

CURRICULUM VITAE

CAROL A. TAMMINGA M.D.

DATE April 2022

CITIZENSHIP United States of America

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CURRENT PROFESSIONAL APPOINTMENTS

2010- Present Chairman, Department of Psychiatry
The University of Texas Southwestern Medical Center at Dallas

2008-2010 Interim Chairman, Department of Psychiatry
The University of Texas Southwestern Medical Center at Dallas

2003-Present Professor of Psychiatry and Chief of Translational Neuroscience
Research in Schizophrenia
The University of Texas Southwestern Medical Center at Dallas

2003-2019 Deputy Editor, American Journal of Psychiatry

PREVIOUS ACADEMIC APPOINTMENTS

1985-2003 Professor, Department of Psychiatry
University of Maryland
Baltimore, Maryland

1979-1985 Associate Professor, Department of Psychiatry
University of Maryland
Baltimore, Maryland

1979-1985 Chief, Clinical Biochemistry Unit
Experimental Therapeutics Branch
National Institute of Neurological Disorders and Stroke, NIH
Bethesda, Maryland

- 1978-1979 Biologic Psychiatry Branch
National Institute of Mental Health, NIH
Bethesda, Maryland
- 1978-1979 Assistant Professor, Department of Psychiatry
University of Chicago
Chicago, Illinois
- 1975-1977 Instructor, Department of Psychiatry
University of Chicago
Chicago, Illinois

PREVIOUS HOSPITAL APPOINTMENTS

- 1994-2003 Deputy Director,
MPRC, Department of Psychiatry
University of Maryland School of Medicine
Baltimore, Maryland
- 1979-2003 Chief, Inpatient Research Program
Maryland Psychiatric Research Center
University of Maryland at Baltimore
Baltimore, Maryland
- 1975-1979 Chief, Clinical Investigation Unit
Manteno State Hospital
Manteno, Illinois

EDUCATION

- 1975-1977 Research Fellow
Department of Psychiatry, University of Chicago
Chicago, Illinois
- 1974-1975 Chief Resident in Psychiatry
University of Chicago
Chicago, Illinois
- 1972-1974 Resident in Psychiatry
University of Chicago
Chicago, Illinois
- 1971-1972 Intern in Medicine
Blodgett Hospital
Grand Rapids, Michigan
- 1967-1971 Vanderbilt University
School of Medicine
Nashville, Tennessee
M.D.
- 1963-1967 Calvin College

Grand Rapids, Michigan
B.S.

FEDERAL COMMITTEE ASSIGNMENTS

2019- Present	Member, NPAS Study Section, NIMH
2011-2016	Member, National Advisory Mental Health Council, NIMH
2009-2011	NIMH, Member, Board of Scientific Counselors
2008	Co-Chair, Blue Ribbon Panel, NIMH
1998-2003	Member, NIDA Board of Scientific Counselors
1998-2002, 1991-1994	Chair, Psychopharmacological Drugs Advisory Committee, Food and Drug Administration
1995-1998	Member, Clinical Neuroscience and Biological Psychopathology Review Committee, National Institute of Mental Health
1989-1993	Member, Treatment Development and Assessment Research Review Committee, National Institute of Mental Health
1983-1989	Consultant, Orphan Products Development Initial Review Group, Food and Drug Administration
1982-1985	Consultant, Psychopharmacological Drugs Advisory Committee, Food and Drug Administration
1981-1985	Member, Treatment Development and Assessment Research Review Committee, National Institute of Mental Health

VOLUNTARY APPOINTMENTS

2019- 2020	NAM, Committee on Antimalarial off Target Drug Effects
2011-2013	NAM, Committee on the Assessment of Ongoing Efforts in the Treatment of Posttraumatic Stress Disorder
2008-Present	NAMI Scientific Council
2007-2008	IOM/NAM, Committee on Gulf War and Health: Brain Injury in Veterans and Long-term Health Outcomes
1994-Present	NARSAD Scientific Council Member, currently Executive Committee
1989-2015	Co-Founder and Organizer, International Congress on Schizophrenia Research, Inc.
2005-2006	IOM, Committee on Gulf War and Health: Review of the Medical Literature Relative to Gulf War Veterans' Health

