

5/13/13

CURRICULUM VITAE

NAME: Adrian R. Morrison, Jr.
BIRTHDATE: November 5, 1935
BIRTHPLACE: Philadelphia, Pennsylvania
MARITAL STATUS: Married, 5 children, 8 grand children

EDUCATION:

1. Franklin and Marshall College, Lancaster, Pennsylvania, 1953-1956.
2. New York State College of Veterinary Medicine, Cornell University, Ithaca, New York 1956-1960.
3. Graduate School, Cornell University, Summer, 1959, 1960-1961.
4. Graduate School of Arts and Sciences, University of Pennsylvania, Philadelphia, Pennsylvania, 1961-1964.
5. Postdoctoral training, Institute of Physiology, University of Pisa, Pisa, Italy, 1964-1965.
6. Postdoctoral training, Department of Anatomy, School of Veterinary Medicine, University of Pennsylvania, 1965-1966.

DEGREES:

1. B.A., Franklin and Marshall College, 1957.
2. D.V.M., Cornell University, June, 1960.
3. M.S., Cornell University, February, 1962.
4. Ph.D., University of Pennsylvania, June, 1964.

HONORS:

1. Phi Beta Kappa, Franklin and Marshall College, 1956.
2. Phi Zeta, New York State College of Veterinary Medicine, 1960.
3. John Simon Guggenheim Fellowship, 1984-1985.
4. MERIT Award, National Institute of Mental Health, 1987-1998.
5. American Association for the Advancement of Science Scientific Freedom and Responsibility Award, 1991.
6. Secretary-General, World Federation of Sleep Research Societies, 1989-2001.
7. President, World Federation of Sleep Research Societies, 2001– 2003.
8. President, Sleep Research Society, 1995.
9. Burroughs-Wellcome Foundation Visiting Professorship, Royal Society of Medicine, London, 1991.

10. Director's Award, David Mahoney Institute of Neurological Sciences, 1990.
11. Distinguished Service Award, Society for Neuroscience, 1990.
12. Incurably Ill for Animal Research's Rick Simpson Memorial Award, 1990.
13. Distinguished Scientist Award, Sleep Research Society, 2002.
14. Significant Early Contributor to Modern Sleep Research, Sleep Research Society, 2003.
15. Adrian R. Morrison Lectureship, Center for Sleep and Circadian Neurobiology, 2013-.

POSITIONS:

Academic

1. Professor of Anatomy, Laboratories of Anatomy, Department of Animal Biology, School of Veterinary Medicine, July, 1974-1995.(Head, 1974- 1980;1987-1991).
2. Professor of Behavioral Neuroscience, Laboratories of Anatomy, Department of Animal Biology, School of Veterinary Medicine, 1995 -2004; Emeritus, 2004.
3. Professor of Behavioral Neuroscience in Psychiatry, Department of Psychiatry, School of Medicine (Secondary appointment),1989 - 2004 .
4. Adjunct Professor of Psychiatry and Behavioral Sciences, The George Washington University School of Medicine and Health Sciences, 1996 - 2002.
5. Senior, Research Fellow, Center on Neuroscience, Medical Progress and Society, George Washington University and Medical Center, Washington, DC, 1994 - 2002. Consultant, 2002 - 2006.
6. Member of the Institute of Neurological Sciences, University of Pennsylvania 1967 – 2004 (Executive Comm. 1973 - 1991).
7. Executive Board, Human Clinical Sleep Research Center 1985 - 1988.
8. Associate Director, NIHBL Specialized Center of Research on Basic Mechanisms of Cardiopulmonary Disorders during Sleep, 1988 -1998.
9. Executive Committee and Advisory Board, Center for Sleep and Respiratory Neurobiology, 1990 - 1996.
10. Executive Committee, Penn Sleep Academic Award (NIH Program), 1997 - 1999.
11. Chairman, Advisory Board of the Center for Sleep and Circadian Neurobiology, 1997-1998.
12. Collaborator, Unit for Experimental Psychiatry, The Institute of Pennsylvania Hospital, 1987-1996.
13. Graduate Group in Anatomy, 1967-1995; Graduate Group in Comparative Medical Sciences, 1975 -1996; Graduate Group in Neuroscience, 1983 – 2004..

