

## **Thomas Michael Hyde, M.D., Ph.D.**

Consultant, Clinical and Forensic Neurology and Psychiatry  
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### **PERSONAL INFORMATION:**

Place of Birth: Toronto, Ontario, Canada  
Citizenship: United States of America  
Marital Status: Married  
Residence: 2829 Greenvale Street, Chevy Chase, Maryland 20815  
Telephone: (301) 652-8777

### **EDUCATIONAL BACKGROUND:**

1974-1978 B.A., Department of Biology, College of Arts and Sciences, University of Pennsylvania, Philadelphia, Pennsylvania.

1978-1984 M.D., School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania.

1978-1984 Ph.D., Graduate Group in Anatomy, Faculty of Arts and Sciences, University of Pennsylvania, Philadelphia, Pennsylvania.

1984-1985 General Medical Internship, Department of Medicine, Presbyterian-University of Pennsylvania Medical Center, Philadelphia, Pennsylvania.

1985-1987 Neurology Residency, Department of Neurology, Stanford University Medical Center, Stanford, California.

1987-1988 Chief Resident in Neurology, Department of Neurology, Stanford University Medical Center, Stanford, California.

1990 Board Certification in General Neurology, American Academy of Neurology.

### **EMPLOYMENT AND APPOINTMENTS:**

1988-1996 Director, Neurology Consultation Services, Clinical Brain Disorders Branch, National Institute of Mental Health, St. Elizabeths Hospital, Washington, D.C.

1988-1996 Special Volunteer, Laboratory of Neuropathology, Clinical Brain Disorders Branch, National Institute of Mental Health, Washington, D.C.

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| 1988-2010     | Private Practice, Behavioral Neurology and Neuropsychiatry, Chevy Chase, Maryland.  |
| 1996-2010     | Senior Staff Scientist, Neuropathology Section, Clinical Brain Disorders Branch, National Institute of Mental Health, IRP, NIH, Bethesda, Maryland. |
| 1990-2010     | Clinical Instructor, Department of Neurology, George Washington University Medical School, Washington, D.C.   |
| 2010-2011     | Acting Chief Operating Officer, Lieber Institute for Brain Development, Baltimore, Maryland.  |
| 2010-2016     | Chief Operating Officer, Lieber Institute for Brain Development, Baltimore, Maryland.   |
| 2010-2013     | Special Volunteer, Neuropathology Section, Clinical Brain Disorders Branch, National Institute of Mental Health, IRP, NIH, Bethesda, Maryland.      |
| 2012-present  | Adjunct Professor, School of Life Sciences, Peking University, Beijing, China.  |
| 2013-present  | Associate Professor, Department of Psychiatry and Behavioral Sciences, Johns Hopkins School of Medicine, Baltimore, Maryland.                       |
| 2013-present  | Associate Professor, Department of Neurology, Johns Hopkins School of Medicine, Baltimore, Maryland.  |
| 2013-2015     | Member, State of Maryland Life Sciences Advisory Board, Annapolis, Maryland.  |
| 2014-present  | Member, Scientific Advisory Board, A Foundation Building Strength, Research and Development Committee, Palo Alto, California.                       |
| 2014- present | Expert Reviewer, Canadian Foundation for Innovation, Toronto, Ontario, Canada.  |
| 2014-present  | Board of Directors, Sheppard Pratt Lieber Research Institute, Towson, Maryland.   |
| 2016-present  | Chief Medical Officer, Lieber Institute for Brain Development, Baltimore, Maryland.   |
| 2017-2018     | Conference Chair-elect, Winter Conference on Brain Research.  |
| 2018-present  | Conference Chair, Winter Conference on Brain Research   |

2018-present Member, Minority Task Force, American College of Neuropsychopharmacology

2019-present Member, Program Committee, Society of Biological Psychiatry

### **AWARDS AND HONORS:**

1974 Valedictorian  
Magruder Senior High School  
Rockville, Maryland

1974-1978 Dean's List  
University of Pennsylvania  
Philadelphia, Pennsylvania

1976-1984 University Scholar  
School of Medicine and Graduate Group in Anatomy  
University of Pennsylvania