2001-2006 Stanley Foundation Advisory Board
1998-2000 APA Program Committee; Chair, New Research, 1999-2000
1992-2001 Stanley Foundation Research Council Member

HONORS AND AWARDS

2020 Gold Medal Award, Society of Biological Psychiatry
2019 SIRS Achievement Award
2017/18 President, Society of Biological Psychiatry
2016 Research Award, American Psychiatric Association
2015 Founders Award, ICOSR
2012/13 Program Chair Award, Society for Neuroscience
2012 Distinguished Psychiatrist lecturer, 2012, APA
2011 Lieber Award for Schizophrenia Research
2011 Kempf Award, American Psychiatric Association
2011 Flynn Award, Yale University Department of Psychiatry
2009 Aprison Lectureship, University of Indiana Medical School
2008 Arvid Carlsson Medal Award
2004 President, American College of Neuropsychopharmacology
2004 Distinguished Lecturer, University of the West Indies
2001 Research Lecturer of the Year, University of Maryland, SOM
2000 Mycell Lecturer, Harvard University
1998 Elected, National Academy of Medicine, National Academy of Sciences
1995 Special Lecturer, Society for Neuroscience, 25th Anniversary Meeting
1995 Dean Award, American College of Psychiatry
1989 Established Investigator Award, NARSAD
1987 Method to Extend Research in Time (MERIT) Award
National Institute of Mental Health
1979 McAlpin Award for Research in Psychiatry, Young Investigator

	National Association for Mental Health
1975-1976	Fellow, Foundation for Research in Psychiatry
1975	Sandoz Award for Psychiatric Research University of Chicago
1971	Beauchamp Scholarship in Psychiatry & Neurology Vanderbilt Medical School
1968-1971	Vivian Allen Fellow, M.D.-Ph.D. Program Vanderbilt Medical School

PROFESSIONAL SOCIETY MEMBERSHIPS

National Academy of Medicine, National Academy of Sciences, 1995
Society for Neuroscience, 1980
American College of Neuropharmacology, 1978; President, 2003
American Psychiatric Association
American Association for Advancement of Science
Biological Psychiatry, President 2017
Texas Society of Psychiatric Physicians

EDITORIAL BOARD MEMBER

Biological Psychiatry
Neuropsychopharmacology
Journal of Psychiatry Research
Schizophrenia Bulletin
Schizophrenia Research
Psychopharmacology Bulletin

SELECTED INVITED LECTURES

UTAustin, Dell Medical School, Department of Psychiatry Grand Rounds, 2021
Broad Institute, Stanley Center, Monthly Seminar Series, 2021
UCSF, Department of Psychiatry Grand Rounds, 2021
Baylor Medical School, Psychiatry Grand Rounds, 2020
Mt. Sinai Hospital Grand Rounds, 2020
McLean Hospital, Harvard, Grand Rounds, 2017
National Institutes of Health, Great Lecturer Series, 2018
International Society of Bipolar Disorder, *Refining Biotypes with Novel Biomarkers*, 2017
UT Dallas, CVL, *Advances in the Understanding of Psychosis*, 2017
Australia Research Society Distinguished Lecturer, *Categories of Psychosis*, 2017
University of Maryland, Featured Lecture, *Learning and Memory in Schizophrenia*, 2017
University of Miami Grand Rounds, February 2014
University of Maryland, Festschrift Speaker, March 2013
Sheppard Pratt Grand Rounds, Baltimore Jan 2013
Baylor College of Medicine Grand Rounds Nov 2012
NSAS Schizophrenia Course San Quirico, Italy Sept 2012
Alberta Annual Schizophrenia Conference Sept 2011

