

CURRICULUM VITAE - ABRAHAM ZVI SNYDER

Date Prepared: June 12, 2006

Personal Information:

Sex: Male
Date of Birth: December 12, 1948
Family: Single

Citizenship: USA

Office Address:

Washington University School of Medicine
Department of Radiological Services
4525 Scott Avenue, Box 8225
St. Louis, MO 63110

Office Telephone #: (314) 362-2012 or 362-6246

Fax Telephone #: (314) 362-6110

Home Address: 18 S. Kingshighway Blvd.
St. Louis, MO 63108

Home Phone #: (314) 367-0461

Present Position: Research Associate Professor in Radiology
Washington University School of Medicine
Department of Radiology and Neurology

Education:

Undergraduate:

1966 - 1970 Columbia College, New York, NY A.B. (Chemistry)

Graduate:

1970 - 1977 The Rockefeller University, New York, NY Ph.D.

1977 - 1981 State University of New York at Buffalo School of Medicine
Buffalo, NY M.D.

1982 - 1983 State University at Buffalo Affiliated Combined Program
General Medical Internship
Buffalo, NY Intern

1983 - 1986 Washington University School of Medicine
Department of Neurology
St. Louis, MO Resident

Professional Experience:

1968 - 1970 Columbia University College of Physicians & Surgeons Research Assistant
Department of Genetics and Development
New York, NY

1978 - 1981 State University of New York - Buffalo Applications Programmer
Buffalo, NY

Academic Appointments:

1978 - 1981 State University of New York - Buffalo Research Assistant Professor
Department of Neurobiology
Buffalo, NY

1986 - 1987 Washington University School of Medicine Research Instructor
Department of Neurology
St. Louis, MO

1987 - 1997 Washington University School of Medicine Assistant Professor
Department of Neurology and Department of Radiology
St. Louis, MO

1997 - 2005 Washington University School of Medicine Research Scientist
Department of Radiology
St. Louis, MO

2005 - Present Washington University School of Medicine Research Associate Professor
Department of Radiology
St. Louis, MO

Hospital Appointments: Barnes-Jewish Hospital

University and Hospital Committees:

Certification: American Board of Psychiatry and Neurology 1990

Licensure: Missouri R1G81

Honors:

1970 - 1976 Rockefeller University Fellowship
1979 - 1980 State University at Buffalo Summer Fellowship
1981 Alpha Omega Alpha
1986 - 1987 Clinical Neurophysiology Fellowship, Washington University School of Medicine
1987 Biomedical Research Support Grant, Washington University School of Medicine

Research Projects ongoing or completed during the last 3 years:

ACTIVE:

5 P50 NS06833 (M. Raichle, overall PI) 10/1/05-9/30/10 2.16 calendar
NIH/NINDS
The Brain and Its Vasculature Core B PI: Snyder

The goal of this Core is to maintain and refine methods for fMRI, anatomical MRI, diffusion tensor MRI and diffusion tensor-based fiber tracking in support of PPG involving the physiology of fMRI signals, the role of the orbital frontal cortex in emotion, and recovery of language function in stroke. This core is part of the PPG “The Brain and Its Vasculature”

5 R01 MH066031 (Barch) 01/01/04-12/31/07 .60 calendar

NIH
Schizophrenia, Prefrontal Cortex, and Emotion Regulation

This study will test hypotheses regarding 1) conditions in which individuals with schizophrenia should demonstrate intact emotional processing (as indexed by self-report, autonomic responses and brain activity); 2) conditions in which individuals with schizophrenia should demonstrate reduced emotional processing; 3) conditions in which individuals with schizophrenia should demonstrate enhanced processing and disturbed emotion-cognition interactions; and 4) which specific symptoms will and will not be associated with disturbed emotional processing in schizophrenia.

U24 RR021382 (Rosen) 09/30/04-5/31/09 1.80 calendar
NIH
Morphometry Biomedical Informatics Research Network

This proposal involves database development and dissemination, data sharing and assistance with data acquisition development.