1977 Phi Beta Kappa  
University of Pennsylvania

1978 B.A. Summa cum Laude  
University of Pennsylvania

1978 Grass Foundation Research Award  
Graduate Group in Anatomy  
University of Pennsylvania

1979-1984 Predoctoral Fellow  
Medical Scientist Training Program  
School of Medicine and Graduate Group in Anatomy  
University of Pennsylvania

1983 Roy G. Williams Award for Excellence in Research  
School of Medicine and Graduate Group in Anatomy  
University of Pennsylvania

1984 Outstanding Clinician-Researcher in Senior Class  
School of Medicine and Graduate Group in Anatomy  
University of Pennsylvania

1999 National Institutes of Health Director's Award  
National Institutes of Health  
Bethesda, Maryland

2008 Awarded membership in the American College of Neuropsychopharmacology

2010 Guest Lecturer, Cold Spring Harbor Laboratory  
Banbury Seminars, Workshop on Schizophrenia and Related Disorders, June 9 – June 15, 2010  
"Postmortem Gene Expression in Neurodevelopment"

2015 Appointed as a Fellow in the American College of Neuropsychopharmacology

### **PROFESSIONAL ASSOCIATIONS:**

Society for Neuroscience  
American Medical Association  
American Academy of Neurology  
District of Columbia Medical Society  
Society of Biological Psychiatry  
American College of Neuropsychopharmacology

### **RESEARCH FUNDING:**

1989-1991 National Alliance for Research on Schizophrenia and Depression  
Young Investigator Award

1989-1991 Tourette Syndrome Association  
Independent Research Grant

1996-present Research funding through the Intramural Research Program of the National Institute of Mental Health

### **SELECTED INVITATIONAL LECTURES:**

February 11, 2013 Symposium: "The Complexity of Genetic Risk for Schizophrenia", Department of Psychiatry, School of Medicine, University of Bari, Bari, Italy

March 18, 2013 Invitational Lecture: "GABA Signaling Abnormalities in Schizophrenia", Departments of Psychiatry, Genetics, and Neuroscience, Oxford University School of Medicine, Oxford, England, United Kingdom

April 24, 2013 Symposium: "Next-Generation Sequencing Approaches to Schizophrenia and its Neurodevelopmental Origins", 14<sup>th</sup> International Congress on Schizophrenia Research, Orlando, Florida.

April 25, 2013 Symposium: "BrainCloud: an Integrative Approach to Genomic Brain Research", 14<sup>th</sup> International Congress on Schizophrenia Research, Orlando, Florida.

May 25, 2013 Plenary Speaker, "GABA Signaling Abnormalities, Allelic Variation, Neurodevelopment, and Schizophrenia", 5<sup>th</sup> Macedonian Psychiatric Congress and International Meeting, Orhid, Macedonia.

April 19, 2014 Keynote Speaker, "Postmortem Human Brains Dedicated to Neuropsychiatric Disease Research",

International Workshop on Human Brain Banking in China, Changsha, China.

April 25, 2014 Keynote Speaker, "Postmortem Human Brain Studies in Major Mental Illnesses", International Workshop on Human Brain Banking in China, Satellite Symposium, Beijing, China.

April 30, 2014 Keynote Speaker, "Post-mortem Human Brain Studies in Developmental Neuropsychiatric Disorders", 1<sup>st</sup> Lieber Institute-Peking University Joint Translational Neuroscience Institute Meeting, Beijing, China.

May 16, 2014 Keynote Speaker, "Post-mortem Human Brains and Neuropsychiatric Disease: Acquisition, Characterization, and Uses of Post-mortem Tissues", Multi-ITN IN-SENS, Deciphering Inter- and Intracellular Signaling in Schizophrenia, Dusseldorf, Germany.

October 10, 2014 Guest Speaker, "GABA Signaling Abnormalities and Schizophrenia: Neurodevelopment and Genetic Risk", Netherlands Brain Bank, Netherlands Institute for Neuroscience, Amsterdam, Netherlands.

October 15, 2014 Symposium Speaker, "Genetic Risk, Neurodevelopment, and the Molecular Pathology of Schizophrenia", World Congress of Psychiatric Genetics, Copenhagen, Denmark.

November 13, 2014 Grand Rounds, "GABA Signaling Abnormalities and Schizophrenia: Postmortem Human Brain Studies", Department of Pharmacy Practice, University of Illinois-Chicago, Chicago, Illinois.

