

CURRICULUM VITAE

PERSONAL DATA:

Name: J. David Sweatt
Date of Birth: November 6, 1960
Place of Birth: Montgomery, Alabama
Citizenship: U.S.

EDUCATION:

University of South Alabama, B.S. Chemistry, 1978-81

Graduate Program in Basic Medical Sciences, 1981-82
University of South Alabama Medical School

Vanderbilt University, Ph.D. Pharmacology, 1982-86
Laboratory of Dr. Lee Limbird

PROFESSIONAL EXPERIENCE:

2016-present Professor and Chairman,
Department of Pharmacology, Vanderbilt University School of Medicine

2017-present Member, Vanderbilt Institute of Chemical Biology
Vanderbilt University

2017-present Professor, Department of Psychology, Vanderbilt University

2017-present Professor, Department of Molecular Physiology and Biophysics,
Vanderbilt University

2017-present Vanderbilt Center for Addiction Research Executive Advisory Board

2017-present Senior Member, Vanderbilt Brain Institute and Neuroscience Training Faculty
Vanderbilt University

2016-present Member, Vanderbilt Center for Addiction Research
Vanderbilt University

2016-present Member, Vanderbilt Ingram Cancer Center
Vanderbilt University Medical Center

2016-present Training Faculty, Training Program in Functional Neurogenomics
Vanderbilt University

2006-2016 Professor and Evelyn F. McKnight Chairman, Department of Neurobiology,
University of Alabama, Birmingham, School of Medicine

2006-2016 Director, McKnight Brain Institute,
University of Alabama, Birmingham, School of Medicine

2006-2016 Professor, Departments of Psychology, Cell Developmental & Integrative
Biology, and Genetics, University of Alabama, Birmingham

2006-2016 Member, Civitan International Research Center,
University of Alabama, Birmingham, School of Medicine

2015-2016 Director, Civitan International Research Center
University of Alabama, Birmingham

2008-2016 Senior Scientist, Alzheimer's Disease Research Center
University of Alabama, Birmingham

2007-2016 Senior Scientist, Center for Neurodegeneration and Experimental Therapeutics,
University of Alabama, Birmingham, School of Medicine

2006-2016 Senior Scientist, Center for Glial Biology in Medicine,
University of Alabama, Birmingham, School of Medicine

2006-2016 Senior Scientist, UAB Center for Aging
University of Alabama, Birmingham

2006-2016 Training Faculty Member: UAB Interdisciplinary Genetics Graduate Program,
UAB Cell and Molecular Biology Program, UAB Behavioral Sciences Graduate
Program, and UAB Interdisciplinary Neuroscience Graduate Program

2006-2016 Director, Synaptic Physiology Core, NIH Neuroscience Blueprint Center, UAB

2006-2009 Adjunct Professor, Departments of Neuroscience and Molecular Physiology,
Baylor College of Medicine

2000-2006 Professor, Department of Neuroscience, Baylor College of Medicine

2005-2006 Professor, Department of Human and Molecular Genetics,
Baylor College of Medicine

2005-2006 Training Faculty, Translational Biology and Molecular Medicine
Ph.D. Program, Baylor College of Medicine

2000-2006 Professor, Department of Molecular Physiology and Biophysics,
Baylor College of Medicine

2004-2005 Director, Neuroscience Graduate Program
Baylor College of Medicine, Houston, Texas.

1998-2005 Director, Mouse Synaptic Plasticity Core
Mental Retardation Research Center
Baylor College of Medicine, Houston, Texas.

- 1998-2004 Co-Director, Neuroscience Graduate Program
Baylor College of Medicine, Houston, Texas.
- 1994-2000 Associate Professor with Tenure, Division of Neuroscience,
Baylor College of Medicine, Houston, Texas.
- 1989-1994 Assistant Professor, Division of Neuroscience,
Baylor College of Medicine, Houston, Texas.
- 1986-1989 Research Associate, Laboratory of Dr. Eric Kandel,
Howard Hughes Medical Institute and Center for Neurobiology and
Behavior, Columbia University, New York, New York
- 1986 Research Associate, Laboratory of Dr. Peter Reed,
Department of Pharmacology, Vanderbilt University

AWARDS and HONORS:

- Allen D. Bass Endowed Chair, Vanderbilt University 2016
- Thomson Reuters Highly Cited Researchers 2016
- American Society for Neurochemistry Presidential Lecture 2016
- Discover magazine "Top 100 Stories of 2015" (<http://discovermagazine.com/2016/janfeb>)
- Thomson Reuters Highly Cited Researchers 2015
- 2015 UAB School of Medicine Dean's Award for Research Excellence
- 2014 BMA Medical Book Award First Prize – Neurology Section, from the British Medical Association (for *Epigenetic Mechanisms in the Nervous System*, Edited with Eric Nestler, Michael Meaney, and Schahram Akbarian)
- 2014 Neurobehavioral Teratology Society Annual Meeting Elsevier Distinguished Lecturer Award
- Thomson Reuters Highly Cited Researchers 2014
- Thomson Reuters World's Most Influential Scientific Minds, 2014-2016
- 2013 PROSE Award for Best in Reference Works and Best Single Volume Reference in Science from the Association of American Publishers (for *Epigenetic Mechanisms in the Nervous System*, Edited with Eric Nestler, Michael Meaney, and Schahram Akbarian)
- Associate Editor, *NeuroEpigenetics*, 2014-present
- Civitan International Research Center Distinguished Scientist Award, 2013
- Dalhousie University, Killam Lecturer, 2013

Neurobiology Foundation, Scientific Advisory Board, 2011 - 2015

National Advisory Mental Health Council (NIMH Council) 2012-2017

2012 Fondation IPSEN International Prize in Neural Plasticity (shared with Michael Meaney and Catherine Dulac)

Councilor Emeritus (Lifetime Council Member), Molecular and Cellular Cognition Society, 2011

Brain & Behavior Research Foundation (NARSAD) Scientific Council, 2011-present

Ellison Medical Foundation Senior Scholar in Aging, 2010

Editorial Board, Biological Psychiatry, 2010 – 2012

Faculty of 1000 (Cognitive Neuroscience), 2010 - present

Scientific Advisory Board, International Rett Syndrome Foundation, 2009 - present

Scientific Advisory Board, Foundation for Angelman Syndrome Therapeutics, 2009- present

Elected Fellow, American Association for the Advancement of Science, 2008

Rotary Clubs International CART Award, 2008

NARSAD Distinguished Investigator Award, 2007

Board of Directors, Epigenetics Society, 2007 - 2009

NIMH Board of Scientific Counselors, 2006-2009; Chair of NIMH BSC 2009-2011

Evelyn F. McKnight Endowed Chair, UAB School of Medicine, 2006 - present

President, Molecular and Cellular Cognition Society, 2006-2009

Associate Editor, Physiological Reviews, 2006-2008

Reviewing Editor, Hippocampus, 2006 - present

Associate Editor, Neurobiology of Learning and Memory, 2004 - 2008

Associate Editor, Journal of Neuroscience, 2004 - 2009

Editorial Board, Neurobiology of Learning and Memory, 2003 - 2017

Editorial Board, Hippocampus, 2002 – present

Editorial Board, Neural Plasticity, 2006-2009

Editorial Board, Journal of Experimental Neuroscience, 2008-present

Editorial Board, Physiological Reviews, 2008-2010

American College of Neuropsychopharmacology Memorial Travel Award, 2000

Texas Advanced Technology Program Award, 2000

NARSAD Independent Investigator Award, 1998

Marc Dresden Award for Excellence in Graduate Education from the Graduate School, Baylor College of Medicine, 1993

Klingenstein Award in the Neurosciences, 1990

McKnight Scholar Award, 1990

American Federation for Aging Research Award, 1989

Graham Hoyle Fellowship - 1989 Winter Conference on Brain Research.

College Presidential Scholarship to attend the University of South Alabama, 1978

CURRENT FUNDING:

NIH Grant MH57014 - Biochemical Mechanisms of Neural Plasticity

D. Sweatt PI

07/01/15 - 3/31/20 \$2,096,000 total direct costs

Pitt-Hopkins Syndrome Foundation - Mouse Models for Pitt-Hopkins Syndrome

D. Sweatt PI

07/01/12 - 9/30/17 \$315,000 total direct costs

NIH Grant MH104158 – Molecular and Behavioral Neurobiology of Transcription Factor TCF4

D. Sweatt PI

07/01/14 - 6/30/19 \$1,250,000 total direct costs

NIH Grant MH107254 – Molecular Neuropharmacology and Signaling of Histone H2A.Z

D. Sweatt PI

04/01/16 - 3/31/21 \$1,250,000 total direct costs

DARPA Project – Learning through Electrical Augmentation of Plasticity (LEAP)

PI - T. Broderick, Wright State University; D. Sweatt, Technical Area 1 PI

03/01/17 – 02/28/19 approximately \$700,000 total direct costs

Individual awards for current research group members:

Individual Fellowships or Scholarships: Celeste Greer (Functional Neurogenomics Training Grant).

PRIOR FUNDING:

(all totals = approximate direct costs only)

AFAR Grant	7/1/89 - 6/30/90	\$ 24,300
BRSG	1/1/90 - 3/31/91	\$ 15,000
Klingenstein Award	7/1/90 - 6/30/93	\$ 100,000
McKnight Award	7/1/90 - 6/30/93	\$ 120,000
NIMH R01 48186	5/1/92 - 4/30/95	\$ 282,525
NIMH R01 57014	12/1/95 - 3/01/00	\$ 434,458
NIMH R01 57014	3/01/00 - 2/28/05	\$ 967,888
NIMH R01 57014	03/01/05 - 2/28/10	\$ 1,598,338
NIMH R01 57014	05/01/10 - 7/01/15	\$ 1,645,000
NARSAD	9/15/98 - 9/14/00	\$ 92,600
Independent Investigator Award		
NIA Pilot Grant Award	9/15/99 - 9/14/00	\$ 20,000
NIA RO3 Grant AG18039	9/1/00 - 8/31/01	\$ 50,000
Texas	1/1/00 - 12/31/02	\$ 196,852
Advanced Technology Program Award		
AHAF AD Research Grant	4/1/02 - 3/31/06	\$ 500,000
Project 2, NS37444 PPG	12/01/98 - 5/31/09	\$ 2,200,358
MRRC Physiology Core	8/01/98 - 10/11/05	\$ 450,000 (approximate)
AHAF AD Research Grant	4/1/04 - 3/31/06	\$ 300,000
NINDS RO1 13546	4/01/02 - 3/31/07	\$ 879,429
NARSAD	5/01/07 - 3/31/08	\$ 92,000
Distinguished Investigator Award		
Rotary CART Award	6/1/2008 - 5/31/2010	\$ 200,000
NIH P30 NS057098	9/1/07 - 8/31/12	\$ 1,000,000
K. Roth, PI; D. Sweatt, Director of Synaptic Physiology Core Alabama Neuroscience Blueprint Center		
Simons Foundation Autism Research Initiative - Explorer Award	07/01/12 - 6/30/13	\$ 54,000
NIH Grant AG31722, Trophic Interactions of Nerve and Muscle	8/01/07 - 4/1/13	\$ 1,025,000
Ellison Medical Foundation Senior Scholar Award	9/1/10 - 8/31/14	\$ 600,000
DARPA Advanced Project:		\$ 925,000
“A Whole-Genome Approach to Identifying Novel Targets for Nano-Pharmacologic Memory Enhancement”	06/17/13 - 1/18/15	
DARPA Advanced Project:		\$ 900,000
“In Vivo Nanoplatforms for Epigenetic Enhancement of Memory”	10/1/12 - 5/15/15	
T32 Training Grant NS061788:		
Training Program in the Neurobiology of Cognition and Cognitive Disorders. 7/01/2008 - 6/30/2016 6 graduate student slots per year		

NIH Grant NR012686 - Treatment-Related Pain in Chronic Conditions

Susan Dorsey, D. Sweatt, Co-PIs

09/28/10-07/31/16 (with NCE) \$600,000 total direct costs for Sweatt component

NIH Grant MH091122 – DNA Methylation in Memory Formation \$ 1,250,000

07/01/11 - 6/30/17 (with NCE)

Individual Fellowships: Anne Anderson, Independent Investigator Award; Mike Swank, NRSA; E Klann, NRSA; S Chen, NARSAD Fellowship; D Chetkovich, C. Bell Pierce Fellowship; C Powell, NRSA; E Roberson, LHIMRF Scholarship; C Atkins, NSF Graduate Fellowship; Paige Adams, NRSA; Joel Selcher, NRSA, Kelly Dineley, NRSA, Michael Levy, NRSA, Andrew Varga, NRSA; Grace Cortez Jackson, Medical Student Research Fellowship; Edwin Weeber – AFAR Young Investigator Grant, Mitchell Pilot Award Grant, NARSAD Young Investigator Award. Laura Schrader - NARSAD Young Investigator Award, NIMH Mentored Research Scientist Development (KO1) Award. Sara Copeland Shalin, NRSA. Shari Birnbaum, NRSA. Brian Nadin, Private Fellowship. Javier Sanchez, APA Fellowship. Wilson Chwang, Private Fellowship. Caterina Hernandez, APA Fellowship, Farah Lubin (K99/R00), Courtney Miller (K99/R00), Tania Roth Civitan Emerging Scholar Award, Faraz Sultan (NRSA), Jeremy Day (K99/R00), Iva Matthews (Canadian Gov't Fellowship), Dinesh Kumar (Swedish Gov't Fellowship), Frankie Heyward (UNCF Fellowship), Andrew Kennedy (Civitan Emerging Scholar, Pitt-Hopkins Foundation Fellowship)..

