites at which carbachol induces "boxing"-like seizures in the rat. *Pharmacol Biochem Behav* 30:129-136, 1988.
86. Suzdak PD, Glowa JR, [Crawley JN](#), Skolnick P, Paul SM: Response to KT Britton et al. *Science* 239:649-650, 1988.
87. Suzdak PD, Paul SM, [Crawley JN](#): Effects of Ro15-4513 and other benzodiazepine receptor inverse agonists on alcohol-induced intoxication in the rat. *J Pharmacol Exp Ther* 245:880-885, 1988.

88. [Crawley JN](#): Microinjection of cholecystokinin into the rat ventral tegmental area potentiates dopamine-induced hypolocomotion. *Synapse* 3:346-355, 1989.
89. Drugan RC, Skolnick P, Paul SM, [Crawley JN](#): A pretest procedure reliably predicts performance in two animal models of inescapable stress. *Pharmacol Biochem Behav* 33:649-654, 1989.
90. Drugan RC, Morrow AL, Weizman R, Weizman A, Deutsch SI, [Crawley JN](#), Paul SM: Stress-induced behavioral depression in the rat is associated with a decrease in GABA-mediated chloride ion flux and brain benzodiazepine receptor occupancy. *Brain Res* 487:45-51, 1989.
91. Fisone G, Berthold M, Bedecs K, Uden A, Bartfai T, Bertorelli R, Consolo S, [Crawley JN](#), Martin B, Nilsson S, Hökfelt T: N-terminal galanin-(1-16) fragment is an agonist at the hippocampal galanin receptor. *Proc Natl Acad Sci USA* 86:9588-9591, 1989.
92. Glowa JR, [Crawley J](#), Suzdak PD, Paul SM: Ethanol and the GABA receptor agonist Ro 15-4513. *Pharmacol Biochem Behav* 31:767-772, 1989.
93. Mefford IN, Lawrenz AL, Hsiao JK, [Crawley JN](#): Activation in young rats induced by LY134046, an inhibitor of phenylethanolamine N-methyltransferase. *Psychopharmacology* 98:240-244, 1989.
94. Zohar J, Murphy DL, [Crawley JN](#): Hyperlocomotion induced by dopamine or cholecystokinin+dopamine in the nucleus accumbens is not modified by chronic lithium treatment. *Prog Neuropsychopharmacol Biol Psychiat* 13:775-779, 1989.
95. Austin MC, Cottingham SL, Paul SM, [Crawley JN](#): Tyrosine hydroxylase and galanin mRNA levels in locus coeruleus neurons are increased following reserpine administration. *Synapse* 6:351-357, 1990.
96. Consolo C, Palazzi E, Bertorelli R, Fisone G, [Crawley J](#), Hökfelt T, Bartfai T: Functional aspects of acetylcholine-galanin coexistence in the brain. *Prog Brain Res* 84:279-287, 1990.
97. Cottingham SL, Pickar D, Shimotake TK, Montpied P, Paul SM, [Crawley JN](#): Tyrosine hydroxylase and cholecystokinin mRNA levels in the substantia nigra, ventral tegmental area, and locus coeruleus are unaffected by acute and chronic haloperidol administration. *Cell Mol Neurobiol* 10:41-50, 1990.
98. [Crawley JN](#), Austin MC, Fiske SM, Martin B, Consolo S, Berthold M, Langel Ü, Fisone G, Bartfai T: Activity of centrally administered galanin fragments on stimulation of feeding behavior and on galanin receptor binding in the rat hypothalamus. *J Neurosci* 10:3695-3700, 1990.
99. Dauge V, Bohme GA, [Crawley JN](#), Durieux C, Stutzmann JM, Feger J, Blanchard JC, Roques BP: Investigation of behavioral and electrophysiological responses induced by selective stimulation of CCKB receptors using a new highly potent CCK analog: BC 264. *Synapse* 6:73-80, 1990.
100. De Mesquita S, Beinfeld MC, [Crawley JN](#): Microdialysis as an approach to quantitate the release of neuropeptides. *Prog Neuropsychopharmacol Biol Psychiat* 14:S5-S15, 1990.
101. Laitinen K, [Crawley JN](#), Mefford IN, De Witte PH: Neurotensin and cholecystokinin microinjected into the ventral tegmental area modulate microdialysate concentrations of dopamine and metabolites in the posterior nucleus accumbens. *Brain Res* 523:342-346, 1990.

102. [Crawley JN](#), Fiske SM, Durieux C, Derrien M, Roques BP: Centrally administered cholecystokinin suppresses feeding through a peripheral-type receptor mechanism. *J Pharmacol Exp Ther* 257:1076-1080, 1991.
103. Jaskiw GE, Weinberger DR, [Crawley JN](#): Microinjection of apomorphine into the prefrontal cortex of the rat reduces dopamine metabolite concentrations in microdialysate from the caudate nucleus. *Biol Psychiatry* 29:703-706, 1991.
104. Schultzberg M, Austin MC, [Crawley JN](#), Paul SM: Repeated administration of desmethylimipramine blocks the reserpine-induced increase in tyrosine hydroxylase mRNA in locus coeruleus neurons of the rat. *Mol Brain Res* 10:307-314, 1991.
105. Tanimoto K, Kuo S, [Crawley JN](#), Tamminga CA: Cholecystokinin in the mammalian central nervous system: Review and metabolic analysis. *Prog Psychiatry* 29:195-205, 1991.
106. Sehitoglu EG and [Crawley JN](#): Microdialysis studies of neurotensin modulation of dopamine release in the mesolimbic pathway of the awake, behaving rat. *Turk J Med Biol Res* 2:317-323, 1991.
107. Austin MC, Schultzberg M, Abbott LC, Montpied P, Evers JR, Paul SM, [Crawley JN](#): Expression of tyrosine hydroxylase in cerebellar Purkinje neurons of the mutant tottering and leaner mouse. *Mol Brain Res* 15:227-240, 1992.
108. [Crawley JN](#): Subtype-selective cholecystokinin receptor antagonists block cholecystokinin modulation of dopamine-mediated behaviors in the rat mesolimbic pathway. *J Neurosci* 12:3380-3391, 1992.
109. [Crawley JN](#), Evers JR, Paul SM: Polyamines inhibit N-methyl-D-aspartate antagonist-induced darting behavior in the rat prefrontal cortex. *Brain Res* 586:6-11, 1992.
110. Leppin C, Finiels-Marlier F, [Crawley JN](#), Montpied P, Paul SM: Failure of protein synthesis inhibitor to modify glutamate receptor mediated neurotoxicity in vivo. *Brain Res* 581:168-170, 1992.
111. Snider RM, Pereira DA, Longo KP, Davidson RE, Vinick FJ, Laitinen K, Sehitoglu EG, [Crawley JN](#): UK-73,093: A non-peptide neurotensin receptor antagonist. *Biomed Chem Lett* 2:1535-1540, 1992.
112. Givens BS, Olton DS, [Crawley JN](#): Galanin in the medial septal area impairs working memory. *Brain Res* 582:71-77, 1992.
113. [Crawley JN](#), Robinson JK, Langel Ü, Bartfai T: Galanin receptor antagonists M40 and C7 block galanin-induced feeding. *Brain Res* 600:268-272, 1993.
114. Corwin RL, Robinson JK, [Crawley JN](#): Galanin antagonists block galanin-induced feeding in the hypothalamus and amygdala of the rat. *Europ J Neuroscience* 5:1528-1533, 1993.
115. Robinson JK and [Crawley JN](#): Intraventricular galanin impairs delayed non-matching to sample performance in rats. *Behav Neurosci* 107:458-467, 1993.
116. Robinson JK and [Crawley JN](#): Intraseptal galanin potentiates scopolamine impairment of delayed non-matching to sample. *J Neurosci* 13:5119-5125, 1993.
117. Drugan RC, Paul SM, [Crawley JN](#): Decreased forebrain [³⁵S]TBPS binding in rats that do not develop stress-induced behavioral depression. *Brain Res* 631:270-276, 1993.

118. Bartfai T, Langel Ü, Bedecs K, Andell S, Land T, Gregersen S, Ahren B, Girotti P, Consolo S, Corwin R, [Crawley J](#), Xu X, Wiesenfeld-Hallin Z, Hökfelt T: Galanin receptor ligand M40 peptide distinguishes between putative galanin receptor subtypes. *Proc Natl Acad Sci USA* 90:11287-11291, 1993.
119. [Crawley JN](#), Corwin RL, Robinson JK, Felder CC, Devane WA, Axelrod J: Anandamide, an endogenous ligand of the cannabinoid receptor, induces hypomotility and hypothermia in vivo in rodents. *Pharmacol Biochem Behav* 46:967-972, 1993.
120. De Bartolomeis A, Austin MC, Goodwin GA, Spear LP, Pickar D, [Crawley JN](#): Dopaminergic and peptidergic mRNA levels in juvenile rat brain after prenatal cocaine treatment. *Mol Brain Res* 21:321-330, 1994.
121. Mathis C, Paul SM, [Crawley JN](#): Characterization of benzodiazepine-sensitive behaviors in the A/J and the C57BL/6J inbred strains of mice. *Behavior Genetics* 24:171-180, 1994.
122. Abbott LC, Conforti ML, Isaacs KR, [Crawley JN](#), Sterchi D: A simplified technique for histological analysis of central nervous system tissues using GMA plastic coupled with pre-embedding immunocytochemistry. *J Neurosci Methods* 54:23-29, 1994.
123. Mathis C, Paul SM, [Crawley JN](#): The neurosteroid pregnenolone sulfate blocks NMDA antagonist-induced deficits in a passive avoidance memory task. *Psychopharm* 116:201-206, 1994.
124. Robinson JK, [Crawley JN](#): Analysis of anatomical sites at which galanin impairs delayed non-matching to sample in rats. *Behav Neurosci* 108:941-950, 1994.
125. Holmes PV, Koprivica V, Chough E, [Crawley JN](#): Intraventricular administration of galanin does not affect behaviors associated with locus coeruleus activation in rats. *Peptides* 15:1303-1308, 1994.
126. Yamanaka S, Johnson MD, Grinberg A, Westphal H, [Crawley JN](#), Taniike M, Suzuki K, Proia RL: Targeted disruption of the *Hexa* gene results in mice with biochemical and pathologic features of Tay-Sachs disease. *Proc Natl Acad Sci USA* 91:9975-9979, 1994.
127. Holmes PV, Blanchard DC, Blanchard RJ, Brady LS, [Crawley JN](#): Chronic social stress increases levels of preprogalanin mRNA in rat locus coeruleus. *Pharmacol Biochem Behav* 50:655-660, 1995.
128. Holmes PV, de Bartolomeis A, Koprivica V, [Crawley JN](#): Lack of effect of chronic morphine treatment and naloxone-precipitated withdrawal on tyrosine hydroxylase, galanin, and neuropeptide Y mRNA levels in the rat locus coeruleus. *Synapse* 19:197-205, 1995.
129. Corwin RL, Rowe PM, [Crawley JN](#): Galanin and the galanin antagonist M40 do not change fat intake in a fat-chow choice paradigm in rats. *Am J Physiol* 269:R511-R518, 1995.
130. Corwin RL, Jörn A, Hardy M, [Crawley JN](#): The CCK-B antagonist CI-988 increases dopamine levels in microdialysate from the rat nucleus accumbens via a tetrodotoxin- and calcium-independent mechanism. *J Neurochem* 65:208-217, 1995.
131. Sango K, Yamanaka S, Hoffmann A, Okuda Y, Grinberg A, Westphal H, McDonald MP, [Crawley JN](#), Sandhoff K, Suzuki K, Proia RL: Mouse models of Tay-Sachs and Sandhoff diseases differ in neurologic phenotype and ganglioside metabolism. *Nature Genetics* 11:170-176, 1995.

132. Mathis C, Neumann PE, Gershenfeld H, Paul SM, [Crawley JN](#): Genetic analysis of anxiety-related behaviors and responses to benzodiazepine-related drugs in AXB and BXA recombinant inbred mouse strains. *Behav Genetics* 25:557-568, 1995.
133. Holmes PV and [Crawley JN](#): Olfactory bulbectomy increases prepro-galanin mRNA levels in the rat locus coeruleus. *Molecular Brain Research* 36:184-188, 1996.
134. Robinson JK, Zocchi A, Pert A, [Crawley JN](#): Galanin microinjected into the medial septum inhibits scopolamine-induced acetylcholine overflow in the rat ventral hippocampus. *Brain Research* 709:81-87, 1996.
135. Sills TL, [Crawley JN](#): Individual differences in sugar consumption predict amphetamine-induced dopamine overflow in nucleus accumbens. *Eur J Pharmacol* 303:177-181, 1996.
136. König M, Zimmer AM, Steiner H, Holmes PV, [Crawley JN](#), Brownstein MJ, Zimmer A: Pain responses, anxiety and aggression in mice deficient in pre-proenkephalin. *Nature* 383: 535-538, 1996.
137. Robinson JK, Wiley RG, Wenk GL, Lappi DA, [Crawley JN](#): ¹⁹²IgG-saporin immunotoxin and ibotenic acid lesions of nucleus basalis and medial septum produce comparable deficits on delayed nonmatching to sample in rats. *Psychobiol* 24:179-186, 1996.
138. McDonald MP, [Crawley JN](#): Galanin receptor antagonist M40 blocks galanin-induced choice accuracy deficits on a delayed nonmatching to position task. *Behav Neurosci* 110: 1025-1032, 1996.
139. Barlow C, Hirotsumi S, Paylor R, Liyanage M, Eckhaus M, Collins F, Shiloh Y, [Crawley JN](#), Ried T, Tagle D, Wynshaw-Boris, T: *Atm*-deficient mice: A paradigm of Ataxia-Telangiectasia. *Cell* 86:159-171, 1996.
140. Sango K, McDonald MP, [Crawley JN](#), Mack ML, Tiftt CJ, Skop E, Starr CM, Hoffmann A, Sandhoff K, Suzuki K, Proia, R: Mice lacking both subunits of lysosomal β -hexosaminidase display gangliosidosis and mucopolysaccharidosis. *Nature Genetics* 14: 348-352, 1996.
141. Liu Y, Hoffmann A, Grinberg A, Westphal H, McDonald MP, Miller KM, [Crawley JN](#), Sandhoff K, Suzuki K, Proia RL: Mouse model of G_{M2} activator deficiency manifests cerebellar pathology and motor impairment. *Proc Natl Acad Sci USA* 94:8138-8143, 1997.
142. de Bartolomeis A, Koprivica V, Pickar D, [Crawley JN](#), Abbott LC: Opioidergic and dopaminergic gene expression in the caudate-putamen and accumbens of the mutant mouse, tottering (*tg/tg*). *Mol Brain Res* 46:321-324, 1997.
143. Gershenfeld HK, Neumann PE, Mathis C, [Crawley JN](#), Li X, Paul SM: Mapping quantitative trait loci for open field behavior in mice. *Behav Genetics* 27:201-210, 1997.
144. Paylor R, [Crawley JN](#): Inbred strain differences in prepulse inhibition of the mouse startle response. *Psychopharm* 132:169-180, 1997.
145. McDonald MP, Wenk GL, [Crawley JN](#): Analysis of galanin and the galanin antagonist, M40, on delayed non-matching to position performance in rats lesioned with the cholinergic immunotoxin ¹⁹²IgG-saporin. *Behav Neurosci* 111:552-563, 1997.
146. Lijam N, Paylor R, McDonald MP, [Crawley JN](#), Deng C-X, Herrup K, Stevens KE, Maccaferri G, McBain CJ, Sussman DJ, Wynshaw-Boris, A: Social interaction and sensorimotor gating abnormalities in mice lacking *Dvl1*. *Cell* 90: 895-905, 1997.

