

MILLER

SCHOOL OF MEDICINE

RECEIVED JAN 02 2007

Pascal J. Goldschmidt, M.D., FACC
Senior Vice President for Medical Affairs and Dean
Chief Executive Officer, Miami Medicine

December 29, 2006

Ms. Teresa W. Borchbeck
Group Vice President
Florida Regional Manager
SunTrust Endowment and Endowment and Foundation Services
Post Office Box 620005
Orlando, Florida 32862

Dear Ms. Borchbeck:

On behalf of the University of Miami Leonard M. Miller School of Medicine, it is my pleasure to submit the enclosed report regarding our progress on the recruitment for the position of Scientific Director of the McKnight Center for Age-Related Memory Loss.

We are pleased to inform you we have appointed Andrew Maudsley, Ph.D to temporarily lead the Center. Dr. Maudsley is an accomplished investigator whose contributions to research in the field of magnetic resonance in medicine make him a formidable selection to lead the Center in its early stages.

We have also made considerable progress in the last few months working with a number of donors interested in matching the \$5 million grant provided by the McKnight Brain Research Foundation for the establishment of the Evelyn F. McKnight Center for Age Related Memory Loss. We are delighted to report we are expecting a gift of \$350,000 from the Applebaum Foundation as part of the 100% match to be made by the University. We are also in discussions with another major donor and feel very optimistic we will receive a \$4 million pledge to match the grant. This is in addition to the initial gift of \$1 million we received from the Folke Peterson Foundation in 2004. With these prospects and continuing efforts, we are confident we will be able to match the Foundation's \$5 million grant to fully establish the Evelyn F. McKnight Center for Age Related Memory.

Attached, please find Drs. Licinio's and Maudsley's report on their vision and plans for the future of the McKnight Center for Age Related Memory Loss.



LEONARD M. MILLER SCHOOL OF MEDICINE
Post Office Box 016099 (R-699) ■ Miami, Florida 33101
Location: 1600 N.W. 10th Avenue, RMSB 1140 ■ Miami, Florida 33136
305-243-6545 ■ Fax: 305-243-4888

Ms. Teresa W. Borchek

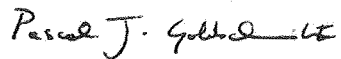
Page 2 of 2

December 29, 2006

I look forward to seeing you in April for our scientific forum. In the meantime, if you have any questions, please feel free to call me.

Thank you for your ongoing interest and generous support.

With all best personal regards,

A handwritten signature in dark ink, appearing to read "Pascal J. Goldschmidt". The signature is fluid and cursive, with a horizontal line extending from the end.

Pascal J. Goldschmidt, M.D.

Senior Vice President for Medical Affairs and Dean

Attachment

CURRICULUM VITAE

Andrew A. Maudsley, Ph.D.

Address:	MR Center University of Miami 1115 N.W. 14 th St. Miami, FL 33136	Tel:	305-243-8080 (work) 305-854-2527 (home)
		Fax:	305-243-8099
		E-Mail:	AMaudsley@med.miami.edu

Education:

1973 B.Sc. Nottingham University, England, (Physics).
1976 Ph.D. Nottingham University, England, (Physics).
Thesis: Spin Density Imaging by NMR. Advisor: Sir Peter Mansfield.
1977-78 Postdoctoral Fellowship, with Professor R. R. Ernst, E.T.H., Zurich, Switzerland.

Positions Held:

6/2002-pres. Professor, Department of Radiology, University of Miami School of Medicine.
1994-2002 Professor in Residence, Department of Radiology, University of California San Francisco, at the Magnetic Resonance Unit, V.A. Medical Center.
1988-1994 Associate Professor in Residence, Department of Radiology, UCSF.
1989-1993 Adjunct Associate Professor, Dept. of Pharmaceutical Chemistry, UCSF.
1987-1988 Visiting Associate Professor, Department of Radiology, UCSF.
1985-1987 Assistant Professor, Department of Radiology, Columbia University, College of Physicians and Surgeons, New York.
1983-1985 Vice-President, Advanced NMR Systems, Inc., Woburn, MA.
1979-1983 Assistant Professor, Department of Radiology, Columbia University, College of Physicians and Surgeons, New York.
1982-1983 Consultant, Philips Medical Systems.
1978-1979 Research Scientist, Siemens Medical, Erlangen, Germany.

Awards and Professional Activities:

- Workshop organizer: Data Processing for Clinical MR Spectroscopy and Imaging, November 2006.
- Member, Medical Imaging Study Section, National Institutes of Health, 2004-2008.
- Gold Medal Award for contributions to the field, International Society for Magnetic Resonance in Medicine, 2005.
- Fellow, International Society for Magnetic Resonance in Medicine, 1999.
- Member of the Board of Trustees, International Society for Magnetic Resonance in Medicine, 1993-1996; Also served on the Nominating Committee, 1986; Strategic Planning Committee, 1996-1997; and Regional Planning Committee, 2002-2005.
- Member, External Advisory Committee for 4.1T NCRR, CNIR, University of Birmingham, Alabama, 1991-2002.

- Member, NCRR External Advisory Committee, Lucas NMR Center, Stanford, 1999-2004.
- Editorial Board: Magnetic Resonance Imaging (1982-pres.); Magnetic Resonance in Medicine (2000-pres.); MAGMA (2002-pres.); Reviews of Magnetic Resonance in Medicine (1985-1993).
- Journal Reviewer, including: Journal of Magnetic Resonance, Magnetic Resonance Imaging, Magnetic Resonance in Medicine, NMR in Biomedicine, Radiology, IEEE Transactions Medical Imaging, NeuroImage, AJNR.
- Grant Reviewer: National Institutes of Health Ad Hoc review committee member (several years); National Science Foundation; American Chemical Society; Alberta Heritage Foundation for Medical Research. Canada; The Wellcome Trust, U.K.
- Workshop Co-organizer: 'In Vivo Magnetic Resonance Spectroscopy', 1992 and 1994.