Northwestern U, Grand Rounds Sept 2011
Mount Sinai April 2011
UT Houston Grand Rounds Jan 2011
American College of Neuropsychopharmacology (ACNP) "Managing your Career", Dec. 2011
Society for Neuroscience "Roots of Mental Illness" Nov 2011
BBRF/NARSAD Program, "Psychosis as a Learning and Memory Disorder" Oct 2011
Northwestern University "Brain Plasticity and Inpatient Psychiatry" Sept 2011
Flynn Lecture, Yale University, "Learning and Memory Mechanisms in Schizophrenia", May 2011
Stockholm Lecture, "Learning and Memory Mechanisms in Schizophrenia", Stockholm Sweden, April 2011
Cooper Lectureship, "Learning and Memory Mechanisms in Psychosis", University of Houston, January 2011
Grand Rounds, "A Model for Hippocampal Involvement in Schizophrenic Psychosis", Washington University, November 2010
Grand Rounds, University of Galveston, October 2010
Grand Rounds, University of Illinois at Chicago, April 2010
Rubin Lecture, "Learning and Memory Mechanisms in Schizophrenia", November 2009
Grand Rounds, Indiana University, September 2009
Grand Rounds, University of Illinois at Chicago, February 2009
14th Annual Santa Fe Psychiatric Symposium, Santa Fe, New Mexico, June 2008
ASPET 2008 Symposium, San Diego, California, April 2008
Seminars in Clinical Research- RUH, New York, New York, January 2008

FEDERAL AND FOUNDATION GRANT SUPPORT (Principal Investigator or significant contributor)

ACTIVE SUPPORT

1. NIMH 1RO1 MH077851-10 (P.I.: Tamminga) 9/1/2014-8/31/2020
1/5 Bipolar-Schizophrenia Network for Intermediate Phenotypes 2 (B-SNIP 2)
2. NIMH 5T32 MH076690 (P.I.: Tamminga) 03/01/2013 -006/30/2018
Basic Science Training Program in Neurobiology of Mental Illness, Resubmitted
3. NIMH P50 MH096890 (P.I.: Nestler) 04/01/2012- 03/31/2022
Epigenetic Mechanisms of Depression
4. Simmons Foundation (P.I.: Tamminga) 04/01/2014-03/30/2019
Node for Autism BrainNet, Renewable Annually
5. NIMH 1RO1 MH124813-01 (PI: Tamminga) 04/01/2021-3/30/202
6. 1/5 Selective Antipsychotic Response to Clozapine in B-SNIP Biotype-1