Government

1. Director, Program for Animal Research Issues, Alcohol, Drug Abuse and Mental Health Administration; US Public Health Service, 1991 - 1992.

2. Director, Program for Animal Research Issues, National Institute of Mental Health, National Institutes of Health, 1992 - 1994.

Other

1. Media Veterinary Hospital, Media, PA 1961-1963(part- time).
2. Visiting Investigator, Nencki Institute of Experimental Biology, Polish Academy of Sciences, Warsaw, 1972-1973; May and June, 1974.
3. Visiting Professor, Universidad Nacional Autonoma, Mexico City, Mexico, July, 1979.

LECTURESHIPS:

1. Tarbox Distinguished Neuroscientist Lecture, Texas Tech University, 1985.
2. Grass Lecture, Chicago Neuroscience Society, 1990.
3. Southern Sleep Society Lecture, Snowbird, Utah, 1991.
4. Rudolph Kaelbling Memorial Lecture, Columbus, Ohio, 1991.
5. Keynote Lecture, Hahnemann Medical School Neuroscience Retreat, 1991.
6. Keynote Address, North Carolina Association for Biomedical Research, Chapel Hill, North Carolina, 1992.
7. Inaugural Lecture, National Animal Interest Alliance, Portland, Oregon, 1992
8. Polcyn Lecture, Franklin and Marshall College, Lancaster,PA, 1993.
9. Fourth Walter C. Randall Memorial Lecture in Biomedical Ethics, American Physiological Society Experimental Biology Annual Meeting, New Orleans, LA, 2002.
10. Invited lecture, Association for Research in Otolaryngology, St. Petersburg,FL, 2002.
11. Distinguished Scientist Lecture, Associated Professional Sleep Societies Annual Meeting, Seattle, 2002.
12. Invited lecture, Understanding the nature of rapid eye movement sleep. Congress of the Federation of Latin American Sleep Societies, Mexico City, 2003.
13. Keynote Address, Annual Meeting of Partners in Research, London, Ontario, 2004.
14. Keynote Address, Scientists Center for Animal Welfare, IACUC Advanced, Cornell, 2006
15. Dedication of a laboratory animal memorial park, Flagstaff, AZ, 2007.

SCHOLARSHIPS:

1. Franklin and Marshall District Scholarship, 1953-1956.
2. Valentine Mott Knapp Scholarship, 1959-1960, New York State College of Veterinary Medicine.
3. Postdoctoral Traineeship, Institute of Neurological Sciences. University of Pennsylvania,1961-1964, 1965-1966.
4. Special Fellowship of the National Institutes of Health, 1964-1965.
5. Bing Travel Award, National Academy of Sciences, 1972-1973.

LICENSES:

1. Pennsylvania veterinary license, retired.
2. New York and Ohio veterinary licenses, inactive.

GRANTS;

1. MH072897 Amygdalar Modulation of Fear-Conditioned Changes in REM Sleep 9/1/05 – 8/31/11

ORGANIZATIONS:

1. Sleep Research Society, (Member of Executive Committee and Membership Chairman, 1978-1981; President, 1995; Chairman, Awards Committee, 1998-2000; Chairman, Committee on Animal Research Ethics, 1999 - 2002).
2. Society for Neuroscience (Committee on Animals in Research, 1981-1987, Chairman, 1987-1990; Membership Committee, 1983-1986; Governmental and Public Affairs Committee, 1988-1990); Translational Research Committee, 2003-; Member 1973-.
3. International Brain Research Organization (Committee on Animal Research, 1989 – 1996, Chairman).
5. Philadelphia Society for Promoting Agriculture.
6. American Physiological Society (Representative to the Ethics Committee of the International Union of the Physiological Sciences, 2003-).
7. American Psychological Society

TEACHING EXPERIENCE:

1. Cornell University - Gross Anatomy, Embryology, Histology, Neuroanatomy, (1960-1961).
2. University of Pennsylvania School of Medicine -Histology (1961), Neuroanatomy (1962, 1963), Gross Human Anatomy (1966).
3. University of Pennsylvania School of Veterinary Medicine - Gross Anatomy and Neuroanatomy, (1966-present), Gross Anatomy core course organizer and administrator (1970-1975; 1985 - 1991).
4. Veterinary and undergraduate students have presented papers at seven national and international meetings.
5. Veterinary research students have won two Sigma XI Research Prizes and four first prizes for papers presented at Phi Zeta Day.
6. Member of Ph.D. examination committees in Anatomy, Biology, Physiology, and Psychology.
7. Organized Institute of Neurological Sciences seminar program 1974-1975.
8. Organizer of course on Sleep and Its Disorders, Veterinary School elective course.
9. Lecture on ethics of animal use in biomedical research by invitation at University of

Pennsylvania and Princeton University - February, 2000.

