

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed for Form Page 2.
Follow the sample format on for each person. (See attached sample). **DO NOT EXCEED FOUR PAGES.**

NAME		POSITION TITLE	
Susan Y. Bookheimer, Ph.D.		Associate Professor	
EDUCATION/TRAINING (Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)			
INSTITUTION AND LOCATION	DEGREE (if applicable)	YEAR(s)	FIELD OF STUDY
Cornell University, Ithaca, NY	B.A.	1982	Psychology
Wayne State University, Detroit, MI	M.A.	1987	Clinical Psychology
Wayne State University, Detroit, MI	Ph.D.	1989	Clinical Psychology

A. Positions and Honors.**Positions and Employment**

1985 – 1986	Neuropsychology Intern, West Haven Veterans Administration; West Haven, CT
1986 – 1988	Lecturer, Neurosurgery Section, Yale University School of Medicine; New Haven, CT
1987 – 1989	Neuropsychological Consultant; Department of Psychology, Gaylord Hospital; Wallingford, CT
1989 – 1991	Post-Doctoral Fellow, Medical Neurology Branch NINDS, NIH; Bethesda, MD
1991 – 1993	Senior Staff Fellow, Epilepsy Research Branch, NINDS, NIH; Bethesda, MD
1993 – 2000	Assistant Professor, Dept. Psychiatry and Biobehavioral Sciences, UCLA School of Medicine
2000 – Present	Associate Professor, Dept. Psychiatry and Biobehavioral Sciences, UCLA School of Medicine

Honors

1994 – 1996	McDonnell-Pew Program in Cognitive Neuroscience Fellowship
1995 – 1996	Christine S. Rissé Award for Geriatric Medicine Research

B. Selected peer-reviewed publications (in chronological order).

- Bhatia S, **Bookheimer SY**, Gaillard W, Theodore WT. Measurement of whole temporal lobe and hippocampus for MR volumetry: Normative data. *Neurology* 1993;43:2006-2010.
- Blaxton T, **Bookheimer SY**. Retrieval inhibition in anomia. *Brain Lang* 1993;44:221-237.
- Cohen MS, **Bookheimer SY**. Functional magnetic resonance imaging. *Trends Neurosci* 1994;17:268-77.
- Cuenod CA, **Bookheimer SY**, Hertz-Pannier L, et al. Functional MRI during word generation using conventional equipment: A potential tool for language localization in clinical environment. *Neurology* 1995;45:1821-1827.
- Bookheimer SY**, Zeffiro TA, Blaxton T, Gaillard WD, Theodore WH. Regional cerebral blood flow during object naming and word reading. *Hum Brain Mapp* 1995;3:93-106.
- Gaillard WD, Bhatia S, **Bookheimer SY**, Fazilat S, Sato S, Theodore WH. FDG-PET and volumetric MRI in the evaluation of patients with partial epilepsy. *Neurology* 1995;45:123-126.
- Malow BA, Blaxton TA, Sato S, **Bookheimer SY**, Kufta CV, Figlozzi CM, Theodore WH. Cortical stimulation elicits regional distinctions in auditory and visual naming. *Epilepsia* 1996;37:245-252.
- Bookheimer SY**. Functional MRI applications in clinical epilepsy. *NeuroImage* 1996;4:S139-S146.
- Blaxton TA, **Bookheimer SY**, Zeffiro TA, Figlozzi CM, Gaillard WD, Theodore WH. Functional mapping of human memory using PET: Comparisons of conceptual and perceptual tasks. *Can J Exp Psychol* 1996;50:42-56.
- Cohen MS, Kosslyn SM, Breiter HC, DiGirolamo GJ, Thompson WL, **Bookheimer SY**, Belliveau JW, Rosen BR. Changes in cortical activity during mental rotation: A mapping study using functional magnetic resonance imaging. *Brain* 1996;119:89-100. (Cover Article).
- Bookheimer SY**, Zeffiro TA, Blaxton T, Malow BA, Gaillard WD, Sato S, Kufta C, et al. A direct comparison of PET activation and electrocortical stimulation mapping for language localization. *Neurology* 1997;48:1056-1065.
- Savic I, **Bookheimer SY**, Fried I, Engel J Jr. Olfactory bedside test. A simple approach to identify temporo-orbitofrontal dysfunction. *Arch Neurol* 1997;54:162-8.
- Bookheimer SY**, Zeffiro TA, Blaxton T, Gaillard WD, Malow B, Theodore WH. Regional cerebral blood flow during auditory responsive naming: Evidence for cross-modality neural activation. *Neuroreport* 1998;9:2409-2413.
- Gaillard W, **Bookheimer S**, Hertz-Pannier L, Blaxton T. The non-invasive identification of language function: Neuroimaging and rapid transcranial magnetic stimulation. *Neurosurg Clin N Am* 1999;8:321-335.