TEACHING AND COURSE DEVELOPMENT EXPERIENCE:

(prior to 2006, all at Baylor College of Medicine)

- | | |
|-------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 1990-1996 | <i>Molecular Neuroscience</i> Course Developer and Director
also presented approximately 15 lectures/yr |
| 1997-2001 | Lecturer in <i>Molecular Neuroscience</i>
presented approximately 8 lectures/yr |
| 1998 | Lecturer in <i>Complex Cellular Systems</i> (BCM Graduate School Core Course)
presented 3 lectures |
| 1998 - 2001 | Course Director and Lecturer - <i>Neuroscience</i> Course for the
Graduate School Core Curriculum
also delivered 2-3 lectures/yr |
| 2001-2005 | Lecturer in <i>Neuroscience Graduate Student Core Course</i>
present approximately 10 lectures/yr |
| 1997-2005 | <i>Learning and Memory</i> Course Co-developer and Co-director
(with Ron Davis, Dept of Cell Biology) |
| 2006-2015 | Lecturer in <i>Integrative Neuroscience</i> , UAB School of Medicine |
| 2006-2009 | Lecturer in HHMI-sponsored course, <i>Phenotyping Human Disease</i> , UAB |
| 2007-2016 | “Assistant Professor School”, UAB Department of Neurobiology |

- Course developer and lecturer.
- 2008-2009 Lecturer in *Human Genetics*, UAB School of Medicine
- 2008 Lecturer in *Genetic Epidemiology*, UAB School of Medicine
- 2008-2009 Lecturer in *Biology of Neurodevelopmental Disorders*, UAB School of Medicine
- 2010-2015 Lecturer in *Neuropharmacology*, UAB School of Medicine
- 2016 Course Developer, Director and Lecturer – *Neuroscience Methods* Course (UAB, undergraduate-level course)
- 2003-present Course Developer, Director and Lecturer – *Mechanisms of Memory* Course (Baylor College of Medicine, UAB, and Vanderbilt University, both undergraduate and graduate-level courses)
- 2016-present Course Developer and Lecturer – *Hypothesis Testing* Department of Pharmacology, Vanderbilt SOM

CURRICULUM DEVELOPMENT EXPERIENCE:

- 1996-2000 Curriculum Advisory Committee
The Graduate School of Baylor College of Medicine
This committee developed the Graduate School Core Curriculum for Baylor College of Medicine.
- 1995 –2004 Chair, Neuroscience Ph.D. program Curriculum Committee
- 2004 Advisory Committee for developing the Interdepartmental PhD Program in Translational Biology, Baylor College of Medicine.
- 2006 – 2007 Curriculum Committee, UAB Interdepartmental Genetics PhD Program
- 2007-2016 Curriculum Committee, UAB Undergraduate Neuroscience BS Program

ACADEMIC PROGRAM ROLES:

- 1998-2004 Co-director, Neuroscience Graduate Program
Baylor College of Medicine, Houston, Texas.
- 1993-1995 Co-director, Medical Scientist Training Program
Baylor College of Medicine
- 1989-2004 Member, Graduate Program Committee
Division of Neuroscience, Baylor College of Medicine
- 1990-2001 Member, Medical Scientist Training Program Operating Committee,
Baylor College of Medicine

- 1990-1995 Director of Admissions, Graduate Program
Division of Neuroscience, Baylor College of Medicine
- 1990-1993 Member, SMART Program Steering Committee
(Summer undergraduate research training program)
Baylor College of Medicine
- 2001-2006 Member, Medical Student Research Track Operating Committee
Baylor College of Medicine
- 2004-2005 Member, Graduate School Executive Council
Baylor College of Medicine
- 2006-2010 Member, Medical Scientist Training Program Operating Committee,
UAB School of Medicine
- 2006-present Member, Neuroscience Graduate Program Steering Committee,
UAB School of Medicine
- 2008-2010, Member, UAB Graduate Biomedical Sciences Steering and
2011-2015 Oversight Committee
- 2007-2016 Co-Founding Chair, UAB Undergraduate Neuroscience BS Program

INTER-INSTITUTIONAL ACADEMIC PROGRAMS:

- 1999-2001 Member, Joint BCM/Rice University De Lange Conference Organizing
Committee
- 2001-2007 Member, External Advisory Committee
NIH Specialized Neurosciences Research Program (SNRP)
Institute of Neurobiology in San Juan Puerto Rico

PUBLIC OUTREACH:

- 2000 Academy of Science and Technology, Houston, TX
Lecture – “Memory and Memory Disorders”
- 2001 Rice University, Continuing Education Lecture Series
Lecture – “Memory: An Interplay of Genes and Environment”
- 2001 Student Show – Upstairs Gallery at the Glassell School of Art, Houston, TX
“Nervous System” – a series of 16 paintings dealing with CNS structure and function.
- 2001 “Mind Matters” Art Opening, Cooper Union, New York City
Sold *Schaffer Collateral Synapses* Painting to benefit National Alliance for Research on
Schizophrenia and Depression (NARSAD).
- 2002 Art Opening – “Alzheimer’s Disease”, Brun Gallery, Houston, TX

- A series of 20 paintings dealing with contemporary research into AD
- 2002 The "Art and Science Exhibition", Boxheart Galleries, Pittsburgh, PA
2 pieces – *Water, Atomic Resolution* and *Ocular Dominance Columns*, Juried Selection
- 2002 Art Opening (Group Show), Brun Gallery, Houston, TX
A series of 13 paintings dealing with "Cellular Complexity"
- 2003 Lecture "The Neurobiology of Creativity", NARSAD-Sponsored Symposium,
The Intersection of Art and Science, American Folk Art Museum, New York City
- 2003 Human Neuroimaging Laboratory, Baylor College of Medicine
A series of 11 paintings dealing with Neuroimaging research
- 2003 "Mechanisms of Memory" – book signing and art opening,
Brun Gallery, Houston, TX
- 2004 Lecture – "Memory – An Interplay of Genes and Environment"
Marine Biological Laboratory Council of Visitors Symposium
- 2004 Visual Arts Alliance, Houston – Group Show
A series of paintings – "Portraits of Neurons"
- 2005 Mid-Town Visions Cultural Arts Tour, Houston
Art Square Studios – "Little Neurons"
- 2006 Commencement Speaker, St. James High School, Montgomery Alabama
- 2006 Walking for Memory luncheon keynote speaker, Alzheimer's of Central Alabama
- 2007 Lecture - "Abstraction: the Intersection of Art and Science"
Birmingham Fine Arts Museum
- 2008 Featured on NOVA ScienceNow
- 2008 Featured on Face-to-Face, Alabama Public Television
- 2008 Lecture – "The Neurobiology of Creativity" VSA Alabama and Griffin
Society *Art in Medicine* Lecture Series
- 2009 Group Show, Bare Hands Gallery, Birmingham Alabama
- 2009 Portfolio Published, *Isotope* magazine (Isotope 7.1 Spring/Summer 2009)
- 2009 Speaker, Kiwanis Club of Birmingham
- 2010 Speaker, Redstone Club of Birmingham
- 2010 Speaker, Rotary Clubs CART Board
- 2011 Painting Donated, Research Civitan Club Art Show and Sale
- 2012 Painting Donated, Alzheimer's of Central Alabama
- 2012 General Assembly speaker (students grade 5-12) for Brain Awareness Week,
Altamont School, Birmingham
- 2012 Painting Donated, Research Civitan Club Art Show and Sale
- 2012 Interviewed by NPR, Science Friday
- 2013 University of South Dakota IdeaFest keynote speaker
- 2013 International Society of Business Fellows, speaker
- 2013 Interviewed by NPR, All Things Considered
- 2013 Painting Donated, Research Civitan Club Art Show and Sale
- 2014 Civitan Club Public Lecture Series presentation
- 2014 Hoover Public Library Invited Speaker
- 2014 Alzheimer's of Central Alabama Invited Speaker
- 2015 *Science Signaling* Podcast
- 2015 Presenter, Civitan International Annual Meeting
- 2016 Work from the lab highlighted in *Scientific American Mind*
- 2016 Lecture on Alzheimer's Disease, St. Stephen's Episcopal Church, Birmingham
- 2016 Presentation to Aegis Corporation, Huntsville AL, "Pitt Hopkins Syndrome Update"
- 2017 Artwork display – Art and Soul Studios "Art Market"

TRAINEES:

Graduate Students:

Prior

Baylor College of Medicine

- 1990-1992 Dane Chetkovich, MD/PhD student in Neuroscience
Ph.D. 6/92 M.D. 6/94 – Baylor College of Medicine
Resident, Chief Resident, Dept of Neurology, UCSF
HHMI Post-doctoral Fellow with David Bredt, UCSF
presently Associate Professor in Neurology, Northwestern Medical School
Director, Northwestern University MSTP
- 1990-1995 Craig Powell, MD/PhD student in Neuroscience
Ph.D. 6/94 M.D. 6/97 – Baylor College of Medicine
Resident, Chief Resident, Dept of Neurology, UCSF
Post-doctoral training with Eric Nestler, UT Southwestern
Presently Associate Professor
Department of Neurology, UT Southwestern
- 1992-1997 Erik Roberson, MD/PhD student in Neuroscience
Ph.D. 6/97 M.D. 6/99
Resident, Neurology Co-Chief Resident, UCSF
Fellow, Dept of Neurology, UCSF
Presently Assistant Professor, Dept of Neurology, UAB School of Medicine
- 1993-1997 Joey English, MD/PhD student in Neuroscience
Ph.D. 6/97 M.D. 6/99
Resident, Neurology Co-Chief Resident, UCSF
Presently Assistant Professor, Dept of Neurology, UCSF
- 1994-1999 Coleen Atkins, graduate student in Neuroscience
1999-2003, Postdoctoral Fellow, Laboratory of Tom Soderling, Vollum Inst.
presently Assistant Professor, Department of Neurological Surgery
The Miami Project to Cure Paralysis
- 1996-2001 Paige Adams, graduate student in Neuroscience
2001-2003 Post-doctoral Fellow, Johns Hopkins, Laboratory of Rick Huganir
2003 – 2008 Post-doctoral Fellow, NIEHS, Laboratory of Serena Dudek
- 1997-2001 Joel Selcher, graduate student in Neuroscience
Post-doctoral fellow, Stanford University
Laboratories of Dan Madison and Rob Malenka
2004-2006 Associate Scientific Director, Saegis Pharmaceuticals

2007 – 2011, Senior Research Scientist, PsychoGenics Biotechnology
2012-2014 Director of Regulatory Programs, Genetech
2014-present Head of U.S. Regulatory Strategy at Jazz Pharmaceuticals

- 2000-2002 Michael Levy, MD/PhD student in Neuroscience
MD - 2004, BCM. 2005-2009 Neurology Resident, Johns Hopkins
Presently Assistant Professor, Department of Neurology,
Division of Neuroimmunology, Johns Hopkins Medical School
Director, Johns Hopkins Center for Neuromyelitis Optica
- 1999-2003 Andrew Varga, graduate student in Neuroscience
2007 – MD, New York Medical College
Resident, Beth Israel/Harvard
presently Fellow, Center for Neural Science, NYU
- 2002-2003 Grace Cortez Jackson, MD student (MD research track program)
Pathology resident, University of Texas Medical Branch
presently practicing Pathologist John Muir Medical Center
- 2002-2006 Sara Copeland Shalin, MD/PhD student in Neuroscience
M.D., 2008; Pathology Resident, Baylor College of Medicine
Dermatopathology Fellowship, Harvard
Presently Assistant Professor, Department of Pathology,
University of Arkansas Medical School, Little Rock
- 2002-2006 Javier Sanchez, graduate student in Neuroscience
Post-doctoral Fellow, Northwestern University, Laboratory of
Jim Surmeier
Lecturer in Psychology, Lake Forest College
Currently Senior Scientist at PsychoGenics
- 2003-2007 Hyung-Jin Ahn, graduate student in Molecular Physiology and Biophysics
Presently Post-doctoral Fellow, Strickland Laboratory, Rockefeller Univ.
- 2004-2007 Wilson Chwang, MD/PhD student in Neuroscience, BCM
Internship: Henry Ford Hospital/Wayne State University
Fellowship: Stanford University School of Medicine Radiology
Currently practicing Radiologist, Stanford Medicine
- 2004 – 2009 Jon Alexander, graduate student in Neuroscience
Presently Post-doctoral Fellow, laboratory of Dr. Bruijnzeel, Univ. of Florida
- 2004 - 2009 David Molfese, graduate student in Neuroscience
Presently Post-doctoral Fellow, Univ. of Houston
- University of Alabama at Birmingham
- 2006–2011 Antoine “Dibs” Almonte, Cell and Molecular Biology Program graduate
Student. Presently Post-doctoral Fellow, Wake Forest University
- 2006–2013 Laura Hobbs Qadri, Behavioral Neuroscience Ph.D. Program

Presently Post-doctoral Fellow with Scott Moore and Rebecca Klein
Department of Psychiatry at Duke University

- 2006-2013 Mark Kilgore, Neuroscience Ph.D. Program
J.D., Law School, Cumberland Law College
Presently IP lawyer at Patterson Intellectual Property Law
- 2007-2013 Faraz Sultan, MSTP Student
Presently MD/PhD in a postdoctoral fellowship at UAB
- 2010-2015 Frankie Heyward, Neuroscience Ph.D. Program
Presently Post-doctoral Fellow, Harvard Medical School
Laboratory of Evan Rosen
- 2012-2015 Jarrod Meadows, MSTP Student (Co-Mentor with John Hablitz)
Presently completing medical school
- 2011-2016 Mika Karlsson, MSTP Student
Presently completing medical school

Vanderbilt University

Current Graduate Students

- 2017 Brynna Paulukaitis, MSTP Student, Pharmacology Program
- 2017 Bridget Collins, MSTP Student, Neuroscience Program
- 2017 Ben Coleman, Pharmacology Ph.D. Program
- 2017 Annah Moore, Pharmacology Ph.D. Program
(Co-Mentor with Colleen Niswender)
- 2017 Jordan Brown, Pharmacology Ph.D. Program
(Co-Mentor with Danny Winder)
- 2017 Slavi Goleva, Molecular Physiology and Biophysics Ph.D. Program

Post-doctoral Trainees:

Prior

- 1989-1994 Eric Klann, Ph.D., Post-doctoral Fellow
1994-2001; Assistant, Associate Professor of Neuroscience,
Univ. of Pittsburgh
2001-2006; Professor and Director of Graduate Studies,
Dept of Molecular Physiology, Baylor College of Medicine
2006-present; Professor, Center for Neural Science, NYU

- 1990-1994 Shu-Jen Chen, Ph.D., Post-doctoral Fellow
1994-1998 Res. Assistant Professor of Physiology, SUNY Buffalo,
Assistant Principle Investigator, National Health Research Institutes in Taiwan
Currently Biotechnology and Pharmaceutical Researcher, Taiwan
- 1995-2000 Anne Anderson, M.D., Research Fellow, Assistant Professor
presently Associate Professor of Pediatrics, Baylor College of Medicine
- 1998-2003 Kelly Dineley, Ph.D., Post-doctoral Fellow, Instructor
presently Assistant Professor, Dept of Neurology, UT Medical Branch,
Galveston
- 1999-2003 Ed Weeber, Ph.D., Post-doctoral Fellow, Instructor, Assistant Professor
2004-2007 Assistant Professor, Dept of Molecular Physiology, Vanderbilt
University Medical School
presently Associate Professor, Dept of Pharmacology and Physiology,
University of South Florida School of Medicine
- 2000-2005 Laura Schrader, Ph.D., Assistant Professor in Neuroscience, BCM
presently Assistant Professor, Dept of Biology, Tulane University
- 2002-2005 Jonathan Levenson, Ph.D., Post-doctoral Fellow, Assistant Professor in
Neuroscience, BCM. 2005-2007, Assistant Professor, Dept of Pharmacology,
University of Wisconsin
Research Scientist, Galenea Corp., Cambridge, MA
presently Director, Preclinical R&D at NeuroPhage Pharmaceuticals, Inc.
- 2002-2006 Shari Birnbaum, Ph.D., Post-doctoral Fellow
presently Assistant Professor, Dept of Psychiatry, UT Southwestern
- 2004-2006 Regula Egli, Ph.D., Post-doctoral Fellow
Senior Research Scientist II, Wyeth Pharmaceuticals,
Senior Medical Writer, Abbot Laboratories, Chicago
Manager, Global Labeling Strategy at AbbVie, currently at
Envision Pharma Group
- 2003-2008 Caterina Hernandez, Ph.D., Post-doctoral Fellow
Currently post-doctoral Fellow, UTMB
- 2005-2008 Alicia Faruzzi, Ph.D., Post-doctoral Fellow
Currently Director, Mouse Behavior Core, Scripps Inst, Florida
- 2005-2008 Farah Lubin, Ph.D., Post-doctoral Fellow
Currently tenure-track Assistant Professor, Dept of Neurobiology, UAB
- 2005-2009 Courtney Miller, Ph.D., Post-doctoral Fellow
Currently tenure-track Assistant Professor, Scripps Florida
- 2006-2009 Susan Campbell, Ph.D., Post-doctoral Fellow
Currently Assistant Professor, Laboratory of Dr. Harry Sontheimer