5 R01 NS048013-01A1 (Corbetta) 7/15/04-2/29/08 1.20 calendar
NIH
Cognitive and Neural Bases of Spatial Neglect Recovery

The goal of this grant is to understand the pathophysiology of spatial neglect and its recovery.

1 R01 DK64832-02 (Hershey) 8/1/03-5/31/08 .60 calendar
NIDDK
Neurocognitive Impact of Hypoglycemia in Type I Diabetes

The information obtained in this study will be important for the development of optimal treatment regimens for type I diabetes mellitus that minimize cognitive risk and maximize clinical benefit across the lifespan.

P30 NS 048056 (Mintun) 09/20/04-06/30/09 2.64 calendar
NIH

NINDS center Core Grant for Neuroimaging Research

The goal of this Center will be to enhance the quality, the efficiency, and the diversity of neuroimaging research at our institution.

1 R01MH064821 (Sheline) 7/1/03-05/31/07 1.30 calendar
NIMH
FMRI Studies of Emotional Circuitry in Depression

This study will assess cognitive and emotional domains during standardized task performance and has the potential to substantially advance our understanding of the precise nature and mechanisms underlying cognitive-emotional dysregulation in major depression.

R01 MH 071920 (Corbetta) 02/01/99-06/30/09 1.00 calendar
NIH/NIMH
FMRI Studies of Visual Attention

The major goal of this grant is to study visual attentional modulations in the human brain.

PENDING:

None.

COMPLETED

5 P01 HL13851-38 (Welch, PI) 07/01/98 - 06/30/03
NIH/HLBI
Cyclotron Produced Isotopes in Biology and Medicine

The major goals of this program project are to carry out cardiovascular, pulmonary and neurological research using PET, and to support the operation of the cyclotron and the PET facilities.

5 R01 NS38044-04 (Conturo, PI) 12/21/98 - 11/30/03
NIH/NINDS
MR Perfusion Imaging for Functional Brain Studies

The purpose of this grant is to develop and validate quantitative MRI measurements of cerebral perfusion using combinations of magnitude and phase-based blood and tissue MR signals.

5 R01 EB00240-04 (Corbettta, PI) 02/01/99 - 01/31/04
NIH/NEI
FMRI Studies of Visual Motion and Attention

The major goal of this grant is to study visual motion processing and related attentional modulations in the human brain.

5 R01 NS37237-04 (Burton, PI) 07/01/99-06/30/04
NIH/NINDS

Braille Reading and Adaptive Plasticity in the Human Brain

The central issue underlying these experiments is investigating possible changes in somatosensory, visual and language areas of the brain that facilitate fluent Braille reading in the blind. (Harold Burton, overall PI)

1 P20MH62130-01A1 (Csernansky, PI)

9/01/01-8/31/04

NIH

Mapping Neurodevelopment Abnormality Schizophrenia

The major goal: The proposed Conte Feasibility Center for Neuroscience Research will have (4) objectives: 1) to establish a multi-institutional collaboration between scientists with special expertise in psychiatry, neurobiology, neuroimaging and biomedical engineering; 2) to further develop a group of computer software tools that will be of unique value in defining the neurobiology of neuropsychiatric disorders; 3) to test specific hypotheses and to generate new hypotheses related to the cause and consequences of neuronanatomical abnormalities in subjects with schizophrenia; and 4) to further define the pathogenesis of schizophrenia.

21002049 (Raichle, PI)

1/1/02-12/31/04

Salk Institute for Biological Studies

Impact of the Williams Syndrome Mutation of Neural

This program could potentially produce, for the first time, a comprehensive view of the critical brain regions involved, and clues to the genetic pathways underlying, affiliative social behavior.