15. Small G, Chen ST, Komo S, Ercoli L, **Bookheimer SY**, Miller K, Kaplan A, Dorsey D, et al. Memory self-appraisal in middle aged and older adults with the apolipoprotein E-4 Allele. *Am J Psychiatry* 1999;156:1035-1038.
16. **Bookheimer SY**, Dapretto M, Karmarkar U. Functional MRI in children with epilepsy. *Dev Neurosci* 1999;21:191-9.
17. Dapretto M, **Bookheimer SY**. Form and content: Dissociating syntax and semantics in sentence comprehension. *Neuron* 1999;24:427-32.
18. Zeineh M, Engel SE, **Bookheimer SY**. Application of cortical unfolding techniques to functional MRI of the human hippocampus. *Neuroimage* 2000;11:668-83
19. Cannestra AF, **Bookheimer SY**, Pouratian N, O'Farrell A, Sicotte N, Martin NA, et al. Temporal and topographical characterization of language cortices using intraoperative optical intrinsic signals. *Neuroimage* 2000;12:41-54.
20. **Bookheimer SY**, Strojwas MH, Cohen MS, Saunders AM, Pericak-Vance MA, Mazziotta JC, Small GW. Patterns of brain activation in people at risk for Alzheimer's disease. *N Engl J Med* 2000;343:450-6.
21. **Bookheimer SY**. Methodological issues in pediatric neuroimaging. *Ment Ret Dev Dis Rev* 2000;6:161-5.
22. Pouratian N, **Bookheimer SY**, et al. Optical imaging of bilingual cortical representations. *J Neurosurg* 2000;93:676-81.
23. Eldridge LL, Knowlton BJ, Furmanski CS, **Bookheimer SY**, Engel SA. Remembering episodes: a selective role for the hippocampus during retrieval. *Nat Neurosci* 2000;3:1149-52.
24. **Bookheimer SY**, Zeffiro TA, Blaxton T, Gaillard WD, Theodore WH. Activation of language cortex with automatic speech tasks. *Neurology* 2000;55:1151-1157.
25. **Bookheimer SY**, Sigman M. Exploring the neural basis of social communication disorders. *Neuroreport* 2000;11:F13
26. Gaillard WD, **Bookheimer SY**, Cohen M. The use of fMRI in neocortical epilepsy. *Adv Neur* 2000;84:391-404.
27. Hariri A, **Bookheimer SY**, Mazziotta J. A neural network for modulating the emotional response to faces. *Neuroreport* 2000;11:43-48.
28. Zeineh MM, Engel SA, Thompson PM, **Bookheimer SY**. Unfolding the human hippocampus with high resolution structural and functional MRI. *Anat Rec* 2001;265:111-20.
29. Cannestra AF, Pouratian N, **Bookheimer SY**, Martin NA, Beckerand DP, Toga AW. Temporal spatial differences observed by functional mri and human intraoperative optical imaging. *Cereb Cortex* 2001;11:773-82.
30. Hernandez A, Dapretto M, Mazziotta J, **Bookheimer SY**. Language switching and language representation in Spanish-English bilinguals: An fMRI study. *NeuroImage* 2001;14:510-520.
31. Rasgon NL, Small GW, Siddarth P, Miller K, Ercoli LM, **Bookheimer SY**, Lavretsky H, Huang SC, et al. Estrogen use and brain metabolic change in older adults. A preliminary report. *Psychiatry Res* 2001;107:11-8.
32. Kroger JK, Sabb FW, Fales C, **Bookheimer SY**, Cohen MS, Holyoak KJ. Recruitment of anterior dorsolateral prefrontal cortex in human reasoning: A parametric study of relational complexity. *Cereb Cortex* 2001;12:477-85.
33. Small GW, Chen ST, Komo S, Ercoli L, Miller K, Siddarth P, Kaplan A, Dorsey D, Lavretsky H, Saxena S, **Bookheimer SY**. Memory self-appraisal and depressive symptoms in people at genetic risk for Alzheimer's disease. *Int J Geriatr Psychiatry* 2001;16:1071-7.
34. Bystritsky A, Pontillo D, Powers M, Sabb F, Craske M, **Bookheimer S**. Functional MRI changes during panic anticipation and imagery exposure. *Neuroreport* 2001;12:3953-7.
35. Burggren AC, Small GW, Sabb FW, **Bookheimer SY**. Specificity of brain activation patterns in people at genetic risk for Alzheimer's disease. *Am J Geriatr Psychiatry* 2002;10:44-51.
36. Burggren AC, **Bookheimer SY**. Structural and functional neuroimaging in Alzheimer's disease: an update. *Curr Top Med Chem* 2002;2:385-93.
37. Mega MS, Small GW, Xu ML, Felix J, Manese M, Tran NP, Dailey JI, Ercoli LM, **Bookheimer SY**, Toga AW. Hippocampal atrophy in persons with age-associated memory impairment: Volumetry within a common space. *Psychosom Med* 2002;64:487-492.
38. **Bookheimer SY**. Functional MRI of language: New approaches to understanding the cortical organization of semantic processing. *Ann Rev Neurosci* 2002;25:151-88.
39. Pouratian N, Gioui M, **Bookheimer S**, Toga AW. FMRI of language in Arterio-venous malformations. *J Neurosurg* 2002;97:21-32.
40. Zeineh M, Engel S, Thompson P, **Bookheimer S**. Dynamics of the hippocampus during encoding and retrieval of face-name pairs. *Science* 2003;299:577-580.
41. Gelfand J, **Bookheimer SY**. Dissociating neural mechanisms of temporal sequencing and processing phonemes. *Neuron* 2003;38:831-842.
42. Pouratian N, **Bookheimer S**, Rubino G, Martin N, Toga A. Category-specific naming deficit identified by stimulation mapping and post-operative neuropsychological testing: Case report. *J Neurosurg* 2003. (In Press)