University Service:

- University of Miami, Department of Radiology Research Committee, 2002-pres., Clinical MR Research Committee, 2002-2005.
- UCSF Committee on Human Research, 2001-2002; Radiation Safety Committee, 1990-1992; Radioactive Drug Research Committee (RDRC), 1990-1992; Ad Hoc Review Committee; Faculty Search Committee, 1992.

Research:

Development of acquisition methods and data processing techniques for the application of nuclear magnetic resonance imaging (MRI) and spectroscopy for the study of biological systems. Collaborative studies include implementation of ^1H *in vivo* MR Spectroscopic Imaging (MRSI) for observation of brain metabolites, with application to clinical investigations of neurodegenerative diseases, epilepsy localization, and traumatic brain injury.

Data processing methods are being developed to enable improved acquisition and analysis of single-voxel MRS and spectroscopic imaging data. Recent work includes: automated parametric spectral analysis, image extrapolation methods, correction of motion-induced image artifacts, and optimization of acquisition parameters using spectral simulation. Software developed by my laboratory for MRSI processing and display has been distributed to several research sites worldwide. Efforts continue to develop standardized and automated processing methods to facilitate implementation of MRSI for clinical research. Improved reconstruction of metabolite images and data analysis methods will include co-analysis of MRSI data with knowledge on tissue distributions and morphology information derived from MRI data.

Grant Support:

Current:

- NIH R01 NS055107, P.I. A. Maudsley, "Volumetric MRSI Evaluation of Traumatic Brain Injury", 4/1/06-3/31/09.
- NIH R13 EB006674, P.I. A. Maudsley, "Data Processing for Clinical MR Spectroscopy and Imaging". Conference grant for travel awards, 7/1/2006-6/30/2007.
- NIH R01 EB00822, P.I. A. Maudsley, "Partnership for MR Spectroscopic Imaging Data Processing", 7/01/2002-6/30/2007.
- NIH RO1 NS41946, P.I. A. Maudsley. "Proton MR Spectroscopic Imaging of Epilepsy", 8/1/01-7/31/06 (no cost extension to 7/31/07).
- NIH R01 EB000730, P.I. A. Maudsley, "Volumetric MR Molecular Imaging of Brain", 10/1/02-9/30/07.
- NIH R21 MH075658, P.I. K. Goodkin, "Novel MRS Methods to Characterize MCMD", 12/2005-8/31/2007.

Previous Grant Support as PI:

- University of Miami Scientific Advisory Committee equipment grant; "Phased-Array RF Coil", \$16,200, 2003.
- University of Miami General Clinical Research Center. Support for MRI studies of Traumatic Brain Injury. 2003-2004.
- NIH R01AG12119, 2/01/96-1/31/04, "Data Processing for MR Spectroscopic Imaging".
- NIH R01NS38029, 12/1/98-11/30/03, "Volumetric Proton MR Spectroscopic Imaging".
- NIH R01NS35690, 1/01/98-12/31/00, "Improved MR Spectroscopic Imaging of Whole Brain".
- NIH R01CA48815, 12/1/88-11/30/97, "Spectroscopic NMR Imaging of Metabolites *In Vivo*".
- Surrey Medical Imaging Systems, 1996. Contract for software development.
- NIH S10RR06491, 12/01/90-11/31/91, "Instrumentation for NMR Spectroscopic Imaging In Vivo".
- University of California Academic Senate, San Francisco, Shared Equipment Grant. 6/1/91- 6/30/92.

Teaching:

- Research advisor for the doctoral work of: T. Higuchi, 1992; T. Ebisu, 1994; T. Tokumitsu, 1996; C. Haupt, 1997; A. Kiefer, 1997, S. Sheriff, 2003.
- Supervision and teaching of postdoctoral fellows and graduate students. Trainees include: A. Gonenc Ph.D., 2006-pres; C. Domenig, Ph.D., 2003-pres.; Y. Bao Ph.D., 2002-2005.; S. Sheriff, B.Sc., 2003-pres.; S. Davy, B.Sc., 2002; J. Kornak, Ph.D., 2000-2001.; V. Govindaraju, Ph.D., 1995-2000.; B. Soher, Ph.D., 1996-1999.; A. Ebel, Ph.D., 1999-2001; M. Büchert, Ph.D., 1999-2000; D. Khetselius, Ph.D. 1998-2000; P. Vermathen, Ph.D. 1998-1999; B. Morris, Ph.D. 1994-1995; M. Seshadri, Ph.D. 1994; Z. Wu, Ph.D., 1992-1994; W. Rooney, Ph.D. 1991-1994; C. Raphael. Ph.D., 1992-1993; E. Fernandez, Ph.D., 1988-1990.

- Lecturer, NMR Imaging, as part of the NMR course in the Department of Pharmaceutical Chemistry, 1988-1994.
- Lecturer in UCSF Courses, including: Postgraduate Course in Diagnostic Radiology, 1991; Radiology Grand Rounds, 1991; Neuroradiology Research conference, 1991; MR Physics course, UCSF Radiology, 1994.
- Teaching sessions of the Annual meeting of the Society of Magnetic Resonance in Medicine, 1986, 1987, 1998, 2002, 2004, 2005.
- MR Spectroscopy, NER Foundation Symposium, ASNR, San Diego, 2006.
- Grand Rounds, Department of Radiology University of Miami, 2003.
- Several Invited Presentations, including: Medical Applications of Magnetic Resonance, Interlaken, 1984; SMRM Annual meeting (Plenary), New York, 1984.; National Cancer Institute, Bethesda, 1986; New York Chemical Society, 1987; SMRI (Plenary) 1990; World Congress on Medical Physics. Kyoto 1991; Symposium in honour of Sir Peter Mansfield. Nottingham, 1998; Computed Imaging Conference, Saga, Japan, 1999; International Symposium on Ultrafast Magnetic Resonance Imaging in Medicine. Kyoto, Japan, 1999; Symposium on MRI Research and Clinical Applications, Hong Kong, 1999; Hong Kong University, 1999; ISMRM (Plenary) 2002.