November 20, 2014 Grand Rounds, "Lieber Institute for Brain Development: Genetics and Molecular Pathology of Complex Developmental Brain Disorders", Department of Neurosurgery, Johns Hopkins School of Medicine, Baltimore, Maryland.

March 11, 2015 Keynote Speaker and Symposium Discussant, "Boosting Brain Innovation: A New Path Forward: Lieber Institute for Brain Development". BrainTech 2015, Tel Aviv, Israel.

November 12, 2015 Keynote Speaker, "Building a Better Human Brain Tissue Repository", Seoul National University Hospital Commemorative Symposium, Seoul, Korea.

May 16, 2018 Plenary Speaker, "Genetic Pathology of PTSD", Baltimore Veterans Administration Hospital Research Day, Baltimore, Maryland.

July 30, 2018 Invitational Speaker, "Genetic Pathology of

Schizophrenia and Bipolar Disorder”, Illawara Health and Medical Research Institute, University of Wollongong, Wollongong, Australia.

March 19, 2019

Grand Rounds, “Postmortem Human Brain Studies: Insights into the Genetic Pathology of Schizophrenia and Bipolar Disorder”, Department of Psychiatry, Keck School of Medicine, University of Southern California.

January 9, 2020

Grand Rounds, “Postmortem Human Brain Studies: Insights into the Genetic Pathology of Schizophrenia and Bipolar Disorder”, Department of Psychiatry, School of Medicine, University of South Florida.

### **ADDITIONAL ACTIVITIES:**

1990-1993

Volunteer, Whitman-Walker Clinic, AIDS Testing Section

1992-present

Member, Program Committee, Winter Conference on Brain Research

1992-1995

Chairman, Radiation Drug Research Committee, Neuroscience Research Center, National Institute of Mental Health

1993-1994

Member, Montgomery County, Maryland AIDS Task Force

1993-1995

Member, Program Committee, Annual Meeting of the American Academy of Neurology

1993-1994, 1998-2000

Member, Program Committee, Annual Meeting of the Society of Biological Psychiatry

1995-1997

Member, Board, Epilepsy Foundation for the National Capitol Area

1998-present

Member, Advisory Board to Board of Directors, Greater Washington Chapter, Tourette Syndrome Association

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| 1999-2002    | Member, Board of Directors, Winter Conference on Brain Research                                  |
| 2000-2013    | Member, Editorial Advisory Board, Journal of Chemical Neuroanatomy                               |
| 2004-present | Member, Editorial Advisory Board, Current Psychiatry Reviews                                     |
| 2006-present | Member, Scientific Advisory Council, American Foundation for Suicide Prevention                  |
| 2007-present | Member, Editorial Advisory Board, The Open Psychiatry Journal                                    |
| 2013-2015    | Member, State of Maryland Life Sciences Advisory Board   |
| 2016         | External Reviewer, MRC Centre for Neurodevelopmental Disorders, London, England, United Kingdom. |