Virginia Tech

- 2006-2010 Eric Roth, Ph.D., Post-doctoral Fellow
Currently Assistant Professor, Dept of Psychology, University of Delaware
- 2005-2010 Tania Roth, Ph.D., Post-doctoral Fellow
Currently tenure-track Assistant Professor, Dept of Psychology, University of Delaware
- 2012-2014 Dinesh Kumar, Ph.D., Post-doctoral Fellow
Currently Post-Doctoral Fellow, MIT
- 2011-2014 Iva Matthews, Ph.D., Post-doctoral Fellow
Currently tenure-track Assistant Professor, Dept of Psychology, University of Toronto
- 2009-2014 Jeremy Day, Ph.D., Post-doctoral Fellow
Currently tenure-track Assistant Professor, Dept of Neurobiology, University of Alabama at Birmingham
- 2010-2015 Elizabeth Rahn, Ph.D., Post-doctoral Fellow
Currently Lab Manager, Dept of Medicine, University of Alabama at Birmingham
- 2011-2015 Garrett Kaas, Ph.D., Post-doctoral Fellow
Currently Assistant Professor, Dept of Pharmacology, Vanderbilt University School of Medicine
- 2013-2015 Cristin Gavin, Ph.D., Post-doctoral Fellow
Currently Assistant Professor, Dept of Neurobiology, University of Alabama at Birmingham
- 2012-2016 Andrew Kennedy, Ph.D., Post-doctoral Fellow
Currently Assistant Professor, Department of Chemistry, Bates College (Maine)

Current Post-doctoral Trainees

- 2016-present Celeste Greer, Ph.D., Research Associate (Vanderbilt)

Ph.D. thesis advisory committees:

Baylor College of Medicine:

- David Jaffe, Neuroscience (Ph.D. 1991)
- Yao-Yao Zhu, Neuroscience (Ph.D. 1991)
- Pyung-lin Han, Neuroscience (Ph.D. 1992)
- Tim Benke, Neuroscience (Ph.D. 1993)
- Richard Bryan, Immunology (Ph.D. 1993)
- Troy Littleton, Neuroscience (Ph.D. 1994)

Masoud Zarei, Neuroscience (Ph.D. 1994)
Jun-Hai Yang, Neuroscience (Ph.D. 1995)
Sunita Verma, Neuroscience (Ph.D. 1995)
Ling-gang Wu, Neuroscience (Ph.D. 1995)
Rob Edwards, Cell Biology (Ph.D. 1995)
Bob Avery, Neuroscience (Ph.D. 1996)
Vivienne Shen, Neuroscience (Ph.D. 1996)
Jorge Miranda, Neuroscience (Ph.D. 1996)
Esha Gangoli, Cell Biology (Ph.D. 1996)
Saurabh Sinha, Neuroscience (Ph.D. 1997)
Jill Crittendon, Cell Biology (Ph.D. 1998)
Jack Clement, Cell Biology (Ph.D. 1997)
Carrie Wyatt, Neuroscience (Ph.D. 1998)
Tyler Pierson, Cell Biology (Ph.D. 1999)
Kelly Dineley, Neuroscience (Ph.D. 1998)
Jean-Baptiste LePichon, Neuroscience (Ph.D. 2000)
Dax Hoffman, Neuroscience (Ph.D. 1998)
Lani Schexnayder, Neuroscience (Ph.D. 1999)
Cynthia DeLeon Galvan, Neuroscience (Ph.D. 2000)
Mark Wu, Genetics (Ph.D. 1999)
Richard King, Neuroscience (Ph.D. 2000)
Tony Oliva, Neuroscience (Ph.D. 2000)
Patrick Cox, Neuroscience (Ph.D. 2001)
Susan Cushman, Neuroscience (Ph.D. 2001)
Sergy Lemeshko, Molecular Physiology and Biophysics (Ph.D. 2001)
Seung-yun Yoo, Neuroscience (Ph.D. 2003)
Tom Lloyd, Genetics (Ph.D. 2002)
Jay Bhave, Neuroscience (Ph.D. 2002)
Sean McGuire, Cell Biology (Ph.D. 2002)
Dongni Yang, Molecular Physiology and Biophysics (Ph.D. 2003)
Xixi Chen, Neuroscience (Ph.D. 2003)
Carmen Lam, Neuroscience (Ph.D. 2007)
Dan Plas, Neuroscience (Ph.D. 2005)
Hita Adwanikar, Neuroscience (Ph.D. 2004)
Ann Collins, Genetics (Ph.D. 2004)
Ken Kishida, Neuroscience (Ph.D. 2006)
Jessica Banco, Molecular Physiology and Biophysics (Ph.D. 2005)
Yarimar Carrasquillo, Neuroscience (Ph.D. 2005)
Aaron Lauver, Neuroscience
Bryan McGill, Neuroscience (Ph.D. 2007)
Marc Antion, Neuroscience (Ph.D. 2006)
Jennifer Gatchel, Neuroscience (Ph.D. 2008)
Se Kim, Genetics (Ph.D. 2008)
Brian Nadin, Neuroscience (Ph.D. 2009)

University of Alabama, Birmingham:

Lisa Nowoslawski, Cell Biology (PhD 2010)
Lindsey Vedder, Neuroscience (PhD 2012)
Adam Funk, Cell and Molecular Biology (PhD 2011)
Nicolas Reish, Neuroscience (PhD 2013)
Loly Rubio, Neuroscience (PhD 2011)

Cristin Gavin, Neuroscience (Co-Mentor, PhD 2013)
Alicia Hall, Cell and Molecular Biology (Co-Mentor, PhD 2014)
Aimee Franklin, Neuroscience (PhD 2014)
Rebecca Simmons, Neuroscience (MS 2013)
Elena Adlaf, Neuroscience (PhD 2015)
Sini Nwaobi, Neuroscience (PhD 2013)
Joshua Cohen, Neuroscience (PhD 2017)
Avinash Honasoge, Neuroscience (PhD 2014)
Stephanie Brosius, Neuroscience (PhD 2014)
David Figge, Neuroscience (PhD 2016)

Vanderbilt University:

Nicole Fisher, Pharmacology
Rafael Perez, Pharmacology

ADDITIONAL PROFESSIONAL EXPERIENCE:

1998 Chair, Molecular Neuroscience Faculty Search Committee
 Division of Neuroscience, Baylor College of Medicine

2000 NIH Ad Hoc reviewer, MDCN-7

2000 Ad Hoc reviewer, Louisiana Board of Regents

2000 Special Emphasis Panel, IFCN-7

2000 Ad Hoc reviewer, Swiss Federal Institute of Technology

2000 Consultant, Janssen Pharmaceuticals - CNS Development
 Advisory Board

2000, 2001 Special Emphasis Panel - NIH NCRR - COBRE Program

2001 NIMH Special Emphasis Review Panel,
 Conte Center Applications

2001 NIH Ad Hoc reviewer, IFCN-5

2001 Ad Hoc Reviewer, Human Frontiers Science Program

2001 Special Emphasis Review Panel, IFCN-7 NRSA Fellowship Applications

2000-2001 Member, BCM Physiology Dept. Faculty Search Committee

2000-present ABC News Medical Advisory Board

2002-2003 Program Committee, Society for Neurochemistry 2003 Annual Meeting

2002 Ad Hoc Reviewer, Medical Research Council, UK

2002-present Council Member, Molecular and Cellular Cognition Society

2002-2005 Treasurer, Molecular and Cellular Cognition Society

2003, 2004 NIMH Special Emphasis Review Panel,
Conte Center Applications

2003-2004 Member, BCM Brain and Behavior Center Search Committee

2003, 2004 Ad Hoc reviewer, Alzheimer's Association

2003 SFN Satellite Social Co-Organizer: Alpha7 nAChR - Beta-Amyloid Interaction

2003 BCM Research Strategic Planning Task Force (Co-Chair)

2004 Ad Hoc reviewer, Academia Sinica

2004-2006 Member, BCM Faculty Appointments and Promotions Committee

2005 Ad Hoc reviewer, NIH LAM Study Section

2005, 2006 Reviewer, Marine Biological Laboratories DART Program

2005 Member, BCM Physiology Dept. Faculty Search Committee

2005-2007 Public Information Committee, Society for Neuroscience

2006-present Executive Council, UAB School of Medicine

2006-2014 Internal Advisory Committee, UAB Brain Tumor SPORE

2006-2012 Member and Chair, Steering Committee, UAB Comprehensive
Neuroscience Center

2006-present Member, Basic Science Steering Committee, UAB Alzheimer's Disease Center

2007-present Internal Advisory Board, Heflin Center for Genomics, UAB

2007 NIH 2009 Neuroscience Blueprint Advisory Committee

2008 Member and Internal Advisory Board, UAB Center for Biophysical
Sciences and Engineering (CBSE)

2008-2010 Consultant, EnVivo Pharmaceuticals

2008-2009 Consultant, Constellation Pharmaceuticals

2009-present Member, Scientific Advisory Board, International Rett Syndrome Foundation

2009- present Scientific Advisory Board, Foundation for Angelman Syndrome Therapeutics

2009 Chair, UAB Pharmacology and Toxicology Department Chair Search Committee

2011 Chair, UAB Neurology Department Chair Search Committee

2010-2011 Chair UAB Bridge Funding Program Development Committee

2010-2011 Co-Chair UAB Neuroscience Strategic Planning Committee

2012-2013 Search Committee, UAB Department of Biology Chair

2012-2013 Search Committee, UAB President

2013 Co-Chair, UAB School of Medicine Dean search committee

2014/15 HHMI Janelia Farm Symposium Organizer - *Neuroepigenetics*

2015 Member, UAB Graduate School Dean search committee

2015 Consultant, PureTech Ventures Inc.

2015-2016 UAB School of Medicine Office of Diversity and Inclusion Advisory Council

2015-2016 UAB Goldwater Scholarship Committee

2016-present Executive Council, Vanderbilt School of Medicine

2016 Co-Chair, Fundamental Discovery Strategic Planning Committee, Vanderbilt University Medical Center

2016-2017 Executive Council Executive Committee, Vanderbilt School of Medicine

2016 Search Committee member, Vanderbilt Brain Institute Director search

2017 Search Committee Chair, Vanderbilt Dept of Molecular Physiology and Biophysics, Department Chair search

2017 Member, Vanderbilt Council for Trans-Institutional Programs

Ad Hoc Reviewer for:

J. Pharmacology and Experimental
Therapeutics
J. Biological Chemistry
Science
Proceedings of the National Academy
of Sciences, USA
J. Neuroscience
J. Neurochemistry
Brain Research

Hippocampus
Trends in Neuroscience
Neuropsychopharmacology
Neuroscience
Biochem. Biophys. Acta
Learning and Memory
Epilepsy Research
Experimental Neurology
Molecular Pharmacology

Neurobiology of Learning and Memory
European Journal of Neuroscience
J. Neurophysiology
Nature Neuroscience
Molecular and Cellular Neuroscience
Cellular and Molecular Life Sciences
Nature
Behavioral Brain Research
Neuroscience Letters
Journal of Histochemistry and
Cytochemistry
Neurobiology of Aging
Neuron
Biological Psychiatry
Physiological Reviews
Expert Reviews in Molecular Medicine
Nature Genetics

Nature Reviews Neuroscience
Critical Reviews in Biochemistry and
Molecular Biology
Molecular and Cellular Biology
Current Biology
TIPS
Human Molecular Genetics
Cell
Trends in Molecular Medicine
American Journal of Medical Genetics
Science Signaling
Nature Communications
Cell Reports
Neuroepigenetics

Invited Presentations:

1982 – University of South Alabama, Dept of Pharmacology
1987 – Squibb Research Institute
1988 – Vanderbilt Univ – Dept of Pharmacology
Institute de la Vie Symposium: From Theoretical Physics to Biology,
Versailles, France
Cold Spring Harbor Laboratories Course on Molecular Neurobiology
Takeda Science Foundation Symposium: Molecular Mechanisms for
Memory, Kyoto, Japan
Glaxo Research Institute
Yale University, Dept of Psychology
Emory University, Dept of Pharmacology
University of Minnesota, Dept of Biochemistry
UT Southwestern, Dept of Physiology
1989 – FEBS Annual Meeting, Rome, Italy, Symposium Speaker
Symposia Medica Hoechst, Bernreid, Germany, Invited Speaker
Society for Neurochemistry Meeting, Chicago, IL, Symposium Speaker
1990 – FASEB Annual Meeting, Washington, DC, Symposium Speaker
1991 – Cold Spring Harbor Laboratories Course on Molecular Neurobiology
International Epilepsy Congress, Rio de Janeiro, Invited Speaker
1992 – Keystone Symposium: Synapse Formation and Function, Symposium
Speaker
Baylor College of Medicine, Dept of Cell Biology
Vanderbilt University, Dept of Pharmacology
1993 – Society for Neurochemistry meeting, Richmond, VA – Speaker and
Symposium Organizer
1994 – Vanderbilt University, Dept of Pharmacology
1995 – Emory University, Dept of Pharmacology
1997 – UT Medical Center Houston, Dept of Neurobiology and Anatomy
LSU Medical Center, Shreveport, Dept of Pharmacology
UT Austin, Dept of Psychology

Prairie View A&M University, Dept of Biology
 University of Pittsburgh, Dept of Neurobiology
 National Institute of Neurological Disorders and Stroke
 DuPont/Merck Pharmaceutical Company, Wilmington Delaware
 1998 – Emory University Medical School, Dept of Pharmacology
 Society for Gynecologic Investigation Annual Meeting
 Society for Neuroscience Annual Meeting, Symposium Speaker
 1999 - Neurochemistry Winter Conference, Solden, Austria, Symposium Speaker
 International Society for Neurochemistry Annual Meeting, Berlin,
 Symposium Speaker
 Conference on Neuronal Gene Regulation, Brzina, Poland,
 Symposium Speaker
 University of Alabama Medical School, Birmingham, Dept of
 Neuroscience
 Cold Spring Harbor Course on Learning and Memory, Invited
 Lecturer
 Montreal Neurological Institute, Dept of Neuroscience
 Johns Hopkins University Medical School, Dept of Neuroscience
 American College of Neuropsychopharmacology Annual Meeting,
 Acapulco Mexico, Symposium Speaker
 2000 – Environmental Protection Agency, Research Triangle, NC
 Huffington Center on Aging, Baylor College of Medicine
 Academy of Science and Technology, Houston, TX
 Vanderbilt Univ, Dept of Physiology
 Meeting - "The Molecular Basis of Learning and Memory", Berlin
 Invited Speaker
 Janssen Pharmaceuticals, NY
 University of Puerto Rico
 2001 – UC Irvine, Dept of Neuroscience
 University of Houston, Dept of Biology and Biochemistry
 Rice University, Continuing Education Lecture Series
 University of Texas San Antonio, Division of Life Science
 Graduate Student Retreat Keynote Speaker
 Case Western, Dept of Neuroscience
 LSU Shreveport, Grass Foundation Lecture
 University of Illinois, Dept of Molecular and Cellular Biology
 Caltech, Division of Biology
 UT Medical Branch, Galveston, Dept of Pharmacology and Toxicology
 2002 - UT Southwestern, Dept of Psychiatry and Center for Neuroscience
 University of North Texas Health Sciences Center
 Merck, White Plains, PA
 McKnight Brain Institute, University of Florida
 Learning Brain Expo, San Antonio, Texas
 Brandeis University, Dept of Biology and Biochemistry
 University of Washington, Dept of Pharmacology
 SFN Satellite Meeting, Molecular and Cellular Cognition
 2003 - UCLA, Dept of Neuroscience
 Harvard, Dept of Neuroscience
 Society for Neurochemistry Annual Meeting, Symposium speaker