147. Norflus F, Tiffit CJ, McDonald MP, Goldstein G, [Crawley JN](#), Hoffmann A, Sandhoff K, Suzuki K, Proia RL: Bone marrow transplantation prolongs life span and ameliorates neurologic manifestations in Sandhoff disease mice. *J Clin Invest* 101:9:1881-1888, 1998.
148. McDonald MP, Baker L, Wenk GL, [Crawley JN](#): Co-administration of galanin antagonist M40 with a muscarinic M1 agonist improves delayed nonmatching-to-position choice accuracy in rats with cholinergic lesions. *J Neurosci* 18: 5078-5085, 1998.
149. Sills TL, Onalaja AO, [Crawley JN](#): Mesolimbic dopaminergic mechanisms underlying individual differences in sugar consumption and amphetamine hyperlocomotion in Wistar rats. *Europ J Neurosci* 10: 1895-1902, 1998.
150. Janne PA, Suchy SF, Bernard D, McDonald M, [Crawley J](#), Grinberg A, Wynshaw-Boris A, Westphal H, Nussbaum RL: Functional overlap between murine *Inpp5B* and *Ocr11* may explain why deficiency of the murine ortholog for OCRL1 does not cause Lowe syndrome in mice. *J Clin Invest* 101: 2042-2054, 1998.
151. Cheng CM, Joncas C, Reinhardt R, Farrer R, Quarles R, Janssen J, McDonald MP, [Crawley JN](#), Powell-Braxton L, Bondy C: Biochemical and morphometric analyses show that myelination in the insulin-like growth factor 1 null brain is proportionate to its neuronal composition. *J Neurosci* 18: 5673-5681, 1998.
152. Sterneck E, Paylor R, Jackson-Lewis V, Libbey M, Przedborski S, Tessarollo L, [Crawley JN](#), Johnson PF: Selectively enhanced contextual fear conditioning in mice lacking the transcriptional regulator CCAAT/enhancer binding protein δ . *Proc Natl Acad Sci USA* 95: 10908-10913, 1998.
153. Paylor R, Nguyen M, [Crawley JN](#), Patrick J, Beaudet A, Orr-Urtreger A: $\alpha 7$ nicotinic receptor subunits are not necessary for hippocampal-dependent learning or sensorimotor gating: A behavioral characterization of *Acra7*-deficient mice. *Learning and Memory* 5:302-316, 1998.
154. McDonald MP, Wong R, Goldstein G, Weintraub B, Cheng SY, [Crawley JN](#): Hyperactivity and learning deficits in transgenic mice bearing a human mutant thyroid hormone $\beta 1$ receptor gene. *Learning and Memory* 5: 289-301, 1998.
155. Taber MT, [Crawley JN](#): Galanin attenuates the effects of scopolamine but not exposure to a novel environment on acetylcholine release in the rat ventral hippocampus. *Psychobiol* 27: 57-62, 1999.
156. Davis JA, Paylor R, McDonald MP, Libbey M, Ligler A, Bryant K, [Crawley JN](#): Behavioral effects of ivermectin in mice. *Lab Animal Sci* 49: 288-296, 1999.
157. Paylor R, Hirotsume S, Gambello, MJ, Yuva-Paylor L, [Crawley JN](#), Wynshaw-Boris A: Impaired learning and motor behavior in heterozygous *Pafah1b1* (*Lis1*) mutant mice. *Learning and Memory* 6: 521-537, 1999.
158. Liu Y, Wada R, Kawai H, Sango K, Deng C, Tai T, McDonald MP, Araujo K, [Crawley JN](#), Bierfreund U, Sandhoff K, Suzuki K, Proia RL: A genetic model of substrate deprivation therapy for a glycosphingolipid storage disorder. *J Clin Invest* 103: 497-505, 1999.
159. Gleason TC, Dreiling JL, [Crawley JN](#): Rat strain differences in response to galanin on the Morris water task. *Neuropeptides* 33: 265-270, 1999.

160. Steiner RA, Hohmann JG, Holmes A, Wrenn CC, Cadd G, Jureus A, Clifton DK, Luo M, Gutshall M, Ma SY, Mufson EJ, [Crawley JN](#): Galanin transgenic mice display cognitive and neurochemical deficits characteristic of Alzheimer's disease. *Proceedings of the National Academy of Sciences USA* 98: 4184-4189, 2001.
161. Yamada M, Miyakawa T, Duttaroy A, Yamanaka A, Moriguchi T, Makita R, Ogawa M, Chou CJ, Xia B, [Crawley JN](#), Felder CC, Deng C-X, Wess J: Mice lacking the M3 muscarinic acetylcholine receptor are hypophagic and lean. *Nature* 410:207-212, 2001.
162. Holmes A, Hollon TR, Gleason TC, Liu Z, Dreiling J, Sibley DR, [Crawley JN](#): Behavioral characterization of dopamine D5 receptor null mutant mice. *Behavioral Neuroscience* 115: 1129-1144, 2001.
163. Paylor R, Zhao Y, Libbey M, Westphal H, [Crawley JN](#): Learning impairment and motor dysfunctions in adult *Lhx5* deficient mice displaying hippocampal disorganization. *Physiology and Behavior*, Special Issue on Molecular and Behavioral Genetics of the Mouse, 73:781-792, 2001.
164. Kawai H, Allende KH, Wada R, Kono M, Sango K, Deng C, Miyakawa T, [Crawley JN](#), Bierfreund WN, Sandhoff K, Proia RL: Mice expressing only monosialoganglioside CM3 exhibit lethal audiogenic seizures. *Journal of Biological Chemistry* 276: 6885-6888, 2001.
165. Miyakawa T, Yared E, Pak JH, Huang FL, Huang K-P, [Crawley JN](#): Neurogranin null mutant mice display performance deficits on spatial learning tasks with anxiety related components. *Hippocampus* 11:763-775, 2001.
166. McDonald MP, Miller KM, Deng C, [Crawley JN](#): Motor deficits in fibroblast growth factor receptor-3 null mutant mice. *Behavioural Pharmacology*, Special Issue on Behavioural Genomics 12:477-486, 2001.
167. Holmes A, Yang RJ, [Crawley JN](#): Evaluation of an anxiety-related phenotype in galanin overexpressing transgenic mice. *Journal of Molecular Neuroscience* 18:151-165, 2002.
168. Holmes A, Wrenn CC, Harris AP, Thayer KE, [Crawley JN](#): Behavioral profiles of inbred strains on novel olfactory, spatial and emotional tests for reference memory in mice. *Genes, Brain and Behavior* 1:55-69, 2002.
169. Holmes A, Murphy DL, [Crawley JN](#): Reduced aggression in mice lacking the serotonin transporter. *Psychopharmacology* 161:160-167, 2002.
170. Holmes A, Yang RJ, Murphy DL, [Crawley JN](#): Evaluation of antidepressant-related behavioral responses in mice lacking the serotonin transporter. *Neuropsychopharmacology* 27: 914-923, 2002.
171. Kinney JW, Starosta G, Holmes A, Wrenn CC, Yang RJ, Harris AP, Long KC, [Crawley JN](#): Deficits in trace cued fear conditioning in galanin-treated rats and galanin-overexpressing transgenic mice. *Learning and Memory* 9:178-190, 2002.
172. Counts SE, McGuire SO, Sortwell CE, [Crawley JN](#), Collier TJ, Mufson EJ: Galanin inhibits tyrosine hydroxylase expression in midbrain dopaminergic neurons. *Journal of Neurochemistry* 83: 442-451, 2002.
173. Wrenn CC, Marriott LK, Kinney JW, Holmes A, Wenk GL, [Crawley JN](#): Galanin peptide levels in hippocampus and cortex of galanin-overexpressing transgenic mice evaluated for cognitive performance. *Neuropeptides* 36: 413-426, 2002.

174. Kinney JW, Starosta G, [Crawley JN](#): Central galanin administration blocks consolidation of spatial learning. *Neurobiology of Learning and Memory* 80:42-54, 2003.
175. Wrenn CC, Harris AP, Saavedra MC, [Crawley JN](#): Social transmission of food preference in mice: Methodology and application to galanin overexpressing transgenic mice. *Behavioral Neuroscience* 117:21-31, 2003.
176. Holmes A, Kinney JW, Wrenn CC, Li Q, Yang RJ, Ma L, Vishwanath J, Saavedra M, Innerfield CE, Jacoby AS, Shine J, Iismaa TP, [Crawley JN](#): Galanin GAL-R1 receptor null mutant mice display increased anxiety-like behavior specific to the elevated plus-maze. *Neuropsychopharmacology* 28:1031-1044, 2003.
177. Blakeman KH, Hao J-X, Xu X-J, Jacoby AS, Shine J, [Crawley JN](#), Iismaa T, Wiesenfeld-Hallin Z: Hyperalgesia and increased neuropathic pain-like response in mice lacking galanin R1 receptors. *Neuroscience* 117:221-227, 2003.
178. Grass S, [Crawley JN](#), Xu X-J, Wiesenfeld-Hallin Z: Reduced spinal cord sensitization to C-fiber stimulation in mice over-expressing galanin. *European Journal of Neuroscience*, 17:1829-, 2003.
179. Grass S, Jacoby AS, Iismaa TP, [Crawley JN](#), Xu X-J, Wiesenfeld-Hallin Z: Flexor reflex excitability in mice lacking galanin receptor galanin-R1. *Neuroscience Letters* 345:153-156, 2003.
180. Holmes A, Yang RJ, Lesch K-P, [Crawley JN](#), Murphy DL: Mice lacking the serotonin transporter exhibit 5-HT1A receptor-mediated abnormalities in tests for anxiety-like behavior. *Neuropsychopharmacology* 28:2077-2088, 2003.
181. Holmes A, Li Q, Murphy DL, Gold E, [Crawley JN](#): Abnormal anxiety-related behavior in serotonin transporter null mutant mice: the influence of genetic background. *Genes, Brain and Behavior* 2:365-380, 2003.
182. Wrenn CC, Kinney JW, Marriott LK, Holmes A, Harris AP, Saavedra MC, Starosta G, Innerfield CE, Jacoby AS, Shine J, Iismaa TP, Wenk GL, [Crawley JN](#): Learning and memory performance in mice lacking the GAL-R1 subtype of galanin receptor. *European Journal of Neuroscience* 19:1-13, 2004.
183. Moy S, Nadler J, Perez A, Barbaro R, Johns J, Magnuson T, Piven J, [Crawley JN](#): Sociability and preference for social novelty in five inbred strains: An approach to assess autistic-like behavior in mice. *Genes, Brain and Behavior* 3:287-302, 2004.
184. Nadler JJ, Moy SS, Dold G, Trang D, Simmons N, Perez A, Young NB, Barbaro RP, Magnuson TR, Piven J, [Crawley JN](#): Automated apparatus for quantitation of social approach behaviors in mice. *Genes, Brain and Behavior* 3:303-314, 2004.
185. Yoshitake T, Wang F-H, Kuteeva E, Holmberg K, Yamaguchi M, [Crawley JN](#), Steiner R, Bartfai T, Ögren SO, Hökfelt T, Kehr J: Enhanced hippocampal noradrenaline and serotonin release in galanin-overexpressing mice after repeated forced swimming test. *Proceedings of the National Academy of Sciences USA* 101:354-359, 2004.
186. Laplante F, [Crawley JN](#), Quirion R: Selective reduction in ventral hippocampal acetylcholine release in awake galanin-treated rats and galanin-overexpressing transgenic mice. *Regulatory Peptides* 122: 91-98, 2004.