GRADUATE STUDENTS:

Kirsten Henley, Ph.D. in Psychology, 1971; thesis title - Pontine lesions: suppression of paradoxical sleep or suppression of atonia? - currently has a medical practice in Sweden.

Jon Richter, D.M.D. - Ph.D. in Anatomy, 1977; thesis title -Intraoral representation in primary somatosensory neocortex of the cat. - currently has a dental practice.

Robert M. Bowker, V.M.D. - Ph.D. in Anatomy, 1978; thesis title -The biological significance of the ponto-geniculo-occipital wave and the eye movement potential in the cat. - currently Professor of Anatomy, Department of Anatomy, Michigan State University.

Joan C. Hendricks, V.M.D. - Ph.D. in Anatomy, 1980; thesis title - Studies of the effects of small pontine lesions producing paradoxical sleep without atonia in freely moving cats. - currently - Henry and Corrine R. Bower Chair in Small Animal Medicine and Professor of Medicine, Dept. of Clinical Studies, School of Veterinary Medicine, University of Pennsylvania.

Laura S. Kaufman - Ph.D. in Anatomy, 1982; thesis title - Ponto-geniculo-occipital (PGO) spikes in rats: an electrophysiological sign of state-dependent sensory responsiveness. - currently – Consultant in Toxicology.

Peter B. Reiner, V.M.D. - Ph.D. in Anatomy, 1984; thesis title - Behavioral neurophysiology of the feline locus coeruleus complex. -currently - Louise Brown Professor of Neuroscience and M.R.C. Scientist, Department of Psychiatry, University of British Columbia, Vancouver, Canada.

Ceile E. Washington-Hedberg, D.V.M. - Ph.D., 1992; thesis title - Aggressive behavior in cats during different behavioral states following pontine tegmental lesions. - currently - Global Project Director, Reproductive Medicine Franchise, R.W. Johnson Pharmaceutical Research Institute, Raritan, NJ.

POSTDOCS:

Jolanta Zagrodzka, Ph.D. - Associate Professor, Nencki Institute of Experimental Biology, Warsaw, Poland.

Richard J. Ross, M.D., Ph.D. - Associate Professor, Department of Psychiatry, School of Medicine, University of Pennsylvania.

Lewis R. Kline, M.D., Ph.D. - Director, Sleep Disorder Center, West Penn Hospital,

Pittsburgh, PA.

William A. Ball, M.D., Ph.D. - Associate Director in Neuroscience, Merck and Co., Inc., Blue Bell, PA.

Larry D. Sanford, Ph.D. - Associate Professor, Department of Pathology and Anatomy, Eastern Virginia Medical College, Norfolk, VA. ***Young Investigator Award, Sleep Research Society, 1993.**

Richard L. Horner, Ph.D. - 1995-1996 – Assistant Professor of Physiology, University of Toronto, Toronto, Ontario, Canada. ***Young Investigator Award, Sleep Research Society, 1998.**

Tom deBoer, Ph.D. – 1996-1997 – Department of Physiology, Leiden University Medical Centre, University of Leiden, Leiden, The Netherlands.

Amy J. Silvestri, Ph.D. – 1997-2000 Assistant Professor of Psychology, Seton Hall University, South Orange, NJ.

Sushil K. Jha, Ph.D. -- 2001 – 2003. Assistant Professor, Nehru University, Delhi, India. ***Sleep Research Society's Merit Based Travel Award, 2004.**

Aaron C. Pawlyk, Ph.D. – 2003-2004. Scientist at Merck, Inc.

