

## **CURRICULUM VITAE OF BENJAMIN WEISS**

Date and Place of Birth: January 26, 1937 Bronx, New York

E-mail: ben@benweiss.org

Web Site: <http://www.historicalartmedals.com/>

### **EDUCATION**

1958 B.S.	Philadelphia College of Pharmacy and Science, Philadelphia, PA with Distinction (Pharmacy)
1960 M.S. (Pharmacology)	Philadelphia College of Pharmacy and Science, Philadelphia, PA
1963 Ph.D. (Pharmacology)	Philadelphia College of Pharmacy and Science, Philadelphia, PA
1963-1965 (Postdoctoral Fellowship)	National Heart Institute, National Institutes of Health, Bethesda, MD (with Dr. B. B. Brodie)

### **PROFESSIONAL APPOINTMENTS**

1965-1966	Staff Fellow, Laboratory of Chemical Pharmacology, National Heart Institute, National Institutes of Health, Bethesda, MD
1966-1968	Research Associate, Department of Pharmacology, College of Physicians and Surgeons, Columbia University, New York, NY (with Dr. E. Costa)
1968-1971	Pharmacologist, Laboratory of Preclinical Pharmacology, National Institute of Mental Health, St. Elizabeths Hospital, Washington, DC
1971-1972	Chief, Section on Neuroendocrinology, National Institute of Mental Health, Washington, DC

- 1972-2000 Professor of Pharmacology, Medical College of Pennsylvania, Philadelphia, PA
- 1981-1982 Visiting Scientist, Istituto di Ricerche Farmacologiche "Mario Negri," Milan, Italy
- 1981-1998 Chief, Division of Neuropsychopharmacology, Medical College of Pennsylvania, Philadelphia, PA
- 1982 Visiting Scientist, Weitzman Institute of Science, Rehovot, Israel
- 1983-2000 Professor of Psychiatry, Medical College of Pennsylvania, Philadelphia, PA
- 2000-Present Emeritus Professor of Pharmacology and Physiology, Drexel University College of Medicine, Philadelphia, PA.

### **HONORS AND AWARDS**

- 1958 Gold Medal for Attaining Highest Scholastic Average of College Graduates
- 1958 Joseph W. E. Harrison Award for Excellence in Pharmacology
- 1958 Frederick William Haussman Memorial Prize
- 1958 Dobbins Scholarship
- 1959 Rexall Award
- 1959 Borden Award
- 1959 Rho Chi Honorary Pharmaceutical Society
- 1980 Christian R. and Mary F. Lindback Award for Distinguished Teaching
- 1981 Named as one of the Top One Thousand Most Quoted Scientists in the World.
- 1982 Research Medal awarded by the University of Milan, Milan, Italy
- 1986 MERIT Award - National Institute of Mental Health
- 1995 Award from China Bureau of Foreign Experts Affairs, Suzhou Medical College, Suzhou, China as Outstanding Scientist
- 2000 Emeritus Professorship- Drexel University College of Medicine

### **MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES**

- American Society for Neurochemistry
- American Society for Pharmacology and Experimental Therapeutics (Emeritus)
- American College of Neuropsychopharmacology (Emeritus)
- International Brain Research Organization
- American Association of University Professors
- Society for Neuroscience
- British Brain Research Association
- European Brain and Behavior Society
- International Society for Neurochemistry
- Gerontological Society of America

## **EDITORIAL AND CONSULTANT POSITIONS**

Books Published:

Editor: Cyclic Nucleotides in Disease, University Park Press, Baltimore, MD. 1975

Editor: Antisense Oligodeoxynucleotides and Antisense RNA: Novel Pharmacological and Therapeutic Agents, CRC Press, Boca Raton, FL. 1997

Editorial Advisory Board:

Past: Journal of Pharmacology & Experimental Therapeutics  
Neuropharmacology  
Journal of Cyclic Nucleotide Research  
Life Sciences  
Archives Internationales de Pharmacodynamie et de Therapie  
Neurochemistry International

Consultant: National Institute of Mental Health  
National Institute of Aging  
National Science Foundation  
Manitoba Health Research Council  
Franklin Research Center  
Veterans Administration Hospital, Neuropsychopharmacology Unit ICI, Americas  
Hoffman-LaRoche, Inc.  
Wyeth Laboratories  
Smith, Kline and French Laboratories  
Information Ventures, Inc. for Molecular Biology: Cyclic Nucleotides  
The Upjohn Company  
The Cancer Institute of New Jersey