Publications:

1. Snyder AZ, Shapley R. Deficits in the visual evoked potentials of cats as a result of visual deprivation. Exp. Brain Res. **37**:73-86 (1979).
2. Dow BM, Snyder AZ, Vautin G, Bauer R. Magnification factor and receptive field size in foveal striate cortex of the monkey. Exp. Brain Res. **44**:213-228 (1981).
3. Bauer R, Dow BM, Snyder, Vautin R. Orientation shift between upper and lower layers in monkey visual Cortex. Exp. Brain Res. **50**:133-145 (1983).
4. Erickson RG, Dow BM, Snyder AZ. Representation of the fovea in the superior temporal sulcus of the macaque monkey. Exp. Brain Res. **78**:90-112 (1989).
5. Coben LA, Chi D, Snyder AZ, Storandt M. Replication of a study of frequency analysis of the resting awake EEG in mild probable Alzheimers disease. Electroenceph. Clin. Neurophysiol. **75**:148-154 (1990).
6. Petersen SE, Fox PT, Snyder AZ, Raichle ME. Activation of extrastriate and frontal cortical areas by words and word-like stimuli. Science **249**:1041-1044 (1990).
7. Snyder, AZ. Dipole source localization in the study of EP generations: A critique. Electroenceph. Clin. Neurophysiol. **80**:321-325 (1991).
8. Snyder AZ. Steady-state vibration evoked potentials: description of technique and characterization of responses. Electroenceph. Clin. Neurophysiol. **84**:257-268 (1992).
9. Drevets WC, Burton H, Videen TO, Snyder AZ, Simpson JR, Raichle ME. Blood flow changes in human somatosensory cortices during anticipatory stimulation. Nature **373**:249-252 (1995).
10. Snyder AZ, Abdullaev YG, Posner MI, Raichle ME. Scalp electrical potentials reflect regional cerebral blood flow responses during processing of written words. Proc. Natl. Acad. Sci. **92**:1689-1693 (1995).
11. Ojemann JG, Akbudak E, Snyder AZ, McKinstry RC, Raichle ME, Conturo TE. Anatomic localization and quantitative analysis of gradient refocused echo-planar fMRI susceptibility artifacts. NeuroImage **6**:156-167 (1997).