Vibha Madan, Ph.D. – 2005 - 2007

ADVISORY BOARDS:

Past

1. Board of Directors, Incurably Ill for Animal Research.
2. Board of Directors, National Coalition for Research in Neurological and Communicative Disorders.
3. Sleep Research Advisory Committee to funding agencies, Sleep Research Society.
4. Scientific Advisory Council, Intra-Science Research Foundation, Los Angeles, CA.
5. National Research Review Board, Eastern Pennsylvania Psychiatric Institute, Medical College of Pennsylvania, Philadelphia, Pennsylvania.
6. Board of Directors, Pennsylvania Society for Biomedical Research (Vice-President, 2001 - 2003).
7. Board of Directors, Americans for Medical Progress, founding member.
8. Board of Trustees, Association for the Assessment and Accreditation of Laboratory Animal

- Care, International.
9. Advisory Council and Past-Chair, Benjamin Rush Society, Franklin and Marshall College.
 10. Board of Directors and Past President, National Animal Interest Alliance.
 11. External Scientific Advisory Board for the Air Force Office of Scientific Research
PRET Center on Countermeasures for Jet Lag and Sleep Deprivation.
 12. Chair, Sleep Home pages Board of Governors
 13. Chair, IBRO Animal Research Committee
 14. Ethics Committee, IUPS
 15. Chair, Committee on Animals in Research, Society for Neuroscience

EDITORIAL BOARDS (Past)

1. Sleep, Book Editor
2. Consultant to the Editor, Kansas Biology Teacher.
3. Associate, Behavioral and Brain Sciences.
4. Editor, Section on Neurophysiology, Sleep Multimedia.Journal of Sleep Research
5. Acta Neurobiologiae Experimentalis
6. Sleep Reviews
7. Whitman Journal of Psychology (a high- school, science-education contribution).
8. Neuropsychopharmacology
9. Section Editor, Sleep Research Online
10. Journal of Sleep Research

COMMITTEES:

University (Past)

1. University Council, Veterinary School representative.
2. Executive Committee, Institute of Neurological Sciences.
3. Louis B. Flexner Lectureship Committee, Institute of Neurological Sciences.
4. Planning Committee for Biology-Institute of Neurological Sciences Building.
5. Organ and Systems Biology Subcommittee for planning Health Institute.
6. Organ and Systems Biology Curriculum Evaluation Subcommittee for Faculty of Arts and Sciences.
7. Advisory Committee of the Medical Scientist Training Program.
8. Selection Committee for Graduate Training Program in Integrative and Theoretical Biology.
9. Advisory Committee of University Scholars Program.
10. Co-Director (Basic Science), NIMH Training Program, Veterinary Medicine and Human Behavior.
11. Committee on Instruction, Faculty of Arts and Sciences.
12. Faculty Committee for major in Biological Bases of Behavior.
13. Search Committee for Director of the David Mahoney Institute of Neurological Sciences.

14. Executive Committee of Faculty Senate.
15. Executive Committee of Faculty of Arts and Sciences.
16. Organizing Committee for Institute of Neurological Sciences Symposium on Changing Concepts in the Nervous System.
17. Organizing Committee, Graduate Group of Neuroscience.
18. Committee on Individualized Majors of FAS.
19. Search Committee for New Dean of School of Veterinary Medicine.
20. Academic Review Committee of Neuroscience Graduate Group, Chairman.
21. Advisory Task Force on Chronobiology, Department of Psychiatry.
22. Task Force on Effects of Uncapping Retirement Age.
23. Animal Awareness Committee.
24. Faculty Senate Committee on Administration.
25. Faculty Senate Grievance Commission.
26. Provost's Council on International Programs.
27. Admissions Committee of Neuroscience Graduate Group
28. Facilitator, Ethics training for Biomedical Graduate Groups' trainees
29. Search Committee for the Chair, Department of Psychiatry, School of Medicine.
30. Ad hoc Member, Committee on Appointments and Promotions, School of Medicine for Neurology, Ophthalmology, Pharmacology, Psychiatry and Radiology
31. Search Committee, Chair of Psychiatry
32. Penn Advisory Committee on Social Responsibility
33. Institutional Animal Care and Use Committee

Veterinary School (Past)