BIBLIOGRAPHY

Andrew A. Maudsley, Ph.D.

Journal Articles

1. P. Mansfield, A. A. Maudsley, Line scan proton spin imaging in biological structures by NMR. *Phys. Med. Biol.* **21**, 847-852 (1976).
2. P. Mansfield, A. A. Maudsley, Planar spin imaging by NMR. *J. Phys. C, Solid State Phys. (UK)* **9**, L409-L412 (1976).
3. P. Mansfield, A. A. Maudsley, T. Baines, Fast scan proton density imaging by NMR. *J. Phys. E: Sci. Instrum.* **9**, 271-278 (1976).
4. P. Mansfield, A. A. Maudsley, Planar spin imaging by NMR. *J. Magn. Reson.* **27**, 101-119 (1977).
5. P. Mansfield, A. A. Maudsley, Medical imaging by NMR. *Br. J. Radiol.* **50**, 188-194 (1977).
6. A.A. Maudsley, L. Muller, R. R. Ernst, Cross-correlation of spin decoupled NMR spectra by heteronuclear two-dimensional spectroscopy. *J. Magn. Reson.* **28**, 463-469 (1977).
7. A.A. Maudsley, R. R. Ernst, Indirect detection of magnetic resonance by heteronuclear two-dimensional spectroscopy. *Chem. Phys. Lett.* **50**, 368-372 (1977).
8. A.A. Maudsley, A. Wokaun, R. R. Ernst, Coherence transfer echoes. *Chem. Phys. Lett.* **55**, 9-14 (1978).
9. P. Mansfield, A. A. Maudsley, P. G. Morris, I. L. Pykett, Selective pulses in NMR imaging: A reply to criticism. *J. Magn. Reson.* **33**, 261-274 (1979).
10. A.A. Maudsley, A. Oppelt, A. Ganssen, Rapid measurement of magnetic field distributions using nuclear magnetic resonance. *Siemens Forsch. - & Entwickl. ber. (West Germany)* **8**, 326-331 (1979).
11. A.A. Maudsley, Multiple-line-scanning spin density imaging. *J. Magn. Reson.* **41**, 112-126 (1980).
12. S. K. Hilal, A. A. Maudsley, H. E. Simon, W. H. Perman, J. Bonn, M. E. Mawad, A. J. Silver, S. R. Ganti, P. Sane, I. C. Chien, In vivo NMR imaging of tissue sodium in the intact cat before and after acute cerebral stroke. *AJNR* **4**, 245-249 (1983).
13. S. K. Hilal, S. Einstein, A. Maudsley, M. A. Silver, The merits of superconducting magnets in NMR systems. *Medicamundi* **28**, 63-69 (1983).
14. A. A. Maudsley, A. K. Hilal, W. H. Perman, H. E. Simon, Spatially resolved high-resolution spectroscopy by "four-dimensional" NMR. *J. Magn. Reson.* **51**, 147-152 (1983).
15. R. Geard, R. S. Osmak, E. J. Hall, H. E. Simon, A. A. Maudsley, S. K. Hilal, Magnetic resonance and ionizing radiation: a comparative evaluation in vitro of oncogenic and genotoxic potential. *Radiology* **152**, 199-202 (1984).

16. A. A. Maudsley, S. K. Hilal, H. E. Simon, Electronics and instrumentation for NMR imaging. *IEEE Trans. Nucl. Sci. (USA)* NS-31, 990-993 (1984).
17. A. A. Maudsley, H. E. Simon, S. K. Hilal, Magnetic field measurement by NMR imaging. *J. Phys. E, Sci. Instrum.* 17, 216-220 (1984).
18. A. A. Maudsley, S. K. Hilal, H. E. Simon, S. Wittekoek, In vivo MR spectroscopic imaging with P-31. *Radiology* 153, 745-750 (1984).
19. A. A. Maudsley, S. K. Hilal, Biological aspects of sodium-23 imaging. *Brit. Med. Bull.* 40, 165-166 (1984).
20. W. H. Perman, S. K. Hilal, H. E. Simon, A. A. Maudsley, Contrast manipulation in NMR imaging. *Magn. Reson. Imaging* 2, 23-32 (1984).
21. H. E. Simon, S. K. Hilal, A. A. Maudsley, Diagnostic potential of sodium-23 NMR imaging. *Appl. Radiol.* (1984).
22. S. K. Hilal, A. A. Maudsley, J. B. R. Simon, P. Roschmann, S. Wittekoek, Z. H. Cho, S. K. Mun, In vivo NMR imaging of sodium-23 in the human head. *J. Comput. Assist. Tomogr.* 9, 1-7 (1985).
23. A.A. Maudsley, S. K. Hilal, Field inhomogeneity correction and data processing for spectroscopic imaging. *Magn. Reson. Med.* 2, 218-233 (1985).
24. P. J. Cannon, A. A. Maudsley, S. K. Hilal, H. E. Simon, F. Cassidy, Sodium nuclear magnetic resonance imaging of myocardial tissue of dogs after coronary artery occlusion and reperfusion. *J. Am. Coll. Cardiol.* 7, 573-579 (1986).
25. A.A. Maudsley, Modified Carr-Purcell-Meiboom-Gill sequence for NMR Fourier imaging applications. *J. Magn. Reson.* 69, 488-491 (1986).
26. A.A. Maudsley, Sensitivity in Fourier imaging. *J. Magn. Reson.* 68, 363-366 (1986).
27. A.A. Maudsley, Fourier imaging using rf phase encoding. *Magn. Reson. Med.* 3, 768-777 (1986).
28. A.A. Maudsley, Dynamic range improvement in NMR imaging using phase scrambling. *J. Magn. Reson.* 76, 287-305 (1988).
29. M. W. Weiner, H. Hetherington, B. Hubesch, G. Karczmar, B. Massie, A. Maudsley, D. J. Meyerhoff, D. Sappey-Mariniere, S. Schaefer, D. B. Twieg, G. B. Matson, Clinical magnetic resonance spectroscopy of brain, heart, liver, kidney, and cancer. A quantitative approach. *NMR Biomed.* 2, 290-297 (1989).
30. A.A. Maudsley, D. B. Twieg, D. Sappey-Mariniere, B. Hubesch, J. W. Hugg, G. B. Matson, M. W. Weiner, Spin echo 31P spectroscopic imaging in the human brain. *Magn. Reson. Med.* 14, 415-422 (1990).
31. J. H. Duijn, G. B. Matson, A. A. Maudsley, M. W. Weiner, 3D phase encoding 1H spectroscopic imaging of human brain. *Magn. Reson. Imaging* 10, 315-319 (1992).
32. J. H. Duijn, G. B. Matson, A. A. Maudsley, J. W. Hugg, M. W. Weiner, Human brain infarction: proton MR spectroscopy. *Radiology* 183, 711-718 (1992).