SELECTED PAST SUPPORT

1. NIMH 1K23 MH102656 (P.I.: Ivleva) 08/1/2014-06/30/2018 Neural Network Biomarkers for Relational Memory and Psychosis in Schizophrenia
2. NIMH MH06913-01A1 (P.I.: Tamminga) 07/01/2013-06/30/2016 Psychosis and Affective Research Domains and Intermediate Phenotypes (PARDIP)
3. NIHM 5 R21 MH093959-02 (P.I.: Choi) 07/08/2011-12/31/2014 Novel High-Field MRS Study of CNS Neurotransmitter Function in Schizophrenia
4. NIMH 1R01MH083957 (P.I.: Carol A. Tamminga) 07/01/2009 – 01/30/2014 Antipsychotic Influence on Altered MTL Neuronal Activity in Schizophrenia
5. TORS NIMH RFA-FM-06-08 (P.I.: Joel Elmquist) 07/01/2008 – 06/30/2012 Interdisciplinary Research Consortium Central Mechanisms Regulating Energy Homeostasis
6. NIMH 1 R01 MH077851-01A2 (P.I.: Carol A. Tamminga) 04/01/2007 – 03/31/2013 Bipolar and Schizophrenia Consortium for Parsing Endophenotypes Administrative Supplement: 03/31/2012-04/1/13.
7. 7P50MH06617207 (P.I.: Eric Nestler) 08/01/2008 – 07/31/2012 Neural Substrates of Appetitive Behavior in Mood & Motivation
8. SMRI 05T-743 (P.I.: Carol A. Tamminga) 04/01/2008 – 03/31/2012 BF2.649 in Treating Cognition
9. NARSAD 2010 Distinguished Investigator Award (P.I.: Carol A. Tamminga) 05/01/2010-04/01/2011 Hippocampal Learning and Memory Mechanisms in Schizophrenia
10. NIMH 1 R34 MH075863-01A2 (P.I.: Carol A. Tamminga) 04/01/2007 – 03/31/2010 Treating Cognition in Schizophrenia
11. Lattner Foundation (P.I.: Carol A. Tamminga) 04/01/2006 – 03/01/2011 Lattner Healthy Brain Initiative in Young Adults with Social Cognitive Disorders
12. NIMH 5R25MH068338-05 (P.I.: Carol A. Tamminga) 08/01/2003 – 04/30/2008 Psychiatric Research Education Program (PREP)
13. 5T32MH07669002 (P.I.: Carol A. Tamminga) 07/01/2008 – 06/30/2008 Basic Science Training Program in Neurobiology of Mental Illness
14. NIMH 5RO1MH/DA63439-05 (P.I.: Carol A. Tamminga) 02/01/2002 – 06/30/2008 Comparative Antipsychotic Drug Actions: Behavior and Neurochemistry
15. SMRI 05-RC-001 (P.I.: Carol A. Tamminga) 11/30/2005 – 11/30/2008 Stanley Center for Early Drug Development in Psychosis