187. Hygge-Blakeman K, Brumovsky P, Hao JX, Xu XJ, Hökfelt T, [Crawley JN](#), Wiesenfeld-Hallin Z: Galanin over-expression decreases the development of neuropathic pain-like behaviors in mice after partial sciatic nerve injury *Brain Research* 1025: 152-158, 2004.
188. Holmes A, Li Q, Koenig EA, Gold E, Stephenson D, Yang RJ, Dreiling J, Sullivan T, [Crawley JN](#): Phenotypic assessment of galanin overexpressing and galanin R1 receptor knockout mice in the tail suspension test for depression-related behavior. *Psychopharmacology* 178: 276-285, 2005.
189. Karlsson RM, Holmes A, Heilig M, [Crawley JN](#), Anxiolytic-like actions of centrally-administered neuropeptide Y, but not galanin, in C57BL/6J mice. *Pharmacology Biochemistry and Behavior* 80: 427-436, 2005.
190. He B, Counts SE, Hohmann JG, Perez SE, Koprach JB, Lipton JW, Steiner RA, [Crawley JN](#), Mufson EJ: Ectopic galanin expression and normal GALR2 and GALR3 receptor mRNA levels in the forebrain of galanin transgenic mice. *Neuroscience* 133: 371-380, 2005.
191. Wrenn CC, Turchi JN, Schlosser S, Dreiling JL, Stephenson DA, [Crawley JN](#): Performance of galanin transgenic mice in the 5-choice serial reaction time attentional task. *Pharmacology Biochemistry and Behavior* 83: 428-440, 2006.
192. Garcia-Fresco GP, Pillai AM, Sousa AD, Moy S, [Crawley J](#), Dupree JL, Bhat MA: Disruption of axo-glial junctions causes cytoskeletal disorganization and degeneration of Purkinje neuron axons. *Proceedings of the National Academy of Sciences USA* 103: 5137-5142, 2006.
193. Tsai YS, Moy SS, [Crawley JN](#), Maeda N: A de novo deafwaddler mutation of Pmca2 arising in ES cells and hitchhiking with a targeted modification of the Pparg gene. *Mammalian Genome* 17: 716-722, 2006.
194. Nadler JJ, Zou F, Huang H, Moy SS, Lauder JM, [Crawley JN](#), Threadgill DW, Wright FA, Magnuson TR: Large scale gene expression differences across brain regions and inbred strain correlate with a behavioral phenotype. *Genetics* 174: 1229-1236, 2006.
195. Moy SS, Nadler JJ, Young NB, Perez A, Holloway P, Barbaro RP, Barbaro JR, West LM, Threadgill DW, Lauder JM, Magnuson TR, [Crawley JN](#): Mouse behavioral tasks relevant to autism: Phenotypes of ten inbred strains. *Behavioural Brain Research*, Special Issue on Animal Models of Autism 176: 4-20, 2007.
196. Bailey KR, Pavlova MN, Rohde AD, Hohmann JG, [Crawley JN](#): Galanin receptor subtype 2 (GalR2) null mutant mice display an anxiogenic-like phenotype specific to the elevated plus-maze. *Pharmacology Biochemistry and Behavior* 86: 8-20, 2007.
197. Karlsson RM, Choe JS, Cameron HA, Thorsell A, [Crawley JN](#), Holmes A, Heilig M: The neuropeptide Y Y1 receptor subtype is necessary for the anxiolytic-like effects of neuropeptide Y, but not the antidepressant-like effects of fluoxetine, in mice. *Psychopharmacology* 195: 547-557, 2008.
198. [Crawley JN](#), Chen T, Puri A, Sullivan TL, Hill JM, Young NB, Nadler JJ, Moy SS, Young LJ, Caldwell J, Young WS: Social approach behaviors in oxytocin knockout mice: Comparison of two independent lines tested in different laboratory environments. *Neuropeptides*, 41: 145-163, 2007.
199. McFarlane HG, Kusek GK, Yang M, Phoenix JL, Bolivar VJ, [Crawley JN](#): Autism-like behavioral phenotypes in BTBR T+tf/J mice. *Genes, Brain and Behavior* 7: 152-163, 2008 (online June 2007).

200. Yang M, Scattoni ML, McFarlane HG, Zhodzishsky V, Chen T, [Crawley JN](#): Social approach behaviors are similar on conventional versus reverse lighting cycles, and in replications across cohorts, in BTBR T+ tf/J, C57BL/6J, and vasopressin receptor 1B mutant mice. *Frontiers in Behavioral Neuroscience*, 1: 2007.
201. Yang M, Zhodzishsky V, [Crawley JN](#): Social deficits in BTBR T+tf/J mice are unchanged by cross-fostering with C57BL/6J mothers. *International Journal of Developmental Neuroscience* 25: 515-521, 2007.
202. Chandran JS, Lin X, Zapata A, Höke A, Shimoji M, Moore SO, Galloway MP, Laird FM, Wong PC, Price DL, Bailey KR, [Crawley JN](#), Shippenberg T, Cai H: Progressive behavioral deficits in *DJ-1*-deficient mice are associated with normal nigrostriatal function. *Neurobiology of Disease* 29: 505-514, 2008.
203. Moy SS, Nadler JJ, Poe MD, Nonneman RJ, Young NB, Koller BH, [Crawley JN](#), Duncan GE, Bodfish, JW: Development of a mouse test for repetitive, restricted behaviors: Relevance to autism. *Behavioural Brain Research*, 188: 178-194, 2008.
204. Stack CM, Lim MA, Cuasay K, Stone MM, Seibert KM, Spivak-Povis I, [Crawley JN](#), Waschek JA, Hill JM: Deficits in social behavior and reversal learning are more prevalent in male offspring of VIP deficient female mice. *Experimental Neurology* 211: 67-84, 2008.
205. Bainbridge NK, Koselke LR, Jeon J, Bailey KR, Wess J, [Crawley JN](#), Wrenn CC: Learning and memory impairments in a congenic C57BL/6 strain of mice that lacks the m2 muscarinic acetylcholine receptor subtype. *Behavioural Brain Research* 190: 505-8, 2008.
206. Scattoni ML, McFarlane HG, Zhodzishsky V, Caldwell HK, Young WS, Ricceri L, [Crawley JN](#): Reduced ultrasonic vocalizations in vasopressin 1b knockout mice, *Behavioural Brain Research* 187: 371-378, 2008.
207. Moy SS, Nadler JJ, Young NB, Nonneman RJ, Segall SK, Andrade GM, [Crawley JN](#), Magnuson TR: Social approach and repetitive behavior in eleven inbred mouse strains. *Behavioural Brain Research* 191: 118-129, 2008.
208. Ryan BC, Young NB, Moy SS, [Crawley JN](#): Olfactory cues are sufficient to elicit social approach behaviors but not social transmission of food preference in C57BL/6J mice. *Behavioural Brain Research* 193: 235-242, 2008.
209. Chadman KK, Gong S, Scattoni ML, Boltuck SE, Gandhi S, Heintz N, [Crawley JN](#): Minimal aberrant behavioral phenotypes of neuroligin-3 R451C knockin mice. *Autism Research*, 1: 147-158, 2008.
210. Papaleo F, [Crawley JN](#), Song J, Lipska BK, Pickel J, Weinberger DR, Chen J: Genetic dissection of the role of catechol-O-methyltransferase in cognition and stress reactivity in mice. *The Journal of Neuroscience*, 28: 8709-8723, 2008.
211. Scattoni ML, Gandhi SU, Ricceri L, [Crawley JN](#): Unusual repertoire of vocalizations in the BTBR T+tf/J mouse model of autism. *PLoS ONE* 3(8): e3067, doi:10.1371/journal.pone.0003067, 2008.
212. Moy, SS, Nadler J, Young N, Nonneman R, Grossman A, Murphy D, D'Ercole A, [Crawley J](#), Magnuson T, Lauder J: Social approach in genetically engineered mouse lines relevant to autism. *Genes, Brain and Behavior* 8: 129-142, 2009.

213. Kinney JW, Sanchez-Alavez M, Barr AM, Criado JR, Crawley JN, Behrens MM, Henriksen SJ, Bartfai T: Impairment of memory consolidation by galanin correlates with in vivo inhibition of both LTP and CREB phosphorylation. *Neurobiology of Learning and Memory*, 92: 429-438, 2009.
214. Malkesman O, Scattoni ML, Paredes D, Tragon T, Pearson B, Shaltiel G, Chen G, Crawley JN, Manji HK: The female urine sniffing test: a novel approach for assessing reward-seeking behavior in rodents. *Biological Psychiatry* 67: 864-671, 2010.
215. Yang M, Clarke A, Crawley JN: Postnatal lesion evidence against a primary role for the corpus callosum in mouse sociability. *European Journal of Neuroscience* 29: 1663-1677, 2009.
216. Ryan BC, Young NB, Crawley JN, Bodfish JW, Moy SS: Social deficits, stereotypy, and early emergence of repetitive behavior in a mouse model of autism-like phenotypes. *Behavioural Brain Research* 193: 235-242, 2010.
217. Silverman JL, Tolu SS, Barkan CL, Crawley JN: Repetitive self-grooming behavior in the BTBR mouse model of autism is blocked by the mGluR5 antagonist MPEP. *Neuropsychopharmacology* 35: 976-989, 2010.
218. Schorscher-Petcu A, Sotocinal S, Ciura S, Dupre A, Ritchie J, Sorge RE, Crawley JN, Hu SB, Nishimori K, Young LJ, Tribollet E, Quirion R, and Mogil JS: Oxytocin-induced analgesia and scratching are mediated by the vasopressin-1A receptor in the mouse. *The Journal of Neuroscience* 30: 8274-8284, 2010.
219. Silverman JL, Yang M, Turner SM, Katz AM, Bell DB, Koenig JI, Crawley JN: Low stress reactivity and neuroendocrine factors in the BTBR T+tf/J mouse model of autism. *Neuroscience* 171: 1197-1208, 2010.
220. Bozdagi O, Sakurai T, Papapetrou D, Wang X, Dickstein DL, Takahashi N, Kajiwara Y, Yang M, Katz AM, Scattoni ML, Harris MJ, Saxena R, Silverman JL, Crawley JN, Zhou Q, Hof PR, Buxbaum JD. Haploinsufficiency of the autism-associated *Shank3* gene leads to deficits in synaptic function and reciprocal social interaction and social communication. *Molecular Autism* 1: 1-15, 2010.
221. Yang M, Perry K, Weber MD, Katz AM, Crawley JN: Social peers rescue autism-relevant sociability deficits in adolescent mice. *Autism Research* 3: 1-11, 2011.
222. Silverman JL, Turner SM, Barkan CL, Tolu SS, Saxena R, Hung AY, Sheng M, Crawley JN: Sociability and motor functions in *Shank1* mutant mice. *Brain Research Special Issue on The Emerging Neuroscience of Autism Spectrum Disorders*, 1380: 120-137, 2011.
223. Wöhr M, Roullet FI, Crawley JN: Reduced scent marking and ultrasonic vocalizations in the BTBR T+tf/J mouse model of autism. *Genes, Brain and Behavior* 10: 35-43, 2011.
224. Roullet FI, Wöhr M, Crawley JN: Female urine-induced male mice ultrasonic vocalizations, but not scent marking, is modulated by social experience. *Behavioural Brain Research* 216: 19-28, 2011.
225. Papaleo F, Sheena G, Chen J, Lu B, Crawley JN, Weinberger DR: Dysbindin-1 modulates prefrontal cortical activity and schizophrenia-like behaviors via dopamine/D2 pathways. *Molecular Psychiatry*, in press.
226. Carter MD, Shah CR, Muller CL, Crawley JN, Carneiro AMD, Veenstra-VanderWeele J: Absence of preference for social novelty and increased grooming in integrin $\beta 3$ knockout mice: Initial studies and future directions. *Autism Research* 4: 57-67, 2011.

227. Scattoni ML, Ricceri L, [Crawley JN](#): Unusual repertoire of vocalizations in adult BTBR T+tf/J mice during three types of social encounters. *Genes, Brain Behavior* 10: 44-56, 2011.
228. Wöhr M, Roullet FI, Hung AY, Sheng M, [Crawley JN](#): Communication impairments in mice lacking *Shank1*: Reduced levels of ultrasonic vocalizations and scent marking behavior. *PLoS ONE*, 6: e20631, 2011.
229. Papaleo F, Silverman JL, Aney J, Tian Q, Barkan CL, Chadman KK, [Crawley JN](#): Working memory deficits, increased anxiety-like traits and seizure susceptibility in BDNF overexpressing mice. *Learning and Memory* 18:534-544, 2011.
230. Yang M, Abrams DN, Weber MD, Katz AM, Clarke AM, Silverman JL, [Crawley JN](#): Low sociability in BTBR T+tf/J mice is independent of partner strain. Special issue *Physiology and Behavior*, in press.
231. Veenstra-VanderWeele J, Muller CL, Iwamoto H, Sauer JE, Owens WA, Shah CR, Cohen J, Mannangatti P, Jessen T, Thompson BJ, Ye R, Kerr TM, Carneiro AM, [Crawley JN](#), Sanders-Bush E, McMahon DG, Ramamoorthy S, Daws LC, Sutcliffe JS, Blakely RD: Autism gene variant causes hyperserotonemia, serotonin receptor hypersensitivity, social impairment and repetitive behavior. *Proceedings of the National Academy of Sciences USA*, in press
232. Yang M, Bozdagi O, Scattoni ML, Wöhr M, Roullet FI, Katz AM, Abrams DN, Kalikhman D, Simon H, Zhang J, Harris M, Woldeyohannes L, Zhang JY, Harris MJ, Saxena R, Silverman JL, Buxbaum JD, [Crawley JN](#): Reduced excitatory neurotransmission and mild autism-relevant phenotypes in adolescent *Shank3* null mutant mice. *The Journal of Neuroscience*, in press.
233. Silverman JL, Smith DG, Sukoff Rizzo SJ, Karras MN, Turner SM, Tolu SS, Bryce DK, Smith DL, Fonseca K, Ring RH, [Crawley JN](#): Negative allosteric modulation of the mGluR5 receptor reduces repetitive behaviors and rescues social deficits in mouse models of autism. *Science Translational Medicine* 4:131ra51, 2012.

BOOKS

1. Vanderhaeghen J-J, [Crawley JN](#), Eds: *Neuronal Cholecystokinin*. New York Academy of Sciences, New York, 1985, 697 pages.
2. [Crawley JN](#), McLean S, Eds: *Neuropeptides: Basic and Clinical Advances*. New York Academy of Sciences, New York, 1996, 255 pages.
3. [Crawley JN](#), Gerfen C, McKay R, Rogawski M, Sibley D, Skolnick P, Eds: *Current Protocols in Neuroscience*. John Wiley & Sons, Inc., New York, 1997-2005, quarterly supplements.
4. Hökfelt T, Bartfai T, [Crawley J](#), Eds: *Galanin: Basic Research Discoveries and Therapeutic Indications*. New York Academy of Sciences, New York, 1998, 469 pages.
5. [Crawley JN](#), *What's Wrong With My Mouse? Behavioral Phenotyping of Transgenic and Knockout Mice*. John Wiley & Sons, Inc., New York, 2000, 329 pages.
6. [Crawley JN](#), *What's Wrong With My Mouse? Behavioral Phenotyping of Transgenic and Knockout Mice*. John Wiley & Sons, Inc., Hoboken, New Jersey, Second Edition 2007, 523 pages.

