



CURRICULUM VITAE
ADAM IAN KAPLIN, M.D., Ph.D.

DEMOGRAPHIC INFORMATION

Current Appointments:

Assistant Professor, Department of Psychiatry, Division of Neuropsychiatry
 Johns Hopkins University School of Medicine

Chief Psychiatric Consultant, Multiple Sclerosis and Transverse Myelitis Clinics
 Department of Neurology
 Johns Hopkins University School of Medicine

Attending Physician, HIV/AIDS Psychiatry Service
 Department of Psychiatry
 Johns Hopkins University School of Medicine

Personal Data:

Business Address: Johns Hopkins Hospital
 Department of Psychiatry and Behavioral Sciences
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 Baltimore, MD 21287-7121

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Education and Training:

B.S.
 Yale University
 Biology - *Magna cum laude*
 (Brandeis University 1984-85, transferred to Yale)

1985-1988
 New Haven, CT

M.D.
 Johns Hopkins University School of Medicine
 Medical Scientist Training Program

1989-1996
 Baltimore, MD

Ph.D.

Johns Hopkins University School of Medicine
Department of Neuroscience, Advisor - Solomon H. Snyder, M.D.

Internship - Internal Medicine Johns Hopkins Bayview Medical Center	1996-1997 Baltimore, MD
Residency Training in Psychiatry Johns Hopkins Hospital	1997-2000 Baltimore, MD
Chief Resident – Department of Psychiatry Johns Hopkins Hospital	1999-2000 Baltimore, MD

RESEARCH ACTIVITIES

Research Experience:

Ph.D. Research Thesis Laboratory of Solomon Snyder, M.D. Johns Hopkins University School of Medicine Thesis: New mechanisms involved in intracellular calcium signalling: Novel means of activating inositol 1,4,5-trisphosphate receptors.	1991-1995 Baltimore, MD
Assistant Researcher Laboratory of George Palade, M.D. (Nobel Laureate) Yale University School of Medicine Investigation of vesicular transport and protein trafficking in mammalian cells	1988-1989 New Haven, CT
Undergraduate Senior Research Thesis Laboratory of Sidney Altman, Ph.D. (Nobel Laureate) Yale University, Department of Biology Investigation of enzymatic activity of a continuous RNA construct in <i>E. Coli</i>	1987-1988 New Haven, CT
Undergraduate Research Program Laboratory of David Spector, Ph.D. Investigation of functional significance of the <i>in situ</i> Sm Ag	Summer, 1987 Cold Spring Harbor, NY
Summer Student Fellowship Program Laboratory of David Garfinkel, Ph.D. National Cancer Institute-FCRC	Summer, 1986 Frederick, MD

Publications:

Peer-reviewed original research articles

Kerr DA, Krishnan C, Edwin D, Swartz K, **Kaplin AI**. Depression and Cognitive Impairment in Transverse Myelitis. *Annals of Neurology*, (in preparation).

Krishnan C, **Kaplin AI**, Harper JM, Kerr DA. Recurrent Transverse Myelitis with Elevated CSF IL-6 Treated with Plasma Exchange and Mycophenolate. *Journal of Neurology*, (in review).