12. Kelley WM, Miezin FM, McDermott KB, Buckner RL, Raichle ME, Cohen NJ, Ollinger JM, Akbudak E, Conturo TE, Snyder AZ, Petersen SE. Hemispheric specialization in human dorsal frontal cortex and medial temporal lobe for verbal and nonverbal memory encoding. Neuron **20**:927-936 (1998).
13. Ojemann JG, Buckner RL, Akbudak E, Snyder AZ, Ollinger JM, McKinstry RC, Rosen BR, Petersen SE, Raichle ME, Conturo TE. Functional MRI studies of word stem completion: Reliability across laboratories and comparison to blood flow imaging with PET. Human Brain Mapping **6**:203-215 (1998).
14. Neil JJ, Shiran SI, McKinstry RC, Schefft G, Snyder AZ, Almlí CR, Akbudak E, Aronovitz JA, Miller JP, Lee BCP, Conturo TE. Normal brain in human newborns: Apparent diffusion coefficient and diffusion anisotropy measured by using diffusion tensor MR imaging. Radiology **209**:57-66 (1998).
15. Corbetta M, Akbudak E, Conturo TE, Snyder AZ, Ollinger JM, Drury HA, Linenweber MR, Raichle ME, Van Essen DC, Petersen SE, Shulman GL. A Common network of functional areas for attention and eye movements. Neuron **21**:761-773 (1998).
16. Feiwell RJ, Black KJ, McGee-Minnich L, Snyder AZ, Macleod AK, Perlmutter JS. Diminished regional cerebral blood flow response to vibration in patients with blepharospasm. Neurology **52**:291-297 (1999).
17. Rao VV, Dahlheimer JL, Bardgett ME, Snyder AZ, Finch RA, Sartonelli AC, Piwnicka-Worms D. Choroid plexus epithelial expression of MDR1 P glycoprotein and multidrug resistance associated protein contribute to the blood cerebrospinal-fluid drug permeability barrier. Proc. Natl. Acad. Sci. **96**:3900-3905 (1999).
18. Cutler CS, Giron MC, Reichert DE, Snyder AZ, Herrero P, Anderson CJ, Quarles DA, Koch SA, Welch MJ. Evaluation of Gallium-68 Tris (2-Mercaptobenzyl) Amine: A complex with brain and myocardial uptake. Nuc. Med. Biol. **26**:305-316 (1999).
19. Conturo TE, Lori N, Cull TS, Akbudak E, Snyder AZ, Shimony JS, McKinstry RC, Burton H, Raichle ME. Tracking neuronal fiber pathways in the living human brain. Proc. Natl. Acad. Sci. **96**:10422-10427 (1999).
20. Shimony JS, McKinstry RC, Akbudak E, Aronovitz JA, Snyder AZ, Lori N, Cull TS, Conturo TE. Quantitative diffusion tensor anisotropy imaging: Normative human cerebral data and anatomical analysis. Radiology **212**:770-784 (1999).
21. Shulman GL, Ollinger JM, Akbudak E, Conturo TE, Snyder AZ, Petersen SE, Corbetta M. Areas involved in encoding and applying directional expectations to moving objects. Neuroscience **19**:9480-9496 (1999).
22. Burton H, Abend NS, MacLeod A-MK, Sinclair RJ, Snyder AZ, Raichle ME. Tactile attention tasks enhance activation in somatosensory regions of parietal cortex: A positron emission tomography study. Cerebral Cortex **9**:662-674 (1999).
23. McDermott KB, Ojemann JG, Petersen SE, Ollinger JM, Snyder AZ, Akbudak E, Conturo TE, Raichle ME. Direct comparison of episodic encoding and retrieval of words: An event-related fMRI study. Memory **7**:661-678 (1999).
24. Mukherjee P, Bahn MM, McKinstry RC, Shimony JS, Cull TS, Akbudak E, Snyder AZ, Conturo TE: Differences in water diffusion between gray matter and white matter in stroke: Diffusion tensor MR imaging experience in twelve patients. Radiology **215**:211-220 (2000).
25. Rosen HH, Petersen SE, Linenweber M, Snyder AZ, White D, Chapman L, Dromerick A, Fiez JA, Corbetta. Neural correlates of recovery from aphasia after damage to the left inferior frontal cortex. Neurology **55**:1883-1894 (2000).
26. Raichle ME, MacLeod AM, Snyder AZ, Powers WJ, Gusnard DA, Shulman GL. A default mode of brain function. Proc. Natl. Acad. Sci. **98**:676-682 (2001).
27. Simpson JR, Drevets WC, Snyder AZ, Gusnard DA, Raichle ME. Emotion-induced changes in human medial prefrontal cortex I: During cognitive task performance. Proc. Natl. Acad. Sci **96**:683-687 (2001).