1. Admissions Committee
2. Faculty Committee for Student Research, Member and Chairman
3. Committee on Appointments and Promotions
4. Committee on Academic Status of Students
5. Committee on Electives for Core-Elective Curriculum
6. Faculty Advisor, Student Chapter of AVMA
7. President, Beta Chapter of Phi Zeta
8. Advisory Committee of the Veterinary Medical Scientist Training Program
9. Committee on Committees
10. Committee on Academic Freedom and Responsibilities
11. Small Animal Hospital Board
12. Ad Hoc Committee to Examine the Governance of the Department of Clinical Studies
13. Curriculum Review Committee; Chairman, Animal Biology Subcommittee
14. Ad Hoc Committee on Bioethics
15. Committee on International Dimensions of the School of Veterinary Medicine
16. Advisory Board, Center for the Interactions of Animals and Society
17. Pennsylvania Farm Show Committee
18. Search Committee for Position in Anesthesiology

INVITED SEMINARS:

1. Drexel University.
2. Case-Western Reserve University.
3. George Washington University.
4. Harvard University.
5. Iowa State University.
6. Medical Faculty of Rotterdam, Holland.
7. Nencki Institute of Experimental Biology, Warsaw, Poland.
8. Ohio State University.
9. Thomas Jefferson University.
10. University of Bologna, Italy.
11. University of Delaware.
12. Washington State University.
13. Cornell University.
14. Monell Chemical Senses Center, University of Pennsylvania.
15. Medical College of Pennsylvania.
16. Universidad Nacional Autonoma, Mexico.
17. Franklin and Marshall College.
18. Ohio State University.
19. Washington University.
20. Texas Tech University.
21. University of Bologna, Italy.
22. Catholic University, Nijmegen, The Netherlands.
23. Netherlands Institute for Brain Research, Amsterdam.
24. Oxford University, England.
25. Asahikawa Medical College, Japan.
26. University of Parma, Italy.
27. University of Verona, Italy.
28. University of Medicine and Dentistry of New Jersey.
29. Princeton University.
30. Temple University.
31. University of Florida.
32. Medical College of Virginia.
33. Wright State University.
34. Louisiana State University.
35. Stockton College of New Jersey.
36. University of Milan.
37. Vanderbilt University.
38. Chautauqua Institute
39. Amherst College
40. Jos University Teaching Hospital, Jos, Nigeria

41. Wake Forest School of Medicine
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SYMPOSIA:

1. Somatic Sensory Functions, Hershey Medical School, 1970.
2. The Nature of Sleep, University of Wurzburg, Germany, 1971.
3. Corticothalamic Projections and Sensorimotor Activities, Parkinson Foundation, New York, 1971.
4. Workshop on Taste, 1972, Society for Neuroscience.
5. Vth Symposium on Olfaction and Taste, Satellite Symposium of the 1974 International Physiological Congress, Melbourne, Australia.
6. The Significance of the PGO Wave, at the European Sleep Research Society Meeting, Montpellier, France 1976.
7. Neurophysiological Mechanisms of Locomotion, Satellite Symposium of the 1977 International Physiological Congress, Paris, France.
8. Integration and Modulation in the Brainstem Core, Neuroscience Research Program, M.I.T., 1977.
9. Workshop on "Sleep Research, Where Do We Go From Here?" Winter Conference on Brain Research, Colorado, 1978.
10. Pontine Function during Sleep and Wakefulness, Annual Meeting of Association for the Psychophysiological Study of Sleep, Palo Alto, 1978.
11. Organizer, Workshop on "Motor Control Exercised by the Brainstem," Winter Conference on Brain Research, Idaho, 1979.
12. Symposium celebrating the 60th Anniversary of the Nencki Institute of Experimental Biology and the 50th Anniversary of the publication of Professor Jerzy Konorski's first paper, Warsaw, Poland, 1979.
13. Keynote speaker for section on "Central Activity States", Symposium on "Neural Basis of Behavior", Alfred Dupont Institute, Wilmington, Delaware, 1979.
14. Sleep Related Disorders and Their Impact on the Family. New Jersey College of Medicine and Dentistry, Newark, New Jersey, 1979.
15. Organizer, Symposium on "Phasic Events During Sleep", APSS meeting, Mexico, 1980.
16. Changing Concepts in the Nervous System, University of Pennsylvania, 1980, one of the co-organizers.
17. Panel on "Cataplexy," Winter Conference on Brain Research, Colorado, 1980.
18. New Perspectives in Sleep Research, sponsored by Intra-Science Research Foundation, Santa Monica, CA, 1981.
19. Search Activity, Motivation, Sleep, sponsored by the Azerbaijan Academy of Sciences, Baku, USSR, 1981. Trip cancelled due to visa problems.
20. Brain Stem Mechanisms of Sleep: A New Look at Old Problems, International Congress of Psychophysiology, Montreal, 1982.
21. Brain Mechanisms of Sleep, a satellite symposium of the 4th International Sleep Research Congress, Bologna, Italy, 1983, one of the co-organizers.