- UT Medical Branch, Galveston, Dept of Anatomy and Neurobiology
 University of Illinois, Dept of Neuroscience
 Society for Neuroscience Annual Meeting, Symposium speaker
 American Folk Art Museum, New York City
 UC Irvine Medical School, Dept of Neurobiology and Anatomy
 Marine Biological Laboratory, Woods Hole Massachusetts
 Texas A&M University, Dept of Cell Biology
 NIMH – Symposium speaker
 ACNP Annual Meeting, Teaching Day Speaker
 M.D. Anderson Cancer Center, Department of Molecular Genetics
 University of Miami, Dept of Pharmacology
 Baylor College of Medicine, Dept of Molecular Physiology and Biophysics
 2004 - Yale University Medical School, Child Study Center, Dept of Psychiatry
 Penn State University, Dept of Biology
 Northwestern University, Dept of Neuroscience
 James F McDonnell Foundation Workshop, La Jolla
 Cold Spring Harbor Laboratories, Banbury Conference co-organizer and presenter
 Marine Biological Laboratories, Council of Visitors invited speaker
 European College of Neuropsychopharmacology Meeting, ACNP Panel invited speaker
 Vanderbilt University, Dept of Pharmacology
 Karolinska Institute, Dept of Neurotec
 2005 - Southwest Foundation for Biomedical Research, Department of Genetics
 UT Southwestern/UT Dallas Symposium Speaker “Reprogramming the Human Brain”
 Boston University, Program in Neuroscience
 American Academy of Clinical Psychiatrists Annual Meeting, Invited Speaker
 University of New Mexico, Dept of Neuroscience
 NIDA Symposium “Epigenetics and Adaptation to Drugs of Abuse”
 University of Alabama, Birmingham, Dept of Neuroscience
 McDonnell Foundation Symposium, Invited Speaker
 University of North Carolina, Dept of Neuroscience
 Molecular and Cellular Cognition Society, Invited Speaker
 2006 - UC Irvine, Center for Learning and Memory
 NIEHS, North Carolina
 UCLA Neurofibromatosis Workshop
 Graduate School in Biomolecular Sciences, University of Milano (Visiting Professor)
 Tulane University, Dept of Biology
 University of Colorado, Boulder, Dept of Psychology and Center for Neuroscience
 Scripps Institute
 EMBO Course on Molecular and Cellular Cognition, Venice Italy
 MCCA FENS Satellite Meeting, Vienna Austria
 Lunenfeld Research Institute, University of Toronto, PIN Distinguished Lecture Series
 University of Toronto, Center for Addiction and Mental Health
 Department of Biomedical Engineering, UAB
 UAB Psychology Dept Colloquium Series
 2007 - Mt Sinai School of Medicine, Dept of Neuroscience
 Georgia State University, Brain and Behavior Distinguished Lecture Series
 University of Florida McKnight Brain Institute
 UAB Department of Genetics
 UAB Center for Aging, VA Geriatric Research Center

Haifa Forum for Brain & Behavior, Haifa, Israel
 Weizman Institute, Rehovot, Israel
 UAB Alzheimer's Disease Research Center
 ACNP Teaching Day Lecturer
 Environmental Mutagenesis Society, Invited Symposium Speaker
 Merck, Boston
 MIT, Picower Center for Learning and Memory
 Purdue University
 Vanderbilt Department of Pharmacology, Retreat Keynote speaker
 2008 - UC Davis, Molecular Biology Seminar Series
 University of Pittsburgh, Department of Neuroscience
 Northwestern University School of Medicine, AD Center
 Molecular and Cellular Cognition Society, invited speaker, FENS satellite meeting
 FENS Symposium speaker
 American Neurological Association, invited speaker 2008 annual meeting
 UPenn, Mahoney Institute
 Northwestern Univ, Children's Memorial Research Center
 Nature Neuroscience/IPSEN Conference on Epigenetics in Behavior, invited speaker
 Vanderbilt, Pharmacology Dept Post-doctoral Training Program
 EnVivo Pharmaceuticals
 Constellation Pharmaceuticals
 2009 - Case Western, Department of Neuroscience
 Harvard, Children's Hospital Program in Neurobiology
 NYU, Center for Neural Science
 Weill Cornell Medical School, Neuroscience Colloquium
 Neuroscience Center Dartmouth, Neuroscience Day keynote speaker
 Swiss Federal Institute of Technology, Zurich
 EnVivo Pharmaceuticals
 UAB Phi Sigma Biology Honor Society Lecture
 2010 - Experimental Biology Meeting, invited speaker
 University of Maryland Program in Neuroscience, Baltimore
 Johns Hopkins, Department of Neurology
 ISDN meeting, Lisbon, plenary speaker
 Columbia University, Dept of Pathology and Cell Biology
 Duke University, Duke Institute for Brain Sciences
 New York Academy of Sciences, Behavioral Epigenetics Meeting invited speaker
 Cognitive Aging Summit, Washington DC invited speaker
 Gladstone Institute, UCSF
 2011 - University of Virginia, Neuroscience Graduate Program
 Fondation Ipsen, Paris, plenary speaker
 UC Irvine, CNLM seminar series
 Neurizons Meeting, University of Gottingen, plenary speaker
 Vanderbilt University, Neuroscience Program
 UAB Department of Genetics
 Broad Institute, Harvard/MIT
 Keystone Conference on Epigenetics, plenary speaker
 University of Illinois at Chicago, Neuroscience Program
 UAB/Birmingham VA Geriatric Research Center Seminar Series
 Hudson-Alpha Institute Annual Research Symposium, plenary speaker

- New York Academy of Sciences, Epigenetics of AD Symposium speaker
National Parkinson's Foundation Annual Meeting, plenary speaker
- 2012 - UT Southwestern, Department of Psychiatry
UCLA Center for Learning and Memory, Invited Symposium speaker
DARPA Workshop on Learning and Memory, Invited speaker
UT Health Science Center San Antonio, Neuroscience seminar series
Workshop Speaker, Neuroepigenetics Meeting, Baeza, Spain
Fondation IPSEN plenary lecture, FENS meeting, Barcelona, Spain
American College of Neuropsychopharmacology annual meeting, plenary speaker
- 2013 - Invited Speaker, Learning and Memory Biannual meeting, UT Austin
Keynote Speaker, IdeaFest, University of South Dakota
Department of Neuroscience, University of South Dakota School of Medicine
Department of Neuroscience, Rosalind Franklin University, Chicago
Emory University, GIN Excellence in Neuroscience Lecture
SfN Annual Meeting Symposium speaker
Longevity International Meeting, Venice, Invited speaker
International Society of Business Fellows, speaker
UAB Undergraduate Research Expo, keynote speaker
Dalhousie University, Killam Lecturer
American Speech-Hearing Association invited lecture
- 2014- AAAS Annual Meeting Symposium speaker
UCSF, Gladstone Institute
NIH, Neuroscience Seminar Series
UK Genetics Society, Psychopharmacology meeting Keynote speaker
Teratology Society Annual Meeting - Elsevier Distinguished Lecturer
Experimental Biology Society, Annual Meeting Symposium Speaker
Pitt-Hopkins Research Foundation Inaugural Research Symposium Speaker
Neuroepigenetics Journal SfN Satellite Meeting Speaker
- 2015- NIMH, Behavioral Neuroscience Seminar Series Speaker
Behavioral Epigenetics Keystone Symposium, Invited Speaker
Keynote Speaker UF/Northwest Florida Brain Week Symposium
Arizona State University, BioDesign Institute Discovery Series speaker
SouthEastern Clinical Club, Invited Speaker
UT San Antonio, Neuroscience seminar series student invitee
HHMI Janelia Farm Neuroepigenetics meeting, invited speaker and meeting organizer
Pitt-Hopkins Research Foundation Research Symposium Speaker
University of Michigan, Molecular, Cell and Developmental Biology Seminar Series
University of Toronto, Neuroscience Distinguished Lecturer Series
Vanderbilt University, Department of Pharmacology
UT Southwestern, Department of Psychiatry
- 2016 - American Society for Neurochemistry Annual Meeting Presidential Lecture
Vanderbilt Department of Pharmacology
Vanderbilt Ingram Cancer Center
Vanderbilt Institute for Chemical Biology
- 2017 – University of Illinois, Genomics Center
Virginia Tech, Sowers Symposium Lecturer in Neuroscience
Penn Epigenetics Center Symposium Speaker
Meharry Medical College, Drug Abuse Research Program, Dept of Neuroscience
and Pharmacology

American Psychological Association, Symposium Speaker
Michigan state Society for Neuroscience, Annual Meeting keynote speaker

PROFESSIONAL SOCIETIES:

Member, American Association for the Advancement of Science

Member, Society for Neuroscience

Member, American Physiological Society

Member, ASPET

Founding Member, Molecular and Cellular Cognition Society

PUBLICATIONS:

Books:

Sweatt, J.D., *Mechanisms of Memory*
Published in 2003 by Elsevier/Academic Press

Sweatt, J.D., Ed. *Molecular Mechanisms of Memory*
One volume in a series of four books, "Comprehensive Handbook of Learning and Memory".
Jack Byrne, Series Editor. Published in 2008 by Elsevier, Ltd.

Sweatt, J.D., *Mechanisms of Memory, 2nd Edition*
Publication in 2009 by Elsevier/Academic Press

Sweatt, J.D., Meaney, M.J, Nestler, E., and Akbarian, S. (eds.),
Epigenetic Mechanisms in the Nervous System: Basic Mechanisms and Clinical Impact
Published Feb 2013, Elsevier, Ltd.
(*Epigenetic Mechanisms...* won the 2013 PROSE Award as the outstanding academic reference volume published in 2013, and was one of five finalists for the 2013 Gardner Award for the most outstanding academic book published in 2013. The book also won a BMA Medical Book Award First Prize –Neurology Section, from the British Medical Association.)

Research Papers: (244 total publications)

1. Greenberg, S., Gaines, K. and Sweatt, D. (1981) Evidence for circulating factors as a cause of venous hypertrophy in spontaneously hypertensive rats. *Am. J. Physiol.* 241:H421-H430.
2. Sweatt, D., Palmer, G., Palmer, S., Jackson, T. and Manian, A. (1982) Benzo-(B)-promazines, chlorpromazine free radical and analino-N,N-dimethylpropylamine analogs influence rat striatal DA-adenylate cyclase and calmodulin-phosphodiesterase. *Archives Internationales de Pharmacodynamie et de Therapie*, 257:188-199.
3. Sweatt, J.D., Johnson, S.L., Cragoe, E.J., and Limbird, L.E. (1985) Inhibitors of Na⁺/H⁺ exchange block stimulus-provoked arachidonic acid release in human platelets: Selective effects on platelet activation by epinephrine, ADP, and lower concentrations of thrombin. *J. Biol. Chem.* 260:12910-12919.
4. Sweatt, J.D., Blair, I.A., Cragoe, E.J., and Limbird, L.E. (1986) Inhibitors of Na⁺/H⁺ exchange block epinephrine and ADP-induced phospholipase C activation by blockade of arachidonic acid release at a prior step. *J. Biol. Chem.* 261: 8660-8666.
5. Sweatt, J.D., Connolly, T.M., Cragoe, E.J., and Limbird, L.E. (1986) Evidence that Na⁺/H⁺ exchange regulates receptor-mediated phospholipase A2 activation in human platelets. *J. Biol. Chem.* 261: 8667-8673.

6. Wahl, M., Sweatt, J.D., and Carpenter, G. (1987) Evidence that epidermal growth factor stimulates the formation of inositol phosphates. *Biochem. Biophys. Res. Comm.* 142:688-695.
7. Sweatt, J.D., Schwartzberg, M.D., Frazer, M., Cragoe, E.J., Blaire, I.A., Reed, P.W., and Limbird, L.E. (1987) Inhibitors of Na⁺/H⁺ exchange block PAF-induced human platelet activation. *Circulation Res.* 61:II6-II11.
8. Kennedy, T.E., Gawinowicz, M.A., Barzilai, A., Kandel, E.R., and Sweatt, J.D. (1988) Sequencing of proteins from two-dimensional gels using *in situ* digestion and transfer to PVDF membranes: Application to proteins associated with sensitization in *Aplysia*. *Proc. Natl. Acad. Sci. USA* 85:7008-7012.
9. Sweatt, J.D., Kennedy, T.E., Wager-Smith, K., Gawinowicz, M.A., Barzilai, A.B., Karl, K.A., and Kandel, E.R. (1989) Development of a database of amino acid sequences for proteins identified and isolated on two-dimensional polyacrylamide gels. *Electrophoresis* 10:152-157.
10. Sweatt, J.D. and Kandel, E.R. (1989) Persistent and transcriptionally-dependent increase in protein phosphorylation upon long-term facilitation of *Aplysia* sensory neurons. *Nature*, 339:51-54, 1989.
11. Barzilai, A., Kennedy, T.E., Sweatt, J.D., and Kandel, E.R. (1989) Serotonin modulates total protein synthesis and initiates a sequential alteration in the expression of specific proteins during long-term facilitation in the sensory neurons of *Aplysia*. *Neuron*, 2:1577-1586, 1989.
12. Sweatt, J.D., Volterra, A., Edmonds, B., Karl, K., Siegelbaum, S.A., and Kandel, E.R. (1989) FMRFamide overrides the facilitatory actions of serotonin and cyclic AMP in *Aplysia* sensory neurons by protein dephosphorylation. *Nature*, 342: 275-278.
13. Bergold, P.J., Sweatt, J.D., Kandel, E.R., and Schwartz, J.H. (1990) Protein synthesized during acquisition of long-term facilitation leads to persistent loss of regulatory subunits of the A-kinase in *Aplysia* sensory neurons. *Proc. Nat. Acad. Sci, USA* 87: 3788-3791.
14. Chetkovich, D.M., Gray, R., Johnston, D., and Sweatt, J.D. (1991) NMDA-receptor activation increases cAMP levels and voltage-gated Ca⁺⁺ channel activity in area CA1 of hippocampus. *Proc. Nat. Acad. Sci., USA* 88:6467-6471.
15. Klann, E., Chen, S.-J., and Sweatt, J.D. (1991) Persistent protein kinase activation in the maintenance phase of long-term potentiation. *J. Biol. Chem.* 266:24253-24256.
16. Klann, E., Chen, S.-J., and Sweatt, J.D. (1992) Increased phosphorylation of a 17 kD protein kinase C substrate (P17) in long-term potentiation. *J. Neurochemistry* 58: 1576-1579.
17. Chen, S.-J., Desai, M. A., Klann, E., Winder, D.G., Sweatt, J.D., and Conn, P.J. (1992) Amygdala kindling alters protein kinase C activity in dentate gyrus. *J. Neurochemistry* 59:1761-1769.