33. E. J. Fernandez, A. A. Maudsley, T. Higuchi, M. W. Weiner, Three-dimensional ¹H spectroscopic imaging of cerebral metabolites in the rat using surface coils. *Magn. Reson. Imaging* **10**, 965-974 (1992).
34. E. J. Fernandez, A. A. Maudsley, T. Higuchi, M. W. Weiner, ¹H spectroscopic imaging of rat brain at 7 Tesla. *Magn. Reson. Med.* **25**, 107-119 (1992).
35. J. W. Hugg, G. B. Matson, D. B. Twieg, A. A. Maudsley, D. Sappey-Marinier, M. W. Weiner, Phosphorus-31 MR spectroscopic imaging (MRSI) of normal and pathological human brain. *Magn. Reson. Imaging* **10**, 227-244 (1992).
36. J. W. Hugg, J. H. Duijn, G. B. Matson, A. A. Maudsley, J. S. Tsuruda, D. F. Gelinas, M. W. Weiner, Elevated lactate and alkalosis in chronic human brain infarction observed by ¹H and ³¹P spectroscopic imaging (MRSI). *J. Cereb. Blood Flow Metab.* **12**, 734-744 (1992).
37. J. W. Hugg, K. D. Laxer, G. B. Matson, A. A. Maudsley, C. A. Husted, M. W. Weiner, Lateralization of human focal epilepsy by ³¹P magnetic resonance spectroscopic imaging. *Neurology* **42**, 2011-2018 (1992).
38. A.A. Maudsley, E. Lin, M. W. Weiner, Spectroscopic imaging display and analysis. *Magn. Reson. Imaging* **10**, 471-485 (1992).
39. D.J. Meyerhoff, A. A. Maudsley, C. Husted, M. W. Weiner, Magnetic resonance spectroscopic imaging. *Magnetic Resonance Quarterly* **Fall**, 47-52 (1992).
40. D.J. Meyerhoff, A. A. Maudsley, S. Schaefer, M. W. Weiner, Phosphorus-31 magnetic resonance metabolite imaging in the human body. *Magn. Reson. Imaging* **10**, 245-256 (1992).
41. T. Higuchi, E. J. Fernandez, A. A. Maudsley, M. W. Weiner, Mapping of cerebral metabolites in rats by ¹H magnetic resonance spectroscopic imaging: Distribution of metabolites in normal brain and postmortem changes. *NMR Biomed.* **6**, 311-317 (1993).
42. J. W. Hugg, K. D. Laxer, G. B. Matson, A. A. Maudsley, M. W. Weiner, Neuron loss localizes human temporal lobe epilepsy by in vivo proton magnetic resonance spectroscopic imaging. *Ann. Neurol.* **34**, 788-794 (1993).
43. R. S. Lara, G. B. Matson, J. W. Hugg, A. A. Maudsley, M. W. Weiner, Quantitation of in vivo phosphorus metabolites in human brain with magnetic resonance spectroscopic imaging (MRSI). *Magn. Reson. Imaging* **11**, 273-278 (1993).
44. A.A. Maudsley, G. B. Matson, J. W. Hugg, M. W. Weiner, Display of metabolic information by MR spectroscopic imaging. *SPIE* **1887**, 282-289 (1993).
45. T. Ebisu, W. D. Rooney, S. H. Graham, M. W. Weiner, A. A. Maudsley, N-acetylaspartate as an in vivo marker of neuronal viability in kainate-induced status epilepticus: ¹H magnetic resonance spectroscopic imaging. *J. Cereb. Blood Flow Metab.* **14**, 373-382 (1994).
46. C.A. Husted, J. H. Duijn, G. B. Matson, A. A. Maudsley, M. W. Weiner, Molar quantitation of in vivo proton metabolites in human brain with 3D magnetic resonance spectroscopic imaging. *Magn. Reson. Imaging* **12**, 661-667 (1994).