## **ACADEMIC COMMITTEES**

1972-1978 Pharmacology Graduate Committee, Chairman  
1973-1978 Committee on Appointments and Promotions, Member  
1978-1979 Committee on Appointments and Promotions, Chairman  
1972-1984 Fellowships and Awards Committee, Member  
1972-1978 Graduate Education Committee, Member  
1972-1984 Student Evaluation Committee, Member  
1977 President's Award Committee, Chairman  
1977 Institutional Self-Study for Accreditation Subcommittee on Faculty, Member  
1977 Committee on Graduate Courses, Chairman  
1977-1978 Committee to Devise a Faculty Handbook, Member  
1980 Microbiology Chairman Search Committee, Member

1981-1986 Executive Committee of the Faculty, Member  
 1982 Committee on Faculty Communications, Member  
 1983 Finances/Physical Plant Subcommittee, Member  
 1983 Ad Hoc Committee to Evaluate Criteria for Tenure, Member  
 1983-1986 EPPI Subcommittee on Mental Health and Neurosciences of the Executive Faculty of MCP, Member  
 1983-1989 Multidisciplinary Research Committee, Member  
 1983-1988 Analytical Laboratory Supervisory Committee, Member  
 1985-1990 Radiation Safety Committee, Member  
 1985-1989 Tenure Committee, Member  
 1989-1992 Molecular Biology Core Laboratory Committee, Member  
 1989 Tenure Committee, Chairman  
 1989 Committee to Review the Department of Anesthesia, Chairman  
 1990-1995 Grievance Committee, Member  
 1990-1994 Committee on Appointments and Promotions, Member  
 1990 Executive Committee of the Faculty, Member  
 1991-1994 Hearing Committee for Tenured Faculty, Member  
 1991-1993 Faculty Development Committee of Board of Directors, Member  
 1993-1995 Faculty Grievance Committee, Chairman  
 1994-1995 Graduate School Faculty Affairs Committee, Member  
 1994-1995 Graduate School By Laws Committee, Member  
 1994-1995 Molecular and Cell Biology Steering Committee, Member  
 1995-1999 M.D., Ph.D. Committee, Member  
 1997-1999 Allegheny University of the Health Sciences Institute for the Neuroscience Advisory Committee, Member

### **ADMINISTRATION OF TEACHING PROGRAMS**

1972-1978 Pharmacology Graduate Program, Director  
 1975-1984 Advanced Topics in Pharmacology - Course Coordinator  
 1981-1984 Psychopharmacology Update - Co-Director  
 1983-1986 Basic and Clinical Aspects of the Neurosciences - Course Director  
 1985-1993 Neuropsychopharmacology Journal Club and Research - Course Director  
 1993-1998 Current Topics in the Molecular Basis of Behavior- Course Director

### **INITIATED AND ORGANIZED NEW COURSES AND PROGRAMS**

1972 Pharmacology Graduate Program  
 1975 Advanced Topics in Pharmacology  
 1975 Cyclic Nucleotide Journal Club  
 1975 Pharmacology Seminar Program  
 1976 Joint Basic Sciences Seminar Program  
 1976 Biomedical Instrumentation and Techniques  
 1983 Basic and Clinical Aspects of the Neurosciences

1985 Neuropsychopharmacology Research Club  
1993 Current Topics in the Molecular Basis of Behavior

### **PARTICIPATION IN TEACHING AND TRAINING PROGRAMS**

Pharmacology and Experimental Therapeutics - Medical College of Pennsylvania  
Biomedical Instrumentation and Techniques - Medical College of Pennsylvania  
Advanced Topics in Pharmacology - Medical College of Pennsylvania  
Cyclic Nucleotide Journal Club - Medical College of Pennsylvania  
Pharmacology Seminar Program - Medical College of Pennsylvania  
Basic Sciences Seminar Program - Medical College of Pennsylvania  
Molecular Aspects of Cell Structure and Function - Joint Program; Medical College of Pennsylvania and Bryn Mawr College  
Neuropharmacology - Joint Program; Medical College of Pennsylvania and Philadelphia College of Pharmacy and Science  
Neuropsychopharmacology Colloquium - Joint Program; Medical College of Pennsylvania and University of Pennsylvania  
Basic Science Course for Neurology Residents - Medical College of Pennsylvania  
Principles in Neurobiology - Mario Negri Research Institute, Milan, Italy  
Psychopharmacology Update - Medical College of Pennsylvania  
Training Program in Neuropsychopharmacology - Member of Executive Board, University of Pennsylvania  
Neuropsychopharmacology-Neurosurgical Research Training Program - Medical College of Pennsylvania - Director  
Anesthesia-Neuropsychopharmacology Research Training Program - Medical College of Pennsylvania - Director  
Initiated and effected a formal affiliation between the Medical College of Pennsylvania and the University of Milan  
Sandoz-Dorsey Teaching Program - Medical College of Pennsylvania