## **PUBLICATIONS:**

### **ORIGINAL RESEARCH PUBLICATIONS:**

1. **Hyde, TM** and RR Miselis. Effects of area postrema/caudal medial nucleus of the solitary tract lesions on food intake and body weight. American Journal of Physiology. 244: 577-587, 1983.
2. **Hyde, TM** and RR Miselis. Effects of area postrema/caudal medial nucleus of the solitary tract lesions on water and sodium balance. American Journal of Physiology. 246: 173-182, 1984.
3. Miselis, RR, **TM Hyde**, and RE Shapiro. The area postrema and adjacent solitary nucleus in water and energy balance. Federation Proceedings. 43: 2969-2971, 1984.
4. **Hyde, TM**, M Gibbs, and SJ Peroutka. Distribution of muscarinic cholinergic receptors in the dorsal vagal complex and other selected nuclei in the human medulla. Brain Research. 447: 287-292, 1988.
5. **Hyde, TM** and SJ Peroutka. Distribution of cholecystokinin receptors in the dorsal vagal complex and other selected nuclei in the human medulla. Brain Research. 495: 198-202, 1989.
6. **Hyde, TM**, JR Hotson, and JE Kleinman. Differential diagnosis of choreiform tardive dyskinesia. Journal of Neuropsychiatry and Clinical Neurosciences. 3: 255-268, 1991.
7. **Hyde, TM**, BA Aaronson, C Randolph, KC Rickler, and DR Weinberger. The relationship of birthweight to the phenotypic expression of Tourette's Syndrome in monozygotic twins. Neurology. 42: 652-657, 1992.
8. **Hyde, TM**, JC Ziegler, and DR Weinberger. Psychiatric disturbances in metachromatic leukodystrophy: insights into the neurobiology of psychosis. Archives of Neurology. 49: 401-406, 1992.
9. Egan, MF, **TM Hyde**, GW Albers, A Elkashef, R Alexander, A Reeves, AO Blume, and RJ Wyatt. Treatment of tardive dyskinesia with vitamin E. American Journal of Psychiatry. 149: 773-777, 1992.
10. **Hyde, TM** and RR Miselis. The subnuclear organization of the human caudal nucleus of the solitary tract. Brain Research Bulletin, 29: 95-109, 1992.
11. Egan, MF, **TM Hyde**, DL Tirschwell, JE Kleinman, and DR Weinberger. Laterality of appendicular tardive dyskinesia in chronic schizophrenia. Biological Psychiatry. 31: 1098-1109, 1992.
12. **Hyde, TM**, LC Wu, IB Krasnov, SK Sigworth, NG Daunton, and F D'Amelio. Quantitative autoradiographic analysis of muscarinic cholinergic and GABA<sub>A</sub> (benzodiazepine) receptors in the forebrain of rats flown on COSMOS 2044. Brain Research. 593: 291-294, 1992.
13. **Hyde, TM**, EK Fitzcharles, and DR Weinberger. Age-related prognostic factors in the severity of illness of Tourette's Syndrome in monozygotic twins. Journal of Neuropsychiatry and Clinical Neurosciences. 5: 178-182, 1993.
14. Randolph, C, **TM Hyde**, JM Gold, TE Goldberg, and DR Weinberger. Tourette's Syndrome in monozygotic twins: relationship of tic severity to neuropsychological function. Archives of Neurology. 50: 725-728, 1993.
15. Goldberg, TE, **TM Hyde**, JE Kleinman, and DR Weinberger. The course of schizophrenia: neuropsychological evidence for a static encephalopathy. Schizophrenia Bulletin. 19: 797-804, 1993.
16. Gupta S, MF Egan, and **TM Hyde**. An unusual presentation of tardive dyskinesia with prominent involvement of the pectoral musculature. Biological Psychiatry. 33: 291-292, 1993.
17. Elkashef, AM, MF Egan, JA Frank, **TM Hyde**, BK Lewis, and RJ Wyatt. Basal ganglia iron content in tardive dyskinesia: an MRI study. Biological Psychiatry. 35: 16-21, 1994.



