

**CURRICULUM VITAE
MARTHA CHURCHILL BOHN, Ph.D.**

Citizenship: United States

Business Address: Children’s Memorial Research Center
Northwestern University
2300 Children’s Plaza, #209
Chicago, IL 60614

Business Telephone: 773-755-6355
Fax: 773-755-6344
Electronic mail: m-bohn@northwestern.edu
URL: [http:// childrensmrc.org/bohn/](http://childrensmrc.org/bohn/)

EDUCATION.

1964: B.A. Chemistry; Cornell University, Ithaca, NY
1977: M.S. Biobehavioral Sciences; Univ. of Connecticut, Storrs, Ct.
1979: Ph.D. Neuromorphology; Univ. of Connecticut, Storrs, Ct.;
Dr. Enrico Mugnaini and Dr. Jean Lauder, Mentors
1979-1980: Postdoctoral Fellowship, Cornell Univ. Med. College; Dr. Ira Black, Mentor
2003: Certificate in Women’s Director Development Course – Kellogg School of
Management
2008-2009 Certificate in Management Skills for Innovative University Leaders-Kellogg
School of Management

HONORS AND AWARDS.

1977 Phi Beta Kappa
1978 Phi Kappa Phi
1977-79 NIMH National Research Service Award for Predoctoral research
1980-83 NINCDS National Research Service Award for Postdoctoral research
1982-83 NINCDS Research Career Development Award
1984-89 NINCDS Research Career Development Award
1989-1990 NSF Developmental Advisory Panel
1989-1991 Scientific Advisory Board, Inst. Developmental Neuroscience and Aging
1989-1992 Society for Neuroscience Publication Committee
1990-1993 Society for Neuroscience Program Committee
1990-1992 Director of NSF Developmental Neuroscience Program
1991 NSF Neuroscience Program Coordinator
1992 Recipient of NSF Outstanding Service Award
1986-2002 Editorial board of International Journal of Developmental Neuroscience
1992-1997 Editorial Board of Journal of Neuroscience Research
1994-1995 Editorial Board of Journal of Neurotransplantation and Plasticity
1994-1997 American Society for Neurotransplantation, Nomination Committee (Chair)
1996-1999 American Society for Neurotransplantation, Councilor
1997-present Editorial Board of Experimental Neurology
1997-present Medical Research Institute Council Endowed Chair
1998-present Editorial Board of Gene Therapy and Molecular Biology
1998-2003 Elected to Board of Directors, Winter Conference for Brain Research
1999-2003 Elected to Council of Chicago Society for Neuroscience
1999-2000 President, Amer. Soc. for Neural Transplantation and Repair
2001-2002 President, Chicago Chapter of Soc. for Neuroscience
2001-2004 Interim Co-Director, Children’s Memorial Institute for Education and Research
2001-2005 Member, NIH Recombinant DNA Advisory Committee (RAC)
2006 Co-Founder of MedGenesis Therapeutix, Inc.

2006 Section leader, NINDS Strategic Planning for Parkinson's Disease Committee
2006 Section leader, NIH Blueprint Plan Advisory Committee
2006-2007 Member, NINDS Udall Center Review Committee
2007 Co-Founder of The Vaccines Company, Inc.
2007 Member, NINDS Special Emphasis Study Section
2007 Member, NINDS Workshop on Gene Therapy Applications to CNS
2008 Travel award from the Japanese Ministry for Neuroscience and Mental Health
2008 Ad hoc member, NIH Gene Therapy for Inborn Errors Study Section (June & Oct)
2009 NIH ARRA grant reviewer
2009 Ad hoc member, NIH ZRG1 BDCN T(02) study section

RESEARCH INTERESTS IN DEVELOPMENTAL NEUROBIOLOGY AND NEURODEGENERATIVE DISEASES.

Neurotrophic factors; gene therapy for neurodegenerative diseases; Parkinson's disease; Lou Gehrig's disease (ALS); glial-derived trophic factors; regulation of neuronal and glial gene expression by extracellular factors; Neural stem cell transplantation; Steroid hormone effects on neuronal and glial cell differentiation; mechanisms of neuronal cell death; RNAi silencing of pathogenic genes.

APPOINTMENTS.

Medical Research Institute Council Professor
Director of the Neurobiology Program
Children's Memorial Research Center
Department of Pediatrics
Children's Memorial Hospital
Feinberg School of Medicine, Northwestern University
1997-present

Professor
Department of Molecular Pharmacology and Biological Chemistry
(secondary appointment)
Associate Member of Lurie Cancer Center
Member of Center for Genetic Medicine
Feinberg School of Medicine, Northwestern University
1998-present

Children's Memorial Hospital / Feinberg School of Medicine, Northwestern University
Interim Co-Director
Children's Memorial Research Center (CMRC)
2001-2003

University of Rochester Medical Center
Department of Neurobiology and Anatomy
Associate Professor (tenured)
1987-1997

National Science Foundation
Director of Developmental Neurosciences Program
1990-1992; and Neurosciences Program Coordinator, 1991

State University of New York at Stony Brook
Department of Neurobiology and Behavior
Assistant Professor
1983-1987

Cornell University Medical College

Department of Neurology
Assistant Professor
1980-1983

Cornell University Medical College
Department of Neurology
NIH Postdoctoral Fellow
1979-1980

University of Connecticut
Department of Biobehavioral Sciences
NIMH Predoctoral Fellow
1977-1979

University of Connecticut
Department of Biobehavioral Sciences
Research Assistant
1972-1975

Technocrat Magazine
Tokyo, Japan
1971-1972

University of Connecticut
Chemistry Department
Assistant Instructor of Organic Chemistry
1966-1969

University of Oslo
Research Assistant in Electron Diffraction
1964-1965

SCIENTIFIC SOCIETIES.

American Association for the Advancement of Science
International Society for Developmental Neuroscience
New York Academy of Sciences
Society for Neuroscience
International Society for Neurochemistry
American Soc. Neural Therapy and Repair
Gene Therapy / Molecular Biology International Society
Soc. for Neurochemistry
American Society of Gene Therapy
International Society for Stem Cell Research

INVITED LECTURES.

1981: Gordon Conference on Neural Plasticity
1981: Conference of International Society for Developmental Neuroscience
1982: International Society of Psychoneuroendocrinology (Tubingen)
1982: Department of Anatomy, University of Rochester School of Medicine
1982: Department of Anatomy, Yale University
1982: Department of Anatomy, Tufts Medical Center
1983: Department of Neurobiology and Behavior, SUNY Stony Brook
1985: VIIth Int.Meeting Histochemistry and Cytochemistry (Helsinki)
1986: International Meeting of Society of Psychoneuroendocrinology (Bergen)
1986: Department of Anatomy, N. Carolina School of Medicine
1986: Rudolf Magnus Institute, University of Utrecht

- 1987: National Institute of Child Health and Development program workshop
- 1987: Department of Neurological Surgery, University of Miami School of Medicine
- 1987: Schmitt Neurological Sciences Symposium: Transplantation into the Mammalian CNS
- 1988: Department of Neurology Grand Rounds, University of Miami School of Medicine
- 1988: University of Miami School of Medicine, University Lecture in Neuroscience
- 1988: European Neuroscience Meeting Symposium on "Plasticity of Sympathoadrenal Cells" (Zurich)
- 1988: Conf. on Mol. Aspects of Devel. and Aging of the Nervous Sys. (Athens) Symp. Speaker
- 1988: International Society for Developmental Neuroscience; Symposium speaker (Jerusalem)
- 1988: Dept. of Cell Biology and Anatomy, University of Ulm, Germany
- 1988: New Topics in Cell Culture. Sponsored by Corning and VWR, Pasadena, California
- 1988: Mental Retardation Research Center, UCLA
- 1989: Speaker at Neuroscience Special Interest Dinner
- 1989: Department of Psychology, Univ. of Rochester
- 1990: International Society for Developmental Neuroscience, Symposium speaker
- 1990: International Steroid Congress, Symposium speaker (The Hague)
- 1990: Neurology Grand Rounds, Univ. of Rochester Medical School
- 1990: Dept. of Anatomy, Univ. of Maryland Med. School
- 1991: International Catecholamine Meeting, Symposium Speaker, Smolenice, Czechoslovakia
- 1991: NINDS Laboratory of Developmental and Molecular Neurobiology
- 1992: American Association of Anatomists, Symposium Speaker (New York)
- 1992: International Society for Developmental Neuroscience, La Grande Motte, France
- 1992: Workshop of Transgenics: From Development to Behavior, Neuthbridge, Scotland
- 1993: Neuroplasticity Meeting, Symposium Speaker (St. Lucia, B.W.I.)
- 1993: Dept. of Anatomy, Medical College of Pennsylvania
- 1993: Genentech, Inc., S. San Francisco, CA
- 1993: Genetic Therapy, Inc., Gaithersburg, MD
- 1993: Department of Pharmacology, University of New Mexico
- 1994: NY Acad.Sci., Brain Corticosteroid Receptors, Symposium Speaker (Arlington, VA)
- 1994: Einstein College of Medicine, Yeshiva Univ., Dept. of Pathology
- 1994: Univ. of Colorado Health Science Center, Dept. Pharmacology
- 1994: Colorado State University, Dept. of Anatomy and Cell Biology
- 1994: Tufts Univ. School of Medicine, Dept Neuroscience
- 1994: Univ. of Rochester Med. Ctr., Dept. Neurobiology and Anatomy
- 1994: The Parkinson's Institute, Sunnyvale, CA
- 1995: Playfair Institute, Toronto Western Hospital, Toronto, ON
- 1995: Univ. of Rochester Sch. of Medicine, Dept. of Neurology
- 1995: Gene Therapy and Aging Workshop, NIA, Bethesda
- 1995: Viral Vector Symposium, San Diego, CA
- 1996: Neuroscience Institute, Northwestern University
- 1996: Cephalon Inc., West Chester, PA
- 1996: Osiris Pharmaceuticals, Baltimore, MD
- 1996: Genetic Therapy, Inc., Gaithersburg, MD
- 1996: NICHD, Bethesda, MD.
- 1996: Univ. of Buffalo, Dept. of Anatomy
- 1996: NIA, Gerontology Center
- 1996: Children's Memorial Hospital, Northwestern Univ., Chicago IL
- 1996: Waisman Center and Dept. of Anatomy, Univ. of Wisconsin Med. Sch.
- 1997: Cytotherapeutics Inc., Providence, RI
- 1997: Introgen Inc., Houston, TX
- 1997: Gene Therapy/Molecular Biology International Conference, Heraklion, Greece
- 1997: Univ. of Iowa, Depts. of Internal Medicine and Neurology
- 1997: National Parkinson's Foundation Symposium, New Orleans, LA
- 1997: CINN Brain Tumor Conference, Chicago, IL
- 1997: Chicago Chapter of the Soc. for Neuroscience, Symposium on Novel Therapeutic Approaches to Brain Disorders, Chicago, IL .
- 1997: Gene Therapy Symposium, Tokyo, Japan.
- 1997: Dept. Neuroscience, Chicago Medical School, Chicago, IL.
- 1998: Chicago Academy of Sciences
- 1998: Cancer Center, Northwestern Univ. Med. Sch., Chicago, IL.
- 1998: Presidential Symposium, Amer. Soc. Neural Transplantation, Clearwater, FL.

- 1998: Dept. of Pediatrics Grand Rounds, Northwestern Univ. Med. Sch., Chicago, IL.
- 1998: Dept. of Neurology, Univ. of Chicago, Chicago, IL.
- 1998: Dept. of Anatomy, Univ. of Illinois at Chicago
- 1998: National Science Writers Association, Chicago
- 1998: Univ. of Heidelberg, Heidelberg, Germany
- 1998: Fernström Symposium, Lund, Sweden
- 1998: Harvard Symposium on Cellular and Molecular Treatments of Neurological Diseases
- 1998: Pittsburgh Center of Excellence Symposium
- 1998: Northwestern Univ. Med. Sch., Dept. of Pathology
- 1998: Univ. of Arizona, Dept. Neurology and Amer. Parkinson's Disease Fdn.
- 1999: Novartis Foundation Symposium, London
- 1999: Neurosurgery Dept., Northwestern Univ. Med. Sch.
- 1999: NINDS, Bethesda, MD
- 2000: Amer. Soc. for Neurochemistry (Chicago, 2000)
- 2000: Amer. Soc. Neural Transplantation and Repair, Presidential Lecture
- 2000: University of New Mexico, Dept. of Pharmacology
- 2000: NINDS workshop on Gene Therapy for Parkinson's Disease, Bethesda, MD
- 2001: African Soc. for Neuroscience, Nairobi, Kenya
- 2001: Gene Transfer in Neurosciences Satellite Meeting, Buenos Aires, Argentina
- 2001: Dept. of Pharmacology & Toxicology, Univ. of Indiana Med. Sch., Gary, IN
- 2001: Neuroscience Dept., Tufts Univ. Med. School, Boston, MA
- 2001: Dept. of Pathology, Northwestern Univ. Med. Sch.
- 2001: Northwestern Univ Alumni Course, How The Human Genome Project Will Affect Your Future Health
- 2001: Avigen, Alameda, CA
- 2002: Genzyme, Boston, MA
- 2002: ALS Foundation workshop, New York, NY
- 2003: American Society for Gene Therapy platform talk and session chair
- 2004: Dept. Pharmacology, Stritch School of Medicine, Loyola Univ.
- 2004: Kinetics Fdn, Palo Alto, CA.
- 2004: SanBio, Inc. Mt. View, CA.
- 2005: Genetics Counseling Program, Northwestern University
- 2005: Barnard College, NY Annual lecture in Neuroscience and Behavior Program
- 2005: The Genetic Task Force of Illinois and the Illinois Dept. Public Health
- 2005: Society for Neuroscience Short Course on RNAi gene therapy
- 2006: University of La Plata, La Plata, Argentina
- 2006: Leloir Institute, Buenos Aires
- 2006: Research Institute on Experimental Medicine, Buenos Aires
- 2007: VGTC, Inc, Beijing
- 2007: Univ. of Illinois, Urbana-Champaign
- 2007: NINDS Workshop on Gene Therapy for the CNS
- 2007: Keynote Speaker, Northwestern's Parkinson's Disease Center of Excellence
- 2008: Tohoku University, Sendai, Japan
- 2009: Summit County Town Meeting, Copper Mountain, CO
- 2009: Rosalind Franklin Univ., Dept. of Cellular and Molecular Pharmacology
- 2010: INBIOLP speaker, Univ. of LaPlata, Argentina
- 2010: SAIC meeting, Mar del Plata, Argentina
- 2010: University of Chile, Santiago, Chile

UNIVERSITY SERVICE.