## EXTRAMURAL RESEARCH SUPPORT

Source of Support: National Institute of Health  
Title: Research Fellowship  
Sponsor: Benjamin Weiss, Ph.D.  
Period of Support: 6/19/75 - 6/18/76  
Direct Costs: \$13,000

Source of Support: Scottish Rite Schizophrenia Research Program  
Title: The Role of Cyclic Nucleotides in Schizophrenia  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 4/1/74 - 3/31/76  
Direct Costs: \$35,722

Source of Support: National Institute of Health  
Title: Research Fellowship (HL-01839)  
Sponsor: Benjamin Weiss, Ph.D.  
Period of Support: 9/1/74 - 8/31/76  
Direct Costs: \$26,400

Source of Support: National Cancer Institute  
Title: Agents Inhibiting Phosphodiesterase of Cancer Cells (CA 15883)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 5/1/74 - 7/31/77  
Direct Costs: \$143,538

Source of Support: National Institute of Aging  
Title: Effect of Age on the Ability of Organs to Develop a Denervation  
Supersensitivity of the Membrane Bound Cyclic 3',5'-AMP System  
(AG00003)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 6/1/76 - 5/31/80  
Direct Costs: \$89,157

**EXTRAMURAL RESEARCH SUPPORT (continued)**

Source of Support: National Institute of Neurological and Communicative Disorders and Stroke  
Title: Influence of Neuronal Activity on the Development of Postjunctional Receptors (NS13768)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/77 - 6/31/80  
Direct Costs: \$116,544.

Source of Support: National Institute of Mental Health  
Title: Psychotropic Drugs and Cyclic Nucleotide Metabolism (MH30096)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 8/1/77 - 7/31/80  
Direct Costs: \$117,548

Source of Support: National Institute of Neurological and Communicative Disorders and Stroke  
Title: Development and Regeneration of the Nervous System (NS07061)  
Co-Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/78 - 6/31/81  
Direct Costs: \$174,684

Source of Support: Scottish Rite Schizophrenia Research Program  
Title: Research Fellowship  
Sponsor: Benjamin Weiss, Ph.D.  
Period of Support: 1979  
Direct Costs: \$6,000

Source of Support: National Institute of Neurological and Communicative Disorders and Stroke  
Title: Regulation of Brain Aminergic Receptors in Aging (NS16242)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 4/1/80 - 3/31/84  
Direct Costs: \$215,585

Source of Support: National Institute of Mental Health  
Title: Psychotropic Drugs and Cyclic Nucleotide Metabolism (MH30096)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 8/1/80 - 1/31/85  
Direct Costs: \$204,557

**EXTRAMURAL RESEARCH SUPPORT (continued)**

Source of Support: Scottish Rite Schizophrenia Research Program  
Title: Interaction of Neuropeptides with Calmodulin  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 8/1/81 - 7/31/83  
Direct Costs: \$44,370

Source of Support: National Institute of Mental Health  
Title: Training Program in Neuropsychopharmacology  
Preceptor: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/82 - 6/30/85  
Direct Costs: \$298,684

Source of Support: National Research Service Award  
Title: Pineal Gland and Melatonin During Reproductive Aging (AG05321)  
Sponsor: Benjamin Weiss, Ph.D.  
Period of Support: 9/1/83 - 8/31/84  
Direct Costs: \$20,040

Source of Support: National Institute on Aging  
Title: Pineal beta Receptors and Melatonin During Reproductive Aging (AG04858)  
Co-Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 9/1/84 - 8/31/85  
Direct Costs: \$15,000

Source of Support: National Institute on Aging  
Title: Role of SCN: Serotonin in Female Reproductive Aging (AG02867)  
Co-Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/85 - 3/31/87  
Direct Costs: \$96,478

Source of Support: NATO Advanced Study Institute  
Title: Principles and Clinical Implications of Neuroreceptor Modulation  
Principal Investigator: Benjamin Weiss  
Period of Support: 1/1/86 - 6/30/87  
Direct Costs: \$40,000