16. SMRI Stanley/Kline Institute for Psychiatric Research (P.I.: Carol A. Tamminga) 03/01/2007 – 02/29/2008 Pioglitazone and Metformin as a Treatment for Lipid and Glucose Abnormalities in

Patients with Schizophrenia Treated with Clozapine and Olanzapine and its Potential Effects on Cognitive Function

17. NIMH 5R01MH062236-05 (P.I.: Carol A. Tamminga) 02/01/2002 – 01/31/2008
Examination of the Limbic Cortex in Schizophrenia
18. NIMH (P.I.: Michael Vogel) 04/01/2003 – 03/30/2005 RGS Protein (2,4,9,10)
Survey in Schizophrenia
19. NIMH 1R01MH62236-01 (P.I.: Carol A. Tamminga) 02/01/2002 – 01/31/2007
Quantitative Examination of the Limbic Cortex in Schizophrenia
20. NIMH 1R01MH/DA63439-01 (P.I.: Carol A. Tamminga) 02/01/2002 - 03/31/2005
Comparative Antipsychotic Drug Actions: Behavior and Neurochemistry
21. NIMH, RO1MH49667 (P.I.: Carol A. Tamminga) 04/01/2000 – 03/31/2003
Partial Dopamine Agonist Treatment of Schizophrenia
22. NIMH 1R01MH57971-01A2 (P.I. Adrienne C. Lahti) 05/01/1999 – 01/31/2003
Blood Flow Changes and Antipsychotic Drug Action
23. Stanley Foundation (P.I.: Carol A. Tamminga) 09/01/1997 – 08/31/1999
Stanley Scholars Award Program
24. NIMH P50-MH40279 (P.I.: William T. Carpenter, Jr.) 09/01/1999 – 08/31/2003
IRC-Classification and Course of the Schizophrenias
25. NIMH 2P30MH40279-07 (P.I. William T. Carpenter, Jr.) 08/31/1993 – 07/31/1997
CRC-Classification and Course of the Schizophrenias
26. NIMH 5R01DA09483-02 (P.I.: Henry H. Holcomb) 09/30/1994 – 08/31/1997
Cerebral Blood Flow Pattern Induced by Ketamine
27. NIMH 1R01MH49826-01 (P.I.: Guntant K. Thaker) 05/01/1993 – 4/30/1997
Familial Schizophrenia Spectrum Personality Disorders
28. NIMH 5R01MH49667-06 (P.I.: Carol A. Tamminga) 09/01/1992 – 05/31/1998
Partial Dopamine Agonist Treatment of Schizophrenia
29. NIMH, 5P50 MH44211-02 (P.I.: William T. Carpenter, Jr.) 03/01/1989 – 02/28/1994
Neuroscience Center for Research in Schizophrenia
30. NIMH, MH43031 (P.I.: Guntant K. Thaker) 9/30/1988 – 08/31/1992
Eye Movement Measurements in Schizophrenia
31. NIMH, 5R01 MH42234-02 (P.I.: Carol A. Tamminga) 08/01/1987 – 07/31/1990
Regional Brain Glucose Utilization
32. NIMH, 5R01 MH37073-17 (P.I.: Carol A. Tamminga) 09/15/1987 – 04/30/2000
GABA Agonist Therapy in Tardive Dyskinesia