INVITED CHAPTERS AND REVIEWS

1. [Crawley JN](#), Maas JW, Roth RH: Role of the nucleus locus coeruleus in sympathetic and central noradrenergic activation as reflected by changes in the norepinephrine metabolite 3-methoxy-4-hydroxyphenethylene glycol (MHPG) in rats. Pages 678-680 in: Usdin E, Kopin IJ, Barchas J (Eds), *Catecholamines: Basic and Clinical Frontiers*. Pergamon Press, New York, 1979.
2. Hattox SE and [Crawley JN](#): Comparison of catecholamine metabolite levels in control and perfused brain tissue using mass spectrometric techniques. Pages 886-888 in: Usdin E, Kopin IJ, Barchas J (Eds) *Catecholamines: Basic and Clinical Frontiers*. Pergamon Press, New York, 1979.
3. Schleidt WM, [Crawley JN](#): Patterns in the behaviour of organisms. *J Social Biol Struct* 3: 1-15, 1980.
4. [Crawley JN](#): Animal behavioral analysis of putative endogenous ligands. In: Paul SM, Skolnick P, Tallman J, Usdin E (Eds) *The Pharmacology of the Benzodiazepines*. MacMillan Press, New York, 1982.
5. Skolnick P, Williams EF, Cook JM, Cain M, Rice KC, [Crawley JN](#), Paul SM: Beta-carbolines and benzodiazepine receptors: Structure-activity relationships and pharmacological activity. In: Usdin E (Ed) *Beta-carbolines and Tetrahydroisoquinolines*. Alan R. Liss, New York, 1982.
6. Skolnick P, [Crawley JN](#), Glowa JR, Paul SM: β -Carboline-induced anxiety states. *Psychopathology* 17:Suppl 3:52-60, 1984.
7. [Crawley JN](#): Clarification of the behavioral functions of peripheral and central cholecystokinin: two separate pools. *Peptides* 6:129-136, 1985.
8. [Crawley JN](#): Comparative distribution of cholecystokinin and other neuropeptides: Why is this peptide different from all other peptides? *Ann NY Acad Sci* 448:1-8. 1985.
9. [Crawley JN](#): Exploratory behavior models of anxiety in mice. *Neurosci Behav Rev* 9:37-44, 1985.
10. [Crawley JN](#): Cholecystokinin potentiation of dopamine-mediated behaviors in the nucleus accumbens. *Ann NY Acad Sci* 448:283-292, 1985.
11. [Crawley JN](#) and Kiss JZ: Tracing the sensory pathway from gut to brain regions mediating the actions of cholecystokinin on feeding and exploration. *Ann NY Acad Sci* 448:586-588, 1985.
12. [Crawley JN](#), Sutton ME, Pickar D: Animal models of self-destructive behavior and suicide. *Psychiatr Clin North America* 8:299-310, 1985.
13. Skolnick P, Ninan P, Insel T, [Crawley J](#), Paul S: Benzodiazepine receptor-mediated "anxiety" in primates. In: Pichot P, Berner P, Wolf R, Thau K (Eds) *Psychiatry* vol 2, Plenum Press, New York, 1985.
14. [Crawley JN](#), Stivers JA, Jacobowitz DM: Neuropeptides modulate carbachol-stimulated "boxing" behavior in the rat medial frontal cortex. In: Moody TW (Ed) *Neural and Endocrine Peptides and Receptors*. Plenum Press, New York, 1986.
15. Skirboll LR, [Crawley JN](#), Hommer DW: Functional studies of CCK-DA co-existence: Electrophysiology and behavior. In: Hökfelt T, Pernow B, Fuxe K (Eds) *Coexistence: Progress in Brain Research*. 68:357-370, Elsevier, North Holland, 1986.

16. [Crawley JN](#): Behavioral analysis of the functional significance of peptide-transmitter coexistences: In: Fuxe K and Agnati LF (Eds) *Receptor-Receptor Interactions*. Wenner-Gren Int Symposium Series vol 48:531-544, MacMillan Press, London, 1987.
17. Paul SM, [Crawley JN](#), Skolnick P: The neurobiology of anxiety. In: Berger P and Brodie H (Eds) *American Handbook of Psychiatry*. Basic Book, New York, pp 1-10, 1987.
18. [Crawley JN](#): Behavioral analyses of antagonists of the peripheral and central effects of cholecystokinin. In: Wang RY and Schoenfeld R (Eds) *Cholecystokinin Antagonists*. Alan R. Liss, New York, pp 243-262, 1988.
19. [Crawley JN](#): Modulation of mesolimbic dopaminergic behaviors by cholecystokinin. *Ann NY Acad Sci* 537:380-396, 1988.
20. [Crawley JN](#): Neuronal cholecystokinin. *ISI Atlas Sci Pharmacol* 2:84-90, 1988.
21. [Crawley JN](#), Hommer DW, Skirboll LR: Cholecystokinin-dopamine interactions: Electrophysiological and behavioral studies. In: Sandler M, Belmaker R, Dahlstrom A (Eds) *Progress in Catecholamine Research B: Central Aspects*. Alan R. Liss, New York, pp 205-210, 1988.
22. Moody TW, Merali Z, [Crawley JN](#): The effects of anxiolytics and other agents on rat grooming behavior. *Annals of the New York Academy of Sciences* 525:281-290, 1988.
23. [Crawley JN](#): Animal models of anxiety. *Current Opinion in Psychiatry* 2:733-776, 1989.
24. [Crawley JN](#) and Wenk GL: Co-existence of galanin and acetylcholine: Is galanin involved in memory processes and dementia? *Trends Neurosci* 12:278-282, 1989.
25. Drugan RC, Deutsch SI, Weizman A, Weizman R, Vocci FJ, [Crawley JN](#), Skolnick P, Paul SM: Molecular mechanisms of stress and anxiety: Alterations in the benzodiazepine/GABA receptor complex. In: Weiner H, Florin I, Murison R, Hellhamer D (Eds) *Frontiers of Stress Research; Neuronal Control of Bodily Function: Basic and Clinical Aspects*. Hans Huber, West Germany, 3:148-159, 1989.
26. [Crawley JN](#): Coexistence of neuropeptides and "classical" neurotransmitters: Functional interactions between galanin and acetylcholine. *Ann NY Acad Sci* 579:233-245, 1990.
27. [Crawley JN](#): Coexisting neuropeptides as modulators of neural networks. *Concepts in Neuroscience* 1:287-298, 1990.
28. [Crawley JN](#): Introduction to special session on microdialysis. *Prog Neuropsychopharmacol Biol Psychiat* 14:S1-S4, 1990.
29. Cottingham SL, [Crawley JN](#), Pickar D: Molecular approaches to neuroleptic action: Tyrosine hydroxylase and cholecystokinin mRNA levels in the substantia nigra and ventral tegmental area. In: Tamminga CA and Schultz SC (Eds) *Advances in Neuropsychiatry and Psychopharmacology*. Raven Press, New York, pp 39-48, 1991.
30. [Crawley JN](#): Cholecystokinin-dopamine interactions. *Trends in Pharmacol Sci* 12:232-236, 1991.
31. [Crawley JN](#), Fiske SM, Austin MC, Givens BS: Behavioral actions of galanin and galanin fragments. In: Hökfelt T, Bartfai T, Jacobowitz D, Ottoson D (Eds) *Galanin: A New Multifunctional Peptide in the Neuroendocrine System*. Wenner-Gren International Symposium Series vol 58:377-392, MacMillan Press, Cambridge, England, 1991.

32. Fisone G, Langel □, Land T, Berthold M, Bertorelli R, Girotti P, Consolo S, [Crawley JN](#), Hökfelt T, Bartfai T: Galanin receptor ligands in the hippocampus: Galanin, N-terminal galanin fragments and analogs. In: Hökfelt T, Bartfai T, Jacobowitz D, Ottoson D (Eds) *Galanin: A New Multifunctional Peptide in the Neuroendocrine System*. Wenner-Gren International Symposium Series vol 58:213-220, MacMillan Press, Cambridge, England, 1991.
33. [Crawley JN](#): The role of galanin in memory processes and dementia. In: Smith B and Adelman G (Eds) *Neuroscience Year: Supplement 2 to the Encyclopedia of Neuroscience*. pp 69-70, Birkhauser, Boston, 1992.
34. [Crawley JN](#), Fiske SM, Evers JR, Austin MC, Beinfeld MC: Functional analyses of the coexistence of cholecystokinin and dopamine. In: Dourish C, Cooper S, Iversen LL (Eds) *Multiple Cholecystokinin Receptors: Progress Towards CNS Therapeutic Targets*. 35:369-394, Oxford University Press, New York, 1992.
35. Robinson JK and [Crawley JN](#): The role of galanin in cholinergically-mediated memory processes. *Prog Neuropsychopharmacol Biol Psychiat* 17:71-85, 1993.
36. [Crawley JN](#): Functional interactions of galanin and acetylcholine: Relevance to memory and Alzheimer's disease. *Behav Brain Res* 57:133-141, 1993.
37. [Crawley JN](#): Cholecystokinin modulates dopamine-mediated behaviors: Differential actions in medial posterior versus anterior nucleus accumbens. In: Reeve JR, Eysselein V, Go VLW, Solomon T (Eds) *CCK'93, Ann NY Acad Sci* 713:138-142, 1993.
38. [Crawley JN](#) and Corwin RL: Biological actions of cholecystokinin. *Peptides* 4:731-755, 1994. [**Citation Classic, Institute for Scientific Information**]
39. Holmes PV and [Crawley JN](#): Coexisting neurotransmitters in noradrenergic neurons. In: Bloom FE and Kupfer DJ (Eds) *Psychopharmacology: The Fourth Generation of Progress*. pp 347-353, Raven Press, New York, 1995.
40. [Crawley JN](#): Interactions between cholecystokinin and other neurotransmitter systems. In Bradwejn J and Vasar E (Eds) *Cholecystokinin and Anxiety: From Neuron to Behavior*. R.G. Landes, Austin, 1995.
41. [Crawley JN](#): Biological actions of galanin. *Reg Peptides* 59:1-16, 1995.
42. [Crawley JN](#): Minireview: Galanin-acetylcholine interactions: Relevance to memory and Alzheimer's disease. *Life Sci* 58:2185-2199, 1996.
43. [Crawley JN](#) and McLean S, Preface, In: *Neuropeptides: Basic and Clinical Advances*, [Crawley JN](#) and McLean S, Eds. *Ann NY Acad Sci* vol 780: ix-xi, 1996.
44. [Crawley JN](#): Unusual behavioral phenotypes of inbred mouse strains. *Trends Pharmacol Sci* 19:181-182, 1996.
45. [Crawley JN](#), Belknap JK, Collins A, Crabbe JC, Frankel W, Henderson N, Hitzemann RJ, Maxson SC, Miner LL, Silva AJ, Wehner JM, Wynshaw-Boris A, Paylor R: Behavioral phenotypes of inbred mouse strains. *Psychopharm* 132:107-124, 1997.
46. [Crawley JN](#), Paylor R: A proposed test battery and constellations of specific behavioral paradigms to investigate the behavioral phenotypes of transgenic and knockout mice. *Hormones Behav* 31:197-211, 1997.

47. McDonald MP, [Crawley JN](#): Galanin-acetylcholine interactions in rodent memory tasks and Alzheimer's disease. *J Psychiat Neurosci* 22: 303-316, 1997.
48. McDonald MP, Gleason TC, Robinson JK, [Crawley JN](#): Galanin inhibits performance on rodent memory tasks. In: *Galanin: Basic Research Discoveries and Therapeutic Implications*, Eds. T Hökfelt, T Bartfai, J Crawley, Ann NY Acad Sci 863: 305-322, 1998.
49. [Crawley, JN](#): Galanin, role in memory processes and dementia. In: *Elsevier's Encyclopedia of Neuroscience*, G Adelman and BH Smith (Eds), Elsevier Science B.V., pages 744-745, 1999.
50. Noble F, Wank SA, [Crawley JN](#), Bradwejn J, Seroogy KB, Hamon M, Roques BP: International Union of Pharmacology. XXI. Structure, distribution, and functions of cholecystokinin receptors. *Pharmacol Reviews* 51: 745-781, 1999.
51. [Crawley JN](#): The misbehaving gene: New advances in behavioral genetics. *Psychol Sci Agenda*, July/August: pages 10-12, 1999.
52. [Crawley JN](#): Behavioral phenotyping of transgenic and knockout mice: experimental design and evaluation of general health, sensory functions, motor abilities, and specific behavioral tests. *Brain Res* 835: 18-26, 1999.
53. Paylor R, Lijam N, McDonald MP, [Crawley JN](#), Sussman DJ, Wynshaw-Boris A: Behavioral analysis of *Dvl1*-deficient mice reveals a role for the *Dvl1* gene in social behaviors and sensorimotor gating. In: *Handbook of Molecular-Genetic Techniques for Brain and Behavior Research*, WE Crusio and RT Gerlai, (Eds), Elsevier Science, pp. 352-363, 1999.
54. [Crawley JN](#): Evaluating anxiety in rodents. In: *Molecular Genetic Techniques for Behavioral Neuroscience*, WE Crusio and RT Gerlai, Eds., Elsevier Science B.V., pp. 667-673, 1999.
55. [Crawley, JN](#): The role of galanin in feeding behavior. *Neuropeptides* 33: 369-375, 1999.
56. [Crawley JN](#): Behavioral phenotyping of transgenic and knockout mice. In: *NeuroBehavioral Genetics: Methods and Applications*, Eds. P Mormede and B Jones, CRC Press, pages 105-119, 2000.
57. [Crawley JN](#): Behavioral phenotyping of transgenic and knockout mice: Experimental design and evaluation of general health, sensory functions, motor abilities, and specific behavioral tests. *ILAR Journal* 41: 136-143, 2000.
58. [Crawley JN](#): Behavioral characterization of transgenic and knockout mice. In: *Genetic Manipulation of Receptor Expression and Function*, D Accili (Ed), Wiley-Liss, New York, pp. 23-38, 2000.
59. Holmes A, [Crawley JN](#): Promises and limitations of transgenic and knockout mice in modeling psychiatric symptoms. In: *Contemporary Issues in Modeling Psychopathology*, MS Myslobodsky and I Weiner (Eds), Kluwer Academic Publishers, Boston, pp 55-77, 2000.
60. [Crawley JN](#): Strategies for behavioral phenotyping of transgenic and knockout mice. In: *Pathology of Genetically Engineered Mice*, JM Ward, JF Mahler, RR Maronpot, JP Sundberg (Eds), Iowa State University Press, pp 233-238, 2000.
61. [Crawley JN](#): Behavioral phenotyping of mutant mice. *New Technologies in the Life Sciences, Twenty Fifth Anniversary of the Trends Journals*, Elsevier Science, pp 18-22, 2000.