**EXTRAMURAL RESEARCH SUPPORT (continued)**

Source of Support: Hereditary Disease Foundation  
Title: Plasticity of Gene Expression in the Basal Ganglia  
Co-investigator: Benjamin Weiss, Ph.D.  
Period of Support: 3/1/86 - 2/28/87  
Direct Costs: \$14,974

Source of Support: National Institute of Mental Health  
Title: Plasticity of Gene Expression in the Basal Ganglia (MH41714)  
Co-investigator: Benjamin Weiss, Ph.D.  
Period of Support: 8/1/86 - 7/31/87  
Direct Costs: \$14,974

Source of Support: National Institute of Mental Health  
Title: Role of Calmodulin in Chronic Cocaine-Induced Behaviors (DA04427)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/87 - 6/30/88  
Direct Costs: \$14,959

Source of Support: National Research Service Award  
Title: Role of Calmodulin in Chronic Cocaine-Induced Behaviors (DA05318)  
Sponsor: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/87 - 6/30/89  
Direct Costs: \$39,000

Source of Support: National Institute of General Medical Sciences  
Title: Regulation of Calmodulin - Dependent Processes (GM34334)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/86 - 12/31/89  
Direct Costs: \$231,323

Source of Support: National Institute of Mental Health (MERIT Award)  
Title: Behavioral & Biochemical Correlates of Dopamine Responses (MH42148)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 8/1/87 - 7/31/91  
Direct Costs: \$404,648

**EXTRAMURAL RESEARCH SUPPORT (continued)**

Source of Support: Allegheny-Singer Research Institute  
Title: Reversal of Dopaminergic Supersensitivity: Preclinical Mechanisms and Clinical Applications  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 7/1/90 - 6/30/93  
Direct Costs: \$254,415

Source of Support: National Institute of Mental Health (MERIT Award)  
Title: Behavioral & Biochemical Correlates of Dopamine Responses (MH42148)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 8/1/91 - 7/31/95  
Direct Costs: \$420,945

Source of Support: Allegheny Singer Research Institute  
Title: Antisense RNA Vector Reduces Expression of D2 Receptors  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period: 4/1/96-3/31/97  
Direct Costs: \$25,816

Source of Support: National Institute of Neurological Disorders and Stroke  
Title: Role of Calmodulin in Neuronal Differentiation (NS 30724)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 9/1/93 - 8/31/97  
Direct Costs: \$357,585

Source of Support: National Institute of Mental Health  
Title: Behavioral & Biochemical Correlates of Dopamine Responses (MH42148)  
Principal Investigator: Benjamin Weiss, Ph.D.  
Period of Support: 4/1/95 - 3/31/99  
Direct Costs: \$386,288

## PATENTS

Title: Administration of Oligonucleotides Antisense to Dopamine Receptor mRNA for Diagnosis and Treatment of Neurological Pathologies

Inventor: Benjamin Weiss

Patent Number: 5,840,708

Title: Compositions and Methods to Regulate Calmodulin Gene Expression and Uses Thereof for Influencing Cell Growth and Differentiation

Inventor: Benjamin Weiss

Patent Number: 08/748,104

Title: Methods and Compositions for Diagnosis and Treatment of Pathological Conditions Related to Abnormal Dopamine Receptor Expression

Inventor: Benjamin Weiss

Patent Number: 08/816,426

## POSTDOCTORAL STUDENTS AND VISITING SCIENTISTS TRAINED

1. Anthony Kidman, Ph.D.  
Postdoctoral Training: 1969-1971  
Current Position: The New South Wales Institute of Technology  
New South Wales, Australia
2. John Crayton, M.D.  
Postdoctoral Training: 1969-1970  
Current Position: Department of Psychiatry  
University of Chicago  
Chicago, Illinois
3. Samuel J. Strada, Ph.D.  
Ph.D. (Pharmacology), 1970  
Postdoctoral Training: Vanderbilt University  
1970-1972  
Current Position: Dean, University of South Alabama College  
of Medicine