- Coordinator of Dept. of Neurobiology and Behavior Colloquia (Stony Brook, 1985-1987)
- Provost's committee to improve the intellectual community among non-tenured faculty (Stony Brook, 1984)
- Advisor to the Honor's Incentive Program (Stony Brook, 1984-1986)
- Biology Undergraduate Advisor (1984-1987)
- Senate committee on the status of women on campus (Stony Brook, 1984)
- Curriculum committee for course on Animal Development (Stony Brook, 1983)
- Committee for high-energy isotope facility (Stony Brook, 1985)
- Performances with University Camerata (Stony Brook, 1986-1987)
- Molecular Neurobiology Core Equipment Committee (Rochester, 1987-1990)

Dean's committee on service contracts (Rochester, 1988)
Interviewer for MD/PhD program
Graduate recruitment committee (Rochester, 1989-1990)
Director of Graduate Studies for Department of Neurobiology and Anatomy (Rochester, 1989-90)
Co-director of Undergraduate Summer Neurosciences Workshop (Rochester, 1988-1990)
Organizer of Annual Faculty-Student Department Symposium (Rochester, 1989)
Director of Core Facility for laser scanning and computer analysis of 1D and 2D gels (1988-present)
University Graduate Council (Rochester, 1989-1990)
Medical School Graduate Council and Program in Biology and Medicine (Rochester, 1989-1990)
Chair, Neurobiology and Anatomy Seminar Series (1992-1994)
Neurobiology and Anatomy Faculty Recruiting Committee (1992-1994)
Neurobiology and Anatomy Seminar Committee (1995-present)
Interviewer for Medical School Applicants (1993-present)
Preceptor for Summer Research Fellowship Program (1993)
Organizer of Mary F. Notter Symposium (1994)
Preceptor for Ronald E. McAnir Achievement Program (1994)
Preceptor for Howard Hughes Undergraduate Summer Fellowship Program (1995; 1996)
Preceptor for Strong Children's Center Summer Research Program (1995; 1996)
Chair, Ph.D. Thesis defenses
Provost ad hoc promotion and tenure committee (1995)
Preceptor for Rochester Science Mentoring Program (RAPS; 1995-1996)
Director of the CMIER Neurobiology Program (1997-present)
CMH/CMIER Research Career Development Committee (1997-present)
CMIER Research Program Development Committee (1997-2003)
CMIER search committee for Developmental Systems Program (1997-1999)
CMIER search committee for Neurobiology Program (Chair; 1997-1999)
NWUMS Dean's search committee for the Director of the Genetics Institute (1997-1998)
NWUMS Promotion and Tenure Subcommittees (1998, 2000)
Preceptor for Amer. Soc. of Pediatrics Summer Research Program (1998, 2000)
Dept. of Pediatrics Compensation Committee (1999)
Dept. of Pediatrics, Genetics Division Head Search Committee (1999)
Dept. of Pediatrics, Benefits Committee (2000-)
Dept. of Pediatrics, Research Board (2000)
CMIER President and Director of Research Search Committee (2000-2001)
NUIN Faculty Search Committee (2000-2001)
NUIN Self-Evaluation Study Committee (2000-2001).
CMIER Academic Issues Committee (2001-2003), Chair
CMIER Space Committee (2001-2003)
Dean's Council (2001-2003)
Northwestern Univ. Research Council (2001-2003)
CMIER Human and Molecular Genetics Search Committee (Chair; 2001-2003)
CMIER Children's Research on Injury to the Brain Program (Founder and member of Exec. Committee (2002-present); organizer of CRIB 2003 and 2004 retreats.
Interdepartmental Genetic Search Committee – FSM (2003-2004)
Director of the Pre-and Postdoctoral Training program, CMRC (2004-2006)
Radiology/Neurology Faculty Search Committee (2005-2007)
Director of CMRC and CBC Viral Vector Facility (2004-2010)
Member, ad hoc promotion and tenure committee (2006-2007)
Member, Integrated Enterprise Committee, One Northwestern (2007-2008)
Chair, ad hoc promotion and tenure committee (2007-2008)
Chair, CMRC faculty recruitment in neurobiology (2008)
Ad hoc promotion and tenure committee (2009-10)
Chair, Ad hoc promotion and tenure committee (2010-2011)

Ph.D. ADVISORY AND THESIS COMMITTEES.

Holli Bernstein-Goral, Dept. Neurobiology & Behavior, SUNY Stony Brook
Rosalie Uht, Dept. Neurobiology & Behavior, SUNY Stony Brook
Susan Alpert (Dr.D.Hanahan), Cold Spring Harbor Laboratory and SUNY Stony Brook
David Batter (Dr. B. Kaplan), Dept. of Anatomy, Cornell Univ. Medical School

Anke Van Eekelen (Dr. R. de Kloet), Rudolf Magnus Institute, Utrecht, NT and Univ. of Rochester
Michael Burek (Dr. Ernest Nordeen), Dept. of Psychology, Univ. of Rochester Medical School
Alice Roberts (Dr. Carol Kellogg), Dept. of Psychology, Univ. of Rochester Medical School
Deborah New (Dr. H. Gelbardt), Dept. of Neurobiology and Anatomy, Univ. of Rochester Med.School
Dr. Ben Castillo, Department of Neurobiology and Anatomy, University of Rochester Medical Center
Derek Choi-Lundberg, Department of Neurobiology and Anatomy, Univ. of Rochester Medical Center
Ian Vabnick (Dr. Peter Shrager), Dept. of Biophysics, University of Rochester Medical Center
Bao-Lao Liang (Dr. Efrain Azmitia), Dept. of Biology, New York University
Sam Reyes (Dr. Robert Harrison), Dept. of Medicine, Univ. of Rochester Med. Ctr.
Brandon Harvey, Department of Neurobiology and Anatomy, Univ. of Rochester Medical Center
Natalie Pageler, Stanford Univ. Med. Sch.
Allison Rufatto Ebert, Northwestern Univ. Med. Sch.
Clair Wills, Northwestern Univ. Med. Sch.
Jose Otero, Northwestern Univ. Med. Sch.
Yot Navalitloha, Northwestern Univ. Med. Sch.
Michael Bonaguidi, Northwestern Univ. Medical School
Jodie McBride Rush Rush Presbyterian Med. School
Ramona Pufin, Univ of Illinois, Chicago

POSTDOCTORAL AND RESEARCH FACULTY PRECEPTOR.

Dr. Jiang Wei, Postdoctoral Fellow (1986-1988)
Dr. Guoying Bing, Postdoctoral Fellow (1988-1989)
Dr. Lee Anna Cunningham, Postdoctoral Fellow (1988-1993)
Dr. Jürgen Engele, Postdoctoral Fellow (1988-1991)
Dr. Ursula Vielkind, Postdoctoral Fellow (1988-1989)
Dr. John Tokeson (1991)
Dr. Deyrick Dean (1991-1993)
Dr. Qing Lin (1992-1997)
Dr. Carol Hall (1992-1995)
Dr. Yusuke Yoshimoto (1993-1994)
Dr. Hasan Mohajeri (1995- 1998)
Dr. Jiang Qian (1996-1997)
Dr. Dorothy Kozlowski (1997-1998)
Dr. Bronwen Conner (1997-2000)
Dr. Cristina Bachman (1997-1998)
Dr. Xiaolang He (1998-2000)
Dr. Michael Hoane (1998-1999)
Dr. Christine Gerin (1999-2000)
Dr. Angelica Oviedo (1999-2000)
Dr. Lixin Jiang (2000-2003)
Dr. Hoo-Jae Hann (2001-2003)
Dr. Srinivas Rampalli (2001-2005)
Dr. Wei-Ming Duan (2001-2003)
Dr. Susana Ugarte (2002-2005)
Dr. Jonathan Yates (2002-2006)
Dr. Mohan Sapru (2002-2008)
Dr. Tamas Virag (2004-2007)
Dr. Neva West (2004-2006)
Dr. Heather Snyder (2004-2005)
Dr. Qin Chang (2006-2008)
Dr. Aleksandra Glavaski (2006-2011)
Dr. Ye Han (2007-2009)
Dr. Christina Khodr (2007-present)

ACADEMIC TEACHING.

Organic Chemistry Lecture and Laboratory (Univ. Conn. 1966-1969)
Neuropharmacology-Lecturer (Cornell, 1981)

Molecular Mechanisms of Animal Development-Co-director and lecturer (Stony Brook, 1985-1987)
Graduate Developmental Biology-Lecturer (Stony Brook, 1986)
Ph.D. Special Readings (Stony Brook, 1985-1987)
Ph.D. Research (Stony Brook, 1985-1987 and Rochester, 1989-1990)
Graduate Research Seminar in Molecular and Cellular Neurobiology (Stony Brook, 1985-1987)
Graduate Journal Club in Cellular Neurobiology (Stony Brook, 1985-1987)
Summer Undergraduate Research (every summer 1985-1990)
Neurology Resident's Course- Lecturer (Rochester, 1987)
Neurology Grand Rounds-Lecturer (Rochester, 1990)
Neuroendocrinology-Lecturer (Rochester, 1989)
Undergraduate Neuroscience course-Lecturer (Rochester, 1988; 1993; 1995)
Graduate and Postdoctoral Research Seminar for lab group and rotation students (Rochester, 1987-1993)
Graduate Psychology Seminar-Lecturer (Rochester, 1989)
Seminar Course on Astrocytes (1993)
Graduate Cellular Neuroscience; developmental neuroscience section (1992-1996)
Medical Neural Sciences (1995-1997)
Seminar Course on Neurotrophic Factors (1988; 1989; 1994; 1995; 1996)
Neurobiology of Disease (1996; Parkinson's section)
Cellular and Molecular Aspects of Neural Development (Course Director/lecturer; 1998-2002)
Neurobiology of Disease (1998-2001; lecturer)
Organizer of the Chicago Neural Repair Club (1998-present)
Neurosciences Introductory Core Graduate Course (1999-2004)
Cellular and Molecular Aspects of Neural Development (lecturer/ 2003-2006)

INTERNATIONAL AND NATIONAL PROFESSIONAL SERVICE.

Member of organizing committee Gordon Conference on "Neural Plasticity" (1987-1991)
Participant NICHD workshop on Molecular and Developmental Neurobiology (1987)
Grant reviewer for National Science Foundation (1983-present)
Grant reviewer for March of Dimes
Grant reviewer for North Carolina Biotechnology Center
Grant reviewer for New Zealand Science Foundation
Ad hoc member NIH Behavioral and Neurosciences Study Section (1988)
Program Committee for International Steroid Congress (1990)
Member of program committee for Winter Conference on Brain Research (1987-1990)
Editorial board member of International J. Developmental Neuroscience (1987-2003)
National Science Foundation Developmental Neuroscience Study Section (1989-1990)
National Science Foundation Director of Developmental Neuroscience Program (1990-1992)
National Science Foundation Coordinator of Neuroscience Program (1991-1992)
National Science Foundation Biotechnology Working Group (1991)
National Science Foundation Univ. and College Curriculum Program, Program Officer (1991)
Scientific advisory board, Foundation in Neurological Disorders (1989-1992)
External advisory panel for a program project (Dept. Neurobiology, Harvard Medical School; 1990)
Society for Neuroscience Publication Committee (1989-1992)
Society for Neuroscience Program Committee (1990-1993)
Scientific Advisory Board, Inst. Developmental Neuroscience and Aging, Athens (1992-present)
Editorial Board Member, J. Neurosc. Res. (1990-1997)
Reviewer for N. Carolina Biotechnology Fdn. (1994)
Member of Program Committee for meeting of International Society of Developmental Neuroscience (1994)
Member of Program Committee for meeting of American Neurotransplantation Soc. (1994-1998)
Member and Chair of Nomination Committee for Amer. Soc. for Neural Transplantation (1994-1997)
Editorial Board Member, J. Neurotransplantation and Plasticity (1994-1995)
Grant reviewer for SUNY, Buffalo Grant Program (1994)
Grant reviewer for Allegheny-Singer Research Inst. (1994)
Faculty tenure and promotion evaluations for Univ. of Massachusetts, NINDS, Univ. of Rochester, Ohio State University, Columbia College of Physicians and Surgeons, Univ. California San Francisco, Northwestern Univ. Med. Sch., Harvard University, Purdue University, Georgetown University
Councilor of the American Society for Neural Transplantation (1996-1998)
Grant reviewer for the Israel Science Foundation (1996)

Elected to Board of Directors for Winter Conference for Brain Research (1998-2001).
President, American Society for Neural Transplantation and Repair (1999-2000)
Councilor of the Chicago Chapter of the Society for Neuroscience (1999-2003).
Member of the local organizing committee of the Amer. Soc. for Neurochemistry (1999-2000)
President, American Society for Neural Transplantation and Repair (1999-2000)
Recombinant DNA Advisory Committee, ad hoc reviewer (2000)
Task force of the Soc. for Neurochemistry (2000-2002)
M. J. Fox Workshop on Gene Therapy for Parkinson's disease (2001)
President, Chicago Chapter of Society for Neuroscience (2001-2002)
M.J. Fox /NINDS study section reviewer (2001)
Member, NIH Recombinant DNA Advisory Committee (RAC) (2001-2004)
M.J. Fox Workshop on GDNF protein trials for Parkinson's disease (2004)
NINDS second strategic summit on Parkinson's Disease Research (2005)
NIH Blueprint Strategic Planning Committee (2006)
NINDS Council Udall Center Review Committee (2006-2007)
NINDS Special Emphasis Study Section (2007)
NINDS Workshop on Gene Therapy for CNS (2007)
Editorial Board Member, Experimental Neurology (1997-present)
Editorial Board Member, Gene Therapy and Molecular Biology (1998-present)
Neural Disorders Committee of the Amer. Soc. for Gene Therapy (2001-present)
Chair, ASGT Parkinson's Neurologic Session (2008)
NIH Study section on Gene Therapy for Inborn Errors (2008-2009)
NIH ARRA grant reviewer (2009)
NIH ZRG1 BDCN T(02) Study Section (2009)
Chair, Nanosymposium, Soc. for Neuroscience (2009)

CURRENT GRANT FUNDING.

US Army Department of Defense Neurotoxicology Program; "Alpha-Synuclein RNA Interference gene therapy for Parkinson's Disease" (2006-2011). \$634,692 direct.

NIA; "Neuroprotective Gene Therapy in the Brain of Senile Rats" R. Goya (PI), M.C. Bohn, PI on subcontract. (2008-2011) \$69,237 direct.

NUCATS "AAV-targeted neurotrophic factor gene delivery to upper motor neurons for ALS", H. Ozdinler, PI, MC Bohn, PI on subcontract. (2010-2011) \$10,000 direct.

CMRC Bridge Grant "Bridge funding for development of genetically modified mesenchymal stem cells for Parkinson's disease" (2010-2011) \$35,000 direct.

PREVIOUSLY FUNDED GRANTS.

NIMH Predoctoral Fellowship (1976-1979)

NIH Postdoctoral Fellowship (1979-1981)

NINCDS; NS00713; Research Career Development Award (1982-1983)

NINCDS; NS00901; Research Career Development Award (1984-1987)

NINCDS; NS 20832 (years 01-07); "Embryonic Development of Epineuric Neurons in Rat Brain"; P.I. (1982-1990).