62. Wrenn CC, [Crawley JN](#): Pharmacological evidence supporting a role for galanin in cognition and affect. *Prog Neuro-Psychopharm Biol Psychiat*, 25: 283-289, 2001.
63. Counts SE, Perez SE, Kahl U, Bartfai T, Bowser R, Deecher DC, Mash DC, [Crawley JN](#), Mufson EJ: Galanin: Neurobiologic mechanisms and therapeutic potential for Alzheimer's disease. *CNS Drug Reviews* 7:445-470, 2001.
64. [Crawley JN](#), Galanin. *Wiley Encyclopedia of Molecular Medicine*, John Wiley & Sons, Inc., New York, pp 1363-1364, 2002.
65. Gomeza J, Yamada M, Duttaroy A, Zhang W, Makita R, Miyakawa T, [Crawley J](#), Zhang L, Shannon H, Bymaster FP, Felder C, Deng C, Wess J: Muscarinic acetylcholine receptor knockout mice: phenotypical analysis and clinical implication. In: *Trends in Drug Research III*, H. van der Goot (Ed.), Pharmacology Library, Elsevier, Amsterdam, 32: 97-113, 2002.
66. [Crawley JN](#), Mufson EJ, Hohmann JG, Teklemichael D, Steiner RA, Holmberg K, Blakemann KH, Xu X-J, Wiesenfeld-Hallin Z, Bartfai T, Hökfelt T: Galanin overexpressing transgenic mice. *Neuropeptides Special Issue on Transgenics and Knockouts with Mutations in Genes for Neuropeptides and their Receptors*, 36:145-156, 2002.
67. [Crawley JN](#): Behavioral phenotyping of rodents. *Comparative Medicine Special Issue on Current Concepts in the Application of Genetics, Genomics, and Gene Therapy to Animal-Related Research* 53: 140-146, 2003.
68. Holmes A, Murphy DL, [Crawley JN](#): Abnormal behavioral phenotypes of serotonin transporter knockout mice: Parallels with human anxiety and depression. *Biological Psychiatry* 54: 953-959, 2003.
69. [Crawley JN](#): Designing mouse behavioral tasks relevant to the symptoms of autism. *Mental Retardation and Developmental Disabilities Research Reviews*, Special Issue on Autism 10: 248-258, 2004.
70. Rustay NR, Wrenn CC, Kinney JW, Holmes A, Bailey KR, Sullivan TL, Harris AP, Long KC, Saavedra MC, Starosta G, Innerfield CE, Yang RJ, Dreiling JL, [Crawley JN](#): Galanin impairs performance on learning and memory tasks: Findings from galanin transgenic and GAL-R1 knockout mice. *Neuropeptides, Special Issue on Galanin*, 39: 239-243, 2005.
71. Wiesenfeld-Hallin Z, Xu X-J, [Crawley JN](#), Hökfelt T: Galanin and spinal nociceptive mechanisms: Recent results from transgenic and knock-out models. *Neuropeptides, Special Issue on Galanin*, 39: 207-210, 2005.
72. Green MF, Olivier B, [Crawley JN](#), Penn DL, Silverstein S: Social cognition in schizophrenia: Recommendations from the MATRICS New Approaches Conference. *Schizophrenia Bulletin* 31: 882-887, 2005.
73. Moy SS, Nadler JJ, Magnuson TR, [Crawley JN](#), Mouse models of autism spectrum disorders: The challenge for behavioral genetics. *American Journal of Medical Genetics, Special Issue on Autism*, 142C: 40-51, 2006.
74. Bailey KR, Rustay NR, [Crawley JN](#), Behavioral phenotyping of transgenic and knockout mice: Practical concerns. *ILAR Journal* 47: 124-131, 2006.
75. DiCicco-Bloom E, Lord C, Zwaigenbaum L, Courchesne E, Dager S, Schmitz C, Schultz RT, [Crawley J](#), Young LJ, The developmental neurobiology of autism spectrum disorder. *The Journal of Neuroscience*, 26: 6897-6906, 2006.

76. Ricceri L, Moles A, [Crawley J](#), Behavioral phenotyping of mouse models of neurodevelopmental disorders: Relevant social behavior patterns across the life span. *Behavioural Brain Research, Special Issue on Animal Models of Autism*, 176:40-52, 2007.
77. [Crawley JN](#), Mouse behavioral assays relevant to the symptoms of autism. *Brain Pathology* 17:448-459, 2007.
78. [Crawley JN](#), Testing hypotheses about autism. *Science* 318:56-57, 2007.
79. [Crawley JN](#), Social behavior tests for mice. In *What's Wrong With My Mouse? Strategies for Rodent Behavioral Phenotyping*, Short Course Syllabus, Society for Neuroscience, Washington, DC, 2007.
80. [Crawley JN](#), Galanin impairs cognitive abilities in rodents: Relevance to Alzheimer's disease. *Cellular and Molecular Life Sciences*, 65: 1836-1841, 2008.
81. [Crawley JN](#), Behavioral phenotyping strategies for mutant mice. *Neuron* 57:809-817, 2008.
82. Yang M, Weber MD, [Crawley JN](#), Light phase of testing of social behavior: Not a problem. *Frontiers in Behavioral Neuroscience* 2: 186-191, 2008.
83. Chadman KK, Yang M, [Crawley JN](#), Criteria for validating mouse models of psychiatric diseases. *American Journal of Medical Genetics B. Neuropsychiatric Genetics* 150B: 1-11, 2009.
84. Bailey KR, [Crawley JN](#), Galanin and Receptors. *New Encyclopedia of Neuroscience*, Squire L, Albright T, Bloom F, Gage F, Spitzer N, Eds., 4:491-498, 2009.
85. Scattoni ML, [Crawley J](#), Ricceri L, Ultrasonic vocalizations: A tool for behavioural phenotyping of mouse models of neurodevelopmental disorders. *Neuroscience and Biobehavioral Reviews* 33: 508-515, 2009.
86. Yang M, [Crawley JN](#), Simple behavioral assessment of mouse olfaction. *Current Protocols in Neuroscience* 8:24.1, 2009.
87. Silverman JL, Yang M, Lord C, [Crawley JN](#), Behavioural phenotyping assays for mouse models of autism. *Nature Reviews Neuroscience*, 11:490-502, 2010.
88. Yang M, Scattoni ML, Chadman KK, Silverman JL, [Crawley JN](#), Behavioral evaluation of genetic mouse models of autism. In Amaral DG, Dawson G, Geschwind DH, Eds., *Autism Spectrum Disorders*. Oxford University Press, 906-934, 2011.
89. Roullet FI, [Crawley JN](#): Mouse models of autism: Testing hypotheses about molecular mechanisms. In Hagan J, Ed., *Animal Models in Behavioural Neuroscience*, Editor Jim Hagan, in *Current Topics in Behavioral Neurosciences*, Series Editors M Geyer, B Ellenbroek, C Marsden, Springer-Verlag, pages 187-212, 2011, in press.
90. Bauman MD, [Crawley JN](#), Berman RF, Autism: Animal models. *Encyclopedia of Life Sciences*, John Wiley & Sons, Chichester, UK, published online <http://www.els.net>, DOI: 10.1002/9780470015902.a0022368, 2010.
91. Yang M, Silverman JL, [Crawley JN](#): Automated three-chambered social approach task for mice. *Current Protocols in Neuroscience* 8:26.1-26.16, 2011.
92. Brielmaier J, [Crawley JN](#): Animal models of autism spectrum disorders. *Encyclopedia of Autism Spectrum Disorders*, Springer, in press.

93. Babineau BA, Yang, M, [Crawley JN](#): Mainstreaming mice. *Neuropsychopharmacology* 37: 300-301.

INVITED LECTURES, 1996-present

1. University of Kentucky Department of Anatomy and Neurobiology, “Galanin-acetylcholine interactions in rodent memory paradigms relevant to Alzheimer’s disease.” February 6, 1996.
2. Keystone Symposium on Neural Peptides, “Inhibitory actions of galanin on rodent memory tasks relevant to Alzheimer’s disease,” February 12, 1996.
3. NIH Integrative Neuroscience Seminar Series, “Galanin inhibits performance on memory tasks in rodent models of Alzheimer’s disease,” March 28, 1996.
4. Schering-Plough Research Institute, “Behavioral actions of galanin and galanin antagonists in rodent feeding and memory paradigms,” April 18, 1996.
5. NIH Workshop on Behavioral Phenotypes of Inbred Strains of Mice, “Anxiety-related behaviors and diazepam response in inbred mouse strains,” Workshop organized by R Paylor and JN Crawley, April 24, 1996.
6. Georgetown University Department of Pharmacology Seminar Series, “Inhibitory Actions of Galanin on Cholinergic Functions in Rodent Memory Tasks: Relevance to Alzheimer’s disease,” May 7, 1996.
7. R.W. Johnson Pharmaceutical Research Institute, “Galanin-acetylcholine interactions in memory and Alzheimer’s disease,” May 16, 1996.
8. Canadian College of Neuropsychopharmacology Plenary Lecture, “Galanin-acetylcholine interactions in rodent memory tasks and Alzheimer’s disease,” June 4, 1996.
9. Merck Research Laboratories, “Galanin receptor antagonists in rodent feeding and memory paradigms,” July 23, 1996.
10. Astra Arcus AB Stockholm, “Feeding, learning and memory profiles of galanin,” September 9, 1996.
11. Pennsylvania State University Neuroscience Seminar Series, “Inhibitory actions of galanin in rodent memory paradigms,” October 18, 1996.
12. National Institute of Mental Health Satellite Symposium, Society for Neuroscience Annual Meeting, “Opportunities for behavioral neuroscientists to investigate the behavioral phenotypes of transgenic and knockout mice,” November 15, 1996.
13. Society for Behavioral Neuroendocrinology Annual Meeting, “Transgenic/knockout approaches to investigate genes mediating normal and abnormal social behaviors,” May 28, 1997.
14. National Institute on Drug Abuse Satellite Symposium, Society for Neuroscience Annual Meeting, “Behavioral phenotyping of mutant mice,” October 29, 1997.
15. Merck Frosst Research, Dorval, Canada, “Behavioral actions of galanin,” March 13, 1998.

16. Wenner-Gren Foundations International Symposium, Stockholm, Sweden, Galanin: Basic Research Discoveries and Therapeutic Implications, "Galanin inhibits performance on rodent memory tasks," May 5, 1998.
17. First Joint Meeting of the European Neuropeptide Club and the Summer Neuropeptide Conference, Gent, Belgium, "Strategies for assessing learning and memory in transgenic and knockout mice," May 6, 1998.
18. NIH Genetics Interest Group meeting, "Strategies for behavioral phenotyping of transgenic and knockout mice," June 9, 1998.
19. Neurogen Corporation, Branford, CT, "Actions of central galanin on feeding and memory," August 4, 1998.
20. Merck Neuroscience Research Center Symposium, The Role of Transgenic Mouse Models in Furthering Our Understanding of the Processes Underlying Learning and Memory, Terlings Park, England, UK, "Inbred strains of mice: Caveats on the role of background genes in evaluating the behavioral phenotype of transgenic and knockout mice on learning and memory tasks," October 16th, 1998.
21. Brain Research Interactive Conference, Satellite to the Society for Neuroscience Annual Meeting, Knockouts and Mutants: Genetically Dissecting Brain and Behavior, San Diego, CA, "Experimental design and evaluation of general health, sensory functions, motor abilities, and specific behavioral paradigms in transgenic and knockout mice," November 5th, 1998.
22. Bourne Laboratory, Department of Psychiatry, Cornell Medical Center, White Plains, NY, "Strategies for behavioral phenotypes of transgenic and knockout mice," November 24, 1998.
23. Oak Ridge National Laboratory, Oak Ridge, TN, "Strategies for behavioral phenotyping of mutant mice," December 11, 1998.
24. Neuroscience Seminar Series, Uniformed Services University of the Health Sciences, Bethesda, MD, "Behavioral phenotyping of transgenic and knockout mice with mutations in genes relevant to learning and memory," January 6th, 1999.
25. Behavioral and Social Sciences Interest Group Seminar, Bethesda, MD, "The misbehaving gene," January 14th, 1999.
26. Neuroscience Faculty Seminar Series, Texas A&M University, College Station, TX, "Behavioral phenotyping of transgenic and knockout mice," February 3rd, 1999.
27. Neuroscience Program Seminar Series, University of Michigan, Ann Arbor, MI, "Behavioral phenotyping of transgenic and knockout mice with mutations in genes relevant to learning and memory," February 15th, 1999.
28. National Cancer Institute Symposium, Pathology of Genetically-Engineered Mice, "Strategies for behavioral phenotyping of transgenic and knockout mice," Bethesda, MD, February 25th, 1999.
29. Hoffmann-La Roche, Basel, Switzerland, "Rodent learning and memory tasks relevant to aging and Alzheimer's disease," March 2, 1999.
30. Tenth Annual Spring Brain Conference, Sedona, AZ, "Inhibitory actions of galanin on rodent memory tasks relevant to Alzheimer's disease," March 11th, 1999.

31. Purdue University Special Lectures in Neuroscience Series, West Lafayette, IN, "Inhibitory actions of galanin in rodent memory tasks: relevance to Alzheimer's disease;" and Neuroscience Graduate Program Lecture Series, "Behavioral phenotyping of transgenic and knockout mice," April 28th and 29th, 1999.
32. NIH Alzheimer's Interest Group, Bethesda, MD, "Inhibitory actions of galanin in rodent memory tasks relevant to Alzheimer's disease," Bethesda, MD, May 6th, 1999.
33. University of Washington Physiology Seminar, Seattle, WA, "Strategies for behavioral phenotyping of transgenic and knockout mice," June 2, 1999.
34. Lilly Neuroscience Seminar, Indianapolis, IN, "Strategies for behavioral phenotyping of transgenic and knockout mice," November 10th, 1999.
35. US/Japan Meeting, National Academy of Sciences, Washington, DC, "Defining phenotype in genetically engineered mice," November 15th, 1999.
36. International Behavioural and Neural Genetics Society Annual Meeting, Brighton, UK, "What's wrong with my mouse? Behavioral phenotyping strategies and applications." June 22, 2000.
37. Summer Neuropeptide Conference, Ste. Adele, Quebec, Canada, "Learning and memory deficits in galanin-overexpressing transgenic mice," July 23rd, 2000.
38. Nobel Forum Minisymposium, In Search of Molecular Substrates of Behavior, Stockholm Sweden, "Strategies for behavioral phenotyping of transgenic and knockout mice," October 5, 2000.
39. Scripps Research Institute, Neuroscience Seminar Series, La Jolla, CA, "Behavioral phenotype of galanin transgenic mice," February 28, 2001.
40. University of North Carolina, Neurodevelopment Disorders Research Center seminar, Chapel, Hill, NC, "Strategies for behavioral phenotyping of mouse models," April 4th, 2001.
41. International Behavioral Neuroscience Society Annual Meeting, Presidential Lecture, Cancun, Mexico, "Galanin: An inhibitory neuropeptide overexpressed in Alzheimer's disease impairs learning and memory in rats and transgenic mice," April 27, 2001.
42. Karolinska Institutet, The Mouse in Cognitive Neuroscience: Implications for Functional Genomics, Postgraduate Course in Behavioural Neuroscience, Stockholm, Sweden, "Overall strategy for mouse behavioral phenotyping," May 9, 2001; "Assessment of anxiety tasks in mice. What do they predict?" May 10th, 2001.
43. University of Helsinki Symposium on Phenotypic Analysis of Transgenic Mice, Helsinki, Finland, "Inhibitory actions of galanin in memory tasks relevant to Alzheimer's disease," May 12th, 2001.
44. Bio 2001, Symposium on Methods for Phenotypic Evaluation of Transgenic and Knockout Mice, San Diego, CA, "Methods for evaluating the behavioral phenotype of transgenic and knockout mice," June 27th, 2001
45. EMBO/FENS Practical Course on Mouse Transgenics and Behaviour, University of Zurich, Zurich, Switzerland, "What's wrong with my mouse? Behavioural phenotyping strategies and applications," July 18th, 2001.
46. Swiss Federal Institute of Technology Seminar, Zurich, Switzerland, "Selective memory deficits in galanin-overexpressing transgenic mice," July 19th, 2001.