4. Petko Uzunov, M.D.  
Postdoctoral Training: 1970-1972  
Current Position: Professor and Chairman,  
Department of Pharmacology  
President, Bulgarian Medical Academy  
Sofia, Bulgaria
5. Michael Ebadi, Ph.D.  
Postdoctoral Training: 1970-1972  
Current Position: Professor and Chairman  
Department of Pharmacology  
University of Nebraska Medical Center  
Omaha, Nebraska
6. Thomas Tulenko, Ph.D.  
Ph.D. (Physiology), 1972  
Postdoctoral Training: Boston University  
1972-1977  
Current Position: Professor of Physiology  
Dept. of Physiol./Biochem.  
Medical College of PA.  
Philadelphia, Pennsylvania
7. Robert Levin, Ph.D.  
Ph.D. (Pharmacology), 1974  
Postdoctoral Training: University of Pennsylvania  
1974-1976  
Current Position: Professor  
University of Buffalo
8. Richard Fertel, Ph.D.  
Ph.D. (Pharmacology), 1972  
Postdoctoral Training: Washington University  
1972-1975  
Current Position: Associate Professor  
Department of Pharmacology  
University of Ohio  
Columbus, Ohio
9. Louise H. Greenberg, Ph.D.  
Ph.D. (Pharmacology), 1974  
Postdoctoral Training: Bryn Mawr College  
1974-1977  
Current Position: Visiting Assist. Professor  
Department of Pharmacology  
Medical College of PA.  
Philadelphia, Pennsylvania

10. Walter C. Prozialeck, Ph.D.  
Ph.D. (Pharmacology), 1978  
Postdoctoral Training:  
Current Position:
- Jefferson University  
1978-1980  
Chairman, Department of Pharmacology  
Chicago Col. of Osteopathic Medicine  
Chicago, Illinois
11. Mauro Cimino, D. Biol.  
Postdoctoral Training:  
Current Position:
- 1979
- The University of Milan  
Milan, Italy
12. M. Blair Clark, Ph.D.  
Ph.D. (Anatomy), 1979  
Postdoctoral Training:  
Current Position:
- Tulane University  
1979-1982  
Assistant Professor  
Department of Anatomy  
University of Maryland  
School of Medicine  
Baltimore, Maryland
13. Mary Sellinger-Barnette, Ph.D.  
Ph.D. (Pharmacology), 1979  
Postdoctoral Training:  
Current Position:
- University of Pennsylvania  
1979-1984  
Research Scientist  
Smith Kline & French Labs.  
Philadelphia, Pennsylvania
14. Judith S. Freilich, M.D.  
M.D., 1979  
Postdoctoral Training:  
Current Position:
- Medical College of PA.  
1981-1983  
Associate, Univ. of PA.  
Philadelphia, Pennsylvania
15. Long-Wu Zhou, M.D., 1958  
Postdoctoral Training:  
Current Position
- 1981-1983  
Research Assistant Professor  
Allegheny University of the Health Sciences  
Philadelphia, Pennsylvania

16. Kyriaki Thermos, Ph.D.  
Ph.D. (Pharmacology), 1984  
Postdoctoral Training:  
Current Position:
- New York University  
1984-1986  
Associate Professor  
Department of Pharmacology  
University of Crete  
Heraklion, Crete, Greece
17. Jill Roberts-Lewis, Ph.D.  
Ph.D. (Pharmacology), 1986  
Postdoctoral Training:  
Current Position:
- University of Michigan  
1986-1988  
Research Scientist  
Cephalon, Inc.  
145 Brandywine Parkway  
West Chester, Pennsylvania
18. Jo Elia, M.D.  
M.D., 1982  
Postdoctoral Training:  
Current Position:
- Medical College of PA.  
1986  
Director of Child Psychiatry  
Allegheny University of the Health Sciences  
Philadelphia, Pennsylvania
19. David Allen, M.D.  
M.D., 1983  
Postdoctoral Training:  
Current Position:
- Temple University  
1984-1985  
Staff Neurosurgeon  
Reading Hospital and Medical Center  
Reading, PA
20. Jiang Fan Chen, M.D.  
  
Postdoctoral Training:  
Current Position:
- Third Military Medical College, P.R.C.  
1987-1989  
Assistant Professor  
Harvard Medical School  
Cambridge, Mass.
21. David Goodale, DDS, PhD  
Postdoctoral Training
- 1987-1989