BIBLIOGRAPHY

BOOKS

Dimensions of Psychosis: Comprehensive Conceptualization and Treatments. Edited by C.A. Tamminga, E.I. Ivleva, U. Reininghaus, J. van Os, Oxford University Press New York, NY, 2021.

Schizophrenia: Scientific Progress edited by S.C. Schulz and C.A. Tamminga, Oxford Press, New York, 1989.

Schizophrenia Research edited by C.A. Tamminga and S.C. Schulz, Raven Press, New York, 1990.

ARTICLES AND BOOK CHAPTERS

1. Robinson, G.A., Hengeveld (**Tamminga**), **C.A.**, DeBalbian, V.F., Busch, E.S. Improved polyethylene cannulation techniques. *Physiol Behav*, 4:123-124, 1969.
2. Meltzer, H., Hassan, S., Morretti, R., Hengeveld (**Tamminga**), **C.A.**, Bruckner, D. Effects of ketamine on creatinine phosphokinase levels. *Lancet*, 305 (7917):1195-1196, 1975.
3. **Tamminga, C.A.**, Smith, R.C., Chang, S., Haraszti, Jr., Davis, J.M. Depression associated with oral choline. *Lancet*, II: 905, 1976.
4. Pandey, S., Garver, D., **Tamminga, C.A.**, Ericksen, S., Ali, S., Davis, J.M. Post-synaptic supersensitivity in schizophrenia. *Am J Psychiat*, 134:518-522, 1977.
5. **Tamminga, C.A.**, Smith, R.C., Ericksen, S.E., Chang, S., Davis, J.M. Cholinergic influences in tardive dyskinesia. *Am J Psychiat*, 134:769-774, 1977.
6. Smith, R.C., **Tamminga, C.A.**, Haraszti, J., Pandey, G., Davis, J.M. Effects of dopamine agonists in tardive dyskinesia. *Am J Psychiat*, 134:763-768, 1977.
7. Smith, R.C., **Tamminga, C.A.**, Davis, J.M. Effect of apomorphine on schizophrenic symptoms. *J Neural Transm*, 40:171-176, 1977.
8. **Tamminga, C.A.**, Smith, R.C., Frohman, L.A., Pandey, S., Davis, J.M. A neuroendocrine study of supersensitivity in tardive dyskinesia. *Arch Gen Psychiat*, 34:1199-1203, 1977.
9. Crayton, J.W., **Tamminga, C.A.**: Spinal-reflex studies as test of dopamine neurotransmission. *Lancet*, I:215-216, 1978.
10. **Tamminga, C.A.**, Schaffer, M.H., Chase, T.N. Ergot derivatives in the treatment of psychotic and hyperkinetic disorders. In: *Dopaminergic Ergot Derivatives and Motor Function*, edited by Werner-Gren Symposium, Stockholm, Sweden, Pergamon Press, Oxford, 349-360, 1978.
11. **Tamminga, C.A.**, Neophyties, A., Chase, T.N., Frohman, L.A. Stimulation of prolactin and growth hormone secretion in man by muscimol, a gamma-aminobutyric acid agonist. *J Clin Endocrinol Metab*, 47:1348-1351, 1978.
12. Davis, J.M., Janowski, D., **Tamminga, C.A.**, Smith, R.C. Cholinergic mechanisms in schizophrenia, mania and depression. In: *Cholinergic Mechanisms and Psychopharmacology*, edited by D. Jenden. Plenum Press, New York, 805-815, 1978.
13. **Tamminga, C.A.**, Crayton, J.C., Chase, T.N. Muscimol: GABA agonist therapy in schizophrenia. *Am J Psychiat*, 135:746-748, 1978.
14. **Tamminga, C.A.**, Schaffer, M.H., Smith, R.C., Davis, J.M. Schizophrenic Symptoms Improve with Apomorphine. *Science*, 200:567-568, 1978.