47. C.A. Husted, D. S. Goodin, J. W. Hugg, A. A. Maudsley, J. S. Tsuruda, S. H. de Bie, G. Fein, G. B. Matson, M. W. Weiner, Biochemical alterations in multiple sclerosis lesions and normal- appearing white matter detected by in vivo ^{31}P and ^1H spectroscopic imaging. *Ann. Neurol.* **36**, 157-165 (1994).
48. A.A. Maudsley, Z. Wu, D. J. Meyerhoff, M. W. Weiner, Automated processing for proton spectroscopic imaging using water reference deconvolution. *Magn. Reson. Med.* **31**, 589-595 (1994).
49. A.A. Maudsley, G. B. Matson, J. W. Hugg, M. W. Weiner, Reduced phase encoding in spectroscopic imaging. *Magn. Reson. Med.* **31**, 645-651 (1994).
50. A.A. Maudsley, Spectral lineshape determination by self-deconvolution. *J. Magn. Reson. Ser. B* **106**, 47-57 (1995).
51. T. Ebisu, W. D. Rooney, S. H. Graham, A. Mancuso, M. W. Weiner, A. A. Maudsley, MR spectroscopic imaging and diffusion-weighted MRI for early detection of kainate-induced status epilepticus in the rat. *Magn. Reson. Med.* **36**, 821-828 (1996).
52. C.I. Haupt, N. Schuff, M. W. Weiner, A. A. Maudsley, Removal of lipid artifacts in ^1H spectroscopic imaging by data extrapolation. *Magn. Reson. Med.* **35**, 678-687 (1996).
53. T. Higuchi, E. J. Fernandez, A. A. Maudsley, H. Shimizu, M. W. Weiner, P. R. Weinstein, Mapping of lactate and n-acetylaspartate predicts infarction during acute focal ischemia: In vivo ^1H magnetic resonance spectroscopy in rats. *Neurosurgery* **38**, 121-130 (1996).
54. J. W. Hugg, A. A. Maudsley, M. W. Weiner, G. B. Matson, Comparison of k-space sampling schemes for multidimensional MR spectroscopic imaging. *Magn. Reson. Med.* **36**, 469-473 (1996).
55. W. D. Rooney, T. Ebisu, A. Mancuso, S. Graham, M. W. Weiner, A. A. Maudsley, Metabolite ^1H relaxation in normal and hyponatremic brain. *Magn. Reson. Med.* **35**, 688-696 (1996).
56. V. Govindaraju, D. J. Meyerhoff, A. A. Maudsley, M. Vermathen, M. W. Weiner, Effects of brain membranes on ^1H nuclear magnetic resonance signal intensity of ethanol in vitro. *Alcohol and Alcoholism* **32**, 671-681 (1997).
57. T. Higuchi, S. H. Graham, E. J. Fernandez, W. D. Rooney, H. L. Gaspary, M. W. Weiner, A. A. Maudsley, Effects of severe global ischemia on N-acetylaspartate and other metabolites in the rat brain. *Magn. Reson. Med.* **37**, 851-857 (1997).
58. T. Tokumitsu, A. Mancuso, P. R. Weinstein, M. W. Weiner, S. Naruse, A. A. Maudsley, Metabolic and pathological effects of temporal lobe epilepsy in rat brain detected by proton spectroscopy and imaging. *Brain Res.* **744**, 57-67 (1997).
59. V. Govindaraju, V. J. Basus, G. B. Matson, A. A. Maudsley, Measurement of chemical shifts and coupling constants for glutamate and glutamine. *Magn. Reson. Med.* **39**, 1011-1013 (1998).
60. C. I. Haupt, A. P. Kiefer, A. A. Maudsley, In-plane motion correction for MR spectroscopic imaging. *Magn. Reson. Med.* **39**, 749-753 (1998).

61. A.P. Kiefer, V. Govindaraju, G. B. Matson, M. W. Weiner, A. A. Maudsley, Multiple-echo proton spectroscopic imaging using time domain parametric spectral analysis. *Magn. Reson. Med.* **39**, 528-538 (1998).
62. W. D. Rooney, R. G. Miller, D. Gelinas, N. Schuff, A. A. Maudsley, M. W. Weiner, Decreased N-acetylaspartate in motor cortex and corticospinal tract in ALS. *Neurology* **50**, 1800-1805 (1998).
63. K. Young, V. Govindaraju, B. J. Soher, A. A. Maudsley, Automated spectral analysis I: Formation of *a priori* information by spectral simulation. *Magn. Reson. Med.* **40**, 812-815 (1998).
64. K. Young, B. J. Soher, A. A. Maudsley, Automated spectral analysis II: Application of wavelet shrinkage for characterization of non-parameterized signals. *Magn. Reson. Med.* **40**, 816-821 (1998).
65. B. J. Soher, K. Young, V. Govindaraju, A. A. Maudsley, Automated spectral analysis III: Application to in vivo proton MR spectroscopy and spectroscopic imaging. *Magn. Reson. Med.* **40**, 822-831 (1998).
66. N. Schuff, P. Vermathen, A. A. Maudsley, M. W. Weiner, Proton magnetic resonance spectroscopic imaging in neurodegenerative diseases. *Current Science* **76**, 800-807 (1999).
67. K. Young, G. B. Matson, V. Govindaraju, A. A. Maudsley, Spectral simulations incorporating gradient coherence selection. *J. Magn. Reson.* **140**, 146-152 (1999).
68. A. A. Maudsley, Early development of line-scan NMR imaging. *MAGMA* **9**: 100-102 (1999).
69. A. A. Maudsley, Future prospects for in vivo MR spectroscopy. *MAGMA* **9**, 164-166 (1999).
70. G. Ende, D. F. Braus, S. Walter, W. Weber-Fahr, B. J. Soher, A. A. Maudsley, F. A. Henn, Effects of age, medication, and illness duration on the N-acetyl aspartate signal of the anterior cingulate region in schizophrenia. *Schizophrenia Research* **41**: 389-95 (2000).
71. A. A. Capizzano, N. Schuff, D. L. Amend, J. L. Tanabe, D. Norman, A. A. Maudsley, W. Jagust, H. C. Chui, G. Fein, M. R. Segal, M. W. Weiner, Subcortical ischemic vascular dementia: Assessment with quantitative MR imaging and ¹H MR spectroscopy. *Amer. J. Neuroradiol.* **21**: 621-630 (2000).
72. P. Vermathen, A. Capizzano, A. A. Maudsley, Administration of Histidine and ¹H MRS Detection in Human Brain: Application to in Vivo pH Measurement. *Magn. Reson. Med.* **45**: 665-675 (2000).
73. J. Suhy, W.D. Rooney, D.E. Goodkin, A.A. Capizzano, B.J. Soher, A.A. Maudsley, E. Waubant, P.B. Andersson, and M.W. Weiner. ¹H MRS comparison of white matter and lesions in primary progressive and relapsing remitting MS. *Multiple Sclerosis*. **6**: 148-155 (2000).