- Kaplin AI**, Krishnan C, Deshpande DM, Darman JS, Pardo CA, Kerr DA. Transverse Myelitis Associates with Elevated Spinal Fluid Interleukin-6 Levels. *Neurology*, (in review).
- Kaplin AI**, Deshpande DM, Scott E, Krishnan C, Darman JS, Shats I, Martinez T, Drummond J, Dike S, Pletnikov M, Keswani SC, Moran TH, Pardo CA, Calabresi PA, Kerr DA. Interleukin-6 induces regionally selective spinal cord injury in patients with the neuroinflammatory disorder Transverse Myelitis. *Journal of Clinical Investigation*, (in press).
- Krishnan C, **Kaplin AI**, Pardo C, Kerr DA, Keswani SC. Demyelinating Disorders - Update on Transverse Myelitis. *Current Neurology and Neuroscience Reports*, (in press).
- Berger JR, Cambi F, Di Rocco A, Farace J, **Kaplin AI**, Kerr DA, Keswani SC, Krishnan C, Olson SE, Zivin JA.. Spinal Cord Disorders. *AAN Continuum Life Long Learning in Neurology*, 2005.
- Krishnan C, **Kaplin AI**, Graber JS, Darman JS, Kerr DA. Recurrent transverse myelitis following neurobrucellosis: Immunologic features and beneficial response to immunosuppression. *Journal of Neurovirology*. 2005; 11(2): 225-231.
- Patterson RL, van Rossum DB, **Kaplin AI**, Barrow RK, Snyder SH. Inositol 1,4,5-triphosphate receptor / GAPDH complex augments Ca^{2+} release via locally derived NADH. *Proceedings of the National Academy of Sciences (PNAS)*. 2005; 102(5): 1357-1359.
- Kaplin AI**, Krishnan C, Deshpande DM, Pardo CA, Kerr DA. Diagnosis and Management of Acute Myelopathies. *The Neurologist*. 2004; 11(1): 2-18.
- Krishnan C, **Kaplin AI**, Deshpande DM, Pardo CA, Kerr DA. Transverse Myelitis: Pathogenesis, Diagnosis and Treatment. *Frontiers in Bioscience*. 2004; 9: 1483-1499.
- Watkins CC, Boehning D, **Kaplin AI**, Rao M, Ferris CD, Snyder SH. Carbon monoxide mediates vasoactive intestinal polypeptide-associated nonadrenergic/noncholinergic neurotransmission. *Proc Natl Acad Sci U S A*. 2004; 101(8): 2631-5.
- Krishnan C, **Kaplin AI**, Calabresi PA, Kerr DA. Clinical characteristics and prognostic factors in 170 patients with idiopathic transverse myelitis. *Neurology*. 2004; 62 (suppl 5):A231. Abstract.
- Kerr DA, Barnes G, Benjamin S, Bowen JD, Cutter N, de Lateur BJ, Dietrich WD, Dowling MM, Griffin JW, Hummers L, Irani, D, Jorens PG, **Kaplin AI**, Katz JD, Krishnan C, Levy CE, Lucchinetti C, et al. Proposed diagnostic criteria and nosology of acute transverse myelitis. *Neurology*. 2002; 59: 499-505.
- Treisman GJ, **Kaplin AI**. Neurologic and psychiatric complications of antiretroviral agents. *AIDS*. 2002; 16(9): 1201-15.
- Pieper AA, Brat DJ, O'Hearn E, Krug DK, **Kaplin AI**, Takahashi K, Greenberg JH, Ginty D, Molliver ME, Snyder SH. Differential neuronal localizations and dynamics of phosphorylated and unphosphorylated type 1 inositol 1,4,5-trisphosphate receptors. *Neuroscience*. 2001; 102(2): 433-44.
- Kaplin AI**, Snyder SH, Linden DJ. Reduced Nicotinamide Adenine Dinucleotide-Selective Stimulation of Inositol 1,4,5-Trisphosphate Receptors Mediates Hypoxic Mobilization of Calcium. *J. of Neuroscience*. 1996; 16(6): 2002-2011.

Voglmaier SM, Bembenek ME, **Kaplin AI**, Dorman G, Olszewski JD, Prestwich GD, Snyder SH. Purified Inositol Hexakisphosphate Kinase is an ATP Synthase -Diphosphoinositol Pentakisphosphate as a High-energy Phosphate Donor. *Proc. Natl. Acad. Sci. USA*. 1996; 93(9): 4305-4310.

Cameron AM, Steiner JP, Sabatini DM, **Kaplin AI**, Walensky LD, Snyder SH. Immunophilin FK506 Binding Protein Associated with Inositol 1,4,5-Trisphosphate Receptor Modulates Calcium Flux. *Proc. Natl. Acad. Sci. USA*. 1995; 92: 1784-1788.