15. **Tamminga, C.A.**, Schaffer, M.H. Treatment of schizophrenia with ergot derivatives. *Psychopharmacology*, 66:239-242, 1979.
16. Smith, R.C., **Tamminga, C.A.**, Crayton, J.U., Dekirmenjian, H., Davis, J.M. Relationship of BPZ blood levels to plasma PRL in chronic schizophrenic patients. *Psychopharmacology*, 66:29-33, 1979.
17. Nutt, J., **Tamminga, C.A.**, Eisler, T., Chase, T.N. Clinical experience with a cholinergic agonist in hyperkinetic movement disorders. In: *Nutrition and the Brain*, edited by A. Barbeau, J.H. Growdon, R.J. Wurtman Raven Press, New York, 317-324, 1979.
18. **Tamminga, C.A.**, Nutt, J. Cholinergic influences on affect. In: *Nutrition and the Brain*, edited by A. Barbeau, J.H. Growdon, R.J. Wurtman Raven Press, New York, 409-415, 1979.
19. **Tamminga, C.A.**, Frohman, L.A. Neuroendocrine approach to the study and treatment of tardive dyskinesia. In: *Neuroendocrine Correlates in Psychiatry and Neurology*, edited by E.E. Muller. Elsevier Press, Amsterdam, 139-150, 1979.
20. Chase, T.N., **Tamminga, C.A.** Dopamine and GABA agonists in the treatment of hyperkinetic extrapyramidal disorders. In: *Advances in Neurology*, 24, edited by L.J. Poirier, T.L. Sourkes, P.J. Bedard. Raven Press, New York, 379-386, 1979.
21. **Tamminga, C.A.**, Crayton, J.W., Chase, T.N. Improvement in tardive dyskinesia after muscimol therapy. *Arch Gen Psychiat*, 36:595-598, 1979.
22. **Tamminga, C.A.**, Schaffer, M.A., Smith, R.C., Davis, J.M. Dopamine agonist treatment of schizophrenia. In: *Catecholamines: Basic and Clinical Frontiers*, edited by E. Usdin, I. Kopin, J. Barchas. Pergamon Press, Oxford, 1836-1838, 1979.
23. Chase, T.N., **Tamminga, C.A.** GABA system participation in human motor, cognitive, and endocrine function. In: *GABA-Neurotransmitters*, Munksgaard, Copenhagen, 283-294, 1979.
24. Smith, R.C., Crayton, J.W., **Tamminga, C.A.**, Dekirmenjian, H., Schoolar, J.C., Davis, J.M. Blood levels of neuroleptic drugs, clinical response and plasma prolactin in chronic nonresponding schizophrenic patients. In: *TRIMS Symposium*, edited by Spectrum Books, 137-170, 1979.
25. **Tamminga, C.A.**, Durso, R., Ruggeri, S., Chase, T.N. 24-hour plasma prolactin and growth hormone levels in Huntington's chorea. In: *Progress in Psychoneuroendocrinology*, edited by F. Brambilla, C. Racagni, D.de Wied. Elsevier/North Holland Biomedical Press, 309-313, 1980.
26. Chase, T.N., **Tamminga, C.A.** Pharmacologic studies of tardive dyskinesia In: *Long Term Effects of Neuroleptics (Adv. Biochem. Psychopharmacol. Vol. 24)*, edited by F. Cattabini, G. Racagni, P.F. Spano, E. Costa. Raven Press, New York, 457-461, 1980.
27. **Tamminga, C.A.** Antipsychotic and antidyskinetic properties of ergot dopamine agonists. In: *Ergot Compounds and Brain Function, Neuro-endocrine and Neuropsychiatric Aspects*, edited by M. Goldstein, D.B. Calne, A. Lieberman, M.O. Thorner. Raven Press, New York, 379-404, 1980.
28. **Tamminga, C.A.**, Chase, T.N. Bromocriptine and CF25397 in the treatment of tardive dyskinesia. *Arch Neurol*, 37:204-205, 1980.
29. **Tamminga, C.A.**, Davis, J.M., Crayton, J.W., Smith, R.C., Fann, E., Chang, S. Pharmacologic probes into tardive dyskinesia. In: *Proceedings of the II World Congress of Biological Psychiatry*, edited by C. Ballus. Elsevier Biomedical Press, Amsterdam, 1980.
30. Smith, R.C., **Tamminga, C.A.**, Davis, J.M. Behavioral effects of apomorphine and amphetamine in tardive dyskinesia patients. In: *Tardive Dyskinesia: Research and Treatment*, edited by W. Fann, R.C. Smith, J.M. Davis, E.F. Domino. Spectrum Publications, New York, 333-344, 1980.