18. Abi-Dargham, A, M Laruelle, J Seibyl, Z Rattner, RM Baldwin, SS Zoghbi, Y Zea-Ponce, JD Bremner, **TM Hyde**, DS Charney, PB Hoffer, and RB Innis. SPECT measurement of benzodiazepine receptors in human brain with [<sup>123</sup>I]lomazenil: kinetic and equilibrium paradigms. Journal of Neurochemistry. 35: 228-238, 1994.
19. Ohuoha, DC, MB Knable, SS Wolf, JE Kleinman, and **TM Hyde**. 5-HT<sub>3</sub> receptor distribution in the human nucleus of the solitary tract and other structures of the caudal medulla: a quantitative autoradiographic study. Brain Research. 637: 222-226, 1994.
20. Sambunaris, A and **TM Hyde**. Stroke-related aphasias mistaken for psychotic speech: two case reports. Journal of Geriatric Psychiatry and Neurology. 7: 144-147, 1994.
21. **Hyde, TM**, S Nawroz, TE Goldberg, D Strong, JL Ostrem, DR Weinberger, and JE Kleinman. Is there cognitive decline in schizophrenia? A cross-sectional study. British Journal of Psychiatry. 164: 494-500, 1994.
22. Wolf, SS, **TM Hyde**, and DR Weinberger. Malformations of the septum pellucidum: two distinctive cases in association with schizophrenia. Journal of Psychiatry and Neuroscience. 19: 140-144, 1994.
23. **Hyde, TM**, HA Emsellem, C Randolph, KC Rickler, and DR Weinberger. EEG abnormalities in monozygotic twins with Tourette's Syndrome. British Journal of Psychiatry. 164: 811-817, 1994.
24. Cantor-Graae, E, TF McNeil, KC Rickler, K Sjöström, R Rawlings, ES Higgins, and **TM Hyde**. Are neurological abnormalities in well discordant monozygotic co-twins of schizophrenic subjects the result of perinatal trauma? American Journal of Psychiatry. 151: 1194-1199, 1994.
25. Wolf, SS, **TM Hyde**, TW Moody, RC Saunders, DR Weinberger, and JE Kleinman. The autoradiographic characterization of <sup>125</sup>I-neurotensin binding in human entorhinal cortex. Brain Research Bulletin. 35: 353-358, 1994.
26. Egan, MF, Y Hurd, **TM Hyde**, DR Weinberger, JE Kleinman, and RJ Wyatt. Alterations in mRNA levels of D2 receptors and neuropeptides in striatonigral and striatopallidal neurons of rats with neuroleptic-induced dyskinesias. Synapse. 18: 178-189, 1994.
27. Knable, MB, **TM Hyde**, M Tosayali, RJ Wyatt, JE Kleinman, DR Weinberger, and MF Egan. Quantitative autoradiography of striatal dopamine D1, D2, and reuptake sites in rats with vacuous chewing movements. Brain Research. 646: 217-222, 1994.
28. Knable, MB, **TM Hyde**, MM Herman, JM Carter, LB Bigelow, and JE Kleinman. Quantitative autoradiography of dopamine-D1 receptors, D2 receptors and dopamine uptake sites in post-mortem striatal specimens from schizophrenic patients. Biological Psychiatry. 36: 827-835, 1994.
29. **Hyde, TM**, MF Egan, RJ Brown, DR Weinberger, and JE Kleinman. Diurnal variation in tardive dyskinesia. Psychiatry Research. 56: 53-57, 1995.
30. **Hyde, TM** and DR Weinberger. Tourette's Syndrome: a model neuropsychiatric disorder. Journal of the American Medical Association. 273: 498-501, 1995.
31. Egan, MF, **TM Hyde**, JE Kleinman, and RJ Wyatt. Neuroleptic-induced vacuous chewing movements in rodents: incidence and effects of long-term increases in haloperidol dose. Psychopharmacology. 117: 74-81, 1995.
32. **Hyde, TM**, MF Egan, LL Wing, RJ Wyatt, DR Weinberger, and JE Kleinman. Persistent catalepsy associated with severe dyskinesias in rats treated with chronic injections of haloperidol decanoate. Psychopharmacology. 118: 142-149, 1995.
33. **Hyde, TM**, ME Stacey, R Coppola, SF Handel, KC Rickler, and DR Weinberger. Structural abnormalities in Tourette's Syndrome: a quantitative MRI study in monozygotic twins. Neurology. 45: 1176-1182, 1995.