18. Palumbo, E.J., Sweatt, J.D., Chen, S.-J. and Klann, E. (1992) Oxidation-induced persistent activation of protein kinase C in hippocampal homogenates. *Biochem. Biophys. Res. Comm.* 187:1439-1445
19. Kennedy, T.E, Kuhl, D., Barzilai, A., Sweatt, J.D., and Kandel, E.R. (1992) Long-term sensitization training in *Aplysia* leads to an increase in calreticulin, a major presynaptic calcium-binding protein. *Neuron* 9:1013-1024.
20. Chen, S.-J., Klann, E., Gower, M., Powell, C.M., Sessoms, J.S., and Sweatt, J.D. (1993) Studies with synthetic peptide substrates derived from the neuronal protein neurogranin reveal structural determinants of selectivity and potency for protein kinase C. *Biochemistry* 32:1032-1039.
21. Sessoms, J.S., Chen, S.-J., Chetkovich, D.M., Powell, C.M., Roberson, E., Sweatt, J.D., and Klann, E. (1993) Calcium-induced proteolytic activation of protein kinase C in homogenates of rat hippocampus. *Second Messengers and Phosphoproteins*, 14/3:109-126.
22. Chetkovich, D.M. and Sweatt, J.D. (1993) Hippocampal NMDA receptors couple to adenylyl cyclase via calcium/calmodulin. *J. Neurochemistry* 61, 1933-1942.
23. Chetkovich, D.M., Klann, E., and Sweatt, J.D. (1993) Nitric oxide synthase-independent long-term potentiation in area CA1 of hippocampus. *Neuroreport* 4, 912-922.
24. Klann, E. , Chen, S.-J., and Sweatt, J.D. (1993) Mechanism of PKC activation during the induction and maintenance of LTP probed using a novel peptide substrate. *Proc. Nat. Acad Sci., USA* 90, 8337-8341.
25. Powell, C., Johnston, D., and Sweatt, J.D. (1994) Autonomously active protein kinase C in the maintenance phase of NMDA receptor-independent LTP. *J. Biol. Chemistry* 269:27958-27963.
26. English, J.D. and Sweatt, J.D. (1996) Activation of p42 mitogen-activated protein kinase in hippocampal long-term potentiation. *J. Biol. Chem.* 271:24329-24332
27. Roberson, E.D. and Sweatt, J.D. Transient activation of cyclic AMP-dependent protein kinase during hippocampal long-term potentiation. (1996) *J. Biol. Chem.* 271:30436-30441.
28. Chen, S.-J., Sweatt, J.D., and Klann, E. (1997) Enhanced phosphorylation of the postsynaptic protein kinase C substrate RC3/neurogranin in hippocampal long-term potentiation. *Brain Research* 749:181-187 .

29. Atkins, C.M., Chen, S-J., Klann, E., and Sweatt, J.D. (1997) Increased phosphorylation of myelin basic protein during hippocampal long-term potentiation. *J. Neurochem.* 68:1960-1967.
30. English, J.D. and Sweatt, J.D. (1997) A requirement for the mitogen-activated protein kinase cascade in hippocampal long-term potentiation. *J. Biol. Chem.* 272:19103-19106.
31. Klann, E., Roberson, E.D., Knapp, L.T. and Sweatt, J.D. (1998) A role for superoxide in protein kinase C activation and induction of long-term potentiation. *J. Biol. Chem.* 273: 4516-4522.
32. Sweatt, J.D., Atkins, C.M., Johnson, J., English, J.D., Roberson, E. D., Chen, S-J., Newton, A., and Klann, E. (1998) Protected site phosphorylation of PKC in hippocampal long-term potentiation. *J. Neurochemistry* 71: 1075-1085.
33. Matilla, A., Roberson, E.D., Banfi, S., Morales, J., Armstrong, D.A., Burrig, E.N., Orr, H.T., Sweatt, J.D., Zoghbi, H.Y., and Matzuk, M.M. (1998) Mice lacking ataxin-1 display learning deficits and decreased hippocampal PPF. *J. Neuroscience* 18: 5508-5516.
34. Jiang, Y., Armstrong, D., Albrecht, U., Atkins, C.M., Noebels, J., Eichele, G., Sweatt, J.D., and Beaudet, A.L. (1998) Mutation of the Angelman E3 ubiquitin ligase in mice causes increased cytoplasmic p53 and deficits of contextual learning and long-term potentiation. *Neuron* 21:799-811.
35. Atkins, C.M., Selcher, J.C., Petraitis, J.J., Trzaskos, J.M., and Sweatt, J.D. (1998) The MAP kinase cascade is required for mammalian associative learning. *Nature Neuroscience* 1:602-609.
36. Li, Y-P., Atkins, C., Sweatt, J.D., and Reid, M.B. (1999) Mitochondria mediate TNF-Alpha/NF-kappaB signaling in skeletal muscle. *Antioxidants and Redox Signaling* 1:97-104.
37. Roberson, E.D.*, English*, J.D., Adams, J.P., Selcher, J.C., Christine Kondratik, and Sweatt, J.D. (1999) The mitogen-activated protein kinase cascade couples PKA and PKC to CREB phosphorylation in area CA1 of hippocampus. * denotes equal contributions. *J. Neuroscience* 19: 4337-4348.
38. Atkins, C.M., Yon, M., Groome, N.P., and Sweatt, J.D. (1999) Regulation of MAPK phosphorylation of MBP by increased action potential firing in the hippocampus. *J. Neurochemistry* 73: 1090-1097.
39. Atkins, C.M. and Sweatt, J.D. (1999) Reactive oxygen species mediate activity dependent neuron-glia signaling in output fibers of the hippocampus. *J. Neuroscience* 19: 7241-7248.

40. Roberson, E.D. and Sweatt, J.D. (1999) A biochemical blueprint for long-term memory. *Learning and Memory* 6: 381-388.
41. Selcher, J., Atkins, C.M., Trzaskos, J.M., Paylor, R., and Sweatt, J.D. (1999) A necessity for MAP kinase activation in mammalian spatial learning. *Learning and Memory* 6:478-490.
42. Anderson, A., Adams, J.P., Qian, Y., Cook, R., Pfaffinger, P.J., and Sweatt, J.D. (2000) Kv4.2 phosphorylation by cyclic AMP-dependent protein kinase. *J. Biol. Chem.* 275: 5337-5346.
43. Weeber, E.J., Atkins, C.M., Selcher, J.C., Varga, A., Mirnikjoo, B., Paylor, R., Leitges, M., and Sweatt, J.D. (2000) A role for the beta isoform of PKC in amygdala-dependent fear conditioning. *J. Neuroscience* 20:5906-5914.
44. Varga, A.W., Anderson, A.E., Adams, J.P., Vogel, H., and Sweatt, J.D. (2000) Input-specific localization of differentially phosphorylated Kv4.2 in the mouse brain. *Learning and Memory* 7:321-332.
45. Adams, P., Anderson, A., Varga, A., Dineley, K., Cook, R., Pfaffinger, P.J., and Sweatt, J.D. (2000) The A-type potassium channel Kv4.2 is a substrate for the mitogen-activated protein kinase ERK. *J. Neurochemistry* 75: 2277-2287.
46. Schafe, G.E., Atkins, C.M., Swank, M.W., Bauer, E.P., Sweatt, J.D. and LeDoux, J.E. (2000) Activation of ERK/MAP kinase in the amygdala is required for memory consolidation of Pavlovian fear conditioning. *J. Neuroscience* 20: 8177-8187.
47. Kim, H.F., Weeber, E., Sweatt, J.D., Stoll, A., and Marangell, L. (2001) Inhibitory effects of omega-3 fatty acids on protein kinase C activity in vitro. *Molecular Psychiatry* 6: 246-248.
48. Selcher, J.D., Nekrasova, T., Paylor, R., Landreth, G.E., and Sweatt, J.D. (2001) Mice lacking the ERK1 isoform of MAPK kinase are unimpaired in emotional learning. *Learning and Memory* 8:11-19.
49. Mirnikjoo, B., Brown, S. E., Kim, H.F., Marangell, L. and Sweatt, J.D., and Weeber, E.J. (2001) Omega-3 fatty acids inhibit protein kinase activity and disrupt hippocampal synaptic plasticity and signal transduction pathways. *J. Biol Chem.* 276:10888-10896.
50. Dineley, K.T., Westerman, M., Bui, D., Bell, K., Ashe, K.H., and Sweatt, J.D. (2001) Beta-amyloid activates the mitogen-activated protein kinase cascade through hippocampal alpha7 nicotinic acetylcholine receptors: in vitro and in vivo mechanisms related to Alzheimer's Disease. *J. Neuroscience* 21:4125-33.

51. Swank, M.W. and Sweatt, J.D. (2001) Increased histone- and lysine acetyltransferase activity and biphasic activation of the ERK/RSK cascade in insular cortex during novel taste learning. *J. Neuroscience* 21: 3383-3391.
52. Levenson, J., Weeber, E., Selcher, J., Kategaya, L.S., Antzoulatos, E., Sweatt, J.D., and Eskin, A. (2002) Long-term potentiation and contextual fear conditioning increase neuronal glutamate uptake. *Nature Neuroscience* 5:155-61.
53. Gu, Y., McIlwain, K., Weeber, E.J., Yamagata, T., Xu, B., Antalffy, B., Reye, C., Yuva-Paylor, L., Armstrong, D., Zoghbi, H., Sweatt, J.D., Paylor, R., and Nelson, D. (2002) Impaired conditioned fear and enhanced long-term potentiation in *Fmr2* knockout mice. *J. Neuroscience*, 22:2753-63.
54. Weeber, E.J., Levy, M., Sampson, M.J., Anflous, D., Armstrong, D., Brown, S.E., Sweatt, J.D., and Craigen, W.J. (2002) A role for mitochondrial porins and the permeability transition pore in learning and synaptic plasticity. *J. Biol Chem.* 277:18891-7.
55. Dineley, K., Xia, X., Bui, D., Sweatt, J.D., and Zheng, H. (2002) Accelerated plaque accumulation, associative learning deficits, and up-regulation of alpha7 nicotinic receptor protein in transgenic mice co-expressing mutant human presenilin 1 and amyloid precursor protein. *J. Biol Chem* 277:22768-80.
56. Yuan, L., Adams, J.P., Swank, M., Sweatt, J.D., and Johnston, D. (2002) Protein kinase modulation of dendritic K⁺ channels in hippocampus involves a MAPK pathway. *J. Neuroscience* 22:4860-8.
57. Dineley, K.T., Bell, K.A., Bui, D., and Sweatt, J.D. (2002) Beta-amyloid peptide 1-42 activates alpha7 nicotinic acetylcholine receptors expressed in *Xenopus* oocytes. *J. Biol Chem* 277:25056-61.
58. Watase K, Weeber EJ, Xu B, Antalffy B, Nellis A, Yuva-Paylor L, Armstrong D, Sweatt JD, Orr HT, Paylor RL and Zoghbi HY. (2002) A long CAG tract in the mouse *Sca1* locus replicates human SCA1 and reveals the impact of mutant protein solubility on selective neuronal vulnerability. *Neuron* 34:905-19.
59. Weeber, E.J., Beffert, U., Jones, C., Christian, J. M., Forster, E. Sweatt, J.D., and Herz, J. (2002) Reelin and ApoE receptors cooperate to enhance hippocampal synaptic plasticity and learning. *J Biol Chem.* 277:39944-52.
60. Schrader, L.A., Anderson, A.E., Mayne, A., Pfaffinger, P.J., and Sweatt, J.D. (2002) PKA modulation of Kv4.2-encoded A-type potassium channels requires formation of a supramolecular complex. *J. Neuroscience* 22: 10123-33.

61. Cox, P.R., Fowler, V., Xu, B., Bellen, H.J., Sweatt, J.D. Paylor, R., and Zoghbi, H.Y. (2003) Mice lacking Tropomodulin-2 (Tmod2) have enhanced long-term potentiation, hyperactivity, and deficits in learning and memory. *Molecular and Cellular Neuroscience* 23:1-12.
62. Selcher, J.C., Weeber, E.J, Christian, J., Nekrasova, T., Landreth, G.E. and Sweatt, J.D. (2003) A role for ERK MAP kinase in physiologic temporal integration in hippocampal Area CA1. *Learning and Memory* 10: 26-39.
63. Hendricks, T.J., Fyodorov, D.V., Wegman, L.J., Lelutiu, N.B., Pehek, E.A., Yamamoto, B., Silver, J., Weeber, E.J., Sweatt, J.D., and Deneris, E.S. (2003) Disruption of early serotonin neuron development in mice lacking the Pet-1 ETS gene is followed by abnormal aggression and anxiety-like behavior. *Neuron* 37:233-47.
64. Yoo, S-Y., Pennesi, M.E., Weeber, E.J., Xu, B., Antalffy, B., Chen, S., Wu, S., Sweatt, J.D., and Zoghbi, H.Y. (2003) SCA7 knockout mice reproduce features of human SCA7 and reveal that mutant ataxin-7 gradually accumulates in neurons and interferes with presynaptic functions. *Neuron* 37:383-401.
65. Weeber, E.J., Jiang, Y-H., Varga, A., Carrasquillo, Y., Brown, S.E., Christian, J.M., Mirnikjoo, B., Elgersma, Y., Silva, A., Beaudet, A.L., and Sweatt, J.D. (2003) Derangements of hippocampal CaMKII in a mouse model for Angelman Mental Retardation Syndrome. *J. Neuroscience* 23:2634-44. (Highlighted in "This week in the Journal").
66. Levy, M., Faas, G., Saggau, P., Craigen, W.J., and Sweatt, J.D. (2003) Mitochondrial regulation of synaptic plasticity in the hippocampus. *J. Biol Chem.* 278:17727-34.
67. Chan, C., Weeber, E.J., Kurup, S., Sweatt, J.D., and Davis, R.L. (2003) Integrin requirement for hippocampal synaptic plasticity and spatial memory. *J. Neuroscience* 23: 7107-7116.
68. Morozov*, A., Muzzio*, I.A., Bourtchouladze, R., Van-Strien,N., Lapidus, K., Yin, D.Q., Winder, D.G., Adams, J.P., Sweatt, J.D., and Kandel , E.R. (2003) Rap1 couples cAMP signaling to a distinct pool of p42/44MAPK regulating excitability, synaptic plasticity, learning and memory. *Neuron* 39: 309-325.
69. Shibata, R., Misono, H., Campomanes, C.R., Anderson, A.E., Schrader, L.A., Doliveira, L.C., Carroll, K.I., Sweatt, J.D., Rhodes, K.J., and Trimmer, J.S. (2003) A fundamental role for KChIPs in determining the molecular properties and trafficking of Kv4.2 potassium channels. *J. Biol Chem.* 278:36445-54.