74. V. Govindaraju, K. Young, A. A. Maudsley, Proton NMR chemical shifts and coupling constants for brain metabolites. *NMR Biomed.* **13**: 129-153 (2000).
75. K. Young, D. Khetselius, B. J. Soher, A. A. Maudsley. Confidence Images for MR Spectroscopic Imaging. *Magn. Reson. Med.* **44**: 537-545 (2000).
76. B. J. Soher, P. Vermathen, N. Schuff, D. Wiedermann, D. J. Meyerhoff, M. W. Weiner, A. A. Maudsley. Short TE *in vivo* ^1H MR Spectroscopic Imaging at 1.5 T: Acquisition and automated spectral analysis. *Magn. Reson. Imaging.* **18**: 1159-1165 (2000).
77. N. Schuff, W.D. Rooney, D.F. Gelinas, R. Miller, D.L. Amend, A.A. Maudsley, and M.W. Weiner. Re-analysis of multislice ^1H MRSI in amyotrophic lateral sclerosis. *Magn. Reson. Med.*, **45**:513-516 (2001).
78. N. Schuff, F. Ezekiel, A. Gamst, D.L. Amend, A.A. Capizzano, A.A. Maudsley, and M.W. Weiner. Region and tissue differences of metabolites in normally aged brain using ^1H magnetic resonance spectroscopic imaging. *Magn. Reson. Med.*, **45**: 899-907, (2001).
79. A.A. Capizzano, P. Vermathen, K. Laxer, G. Ende, D. Norman, H. Rowley, G.B. Matson, A. A. Maudsley, M.R. Segal and M.W. Weiner. Temporal lobe epilepsy: Qualitative reading of ^1H MR spectroscopic images for presurgical evaluation. *Neuroradiology*, **218**: 144-155 (2001).
80. B. J. Soher, K. Young, and A. A. Maudsley. Representation of strong baseline contributions in ^1H MR spectra. *Magn. Reson. Med.* **45**: 966-972 (2001).
81. A. Ebel, and A.A. Maudsley. Comparison of methods for reduction of lipid contamination for *in vivo* proton MR spectroscopic imaging of the brain. *Magn. Reson. Med.* **46**: 706-712 (2001).
82. A. Ebel, B.J. Soher, and A.A. Maudsley. Assessment of 3D proton MR echo-planar spectroscopic imaging using automated spectral analysis. *Magn. Reson. Med.* **46**: 1072-1078 (2001).
83. D. Wiedermann, N. Schuff, G.B. Matson, B. Soher, A.T. Du, A. A. Maudsley, and M.W. Weiner. Short echo multislice proton magnetic resonance spectroscopic imaging in brain: Metabolite distribution and reliability. *Magn. Reson. Imaging.* **19**: 1073-1080 (2001).
84. B.S.Y. Li, J.S. Babb, B.J. Soher, A.A. Maudsley, and O. Gonen. The reproducibility of 3D proton spectroscopy in the human brain. *Magn. Reson. Med.* **47**: 439-446 (2002).
85. A.A. Capizzano, P. Vermathen, K.D. Laxer, G.B. Matson, A.A. Maudsley, B.J. Soher, N. Schuff, and M.W. Weiner, Multisection proton MR spectroscopy for mesial temporal lobe epilepsy, *AJNR*, **23**:1359-1368 (2002).
86. J. Suhy, R. Rule, R.G. Miller, N. Schuff, J. Licht, D. Dronskey, et al. Early detection and longitudinal changes in Amyotrophic Lateral Sclerosis by ^1H MRSI. *Neurology* **58**: 773-779 (2002).
87. A. Ebel and A. A. Maudsley. Improved spectral quality for 3D spectroscopic imaging using a high spatial resolution acquisition strategy. *Magn. Reson. Imag.* **21**: 113-120 (2003).