Kaplin AI, Snyder SH, Linden DJ. NADH Selective Stimulation of Inositol 1, 4, 5-Trisphosphate Receptors Mediates Hypoxic Mobilization of Calcium. *Society for Neuroscience Abstracts*. 1995; 21.

Kaplin AI, Ferris CD, Cameron AM, Voglmaier SM, Snyder SH. Modulation of Inositol 1, 4, 5-Trisphosphate Receptor Activity: NADH Stimulation Links Ca^{2+} Release to Energy Metabolism. Influence of Thiol Reagents Clarifies Quantal Release of Ca^{2+} . *Society for Neuroscience Abstracts*. 1994; 20.

Voglmaier SM, **Kaplin AI**, Bembenek ME, Dormant G, Prestwich GD, Snyder SH. Inositol Pyrophosphates: Purification of Biosynthetic Enzyme; Role in Protein Phosphorylation. *Society for Neuroscience Abstracts*. 1994; 20.

Cameron AM, **Kaplin AI**, Sabatini DS, Snyder SH. The IP₃ Receptor is a Target of the Immunophilin, FKBP. *Society for Neuroscience Abstracts*. 1994; 20.

Kaplin AI, Ferris CD, Voglmaier SM, Snyder SH. Purified Reconstituted Inositol 1, 4, 5-Trisphosphate Receptors: Thiol Reagents Act Directly on Receptor Protein. *J. Biol. Chem*. 1994; 269: 28972-28978.

Sztul E, **Kaplin A**, Saucan L, Palade G. Protein traffic between distinct plasma membrane domains: isolation and characterization of vesicular carriers involved in transcytosis. *Cell*. 1991; 64(1): 81-9.

Book Chapters and Reviews

Kaplin, AI. Review of: Neurological and Psychiatric Disorders: From Bench to Bedside. Doody's Review Service (on-line). Available: <http://www.doody.com>. 2005.

Kerr DA, Chitra Krishnan, **Kaplin AI**, Deepa M. Deshpande, and Carlos A. Pardo. Transverse Myelitis: Clinical Manifestations, Pathogenesis, Management. Inflammatory Disorders of the Nervous System: Pathogenesis, Immunology and Clinical Management. Eds: A. Minagar and J.S. Alexander. Humana Press. (Book chapter). 2004.

Voglmaier SM, Bembenek ME, **Kaplin AI**, Dorman G, Olszewski JD, Prestwich GD, Snyder SH. Purification and assay of inositol hexakisphosphate kinase and diphosphoinositol pentakisphosphate kinase. In S. Shears (Ed.), *Signalling by Inositides: A Practical Approach*. 1997; Oxford: IRL Press at Oxford University Press.

Posters, Presentations, and Workshops:

Kaplin, AI. “Investigations of the Psychiatric Manifestations of Brain Insults: What Do They Tell Us About How Mood and Cognition are Regulated?” Seminar moderator at the *51st Annual Meeting of Psychosomatic Medicine*, Fort Meyers, FL, November 2004.

Kaplin AI. “Cytokine-Mediated Depression and Cognitive Impairment in Autoimmune CNS Diseases.” Speaker at the *51st Annual Meeting of Psychosomatic Medicine*, Fort Meyers, FL, November 2004.

Kaplin AI. “Autoimmune Mechanisms in Depression and Cognitive Impairment.” Keynote speaker at the *5th Annual Topics in Psychiatry* conference. Baltimore, MD, November 2004.

Kaplin AI. “Immunopathogenesis of TM and Depression.” Speaker at the *Rare Neuroimmunologic Disease Symposium*, Baltimore, MD, August 2004.

Kaplin AI. “Depression and Cognitive Dysfunction.” Speaker at the *Rare Neuroimmunologic Disease Symposium*, Baltimore, MD, August 2004.