47. The Jackson Laboratory 42nd Annual Short Course in Medical and Experimental Mammalian Genetics, Bar Harbor, ME, "Mouse behavioral genetics," July 24th, 2001.
48. George Washington University Neuroscience Seminar Series, Washington DC, "Memory deficits in galanin overexpressing transgenic mice: relevance to Alzheimer's disease," September 10th, 2001.
49. University of Pennsylvania Neuroscience, David Mahoney Institute of Neurological Sciences Seminar Series, Philadelphia, PA, "Memory deficits in a galanin overexpressing transgenic mouse model of Alzheimer's disease," October 3rd, 2001
50. Joslin Diabetes Center, Harvard University, Boston, MA, "Strategies for behavioral phenotyping of transgenic and knockout mice," November 1st, 2001.
51. Tenth Annual Puerto Rico Neuroscience Conference, San Juan, PR, "Strategies for behavioral phenotyping of transgenic and knockout mice," November 30th, 2001.
52. Howard University Department of Pharmacology Seminar Series, Washington, DC, "Memory deficits in galanin overexpressing transgenic mice: Relevance to Alzheimer's disease," January 9th, 2002.
53. University of North Carolina Department of Psychology Seminar Series, "Memory impairments in galanin overexpressing transgenic mice: Relevance to Alzheimer's disease. January 16th, 2002.
54. National Academy of Sciences Institute for Laboratory Animal Research, Workshop on Guidelines for the Use of Animals in Neuroscience and Behavioral Research, Washington, DC, "Transgenic animals," February 27th, 2002.
55. Synaptic Pharmaceuticals Seminar Series, Paramus, NJ, "New development in the study of galanin knockout animals," March 13, 2002.
56. American College of Laboratory Animal Medicine 2002 Forum, Genetics, Genomics, and Gene Therapy, Savannah, GA, "Behavioral phenotyping in rodents," April 15th, 2002.
57. Gladstone Institute of Neurological Disease, San Francisco, CA, "Strategies for behavioral phenotyping of transgenic and knockout mice," April 25th, 2002.
58. National Institute of Mental Health Intramural Research Program Senior Investigators Seminar Series, NIMH/IRP Fellows Committee, Bethesda, MD, "Memory deficits in galanin overexpressing transgenic mice: Relevance to Alzheimer's disease," May 15, 2002.
59. National Institutes of Health Conference, Planning the Design of an Animal Research Facility at the NIH, Bethesda, MD, "Introduction to rodent behavioral studies," June 18th, 2002.
60. The Jackson Laboratory Short Course on Pathobiology of the Modern Laboratory Mouse, Bar Harbor, ME, "Behavioral phenotyping of mutant mice," June 26th, 2002.
61. Cold Spring Harbor Laboratory Mouse Behavioral Analysis Course, Cold Spring Harbor, NY, "Strategies for behavioral phenotyping," June 29th, 2002.
62. Eighth International Summer School on Behavioral Neurogenetics, Worcester, MA, "Behavioral phenotyping of transgenic and knockout mice," August 8th, 2002.

63. University of Massachusetts Neuroscience Seminar, Worcester, MA, "Inhibitory actions of galanin in memory tasks relevant to Alzheimer's disease," September 12, 2002.
64. National Institute on Drug Abuse Lecture Series, Rockville, MD, "Galanin induces performance deficits on learning and memory in rodents," October 2, 2002.
65. National Institute on Alcoholism and Alcohol Addiction Seminar, Rockville, MD, "Strategies for behavioral phenotyping of transgenic and knockout mice," October 24, 2002.
66. Sixteenth Annual Neuroscience Symposium of the Central Virginia Chapter of the Society for Neuroscience, Richmond, VA, "Learning and memory deficits in galanin overexpressing transgenic mice: Relevance to Alzheimer's disease," April 7, 2003.
67. First Annual Meeting of the STAART Autism Research Center, Chapel Hill, NC, "Project IV: Gene dissection of autism-related behaviors in mice," April 9, 2003.
68. Laboratory of Animal Medicine Residency Program Course, Uniformed Services University of the Health Sciences, Bethesda, MD, "Behavioral Phenotyping of Transgenic Rodents," April 1, 2003.
69. Integrative Genomics Symposium, University of Michigan, Ann Arbor, MI, "Strategies for Behavioral Phenotyping of Transgenic and Knockout Mice," May 7, 2003.
70. Neuroscience Seminar Series, McLean Hospital, Harvard Medical School, Belmont, MA, "Cognitive deficits in galanin overexpressing transgenic mice: Relevance to Alzheimer's disease," May 20th, 2003.
71. Monitoring Molecules in Neuroscience: Tenth International Conference on *In Vivo* Methods, Stockholm, Sweden, "Transgenic models of CNS diseases: role of behavioral pharmacology," June 25th, 2003.
72. Gladstone Distinguished Scholar Lecture, San Francisco, CA, "Cognitive deficits in galanin overexpressing transgenic mice: Relevance to Alzheimer's disease," September 25, 2003.
73. Society for Neuroscience Short Course 2, San Diego, CA, "Mouse Behavioral Phenotyping," Organizer and Introductory Lecturer, November 7th, 2003.
74. Autism Forum, University of North Carolina, Chapel Hill, NC, "How would you model autism in mice?" February 3rd, 2004.
75. Neurobiology Seminar, University of North Carolina, Chapel Hill, NC, "Behavioral phenotyping of transgenic and knockout mice," February 6th, 2004.
76. Neuroscience Program Seminar Series, Georgetown University School of Medicine, "How would you model autism in mice?" February 24th, 2004.
77. Conte Center Seminar Series, University of North Carolina, Chapel Hill, NC, "Mouse models of schizophrenia," March 2, 2004.
78. Gatlinburg Conference on Research and Theory in Intellectual and Developmental Disabilities, San Diego, CA, Plenary Lecturer, "Animal models." March 12, 2004.
79. New Paradigms for Exploring Gene-Environment-Behavior Relationships, National Institute on Environmental and Health Sciences, Research Triangle Park, NC, "How would you model autism in mice?" April 28, 2004.

80. STAART/CPEA Conference on Autism, Washington, DC, "How would you model autism in mice?" May 18, 2004.
81. NIMH MATRICS Meeting, Potomac, MD, Discussion session on mouse models of social cognition deficits in schizophrenia, September 9, 2004.
82. EUMORPHIA Annual Meeting, Understanding Human Disease Through Mouse Genetics, London, UK, "High quality and high throughput behavioral phenotyping," October 5, 2004.
83. Galanin 2004, San Diego, CA, Co-Organizer and Roundtable Discussion leader, "Galanin research tools – ligands and mutants," October 22, 2004.
84. National Alliance on Autism Research meeting, Integrating the Clinical and Basic Sciences of Autism, Fort Lauderdale, FL, "Designing mouse behavioral tasks to model the symptoms of autism," November 12, 2004.
85. Food and Drug Administration Seminar Series, Rockville, MD, "Behavioral analysis of mouse models of human diseases," December 15, 2004.
86. University of Florida School of Medicine Grand Rounds, Gainesville, FL, "Autism models," January 28, 2005.
87. Case Western Reserve University Neuroscience Seminar Series, Cleveland, OH, "Behavioral phenotyping strategies", February 17, 2005.
88. Uniformed Services Veterinary Course, Bethesda, MD, "Strategies for mouse behavioral phenotyping," April 13, 2005.
89. NIH Animal Welfare Interest Group, Bethesda, MD, "Strategies for behavioral phenotyping," April 27, 2005.
90. Experimental Neurogenetics of the Mouse, Second Annual Course, Memphis, TN, two lectures: "Examining general behavior in mice," "Social behavior," May 19, 2005.
91. University of Pennsylvania Neuroscience Seminar Series, Philadelphia, PA, "Mouse behavioral phenotyping: Designing tasks to model the symptoms of autism," May 24, 2005.
92. International Behavioral Neuroscience Society Annual Meeting, Sante Fe, NM, Marjorie A. Myers Lifetime Achievement Award and symposium lecture, "Behavioral tasks to model the core symptoms of autism in mice," June 2, 2005.
93. Summer Neuropeptide Conference, Miami, FL, Fleur Strand Award Lecture, "Neuropeptides and Behavior: The trouble with galanin in Alzheimer's Disease," July 8, 2005.
94. National Institute of Mental Health Scientific Review Administrators Lecture Series, Bethesda, MD, "Modeling the symptoms of autism in mice," September 7, 2005.
95. Genomic Neuroscience Conference, Wellcome/Cold Spring Harbor, Hinxton, Cambridge, UK, "Mouse behavioral phenotyping," September 29th, 2005.
96. University of Illinois Neuroscience seminar series, Urbana, IL, "Galanin overexpressing transgenic mice display learning and memory deficits: Relevance to Alzheimer's disease," October 7th, 2005.

97. Waisman Center seminar series, University of Wisconsin, Madison, WI, "Modeling the symptoms of autism in mice," October 4th, 2005.
98. Neurobiology of Disease Workshop on Autism, Society for Neuroscience annual meeting, Washington, DC, "Strategies to model the symptoms of autism in mice," November 11, 2005.
99. Wadsworth Institute seminar series, "Strategies for modeling the symptoms of autism in mice," December 8th, 2005.
100. Neuroscience seminar series, Medical College of South Carolina, Charleston, SC, "Galanin impairs performance on learning and memory tasks: Relevance to Alzheimer's disease," January 26th, 2006.
101. Brain Institute seminar, University of Utah, Salt Lake City, UT, "Strategies for mouse behavioral phenotyping," February 6th, 2006.
102. Rockefeller University seminar, New York, NY, "Strategies for mouse behavioral phenotyping," March 15th, 2006.
103. Pharmacology graduate seminar, Howard University, Washington, DC, "Modeling the symptoms of autism in mice," March 29th, 2006.
104. International Meeting for Autism Research, Montreal, Canada, "Strategies for designing mouse behavioral tasks relevant to the symptoms of autism," June 3, 2006.
105. Seaver Center seminar, Mt. Sinai School of Medicine, NY, NY, "Designing mouse behavioral tasks relevant to the symptoms of autism," September 13, 2006.
106. GTCBio conference Epigenetics and Neural Developmental Disorders, Beltsville, MD, "Designing mouse behavioral tasks relevant to the symptoms of autism," September 19, 2006.
107. Simons Foundation discussion group on mouse models of autism spectrum disorders, New York, NY, September 26, 2006.
108. National Institute on Dental and Craniofacial Research seminar series, Bethesda, MD, "Behavioral phenotyping of transgenic and knockout mice," January 26, 2007.
109. The Neurosciences Institute, Meeting on Schizophrenia, San Diego, CA, "Rodent models of schizophrenia," February 5th, 2007.
110. Staff Training in Extramural Programs Forum on Animal Models, NIH, Bethesda, MD, "Strategies for modeling the symptoms of autism in mice," February 8th, 2007.
111. Neurodevelopmental Disorders Interest Group, NIMH, Bethesda, MD, "How would you model the symptoms of autism in mice," February 8th, 2007.
112. Neuroscience Seminar Series, University of Virginia, Charlottesville, VA, "Approaches to modeling the symptoms of autism in mice," February 13th, 2007.
113. Behavioral Neuroscience Seminar Series, Ohio State University, Columbus, OH, "Strategies for modeling the symptoms of autism in mice," March 1, 2007.
114. Research Seminar Series, Maryland Psychiatry Research Center, University of Maryland, Baltimore, MD, "Strategies for modeling the symptoms of autism in mice," March 7th, 2007.

115. Neurodevelopmental Disorders Research Center Fellows Seminar Series, University of North Carolina School of Medicine, Chapel Hill, NC, "Mouse behavioral phenotyping," March 21st, 2007.
116. Neuroscience Seminar Series, Vanderbilt University School of Medicine, Nashville, TN, "Strategies for modeling the behavioral symptoms of autism in mice," April 5th, 2007.
117. Emerging Methods and Technologies in Behavioral Neuroscience Workshop, Society for Behavioral Neuroendocrinology, Asilomar, CA, "Strategies for designing rodent models of neuropsychiatric disorders," June 21st, 2007.
118. Translational Approaches to Studying Repetitive Behavior and Resistance to Change in Autism, NIMH Workshop, Bethesda, MD, "Repetitive self-grooming in socially deficient BTBR T+tf/J mice," September 6th, 2007.
119. Autism and Developmental Disorders Colloquium, Massachusetts Institute of Technology, Cambridge, MA, "Designing behavioral tasks for mouse models of autism," September 19th, 2007.
120. Neuroscience Seminar Series, University of Virginia, Charlottesville, VA, "Designing mouse behavioral tasks relevant to the symptoms of autism," September 25th, 2007.
121. Neurogenetics Seminar Series, University of California San Francisco, "Strategies for modeling the behavioral symptoms of autism in mice," October 2nd, 2007.
122. Short Course #1 Mouse Behavioral Phenotyping, Society for Neuroscience, San Diego, CA, Organizer and Lecturer, "Assays for mouse social behaviors," November 2, 2007.
123. Neuroscience and Medicine Seminar Series, Pasteur Institute, Paris, France, "Developing mouse models of autism," November 15th, 2007.
124. Department of Pharmacology Seminar Series, University of Texas Health Science Center, San Antonio, TX, "Strategies for modeling the symptoms of autism in mice," November 28, 2007.
125. Development of Novel Neuropharmacological Therapeutics for Autism, Conference organized by Autism Speaks, Boca Raton, FL, "Assays with face validity for the behavioral symptoms of autism in mice," December 7th, 2007.
126. Frontiers in the Developmental Neurobiology of Autism, Autism Speaks/Wellcome Trust Symposium, London, UK, "Modeling the behavioral symptoms of autism in mice: Assays to test hypotheses and evaluate therapeutics," January 9th, 2008.
127. Seminar, Brain Cells Inc., San Diego, CA, "Behavioral assays for mouse models of neuropsychiatric disorders," January 29th, 2008.
128. Mouse Behavior Workshop, Autism Speaks, Baltimore, MD, "Mouse behavior assays relevant to the symptoms of autism," February 6th, 2008.
129. Neurobehavioral Genetics Seminar Series, University of California Los Angeles, "Strategies for behavioral phenotyping of mouse models of autism," March 20th, 2008.
130. NIDA Intramural Seminar Series, Baltimore, MD "Behavioral phenotyping of transgenic and knockout mice," April 15th, 2008.