88. A. Ebel, V. Govindaraju, and A.A. Maudsley. Comparison of inversion recovery preparation schemes for lipid suppression in ^1H -MRSI of human brain. *Magn. Reson. Med.* 49: 903-908 (2003).
89. X-P. Zhu, A-T. Du, G. Jahng, B. J. Soher, A. A. Maudsley, M. W. Weiner, N. Schuff. Magnetic resonance spectroscopic imaging reconstruction with deformable shape-intensity models. *Magn. Reson. Med.* 50:474-482 (2003).
90. C. Studholme, V. Cardenas, A. Maudsley and M. Weiner. An intensity consistent filtering approach to the analysis of deformation tensor derived maps of brain shape. *NeuroImage* 19: 1638-1649 (2003).
91. M.A. Weber, M.P. Lichy, C. Thilman, M. Gunther, P. Bachert, A.A. Maudsley, S. Delorme, L.R. Schad, J. Debus, H.P. Schlemmer. Monitoring of irradiated brain metastases using MR perfusion imaging and H-1 MR spectroscopy (In German). *Der Radiologe* 43(5): 388-395 (2003).
92. C. Studholme, V. Cardenas, E. Song, F. Ezekiel, A. Maudsley, and M. Weiner. Accurate template-based correction of brain MRI intensity distortion with application to dementia and aging. *IEEE Trans. Med. Imag.* 23: 99-110 (2004).
93. V. Govindaraju, G. Gauger, G. Manley, A. Ebel, M. Meeker, and A.A. Maudsley. Volumetric proton spectroscopic imaging of mild traumatic brain injury. *Am. J. Neuroradiol.* 25: 730-737 (2004).
94. B.J. Soher and A.A. Maudsley. Evaluation of variable line-shape models and prior information in automated ^1H spectroscopic imaging analysis. *Magn. Reson. Med.* 52: 1246-1254 (2004).
95. A. Ebel and A.A. Maudsley. Detection and correction of frequency instabilities for volumetric ^1H echo planar spectroscopic imaging. *Magn. Reson. Med.* 53: 465-469 (2005).
96. A.A. Maudsley, V. Govindaraju, K. Young, Z.K. Aygula, P.M. Pattany, B.J. Soher, and G.B. Matson, Numerical simulation of PRESS localized spectroscopy. *J. Magn. Reson.* 173: 54-63 (2005).
97. B.J. Soher, P.M. Pattany, G. Matson, and A.A. Maudsley, Observation of coupled ^1H metabolite resonances at long TE. *Magn. Reson. Med.* 53: 1283-1287 (2005).
98. A.A. Maudsley. Can MR spectroscopy ever be simple and effective? Editorial, *AJNR Am J Neuroradiol.* 26: 2167 (2005).
99. A. Ebel, A.A. Maudsley, M.W. Weiner, N. Schuff. Achieving sufficient spectral bandwidth for volumetric ^1H echo-planar spectroscopic imaging at 4 Tesla. *Magn Reson Med.* 54: 697-701 (2005).
100. A.A. Maudsley, A. Darkazanli, J.R. Alger, L.O. Hall, N. Schuff, C. Studholme, A. Frew, D. Goldgof, R. Pagare, F. Rousseau, K. Sivasankaran, B.J. Soher, P. Weber, K. Young, Y. Yu, G. Yuhua. Comprehensive processing, display, and analysis for in vivo MR spectroscopic imaging. *NMR Biomed.* 19: 492-503 (2006).

101. Y. Bao and A. A. Maudsley, Improved Reconstruction for MR Spectroscopic Imaging. *IEEE Trans. Med. Imag.* In Press (2007).
102. A. Ebel, A.A. Maudsley, and N. Schuff, Correction of Local B_0 -Shifts in 3D EPSI of Human Brain at 4 Tesla. *Magn. Reson. Imaging.* In Press (2007).
103. Y. Bao and A.A. Maudsley, Analysis of the relationship between parallel imaging methods. Submitted (2007).
104. C. Domenig, A. Ebel, A.A. Maudsley. Reference-based frequency-drift correction for echo-planar spectroscopic imaging. In Preparation.

Book Chapters

105. Maudsley A.A. Multiple line scanning NMR imaging. In: "Nuclear Magnetic Resonance (NMR) Imaging". Partain, James, Rollo, and Price (Eds), WB Saunders, Philadelphia, pp 179-185, 1983.
 106. Hilal S.K. and Maudsley A.A. Potential future development in magnetic resonance tomography. In: Categorical Course on Neuroradiology. Denver, American College of Radiology, pp 193-195, 1983.
- Maudsley A.A. In vivo spectroscopic imaging. In: "Technology of Nuclear Magnetic Resonance", Esser P.D. and Johnston R.E. (Eds). The Society of Nuclear Medicine, New York, pp 167-177, 1984.
 - Hilal S.K., Maudsley A.A., Ra J-B., Simon H.E., Roschmann P., et al. In vivo nuclear magnetic resonance of sodium-23 in the human head. In: "Functional Mapping of the Brain in Vascular Disorders", Ed. W-D. Heiss, Springer Verlag, Berlin, 1985.
 - Maudsley A.A. Principles of nuclear magnetic resonance. In: "Medical Magnetic Resonance Imaging and Spectroscopy", Eds: Budinger T.F. and Margulis A.A. Soc. Magn. Reson. Med., Berkeley, CA, 1986.
 - Maudsley A.A. In vivo spectroscopy by NMR imaging. In: "NMR Spectroscopy of Cells and Organisms", Ed: Gupta R.K. CRC Press, Boca Raton, Florida, 1986.
 - Maudsley A.A. Technical demands of Multiple Nuclei. In: "NMR Spectroscopy". Vol. 2, Eds: Partain, Price, Patton, Kulkarni, James. 1988.
 - Meyerhoff D.J., Hetherington H.P., Hugg J.W., Matson G.B., Fein G., Maudsley A.A. and Weiner, M.W. Magnetic resonance spectroscopy and spectroscopic imaging of human liver, heart, kidney, and brain. In: "Imaging in Alcohol Research". National Institute on Alcohol Abuse and Alcoholism, Research Monograph 21, 177-193 (1992).
 - Maudsley A.A. and Matson G.B.. Selective Excitation. In: "Encyclopedia of Nuclear Magnetic Resonance", Ed: D.M. Grant and R.K. Harris. John Wiley and Sons., 1996.

- Matson G.B., Govindaraju V., Kiefer A.P., Schuff N., Weiner M.W. and Maudsley A.A.. Multiple-echo proton spectroscopic imaging of human brain. In: "High-power gradient MR-imaging", Ed: M. Oudkerk and R.R. Edelman. Blackwell Science, Oxford, 1997.
 - Weiner, M.W., Maudsley, A.A., Schuff, N., Soher, B.J., Vermathen P., Fein, G., and Laxer, K.: Multislice 1H Magnetic Resonance Spectroscopic Imaging: Assessment of Epilepsy, Alzheimer's Disease, and Amyotrophic Lateral Sclerosis. International Society for Optical Engineering, In: Hoffman EA, editor. Medical Imaging 1998: Physiology and Function from Multidimensional Images. Vol 3337. San Diego, CA: SPIE, pp.203-209, 1998.
 - Maudsley, A.A. Methods and applications of high-speed MR spectroscopy. In: "Ultrafast Magnetic Resonance Imaging in Medicine", Ed: S. Naruse, H. Watari. Elsevier Science, Amsterdam, 1999.
 - Maudsley A.A. and Matson G.B.. Selective Excitation. In: "Methods in Biomedical Magnetic Resonance Imaging and Spectroscopy", Ed: I.R. Young. John Wiley and Sons., 2000.
107. Maudsley, A.A. MR Spectroscopic Imaging. In: "Brain Mapping: The Methods", Ed: Toga, A.W. and Mazziotta, J.C. Academic Press, 2002, p351-378.