NINDS: NS20832 (years 08-11) Glucocorticoids and Brain Development \$553,000 direct costs P.I.; (1990-1994).

NINDS; (years 01-03) "Neurotrophic Factor Gene Therapy for Parkinson's Disease" (1997-2000).

NINDS: NS 25778 "Neural and paraneural grafts in Parkinsonian Animals"; Program Project, Co-PI(1988-1991).

Familial Dysautonomia Foundation (1981-1982; 1984-1985; 1985-1986; 1986-1987; 1987-1989; 1989-1990)

A Protein Database for the Nervous System (Co-Principal Investigator) New York State Foundation for Science and Technology and Protein Databases, Inc. 1987 \$92,000

A Protein Database for the Nervous System Co-Principal Investigator on Contract between Protein Databases, Inc. and the Center for Biotechnology at Stony Brook 1984-1988 \$792,000

Program Proect: Co-P.I., P.I. D.M. Gash; 1988-1991; \$1,301,255 direct costs.
 Molecular Neurobiology Core Facility; Co-P.I.; 1987-1988; BRSG grant; \$11,000.
 BRSG grant, \$3,000, 1990-1991.
 PHS: S10 RR04978-01 "A Protein Database Workstation" P.I.; 1989-1990; \$202,000.
 American Parkinson's Disease Foundation \$40,000; P.I. (1990-1991)
 Pew Foundation, Co-PI, \$10,000 (1991)
 United Parkinson's Disease Foundation \$25,000; P.I. 1992-1993.
 Markey Equipment Award. \$~7,000 (1993)
 Aging Center Pilot, Co-PI \$~12,000 (1991-1993)
 LEAD Award pilot project. \$37,000 (1993-1994)
 Environmental Health Science Center Grant, Pilot Project, \$15,000 (1993-1994)
 Markey Pilot Projects, \$25,000 (1992-1996)
 ALS Foundation, Co-PI \$39,000 (1994-1995)
 National Parkinson's Disease Foundation \$80,000 (1994-1996)
 Pepper Center Grant \$10,000; 1995-1996.
 Neurobiology of Aging Training Grant; Co-PI (Rochester)
 Endocrine Training Grant; Co-PI (Rochester)
 Muscular Dystrophy Assoc.; Co-PI; Mutant SOD-1 transfected cell lines: A model of Familial ALS;
 \$189,150; 1994-1997.
 Genetic Therapy /Novartis "GDNF Gene Therapy for Parkinson's Disease"; \$100,000; 1996-1997.
 NIH; Co-PI; "Improved HSV vectors: Gene transfer into the nervous system"; P.I. Howard Federoff;
 \$1,375,053; 1997-2002. Status changed to consultant upon move to Chicago.
 NIH, Co-PI; "HIV-1 Induced BBB Damage in Human Neural Xenografts"; \$566,550; 1996-1999. Status
 changed to consultant upon move to Chicago.
 NSF; Co-PI; "Hormonal Control of Sex Differences in Brain and Behavior"; \$305,000; 1996-1999; Status
 changed to consultant upon move to Chicago
 NINDS; Co-PI; "Mutant SOD-1 transduced spinal neurons: A model of familial ALS"; 1995-1998.
 New Zealand Science Foundation –fellowship to Bronwen Connor
 Scaife Family Foundation of Pittsburgh and National Parkinson's Foundation, M.C. Bohn, Principal
 Investigator, "Neurochemical and morphological consequences of GDNF gene delivery in a rat
 model of Parkinson's Disease, \$25,000; 1998-1999.
 Parkinson's Disease Foundation and the Nancy Myers Anderson Fellowships to Ms. Natalie Pageler,
 \$4400, 1999.
 Fellowship to Craig Press from the Parkinson's Disease Foundation: \$2000 (summer 2001).
 Fellowship to Craig Press from Northwestern University: \$1400 (summer 2001).
 Osiris Therapeutics, Inc.; Principal Investigator; "Ex vivo Gene Therapy for ALS using GDNF
 Secreting Stem Cells"; \$69,034 (1998-1999).
 Rhone-Poulenc Roher contract: Principal Investigator; \$54,133 "Testing 3rd Generation Adenoviral
 Vectors in Primate CNS" (1998-1999)
 NIH; M.C.Bohn, Ph.D., Principal Investigator on Subcontract to Yale University; "Gene Delivery to
 the Primate CNS: HSV, Adeno and AAV Vectors". \$~450K (1997-2000)
 Institute for Bioengineering and Nanoscience in Advanced Medicine (IBNAM) Tissue Engineering
 Applied to Signal Processing in the Brain: Growing a Motor Network in Tissue Culture and
 Using It to Design Treatments for Dystonia. (J. Houk, PI), \$0 (2001-2002).
 State of Illinois Program in Excellence in Academic Medicine. Seed funding for the initiative,
 Children's Research in Injury to the Brain (CRIB), \$50,000 (2002-2003).
 NINDS: Principal Investigator: "Impact of GDNF Gene Transfer on the Nigrostriatal System";
 ~\$2.5M (1999-2005).
 Walden W. and Jean Young Shaw Foundation (1998-2003).
 NINDS; Principal Investigator; "Neurotrophic Factor Gene Therapy for Parkinson's Disease"
 (2000-2006).
 Michael J. Fox, Fdn "Development and Optimization of a Regulatable Gene Switch for Gene
 Therapies of PD" (2005-2007).
 NINDS U54 Parkinson's Disease Gene Therapy Study Group, "Tet-regulated vectors for gene
 therapy". (2002-2007).
 NIH Fogarty Center Grant with collaborator in LaPlata Argentina " Gene Therapy in the Senile Brain
 and Hypophysis" (2003-2007).
 State of Illinois Program in Excellence in Academic Medicine Bridge Grant to support development of
 small interference RNA approaches for Parkinson's disease (2005-2007).
 Chaddick Foundation Award for Parkinson's Disease Research (2005-2008)

Chicago Biomedical Consortium "Chicago Viral Vector Translational Resource Center" (2006-2007).
State of Illinois Regenerative Medicine Institute; "Human mesenchymal stem cells for Parkinson's disease" on Center grant "Reversal of Disease Progression by Stem Cells" (2006-2008).
State of Illinois Regenerative Medicine Institute; Viral Vector Core D on Center grant "Reversal of Disease Progression by Stem Cells" (2006-2008).
State of Illinois Program in Excellence in Academic Medicine. Seed funding for founding a viral vector center supplemented by the Feinberg School of Medicine and the CMRC (2004-2008).
NINDS; "RNAi Gene Silencing of alpha-synuclein for Parkinson's Disease" (2007-2010).

JOURNAL REVIEWER.

Amer. J. Physiol.	J. Neuroscience
Arch. Neurology	J. of Comparative Neurology
Brain Research	J. of Neurobiology
Develop. Brain Research	J. of Neurochemistry
Developmental Biology	J. Physiology and Behavior
Endocrinology	Molecular Therapy
Experimental Neurology	Neurobiology of Aging
Gene Therapy	Neuroscience
Human Gene Therapy	Neuroscience Letters
Int. J. Devel. Neurosci.	Pharmacologic Research
J. Gene Medicine	Proc. Natl. Acad. Sci.
J. Neuroendocrinology	Science
J. Neuroscience Research	Stem Cells
	Cell Transplantation

PATENTS and APPLICATIONS.

"SiRNA-Mediated Gene Silencing of Synuclein" M.C. Bohn and M.K. Sapru. European Patent awarded 2009.

"Tetracycline-regulated adeno-associated viral (AAV) vectors for gene delivery to the nervous system" M.C. Bohn, L. Jiang, N. West and E. Vanin 12/211,409. Awarded 2008. Amended claims awarded 2010.

"Methods and compositions for treating neural degeneration" M.C. Bohn, T. Virag, A. Glavaski and San Bio, Inc. (Filed 2007).

BIOTECHNOLOGY COMPANIES.

Co-Scientific Founder of MedGenesis Therapeutix and The Vaccines Company

PEER REVIEWED JOURNAL PUBLICATIONS.

1. Bohn, R. and Bohn, M. The molecular structures of 1,2-, 1,7- and 1,12- dicarboclosododecarborane (12), B10C2H12. *Inorg. Chem.* 10, 350-355 (1971).
2. Bohn, M.C. and Lauder, J.M. The effects of neonatal hydrocortisone on rat cerebellar development. An autoradiographic and light microscopic study. *Develop. Neurosci.* 1, 250-266 (1978).
3. Bohn, M.C. and Lauder, J.M. Cerebellar granule cell genesis in the hydrocortisone treated rat. *Develop. Neurosci.* 3, 81-89 (1980).
4. Bohn, M.C. Granule cell genesis in the hippocampus of hydrocortisone treated rats. *Neurosci.* 5, 2003-2012 (1980).
5. Jonakait, G.M., Bohn, M.C. and Black, I.B. Maternal glucocorticoid hormones affect neurotransmitter phenotypic expression in embryos. *Science* 210, 551-553 (1980).
6. Bohn, M.C., Goldstein, M. and Black, I.B. Role of glucocorticoids in expression of the adrenergic phenotype in rat embryonic adrenal gland. *Develop. Biol.* 82, 1-10 (1981).

7. Jonakait, G.M., Bohn, M.C., Goldstein, M., Markey, K. and Black, I.B. Elevation of maternal glucocorticoid hormones alters neurotransmitter phenotypic expression in embryos. *Devel. Biol.* 88, 288-296 (1981).
8. Bohn, M.C. and Friedrich, V.L., Jr. Recovery of myelination in rat optic nerve after developmental retardation by cortisol. *J. Neurosci.* 2, 1291-1298 (1982).
9. Bohn, M.C., Goldstein, M. and Black, I.B. Expression of phenylethanolamine N-methyltransferase (PNMT) in rat sympathetic ganglia and extra-adrenal chromaffin tissue. *Devel. Biol.* 89, 299-308 (1982).
10. Kessler, J.A., Adler, J., Bohn, M.C. and Black, I.B. Substance P in principle sympathetic neurons: Regulation by impulse activity. *Science* 214, 335-336 (1981).
11. Sabban, E., Goldstein, M., Bohn, M.C. and Black, I.B. Development of the adrenergic phenotype: Increase in adrenal messenger RNA coding for phenylethanolamine N-methyltransferase. *Proc. Natl. Acad. Sci.* 79, 4823-4827 (1982).
12. Bohn, M.C., Kessler, J.A., Golightly, L. and Black, I.B. Appearance of enkephalin-immunoreactivity in rat adrenal medulla following treatment with nicotinic antagonists or reserpine. *Cell and Tiss. Res.* 231, 469-479 (1983).
13. Bohn, M.C., Kessler, J.A., Adler, J.E., Markey, K.M., Goldstein, M., and Black, I.B. Simultaneous expression of the SP-peptidergic and noradrenergic phenotypes in rat sympathetic neurons. *Brain Res.* 298, 378-381 (1984).
14. Bohn, M.C., McEwen, B., Luine, V. and Black, I.B. Development and characterization of glucocorticoid receptors in rat superior cervical ganglion. *Dev. Brain Res.* 14, 211-218 (1984).
15. Bohn, M.C., Bloom, E., Goldstein, M. and Black, I.B. Glucocorticoid regulation of phenylethanolamine N-methyltransferase (PNMT), in organ culture of superior cervical ganglia. *Devel. Biol.* 105, 130-136 (1984).
16. Bohn, M.C., Goldstein, M. and Black, I.B. Expression and development of phenylethanolamine N-methyltransferase (PNMT) in rat brain stem: Studies with glucocorticoids. *Devel. Biol.* 114, 180-193 (1986).
17. Bohn, M.C. Division of small intensely fluorescent cells in neonatal rat superior cervical ganglion is inhibited by glucocorticoids. *Neurosci.* 20, 885-894 (1987).
18. Bohn, M.C., Dreyfus, C.D., Friedman, W., and Markey, K.A. Glucocorticoid effects on phenylethanolamine N-methyltransferase (PNMT) in explants of embryonic rat medulla oblongata. *Devel. Brain Res.*, 37, 257-266 (1987).
19. Keyser, K.P., Karten, H.J., Katz, B., and Bohn, M.C. Catecholaminergic horizontal and amacrine cells in the ferret retina. *J. Neurosci.*, 7, 3996-4004 (1987).
20. Bohn, M.C., Marciano, F., Cupit, L., Gash, D.M. Adrenal medulla grafts enhance recovery of striatal dopaminergic fibers. *Science*, 237, 913-916 (1987).
21. Liposits, Zs., Uht, R.M., Harrison, R.W., Gibbs, F.P., Paull, W.K. and Bohn, M.C. Ultrastructural localization of glucocorticoid receptor (GR) in hypothalamic paraventricular neurons synthesizing corticotropin releasing factor (CRF). *Histochem.* 87, 407-412 (1987).
22. Uht, R.M., McKelvy, J.F., Harrison, R.W. and Bohn, M.C. Demonstration of glucocorticoid receptor-like immunoreactivity in glucocorticoid-sensitive vasopressin and corticotrophin-releasing factor neurons in the hypothalamic paraventricular nucleus. *J. Neurosci. Res.* 19, 405-411 (1988).
23. Pieribone, V., Aston-Jones, G. and Bohn, M.C. Adrenergic and non-adrenergic neurons in the C1 and C3 areas project to locus coeruleus: a fluorescent double labeling study. *Neurosci. Lett.* 85, 297-303 (1988).
24. Bohn, M.C., Seiger, A. and Bernstein-Goral, H. Expression of phenylethanolamine N-methyltransferase (PNMT) and neuropeptide Y (NPY) in embryonic rat medulla oblongata grown in oculo. *J. Chem. Neuroanat.* 1, 205-211 (1988).
25. Bohn, M.C., Marciano, F., Cupit, L. and Gash, D.M. Recovery of dopaminergic fibers in striatum of the MPTP treated mouse is enhanced by grafts of adrenal medulla. *Prog. Brain Res.* 78, 535-542 (1988).
26. Van Eekelen, J.A.M., Jiang, W., De Kloet, E.R. and Bohn, M.C. Distribution of the mineralocorticoid and the glucocorticoid receptor mRNAs in the rat hippocampus. *J. Neurosci. Res.* 21, 88-94 (1988).
27. Bernstein-Goral, H. and Bohn, M.C. Ontogeny of adrenergic fibers in rat spinal cord in relationship to adrenal preganglionic neurons. *J. Neurosci. Res.* 21, 333-351 (1988).
28. Hashimoto, H., Marystone, J.F., Greenough, W.T. and Bohn, M.C. Neonatal adrenalectomy alters dendritic branching of hippocampal granule cells. *Exp. Neurol.* 104:62-67 (1989).
29. Bernstein-Goral, H. and Bohn, M.C. Phenylethanolamine N-methyltransferase-immunoreactive terminals synapse on adrenal preganglionic neurons in the rat spinal cord. *Neuroscience*, 32: 521-538 (1989).