70. Galvan, C.D., Wenzel, J.H., Dineley, K., Lam, T., Schwartzkroin, P.A., Sweatt, J.D., and Swann, J.W. (2003) Postsynaptic contributions to hippocampal network hyperexcitability induced by chronic activity blockade in vivo. *Eur. J. Neuroscience* 18:1861-72.
71. Strasser, V., Fasching, D., Hauser, C., Mayer, H., Bock, H.H., Hiesberger, T., Herz, J., Weeber, E.J., Sweatt, J.D., Pramatarova, A., Howell, B., Schneider, W.J., and Nimpf, J. (2004) Receptor clustering is involved in Reelin signaling. *Mol. Cell. Bio.* 24: 1378-1386.
72. Beffert, U., Weeber, E. J., Morfini, G., Ko, J., Brady, S. T., Tsai, L-H., Sweatt, J. D., and Herz, J. (2004) Genetic and functional interaction between Reeler and CDK5 pathways. *J. Neuroscience* 24: 1897-1906.
73. Shalin, S.C., Zirrgiebel, U., Honsa, K.J., Julien, J-P., Miller, F.D., Kaplan, D.R., and Sweatt, J.D. (2004) Neuronal MEK is important for normal fear conditioning in mice. *J. Neuroscience Res.* 75:760-70.
74. Varga, A.W.*, Yuan, L.*, Anderson, A.E., Schrader, L.S., Wu, G-Y., Gatchel, J.R., Johnston, D., and Sweatt, J.D. *equal contributions. (2004) CaMKII modulates Kv4.2 channel expression and upregulates neuronal A-type potassium currents. *J. Neurosci* 24:3643-54.
75. Opal, P., Garcia, J.J., McCall, A., Xu, B., Weeber, E.J., Sweatt, J.D., Orr, H.T. and Zoghbi, H.Y. (2004) Characterization of LANP/pp32 Null Mice. *Molecular Cell Biology* 24:3140-3149
76. Levenson, J.M., Choi, S., Ahn, H-J., Lee, S-Y., Cao, Y.A., Worley, K., and Sweatt, J.D. (2004) A bioinformatics analysis of memory consolidation reveals involvement of the transcription factor c-Rel. *J. Neuroscience* 24: 3933-3943. (Highlighted in "This week in the Journal").
77. Marschang, P., Brich, J., Weeber, E.J., Sweatt, J.D., Shelton, J.M., Richardson, J.A., Hammer, R.E., and Herz, J. (2004) Normal development and fertility of knockout mice lacking the tumor suppressor gene LRP1b suggest functional compensation by LRP1. *Molecular Cell Biology* 24:3782-93.
78. Bell, K.A. Kenneth J. O'Riordan, K.J., Sweatt, J.D., and Dineley, K.T. (2004) MAPK recruitment in organotypic hippocampal slice cultures depends on beta-amyloid physical state and exposure time. *J. Neurochemistry* 91:349-61.
79. Wang, R, Dineley, K.T., Sweatt, J.D., and Zheng, H. (2004) Presenilin 1 familial Alzheimer's disease mutation leads to defective associative learning and impaired adult neurogenesis. *Neuroscience*. 2004;126(2):305-312.

80. Levenson, J.M., O'Riordan, K., Brown, K.D., Trinh, M.A., Molfese, D., and Sweatt, J.D. (2004) Regulation of histone acetylation during memory formation in the hippocampus. *J. Biological Chemistry* 279:40545-59.
81. May, P., Rohlman, A., Bock, H., Zurhove, K., Beffert, U., Weeber, E.J., Sweatt, J.D., and Herz, J. (2004) Neuronal LRP1 co-localizes with postsynaptic proteins and is critical for normal motor function in mice. *Molecular Cell Biology* 24:8872-83.
82. Collins, A.L., Levenson, J.M., Vilaythong, A.P., Richman, R., Armstrong, D.L, Noebels, J.L., Sweatt, J.D., and Zoghbi, H.Y. (2004) Mild overexpression of MeCP2 causes a progressive neurological disorder in mice. *Human Mol Genetics* 13:2679-89.
83. Birnbaum, S.G., Yuan, P.X., Wang, M. Vijayraghavan, S., Bloom, A.K., Davis, D.J., Gobeski, K.T., Sweatt, J.D., Manji, H.K. and Arnsten, A. (2004) Protein Kinase C overactivity impairs prefrontal cortical regulation of working memory. *Science*, 306:882-4.
84. Lubin, F.D., Johnston, L.D., Sweatt, J.D., and Anderson, A.E. (2005) Kainate mediates NF- κ B activation in hippocampus through PI3K and ERK. *Neuroscience* 133:969-981.
85. Beffert, U., Weeber, E. J., Duradas, A., Qiu, S., Masiulis, I, Sweatt, J. D., Li, W., Adelman , G., Frotscher, M., Hammer, R.E., and Herz, J. (2005) Modulation of synaptic plasticity and memory by reelin involves differential splicing of the lipoprotein receptor ApoER2. *Neuron* 47:567-79.
86. Schrader, L.A., Birnbaum, S.G., Nadin, B.M., Ren, Y., Bui, D., Anderson, A.E. and Sweatt, J.D. (2006) ERK/MAPK Regulates the Kv4.2 Potassium Channel by Direct Phosphorylation of the Pore-forming Subunit. *American Journal of Physiology – Cell Physiology* 290:C852-61.
87. Moretti, P., Levenson, J.M., Battaglia, F., Atkinson, R., Teague, R., Antalffy, B., Armstrong, D., Arancio, O., Sweatt, J.D. and Zoghbi, H.Y. (2006) Synaptic plasticity and learning and memory are impaired in a mouse model of Rett syndrome. *J. Neuroscience* 26:319-27.
88. Chan, C-S, Weeber, E.J., Zong, L., Kaminski, M., Fuchs, E., Sweatt, J.D., and Davis, R.L (2006) β 1-integrins are required for hippocampal synaptic transmission, synaptic plasticity and working memory. *J. Neuroscience* 26:223-32.
89. Beffert, U., Duradas, A., Weeber, E.J., Stolt, P.C., Giehl, K.M., Sweatt, J.D., Hammer, R.E., and Herz, J. (2006) Functional dissection of reelin signaling by site-directed disruption of dab1 adaptor binding to Apoer2: distinct roles in development and synaptic plasticity. *J. Neuroscience* 26:2041-52.

90. Levenson, J.M., Roth, T.L., Lubin, F.D., Miller, C.A., Huang, I., Desai, P., Malone, L., and Sweatt, J.D. (2006) Evidence that DNA (Cytosine-5) Methyltransferase regulates synaptic plasticity in the hippocampus. *J. Biol. Chemistry*, 281:15763-73.
91. O'Riordan, K.J., Huang, I.C., Pizzi, M., Spano, P., Boroni, F., Egli, R., Desai, P., Fitch, O., Malone, L., Ahn H-J., Liou, H.C., Sweatt, J.D., and Levenson, J.M. (2006) Regulation of nuclear factor kappaB in the hippocampus by group I metabotropic glutamate receptors. *J Neurosci*. 26:4870-9.
92. Shalin, S.C., Hernandez, C.M., Dougherty M.K., Morrison, D.K., and Sweatt, J.D. (2006) Kinase suppressor of Ras1 compartmentalizes hippocampal signal transduction and subserves synaptic plasticity and memory formation. *Neuron*. 50:765-79.
93. Chwang, W.B., O'Riordan K.J., Levenson, J.M., and Sweatt, J.D. (2006) ERK/MAPK regulates hippocampal histone phosphorylation following contextual fear conditioning. *Learn Mem*. 2006 May-Jun;13(3):322-8.
94. Nishijima, I., Yamagata, T., Spencer, C.M., Weeber, E.J., Alekseyenko, O., Sweatt, J.D., Momoi, M.Y., Ito, M., Armstrong, D.L., Nelson, D.L., Paylor, R., and Bradley, A. (2006) Secretin receptor deficient mice exhibit impaired synaptic plasticity and social behavior. *Human Molecular Genetics*, 15(21):3241-50
95. Chen, X., Yuan, L.L., Zhao, C., Birnbaum, S.G., Frick, A., Jung, W.E., Schwarz, T.L., Sweatt, J.D., and Johnston, D. (2006) Deletion of Kv4.2 gene eliminates dendritic A-type K⁺ current and enhances induction of long-term potentiation in hippocampal CA1 pyramidal neurons. *J. Neuroscience*, 26:12143-51.
96. Kim, S.Y., Levenson, J., Korsmeyer, S., Sweatt, J.D., and Schumacher, A. (2007) Development regulation of EED complex composition governs a switch in global histone modifications in brain. *J. Biological Chemistry*, 282:9962-72.
97. Miller, C. A., and Sweatt J. D. (2007) Covalent modification of DNA regulates memory formation. *Neuron* 53:857-69.
98. Almonte, A.G., Hamill C.E., Chhatwal, J.P., Wingo, T.S., Barber, J.A., Lyuboslavsky, P.N., Sweatt J. D., Ressler, K.J., White, D.A., Traynelis, S.F. (2007) Learning and memory deficits in mice lacking protease activated receptor-1. *Neurobiology of Learning and Memory* 88:295-304.
99. Chan, C-S, Levenson, J.M., Mukhopadhyay, P.S., Zong, L., Bradley, A., Sweatt, J.D., and Davis, R.L. (2007) α 3-integrins are required for hippocampal long-term potentiation and working memory. *Learning and Memory* 14:606-15.

100. Miller, C.A., Campbell, S., and Sweatt, J.D. DNA methylation and histone acetylation work in concert to regulate memory formation and synaptic plasticity. (2008) *Neurobiology of Learning and Memory* 89:599-603 . PMID:PMC2430891
101. Lubin, F.D., and Sweatt, J.D. (2007) The I κ B kinase regulates chromatin structure during reconsolidation of conditioned fear memories. *Neuron* 55:942-57.
102. Chwang, W.B., Arthur, J.S., Schumacher, A. and Sweatt, J.D. (2007) The nuclear kinase MSK1 regulates hippocampal chromatin remodeling in memory formation. *J. Neuroscience* 27: 12732-12742.
103. Bracchi-Ricard, V., Brambilla, R., Levenson, J., Hu, W.H., Bramwell, A., Sweatt, J.D., Green, E.J., and Bethea, J.R. (2008) Astroglial nuclear factor-kappaB regulates learning and memory and synaptic plasticity in female mice.. *J Neurochem.* 104:611-23 .
104. Nicholas, A.P., Lubin, F.D., Hallett, P.J., Vattem, P., Ravenscroft, P., Bezard, E., Zhou, S., Fox, S.H., Brotchie, J.M., Sweatt, J.D., Standaert, D.G. (2008) Striatal histone modifications in models of levodopa-induced dyskinesia. *J Neurochem.* 106:486-94.
105. Samuels, I.S., Karlo, J.C., Faruzzi, A.N., Pickering, K., Herrup, K., Sweatt, J.D., Saitta, S.C., and Landreth, G.E. (2008) Deletion of ERK2 Mitogen-Activated Protein Kinase Identifies Its Key Roles in Cortical Neurogenesis and Cognitive Function. *J. Neurosci.* 28 6983-6995.
106. Ahn, H.J., Hernandez, C.M., Levenson, J.M., Lubin, F.D., Liou, H.C., and Sweatt, J.D. (2008) c-Rel, an NF-kappaB family transcription factor, is required for hippocampal long-term synaptic plasticity and memory formation. *Learn Mem.* 15:539-49. PMID:PMC2505322
107. Lugo, J.N., Barnwell, L.F., Ren, Y., Lee, W.L., Johnston, L.D., Kim, R., Hrachovy, R.A., Sweatt, J.D., Anderson, A.E. (2008) Altered phosphorylation and localization of the A-type channel, Kv4.2 in status epilepticus. *J Neurochem.* 106:1929-40.
108. Schrader, .LA., Ren, Y., Cheng, F., Bui, D., Sweatt, J.D., and Anderson, A.E. (2009) Kv4.2 is a locus for PKC and ERK/MAPK cross-talk. *Biochem J.*, 417:705-15.
109. Lubin, F.D., Roth, T.L., and Sweatt, J.D. (2008) Epigenetic regulation of BDNF gene transcription in the consolidation of fear memory. *J. Neuroscience* 28: 10576-10586.
110. Roth, T.L., Lubin, F.D., Funk, A.J., and Sweatt, J.D. (2009) Lasting epigenetic influence of early-life adversity on the BDNF gene. *Biological Psychiatry* 65:760-9. (This paper received the 2010 Ziskind-Somerfeld Award from the Society of Biological Psychiatry.)

111. Guo, X., Hamilton, P.J., Reish, N.J., Sweatt, J.D., Miller, C.A., and Rumbaugh, G. (2009) Reduced Expression of the NMDA Receptor-Interacting Protein SynGAP Causes Behavioral Abnormalities that Model Symptoms of Schizophrenia. *Neuropsychopharmacology* 34:1659-72.
112. Alexander, J.C., McDermott, C.M., Tunur, T., Rands, V., Stelly, C., Karhson, D., Bowlby, M.R., An, W.F., Sweatt, J.D., and Schrader, L.A. (2009) The role of calsenilin/DREAM/KChIP3 in contextual fear conditioning. *Learn Mem.* 16:167-77.
113. Yokoi, F., Dang, M.T., Miller, C.A., Marshall, A.G., Campbell, S.L., Sweatt, J.D., Li, Y. (2009) Increased c-fos expression in the central nucleus of the amygdala and enhancement of cued fear memory in Dyt1 DeltaGAG knock-in mice. *Neurosci Research* 65:228-35.
114. Cahill, M.E., Xie, Z., Day, M., Barbolina, M.V., Miller, C.A., Weiss, C., Radulovic, J., Sweatt, J.D., Disterhoft, J.F., Surmeier, D.J., Penzes, P. (2009) Kalirin regulates cortical spine morphogenesis and disease-related behavioral phenotypes. *Proc Natl Acad Sci U S A.*, 106:13058-63.
115. Serrano, F, Chang, A., Hernandez, C., Pautler, R.G., Sweatt, J.D., and Klann, E. (2009) NADPH Oxidase Mediates Beta-Amyloid Peptide-induced Activation of ERK in Hippocampal Organotypic Cultures. *Molecular Brain* 2:31.
116. Yuskaitisa, C.J., Minesa, M.A., Kinga, M.K., Sweatt, J.D. Miller, C.A., and Jope, R.S. (2009) Lithium ameliorates altered glycogen synthase kinase-3 and behavior in a mouse model of Fragile X Syndrome. *Biochemical Pharmacology* 79:632-46.
117. Kilgore, M., Miller, C.A., Fass, D.M., Hennig, K.M., Haggarty, S.J., Sweatt, J.D., and Rumbaugh, G. (2010) Inhibitors of Class 1 Histone Deacetylases Reverse Contextual Memory Deficits in a Mouse Model of Alzheimer's Disease. *Neuropsychopharmacology* 35:870-80.
118. Feng, J., Zhou, Y., Campbell, S., Le, T., Li, E., Sweatt, J.D., Silva, A.J., and Fan, G. (2010) Dnmt1 and Dnmt3a are required for the maintenance of DNA methylation and synaptic function in adult forebrain neurons. *Nature Neuroscience*, 13:423-30.
119. Penner, M. R., Roth, T. L., Chawla, M. C., Hoang, L. T., Roth, E. D., Lubin, F. D., Sweatt, J.D., Worley, P. F., Barnes, C. A., (2010) Age-related changes in Arc transcription and DNA methylation within the hippocampus. *Neurobiol. Aging*. in press.
120. Hernandez, C.M., Kaye, R., Zheng, H., Sweatt, J.D., and Dineley, K.T. (2010) Loss of $\alpha 7$ nicotinic receptors enhances β -amyloid oligomer accumulation, exacerbating early-stage cognitive decline and septohippocampal pathology in a mouse model of Alzheimer's Disease. *J. Neurosci.* 30:2442-2453.