131. Psychiatric Grand Rounds, University of Massachusetts Medical School, "Strategies for behavioral phenotyping of mouse models of autism," May 1st, 2008.
132. Roundtable Panel: Strategies to Assay Communication Deficits in Animal Models of Autism, International Meeting for Autism Research, London, UK, Organizer and presenter, May 17th, 2008.
133. Discovery Neuroscience Seminar, Wyeth Research, Princeton, NJ, "Assays for social behaviors in mouse models of autism, schizophrenia, depression, and social phobia," June 4th, 2008.
134. Congressional Biomedical Research Caucus, Rayburn House Office Building, Washington, DC, "Testing hypotheses about autism," June 11, 2008.
135. Neuron-Glia Interactions Symposium, International Behavioral Neuroscience Society Annual Meeting, St. Thomas, USVI, "Unusual background genes in the BTBR T+tf/J mouse model of autism include a kynurenic acid metabolic enzyme," June 20th, 2008.
136. Workshop on Biology of Social Cognition, Cold Spring Harbor Laboratory Conference, Lloyd Harbor, NY, "Social behaviors in mouse models of autism," July 18th, 2008.
137. Of Mice and Men: Relevance of Animal Models to Human Behavior Symposium, Stanford University, Palo Alto, CA, "Behavioral phenotyping assays for mouse models of autism," July 21st, 2008.
138. Phenotyping of Mutant Mouse Models, National Institute on Aging Workshop, Bethesda, MD, "Cognitive and motor phenotypes in inbred strains of mice used for breeding targeted gene mutations." July 28th, 2008.
139. Behavioural Genetics and its Relevance to Neuropsychiatric Disorders, European Behavioural Pharmacology Society International Workshop, Cork, Ireland, "What's Right With My Mouse?," August 26th, 2008.
140. Weill Cornell Medical College, Sloan-Kettering Cancer Center, Rockefeller University Tri-Institutional Investigator Seminar Series, "Behavioral phenotyping of mutant mouse models of human genetic disorders," September 17th, 2008.
141. Telethon Institute of Genetics and Medicine seminar series, Naples, Italy, "Behavioral phenotypes in mouse models of autism," September 24th, 2008.
142. Max Planck Institute of Experimental Medicine seminar series, Göttingen, Germany, "Strategies for behavioral phenotyping of mouse models of autism," September 26th, 2008.
143. Mouse Genetics and Genomics: Development and Disease, Cold Spring Harbor Laboratory, New York, "Behavioral Phenotyping assays for mouse models of autism," November 1, 2008.
144. American College of Neuropsychopharmacology, Panel: CNS Drug Discovery and Development: Challenges and Opportunities, Scottsdale, AZ, "Rodent behavioral endophenotypes as surrogate markers for neuropsychiatric disorders in CNS drug discovery," December 11th, 2008.
145. American College of Neuropsychopharmacology, Panel: Laying the Foundation for the Development of Therapeutics in the Autistic Spectrum: Targets, Models and Molecules, Scottsdale, AZ, "Behavioral assays to evaluate therapeutic efficacy in mouse models of autism," December 11th, 2008.
146. Children's Hospital, Harvard Medical School, Neurobiology Seminar Series, Boston, MA, "Behavioral phenotyping strategies for mouse models of autism," February 2nd, 2009.

147. Children's Hospital of Philadelphia Mental Retardation and Developmental Disabilities Research Center Seminar Series, Philadelphia, PA, "Phenotyping genetic mouse models of autism," February 10th, 2009.
148. California Institute of Technology, Caltech Brain Imaging Center seminar, Pasadena, CA, "The BTBR mouse as a model for autism," February 5th, 2009.
149. Texas A&M University Faculty of Neuroscience Colloquia Series, College Station, TX, "What is right with my mouse?" February 19th, 2009.
150. University of North Carolina at Greensboro Genomics Colloquia Series, Greensboro, NC, "Behavioral phenotyping of mutant mouse models of human genetic disorders," February 26th, 2009.
151. Lilly Neuroscience Discovery Research Seminar, Indianapolis, IN, "Behavioral assays to phenotype mouse models of autism: Strategies to identify targets for treatment discovery," March 4th, 2009.
152. University of Puerto Rico School of Medicine Anatomy and Neurobiology Seminar Series, San Juan, PR, "Mouse models of autism," March 26th, 2009.
153. Children's National Medical Center, Behavioral Medicine Grand Rounds, Washington, DC, "Behavioral phenotyping strategies for mouse models of autism," April 15th, 2009.
154. Autism Awareness Day Symposium, Albany, NY, "Using animal models to develop treatments for autism," April 22nd, 2009
155. Wadsworth Genetics Institute, Troy, NY, "Contributions of mouse behavioral genetics to discovering the causes of autism," April 23rd, 2009
156. University of Washington Genome Sciences Symposium, Seattle, WA, "Behavioral phenotyping strategies for mouse models of autism," April 30th, 2009
157. International Meeting for Autism Research, Chicago, IL, "Behavioral phenotyping strategies for translational evaluation of treatments in mouse models of autism," May 7th, 2009.
158. California Institute for Regenerative Medicine Autism Workshop, San Francisco, CA, "Behavioral phenotyping strategies for mouse models of autism," May 28th, 2009.
159. Cold Spring Harbor Laboratory Seminar, Cold Spring Harbor, NY, "Behavioral phenotyping strategies for mouse models of autism," August 21st, 2009.
160. NIMH Division of Developmental Translational Research Seminar, Bethesda, MD, "Behavioral phenotyping strategies for mouse models of autism," August 27th, 2009.
161. Georgetown University Interdisciplinary Program in Neuroscience Seminar, Washington, DC, "Mouse models of autism," September 8th, 2009.
162. University of California San Francisco Gladstone Institute of Neurological Disease Behavioral Neuroscience Symposium, San Francisco, CA, September 29th, 2009.
163. Neurobiology of Disease workshop on Neurobiology of Depression, Society for Neuroscience, Chicago, IL, discussion group leader, animal models of autism, October 16th, 2009.
164. Prader-Willi Workshop, Bethesda, Maryland, "Behavioral phenotyping assays for mouse models of neurodevelopmental disorders," November 16th, 2009.

165. Seminar series, Janelia Farm, Howard Hughes Medical Institute, Ashburn, VA, "Strategies for mouse behavioral phenotyping," November 24th, 2009.
166. Paying Attention to Synapses: Mouse Models of Childhood Neuropsychiatric Disorders Panel, American College of Neuropsychopharmacology, Hollywood, FL, Discussant, December 10th, 2009.
167. Neuroscience Seminar, University of Texas Southwestern, Dallas, TX, "Behavioral phenotyping strategies for mouse models of autism," January 12th, 2010.
168. Neuroscience Seminar, Dominick P. Purpura Department of Neuroscience, Albert Einstein College of Medicine, Bronx, NY, "Mouse models of autism to test hypotheses and develop treatments," January 20th, 2010.
169. Broad Foundation Lectures Series on Neurobiology and Disease, Duke University School of Medicine, Durham, NY, "Mouse models of autism to test hypotheses and discover treatments," February 23rd, 2010.
170. M.I.N.D. Institute Distinguished Lecture, University of California Davis, Sacramento, CA, "Mouse models of autism to discover causes and develop treatments," March 10th, 2010.
171. Center for Molecular Neuroscience and Kennedy Center, Vanderbilt University, Nashville, TN, "Mouse models of autism to test hypotheses about causes and to discover effective treatments," April 8th, 2010.
172. Distinguished Lecture in Neuroscience and Aging, National Institute on Aging Intramural Research Program, NIH, Baltimore, MD, "Strategies for phenotyping mouse models of autism," April 15th, 2010.
173. International Behavioural and Neural Genetics Society Annual Meeting, Halifax, Canada, "Behavioral phenotypes in BTBR T+tf/J mice relevant to the symptoms of autism," May 14th, 2010.
174. Keynote Lecture, International Meeting for Autism Research, Philadelphia, PA, "Mouse models of autism to test hypotheses and develop treatments," May 20th, 2010.
175. Cornell Summer Institute on the Biology of Neurodevelopmental Disorders, Ithaca, NY, "Mouse models of autism to test hypotheses and discover treatments," June 22nd, 2010.
176. Rett Foundation Symposium, Leesburg, VA, "Autism-like behavioral phenotypes in genetically modified mice," June 28th, 2010.
177. Child Health Institute of New Jersey, University of Medicine and Dentistry New Jersey, New Brunswick, NJ, "Mouse models of autism to test hypotheses about causes and to develop treatments," September 9th, 2010.
178. Skirball Institute Neuroscience seminar, New York University, New York, NY, "Mouse models of autism to test hypotheses about causes and to develop treatments," September 24th, 2010.
179. Department of Neuroscience seminar, Case Western Reserve University, Cleveland, OH, "Mouse models of autism to test hypotheses about causes and to develop treatments," September 29th, 2010.
180. Neuroscience seminar series, University of Maryland School of Medicine, Baltimore, MD, "Mouse models of autism to test hypotheses about causes and to develop treatments," October 7th, 2010.
181. Williams Syndrome conference, Allen Brain Institute, Seattle, WA, "Behavioral assays for mouse models of neurodevelopmental disorders," October 14th, 2010.

182. Department of Psychiatry and M.I.N.D. Institute seminar, University of California Davis, Sacramento, CA, "Mouse models of neurodevelopmental disorders," November 5th, 2010.
183. Elsevier Brain Research Satellite Meeting on Autism Spectrum Disorders, San Diego, CA, "Mouse models of autism," November 11th, 2010.
184. Institute for Behavioral Genetics seminar, University of Colorado, Boulder, CO, "Behavioral phenotyping of mouse models of autism: Towards testing hypotheses and discovering therapeutics," December 3rd, 2010.
185. Panel Session, American College of Neuropsychopharmacology annual meeting, Miami Beach, FL, "Behavioral assays in genetic mouse models to discover therapeutics for autism," December 9th, 2010.
186. Autism Speaks conference, Santa Monica, CA, Translational Medicine Research in Autism: Challenges and Opportunities, Santa Monica, CA, "Behavioral phenotyping strategies for genetic mouse models of autism," January 27th, 2011.
187. Simons Foundation Workshop on Behavioral Assays for Mouse Models of Autism, New York, NY, "Mouse behavior assays," February 4th, 2011.
188. Phelan-McDermid Syndrome Foundation Symposium, New York, NY, "Behavioral analysis of *Shank3* mutant mice," March 3rd, 2011.
189. University of New Mexico Neuroscience Day Keynote Lecture, Albuquerque, NM, "Mouse models of autism to test hypotheses about causes and to develop treatments," March 11th, 2011.
190. Pfizer, Inc. Neuroscience Seminar, Groton, CT, "Discovering treatments for autism spectrum disorders with genetic mouse models," April 13th.
191. New York Academy of Sciences Symposium on Autism Spectrum Disorders, New York, NY, "Mouse models of autism to test hypotheses about causes and to discover therapeutics," April 26th, 2011.
192. Distinguished Scientist Award Lecture, International Behavioural and Neural Genetics Society, Rome, Italy, "Mouse models of autism to test hypotheses about causes and to discover treatments," May 13th, 2011.
193. Kennedy-Krieger Institute, Baltimore, MD "Repetitive behaviors in mouse models of autism," June 24th, 2011.
194. Simons Foundation Autism Biomarkers Workshop, Stony Brook, NY, "Mouse behavioral assays," July 23rd, 2011.
195. National Institute of Mental Health Psychiatry Clinical Fellows Seminar, Bethesda, MD, "Mouse models of autism to test hypotheses about causes and to discover treatments" November 1, 2011.
196. Cell Symposium, Autism Spectrum Disorders, Washington DC, "Behavioral phenotyping strategies for genetic mouse models of autism," November 9th, 2011.
197. University of Iowa Pain Interest Group Seminar, Iowa City, IA, "Mouse models of autism to understand causes and discover treatments," February 1, 2012
198. University of Kentucky Spring Neuroscience Research Day, Lexington, KY, "Mouse models of autism to understand causes and discover treatments," March 29, 2012

199. Disorders of Synaptic Dysfunction, Jan and Dan Duncan Neurological Research Institute and *Science Translational Medicine*, “Translational mouse models to discover therapeutics for autism spectrum disorders,” Houston, TX, April 13, 2012.
200. Mouse Ultrasonic Vocalizations Workshop, Institut Pasteur, “Ultrasonic vocalizations in mice as an assay for the second diagnostic symptom of autism,” Paris, France, April 16, 2012.
201. Translational Neuroscience Symposium, Roche and *Nature Medicine*, Buonas, Switzerland, “Mouse models as translational tools to discover treatments for autism,” April 25, 2012.

LABORATORY PERSONNEL

CURRENT:

1. BABINEAU, Brooke, Postdoctoral IRTA Fellow, 2010 – present
2. BRIELMAIER, Jennifer, Postdoctoral IRTA Fellow, 2010 - present
3. GASTRELL, Philip, Postbaccalaureate IRTA, 2011 – present
4. KARRAS, Michael, Postbaccalaureate IRTA, 2010 – present
5. KALIKHMAN, David, Postbaccalaureate IRTA, 2011 – present
6. LOUREIRO, Darren, high school student intern, 2011 – present
7. SENERTH, Julia, Postbaccalaureate IRTA, 2011 – present
8. OLIVER, Chicora, Postbaccalaureate IRTA, 2011 – present
9. SILVERMAN, Jill, Senior Research Laboratory Manager, 2007 – present
10. YANG, Mu, Postdoctoral Fellow, 2007 – 2009, Research Fellow, 2010 – present

PAST POSTDOCTORAL FELLOWS:

1. DRUGAN, Robert C., 1984-87. Current affiliation: Department of Psychology, University of New Hampshire, Durham, NH
2. KALTWASSER, Maria T., 1985-86. Current affiliation: Berlin-Chemie, Berlin, Germany
3. MASTROPAOLO, John, 1986-88. Current affiliation: Department of Psychiatry, Veterans Administration Hospital and Georgetown University, Washington, DC
4. COTTINGHAM, Sandra L., 1987-89. Current affiliation: Department of Pathology, Spectrum-Health, Grand Rapids, MI
5. AUSTIN, Mark C., 1988-91. Current affiliation: Department of Psychiatry, University of Pittsburgh, Pittsburgh, PA
6. de BARTOLOMEIS, Andrea, 1990-92. Current affiliation: Department of Psychiatry, University of Naples, Italy.
7. CORWIN, Rebecca L., 1991-94. Current affiliation: Department of Nutrition, Pennsylvania State University, University Park, PA.
8. ROBINSON, John K., 1991-94. Current affiliation: Department of Psychology, State University of New York, Stony Brook, NY.