30. Jiang, W., Uht, R. and Bohn, M.C. Regulation of phenylethanolamine N-methyltransferase (PNMT) mRNA in the rat adrenal medulla by corticosterone. *Internat. J. Devel. Neurosci.* 7: 513-520 (1989).
31. Sawchenko, P.E. and Bohn, M.C. Glucocorticoid receptor-immunoreactivity in C1, C2, and C3 adrenergic neurons that project to the hypothalamus or to the spinal cord in the rat. *J. Comp. Neur.*, 285: 107-116 (1989).
32. Bohn, M.C. and Kanuicki, M. Bilateral recovery of striatal dopamine after unilateral adrenal grafting into the striatum of a mouse model of Parkinson's disease. *J. Neurosci. Res.* 25: 281-286 (1990).
33. Cunningham, E.T., Jr., Bohn, M.C. and Sawchenko, P.E. The organization of adrenergic inputs to the paraventricular and supraoptic nuclei of the hypothalamus in the rat. *J. Comp. Neur.* 292: 651-667 (1990).
34. Liposits, Z., Kallo, I., Barkovics-Kallo, M., Bohn, M.C. and Paull, W.K. Innervation of somatostatin synthesizing neurons by adrenergic phenylethanolamine N-methyltransferase (PNMT)-immunoreactive axons in the anterior periventricular nucleus of the rat hypothalamus. *Histochem.* 94, 13-20 (1990).
35. Vielkind, U., Walencewicz, A., Levine, J. and Bohn, M.C. Type II glucocorticoid receptors are expressed in oligodendrocytes and astrocytes. *J. Neurosci. Res.* 27, 360-373 (1990).
36. Cunningham, L.A., Short, M.P., Vielkind, U., Breakefield, X.O. and Bohn, M.C. Survival and differentiation within the adult mouse striatum of grafted rat pheochromocytoma cells (PC12) genetically modified to express recombinant β -NGF. *Exp. Neurol.* 112, 174-182 (1991).
37. Cunningham, L.A., Hansen, J.T., Short, M.P. and Bohn, M.C. The use of genetically altered astrocytes to provide nerve growth factor (NGF) to adrenal chromaffin cells grafted into the striatum. *Brain Res.* 561, 192-202 (1991).
38. Van Eekelen, J.A.M., Bohn, M.C. and deKloet, E.R. Postnatal ontogeny of mineralocorticoid and glucocorticoid receptor gene expression in regions of the rat tel- and diencephalon. *Devel. Brain Res.* 61, 33-43 (1991).
39. Engele, J., Schubert, D. and Bohn, M.C. Conditioned media derived from glial cell lines promote survival and differentiation of dopaminergic neurons in vitro: Role of mesencephalic glia. *J. Neurosci. Res.* 30, 359-371 (1991).
40. Engele, J. and Bohn, M.C. The neurotrophic effects of fibroblast growth factors on dopaminergic neurons in vitro are mediated by mesencephalic glia. *J. Neurosci.* 11, 3070-3078 (1991).
41. Bohn, M.C., Howard, E., Vielkind, U. and Krozowski, Z. Glial cells express both mineralocorticoid and glucocorticoid receptors. *J. Steroid Biochem. Mol. Biol.* 40: 105-112 (1991).
42. Hammang, J.P., Bohn, M.C. and Messing, A. Phenylethanolamine N-methyltransferase (PNMT) - expressing horizontal cells in the rat retina: A study employing double-label immunohistochemistry and in situ hybridization histochemistry. *J. Comp. Neur.* 316, 363-374 (1992).
43. Bohn, M.C. and Engele, J. Development of phenylethanolamine N-methyltransferase (PNMT) in cultures of dissociated embryonic rat medulla oblongata. *Internat. J. Devel. Neurosci.* 6: 481-489 (1992).
44. Engele, J. and Bohn, M.C. Effects of acidic and basic fibroblast growth factors (aFGF, bFGF) on glial precursor cell proliferation: Age-dependency and region-specificity. *Develop. Biol.* 152: 363-372 (1992).
45. Liposits, Z. and Bohn, M.C. Association of glucocorticoid receptor immunoreactivity with cell membrane and transport vesicles in hippocampal and hypothalamic neurons of the rat. *J. Neurosci. Res.*, 35, 14-19 (1993).
46. Bohn, M.C., Dean, D., Hussain, S. and Giuliano, R. Development of mRNAs for glucocorticoid (GR) and mineralocorticoid receptors (MR) in rat hippocampus. *Dev. Brain Res.* 77, 157-162 (1994).
47. Cunningham, L.A., Short, M.P., Breakefield, X.O., and Bohn, M.C. Nerve growth factor released by transgenic astrocytes enhances the function of adrenal chromaffin cell grafts in a rat model of Parkinson's disease. *Brain Res.* 658, 219-231 (1994).
48. O'Banion, M.K., Young, D.A. and Bohn, M.C. Corticosterone responsive mRNAs in primary rat astrocytes. *Mol. Brain Res.* 22, 57-68 (1994).
49. Phillipson, O.T. and Bohn, M.C. C1-3 Adrenergic medullary neurones project to the paraventricular thalamic nucleus in the rat. *Neurosci. Lett.* 176, 67-70 (1994).
50. Wetzel, D.M., Bohn, M.C. and Hamill, R.W. Postmortem stability of mRNA for glucocorticoid and mineralocorticoid receptor in rodent brain. *Brain Res.* 649, 117-121 (1994).
51. Castillo, B., del Cerro, M., Breakefield, X.O., Frim, D.M., Barnstable, C.J., Dean, D.D. and Bohn, M.C. Retinal ganglion cell survival is promoted by genetically modified astrocytes designed to secrete brain -derived neurotrophic factor (BDNF). *Brain Res.*, 647, 30-36 (1994).

52. Yoshimoto, Y., Lin, Q., Collier, T.J., Frim, D.M., Breakefield, X.O. and Bohn, M.C. Astrocytes retrovirally transduced with BDNF elicit behavioral improvement in a rat model of Parkinson's disease. *Brain Res.* 691, 25-36 (1995).
53. Choi-Lundberg, D.L. and Bohn, M.C. Ontogeny and distribution of glial cell line-derived neurotrophic factor (GDNF) mRNA in rat. *Devel. Brain Res.* 85, 80-88 (1995).
54. Wetzel, D.M., Bohn, M.C., Kazee, A.M., Hamill, R.W. Glucocorticoid receptor mRNA in Alzheimer's diseased hippocampus. *Brain Res.* 679, 72-81 (1995).
55. Engele, J., Rieck, H., Choi-Lundberg, D. and Bohn, M.C. Evidence for a novel neurotrophic factor for dopaminergic neurons secreted from mesencephalic glial cell lines. *J. Neurosci. Res.* 43: 576-586 (1996).
56. Hall, C. M., Wainer, B.H., Eves, E. and Bohn, M.C. Expression of glucocorticoid and mineralocorticoid receptors in an immortalized hippocampal neuronal cell line. *Brain Res.* 726: 141-152 (1996).
57. Lin, Q., Cunningham, L., Epstein, L., Pechan, P. A., Short, P., Fleet, C. and Bohn, M.C. Infection of human astrocytes with a replication-defective retrovirus confers expression of biologically active nerve growth factor (NGF). *Human Gene Therapy* 8, 331-339 (1997).
58. Choi-Lundberg, D.L., Lin, Q., Chang, Y.-N., Chiang, Y.L., Hay, C.M., Mohajeri, H., Davidson, B. and Bohn, M.C. Dopaminergic neurons protected from degeneration by GDNF gene therapy. *Science* 275, 838-841 (1997).
59. Pallini, R., Consales, A., Lauretti, L. Fernandez, E. Choi-Lundberg, D.L. and Bohn, M.C. Experiments in a Parkinson's Rat Model. *Science* 277: 389-390 (1997).
60. Mohajeri, H., Figlewicz, D. and Bohn, M.C. Selective loss of alpha motoneurons innervating the gastrocnemius muscle in a mouse model of amyotrophic lateral sclerosis (ALS). *Exp. Neurol.* 150, 329-336 (1998).
61. Choi-Lundberg, D.L., Lin, Q., Schallert, T., Crippens, D., Davidson, B.L., Chang, Y.-N., Chiang, Y.L. Qian, J., Bardwaj, L. and Bohn, M.C. Behavioral and cellular protection of rat dopaminergic neurons by an adenoviral vector encoding glial cell line-derived neurotrophic factor (GDNF). *Exp. Neurol.* 154: 261-275 (1998), with cover illustration.
62. Bohn, M.C., Choi-Lundberg, D.L., Davidson, B.L., Leranath, C., Kozlowski, D.A., Smith, J.C., O'Banion, M.K. and Redmond, Jr., D.E. Adenoviral mediated transgene expression in non-human primate brain. *Human Gene Therapy* 10: 1175-1184 (1999).
63. Derby, M.L., Giuliano, R., Figlewicz, D.A. and Bohn, M.C. GDNF exerts a selective trophic effect on a subpopulation of motor neurons in a mouse model of ALS. *ALS and other motor neurons disorders* 1: 113-122 (2000).
64. Mohajeri, M.H., Figlewicz, D.A. and Bohn, M.C. Intramuscular grafts of myoblasts genetically modified to secrete glial cell line-derived neurotrophic factor (GDNF) prevent motoneuron loss and disease progression in a mouse model of familial amyotrophic lateral sclerosis. *Human Gene Therapy* 10: 1853-1866 (1999).
65. Lawrence, M.S., Foellmer, H.G., Elsworth, J.D., Kim, J.H., Leranath, C., Kozlowski, D.A., Bothwell, L.M., Davidson, B.L., Bohn, M.C. and Redmond, Jr., D.E. Assessment of inflammatory responses and their impact on LacZ transgene expression following adenoviral vector delivery to the primate caudate nucleus. *Gene Therapy* 6: 1368-1379 (1999).
66. Connor, B., Kozlowski, D.A., Schallert, T., Tillerson, J.L., Davidson, B.L. and M.C. Bohn Differential effects of glial cell line-derived neurotrophic factor (GDNF) in the striatum and substantia nigra of the aged Parkinsonian rat. *Gene Therapy* 6: 1936-1951 (1999).
67. Kozlowski, D.A., Connor, B., Tillerson, J.L., Schallert, T., Bohn, M.C. Delivery of a GDNF gene into the substantia nigra after a progressive 6-OHDA lesion maintains functional nigrostriatal connections. *Exper. Neurol.* 166:1-15 (2000), with cover illustration.
68. Bohn, M.C., Kozlowski, D.A. and Connor, B. Glial cell line-derived neurotrophic factor (GDNF) as a defensive molecule for neurodegenerative disease: A tribute to the studies of Antonia Vernadakis on neuronal-glial interactions. *Intern. J. Devel. Neurosci.* 18: 679-684 (2000).
69. Connor, B., Kozlowski, D.A., Unnerstall, J.R., Elsworth, J.D., Tillerson, J.L., Schallert, T., and Bohn, M.C. Glial cell line-derived neurotrophic factor (GDNF) protects dopaminergic terminals from degeneration. *Exp. Neurol.* 169: 83-95 (2001).
70. Kozlowski, D.A., Bremer, E., Redmond, D.E, Jr., George, D., Larson, B. and Bohn, M.C. Quantitative analysis of transgene protein, mRNA and vector DNA following injection of an adenoviral vector harboring glial cell line-derived neurotrophic factor (GDNF) into the primate caudate nucleus. *Mol. Ther.*, 3: 256-261 (2001).

71. Jiang, L., Rampalli, S., George, D., Press, C., Bremer, E.G., O’Gorman, M. R. G., and Bohn, M.C. Tight regulation of a single tet-off rAAV vector as demonstrated by flow cytometry and quantitative, real-time PCR. *Gene Therapy* 11: 1057-1067 (2004).
72. Kozlowski, D.A., Miljan, E. A., Bremer, E.G., Harrod, C.G., Gerin, C., Connor, B. George, D., Larson, B., and Bohn, M.C. “Quantitative analyses of GFRA-1 and GFRA-2 mRNAs and tyrosine hydroxylase (TH) protein in the nigrostriatal system reveals bilateral compensatory changes following unilateral 6-OHDA lesions”. *Brain Research*, 1016: 170-181 (2004).
73. Ebert A.D. Chen, F., He, X., Cryns, V. and Bohn, M.C. A tetracycline-regulated adenovirus encoding dominant-negative caspase-9 is regulated in rat brain and protects against neurotoxin induced cell death *in vitro*, but not *in vivo*. *Experimental Neurology* 191:S80-S94 (2005).
74. Smith, A.D., Kozlowski, D.A., Bohn, M.C., Zigmond, M.J. Effect of AdGDNF on dopaminergic neurotransmission in the striatum of 6-OHDA-treated rats. *Experimental Neurology* 193: 420-426 (2005).
75. Rick C.E*, Ebert A*, Virag T., Bohn M.C., and Surmeier D.J. The dopaminergic MN9D cell line when differentiated expresses some, but not all, of the ionic conductances seen in midbrain dopaminergic neurons. *Develop. Neurosc.*, 28:528-537 (2006).
76. Hadaczek, P., Mirek, H., Laszlo, T., Nagy, D., Bohn, M.C., Noble, C., Park, J.W., Bankiewicz, K. "Perivascular pump" driven by arterial pulsation is a powerful mechanism for the distribution of therapeutic molecules within the brain. *Molec. Ther.* 4:69-78 (2006).
77. Sapru, MK, Yates, JW, Hogan, S, Jiang, L and Bohn, MC Silencing of human alpha-synuclein *in vitro* and in rat brain using lentiviral-mediated RNAi. *Exp. Neurol.* 198: 382-390(2006).
78. Ebert, AD, Hann, HJ and Bohn, MC Progressive degeneration of dopamine neurons in the 6-hydroxydopamine rat model of Parkinson’s disease does not involve activation of caspases 9 and 3. *J. Neurosc. Res.*, 86: 317-325(2008).
79. Bolliet, C., Bohn, MC and Spector, M. Non-viral delivery of the gene for glial cell line-derived neurotrophic factor to mesenchymal stem cells *in vitro* via a collagen scaffold. *Tissue Engineering*, 13: 207-219. (2008).
80. Virag T*, Chang Q*, West, N., George, D. Rampalli S, Vanin E, Bohn MC. Molecular, Cellular and Behavioral Characterization of a Tetracycline (tet)-Regulated rAAV Vector for Human Aromatic Amino Acid Decarboxylase (hAADC) in a Rat Model of Parkinson’s Disease (PD) (in draft form).
81. Han, Y, Chang, Q, Virag, T, West, NC, Castro, MG, David George and Bohn, MC Lack of humoral immune response to the tetracycline (tet) activator (tTA) detected in sera of rats that received an intracranial injection of rAAV harboring tet-regulated elements. *Gene Therapy*, 17, 616-625 (2010).
82. Glavaski-Joksimovic, A.* , Virag, T.* , Chang, Q., West, N., Mangatu, T., McGrogan, M., Dugich-Djordjevic, M. and Bohn, MC. Reversal of dopaminergic degeneration in a Parkinsonian rat following micrografting of human bone marrow-derived neural progenitors. *Cell Transplantation*, 18: 801-814. (2009), with cover illustration.
83. Minnich, J.E., Mann, S.L., Stolzenbach, K.A., Mortell, B.M., Soderstrom, K.E., Bohn, M.C. and Kozlowski, D.A. Glial cell line-derived neurotrophic factor gene delivery protects cortical neurons from dying following a traumatic brain injury. *Restorative Neurol. and Neurosci.*, 28: 293-309 (2010).
84. Sapru, MK*, Yates, JW*, Pedapati, J, Wang, XS, Maguire-Zeiss, KA, Federoff, HJ and Bohn, MC. CHOP RNAi silencing protects dopaminergic cells against A-synuclein- and neurotoxin-induced cell death. (in revision, 2009).
85. Wu, H-C, Wang, T-W, Bohn, MC, Lin, F-H and Spector, M. Novel magnetic hydroxyapatite nanoparticles as non-viral vectors for the glial cell line-derived neurotrophic factor gene. *Adv. Funct. Materials* , 19: 1-11 (2009).
86. Morel, GR, Sosa, YE, Bellini, MJ, Carri, NG, Rodriguez, SS, Bohn, MC, and Goya, RG. Glial cell line-derived neurotrophic factor gene therapy ameliorates chronic hyperprolactinemia in senile female rats. *Neuroscience* 167: 946-953 (2010).
87. Glavaski-Joksimovic, A, Virag, T, Mangatu, T, McGrogan, MP, Wang, XS and Bohn, MC. Human bone marrow derived neuroprogenitors modified to secrete GDNF promote recovery in a rat model of Parkinson’s disease *J. Neurosci. Res.* 88: 2669-2681 (2010).
88. DeGeorge, M.L, Marlowe, D. Werner, E, Soderstrom, KE, Stock M, Mueller, A, Bohn, M.C. and Kozlowski, DA. Combining glial cell line-derived neurotrophic factor gene delivery (AdGDNF) with L-arginine decreases contusion size but not behavioral deficits after traumatic brain injury. *Brain Res.*, 1403:45-56 (2011).
89. Dudas, B., Baker, M., Rotoli, G., Grignol, G., Bohn, M.C. and Merchenthaler, I. Distribution and morphology of the catecholaminergic neural elements in the human hypothalamus. *Neuroscience* 171: 187-195 (2010).