31. **Tamminga, C.A.**, Smith, R.C., Davis, J.M. The effects of cholinergic drugs on the involuntary movements of tardive dyskinesia. In: *Tardive Dyskinesia: Research and Treatment*, edited by W. Fann, R.C. Smith, J.M. Davis, E.F. Domino. Spectrum Publications, New York, 411-418, 1980.
32. **Tamminga, C.A.**, Smith, R.C., Pandey, G., Frohman, L.A., Davis, J.M. A neuroendocrine study of supersensitivity in tardive dyskinesia. In: *Tardive Dyskinesia: Research and Treatment*, edited by W. Fann, R.C. Smith, J.J. Davis, E.F. Domino. Spectrum Publications, New York, 345-354, 1980.
33. Schaffer, M.H., **Tamminga, C.A.**, Smith, R.C., Davis, J.M. Apomorphine reduces schizophrenic symptoms. *Psychopharm Bull*, 16(1):55-57, 1980.
34. Chase, T.N., Durso, R., Fedio, P., **Tamminga, C.A.** Vasopressin treatment of cognitive deficits in Alzheimer's disease. In: *Alzheimer's Disease*, edited by S. Corkin, K.L. Davis, J.H. Growden, E. Usdin, R.J. Wurtman. Raven Press, New York, 455-459, 1981.
35. **Tamminga, C.A.**, Tighe, P.J., Chase, T.N., DeFraités, E.G., Schaffer, M.H. Des-tyrosine-gamma-endorphin administration in chronic schizophrenics. *Arch Gen Psychiat*, 38:167-168, 1981.
36. Davis, J.M., **Tamminga, C.A.**, Schaeffer, M.H., Smith, R.C.: Effects of apomorphine on schizophrenia. In: *Apomorphine and Other Dopaminomimetics Vol. 2, Clinical Pharmacology*, edited by G.U. Corsini, G.L. Gessa. Raven Press, New York, 45-48, 1981.
37. **Tamminga, C.A.**, DeFraités, E.G., Gotts, M.D., Chase, T.N. N-propyl-norapomorphine in the treatment of schizophrenia. In: *Apomorphine and Other Dopaminomimetics, Vol. 2., Clinical Pharmacology*, edited by G.U. Corsini, G.L. Gessa. Raven Press, New York, 49-55, 1981.
38. **Tamminga, C.A.** Tardive dyskinesia and the dopamine receptors. In: *Neuroreceptors-Basic and Clinical Aspects*, edited by E. Usdin, W.E. Bunney, J.M. Davis. John Wiley & Sons., Ltd., 231-239, 1981.
39. Chase, T.N., Durso, R., Denaro, S.A., Ruggieri, S., **Tamminga, C.A.** Neuroendocrine studies of Huntington's disease. In: *Integrative Neuro-humoral Mechanisms*, edited by Raven Press, New York, 1982.
40. Knight, M.K., Plotkin, C., **Tamminga, C.A.** Brain endopeptidase generates enkephalin from striatal precursors. *Peptides*, 3:461-468, 1982.
41. Cohen, S.L., Knight, M., **Tamminga, C.A.**, Chase, T.N. Cholecystokinin-octapeptide effects on conditioned-avoidance behavior, stereotypy, and catalepsy. *Eur J Pharm*, 83:213-222, 1982.
42. **Tamminga, C.A.**, Carpenter, W.T. The DSM-III diagnosis of Schizophrenia-like illness and the clinical pharmacology of psychosis. *J Nerv Ment Disease*, 170:744-751, 1982.
43. **Tamminga, C.A.**, Durso, R., Fedio, P., Chase, T.N. Vasopressin studies in Alzheimer's disease. *Psychopharm Bull*, 18:48-49, 1982.
44. Durso, R., Fedio, P., Brouwer, B., Cox, C., Martin, A.J., Ruggieri, S.A., **Tamminga, C.A.**, Chase, T.N: Lysine vasopressin in Alzheimer's disease. *Neurology*, 32:674-677, 1982.
45. Pomara, N., Domino, E.F., Yoon, H., Brinkman, S., **Tamminga, C.A.**, Gershon, S. Failure of single-dose lecithin to alter aspects of central cholinergic activity in Alzheimer's disease. *J Clinical Psychiat*, 44:293-295, 1983.
46. Knight, M., Kask, A.M., **Tamminga, C.A.** Synthesis of amino-terminal fragments of cholecystokinin 26-33. *Peptides: Structure and Function*, edited by V.J. Hruby D.H. Rich. Pierce Chemical Company, 759-762, 1983.
47. Cohen, L.C., Knight, M., **Tamminga, C.A.**, Chase, T.N. Minimized tolerance to the suppressive effects of CCK-8 on operant responding. *Behavioral and Neural Neurology*, 39:123-127, 1983.

48. Thaker, G.K., Hare, T.A., **Tamminga, C.A.** GABA system: Clinical research and treatment of tardive dyskinesia. In: *Mod Prob Pharmacopsychiat*, 21:155-167, edited by T.A. Ban, P. Pichot, L.W. Poldinger. S. Karger, Basel, 1983
49. Nurnberger, J.I., Jimerson, D.C., Simmons-Alling, S., **Tamminga, C.A.**, Nadi, N.S., Lawrence, D., Sitaram, N., Gillin, J.C., Gershon, E.S. Behavioral, physiological and neuroendocrine responses to arecoline in normal twins and "well state" bipolar patients. *Psychiatry Research*, 9:191-200, 1983.
50. Durso, R., **Tamminga, C.A.**, Denaro, A., Ruggeri, S., Chase, T.N. Plasma growth hormone and prolactin response to dopaminergic cholinergic and GABA mimetic stimulation in Huntington's disease. *Neurology*, 33:1229-1232, 1983.
51. **Tamminga, C.A.**, Thaker, G.K., Hare, T., Ferraro, T. GABA agonist therapy improves tardive dyskinesia. *Lancet*, ii:97-98, 1983.
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