28. Simpson JR, Drevets WC, Snyder AZ, Gusnard DA, Raichle ME. Emotion-induced changes in human medial prefrontal cortex II: During anticipatory anxiety. Proc. Natl. Acad. Sci. **96**:688-693 (2001).
29. Black KJ, Snyder AZ, Koller JM, Gado MH, Perlmuter JS. Template images for nonhuman primate neuroimaging: 1. Baboon. NeuroImage **14**:736-743 (2001).
30. Black KJ, Koller JM, Snyder AZ, Perlmuter JS. Template images for nonhuman primate neuroimaging: 2. Nemestrina. NeuroImage **14**:744-748 (2001).
31. Braver TS, Barch DM, Kelley WM, Buckner RL, Cohen NJ, Miezin FM, Snyder AZ, Ollinger JM, Akbudak E, Conturo TE, Petersen SE. Direct comparison of prefrontal cortex regions engaged by working and long-term memory tasks. NeuroImage **14**:48-59 (2001).
32. Braver TS, Barch DM, Gray JR, Molfese DL, Snyder AZ. Anterior Cingulate Cortex and Response Conflict: Effects of frequency, inhibition and errors. Cerebral Cortex **11**:825-836 (2001).
33. Barch DM, Braver TS, Akbudak E, Conturo TE, Ollinger JM, Snyder AZ. Anterior Cingulate Cortex and response conflict: Effects of response modality and processing domain. Cerebral Cortex **11**:837-848 (2001).
34. Mintun MA, Lundstrom BN, Snyder AZ, Vlassenko AG, Shulman GL, Raichle, ME. Blood flow and oxygen delivery to the human brain during functional activity: Theoretical modeling and experimental data. Proc. Natl. Acad. Sci. **98**:6859-6864 (2001).
35. Zacks JM, Braver TS, Sheridan MA, Donaldson DI, Snyder AZ, Ollinger JM, Buckner RL, Raichle ME. Human brain activity time-locked to perceptual event boundaries. Nature Neuroscience **4**:651-655 (2001).
36. Sheline YI, Barch DM, Donnelly JM, Ollinger JM, Snyder AZ, Mintun MA. Increased amygdala response to masked emotional faces in depressed subjects resolves with antidepressant treatment: An fMRI study. Biol. Psychiatry **50**:651-658 (2001).
37. Burton H, Snyder AZ, Conturo TE, Akbudak E, Ollinger JM, Raichle ME. Adaptive changes in early and late blind: A fMRI study of Braille Reading. J. Neurophysiol. **87**:589-607 (2002).
38. Sheline YI, Mintun MA, Moerlein SM, Snyder AZ. Greater Loss of 5-HT_{2A} Receptors in Midlife Than in Late life. Am. J. Psychiatry **159**:430-435 (2002)
39. Barch DM, Csernansky J, Conturo T, Snyder AZ. Working and long-term memory deficits in schizophrenia: Is there a common underlying prefrontal mechanism? Journal of Abnormal Psychology **111**:478-494 (2002).
40. Logan JM, Sanders AL, Snyder AZ, Morris JC, Buckner RL. Under-recruitment and nonselective recruitment: Dissociable neural mechanisms associated with aging. Neuron **33**:827-840 (2002)
41. Burgund ED, Kang HC, Kelly JE, Buckner RL, Snyder AZ, Petersen SE, Schlaggar BL. The feasibility of a common stereotactic space for children and adults in fMRI studies of development. Neuroimage **17**:184-200 (2002).
42. McCarthy TJ, Banks WA, Farrell CL, Adamu S, Derdeyn CP, Snyder AZ, LaForest R, Litzinger DC, Martin D, LeBel CP, Welch MJ. Positron emission tomography shows that intrathecal leptin reaches the hypothalamus in baboons. J. Pharmacol. Exp. Ther. **301**:878-883 (2002).
43. Mintun MA, Vlassenko AG, Shulman GL, Snyder AZ. Time-related increase of oxygen utilization in continuously activated visual cortex. NeuroImage **16**:531-537 (2002).
44. Burton H, Snyder AZ, Diamond JB, Raichle ME. Adaptive changes in early and late blind: A fMRI study of verb generation to heard nouns. J. Neurophysiology **88**:3359-3371 (2002).
45. McKinstry RC, Mathur A, Miller JH, Ozcan A, Snyder AZ, Schefft GL, Almlí CR, Shiran SI, Conturo TE, Niel JJ. Radial organization of developing preterm human cerebral cortex revealed by non-invasive water diffusion anisotropy MRI. Cerebral Cortex **12**:1237-1243 (2002).
46. McKinstry RC, Miller JH, Snyder AZ, Mathur A, Schefft GL, Almlí CR, Shimony JS, Shiran SI, Niel JJ. A prospective, longitudinal diffusion tensor imaging study of brain injury in newborns. Neurology **59**:859-833 (2002).