C. Research Support

Ongoing Research Support

1 R01 HD 29891 Manis (PI)

9/02 – 9/07

NIH
UCLA subcontract
Bases of Normal and Disordered Reading
The UCLA subcontract uses fMRI to distinguish among subtypes of dyslexia in coordination with behavioral and neural network models.
Role: PI

1 R01 MH52453-01A2 Small (PI)

7/1/00 – 6/30/05

NIH
Functional Brain Imaging and Mental Disorders in Aging
This project is designed to assess the clinical and brain metabolic progression of age related mental decline in the autosomal dominant form of familial Alzheimer's disease.

1 R01 AG13308-01 Small (PI)

7/1/00 – 6/30/05

NIH
Functional MRI for Early Diagnosis of Alzheimer's Disease
To predict decline in cognitive function in patients at risk for Alzheimer's disease based on MR functional imaging studies.

1 R01 NR04819-01 Zahr (PI)

1/1/99 – 6/30/03

NIH
Neuroplasticity of brain asphyxiated infants: efficacy of intervention
This preventative intervention combines individualized cognitive/sensorimotor stimulation and maternal support and uses fMRI to assess neurological function at follow-up.

1 R01 EY12722-01A1 Cohen (PI)

5/15/2000 – 5/14/2003

NIH
MRI of Inverted Vision: Plasticity of Visuospatial Maps
This proposal is designed to assess the plastic changes in cortex that we hypothesize occur in the face of grossly distorted visual input from inverting goggles. Functional MRI will be used to derive retinotopic, spatiotopic and auditory maps following semi-chronic exposure to the inverting device.

1 R01 - NS33310 Engel (PI)

07/01/2000 – 06/30/2004

NIH
In Vivo Studies of the Epileptic Hippocampus
These experiments utilize current source density (CSD) and voltage depth profile analysis, and single unit recording in both rats and patients. A major advance of this proposal is the use of a new 17 contact in-line microelectrode bundle and high resolution 3T MRI to perform laminar analysis in human hippocampus, similar to that routinely performed in the rat. We will use these data to pursue hypotheses that the neuronal substrates generating FR also generate hypersynchronous ictal onsets, and that these reflect, in part, resistance to propagation through dentate gyrus (DG), while neuronal substrates giving rise to epileptiform gamma oscillations are involved in generating LVF ictal onsets, and reflect activity that propagates easily out of DG to hippocampus proper.

Completed Research Support

Bookheimer (PI)

7/1/00 – 8/30/01

MIND Institute
fMRI of treatment in Dyslexia
This project uses fMRI before and after intensive intervention to evaluate the effects of treatment on brain activity during phonological processing.
Role: PI

Principal Investigator/Program Director (Last, First, Middle):

Reiss (Consortium PI)

7/1/00 – 8/30/01

MIND Institute

Functional MRI in Aspergers, Autism, and Williams Syndrome

This project uses structural and functional MRI to differentiate brain abnormalities in Autism vs. Asperger's and normally developing children.

Role: UCLA PI

P01HD354700003 Sigman (PI)

7/1/97 – 6/30/02

NIH

Determinants of Social Communication Skills in Autism

Project 3: fMRI of Social Communication in Autism

The purpose of this program project is to determine the biological and environmental contributors to social communication deficits and skills in autism. This project will investigate genetic, brain mechanisms, and environmental factors with a focus both on differentiating autistic individuals from others and also on accounting for individual differences within the autistic group.

Role: Project 3 PI