9. MATHIS, Chantal, 1992-93. Current affiliation: CNRS, Universite Louis Pasteur, Strasbourg, France.
10. HOLMES, Philip V., 1992-95. Current affiliation: Department of Psychology, University of Georgia, Athens, GA.
11. SILLS, Terrence L., 1994-96. Current affiliation: Clarke Institute of Psychiatry, Toronto, Canada.
* **Received NIH Fellows Award for Research Excellence, 1995**
12. TABER, Matthew, 1996-97. Current affiliation: Bristol-Myers Squibb Inc., Wallingford, CT.
13. PAYLOR, Richard, 1995-98. Current affiliation: Department of Molecular and Human Genetics, Baylor College of Medicine, Houston TX.
14. GLEASON, Theresa, 1997-1998. Current affiliation: Neuroscience Program, Veterans Administration, Washington, DC.
15. McDONALD, Michael, 1994-99. Current affiliation: Department of Pharmacology, Vanderbilt University, Nashville, TN.
* **Received NIH Fellows Award for Research Excellence, 1997**
16. MIYAKAWA, Tsuyoshi, Visiting Postdoctoral Fellow, 1998-1999. Current affiliation: Tenure track faculty member, Department of Psychology, Kyoto University, Japan
17. KINNEY, Jefferson W., Postdoctoral Fellow, Intramural Research Training Award, 2000-2002. Current affiliation: Department of Neuropharmacology, Scripps Research Institute, La Jolla, CA.
18. HOLMES, Andrew, Postdoctoral Fellow, Intramural Research Training Award, 1998-2003. Current affiliation: Tenure-track faculty member, Intramural Research Program, National Institute on Alcoholism and Alcohol Abuse, Rockville, MD.
* **Received NIH Fellows Award for Research Excellence, 2000**
ACNP/Bristol-Myers Squibb Travel Award Winner, 2001
19. WRENN, Craige C., Postdoctoral Fellow, Intramural Research Training Award, 1999 - 2004. Current affiliation: Tenure-track faculty member, School of Pharmacy, Drake University, Des Moines, IA.
20. HILL-DEVINE, Joanna, Staff Scientist 2003-2007
21. RUSTAY, Nathan R., Postdoctoral Fellow, Intramural Research Training Award, 2004-2006. Current affiliation: Investigator, Cognition Program, Abbott Laboratories, Abbott Park, IL.
22. BAILEY, Kathleen R., Postdoctoral Fellow, Intramural Research Training Award, 2004-2007. Current affiliation: Assistant Professor, Department of Psychology, Susequehanna University, Susquehanna, PA.
23. SCATTONI, Maria Luisa, Postdoctoral Fellow, Special Volunteer, 2006 and 2008. Current affiliation: Section of Neurotoxicology and Neuroendocrinology Department of Cell Biology and Neurosciences, Istituto Superiori di Sanità, Rome Italy.
24. CHADMAN, Kathleen, Postdoctoral Fellow, Intramural Research Training Award, 2007-2008. Current affiliation: Faculty member, New York State Institute for Basic Research in Neurodevelopmental Disorders, Staten Island, NY.
25. ROULLET, Florence, Postdoctoral Visiting Fellow, 2008 – 2010, Hamilton, Ontario, Canada
26. WÖHR, Markus, Postdoctoral Fellow, Visiting Fellow, 2008 – 2009. Current affiliation: Faculty member, Department of Psychology, University of Marburg, Marburg, Germany.

PAST PREDOCTORAL (GRADUATE STUDENTS AND POSTBACCALAUREATE FELLOWS:

LIBBEY, Megan, 1996-97. Current affiliation: NIMH Scientific Review Administrator

DREILING, Jennifer, Postbaccalaureate, 2003-2004. Current affiliation: US Naval Medical Officer, National Naval Medical Center, Bethesda, MD

CUASAY, Katrina, 2004-2005.

LIM, Maria, Postbaccalaureate, 2005-2006. Present affiliation: Graduate student, Neuroscience Program, University of Pennsylvania School of Medicine, Philadelphia, PA

KARLSSON, Rose-Marie, Graduate Student, Co-Mentorship with Markus Heilig, NIH/Karolinska Institutet Graduate Program, 2003-2008. Present affiliation: Postdoctoral fellow, University of Maryland

STACK, Conor, Postbaccalaureate IRTA, 2006-2007. Present affiliation: Medical student, University of Syracuse

GANDHY, Shruti, Postbaccalaureate IRTA, 2007-2008. Present affiliation: Medical student, University of Texas

BARKAN, Charlotte, Postbaccalaureate IRTA, 2008-2009. Present affiliation: Graduate student, Neurobiology Program, Columbia University

WEBER, Michael, Postbaccalaureate IRTA, 2008-2009. Present affiliation: Graduate student, Department of Psychology, University of Colorado

HARRIS, Mark, Postbaccalaureate IRTA, 2009-2010. Present affiliation: Medical student, Columbia University

KATZ, Adam, Postbaccalaureate IRTA, 2009-2010. Present affiliation: Graduate student, Georgetown University

SAXENA, Roheeni, Postbaccalaureate IRTA, 2009-2010. Present affiliation: Graduate student, Columbia University

TURNER, Sarah, Postbaccalaureate IRTA, 2009 – 2011.

ABRAMS, Danielle, Postbaccalaureate IRTA, 2010 – 2011. Present affiliation: Research assistant, Washington Children's Hospital

ZHANG, James, Postbaccalaureate IRTA, 2010-2011. Present affiliation: Medical student, Emory University

PAST VISITING SCIENTISTS:

1. ESTALL, Lorna, 1985. Department of Psychology, University of Durham, England, UK.
2. DE WITTE, Philippe, 1988. Department of Psychobiologie, Universite Catholique Louvain, Belgium.
3. LAITINEN, Kirsti, 1988-90. Department of Pharmacology, University of Kuopio, Finland.
4. DE MESQUITA, Susan, 1988-89. Department of Physiology, Marshall University School of Medicine, Huntington, WV.
5. GENC, Ece, 1989. University of Istanbul, Turkey.
6. IISMAA, Tina, 2001. Garvan Medical Research Institute, Sydney, Australia
7. HEILIG, Markus, 2001. Karolinska Institute, Huddinge, Sweden
8. MCFARLANE, Hewlet, 2006. Kenyon College, Gambier, OH

PAST STUDENT VOLUNTEERS:

1. WHITE, Marsha, 1985, St. Mary's College of Maryland
2. SMITH, Courtney, 1985, Bethesda-Chevy Chase High School
3. KALINA, Ken, 1986, Gustavus Adolphus College, St. Peter, MN
4. KHOSLA, Sareena, 1986-87, Madeira School, McLean, VA
5. RHOW, Ekwan, 1986, Walt Whitman High School, Bethesda, MD
6. UPADYA, Yogita, 1987-88, Madeira School, McLean, VA
7. POTTER, Marie, 1988-90, Trinity University, TX
8. CHI, Angela, 1988, Churchill High School Potomac, MD
9. TURNER, Anne-Marie, 1988-89, Madeira School, McLean, VA
10. REINSCH, Marianna, 1989, West Virginia Wesleyan College, Buckhannon, WV
11. WEST, Howard, 1989, Princeton University, Princeton, NJ
12. TURNER, Eric, 1989, Oregon Health Sciences University School of Medicine
13. MINKUNAS, Darin, 1990, Ohio State University, Columbus, OH
14. BHATIA, Neeti, 1989-90, Winston Churchill High School, Bethesda, MD
15. BROWN, Nathan, 1990, Montgomery Blair High School, Silver Spring, MD
16. HALBERSTADT, Jamin, 1990, Swarthmore College, Swarthmore, PA
17. EVERS, John R., 1989-90, Case Western Reserve University, Cleveland, OH
18. COUNTS, Helen, 1989-90, Madeira School, McLean, VA
19. CHOU, Jeanne, 1990-91, Madeira School
20. FARMER, Charles, 1991, Kenyon College
21. LAWRENCE, Brenda, 1991, Smith College, Northampton, MA
22. HODZIEWICH, Gabriel, 1991-92, St. Andrew's High School (Teacher), Bethesda, MD
23. LAWANDE, Reena, 1991-92, Madeira School, McLean, VA
24. JORN, Andreas, 1992, Gustavus Adolphus College, St. Peter, MN
25. KOPRIVICA, Vuk, 1992-93 Bethesda-Chevy Chase High School, Bethesda, MD
26. BUCKHOLTZ, Joshua, 1992, Churchill High School, Potomac, MD
27. HIGGINS, Karen, 1992, Colgate University
28. LAM, Natalie, 1992-93, Madeira School, McLean, VA
29. SHADER, David, 1992-93, St. Andrew's High School, Bethesda, MD
30. ROWE, Paula, 1993-94, Spring Valley High School (Teacher), Silver Spring, MD
31. HARDY, Melva, 1993-94, Walter Johnson High School, Bethesda, MD
32. KOPRIVICA, Uros, 1993-94, Bethesda-Chevy Chase High School, Bethesda, MD
33. O'MARA, John, 1993, Colgate University
34. WEDDLE, Meagan, 1993-94, Madeira School, McLean, VA
35. MOORSHEAD, Ashley, 1994-95, Madeira School, McLean, VA
36. CARRILO, Jose Miguel, 1994-95, Albert Einstein High School, Silver Spring, MD
37. McCOMAS, Elena, 1995, Magruder High School (Teacher), Rockville, MD
38. BIZRI, Carolyn, 1995, Boston College
39. DRUMMOND, Melody, 1995, Governors School for Science and Math, Hartsville, SC
40. ONALAJA, Ava, 1995-96, Montgomery Blair High School, Silver Spring, MD
41. KALRA, Simrun, 1995-96, Madeira School, McLean, VA
42. SCHLAIFER, Jonathan, 1996, Montgomery Blair High School, Silver Spring, MD
43. HERSCOVITCH, Penny, 1996, Sidwell Friends High School, Washington, DC
44. MILLER, Katherine, 1996-97, Walter Johnson High School, Bethesda, MD
45. LIGLER, Amy, 1997, Wake Forest University, Winston-Salem, NC
46. BRYANT, Katherine, 1997, Atholton High School, Columbia, MD
47. NGUYEN, Michelle, 1997-98, Albert Einstein High School, Silver Spring, MD
48. ARAUJO, Kristlyn, 1997-98, Seneca Valley High School, Germantown, MD
49. DREILING, Jennifer, 1997-98, Madeira School, McLean, VA,
1999, 2000, 2001 Wellsley College, Middletown, MA
50. ARIEFF, Alexis, 1998, Ecole Active Bilingue Jeannine Manuel, Paris, France

51. LUO, Mulon, 1998-99, Walt Whitman High School, Bethesda, MD
52. GUTSHALL, Mitchell, 1998-99, Walter Johnson High School, Bethesda, MD
53. DE SOLE, Laura, 1999-2000, Madeira School, McLean, VA
54. YARED, Edom, 1999-2000, Kennedy High School, Silver Spring, MD
55. THAYER, Karen, 2000, Walt Whitman High School, Bethesda, MD
56. YANG, Rebecca, 2000-2001, Spring Brook High School, Silver Spring, MD
57. STAROSTA, Grzegorz, 2000-2001, Rockville High School, Rockville, MD
58. TIGNOR, April, 2000, Cornell University Medical School, New York, NY
59. LONG, Kassy, 2000-2001, Madeira School, McLean, VA
60. HARRIS, Ashley, 2000-2001, Walt Whitman High School, Bethesda, MD
61. SAAVEDRA, Maria, 2001-2002, Walter Johnson High School, Bethesda, MD
62. INNERFIELD, Caitlin, 2001-2002, Sherwood High School, Brookeville, MD
63. VISHWANATH, Janani, 2001-2002, Walt Whitman High School, Bethesda, MD
64. CURLEY, Allison, 2002, Colgate University, Hamilton, NY
65. SCHLOSSER, Sophie, 2002-2003, Walter Johnson High School, Bethesda, MD
66. GOLD, Eric, 2002-2003, Quince Orchard High School, Gaithersburg, MD
67. KLAUS, Michael, 2003, Landon School, Bethesda, MD
68. STEPHENSON, Dejaimenay, 2003-2004, John F. Kennedy High School, Silver Spring, MD
69. KOENIG, Elizabeth, 2003-2004, Paint Branch High School, Burtonsville, MD
70. FLORES, Sandra, 2004, University of Maryland, College Park, MD
71. COHEN, Jordan, 2004-2005, Winston Churchill High School, Potomac, MD
72. TOLU, Selen, 2004-2005, James Hubert Blake High School, Silver Spring, MD
73. MORRIS, Tabitha, 2005-2006, Bethesda-Chevy Chase High School, Bethesda, MD
74. CHEN, Thomas, 2005-2006, Winston Churchill High School, Potomac, MD
75. WASHBURN, Richard, 2005-2006, Walt Whitman High School, Bethesda, MD
76. PURI, Amit, Thomas S. Wooten High School, Rockville, MD
77. FREEMAN, Anike, 2006-2007, Damascus High School, Damascus, MD
78. ZHODZISHSKY, Vladimir, 2006-2007, Thomas S. Wooten High School, Rockville, MD
79. BOLTUCK, Sarah, 2007-2008, Walt Whitman High School, Bethesda, MD
80. CLARKE, Andres, 2007-2008, Gaithersburg High School, Gaithersburg, MD
81. TOLU, Seda, 2008-2009, 2010, Magruder High School, Gaithersburg, MD
82. PERRY, Kayla, 2008-2009, Blake High School, Silver Spring, MD
83. DIAGNE, Dieynaba, 2009 – 2010, James Blake High School, Silver Spring, MD
84. WOLDEYOHANNES, Leuk, 2009 – 2010, Wheaton High School, Wheaton, MD,
85. SIMON, Harrison, 2010-2011 Winston-Churchill High School, Potomac, MD
86. LOUREIRO, Darren, 2011-2012, Bethesda-Chevy Chase High School, Bethesda, MD