47. Blasi V, Young AC, Tansy AP, Petersen SE, Snyder AZ, Corbetta M. Word retrieval learning modulates right frontal cortex in patients with left frontal damage. Neuron **36**:1-12 (2002).
48. Mukherjee P, Miller JH, Shimony JS, Philip JV, Nehra D, Snyder AZ, Conturo TE, Neil JJ, McKinstry RC. Diffusion-tensor MR imaging of gray and white matter development during normal human brain maturation. AM. J. Neuroradiol. **23**:1445-1456 (2002).
49. Lori N, Akbudak E, Shimony JS, Cull TS, Snyder AZ, Guillory RK, Conturo TE. Diffusion-tensor fiber tracking of human brain connectivity: acquisition methods, reliability analysis and biological results. NMR in Biomedicine **15**:493-515 (2002).
50. Barch DM, Sheline YI, Csernansky JG, Snyder AZ. Working memory and prefrontal cortex dysfunction: Specificity to schizophrenia as compared to major depression. Biological Psychiatry **53**:376-384 (2003).
51. Michelon P, Snyder AZ, Buckner RL, McAvoy M, Zacks JM. Neural correlates of incongruous visual information: An event-related fMRI study. NeuroImage **19**:1612-1626 (2003).
52. Astafiev SV, Shulman GL, Stanley CM, Snyder AZ, Van Essen DC, Corbetta M. Functional organization of human intraparietal and frontal cortex for attending, looking and pointing. J. Neurosci. **23**:4689-4699 (2003).
53. Quirk JD, Bretthorst GL, Duong TQ, Snyder AZ, Springer CS, Ackerman JJH, Neil JJ. Equilibrium water exchange between the intracellular and extracellular spaces of mammalian brain. Mag. Res. Med. **50**:493-499 (2003).
54. Hershey T, Black KJ, Carl JL, McGee-Minnich L, Snyder AZ, Perlmutter JS. Long term treatment and disease severity change brain responses to levodopa in Parkinson's disease. J. Neurol. Neurosurg. Psychiatry **74**:844-851 (2003).
55. Swallow KM, Braver TS, Snyder AZ, Speer NK, Zacks JM. Reliability of functional localization using fMRI. NeuroImage **20**:1561-1577 (2003).
56. Barch DM, Mathews JR, Buckner RL, Maccotta L, Csernansky JG, Snyder AZ. Hemodynamic responses in visual, motor, and somatosensory cortices in schizophrenia. NeuroImage **20**:1884-1893 (2003).
57. Mintun M, Sheline Y, Moerlein S, Vlassenko A, Huang Y, Snyder AZ. Decreased hippocampal 5-HT_{2A} receptor binding in major depressive disorder: in vivo measurement with [18F]-Altanserin positron emission tomography. Biological Psychiatry **100**:14504-14509 (2003).
58. Lustig C, Snyder AZ, Bhakta M, O'Brien K, McAvoy M, Raichle ME, Morris JC, Buckner RL. Functional deactivations: Change with age and dementia of the Alzheimer type. Proc. Natl. Acad. Sci. **55**:217-224 (2004).
59. Head D, Buckner RL, Shimony JS, Williams LE, Akbudak E, Conturo TE, McAvoy M, Morris JC, Snyder AZ. Differential vulnerability of anterior white matter in nondemented aging with minimal acceleration in dementia of the Alzheimer type: Evidence from diffusion tensor imaging. Cerebral Cortex **14**:410-423 (2004).
60. Kerr DL, Gusnard DA, Snyder AZ, Raichle ME. Effect of practice on reading performance and brain function. NeuroReport **15**:607-610 (2004).
61. Shimony JS, Snyder AZ, Conturo TE, Corbetta M. The study of neural connectivity using diffusion tensor tracking. Cortex **40**:213-215 (2004).
62. Salat DH, Buckner RL, Snyder AZ, Greve DN, Desikan RS, Busa E, Morris JC, Dale AM, Fischl B. Thinning of the cerebral cortex in aging. Cerebral Cortex **14**:721-730 (2004).
63. Buckner RL, Head D, Parker J, Fotenos AF, Marcus D, Morris JC, Snyder AZ. A unified approach for morphometric and functional data analysis in young, old, and demented adults using automated atlas-based head size normalization: Reliability and validation against manual measurement of total intracranial volume. NeuroImage **23**:724-738 (2004).
64. Head D, Snyder AZ, Girton LE, Morris JC, Buckner RL. Frontal-hippocampal double dissociation between normal aging and Alzheimer's disease. Cerebral Cortex **15**:732-739 (2004).