22. Guang Bai, M.D.  
Postdoctoral Training:  
Current Position:  
 Universitat Ulm  
 1988-1991  
 Assistant Professor  
 Department of Biomedical Sciences  
 University of Maryland School of Medicine  
 Baltimore, MD
23. Mauro Cimino, D. Biol. Sci  
Visiting Scientist:  
Current Position:  
 University of Rome  
 1987-1988  
 University of Milan  
 Milan, Italy
24. Long-Wu Zhou, M.D., 1958  
Visiting Scientist:  
Current Position  
 Beijing Medical College, P.R.C.  
 1988-present  
 Research Assistant Professor  
 Allegheny University of the Health Sciences  
 Philadelphia, Pennsylvania
25. Thomas Connell, M.D.  
 Postdoctoral Fellow  
Current Position:  
 Medical College of Pennsylvania  
 1990-1992  
 Staff Psychiatrist  
 Norristown State Hospital  
 Norristown, PA
26. Naoki Natsukari, M.D., Ph.D.  
Postdoctoral Fellow  
 Hamamatsu School of Medicine, Japan  
 1993-1995
27. Genoveva Davidkova, M.D., Ph.D.  
Postdoctoral Fellow  
Current Position  
 Medical Academy, Sofia, Bulgaria  
 1994-1997  
 Research Associate  
 Rockefeller University

## **GRADUATE STUDENTS TRAINED**

1. William Hait, M.D., Ph.D.  
Training Period 1972-1976  
Degrees attained M.D., Ph.D. (Pharmacology)  
Current Position: Former: Director, The Cancer Institute of New Jersey  
  
Current: Senior Vice President, Worldwide Head of Hematology and Oncology for Johnson & Johnson
2. Elinor Cantor, Ph.D.  
Training Period 1974-1979  
Degree attained Ph.D. (Pharmacology), 1979  
Current Position: Senior Research Pharmacologist  
Berlex Laboratories  
Cedar Knolls, NJ
3. Thomas L. Wallace, Ph.D.  
Training Period 1977-1982  
Degree attained Ph.D. (Pharmacology), 1982  
Current Position: Associate Director, Pharmacology  
Triplex Pharmaceuticals  
Woodlands, TX
4. Craig Q. Earl, Ph.D.  
Training Period 1978-1983  
Degree attained Ph.D. (Cell Biology), 1983  
Current Position: Assistant Director  
CNS Therapeutic Area  
Solvay Pharmaceuticals  
Marietta, GA
5. James Winkler, Ph.D.  
Training period 1981-1986  
Degree attained Ph.D. (Pharmacology), 1987  
Current Position: Associate Director  
Department of Pharmacology  
Smith Kline & French Labs.  
Philadelphia, Pennsylvania  
Visiting Assistant Professor  
Department of Pharmacology  
Medical College of PA

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| 6. | Jiang Fan Chen, M.D.<br>Training period:<br>Degree attained<br><u>Current Position:</u>  | 1990-1993<br>Ph.D. (Pharmacology), 1993<br>Assistant Professor<br>Massachusetts General Hospital<br>Harvard Medical School<br>Charlestown, MA |
| 7. | Zheng-Hong Qin, M.D.<br>Training period:<br>Degree attained:<br><u>Current Position:</u> | 1989-1994<br>Ph.D. (Pharmacology) 1994<br>Postdoctoral Fellow<br>National Institute of Mental Health<br>Bethesda, MD                          |
| 8. | Wangfang Hao, M.Sc.<br>Degree attained<br>Training Period:<br><u>Current Position:</u>   | M.Sc. (Pharmacology) 1997<br>1995-1997<br>Johnson and Johnson Research Laboratories   |

**MEDICAL STUDENTS TRAINED:**

Robert Figlin, M.D.  
 Stephen Weiss, M.D.  
 Shelly Uram, M.D.  
 Eva Gomolinski, M.D.  
 Michael Hillman, M.D.  
 Jo Ellen Habas, M.D.

**PREMEDICAL STUDENTS TRAINED:**

Scott Fields  
 Gary Koretsky  
 David Rubashkin  
 Jo Ann Seagraves  
 Lisa Ann Brady  
 Judy Yuko Kameoka  
 Amit Shah

## **PROFESSIONAL ACTIVITIES AT SYMPOSIA AND CONFERENCES**

- Organized symposium: Cyclic Nucleotides in Disease, Philadelphia, PA., 1974
- Organized symposium: Interaction of Calmodulin with Psychotropic Drugs, at the Meeting of the American College of Neuropsychopharmacology, San Juan, Puerto, Rico, 1982
- Organized symposium: Antisense Strategies in Neurobiology, at the XIXth CINP Congress, Washington, DC, 1994