90. Han, Y., Khodr, C.E., Sapru, M., Pedapati, J. and Bohn, M.C. A microRNA embedded AAV alpha-synuclein gene silencing vector for dopaminergic neurons. *Brain Res.*, 1386: 15-24 (2011).
91. Khodr, C.E., Sapru, M., Pedapati, J., Han, Y., West, N.C., Kells, A., Bankiewicz, K.S., and Bohn, M.C. An alpha-synuclein AAV gene silencing vector ameliorates a behavioral deficit in a rat model of Parkinson's disease, but displays toxicity in dopamine neurons. *Brain Res.*, 1396: 94-107 (2011), with cover illustration.

*equal authorship

BOOKS.

Bohn, M.C., Ph.D. Dissertation. the effects of hydrocortisone on postnatal neurogenesis in the rat cerebellum and hippocampus. Univ. of Connecticut, Storrs, Connecticut (1979).

Monahan, A. Assisted by M. Bohn. Experiments in Organic Chemistry. Bodgen and Quigley, NY (1971).

REVIEW ARTICLES AND BOOK CHAPTERS.

1. Lauder, J.M. and Bohn, M.C. Thyroid hormones and glucocorticoids as joint coordinators of postnatal neurogenesis in cerebellum and hippocampus. *Progress in Psychoneuroendo. F. Brambilla, F. Racagni and D. deWied (Eds.) Elsevier, NY pp. 603-619. (1980).*
2. Black, I.B., Bohn, M.C., Jonakait, G.M. and Kessler, J.A. Transmitter phenotypic expression in the embryo. *Proceedings of the Ciba Conference, London (1980).*
3. Black, I.B., Kessler, J.A., Adler, J. and Bohn, M. Regulation of Substance P expression and metabolism in vivo and in vitro. *Proceedings of the Ciba Conference, London (1981).*
4. Black, I.B., Adler, J.E., Bohn, M.C., Jonakait, G.M., Katz, D.M., Kessler, J.A. and Markey, K.M. Do neurons change transmitters *in vivo*? *Trends in Neurosci.* (1982).
5. Bohn, M.C. Role of glucocorticoids in expression and development of phenylethanolamine N-methyltransferase (PNMT) in cells derived from the neural crest. *Psychoneuroendocrinology* 8, 381-390 (1983).
6. Bohn, M.C. Glucocorticoid induced teratologies of the nervous system. In: *Neurobehavioral Teratology* Ed. J. Yanai Elsevier Biomed. Press, pp. 365-387 (1984).
7. Black, I.B., Adler, J.E., Bohn, M.C., Jonakait, G.M., Kessler, J.A. and Markey, K.A. Transmitter phenotypic plasticity in developing and mature neurons in vivo. In: *Cellular and Molecular Biology of Neuronal Development.* I.E. Black, Ed. Plenum Press, NY pp. 117-130 (1984).
8. Black, I.B., Adler, J.E., Bohn, M.C., Jonakait, D.M., Katz, D.M., Kessler, J.A. and Markey, K.A. Transmitter plasticity in catecholamine neurons during development and maturity. In: *Catecholamines: Basic and Peripheral Mechanisms.* Alan R. Liss, Inc. pp. 31-37 (1984).
9. Bohn, M.C. Expression and development of phenylethanolamine N-methyltransferase (PNMT). Role of glucocorticoids. In: *Neurohistochemistry Today*, P. Panula, H. Paivarinta & S. Soynila (Eds.) A.R. Liss, Inc., New York, 1986 pp. 245-271.
10. Bernstein-Goral, H. and Bohn, M.C. The ontogeny of adrenergic fibers in rat spinal cord. In: *Molecular Aspects of Development and Aging in the Nervous System.* Adv. Exp. Med. and Biol. 265: 245-259 (1990).
11. Bohn, M.C. Differential regulation of phenylethanolamine N-methyltransferase (PNMT) in adrenal medulla and medulla oblongata by glucocorticoids. In: "Stress: Neuroendocrine and Molecular Approaches", Eds. R. Kvetnansky, R. McCarty and J. Axelrod, Gordon and Breach Science Publ. (1992) pp. 337-350.
12. Bohn, M.C. Glucocorticoids: Roles in Development of the Autonomic Nervous System. In: *Autonomic-Endocrine Interactions*, ed. K. Unsicker, The Autonomic Nervous System Series, Ed. G. Burnstock, Harwood Acad. Pub., Chur, Switzerland, Volume 10, pp 357-378, 1996.
13. Bohn, M.C. In vitro approaches to studying glucocorticoid effects on gene expression in neurons and glia. In: *Neurobiology of Steroids*, Eds. E.R. de Kloet and W. Sutano, In: *Methods in Neurosciences*, Ed. P.M. Conn. Academic Press, Inc. Orlando, FL pp468-479 (1994).
14. Bohn, M.C., O'Banion, M.K., Young, D.A., Giuliano, R., Hussain, S., Dean, D.O. and Cunningham, L.A. In Vitro Studies of Glucocorticoid Effects on Neurons and Astrocytes. *Ann. NY Acad. Sci.* 746, 243-259 (1994).

15. Breakefield, X.O. Sena-Esteves, M., Pechan, P., Kramm, D., Yoshimoto, Y., Lin, Q., Davar, G., Livermore, J., Isacson, O., Chiocca, E.A., Bohn, M. and Kaye, E. Gene Therapy for the Nervous System-Status, In Genetic Therapy Fundacion BBV (1995).
16. Davidson, B.L. and Bohn, M.C. Recombinant adenovirus: A gene transfer vector for study and treatment of CNS diseases. *Exp. Neurol.* 144: 125-130 (1997).
17. Bohn, M.C. and Choi-Lundberg, D.L. Gene Therapies for Parkinson's Disease. In: "Gene Therapy for Neurological Disorders and Brain Tumors", Ed. X.O. Breakefield and E.A. Chiocca, Humana Press, Totowa, NJ. pp. 377-395 (1997).
18. Bohn, M.C. and Choi-Lundberg, D.L. Neurotrophic Factor Gene Therapy for Neurodegenerative Diseases. *Gene Ther.Mol.Biol.* 1, 265-277 (1998).
19. Choi-Lundberg, D.L. and Bohn, M.C Applications of gene therapy for neurological diseases and injuries. In: *Stem Cell Biology and Gene Therapy*, Quesenberry, P.J., Stein, G.S., Forget, B. and Weissman, S. (Eds), J. Wiley & Sons, New York, pp. 503-553 (1998).
20. Bohn, M.C. A commentary on GDNF: From a glial secreted molecule to gene therapy. *Biochem. Pharm.* 57: 135-142 (1999).
21. Connor, B. and Bohn, M.C. Glial Cell Line-Derived Neurotrophic Factor (GDNF) Gene Therapy in an Aged Rat Model of Parkinson's Disease, *Gene Ther.Mol.Biol.* 4: 59-74 (1999).
22. Bohn, M.C., Connor, B., Kozlowski, D.A. and Mohajeri M.H. Gene transfer for neuroprotection in animal models of Parkinson's disease and amyotrophic lateral sclerosis. In: *Neural transplantation in neurodegenerative disease: Current status and new directions.* John Wiley & Sons, LTD, Chichester, Novartis Foundation Symposium 231: 70-93 (2000).
23. Bohn, M.C. Neurotrophic factor gene therapy for neurodegeneration. In: *Proceedings 8th Symposium on Recherche & Glaucoma, Laboratoires ALLERGAN FRANCE*, pp.41-50, 2000.
24. Bohn, M.C. Parkinson's Disease: A Neurodegenerative Disease Particularly Amenable to Gene Therapy. *Mol. Ther.* 1: 494-495 (2000).
25. Bohn, M.C. Motoneurons Crave Glial Cell Line-Derived Neurotrophic Factor (GDNF): A commentary. *Experimental Neurology* 190: 263-275 (2004).
26. Bohn, M.C. Overview of Gene Therapy and Viral Vectors for CNS Applications. Review chapter, Short Course I Vectors and RNA Interference for Neuroscience Applications. Soc. For Neuroscience Short Course (2005)—online at http://www.sfn.org/index.aspx?pagename=ShortCourses__2005

PUBLISHED ABSTRACTS.

- Black, I.B., Bohn, M.C., Bloom, E.M. and Goldstein, M. (1980). Glucocorticoids induce expression of the adrenergic phenotype in a rat sympathetic ganglion. *Soc. Neurosci. Abst.* 6, 408.
- Bohn, M.C. (1979). Proliferation of granule cell precursors in rat hippocampus is inhibited by hydrocortisone treatment: An autoradiographic study. *Soc. Neurosci. Abst.* 5, 154.
- Bohn, M.C. and Black, I.B. (1983). Development of the adrenergic phenotype in rat brain: characterization of a glucocorticoid responsive period. *Soc. Neurosci.* 9.
- Bohn, M.C. and Lauder, J.M. (1978). Postnatal cerebellar neurogenesis in rat is altered by hydrocortisone: An autoradiographic and light microscopic study. *Soc. Neurosci. Abst.* 4, 108.
- Bohn, M.C., Bloom, E., Goldstein, M. and Black, I.B. Expression of phenylethanolamine N-methyltransferase (PNMT) in the rat embryo and effects of glucocorticoids on PNMT development, VII Intern. Cong. of Histochemistry & Cytochemistry (Helsinki, 1984).
- Bohn, M.C., Dreyfus, C., Goldstein, M. and Black, I. Embryonic development of epineuric cells in brain and periphery. 17th Winter Conference on Brain Research (Steamboat Springs, 1984).
- Bohn, M.C., Goldstein, M. and Black, I.B. (1980). The role of glucocorticoid steroids in the expression of the adrenergic phenotype in the rat embryonic adrenal gland. *Soc. Neurosci.* 6, 644.
- Bohn, M.C., Goldstein, M. and Black, I.B. (1982). Expression and development of the adrenergic phenotype in rat medulla oblongata. *Soc. Neurosci.* 8.

- Bohn, M.C., Kessler, J.A., Golightly, L. and Black, I.B. (1981). Enkephalin-like immunoreactivity (Enk-IR) in rat adrenal is increased by nicotinic receptor blockade. *Soc. Neurosci.* 7.
- Friedrich, V.L., Jr. and Bohn, M.C. (1980). Glucocorticoids inhibit myelination in developing rat. *Soc. Neurosci. Abst.* 6, 380.
- Jonakait, G.M., Bohn, M.C., Goldstein, M. and Black, I.B. (1980). Elevation of maternal glucocorticoid hormones alters neurotransmitter phenotypic expression in presumptive embryonic neuroblasts. *Soc. Neurosci.* 6, 408.
- Lauder, J.M. and Bohn, M.C. (1980). Thyroid hormones and glucocorticoids as joint coordinators of postnatal neurogenesis in cerebellum and hippocampus. XI Intern. Congress Intern. Soc. Psychoneuroendo. Florence, Italy.
- Sabban, E., Goldstein, M., Bohn, M.C. and Black, I.B. (1981). Developmental increase in adrenal messenger RNA coding for phenylethanolamine-N-methyltransferase. *Soc. Neurosci.* 7.
- Bohn, M.C., Dreyfus, C., Goldstein, M. and Black, I.B. Effects of glucocorticoids on phenylethanolamine N-methyltransferase (PNMT) in cultures of rat superior cervical ganglia (SCG) and medulla oblongata (MO), *Soc. Neurosci.* 10, (1984).
- Bohn, M.C. Glucocorticoids affect proliferation of small intensely fluorescent (SIF) cells in superior cervical ganglion (SCG). *Soc. Neurosci.* 11, (1985).
- McTigue, M., Halegoua, S. and Bohn, M.C. Development of a neuronal protein database using PC12: The effects of nerve growth factor (NGF) and glucocorticoids. *Soc. Neurosci.* 11, (1985).
- Bohn, M.C., Barker, D.L., Garrels, J., Halegoua, S. and Schubert, D. Protein Databases for the Nervous System 19th Winter conference on Brain Research (Keystone, 1986).
- Bohn, M.C. Glucocorticoids and phenylethanolamine N-methyltransferase (PNMT) development in brain and periphery. XVIIth Internat. Congress of the ISPNE. 1986.
- Uht, R.M., McKelvy, J.F., Harrison, R.W. and Bohn, M.C. Co-localization of the glucocorticoid receptor (GR) with vasopressin (VP) in the hypothalamic paraventricular nucleus after adrenalectomy (ADX). *Soc. Neurosci.* 12, 1986.
- McTigue, M., Halegoua, S. and Bohn, M.C. Modulation of multiple phosphorylated forms of tyrosine hydroxylase (TH) analyzed by quantitative 2D-gel electrophoresis. *Soc. Neuroscience* 12, 1986.
- Bohn, M.C., Marciano, F., Cupit, L. and Gash, D.M. Recovery of tyrosine hydroxylase immunoreactive fibers in striatum of the MPTP treated mouse is enhanced by grafts of adrenal medulla. Second Internat. Symp. on Brain Transplantation 1987.
- Bernstein-Goral, H., Seiger, A. and Bohn, M.C. Expression of phenylethanolamine N-methyltransferase (PNMT) and neuropeptide Y (NPY) in intraocular grafts of embryonic rat brainstem. *IBID.*
- Bohn, M.C., Marciano, F., Cupit, L. and Gash, D.M. Grafts of adrenal medulla promote recovery of tyrosine hydroxylase immunoreactive (TH-IR) fibers in striatum of the MPTP treated mouse. *Soc. Neurosci.* 13, 1987.
- Bernstein-Goral, H. and Bohn, M.C. Ontogeny of adrenergic fibers in thoracic spinal cord in relationship to retrogradely labeled sympathetic preganglionic neurons. *Soc. Neurosci.* 13, 1987.
- Kaiser, K.P., Karten, H.J., Katz, B. and Bohn, M.C. Catecholaminergic horizontal and amacrine cells in the ferret retina. *ARVO.* 1987.
- Pieribone, V.A., Aston-Jones, G., Bohn, M.C. and Bernstein-Goral, H. Double-labeling using fluoro-gold reveals neurotransmitter identity of afferents to locus coeruleus. *Soc. Neurosci.* (1987).