65. Sheline YI, Mintun MA, Barch DM, Wilkins C, Snyder AZ, Moerlein SM. Decreased hippocampal 5-HT2A receptor binding in older depressed patients using [18F]Altanserin positron emission tomography, Neuropharmacology **29**:2235-2241 (2004).
66. Burton H, Snyder AZ, Raichle ME, Default brain functionality in blind people, Proc. Natl. Acad. Sci. **101**:15500-15505 (2004).
67. Gold BT, Balota DA, Cortese MJ, Sergent-Marshall SD, Snyder AZ, Salat DH, Fischl B, Dale AM, Morris JC, Buckner RL. Differing neuropsychological and neuroanatomical correlates of abnormal reading in early-stage semantic dementia and dementia of the Alzheimer type. Neuropsychologia **43**:833-46 (2005).
68. Fox MD, Snyder AZ, McAvoy M, Barch DM, Raichle ME. The BOLD onset transient: identification of novel functional differences in schizophrenia. NeuroImage **25**:771-782 (2005).
69. Fotenos AF, Snyder AZ, Girton LE, Morris JC, Buckner RL. Normative estimates of cross-sectional and longitudinal brain volume decline in aging and AD. Neurology **64**:1032-1039 (2005).
70. Burns JM, Church JA, Johnson DK, Xiong C, Marcus D, Fotenos AF, Snyder AZ, Morris JC, Buckner RL. White Matter lesions are prevalent but differentially relate to cognition in aging and early Alzheimer's disease. Archives of Neurology **62**:1870-1876 (2005).
71. Rowland DJ, Garbow JR, Laforest R, Snyder AZ. Registration of [18F]FDG microPET and small-animal MRI. Nuclear Medicine and Biology **32**:567-572 (2005).
72. Conner LT, Braby TD, Snyder AZ, Lewis C, Blasi V, Corbetta M. Cerebellar activity switches hemispheres with cerebral recovery in aphasia. Neuropsychologia **44**:171-177 (2006).
73. Fox MD, Snyder AZ, Vincent JL, Corbetta M, Van Essen DC, Raichle ME. The human brain is intrinsically organized into dynamic, anticorrelated functional networks. Proc. Natl. Acad. Sci. **102**:9673-9678 (2005).
74. Corbetta M, Tansy AP, Stanley CM, Astafiev SV, Snyder AZ, Shulman GL. A functional MRI study of preparatory signals for spatial location and objects. Neuropsychologia **43**:2041-2056 (2005).
75. Buckner RL, Snyder AZ, Shannon BJ, LaRossa G, Sachs R, Fotenos AF, Sheline YI, Klunk W, Mathis C, Morris JC, Mintun MA. Molecular, structural, and functional characterization of Alzheimer's disease: Evidence for a relation between default activity, pathology, and memory. J. Neurosci. **25**:7709-7717 (2005).
76. Corbetta M, Kincade MJ, Lewis C, Snyder AZ, Sapir A. Neural basis and recovery of spatial attention deficits in spatial neglect. Nature Neuroscience **8**:1603-1610 (2005).
77. Fox MD, Snyder AZ, Barch DM, Gusnard DA, Raichle ME. Transient BOLD responses at block transitions. NeuroImage **25**:956-966 (2005).
78. Fox MD, Snyder AZ, Zacks JM, Raichle ME. Coherent spontaneous activity accounts for trial-to-trial variability in human evoked brain responses. Nature Neuroscience **9**:23-25 (2006).
79. Shimony JS, Burton H, Epstein AA, McLaren DG, Sun SW, Snyder AZ. Diffusion tensor imaging reveals white matter reorganization in early blind humans. Cerebral Cortex in press.
80. d'Avossa G, Shulman GL, Snyder AZ, Corbetta M. Attentional selection of moving objects by a serial process. Vision Research in press.
81. Van Essen D, Hanlon D, Snyder AZ, Raichle ME, Reiss A, Korenberg J. Symmetry of cortical folding abnormalities in Williams Syndrome revealed by surface-based analyses. J. Neurosci. **26**:5470-5483 (2006).
82. Jack AI, Shulman GL, Snyder AZ, McAvoy M, Corbetta M. Separate modulations of human V1 associated with special attention and task structure. Neuron in press.
83. Fox MD, Corbetta M, Snyder AZ, Vincent JL, Raichle ME. Spontaneous neuronal activity distinguishes human dorsal and ventral attention systems. Proc. Natl. Acad. Sci. in press.
84. Vincent JL, Snyder AZ, Fox MD, Shannon BJ, Andrews JR, Raichle ME, Buckner RL. Coherent spontaneous activity identifies a hippocampal-parietal mnemonic network. J. Neurophysiol. in press.