34. Knable, MB, DW Jones, R Coppola, **TM Hyde**, KS Lee, J Gorey, and DR Weinberger. Lateralized differences in Iodine-123-IBZM uptake in the basal ganglia activity in asymmetric Parkinson's disease. J. Nuclear Medicine. 36: 1216-1225, 1995.
35. Egan, MF, JN Ferguson, and **TM Hyde**. Effects of chronic naloxone administration on vacuous chewing movements and catalepsy in rats treated with long-term haloperidol decanoate. Brain Research Bulletin 38: 355-363, 1995.
36. Wolf, SS, **TM Hyde**, RC Saunders, MM Herman, DR Weinberger, and JE Kleinman. Autoradiographic characterization of neurotensin receptors in the entorhinal cortex of schizophrenic patients and control subjects. J. Neural Transmission., 102: 55-65, 1995.
37. Murray, AM, **TM Hyde**, MB Knable, MM Herman, LB Bigelow, JM Carter, DR Weinberger, and JE Kleinman. The distribution of putative D4 dopamine receptors in post-mortem striatum from patients with schizophrenia. J. Neuroscience. 15: 2186-2191, 1995.
38. Lynn, RB, GY Cao, RV Considine, **TM Hyde**, and JF Caro. Autoradiographic localization of leptin binding in the choroid plexus of *ob/ob* and *db/db* mice. Biochemical and Biophysical Research Communications. 219: 884-889, 1996.
39. Lynn, RB, **TM Hyde**, RB Cooperman, and RR Miselis. Distribution of bombesin-like immunoreactivity in the nucleus of the solitary tract and dorsal motor nucleus of the rat and human: colocalization with tyrosine hydroxylase. J. Comparative Neurology. 369: 552-570, 1996.
40. Considine, RV, EL Considine, CJ Williams, **TM Hyde**, and JF Caro. The hypothalamic leptin receptor is humans: identification of incidental sequence polymorphisms and absence of the *db/db* mouse and *fa/fa* rat mutations. Diabetes. 45:992-994, 1996.
41. **Hyde, TM**, MB Knable, and AM Murray. The distribution of dopamine D1- D4 receptor subtypes in human dorsal vagal complex. Synapse. 24: 224-232, 1996.
42. Wolf, SS, DW Jones, MB Knable, J Gorey, KS Lee, **TM Hyde**, R Coppola, and DR Weinberger. Phenotypic variation in Tourette Syndrome twins correlates with dopamine receptor imaging in caudate. Science. 273: 1225-1227, 1996.
43. Knable, MB, **TM Hyde**, AM Murray, MM Herman, and JE Kleinman. A postmortem study of frontal cortical dopamine D1 receptors in schizophrenics, psychiatric controls, and normal controls. Biological Psychiatry. 40: 1191-1199, 1996.
44. Egan, MF, JN Ferguson, and **TM Hyde**. Effects of rating parameters on assessment of neuroleptic-induced vacuous chewing movements. Pharmacology, Biochemistry, and Behavior. 53: 401-410, 1996.
45. Egan, MF, Y Hurd, JN Ferguson, SE Bachus, EH Hamid, and **TM Hyde**. Pharmacological and neurochemical differences between acute and tardive vacuous chewing movements induced by haloperidol. Psychopharmacology. 127: 337-345, 1996.
46. Bachus, SE, **TM Hyde**, MM Herman, MF Egan, and JE Kleinman. Abnormal cholecystokinin mRNA levels in entorhinal cortex of schizophrenics. J. Psychiatric Research. 31: 233-256, 1997.
47. **Hyde, TM** and DR Weinberger. Seizures and schizophrenia. Schizophrenia Bulletin. 23: 611-622, 1997.
48. Hurd, YL, MM Herman, **TM Hyde**, LB Bigelow, DR Weinberger, and JE Kleinman. Prodynorphin mRNA expression is increased in the patch versus matrix compartment of the caudate nucleus in suicide subjects. Molecular Psychiatry. 2: 495-500, 1997.
49. Shimon, H, G Agam, RH Belmaker, **TM Hyde**, and JE Kleinman. Reduced frontal cortex inositol levels in postmortem brain of suicide victims and patients with bipolar disorder. American J. Psychiatry. 154: 1148-1150, 1997.