Kaplin AI. “Unkind Cytokines: The Journey from Brain to Mind.” Speaker at the *Rare Neuroimmunologic Disease Symposium*, Baltimore, MD, August 2004.

Kaplin AI, Krishnan C, Kerr DA. “Spinal Fluid Interleukin-6 Levels in Transverse Myelitis: Correlation with Nitric Oxide Generation and Clinical Disability.” Poster presentation at the *56th American Academy of Neurology Annual Meeting*, San Francisco, CA, April 2004.

Deshpande DM, **Kaplin AI**, Krishnan C, Darman JS, Harper JM, Shats I, Calabresi PA, Kerr DA. “Immunopathogenesis of Interleukin-6 Mediated Spinal Cord Cellular Injury in Models of Transverse Myelitis.” Poster presentation at the *56th American Academy of Neurology Annual Meeting*, San Francisco, CA, April 2004.

Kaplin AI, Krishnan C, Kerr DA. “Immune-mediated Depression and Cognitive Impairment in Transverse Myelitis (TM) and Multiple Sclerosis (MS).” Poster presentation at the *56th American Academy of Neurology Annual Meeting*, San Francisco, CA, April 2004.

Krishnan C, **Kaplin AI**, Calabresi PA, Kerr DA. “Clinical Characteristics and Prognostic Factors in 170 Patients with Idiopathic Transverse Myelitis.” Poster presentation at the *56th American Academy of Neurology Annual Meeting*, San Francisco, CA, April 2004.

Kaplin AI. “Unkind Cytokines: The Role of Cytokines in Depression and Cognitive Impairment.” Keynote speaker at the *18th Annual Mood Disorder Symposium*, Baltimore, MD, April 2004.

Kaplin AI. “Depression in Auto-Immune Disease: Is There a Method to the Madness?” Keynote speaker at the *4th Annual Topics in Psychiatry* conference. Baltimore, MD, November 2003.

Other Media:

Kaplin AI. “Multiple Sclerosis: How Does One Cope With It?” Interview With Montel Williams, Nancy Davis, Stephen Hauser, **Adam Kaplin**, Mark Baroness. Broadcast on *CNN Larry King Live*, March 6, 2004.

Extramural Sponsorship:

Noel P. Rahn Fellowship	2004-2007
GCRC/NBRU Award The Use of Magnetic Resonance Spectroscopy and Cytokine Measurements to Investigate Depression in Patients with Autoimmune Neurologic Diseases	2003-2007
Johns Hopkins University School of Medicine Clinician Scientist Award	2004-2006
Dana Foundation Program Grant in Brain and Immuno-imaging Imaging Immune-Mediated Depression and Cognitive Impairment in Autoimmune Neurologic Diseases: MRS of Patients with Multiple Sclerosis and Transverse Myelitis.	2003-2004
Pfizer Postdoctoral Fellowship Grant in Biological Psychiatry Sponsor: Solomon H. Snyder, MD.	2000-2003

CLINICAL & ADVISORY ACTIVITIES

Certification:

Medical License, State of Maryland License #: D00540054, Exp Date: 9/30/2005	1998-Present
<u>International Transverse Myelitis Association Medical Advisory Board Member</u>	2002-Present
<u>Montel Williams MS Foundation Medical Advisory Board Member</u>	2003-Present
<u>Johns Hopkins Project RESTORE Advisory Member</u> Member of the Scientific Advisory Council and Operating Committee.	2004-Present
<u>Johns Hopkins GCRC Adult Protocol Review Subcommittee (PRS)</u>	2004-Present

RECOGNITION

Awards:

The Johns Hopkins School Of Medicine Clinician Scientist Career Development Awards	2003-2005
Future Leaders in Psychiatry Award, Emory University	2002
Pfizer Resident of the Year 2000 Award in Psychiatry	2000
NIH/NIMH Outstanding Resident of the Year Award	1998

Special Achievement as a Resident in Psychiatry

Medical Scientist Training Program Award

1989-1996