22. The Sudden Infant Death Syndrome, sponsored by Intra-Science Research Foundation, Santa Monica, CA, 1984.
23. Sleep Mechanisms, Annual Neuroscience Symposium, Washington University, 1984.
24. Neuronal and Endogenous Chemical Control Mechanisms on Emotional Behavior, Fukuoka, Japan, 1985.
25. Neurophysiology of Sleep: Past, Present and Future, 25th Anniversary Symposium of the Sleep Research Society, Seattle, 1985.
26. Thermoregulation during Sleep, European Sleep Research Society meeting, Szeged, Hungary, 1986.
27. Cellular Mechanisms of Neural Integration, Workshop sponsored by IBRO and NSF, Montevideo, Uruguay, 1986.
28. Sleep and Thermoregulation, European Sleep Research Society, Jerusalem, Israel, 1988.
29. REM Movement Disorders, Sleep Research Society Annual Meeting, San Diego, 1988.
30. Neural Mechanisms of Apnea - A Point of View, Sleep Research Society Annual Meeting, Washington, DC, 1989.
31. Organizer, The Importance of Animals for Basic Biomedical Research. AAAS Annual Meeting, New Orleans, 1990.
32. Workshop on the Use of Animals in Research, IBRO Third World Conference of Neuroscience, Montreal, 1991.
33. Regulation of the "Alert" Brain in Rapid Eye Movement Sleep. Annual Meeting of the Association of Veterinary Teachers and Research Workers, Scarborough, UK, 1992.
34. Sleep and Rest in Man and Animals, Section of Comparative Medicine, Royal Society of Medicine, London, UK, 1992.
35. Mechanisms Underlying Oneiric Behaviors Released in REM Sleep by Pontine Lesions in Cats, 11th European Congress on Sleep Research Symposium "A Critical Review of Dream Research Methodology," Helsinki, Finland, 1992.
36. American Association for the Advancement of Science, "Scientific Freedom and Responsibility: A Retrospective." Boston, 1993.
37. Focus Group on Serotonin and Sleep, International Conference on the Cellular Consequences of Sleep, World Federation of Sleep Research Societies, Maui, Hawaii, 1993.
38. Alert Wakefulness and REM Sleep: Variations on the Same Theme, 9th Annual Meeting of the APSS, Nashville, TN, 1995, Organizer.
39. Focus Groups on "Sleep and Attention. How Tight is the Connection?" "Paradoxes of Paradoxical Sleep." "Sensory and Environmental Influences on Sleep and Vice Versa." Second International Congress World Federation of Sleep Research Societies, Nassau, Grand Bahamas, 1995.
40. Symposium on Role of Spinal Mechanisms in Sleep Onset and REM Sleep. Second International Congress World Federation of Sleep Research Societies, Nassau, Grand Bahamas, 1995.
41. Invited lecture, Eastern Psychological Association Meeting, Philadelphia, 1996.
42. Animal Models of Sleep Disorders: Strengths and Weaknesses. APSS 10th Annual Meeting, Washington, DC, 1996.
43. Forebrain Influences on REM Sleep, APSS 10th Annual Meeting, Washington, DC, 1996.