121. Gupta, S., Kim, S.Y., Artis, S., Molfese, D.L., Schumacher, A., Sweatt, J.D., Paylor, R.E., Lubin, F.D. (2010) Histone methylation regulates memory formation. *J. Neurosci.* 30:3589-99.
122. Polter, A., Beurel, E., Yang, S., Garner, R., Song, L., Miller, C.A., Sweatt, J.D., McMahon, L., Bartolucci, A.A., Li, X., and Jope, R.S. (2010) Deficiency in the Inhibitory Serine-Phosphorylation of Glycogen Synthase Kinase-3 Increases Sensitivity to Mood Disturbances. *Neuropsychopharmacology*, 35:1761-74.
123. Miller, C.A., Gavin, C.F., White, J.A., Parrish, R.R., Honasoge, A., Yancey, C.R., Rivera, I.M., Rubio, M.D., Rumbaugh, G, and Sweatt, J.D. (2010) Cortical DNA methylation maintains remote memory. *Nat Neurosci.* 13:664-6.
124. Xie, Z., Cahill, M.E., Radulovic, J., Wang, J., Campbell, S.L., Miller, C.A., Sweatt, J.D., and Penzes, P. (2011) Hippocampal phenotypes in kalirin-deficient mice. *Mol Cell Neurosci.* 46:45-54.
125. Lee, S.E., Simons, S.B., Heldt, S.A., Zhao, M., Schroeder, J.P., Vellano, C.P., Cowan, D.P., Ramineni, S., Yates, C.K., Feng, Y., Smith, Y., Sweatt, J.D., Weinshenker, D., Ressler, K.J., Dudek, S.M., Hepler, J.R. (2010) RGS14 is a natural suppressor of both synaptic plasticity in CA2 neurons and hippocampal-based learning and memory. *Proc Natl Acad Sci U S A.* 107:16994-8..
126. Roth, T.L., Zoladz, P.R., Sweatt, J.D., Diamond, D.M. (2011) Epigenetic modification of hippocampal *Bdnf* DNA in adult rats in an animal model of post-traumatic stress disorder. *J Psychiatr Res.* 45:919-26.
127. DeAndradea, M.P, Zhang, L., Doroodchic, A. Yokoi, F., Cheetham , C. C., Chen, H-X, Roper, S.N, Sweatt, J.D. and Li, Y. (2012) Enhanced hippocampal long-term potentiation and fear 1 memory in *Btbd9* mutant mice. *PLOS One* 7(4):e35518. Epub 2012 Apr 19.
128. Sultan FA, Wang J, Tront J, Liebermann DA, Sweatt JD. (2012) Genetic deletion of *Gadd45b*, a regulator of active DNA demethylation, enhances long-term memory and synaptic plasticity. *J Neurosci.* 32(48):17059-66.
129. Almonte AG, Qadri LH, Sultan FA, Watson JA, Mount DJ, Rumbaugh G, Sweatt JD. (2013) Protease-activated receptor-1 modulates hippocampal memory formation and synaptic plasticity. *J Neurochem.* 124(1):109-22.
130. Heyward FD, Walton RG, Carle MS, Coleman MA, Garvey WT, Sweatt JD. (2012) Adult mice maintained on a high-fat diet exhibit object location memory deficits and reduced hippocampal SIRT1 gene expression. *Neurobiol Learn Mem.* 98(1):25-32.

131. Lithner CU, Lacor PN, Zhao WQ, Mustafiz T, Klein WL, Sweatt JD, Hernandez CM. (2013) Disruption of neocortical histone H3 homeostasis by soluble A β : implications for Alzheimer's disease. *Neurobiol Aging*. 34:2081-90.
132. Kaas GA, Zhong C, Eason DE, Ross DL, Vachhani RV, Ming GL, King JR, Song H, Sweatt JD. (2013) TET1 Controls CNS 5-Methylcytosine Hydroxylation, Active DNA Demethylation, Gene Transcription, and Memory Formation. *Neuron*. 79:1086-93.
133. Day JJ, Childs D, Guzman-Karlsson MC, Kibe M, Moulden J, Song E, Tahir A, Sweatt JD (2013) DNA methylation regulates associative reward learning. *Nat Neurosci*. 16:1445-52.
134. Yokoi F, Cheetham CC, Campbell SL, Sweatt JD, Li Y. (2013) Pre-Synaptic Release Deficits in a DYT1 Dystonia Mouse Model. *PLoS One*. 2013;8(8):e72491.
135. Zovkic IB, Paulukaitis BS, Day JJ, Etikala DM, Sweatt JD. (2014) Histone H2A.Z subunit exchange controls consolidation of recent and remote memory. *Nature*. 515:582-6.
136. Roth ED, Roth TL, Money KM, SenGupta S, Eason DE, Sweatt JD. (2015) DNA methylation regulates neurophysiological spatial representation in memory formation. *Neuroepigenetics* 2:1-8.
137. Rumbaugh G, Sullivan SE, Ozkan ED, Rojas CS, Hubbs CR, Aceti M, Kilgore M, Kudugunti S, Puthanveetil SV, Sweatt JD, Rusche J, Miller CA. (2015) Pharmacological Selectivity Within Class I Histone Deacetylases Predicts Effects on Synaptic Function and Memory Rescue. *Neuropsychopharmacology*. 2015 Apr 3. doi: 10.1038/npp.2015.93. [Epub ahead of print]
138. Yokoi F, Chen HX, Dang MT, Cheetham CC, Campbell SL, Roper SN, Sweatt JD, Li Y. (2015) Behavioral and electrophysiological characterization of Dyt1 heterozygous knockout mice. *PLoS One*. Mar 23;10(3):e0120916. doi:10.1371/journal.pone.0120916.
139. Grubišić V, Kennedy AJ, Sweatt JD, Parpura V. (2015) Pitt-Hopkins Mouse Model has Altered Particular Gastrointestinal Transits In Vivo. *Autism Res*. 2015 Feb 26. doi: 10.1002/aur.1467.
140. Meadows JP, Guzman-Karlsson MC, Phillips S, Holleman C, Posey JL, Day JJ, Hablitz JJ, Sweatt JD. (2015) DNA methylation regulates neuronal glutamatergic synaptic scaling. *Science Signaling* 8(382):ra61.

141. Kumar D, Aggarwal M, Kaas GA, Lewis J, Wang J, Ross DL, Zhong C, Kennedy A, Song H, Sweatt JD. (2015) Tet1 Oxidase Regulates Neuronal Gene Transcription, Active DNA Hydroxy-methylation, Object Location Memory, and Threat Recognition Memory. *Neuroepigenetics* 4:12-27.
142. Heyward FD, Gilliam D, Coleman MA, Gavin CF, Wang J, Kaas G, Trieu R, Lewis J, Moulden J, Sweatt JD. (2016) Obesity Weighs down Memory through a Mechanism Involving the Neuroepigenetic Dysregulation of Sirt1. *J Neurosci.* 36:1324-35. (Featured in *Scientific American Mind*)
143. Savell KE, Gallus NV, Simon RC, Brown JA, Revanna JS, Osborn MK, Song EY, O'Malley JJ, Stackhouse CT, Norvil A, Gowher H, Sweatt JD, Day JJ. (2016) Extra-coding RNAs regulate neuronal DNA methylation dynamics. *Nature Communications* 7:12091. doi: 10.1038/ncomms12091.
144. Kennedy AJ, Rahn EJ, Paulukaitis BS, Savell KE, Kordasiewicz HB, Wang J, Lewis JW, Posey J, Strange SK, Guzman-Karlsson MC, Phillips SE, Decker K, Motley ST, Swayze EE, Ecker DJ, Michael TP, Day JJ, Sweatt JD. (2016) Tcf4 Regulates Synaptic Plasticity, DNA Methylation, and Memory Function. *Cell Reports* 16(10):2666-85.
145. Meadows JP, Guzman-Karlsson MC, Phillips S, Brown JA, Strange SK, Sweatt JD, Hablitz JJ. (2016) Dynamic DNA methylation regulates neuronal intrinsic membrane excitability. *Sci Signal.* 9:ra83.

Reviews and Commentaries

1. Limbird, L.E., Connolly, T.M., Sweatt, J.D., and Uderman, H.D. (1985) Human platelet alpha 2-adrenergic receptors: Effect of Na⁺ on interaction with the adenylate cyclase system and on epinephrine-stimulated platelet secretion. *Advances in Cyclic Nucleotide and Protein Phosphorylation Research* 19:235-242, 1985.
2. Kennedy, T.E., Wager-Smith, K.A., Barzilai, A., Kandel, E.R., and Sweatt, J.D. (1988) Sequencing proteins from acrylamide gels. *Nature* 336:499-500.
3. Sweatt, D., Volterra, A., Siegelbaum, S.A., and Kandel, E.R. Molecular convergence of presynaptic inhibition and presynaptic facilitation on common substrate proteins of individual sensory neurons of Aplysia. *Cold Spring Harbor Symp. Quant Biol.* 53:395-405, 1988.
4. Sweatt, J.D., Connolly, T.M., Baron, B.M., and Limbird, L.E. (1988) Involvement of Na⁺/H⁺ exchange in human platelet activation. *Progress in Clinical and Biological Research* 283: 523-557.

5. Roberson, E.D. and Sweatt, J.D. (1995) Regulation of Adenylyl Cyclases in LTP. *Behavioral and Brain Sciences* 18:485-486.
6. Roberson, E. D., English, J.D., and Sweatt, J.D. (1996) A Biochemist's View of LTP. *Learning and Memory* 3:1-24.
7. Atkins, C.M., Roberson, E.D., and Sweatt, J.D. (1999) Cellular signaling roles of reactive oxygen species. *Recent Research Developments in Neurochemistry* 2:25-36.
8. Atkins, C.M. and Sweatt, J.D. (1999) Activation of α -CaMKII during mammalian associative conditioning. *Promega Neural Notes* vol. IV 17-19.
9. Adams, J.P., Selcher, J., and Sweatt, J.D. (1999) U0126: an effective inhibitor of MAPK activation in neuronal tissue. *Promega Neural Notes* vol. V 14-16.
10. Sweatt, J.D. (1999) Toward a molecular explanation for long-term potentiation. *Learning and Memory* 6:399-416.
11. Adams, J.P., English, J., Roberson E.D., Selcher, J. and Sweatt, J.D. (2000) MAPK regulation of gene expression in the nervous system. *Acta Neurobiologiae Experimentalis* 60:377-394.
12. Roberson, E.D. and Sweatt, J.D. (2001) Memory-forming chemical reactions. *Reviews in the Neurosciences* 12:41-50.
13. Weeber, E., and Sweatt, J.D. (2001) Disruption of signal transduction pathways in mental retardation: Angelman and Coffin-Lowry Syndrome. *Recent Research Developments in Neurochemistry* 3:289-299.
14. Sweatt, J.D. (2001) The neuronal MAP kinase cascade: a biochemical signal Integration system subserving synaptic plasticity and memory. *Journal of Neurochemistry* 76:1-11.
15. Dineley, K., Weeber, E.J., Atkins, C.M., Adams, J.P., Anderson, A. and Sweatt, J.D. (2001) Leitmotifs in the biochemistry of LTP induction. *Journal of Neurochemistry* 77: 961.
16. Sweatt, J.D. (2001) Memory Mechanisms: The Yin and Yang of Protein Phosphorylation. *Current Biology* 11: R391-4
17. Winder, D.G. and Sweatt, J.D. (2001) Roles of serine/threonine phosphatases in hippocampal synaptic plasticity. *Nature Reviews Neuroscience* 2:461-74.

18. Selcher, J.C., Weeber, E.J., Varga, A.W., Sweatt, J.D., and Swank, M. (2002) Protein kinase signal transduction cascades in mammalian associative conditioning. *The Neuroscientist*, 8:122-31
19. Sweatt, J.D. (2001) Proto-oncogenes subserve memory formation in the adult CNS. *Neuron* 31:671-674.
20. Adams, J. P., and Sweatt, J.D. (2002) Molecular Psychology: Roles for the ERK MAP kinase cascade in memory. *Annual Review of Pharmacology and Toxicology* 42:135-163.
21. Schrader, L., Anderson, A., Varga, A., Levy, M., and Sweatt, J.D. (2002) The other half of Hebb: K⁺ channels and the regulation of neuronal excitability in the hippocampus. *Molecular Neurobiology* 25:51-66.
22. Weeber, E.J. and Sweatt, J.D. (2002) Molecular Neurobiology of Human Cognition. *Neuron* 33: 845-848.
23. Graham, B.H., J.D. Sweatt, and Craigen, W.J. (2002) Noninvasive in Vivo Approaches to Evaluate for Abnormalities of Behavior and Exercise Physiology in Mouse Models of Mitochondrial Disease. *Methods* 26: 364-370.
24. Levenson, J., Weeber, E.J., Sweatt, J.D., and Eskin, A. (2002) Glutamate uptake in synaptic plasticity: from mollusc to mammal. *Current Molecular Medicine* 2:593-603.
25. Weeber, E.J., Levenson, J., and Sweatt, J.D. (2002) Molecular Genetics of Human Cognition. *Molecular Interventions* 2:376-391.
26. Sweatt, J. D., Weeber, E.J., and Lombroso, P.J. (2003) Genetics of Childhood Disorders: Learning and Memory, Part 4. Human Cognitive Disorders and the ras/ERK/CREB Pathway. *Journal of the American Academy of Child and Adolescent Psychiatry* 42:741-744.
27. Sweatt, J.D. and Weeber, E.J. (2003) Genetics of Childhood Disorders: Learning and Memory, Part 5. Human Cognitive Disorders and the ras/ERK/CREB Pathway. *Journal of the American Academy of Child and Adolescent Psychiatry* 42: 873-876.
28. Weeber, E.J., Levenson, J.M. and Sweatt, J. D. (2004) Cognitive disruption in Angelman syndrome: From mouse models to molecular mechanisms. *Cognitive Sciences* 1:1-36.
29. Sweatt, J.D. (2004) Hippocampal Function in Cognition. *Psychopharmacology* 174:99-110.

30. Birnbaum, S.G., Varga, A.W., Yuan, L., Anderson, A.E., Sweatt, J.D., and Schrader, L.S. (2004) Structure and function of Kv4-family potassium channels. *Physiological Reviews* 84:803-33.
31. Levenson, J.M. and Sweatt, J.D. (2004) Translating Prions at the Synapse. *Nature Cell Biology* 6:184 - 187.
32. Sweatt, J.D. (2004) Mitogen-activated protein kinases in synaptic plasticity and memory. *Current Opinions in Neurobiology* 14:311–317.
33. Elgersma, Y., Sweatt, J.D., and Giese, K.P. (2004) Mouse genetic approaches to investigating CaMKII function in cognition. *Journal of Neuroscience* 24: 8410-8415.
34. Levenson, J.M. and Sweatt, J.D. (2005) Epigenetic mechanisms in memory formation. *Nature Reviews Neuroscience* 6:108-115.
35. Carrasquillo, Y., and Sweatt, J.D. (2005) Craving cocaine pERKs up your amygdala. *Nature Neuroscience* 8:129-130.
36. Levenson, J.M., and Sweatt, J.D. (2006) Epigenetic Mechanisms - A Common Theme in Vertebrate and Invertebrate Memory Formation. *Cellular and Molecular Life Sciences*, 63:1009-16.
37. Miller, C.S., and Sweatt, J.D. (2006) Amnesia or Retrieval Deficit? Implications of a Molecular Approach to the Question of Reconsolidation. *Learning and Memory*, 13:498-505.
38. Sweatt, J.D. (2007) Restoration of memory in a mouse with neurodegeneration. (News and Views) *Nature*, 447:151-2.
39. Sweatt, J.D. (2007) An atomic switch for memory. (Commentary) *Cell* 129:23-4.
40. Klann, E., and Sweatt, J.D. (2008) Protein synthesis is a trigger for long-term memory formation. *Neurobiology of Learning and Memory* 89:247-59. PMID:PMC2323606
41. Roth, T.L, and Sweatt, J.D. (2008) Rhythms of memory. *Nat Neurosci.* 11:993-4.
42. Sweatt, J.D. (2009) Experience-Dependent Epigenetic Modifications in the Central Nervous System. *Biol Psychiatry* 65:191-7.
43. Roth, T.L. and Sweatt, J.D. (2009) Regulation of Chromatin Structure in Memory Formation. *Current Opinion in Neurobiology* 19:336-42.