- Gash, D.M., Bohn, M.C., Hansen, F., Fiandaca, M., Kordower, J., Jiao, S., Okawara, S., Shoulson, I., Felten, D. and Sladek, J.R., Jr. Regeneration and functional recovery of host neural systems following neural implantation. Annual Meeting of American College of Neuropsychopharmacology. San Juan (1988).
- Bohn, M.C., Anderson, D., deVellis, J., Arriza, J. and Chao, H. New insights into glucocorticoid action in the nervous system. 21st Winter Conference on Brain research (Steamboat, 1988).
- Bohn, M.C., Glucocorticoid effects on the development of adrenergic cells. 11th Annual Meeting of European Neuroscience Assoc. (1988).
- Gash, D.M., Bohn, M.C., Notter, M.F.D., Bing, G. and Hansen, J.T. Effects of neural implants on regenerative sprouting in the host brain. 39th Annual Meeting of the Tissue Culture Assoc., Las Vegas (1988).
- Bernstein-Goral, H. and Bohn, M.C. Phenylethanolamine N-methyltransferase (PNMT)-immunoreactive (IR) terminals synapse on adrenal preganglionic neurons in the rat spinal cord. Soc. Neurosci. 14. (1988).
- Bohn, M.C., Walencewicz, A., Lynch, M. and deVellis, J. Identification of glucocorticoid regulated proteins in purified rat cerebral astrocytes by quantitative 2D gel electrophoresis. Soc. Neurosci. 14, (1988).
- Bing, G., Vielkind, U. and Bohn, M.C. Glucocorticoid receptor (GR) expression in primary hippocampal neuronal cultures. Soc. Neurosci. 15, (1989).
- Engle, J., Schubert, D. and Bohn, M.C. The development of mesencephalic dopaminergic neurons in vitro is affected by neurotrophic activities derived from neural cell lines. Soc. Neurosci. 15, (1989).
- van Eekelen, J.A.M., Bohn, M.C. and de Kloet, E.R. Ontogeny of mineralocorticoid (MR) and glucocorticoid receptor (GR) gene expression in the rat brain. Soc. Neurosci. 15, (1989).
- Seiger, A., Holets, V.R. and Bohn, M.C. Effect of target tissues on the expression of PNMT and TH in fetal rat medullary grafts grown in oculo. Soc. Neurosci. 15, (1989).
- Cunningham, L.A., Short, M.P., Vielkind, U., Koh, S., Breakefield, X.O. and Bohn, M.C. Rat PC12 cells carrying the mouse beta-NGF gene survive and differentiate following implantation into the adult mouse striatum. Soc. Neurosci. 15, (1989).
- Roffler-Tarlov, S., Koevold, R., Kaniucki, M., Graybiel, A.M., and Bohn, M. Adrenal medullary implants in the caudatoputamen of the mutant mouse weaver. Soc. Neurosci. 15, (1989).
- Breakefield, X.O., Cunningham, L.A., Short, M.P., Vielkind, U. and Bohn, M.C. "Gene implant" of autocrine differentiated, catecholamine-producing tumor cells into mouse models of Parkinson's disease. Am. Soc. Genetics (1989).
- Vielkind, U., Walencwicz, A., Levine, J.M. and Bohn, M.C. Glial cells express glucocorticoid receptors. Soc. Neurosci. 15, (1989).
- Bohn, M.C., deVellis, J., Vielkind, U., Lynch, M. and Walencewicz, A. Regulation of glial gene expression by glucocorticoids. Int. Soc. Devel. Neurosc., Miami (1990).
- Engle, J. and Bohn, MC. Acidic fibroblast growth factor (aFGF) is mitogenic for early glial precursors in embryonic rat brain. Int. Soc. Devel. Neurosc., Miami (1990).
- Bohn, M.C., Vielkind, U., Harrison, R., deVellis, J. and Lynch, M. Glucocorticoid effects in glial cells. VIII Intern. Cong. Hormonal Steroids. The Hague (1990).
- Bohn, M.C., Howard, E. and Krozowski, Z. Mineralocorticoid (MR) and glucocorticoid (GR) receptors are co-expressed in hippocampal neurons. Soc. Neurosc. 16, (1990).
- Engle, J. and Bohn, M.C. Role of mesencephalic glia in the neuronotrophic response of dopaminergic neurons to growth factors. Soc. Neurosc. 16, (1990).

Bohn, M.C., Schubert, D., Bottenstein, J., Coleman, P., and Engele, J. The impact of the environment on neurons and glia. Winter Conf. Brain Res. (1991).

Bohn, M.C. Expression, development and hormonal regulation of phenylethanolamine N-methyltransferase (PNMT) and PNMT messenger RNA. Fifth Symposium on Catecholamines and Other Neurotransmitters in Stress, Smolenice, Czecho-Slovakia (1991).

Cunningham, L.A., J.T. Hansen, M.P. Short, and M.C. Bohn Rat astrocytes carrying a mouse NGF transgene promote survival and neuronal differentiation of intrastriatal chromaffin cell grafts. Third IBRO World Congress of Neuroscience, Montreal (1991).

Engele, J. and Bohn, M.C. Establishment of mesencephalic glial cell lines using an inducible expression system: neurotrophic effects on dopaminergic neurons. Soc. Neurosc. 17, (1991).

O'Banion, M.K., Young, D.A., Howard, E.W. and Bohn, M.C. Rapid glucocorticoid modulation of astrocyte mRNAs and proteins. Soc. Neurosc. 17, (1991).

Wetzel, D. M., Bohn, M.C. and Hamill, R. W. Postmortem stability of mRNA for glucocorticoid and mineralocorticoid receptor in rodent brain. Soc. Neurosc. 17, (1991).

Cunningham, L.A., Hansen, J.T., Short, M.P., and Bohn, M.C. Rat astrocytes containing a mouse NGF transgene enhance the survival of both young postnatal and adult adrenal chromaffin cells grafted into the adult rat striatum. Soc. Neurosc. 17, (1991).

Engele, J. and Bohn, M.C. The survival-promoting effects of growth factors on dopaminergic neurons are mediated through mesencephalic glia. German Soc. for Biological Chem. (1991).

Wetzel, D.M., Hussain, S., Bohn, M.C. and Hamill, R.W. The distribution of glucocorticoid and mineralocorticoid receptor mRNA's in human hippocampus. Ann.Neurol.P49 (1991).

Hamill, R.W., Bohn, M.C., Herman, J. P. and Scheff, S. Adrenal steroids, adaptation, aging and Alzheimer's disease. Winter Conference for Brain Research. Steamboat Springs, Co. (1992).

Bohn, M.C. Expression and function of glucocorticoid and mineralocorticoid receptors in primary cultures of neurons and glia. Amer. Assoc. Anat. Mtg., New York, 1992.

Wetzel, M.D., Bohn, M.C. and Hamill, R.W. Neuronal levels of glucocorticoid receptor mRNA are increased in Alzheimer's diseased hippocampus. Mol. Biol. of Aging, Cold Spring Harbor (1992).

Bohn, M.C., Cunningham, L.A., Hansen, J.T., Short, M.P. and Breakefield, X.O. Studies on primary astrocytes carrying the β -NGF transgene. Internat. Soc. Devel. Neurosc. La Grande Motte, France (1992).

Cunningham, L.A., Short, M.P., Breakefield, X.O., Hansen, J.T. and Bohn, M.C. Genetically engineered astrocytes direct beta-nerve growth factor (β -NGF) support of adrenal grafts. Internat. Symp. on Neural Transplantation. Washington, D.C. p.173 (1992).

Engele, J. and Bohn, M.C. Establishment of mesencephalic glial cell lines as a potential source for the isolation of neurotrophic factors for dopaminergic neurons. Eur. Neurochem. Assoc. Munich (1992).

Bohn, M.C., Cunningham, L.A., Qing, L., Short, M.P. and Breakefield, X.O. Use of genetically modified glia to provide neurotrophic factors. From Transgene to Behavior, Kinross, Scotland 1992.

Cunningham, L.A., Lin, Q., Short, M.P., Breakefield, X.O. and Bohn, M.C. Intracerebral delivery of beta-nerve growth factor (β -NGF) using transgenic astrocytes. Gene Therapy Mtg., Cold Spring Harbor, NY (1992).

Cunningham, L.A., Short, M.P., Breakefield, X.O., and Bohn, M.C. Adrenal chromaffin cells and transgenic NGF-producing astrocyte co-grafts partially restore function in the unilateral 6-OHDA rat model of Parkinson's disease. Soc. Neurosc. 18 (1992).

- Bohn, M.C., Hussain, S., Giuliano, R., O'Banion, M.K. and Dean, D. Glucocorticoid receptor (GR) and mineralocorticoid receptor (MR) mRNA regulation in neurons and astrocytes. *Soc. Neurosc.* 18 (1992).
- Barker, D., Giuliano, R., Krozowski, Z. and Bohn, M.C. Confocal microscopy of glucocorticoid and mineralocorticoid receptors (GR,MR) in cultured hippocampal neurons and astrocytes. *Soc. Neurosc.* 18 (1992).
- Wetzel, D. M., Bohn, M.C. and Hamill, R.W. Glucocorticoid receptor mRNA is not decreased in Alzheimer's diseased hippocampus. *Amer. Neur. Assoc.* 1993.
- Beaman-Hall, C.M., Wainer, B.H., Eves, E.M., Rosner, M.R. and Bohn, M.C. Expression of glucocorticoid receptors (GR) in an immortalized hippocampal neuronal cell line (H19-7). *Soc. Neurosc.* 19 (1993).
- Lauder, J., Liu, J., Frim, D.M., Breakefield, X.O. and Bohn, M.C. Astrocytes infected with a retrovirus bearing a mouse β -NGF or a human prepro BDNF cDNA differentially affect survival of serotonergic (5-HT), noradrenergic (NA) and GABA-ergic (GABA) neurons. *Soc. Neurosc.* 19 (1993).
- Lin, Q., Cunningham, L.A., Breakefield, X.O., Short, M.P. and Bohn, M.C. Human astrocytes infected with a retrovirus bearing a mouse β -NGF cDNA secrete biologically active NGF. *Soc. Neurosc.* 19 (1993).
- Castillo, B. Jr., del Cerro, M., Breakefield, X.O., Frim, D.M. and Bohn, M.C. Genetically modified astrocytes carrying a human prepro BDNF cDNA promote survival of retinal ganglion cells in vitro. *Soc. Neurosc.* 19 (1993).
- Engle, J., Rieck, H. and Bohn, M.C. Identification of a glial-derived neurotrophic factor for mesencephalic dopaminergic neurons. *Soc. Neurosc.* 19 (1993).
- Bohn, M.C., Rieck, H and Engle, J. Studies of dopaminergic neurotrophic factors secreted by embryonic glia. *Nat. Parkinson's Fdn. Symp.* (1993).
- Bohn, M.C. Glucocorticoid effects on astrocytes and hippocampal neurons in vitro. *Proc. New York Acad. Sci.* (1994).
- Bohn, M.C., Lin Q., Federoff H.J. Stimulation of neurite growth rat adrenal chromaffin cells infected with a defective herpes simplex virus carrying an NGF minigene. *Gene Ther.* 1994: Suppl 1:70.
- Yoshimoto, Y., Lin, Q., Collier, T., Frim, D., Breakefield, X.O. and Bohn, M.C. Transplantation of primary astrocytes genetically altered to secrete brain-derived neurotrophic factor (BDNF) ameliorates amphetamine-induced rotational asymmetry in the partially lesioned hemiparkinsonian rat. *Intern. Neurotransplant. Mtg. Paris* (1994).
- Castillo, B.V., Jr., del Cerro, M., Frim, D.M., Barnstable, C.J. and Bohn, M.C. Retinal ganglion cell survival is promoted by genetically modified astrocytes designed to secrete BDNF. *ARVO*, 1994.
- Breakefield, X.O., Cunninghams, L.A., Castillo, B., Esteves, M. and Bohn, M. Glia as vehicles for transgene delivery. *IRST Bermuda Parapleg. Conf.* 1994.
- Engle, J., Bohn, M.C. and Rieck, H. Identification of a glial-derived protein with neurotrophic effects on dopaminergic neurons. *Glia Mtg., Leipzig*, 1994.
- Choi-Lundberg, D. and Bohn, M.C. Developmental expression of glial-derived neurotrophic factor (GDNF). *Intern. Soc. Devel. Neurosc., San Diego*, 1994.
- Yoshimoto, Y., Lin, Q., Collier, T., Frim, D., Breakefield, X.O. and Bohn, M.C. Astrocytes genetically altered to express brain-derived neurotrophic factor (BDNF) ameliorate amphetamine-induced rotation following grafting into the striatum of the partially lesioned hemiparkinsonian rat. *Amer. Soc. Neural Transpl. (Tampa)*, 1994.
- Eaton, M.J., Bohn, M.C., Globus, M.Y.-T. and Whittlemore, S.R. Neurotrophins and depolarization induce the serotonergic phenotype in immortalized raphe neurons. *Amer. Soc. Neural Transpl. (Tampa)*, 1994.