Correspondence:

1. Mukherjee P, McKinstry C, Shimony JS, Akbudak E, Snyder AZ, Conturo TE, Bahn MM. Heterogeneity of apparent diffusion coefficients within infarcts, Stroke **32**:1695-1696 (2001).

Invited Publications:

1. Snyder AZ. Studies on the effects of visual deprivation on visual evoked potentials in the cat, Thesis, The Rockefeller University (1977).
2. Dow BM, Bauer R, Snyder AZ, Vautin G. Receptive Fields and Orientation Shifts in the Foveal Striate Cortex of the Awake Macaque Monkey. in Dynamic Aspects of Neocortical Function, Edelman GM, Gall EW, Cowan MW, eds. John Wiley and Sons, Inc., New York (1984) 41-65.
3. Snyder AZ, Fox PT, Raichle ME: Regional coupling of brain blood flow and neuronal electrical activity in human visual cortex: A comparison of PET and VEP. Proc. 9th Annual Conf. IEEE Eng in Med. Biol. (1987) 1004-1005.
4. Miller JW, Snyder AZ, Coben LA, Prenskey AL. Clinical Electroencephalography and Related Techniques. in Clinical Neurology, Joynt RJ, ed., Lippincott, Philadelphia (1992), Vol 1, Ch. 5.
5. Snyder AZ. Difference image vs. ratio image error function forms in PET-PET realignment, in Quantification of Brain Function Using PET, R. Myer, VJ Cunningham, DL Bailey and T. Jones, eds., Academic Press, San Diego, (1996) 131-137.
6. Drury HA, Van Essen DC, Corbetta M, Snyder AZ. Surface-based analyses of the human cerebral cortex. in Brain Warping, A. Toga et al., eds., Academic Press (1999) 337-363.
7. Buckner RL, Snyder AZ, Sanders AL, Raichle ME, Morris JC. Functional brain imaging of young, nondemented, and demented older adults. J. Cog. Neurosci. **12 Suppl. 2**:24-34 (2000)
8. Simpson JR, Ongur D, Akbudak E, Conturo TE, Ollinger JM, Snyder AZ, Gusnard DA, Raichle ME. The emotional modulation of cognitive processing: an fMRI study, J. Cog. Neurosci. **12 Suppl. 2**:157-170 (2002).
9. Michelon P and Snyder AZ. Neural correlates of incongruity. In J.B. Worthen & R.R. Hunt (Eds.) Distinctiveness and Memory, Oxford Press, Cambridge, MA. Ch 16, pp 361-380, 2006.
10. Black KJ, Koller JM, Snyder AZ, Perlmuter JS. Atlas template images for nonhuman primate neuroimaging: Baboon and Macaque. In P.M. Conn (Ed.) Imaging (Methods in Enzymology 385). Elsevier, New York, Ch 6, pp 91-102 (2004).