50. Krimer, LS, **TM Hyde**, MM Herman, and RC Saunders. The entorhinal cortex: an examination of cyto- and myelo-architectonic organization in humans. Cerebral Cortex. 7: 722-731, 1997.
51. Krimer, LS, MM Herman, RC Saunders, JC Boyd, **TM Hyde**, JM Carter, JE Kleinman, and DR Weinberger. A qualitative and quantitative analysis of the entorhinal cortex in schizophrenia. Cerebral Cortex. 7: 732-739, 1997.
52. Noga, JT, **TM Hyde**, MM Herman, CF Spurney, LB Bigelow, DR Weinberger, and JE Kleinman. Glutamate receptors in the post-mortem striatum of schizophrenia, suicide, and control brains. Synapse. 27: 168-176, 1997.
53. Moore, KA, GW Kunsman, BS Levine, MM Herman, J Cervenak, and **TM Hyde**. A comparison of ethanol concentrations in the occipital lobe and cerebellum. Forensic Science International. 86: 127-134, 1997.
54. Vawter, MP, HE Cannon-Spoor, JJ Hemperly, **TM Hyde**, DM VanderPutten, JE Kleinman, and WJ Freed. Abnormal expression of cell recognition molecules in schizophrenia. Experimental Neurology. 149: 424-432, 1998.
55. Baca, SM, BK Lipska, MF Egan, SE Bachus, JN Ferguson, and **TM Hyde**. Effects of prefrontal cortical lesions on neuropeptide and dopamine receptor gene expression in the striatum-accumbens complex. Brain Research. 797: 55-64, 1998.
56. Mulberg, AE, RT Weyler, SM Altschuler, and **TM Hyde**. Cystic fibrosis transmembrane conductance regulator expression in human hypothalamus. NeuroReport. 9: 141-144, 1998.
57. Heinz, A, MB Knable, SS Wolf, DW Jones, JG Gorey, **TM Hyde**, and DR Weinberger. Tourette's Syndrome: [I-123]beta-CIT SPECT correlates of vocal tic severity. Neurology. 51: 1069-1074, 1998.
58. Hamid, EH, **TM Hyde**, SM Baca, and MF Egan. Failure to down regulate NMDA receptors in the striatum and nucleus accumbens associated with neuroleptic-induced dyskinesia. Brain Research. 796: 291-295, 1998.
59. Vawter, MP, JJ Hemperly, **TM Hyde**, SE Bachus, DM VanderPutten, AL Howard, HE Cannon-Spoor, MT McCoy, MJ Webster, JE Kleinman, and WJ Freed. VASE-containing N-CAM isoforms are increased in the hippocampus in bipolar disorder but not schizophrenia. Experimental Neurology. 154: 1-11, 1998.
60. McNamara, RK, **TM Hyde**, JE Kleinman, and RH Lenox. Expression of myristoylated alanine-rich C kinase substrate (MARCKS) and MARCKS-related protein (MRP) in the prefrontal cortex and hippocampus of suicide victims. J. Clinical Psychiatry. Supplement 2: 21-6, 1999.
61. Vawter, MP, AL Howard, **TM Hyde**, JE Kleinman, and WJ Freed. Alterations of hippocampal secreted N-CAM in bipolar disorder and synaptophysin in schizophrenia. Molecular Psychiatry. 4: 467-475, 1999.
62. Spurney, CF, SM Baca, AM Murray, GE Jaskiw, JE Kleinman, and **TM Hyde**. Differential effects of haloperidol and clozapine on ionotropic glutamate receptors in rats. Synapse. 34: 266-276, 1999.
63. Holt, DJ, MM Herman, **TM Hyde**, JE Kleinman, CM Sinton, DC German, LB Hersh, AM Graybiel, and CB Saper. Evidence for a deficit in cholinergic interneurons in the striatum in schizophrenia. Neuroscience. 94: 21-31, 1999.
64. Weickert, CS, MJ Webster, SM Colvin, MM Herman, **TM Hyde**, DR Weinberger, and JE Kleinman. Localization of epidermal growth factor receptors and putative neuroblasts in human subependymal zone. Journal of Comparative Neurology. 423: 359-372, 2000.
65. Bower, CM, **TM Hyde**, M Zaka, EH Hamid, SM Baca, and MF Egan. Decreased mu-opioid receptor binding in the globus pallidus of rats treated with chronic haloperidol. Psychopharmacology. 150: 260-263, 2000.