44. Course Organizer - Dreams, Neurological Disease and Basic Research: A Need for Dialogue. Course Organizer. APSS 11th Annual Meeting, San Francisco, CA, 1997.
45. Sleep Disorders Course for Neurology Residents sponsored by the University of Bologna, Bertinoro, Italy, Oct. 1997.
46. Scientists Survival Kit for Biologic Controversy: Science Literacy for the Biologic Scientist. Annual Meeting American Society for Microbiology, Atlanta, GA, 1998.
47. Sensory Influences on Sleep, 14th Congress European Sleep Research Society, Madrid, Spain, 1998.
48. Organizer, Panel on Research Ethics 1998 Sleep Training Workshop Multi-Site Training Program for Basic Sleep Research, Lake Arrowhead, Los Angeles, CA, 1998.
49. Molecular and Cellular Foundations of Sleep Disorders, 1998 Sleep Training Workshop Multi-Site Training Program for Basic Sleep Research, Lake Arrowhead, Los Angeles, CA, 1998.
50. Forum on Animal Use in Biomedical Research, New York University, 1998.
51. IACUC Responsibility for Research Animal Well-Being. Animal Rights, Animal Protection, Animal Welfare: What's in a Name?, Scientists Center for Animal Welfare(SCAW), San Antonio, TX, 1998.
52. The Use of Animals in Medical Research, The Social Philosophy and Policy Center of Bowling Green State University, Carlsbad, CA, 1999.
53. Co-chair, Workshop on Animal Research Issues, APSS, Orlando, FL, 1999.
54. Chair, Determinants of Vigilance: Interaction Between the Sleep and Circadian Systems, American Physiological Society, Ft. Lauderdale, FL, October, 1999.
55. Focus group co-chair, Where Does REM Sleep Begin? WFSRS, Dresden, FRG, October, 1999.
56. Ethics Workshop Trainee Day, WFSRS, Dresden, FRG, October, 1999.
57. NIH Workshop, The Dopamine Connection Workshop, Bethesda, MD, November, 1999.
58. Stress, Hormones, and Neural Circuits: Basic and Clinical Perspectives, American College of Neuropsychopharmacology Panel, Acapulco, Mexico, December, 1999.
59. Co-moderator, two workshops on educating the public and the HSUS Pain Initiative at the PRIM&R meeting, March, 2000.
60. The Scientists Center for Animal Welfare (SCAW), Pain, Distress and Stress in Research Animals: Current Standards and IACUC Responsibility, Baltimore, MD, May, 2000.
61. Aspetti neurofisiologici del controllo motorio durante il sonno, Corso Residenziale di Medicina del Sonno, Bertinoro, Italy, April, 2000, 2001, 2002.
62. Conducting Research in a Climate of Animal Rights Activism, APSS 14th Annual Meeting, Las Vegas, NV, June, 2000.
63. Neurophysiology of Sleep. Experimental Models of Motor Control and Sleep Medicine, Sleep Medicine on the Eve of the Third Millennium, International Congress, Bologna, Italy, September, 2000.
64. The Basics of Sleep Behavior. 2000 Sleep Training Workshop, Multi-Site Training Program for Basic Sleep Research, Lake Arrowhead, California, September, 2000.
65. REM Behavior Disorder (RBD): Sleep medicine's bridge to neurophysiology, neurochemistry, and psychology, 2001 Sleep Odyssey, WFSRS World Conference on the

- "Physiological Basis for Sleep Medicine," Punta del Este, Uruguay, October, 2001.
66. Organizer, Consideration of Possible Pathophysiologies of Movement Disorders in Sleep, 2001 Sleep Odyssey, WFSRS World Conference on the "Physiological Basis for Sleep Medicine," Punta del Este, Uruguay, October, 2001.
 67. The Basis of Sleep/Wake Motor Control as Revealed Through Motor Disorders of Sleep, Society for Neuroscience Annual Meeting, San Diego, CA, November, 2001.
 68. Moderator, World Federation of Sleep Research Societies Closing Symposium: Past Accomplishments and Visions for Sleep Research around the World, Annual meeting of the APSS in conjunction with WFSRS celebrating the 50th anniversary of the discovery of REM sleep, Chicago, June, 2003.
 69. Focus Group for the European Molecular Biology's Science and Society Programme: The Importance of the Use of Animals in Scientific Research, Madrid, Spain, March, 2005.
 70. Organizing Committee for the symposium, "Best Practices in Physiological Research: Ethic and Integrity" held at the 2009 IUPS Congress in Kyoto, Japan.