- Kaddis, F., Bohn, M.C., Uhl, G.R. and Freed, C.R. Astrocytes from fetal, neonatal and adult brain can be transfected *in vitro* to express cDNA from selected transgenes. Soc. Neurosc., Miami, 1994.
- Eaton, M.J., Bohn, M.C., Klose, K.J., Globus, M.Y.-T. and Whitemore, S.R. BDNF and depolarization differentially regulate serotonergic neuronal development in raphe neurons. Soc. Neurosc., Miami, 1994.
- Lin, Q., Yoshimoto, Y., Collier, T.J., Frim, D.M., Breakefield, X.O. and Bohn, M.C. BDNF secreting astrocytes grafted into the striatum of a partially lesioned rat model of Parkinson's disease ameliorate amphetamine-induced rotational behavior. Soc. Neurosc., Miami, 1994.
- Choi-Lundberg, D. and Bohn, M.C. Developmental expression of glial cell line-derived neurotrophic factor (GDNF) mRNA in rat CNS and periphery. Soc. Neurosc., Miami, 1994.
- Bohn, M.C., Yoshimoto, Y., Lin, Q., Collier, T., Frim, D.M., and Breakefield, X.O. Ex vivo gene therapy with brain derived neurotrophic factor (BDNF) improves behavior in a rat model of Parkinson's disease. Keystone Mtg. Breckenridge (1995).
- During, M.J., Choi-Lundberg, D., Leone, P., Lin, Q., Kaplitt, M.G., Xiao, X., Samulski, R.J., Hoffer, P., Roth, R.H., Elsworth, J.D., Sladek, J.R., Jr., O'Malley, K.L., Federoff, H.J., Redmond, D.E., Jr., and Bohn, M.C. Neuroprotection and neuroregeneration in rodent and primate models using AAV vectors expressing GDNF. Soc. Neurosc. San Diego, (1995).
- Lin, Q., Choi-Lundberg, D.L., Ravenell, J., Chang, Y.-N., Chiang, Y.L., Hay, C.M., Davidson, B. and Bohn, M.C. Adenoviral (Ad)-mediated gene transfer of GDNF and β -galactosidase (Lac Z) to the rat nigrostriatal system *in vitro* and *in vivo*. Soc. Neurosc., San Diego (1995).
- Castillo, B.V., del Cerro, M., Davidson, B.L., Federoff, H.J., Geschwind, M.D. and Bohn, M.C. Lac Z gene transfer to rat RPE cells *in vitro* using herpes and adenoviral vectors. Soc. Neurosc., San Diego (1995).
- Choi-Lundberg, D.L., Figlewicz, D.A. and Bohn, M.C. Chromosomal location and alternatively spliced forms of human glial cell line-derived neurotrophic factor (GDNF). Soc. Neurosc. San Diego (1995).
- Lin, Q., Choi-Lundberg, D.L., Chang, Y.-N., Chiang, Y.L., Hay, C.M. and Bohn, M.C. Adenoviral (Ad)-mediated gene transfer of GDNF and β -galactosidase (Lac Z) to PC12 cells and the rat nigrostriatal system *in vitro* and *in vivo*. National Parkinson's Fdn. Mtg., San Diego (1995).
- Choi-Lundberg, D.L., Lin, Q., Chang, Y.-N., Chian, Y.L., Hay, C.M. and Bohn, M.C. Adenoviral (Ad)-mediated gene transfer of glial cell line-derived neurotrophic factor (GDNF) and β -galactosidase (Lac Z) to PC12 cells and the rat nigrostriatal system *in vitro* and *in vivo*. American Soc. for Neural Transplantation, Clearwater, FL (1996).
- Castillo, B.V., del Cerro, M., Davidson, B.L., Federoff, H.J., Geschwind, M.D. and Bohn, M.C. Genetic modification of rat RPE cells using herpes and adenoviral vectors. ARVO (1996).
- Choi-Lundberg, D.L., Lin, Q., Mohajeri, H., Chang, Y.-N., Chiang, Y.L., Hay, C.M., Davidson, B.L. and Bohn, M.C. GDNF delivered via an adenoviral vector (Ad) protects rat dopaminergic (DA) neurons from degeneration. Soc. Neurosci. Washington, D.C. (1996).
- Derby, M.L., Giuliano, R., Figlewicz, D.A. and Bohn, M.C. GDNF exerts a selective trophic effect on a subpopulation of motor neurons in a mouse model of ALS. Soc. Neurosci. Washington, D.C. (1996).
- Choi-Lundberg, D.L., Lin, Q., Mohajeri, H., Chang, Y.-N., Chiang, Y.L., Hay, C.M., Davidson, B.L. and Bohn, M.C. GDNF gene therapy protects dopaminergic (DA) neurons from degeneration in a rat model of Parkinson's disease (PD). Cold Spring Harbor Symposium on Gene Therapy. Cold Spring Harbor, NY (1996).
- Choi-Lundberg, D.L., Lin, Q., Mohajeri, H., Chang, Y.-N., Chiang, Y.L., Hay, C.M., Davidson, B.L. and Bohn, M.C. A GDNF adenoviral vector protects dopaminergic (DA) neurons from 6-OHDA induced degeneration. 6th Internat. Neural Transpl. Mtg. San Diego, CA (1997).

Choi-Lundberg, D.L., Lin, Q., Bardwaj, L., Chang, Y.-N., Chiang, Y.L., Davidson, B.L. and Bohn, M.C. Striatal injection of a GDNF adenoviral vector (Ad) partially protects dopaminergic (DA) neurons from 6-OHDA. 6th Internat. Neural Transpl. Mtg. San Diego, CA (1997).

Qian, J., Lin, Q., Choi-Lundberg, D.L., Mohajeri, H., Chang, Y.-N., Chian, Y.-L., Davidson, B.L., Powers, J.M. and Bohn, M.C. Retroviral (RV) and adenoviral (Ad) transduction of glial cells with glial cell line-derived neurotrophic factor (GDNF). Ann. Mtg. Amer. Assoc. Neuropathologists, Pittsburg, PA. (1997).

Bohn, M.C., Choi-Lundberg, D.L., Lawrence, M.S., Leranath, C., Smith, J.C., Davidson, B.L., O'Banion, M.K. and Redmond, D.E., Jr. Prolonged transgene expression from an adenoviral vector injected into primate striatum. Soc. for Neuroscience, New Orleans, LA (1997).

Choi-Lundberg, D.L., Lin, Q., Bardwaj, L., Qian, J., Davidson, B.L., Schallert, T., Crippens, D., Chang, Y.-N., Chiang, Y.L. and Bohn, M.C. Behavioral and cellular protection of rat dopaminergic (DA) neurons elicited by a GDNF adenoviral vector (Ad). Soc. for Neuroscience, New Orleans, LA (1997).

Mohajeri, M.H. and Bohn, M.C. Selective decrease in alpha motoneurons innervating the medial gastrocnemius in a mouse model of amyotrophic lateral sclerosis (ALS). Soc. for Neuroscience, New Orleans, LA (1997).

Bohn, M.C. Neurotrophic factor gene therapy for neurodegenerative diseases. Gene Therapy and Molecular Biology International Conference, Crete (1997).

Bohn, M.C., D.L. Choi-Lundberg, Q Lin, YN Chang, YL Chiang, B Davidson. Adenoviral vectors for delivery of glial cell line-derived neurotrophic factor to CNS. Great Lakes Glia Conference. Traverse City, MI (1997).

Bohn, M.C. Adenovirus mediated gene transfer to the CNS. Brain Tumor Conference, Chicago, IL 1997.

Bohn, M.C. Adenoviral (Ad) mediated neurotrophic factor gene therapy in animal models of Parkinson's disease. Japanese Soc. Gene Therapy, Tokyo (1997).

M.H. Mohajeri; Y.-N. Chang; Y.L. Chiang; D.A. Figlewicz; and M.C. Bohn, Myoblast-mediated *ex vivo* gdnf gene therapy in a mouse model of amyotrophic lateral sclerosis (ALS), Amer. Soc. Neural Transpl., Clearwater, FL (1998).

M.C. Bohn, D.A. Kozlowski, M.S. Lawrence, H. G. Foellmer, B.L. Davidson, D.L. Choi-Lundberg, J. C. Smith, M.K. O'Banion, C. Leranath and D.E. Redmond, Jr. Parameters affecting adenoviral-mediated transgene expression in primate striatum, Amer. Soc. Neural Transpl., Clearwater, FL (1998).

Connor, B., Kozlowski, D.A., Bäckman, C., Schallert, T., Tillerson, J., Davidson, B.L. and Bohn, M.C. Protective role of adenoviral (Ad) vector mediated GDNF in an aged rat model of parkinson's disease. Soc. Neurosci., Los Angeles, CA (1998).

Redmond, Jr.*, D.E., Lawrence, M.S., Foellmer, H.G., Elsworth, J.D., Bohn, M.C., Davidson, B.L., and Leranath, C. Neuropathological Effects of an E1a, E3 deleted adenoviral vector injected into primate striatum: implications for clinical use. Amer. Soc. Gene Therapy, Seattle, WA (1998).

Bohn, M.C., Choi-Lundberg, D.L., Lin, Q., Davidson, B.L., Schallert, T., Crippens, D., Chang, Y.-N., and Chiang, Y.L. An adenoviral vector (Ad) harboring glial cell line-derived neurotrophic factor (GDNF) injected near the terminals of dopaminergic (DA) neurons elicits functional and cellular protection in a rat model of parkinson's disease. Amer. Soc. Gene Therapy, Seattle, WA (1998).

Bohn, M.C. GDNF gene transfer in rodent models of Parkinson's disease and amyotrophic lateral sclerosis (ALS). Fernström Symposium, Lund, Sweden (1998).

Bohn, M.C. Viral based gene delivery of neurotrophic factor to provide neuroprotection. Cellular and Molecular Treatments for Neurological Diseases. Amer. Acad. Arts and Sci., Cambridge, MA (1998).

Connor, B., Kozlowski, D.A., Schallert, T., Tillerson, J.L., Davidson, B.L. and Bohn, M.C. Differential effects of glial cell line-derived neurotrophic factor (GDNF) in the striatum and substantia nigra of the aged parkinsonian rat. *Amer. Soc. Neural Transpl., Clearwater, FL (1999).*

Kozlowski, D.A., Redmond, D.E., Jr., Connor, B., Davidson, B.L. and Bohn, M.C. Glial cell line-derived neurotrophic factor (GDNF) expression in the caudate and substantia nigra of the African green monkey following gene transfer. *Amer. Soc. Neural Transpl., Clearwater, FL (1999).*

Connor, B., Kozlowski, D.A., Schallert, T., Tillerson, J.L., Davidson, B.L. and Bohn, M.C. Adenoviral vector mediated delivery of glial cell line-derived neurotrophic factor (GDNF) provides neuroprotection in the aged parkinsonian rat. *Amer. Soc. for Gene Therapy, Washington, D.C. (1999).*

Kozlowski, D.A., Connor, B., Tillerson, J.L., Schallert, T., Davidson, B.L., Bohn, M.C. GDNF gene delivery after 6-OHDA induced degeneration rescues dopaminergic (DA) neurons, maintains striatal projections, and ameliorates behavioral deficits. *Soc. for Neurosc., Miami, FL (1999).*

Bohn, M.C., Kozlowski, D.A., George, D., Bremer, E., Davidson, B.L., and Redmond, D.E., Jr., Quantitation of glial cell line-derived neurotrophic factor (GDNF) expression in the monkey CNS after injection of an adenoviral vector (AdGDNF). *Soc. for Neurosc., Miami, FL (1999).*

Connor, B., Kozlowski, D.A., Unnerstall, J.R., Elsworth, J.D., Tillerson, J.L., Schallert, T. and Bohn, M.C. Glial cell line-derived neurotrophic factor (GDNF) gene delivery protects dopaminergic (DA) terminals from degeneration. *Amer. Soc. Neural Transpl. Repair, Clearwater, FL (1999).*

Kozlowski, D.A., George, D., Larson-DeBruzzi, B., Bremer, E., Davidson, B.L., Redmond, D.E., Jr., and Bohn, M.C. Quantitative analysis of transgene protein, mRNA and vector DNA following injection of a GDNF adenoviral vector into the monkey CNS. *Amer. Soc. Neural Transpl. Repair, Clearwater, FL (1999).*

He, X., Chen, F., Cryns, V., Anderson, R., Davidson, B.L. and Bohn, M.C. Tetracycline (tet) regulated and bidirectional vectors expressing anti-apoptotic factors and green fluorescent protein (GFP). *Amer. Soc. Neural Transpl. Repair, Clearwater, FL (1999).*

Kozlowski, D.A., Bremer, E., Larson, B., George, D., Connor, B., and Bohn, M.C. Real-time RT-PCR analysis of mRNAs for GDNF and neurturin receptors (GFRA1 & GFRA2) in striatum and substantia nigra (SN) of normal and 6-OHDA lesioned rats. *Soc. Neurosci. New Orleans, LA (2000).*

Gerin, C., Smith, A.D., Kozlowski, D.A., Zigmond, M.J. and Bohn, M.C. Dopamine release following GDNF gene delivery to the partially lesioned rat striatum. *Soc. Neurosci. New Orleans, LA (2000).*

He, X., Anderson, R., Davidson, B.L. and Bohn, M.C. Visualization and regulation of expression of the anti-apoptotic factor genes, dominant negative caspase 9 (Casp9DN), Bcl-x_L and XIAP, delivered via adenoviral vectors in rat brain. *Soc. Neurosci. New Orleans, LA (2000).*

Bohn, M.C. Gene delivery of the neurotrophic factor, GDNF, as an approach for Parkinson's disease. *Soc. for Neuroscience in Africa, Nairobi, 2001.*

Navalitloha, Y., Anderson, R., Davidson, B.L., Harrod, C., He, Xhe and Bohn, M.C. Expression of green fluorescent protein (GFP) in brain from a self-regulating adenoviral (Ad) vector is shut off by doxycycline (DOX). *Soc. Neurosc. San Diego, CA (2001).*

Smith, A.D., Kozlowski, D.A., Bohn, M.C. and Zigmond, M.J. Delivery of a GDNF gene into substantia nigra one week after 6-OHDA enhances dopamine neurotransmission of remaining terminals in striatum. *Soc. Neurosc. San Diego, CA (2001).*

Lixin, J., Rampalli, S. O'Gorman, M.R.G., Bohn, M.C., Quantitation of transgene expression from self-regulating rAAV vectors by flow cytometry. *Amer. Soc. Gene Therapy (Boston, 2002).*

Murphy, J.E., Soderstrom, K.E., Mann, S.L., Bohn, M.C., Kozlowski, D.A. Glial cell line-derived neurotrophic factor (gdnf) gene delivery decreases behavioral deficits following traumatic brain injury. Amer. Soc. Neural Transpl. & Repair (Keystone, 2002).