66. Meredith, GE, IE De Souza, **TM Hyde**, G Tipper, ML Wong, and MF Egan. Persistent alterations in dendrites, spines, and dynorphinergic synapses in the nucleus accumbens shell of rats with neuroleptic-induced dyskinesias. Journal of Neuroscience. 20: 7798-7806, 2000.
67. Weickert, CS, MJ Webster, **TM Hyde**, MM Herman, SE Bachus, G Bali, DR Weinberger, and JE Kleinman. Reduced expression of GAP-43 mRNA in dorsolateral prefrontal cortex of schizophrenics. Cerebral Cortex. 11: 136-147, 2001.
68. Webster, MJ, CS Weickert, MM Herman, **TM Hyde**, and JE Kleinman. Synaptophysin and GAP-43 mRNA levels in the hippocampus of subjects with schizophrenia. Schizophrenia Research. 49: 89-98, 2001.
69. Winterer, G, MF Egan, T Radler, **T Hyde**, R Coppola, and DR Weinberger. An association between reduced interhemispheric EEG coherence in the temporal lobe and genetic risk for schizophrenia. Schizophrenia Research. 49: 129-143, 2001.
70. Egan, MF, TE Goldberg, T Gscheidle, M Weirich, R Rawlings, **TM Hyde**, LB Bigelow, and DR Weinberger. Relative risk for cognitive impairments in siblings of patients with schizophrenia. Biological Psychiatry. 50: 98-107, 2001.
71. Noga, JT, **TM Hyde**, SE Bachus, MM Herman, and JE Kleinman. AMPA receptor binding in the dorsolateral prefrontal cortex of schizophrenics and controls. Schizophrenia Research. 48: 361-363, 2001.
72. Crook, JM, M Akil, BCW Law, **TM Hyde**, and JE Kleinman. Comparative analysis of group II metabotropic glutamate receptor immunoreactivity in the dorsolateral prefrontal cortex of patients with schizophrenia and normal subjects. Molecular Psychiatry. 7: 157-164, 2002.
73. Egan, MF, **TM Hyde**, JB Bonomo, VS Mattay, LB Bigelow, TE Goldberg, and DR Weinberger. Relative risk of neurological signs in siblings of patients with schizophrenia. American Journal of Psychiatry. 158: 1827-1834, 2002.
74. Vawter, MP, L Thatcher, N Usen, **TM Hyde**, JE Kleinman, and WJ Freed. Reduction of synapsin in the hippocampus of patients with bipolar disorder and schizophrenia. Molecular Psychiatry. 7: 571-578, 2002.
75. Mattay, VA, A Tessitore, JH Callicott, A Bertolino, TE Goldberg, TN Chase, **TM Hyde**, and DR Weinberger. Dopaminergic modulation of cortical function in patients with Parkinson's disease. Annals of Neurology 51: 156-164, 2002.
76. Hamid, EH, **TM Hyde**, SE Bachus, MF Egan, B Kinkead, CB Nemeroff, and JE Kleinman. Neurotensin receptor abnormalities in the mesial temporal lobe in schizophrenia. Biological Psychiatry 15: 795-800, 2002.
77. Tessitore, A, R Hariri, F Fera, WG Smith, TN Chase, **TM Hyde**, D. R. Weinberger and V. S. Mattay. Dopamine modulates the response of the human amygdala: A study in Parkinson's disease. Journal of Neuroscience. 22: 9099-9103, 2002.
78. Vawter, MP, JM Crook, **TM Hyde**, JE Kleinman, DR Weinberger, K.G. Becker, and WJ Freed. Microarray analysis of gene expression in the prefrontal cortex in schizophrenia. Schizophrenia Research. Schizophrenia Research. 58: 11, 2002.
79. Weickert, TW, A Terrazas, LB Bigelow, JD Malley, **T Hyde**, MF Egan, DR Weinberger, and TE Goldberg. Habit and skill learning in schizophrenia: evidence of normal striatal processing with abnormal cortical input. Learning and Memory. 9:430-42, 2002.
80. Hashimoto, R., Matsumoto, M., Shannon-Weickert, C., **Hyde, TM**, Kleinman, JE, Weinberger, DR, Straub, RE. Expression analysis of the 6p22. 3 gene dysbindin (DTNBP1), a positional candidate susceptibility gene for schizophrenia. American Journal Of Medical Genetics 114 (7), 741-74, 2002.
81. Matsumoto, M, CS Weickert, M Akil, **TM Hyde**, MM Herman, JE Kleinman, and DR Weinberger. Catechol-O-methyltransferase (COMT) mRNA expression in human and rat brain: evidence for a role in cortical neuronal function. Neuroscience. 116: 127-137, 2003.

82. Lerhmann, E, J Oyler, MP Vawter, **TM Hyde**, B Kolachana, JE Kleinman, MA Huestis, KG Becker, and WJ Freed. Transcription profiling in the human prefrontal cortex: evidence for two activational states associated with cocaine abuse. Pharmacogenomics Journal. 3: 27-40, 2003.
83. Akil, M, BS Kolachana, DA Rothmond, **TM Hyde**, DR Weinberger, and JE Kleinman. Catechol-o-methyltransferase genotype and dopamine regulation in the human brain. Journal of Neuroscience. 15: 2008-2013, 2003.
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