OTHER PROFESSIONAL ACTIVITIES: (Past)

1. Neurosciences Research Review Committee (Study Section) NIMH.
2. Consultant on contracts for Sudden Infant Death Syndrome, National Institute for Child Health and Human Development.
3. Anatomical Consultant for National Board Examination in Veterinary Medicine - 1 year.
4. External reviewer of research grant proposals for the National Science Foundation, Veterans Administration, Air Force.
5. Consultant to New Jersey Department of Higher Education on neuroscience graduate programs at two universities: Rutgers - Newark and University of Medicine and Dentistry of New Jersey.
6. External reviewer of the Department of Veterinary and Comparative Anatomy, Physiology, and Pharmacology, College of Veterinary Medicine, Washington State University, Pullman, WA - 1988.
7. 2001 Frontiers in Physiology, American Physiological Society, teacher-host program, summer, 2001.
8. 2003 Speaker at Frontiers in Physiology summer workshop for teachers, Warrenton, VA, 2003.

RESEARCH SUPPORT:

1. NS 06716 - Cortical-thalamic Relationships, 1966-1976, PI.
2. NS 08377- Brainstem Regulation of Behavior during Sleep, 1969-1973, PI.
3. Penrose Fund, American Philosophical Society, 1977-78.
4. NS 13110 - Brainstem Regulation of Behavior during Sleep, December 1, 1977 - 3 years. Renewed for 3 years, Dec. 1, 1980 and Dec. 1, 1983, PI. Similar grant awarded by National Science Foundation, but declined.
5. NS 14703 - Regional Cerebral Metabolism and Blood Flow in Sleep, January 1, 1978 - 3

- years, participant.
6. Brainstem Systems Regulating Aggressive Behavior During Different State of Consciousness, The Harry Frank Guggenheim Foundation, 1982.
 7. NS 20794 - Extrahypothalamic Thermoregulation in Sleep and Waking, Dec. 1, 1984 - 1989. Co-PI.
 8. Rex Foundation (the Grateful Dead) Award for Public Education, 1990.
 9. NIMH, MH-42903 - Brainstem Mechanisms of Alerting, August 1, 1987 – 2003, PI.
 10. NIHLB, P50HL42236 - Neural Basis of Respiratory Muscle Inhibition in REMS, September 30, 1988 – 1998, PI and Co-PI.
 11. North Atlantic Treaty Organization, Grant for Collaborative Research in Bologna, Italy, 1986 - 1992.
 12. NS 36694 – Neurobiological Effects of Altered Motor Control in REM. January 1, 1999 – 2001 Investigator.
 13. Phenotypical Expression of Anxiety and Sleep in Mice. September 30, 1999 – 2003 Investigator.
 14. Research Foundation, University of Pennsylvania, 2000-2001.
 15. HL 071097 Hypothalamo-Brainstem Control of Sleepiness and Arousal, July 1, 2002 - 2006, Co-PI.
 16. MH 072897 Amygdalar Modulation of Fear-Conditioned Changes in REM Sleep, July 1, 2005- 2010, PI.

COMMUNITY ACTIVITIES:

1. Scoutmaster, Troop 45, Varna, NY 1959-1961.
2. Cubmaster, Pack 228, Wallingford, PA 1969-1972.
3. Troop Committee, Troop 272, Rose Valley, PA 1974 – 1988; 1999 - .
4. Scoutmaster, Troop 272, Rose Valley, PA 1977 - 1982; 1985-1988.
5. 1981 - Distinguished Leader Award, Minquas District, Valley Forge Council, BSA.
6. 1983 - Award of Merit, Minquas District, Valley Forge Council, BSA.
7. 1986 - Silver Beaver Award, Valley Forge Council, BSA.
8. Crew advisor, 1982, 1985, Valley Forge Council contingent to Philmont Scout Ranch, New Mexico.
9. Unit Commissioner, Minquas District, Valley Forge Council, 1983-1985.
10. Merit badge counselor, Valley Forge Council BSA.
11. Soccer Coach, Nether Providence Athletic Association. 1973 - 1982.
12. Licensed Referee, United States Soccer Federation, 1981-1983.
13. Silver Beaver Award Selection Committee Valley Forge Council BSA, 1987 - 1990.