## **CHAired SCIENTIFIC SESSIONS AT NATIONAL AND INTERNATIONAL MEETINGS AND CONFERENCES**

- 1971 Meeting of American Society for Pharmacology and Experimental Therapeutics, Burlington, VT.
- 1972 Meeting of American Chemical Society, Philadelphia.
- 1973 Meeting of Federal of American Societies for Experimental Biology, Atlantic City, NJ.
- 1974 Cyclic Nucleotides in Disease, Philadelphia, PA.
- 1974 Scottish Rite Schizophrenia Research Program, Boston, MA.
- 1975 Gordon Conference on Catecholamines, Andover, NH.
- 1976 Meeting of Federation of American Societies of Experimental Biology, Anaheim, CA.
- 1977 NATO Advanced Study Institute on Cyclic Nucleotides, Tremezzo, Italy.
- 1981 International Symposium on Aging Brain and Ergot Alkaloids, Rome, Italy.
- 1982 International Conference on the Aging of the Brain, Mantua, Italy.
- 1982 Meeting of the American College of Neuropsychopharmacology, San Juan, Puerto Rico.
- 1983 Meeting of the Federation of American Societies for Experimental Biology, Chicago, ILL.
- 1983 Symposium on Altered Endocrine Status During Aging, Fourth Philadelphia Symposium on Aging, Philadelphia, PA.
- 1985 Symposium on Aging of the Brain from Laboratory Animal to Man, IVth World Congress of Biological Psychiatry, Philadelphia, PA.

**CHAired SCIENTIFIC SESSIONS AT NATIONAL AND INTERNATIONAL MEETINGS AND CONFERENCES** *(continued)*

- 1986 Meeting of Federation of American Societies for Experimental Biology, St. Louis, MO.
- 1987 Meeting of the Society for Neuroscience, New Orleans, LA.
- 1988 Meeting of the American Physiological Society and the American Society for Pharmacology and Experimental Therapeutics, Montreal, Canada
- 1991 Meeting of the Society for Neuroscience, New Orleans, LA
- 1994 Symposium on Antisense Strategies in Neurobiology, XIXth C.I.N.P. Congress, Washington, DC
- 1997 Fourth National Congress of Pharmacology, Sofia, Bulgaria

**INVITED SPEAKER AT NATIONAL AND INTERNATIONAL CONFERENCES AND SYMPOSIA**

- 1967 Symposium on Biological Role of Indolealkamine Derivatives, New York.
- 1968 Meeting of the American College of Neuropsychopharmacology, San Juan, Puerto Rico.
- 1969 Symposium on Biogenic Amines as Physiological Regulators, Woods Hole, MA.
- 1970 Symposium on the Role of Cyclic AMP in Cell Function, San Diego, CA.
- 1970 Role of Cyclic AMP in Nervous System, Neurosciences Research Program, Boston, MA.
- 1971 Cyclic AMP and Cell Function, New York Academy of Science, New York.
- 1971 First International Conference on the Physiology and Pharmacology of Cyclic AMP, Milan, Italy.
- 1971 Symposium on Fetal Pharmacology, Stockholm, Sweden.
- 1972 Symposium on the Biochemistry and Physiology of the Pineal Gland Bethesda, MD.
- 1973 Third International Catecholamine Symposium, Strasbourg, France.
- 1974 Conference on Cyclic Nucleotides and the Nervous System, St. Odile, France.
- 1974 Gordon Conference on Catecholamines, Brewster, NH.

## **INVITED SPEAKER AT NATIONAL AND INTERNATIONAL CONFERENCES AND SYMPOSIA**

*(continued)*

- 1974 Second International Conference on Cyclic AMP, Vancouver, Canada.
- 1975 Gerontological Society Symposium on the Pharmacology of Aging Systems, Louisville, KY.
- 1975 Gordon Conference on Catecholamines, Andover, NH.
- 1976 Symposium on Cyclic Nucleotide Systems - A Target for Drug Design, London, England.
- 1977 Gordon Conference on Hormone Action, Palo Alto, CA.
- 1977 Series of Prominent Neuroscientists at University of Pittsburgh, PA.
- 1977 Third International Congress of Cyclic Nucleotides, New Orleans, LA.
- 1977 NATO Advanced Study Institute on Cyclic Nucleotides, Tremezzo, Italy.
- 1978 Gerontology Symposium at the Federation of American Societies for Experimental Biology, Atlantic City, NJ.
- 1978 Fourth International Symposium on Catecholamines, Santa Barbara, CA.
- 1978 Meeting of the American College of Neuropsychopharmacology, Maui, HI.
- 1979 Symposium on Long Term Effects of Neuroleptics, Monte Carlo, Monaco.
- 1979 First International Colloquium on Receptors, Neurotransmitters and Peptide Hormones, Capri, Italy.
- 1979 Symposium on Clinical Implications of Cyclic Nucleotides, Denver, CO.
- 1980 Conference on Calmodulin and Cell Functions, New York Academy of Sciences, New York.
- 1980 Gordon Research Conference on Cyclic Nucleotides, Meriden, NH.
- 1980 New York Academy of Sciences Meeting on the Biology of Aging, New York, NY.
- 1980 International Symposium on the Clinical Pharmacology of Apomorphine and Other Dopaminomimetics, Cagliari, Sardinia, Italy.
- 1981 Symposium on the Pharmacological Implications of Calmodulin, Western Pharmacology Society, Honolulu, HI.