Rampalli, S., Jiang, L., Press, C. and Bohn, M.C. Quantitative assays of humanized green fluorescent protein (hGFP) expression from recombinant "tetracycline (tet) on" adeno-associated vectors (rAAV). Soc. Neurosci. Orlando, FL (2002).

Duan, W.-M., Halter, J., Kessler, J.A. and Bohn, M.C. Transgene expression and cell sorting of rat neural progenitor cells infected with a lentiviral vector Soc. Neurosci. Orlando, FL (2002).

Hann, H.J. and Bohn, M.C. Tyrosine hydroxylase-immunoreactive (TH-IR) neurons in the 6-OHDA-lesioned striatum of neonatal rat. Soc. Neurosci. Orlando, FL (2002).

Rufatto, A. and Bohn, M.C. Delivery of a dominant-negative caspase 9 (casp9DN) gene protects dopamine (DA) neurons against 6-OHDA. Soc. Neurosci. Orlando, FL (2002).

Lixin, J., Rampalli, S. George, D., Press, C., Bremer, E., O'Gorman, M.R.G., and Bohn, M.C., Tight regulation from a rAAV vector as demonstrated by flow cytometry and quantitative RT-PCR. Soc. Neurosci. Orlando, FL (2002).

Jennifer E. Murphy J.E. Sarah L. Mann, Katherine E. Soderstrom, Martha C. Bohn, & Dorothy A. Kozlowski Gene delivery of glial cell line-derived neurotrophic factor (GDNF) prior to traumatic brain injury: differential effects on anatomy and behavior. Neurotrauma Mtg. (2002).

Martha C. Bohn, Jiang Lixin and Srinivas Rampalli Tet-regulatable rAAV vectors for neurotrophic factor gene delivery to the CNS. Amer. Soc. Gene Therapy, Washington, D.C. (2003).

Rampalli, S., Jiang, L., Barlow, S. and Bohn, M.C. rAAV-2 vectors containing tet-on elements display tight regulation as assessed by flow cytometry and real-time RT-PCR. Amer. Soc. Gene Therapy, Washington D.C. (2003).

L. Jiang*, S. Rampalli, C. Press, D. George, E.G. Bremer, M.R.G. O'Gorman, and M.C. Bohn Tight regulation from rAAV vectors as demonstrated by flow cytometry and quantitative RT-PCR. Amer. Soc. Gene Therapy, Washington, D.C. (2003)

Bohn, M.C., Ebert, A., Jiang, L., George, D., Bremer, E.G. effects of adenoviral vector mediated gene delivery of glial cell line-derived neurotrophic factor (GDNF) on gene expression profiles in substantia nigra (sn) of rats lesioned with 6-OHDA. Soc. Neuroscience, New Orleans (2003).

L. Jiang*, S. Rampalli, C. Press, D. George, E.G. Bremer, M.R.G. O'Gorman, and M.C. Bohn. Self regulating rAAV vectors using a tetracycline (Tet)-off promoter are tightly regulated in vitro and in vivo. Soc. Neuroscience, New Orleans (2003).

S. Rampalli, L. Jiang, S. Barlow & M.C. Bohn. Tight regulation of AADC and GFP expression from AAV vectors harboring a tetracycline (tet)-on regulated promoter. Soc. Neuroscience, New Orleans (2003).

J.W. Yates*, S.D. Ugarte, and M.C. Bohn. Induction of chop 10 (gadd 153) in differentiated dopaminergic (DA) MN9D cells following treatment with the ER stressor tunicamycin. Soc. Neuroscience, New Orleans (2003).

M. K. Sapru, J. Yates and M.C. Bohn. Small interfering RNA (siRNA)-mediated silencing of α -synuclein gene expression. Soc. Neuroscience, New Orleans (2003).

Ebert, A. and Bohn, M.C. Adenoviral vector delivery of dominant-negative caspase9 (casp9dn) gene or x-chromosome linked inhibitor of apoptosis protein (xiap) gene each protect MN9D cells from 6-OHDA induced apoptosis. Soc. Neuroscience, New Orleans (2003).

- M.C. Bohn, B.L. Davidson, K. Bankiewicz and X. Breakefield. Gene therapy in the CNS: novel vectors for imaging and regulating gene expression. Winter Conference for Brain Research, Copper Mtn, CO (2004).
- Duan, Wei-Ming and Bohn, M.C. Neural progenitor cells prepared from EGFP transgenic rats migrate extensively in rat striatum. International Society for Stem Cell Research, Boston MA (2004).
- Duan, W.M. and Bohn, M.C. The potential of neural progenitor cells as a gene delivery vehicle for brain: a study using EGFP transgenic rats. Soc. Neuroscience, San Diego (2004).
- Ebert, A.D.; Hann, H.J. and Bohn, M.C. 6-Hydroxydopamine (6-OHDA) induced death of dopaminergic cells involves caspase activation in vitro, but not in vivo. Soc. Neuroscience, San Diego (2004).
- Rampalli, S.; West, N.C.; Jiang, L. and Bohn, M.C. Expression of aromatic amino acid dopa decarboxylase (AADC) from a self-regulatable rAAV2 vector is effectively regulated in rat brain. Soc. Neuroscience, San Diego (2004).
- Sapru, M.K. and Bohn, M.C. Vector-based RNA interference mediates highly potent silencing of human α -synuclein gene expression. Soc. Neuroscience, San Diego (2004).
- Ugarte, S.D. and Bohn, M.C. Embryonic astrocyte cultures from rat ventral mesencephalon and lateral ganglionic eminence have unique morphology and differential survival effects on dopamine neuronal survival. Soc. Neuroscience, San Diego (2004).
- Virag, T.; Ebert, A.; Rick, C.; Bohn, M.C. and Surmeier, D.J. Electrophysiological characterization of undifferentiated and differentiated MN9D cells. Soc. Neuroscience, San Diego (2004).
- Yates, J.W. and Bohn, M.C. Overexpression of the ER stress-induced transcription factor CHOP in dopaminergic (DA) MN9D cells increases susceptibility to toxic insults. Soc. Neuroscience, San Diego (2004).
- DeGeorge M.L., Soderstrom, K.E., Werner, E.W., Bohn, M.C., and Kozlowski, D.A. GDNF Gene Therapy Together with Cerebral Blood Flow Augmentation Reduces Contusion Size but not Behavioral Deficits Following CCI. Neurotrauma Mtg. San Diego (2004).
- Sapru, M.K., Yates, J.W. and Bohn, M.C. Silencing of endogenous human α -synuclein by a lentiviral vector expressing short hairpin RNA. Amer. Soc. Gene Therapy Annual Meeting, St. Louis (2005).
- Sapru, M.K., Yates, J.W. and Bohn, M.C. In vivo gene silencing of human α -synuclein in rat striatum by lentiviral-mediated RNA interference. Society for Neuroscience Annual Meeting, San Diego (2005).
- Bohn, M.C., Farrer, M.J., Rochet, J.D., Richfield, E., Sapru, M.K. The Alphas of Alpha-Synuclein in Neurodegeneration. Winter Conference for Brain Research, Steamboat Springs, CO (2006).
- Bohn, M.C., Ebert A.D., Yates, J.W. and Sapru, M. K. Gene therapy approaches to protect DA neurons against cell death. World Parkinson Congress, Washington D.C. (2006).
- West, N.C. and Bohn, M.C. AAV Delivery of Human GDNF for Treatment of Parkinson's Disease (PD). World Parkinson Congress, Washington D.C. (2006).
- Yates, J.W., Sapru, M.K. and Bohn, M.C. The ER stress-induced transcription factor CHOP alters susceptibility of dopaminergic (DA) MN9D cells to toxic insult. World Parkinson Congress, Washington D.C. (2006).
- Chang, Q. Virag, T. Padidam, M., Vanin, E.F., Cress, D.E. and Bohn, M.C. Ecdysone receptor regulated gene therapy vectors harboring human aromatic amino acid decarboxylase (hAADC) for Parkinson's disease. Society for Neuroscience, Atlanta (2006).

Virag, T., Chang, Q., Rampalli, S., Vanin, E.F. and Bohn, M.C. Development of a tetracycline-regulated adeno-associated viral vector expressing hAADC for the treatment of Parkinson's disease. Society for Neuroscience, Atlanta (2006).

Bolliet, C., Bohn, MC, and Spector, M. Non-Viral Transfer of GDNF Plasmid DNA to Mesenchymal Stem Cells via Collagen Scaffolds. Tissue Engineering Conference, Toronto (2007).

M. K. Sapru, C. E. Khodr, X. Wang, N. West, J. Xie, D. George, and M.C. Bohn. Adeno-Associated Virus (AAV)-Mediated Gene Silencing of Ectopically Expressed Human α -Synuclein (SNCA) in Rat Substantia Nigra. Society for Neuroscience Annual Meeting, San Diego (2007).

Aleksandra Glavaski-Joksimovic, Tamas Virag, Michael McGrogan, Millicent Dugich-Djordjevic and Martha C. Bohn. Transplantation of Genetically Modified Human Bone Marrow-Derived Mesenchymal Stem Cells Rejuvenates Dopaminergic Fibers in a Rat Model of Parkinson's Disease. Society for Neuroscience Annual Meeting, San Diego (2007).

Bellini MJ, Morel GR, Hereñú CB, Rodríguez SS, Bohn MC, Goya RG. Efficacy of Intrahypothalamic Glial Cell Line Derived Neurotrophic Factor Gene Therapy to Reverse the Chronic Hyperprolactinemia of Senile Female Rats. Argentinian Society of Clinical and Experimental Research. Mar del Plata, Argentina (2007).

Chang Q, Virag T, Rampalli S, Vanin E, Bohn MC. Molecular, Cellular and Behavioral Characterization of a Tetracycline (tet)-Regulated rAAV Vector for Human Aromatic Amino Acid Decarboxylase (hAADC) in a Rat Model of Parkinson's Disease (PD). American Society of Gene Therapy, Boston (2008).

Khodr CE, Sapru MK, Han Y, West NC, George D, Wang XS, Bohn MC. Alpha-synuclein gene silencing by adeno-associated viral vector-mediated delivery of a specific shRNA in the substantia nigra results in reduced tyrosine hydroxylase immunoreactivity. American Society of Gene Therapy, Boston (2008).

Sapru MK, Yates JW, Pedapati J, Wang X, Maguire-Zeiss KA, Federoff HJ, Bohn MC. Lentiviral RNA Interference of CHOP Protects Dopaminergic Cells Against Human Alpha-Synuclein-Induced Cell Death. American Society of Gene Therapy, Boston (2008).

Han Y, Chang Q, Virag T, Castro MG, Bohn MC. Lack of Humoral Immune Response to the Tetracycline (tet) Activator (tTA) Detected in Sera of Rats That Received an Intracranial Injection of rAAV Harboring Human Amino-Acid Decarboxylase (hAADC) Under Control of a Tet-Regulated Promoter. American Society of Gene Therapy, Boston (2008).

Goya RG, Morel GR, Sosa YE, Bellini M, Herenu CB, Bohn MC. Glial cell line-derived neurotrophic factor (GDNF) gene therapy restores dopaminergic neuron function in the hypothalamus of senile female rats. Society for Neuroscience Annual Meeting, Washington, DC (2008).

Wu HC, Bohn MC, and Spector M. Novel magnetic-hydroxyapatite nanoparticles for non-viral gene delivery. TERMIS-NA, San Diego (2008).

Glavaski-Joksimovic, A.*, Virag, T.*, Mangatu, T., McGrogan, Wang, XS and Bohn, MC. Delivery of GDNF by genetically modified human bone marrow-derived mesenchymal stem cells (hMSC) into rat striatum after a progressive 6-OHDA lesion rejuvenates damaged dopaminergic (DA) neurons. Society for Neuroscience Annual Meeting, Washington, DC (2008).

Glavaski-Joksimovic, A, Rafalovich, I, Dezawa, D, Wang, XS and Bohn, MC. Neurospheres derived from genetically modified rat mesenchymal stem cells. Society for Neuroscience Annual Meeting Chicago, IL (2009).

Khodr, CE, Sapru, J, Pedapati, J, West, NC, Han, Y, George, D, Wang, XS, Bohn, MC. Silencing of ectopically expressed human SNCA in rat substantia nigra reverses behavioral deficit in forelimb use. Society for Neuroscience Annual Meeting Chicago, IL (2009).

Han, Y, Khodr, CE, Pedapati, J, Wang, XS, and Bohn, MC. MicroRNA embedded siRNA Pol II gene silencing vectors are less toxic than Pol III shRNA AAV vectors in dopaminergic (DA) cells. Society for Neuroscience Annual Meeting Chicago, IL (2009).

Glavaski-Joksimovic, A, Dezawa, M, Wang, XS, and Bohn, MC Transplantation of rat bone marrow derived neuroprogenitor-like cells in a rat model of Parkinson's disease. International Society for Stem Cell Research, San Francisco (2010).

Khodr, C, Han, Ye and Bohn, MC Compensatory response of nigrostriatal projections to alpha-synuclein gene silencing in a rat model of Parkinson's disease (PD). American Society for Neural Transplantation and Repair, Clearwater, FL (2010).

Favory, A., Glavaski-Joksimovic, A.² Bohn, M.C., & Kozlowski, D.A. Transplantation of neurospheres derived from genetically modified adult bone marrow stromal cells following a controlled cortical impact (CCI) enhances behavioral recovery. National Neurotrauma Annual Symposium, Las Vegas, (2010).

Merchenthaler, I., Rotoli, G., Grignol, G., Bohn, M.C. and Dudas, D. Close, morphological communication between catecholaminergic and peptidergic systems in the human hypothalamus. Society for Neuroscience Annual Meeting, San Diego (2010).

Glavaski-Joksimovic A., Rafalovich I., Dezawa M., Wang X.S., Bohn M.C.: Neurospheres derived from genetically modified mesenchymal stem cells. Neuroscience 39th Annual Meeting, Chicago, IL, October 2009. Abstract #731.10.

Rodríguez SS, Reggiani PC, Schwerdt JI, Bohn MC, Rimoldi OJ, Goya RG. Control of red fluorescent protein expression by tetracycline in an adenoviral bivectorial system. Sociedad Argentina de Investigacion Clinica, Mar del Plata, Argentina (2010).

Bohn, MC. Gene Therapy for Parkinson's disease. Sociedad Argentina de Investigacion Clinica, Mar del Plata, Argentina (2010).

Clark, D, Seidl, S, Glavaski-Joksimovic, A, Bohn, MC and Kozlowski, DA Long-term behavioral effects of transplanted neurospheres derived from genetically modified adult bone marrow stromal cells following controlled cortical impact (CCI). National Neurotrauma Mtg, Fort Lauderdale, FL (2011).