44. Penner, M., Roth, T.L. and Sweatt, J.D. (2010) An epigenetic hypothesis of aging-related cognitive dysfunction. *Frontiers in Aging Neuroscience*. 2, 9 doi:10.3389/fnagi.2010.00009 (<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2874394/>)
45. Roth, T.L. and Sweatt, J.D. (2010) Epigenetic marking of the BDNF gene by early-life adverse experiences. *Hormones and Behavior*, in press.
46. Sweatt, J.D. (2010) Epigenetics and cognitive aging. *Science* 328:701-2.
47. Day, J.J. and Sweatt, J.D. (2011) Epigenetic modifications in neurons are essential for formation and storage of behavioral memory. *Neuropsychopharmacology* 36:357-8.
48. Roth, T.L., Roth, E.D., and Sweatt, J.D. (2010) Epigenetic regulation of genes in learning and memory. *Essays in Biochemistry*, 48:263-74.
49. Day, J.J. and Sweatt, J.D. (2010) DNA methylation and memory formation. *Nature Neuroscience*, 13:1319-23.
50. Day, J.J. and Sweatt, J.D. (2011) Cognitive neuroepigenetics: A role for epigenetic mechanisms in learning and memory. *Neurobiology of Learning and Memory*, in press.
51. Sweatt, J.D. (2011) Making stable memories. *Science* 331:869-70.
52. Roth, T.L. and Sweatt, J.D. (2011) Epigenetic mechanisms and environmental shaping of the brain during sensitive periods of development. *Journal of Child Psychology and Psychiatry* 52: 398-408.
53. Lester, B.M., Tronick, E., Nestler, E., Abel, T., Kosofsky, B., Kuzawa, C.W., Marsit, C.J., Maze, I., Meaney, M.J., Monteggia, L.M., Reul, J.M., Skuse, D.H., Sweatt, J.D., Wood, M.A. (2011) Behavioral epigenetics. *Ann N Y Acad Sci*. 1226:14-33.
54. Day, J.J. and Sweatt, J.D. (2011) Epigenetic Treatments for Cognitive Impairments. *Neuropsychopharmacology*. 2011 May 18. [Epub ahead of print]
55. Day, J.J. and Sweatt, J.D. (2011) Epigenetic mechanisms in cognition. *Neuron* 70:813-29.
56. Almonte, A.G. and Sweatt, J.D. (2011) Serine proteases, serine protease inhibitors, and protease activated receptors: roles in synaptic function and behavior. *Brain Research*, in press.
57. Zovkic IB, Guzman-Karlsson MC, Sweatt JD. (2013) Epigenetic regulation of memory formation and maintenance. *Learn Mem*. 20(2):61-74. PMID:23322554

58. Kosik KS, Rapp PR, Raz N, Small SA, Sweatt JD, Tsai LH. (2012) Mechanisms of age-related cognitive change and targets for intervention: epigenetics. *J Gerontol A Biol Sci Med Sci.* 67:741-6.
59. Zovkic IB, Sweatt JD. (2013) Epigenetic mechanisms in learned fear: implications for PTSD. *Neuropsychopharmacology* 38(1):77-93.
60. Sweatt JD. (2013) Pitt-Hopkins Syndrome: intellectual disability due to loss of TCF4-regulated gene transcription. *Exp Mol Med.* 2013 May 3;45:e21.
61. Zovkic IB, Guzman-Karlsson MC, Sweatt JD. (2013) Epigenetic regulation of memory formation and maintenance. *Learn Mem.* 20:61-74.
62. Zovkic IB, Meadows JP, Kaas GA, Sweatt JD. (2013) Interindividual Variability in Stress Susceptibility: A Role for Epigenetic Mechanisms in PTSD. *Front Psychiatry.* 4:60.
63. Sweatt, JD (2013) The emerging field of neuroepigenetics. *Neuron.* 80(3):624-32.
64. T Sultan FA, Sweatt JD. (2013) The role of the gadd45 family in the nervous system: a focus on neurodevelopment, neuronal injury, and cognitive neuroepigenetics. *Adv Exp Med Biol.* 793:8-119.
65. Allison DB, Antoine LH, Ballinger SW et al. Aging and energetics' 'Top 40' future research opportunities 2010-2013 [v1; ref status: indexed, <http://f1000r.es/4ae>] *F1000Research* 2014, 3:219 (doi: 10.12688/f1000research.5212.1)
66. Guzman-Karlsson MC, Meadows JP, Gavin CF, Hablitz JJ, Sweatt JD. (2014) Transcriptional and epigenetic regulation of Hebbian and non-Hebbian plasticity. *Neuropharmacology.* 80:3-17.
67. Day JJ, Kennedy AJ, Sweatt JD. (2015) DNA Methylation and Its Implications and Accessibility for Neuropsychiatric Therapeutics. *Annu Rev Pharmacol Toxicol.* 55:591-611.
68. Heyward FD, Sweatt JD. (2015) DNA Methylation in Memory Formation: Emerging Insights. *Neuroscientist.* 21(5):475-89
69. Zovkic IB, Sweatt JD. (2015) Memory-Associated Dynamic Regulation of the "Stable" Core of the Chromatin Particle. *Neuron.* 87:1-4.
70. Sweatt JD. (2016) Dynamic DNA Methylation Controls Glutamate Receptor Trafficking and Synaptic Scaling. *J Neurochem.* 137(3):312-30.

71. Sweatt JD. (2016) Gene Expression: Chromatin controls behavior. *Science* 353(6296):218-9.
72. Sweatt JD, Hawkins KE. (2016) The molecular neurobiology of the sleep-deprived, fuzzy brain. *Science Signaling* 9(425):fs7. doi: 10.1126/scisignal.aaf6196.
73. Kennedy AJ, Sweatt JD. (2016) Drugging the methylome: DNA methylation and memory. *Critical Reviews in Biochemistry and Molecular Biology* 51(3):185-94. doi: 10.3109/10409238.2016.1150958.
74. Sweatt JD. (2016) Neural Plasticity & Behavior - Sixty Years of Conceptual Advances. *J Neurochem*. 2016 Feb 14. doi: 10.1111/jnc.13580.
75. Sweatt JD, Tamminga CA. (2016) An epigenomics approach to individual differences and its translation to neuropsychiatric conditions. *Dialogues Clin Neurosci*. 18(3):289-298

Book Chapters

1. Palmer, G.C., Manian, A.A., Sweatt, J.D., and Pajer, K.A. Role of chlorpromazine metabolites at central receptors and calmodulin-phosphodiesterase. Symposium: "Recent Progress in Neurophyschopharmacology Research," In: Proceedings of the Asian Congress on Pharmacology, B.N. Dhawan, ed., 1984.
2. Limbird, L.E., Connolly, T.M., and Sweatt, J.D. The human platelet alpha₂-adrenergic system: The role of Na⁺ in epinephrine-receptor interactions, arachidonic acid release and Ca⁺⁺ mobilization. Proceedings of the Satellite Symposium of the 1984 International Pharmacology Meeting in: The Pharmacology of Adrenoceptors, pp. 49-58, E. Szabadi, ed., 1985
3. Limbird, L.E. and Sweatt, J.D. Alpha₂-adrenergic receptors: Apparent interaction with multiple effector systems. In: The Receptors, Vol. II, pp. 281-305, P.M. Conn, ed., 1985.
4. Limbird, L.E., Connolly, T.M., Sweatt, J.D., Cragoe, E.J., and Johnson, S.L. The role of sodium in epinephrine-provoked arachidonic acid release and dense granule secretion from human platelets. In: Symposium Medica Hoechst, Vol. 19, pp. 553-573, 1985.
5. Sweatt, J.D., Connolly, T.M., Baron, B.M. and Limbird, L.E. Involvement of Na⁺/H⁺ exchange in human platelet activation. In: Platelet Membrane Receptors: Molecular Biology, Immunology, Biochemistry and Pathology, pp. 523-557. G.A. Jamieson, Ed. New York: Alan R. Liss, 1988.
6. Glanzman, D., Sweatt, D., Dale, N., Schacher, S., Barzilai, A., Kennedy, T., and Kandel, E.R. Long-term memory in Aplysia: Its characterization by protein synthesis and neuronal growth. In Neuromuscular Junction, L.C. Sellin, R Libelius, and S. Thesleff, eds. Amsterdam: Elsevier Science Publishers, pp. 489-497, 1989.

7. Kandel, E.R., Glanzman, D., Dale, N., Schacher, S., Barzilai, A., Kennedy, T., and Sweatt, J.D. (1989) A molecular biological approach to long-term memory in *Aplysia*. In Fundamentals of Memory Formation: Neuronal Plasticity and Brain Function, H. Rahmann, ed. Stuttgart:Verlag.
8. Volterra, A., Siegelbaum, S.A., Sweatt, J.D., and Kandel, E.R. Presynaptic inhibition, presynaptic facilitation, and the molecular logic of second messenger systems. In: Molecular and Cellular Aspects of Drug Addiction, A. Goldstein, ed. New York: Springer-Verlag, 1989.
9. Sweatt, J.D., Kennedy, T.E., Barzilai, A., Glanzman, D., and Kandel, E.R. Molecular mechanisms for long-term memory in *Aplysia*. In: Brain Signal Transduction and Memory. Proceedings of the Takeda Science Foundation Symposium. Academic Press, 1990.
10. Dash, P., Sweatt, D., Kennedy, T., Barzilai, A., Kuhl, D., and Kandel, E.R. (1990) Molecular Mechanisms for Long-term Memory in *Aplysia*. In: Symposium Medica Hoechst, Vol. 23, pp. 81-90.
11. Conn, P.J. and Sweatt, J.D. Protein Kinase C in the Nervous System. In: Protein Kinase C, J.F. Kuo, ed. Oxford: Oxford Univ. Press, 1993.
12. Roberson, E.D., English, J.D., and Sweatt, J.D. (1996) Second Messengers in LTP and LTD. In: Cortical Plasticity: LTP and LTD (S. Fazeli and G. Collingridge, eds.)
13. Selcher, J., Weeber, E.J., and Sweatt, J.D. Emerging Roles for MAP Kinase Cascades in Synaptic Plasticity and Memory. In: Memories are Made of These: from Messengers to Molecules. G. Riedel and B. Platt, eds. Landes Bioscience, Georgetown, TX. 2003.
14. Tsien, R., with revisions by Sweatt, J.D. (2003) Long-Term Potentiation: Signal Transduction Mechanisms and Early Events. In: Learning and Memory, 2nd Edition; pp. 351-355. Editor in Chief, John H. Byrne. MacMillan Psychology Reference Series, New York, NY. 2002.
15. Schrader, L., Atkins, C.M., Leitges, M., Sweatt, J.D., and Weeber, E., PKC: A Molecular Information Storage Device in Neurons. In: Protein Kinase C. Dekker, L.V., ed. Landes Bioscience, Georgetown, TX. 2004.
16. Levenson, J.M., Pizzi, M., and Sweatt, J.D. NF- κ B in Neurons: Behavioral and Physiologic Roles in Nervous System Function. in: The NF- κ B/Rel Transcription Factor Family. H-C. Liou, Ed., Landes Bioscience Publishing, 2006.
17. Shalin, S.C., Egli, R., Birnbaum, S., Roth, T., Levenson, J.M., and Sweatt, J.D.. Signal Transduction Mechanisms in Memory Disorders. Prog Brain Res. (2006) 157:25-41. "Reprogramming the Human Brain", Aage Moller, Ed.

18. Roth, T.L., Levenson, J.M., Sullivan, R.M., and Sweatt, J.D. Epigenetic marking of the genome by early experiences: implications for long-lasting effects of early maltreatment on adult cognitive and emotional health. In Child Abuse and its Impact, pp 79-114 (F Columbus, Ed). Nova Science Publishers, Inc., NY. 2006
19. Sweatt, J.D. Cellular Basis of LTP. In: Comprehensive Handbook of Learning and Memory: Molecular Mechanisms of Memory. J.D. Sweatt, ed., J.H. Byrne, series editor. in press. Elsevier, London, 2008.
20. Sweatt, J.D. The NMDA Receptor. In: Comprehensive Handbook of Learning and Memory: Molecular Mechanisms of Memory. J.D. Sweatt, ed., J.H. Byrne, series editor. in press. Elsevier, London, 2008..
21. Sweatt, J.D. Molecular mechanisms in memory retrieval. Sweatt, J.D. In: Science of Memory: Concepts. Roediger, H.L., Dudai, Y, and Fitzpatrick, S.M, eds. Oxford University Press, New York, 2007.
22. Byrne, J.H. LaBar, K.S., LeDoux, J.E., Schafe, G.E., Sweatt, J.D. and Thompson, R.F.. Learning and Memory: Basic Mechanisms. In Byrne and Roberts, eds, Molecular Neuroscience, Academic Press/Elsevier. 2008.
23. Sweatt, J D. Long-Term Potentiation (LTP). In: Squire L.R. (ed.) Encyclopedia of Neuroscience, volume 5, pp. 541-549. Oxford: Academic Press, 2009
24. Roth, T., Roth, E., and Sweatt, J.D. Epigenetics of Memory Processes. in the Elsevier volume Handbook of Epigenetics: The New Molecular and Medical Genetics. Trygve Tollefsbol, Ed. 2011.

REFERENCES

Eric Kandel, M.D.
Center for Neurobiology and Behavior
Columbia University
722 W 168th Street
New York, NY 10032
Phone (212) 543-5202
e-mail: erk5@columbia.edu

Jeff Conn, Ph.D.
Director, Program in Translational Neuropharmacology
Department of Pharmacology
Vanderbilt University Medical Center
452-B Preston Research Building
23rd Avenue South at Pierce
Nashville, TN 37232-6600
Phone (615) 936-2478
e-mail: jeff.conn@vanderbilt.edu

Robert W. Gereau IV, Ph.D.
Chief of Basic Research
Washington University Pain Center
Department of Anesthesiology
Washington University School of Medicine
660 S. Euclid Ave, Campus Box 8054
St. Louis, MO 63110
Phone: (314)362-8312
Fax: (314) 362-8571
Email: gereaur@morpheus.wustl.edu

Daniel Johnston, Ph.D.
Director, Center for Learning and Memory
University of Texas at Austin
1 University Station, C7000
Austin, TX 78712-0132
Phone: 512-232-6564
Fax: 713-799-8544
E-mail: djohnston@mail.ns.utexas.edu

Eric Klann, Ph.D.
Professor
Center for Neural Science
New York University
4 Washington Place, Room 809
New York, NY 10003
phone: (212) 992-9769
e-mail: eklann@cns.nyu.edu