## **INVITED SPEAKER AT NATIONAL AND INTERNATIONAL CONFERENCES AND SYMPOSIA**

*(continued)*

- 1981 Symposium on the Developmental Neurobiology of the Melatonin Rhythm Generating System, Bethesda, MD.
- 1981 International Symposium on Typical and Atypical Antidepressants, Taormina, Sicily, Italy.
- 1981 Gordon Research Conference on Medicinal Chemistry, Andover, NH.
- 1981 Conference on Dynamics of Neurotransmitter Function, National Institutes of Health, Bethesda, MD.
- 1981 International Symposium on Aging Brain and Ergot Alkaloids, Rome, Italy.
- 1982 International Conference on the Aging of the Brain, Mantua, Italy.
- 1982 Meeting of the American College of Neuropsychopharmacology, San Juan, Puerto Rico.
- 1983 Meeting of the Federation of American Societies for Experimental Biology, Chicago, IL.
- 1983 Falk Symposium on Mechanisms of Hepatocyte Injury and Death, Basel, Switzerland.
- 1983 Annual Meeting of American Chemical Society, White Haven, PA.
- 1983 Symposium on Altered Endocrine Status During Aging; Fourth Philadelphia Symposium on Aging, Philadelphia, PA.
- 1984 International Conference on Calcium Metabolism and Nervous System: The Problem of Spasmophilia, Rome, Italy.
- 1984 First European Meeting on New Trends in Medicine, Milanomedicina, Milan, Italy.
- 1985 Fourth Capo Boi Conference on Neuroscience, Sardinia, Italy.
- 1988 FIDIA Research Foundation Symposium: Neurochemical Pharmacology 1988, Washington, D.C.
- 1988 Meeting of the American Physiological Society and The American Society for Pharmacology and Experimental Therapeutics, Montreal, Canada.
- 1989 Sixth Capo Boi Conference on Neuroscience, Sardinia, Italy.
- 1989 Annual Meeting of the Society for Neuroscience, Phoenix, Arizona.

## **INVITED SPEAKER AT NATIONAL AND INTERNATIONAL CONFERENCES AND SYMPOSIA**

*(continued)*

- 1990 Symposium on Dopamine Systems and their Regulation, Como, Italy.
- 1994 Symposium on Antisense Strategies in Neurobiology, CINP Congress, Washington, DC.
- 1994 Meeting of the American Psychological Association, Los Angeles, CA.
- 1995 International Symposium on Practical Approaches to the Regulation of Gene Expression: Progress in Neuroscience, University of Oxford, Oxford, England.
- 1995 International Conference on Therapeutic Oligonucleotides from Cell to Man, Seillac, France.
- 1995 Symposium on the Application of Antisense Strategies for Investigation of Receptor Mechanisms in Vivo and In Vitro, Fifty-Seventh Annual Scientific Meeting of The College on Problems of Drug Dependence, Inc., Scottsdale, AZ.
- 1996 New York Academy of Science Symposium on Use of Antisense Oligonucleotides as Pharmacological Tools, New York, NY.
- 1996 INSERM Workshop on Antisense Strategies in the Neurosciences, Paris, France.
- 1997 International Symposium on Antisense Oligonucleotide Gene Knockout in the Nervous System, Oxford, England
- 1997 Conference on Antisense 97: Targeting the Molecular Basis of Disease, Cambridge, MA
- 1997 Plenary Lecture on Antisense RNA Generating Vectors at the Fourth National Congress of Pharmacology, Sofia, Bulgaria
- 1997 Symposium on Antisense Strategies, American College of Neuropsychopharmacology, Hawaii
- 1999 IBC's International Conference on Oligonucleotide Therapeutics, La Jolla CA.

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