Patents

108. Maudsley A.A., Oppelt A. and Ganssen A. Verfahren und vorrichtung fur magnetfeld-messung. German Patent P2920549, 1979.
109. Maudsley A.A., Oppelt A. and Ganssen A. Verfahren fur erstellung von kernresonanz-bildern. German Patent VPA 79P5088, 1979.
110. Maudsley A.A. Hilal S.K. and Simon H.E. NMR imaging methods, #4,585,992, 1986.
111. Maudsley A.A. NMR Fourier imaging from multiple echoes. #646,370, 1984.
112. Maudsley A.A. High frequency r.f. coil for NMR device. #4,594,566, 1986.
113. Maudsley A.A. Multiple echo chemical shift imaging. #697,972, 1984.
114. Maudsley A.A. NMR phase encoding using phase varying rf pulses. #756,035, 1985.
115. Maudsley A.A. High dynamic range in NMR data acquisition. #4,703,267, 1987.
116. UCSF and VA Technology Disclosure, 1998. A.A. Maudsley, P. Vermathen. Enhancement of tissue pH measurement by NMR

Published Abstracts

117. Mansfield P. Grannell P.K. and Maudsley A.A. Diffraction and microscopy in solids and liquids by NMR. 18th Ampere Congress, Nottingham, 431, 1974.
118. Mansfield P. and Maudsley A.A. Planar and line scan spin imaging by NMR. 19th Ampere Congress, Heidelberg, 1976.

119. Maudsley A.A. Multiple line scanning NMR imaging. *J. Comput. Assist. Tomogr.*, 5:289, 1981.
120. Maudsley A.A., Hilal S.K., Perman W.H. and Simon H. Potential of multinuclear NMR imaging: experimental aspects. Presented at International symposium on CT. In *J. Comput. Assist. Tomogr.* 6:1221, 1982.
121. Hilal S.K., Maudsley A.A., Simon H.E. and Wittekoek S. In vivo NMR imaging of phosphorus. *Radiology (WIP)*, 149(P):255, 1983.
122. Mun S.K., Maudsley A.A., Hilal S.K. and Simon H.E. Protocol for performance evaluation and quality assurance of a 1.5 Tesla NMR imaging system. *Radiology (WIP)*, 149(P):240, 1983.
123. Sacks E., Merriam G.R., Worgul B.V., Hilal S., Maudsley A., Perman W., Simon H., Thomas W. Studies of cataractogenic potential of magnetic and radio fields generated during NMR analysis. *Suppl. Invest. Ophth. Visual Sci.* 24:268, 1983.
124. Einstein S., Maudsley A., Simon H. Hilal S. and Sano R. Magnetic shielding for small room installation of a 1.5T NMR system. Presented at Society of Magnetic Resonance in Medicine, San Francisco, 1983. *Magn. Reson. Med.*, 1:165, 1984.
125. Hilal S.K., Maudsley A.A., Bonn J., Simon H.E., Cannon P. and Perman W.H. NMR imaging of tissue sodium in vivo and resected organs. *Ibid*, p 165.
126. Maudsley A.A., Hilal S.K., Simon H.E. and Wittekoek S. Multinuclear applications of chemical shift imaging. *Ibid*, p 202.
127. Simon H.E., Maudsley A.A., Hilal S.K. and Perman W.H. Field measurement by Fourier imaging. *Ibid*, p 255.
128. Maudsley A.A. Technical demands of other nuclei. *Proceedings, Society of Magnetic Resonance in Medicine*, 3rd annual meeting, New York, 1984, p 510.
129. Maudsley A.A. Chemical shift imaging. *Proceedings, Medical application of Magnetic Resonance*, Interlaken, 1984.
130. Maudsley A.A. In vivo spectroscopic imaging. Presented at the Society of Nuclear medicine, Orlando, 1984.
131. Hilal S.K., Maudsley A.A., Bonn J., Defendini R., Simon H.E. and Mohr J. NMR sodium imaging in stroke: Experimental and clinical results. Presented at AAN, 1984.
132. Maudsley A.A. NMR imaging using phase variant excitation. *Proceedings, Society of Magnetic Resonance in Medicine*, 4th annual meeting, London, 1985.
133. Maudsley A.A. Sodium-23 NMR. The Santa Fe NMR workshop, October 1986.
134. Maudsley A.A. Increased dynamic range in NMR imaging by phase scrambling. *Proceedings, Society of Magnetic Resonance in Medicine*, 6th annual meeting, New York, 1987.

135. Lawry T.J., Twieg D.B., Maudsley A.A., Weiner M.W. and Matson G.B. Computer simulation of MRS localization: Comparison of ISIS and spectroscopic imaging (SI) techniques. Proceedings, Society Magnetic Resonance Medicine, San Francisco, 1988.
136. Maudsley A.A., Twieg D.B., Boska M.D., Sappey-Marini D., Hubesch B. and Weiner M.W.. P31 spectroscopic imaging in the human head at 2.0 T. Proceedings, Society Magnetic Resonance in Medicine, Amsterdam, 1989.
137. Maudsley A.A., Twieg D.B., Hugg J.W., Hubesch B., Sappey-Marini D., Matson G.B. and Weiner M.W.. Experience with spectroscopic imaging at VAMC/UCSF. Presented at Society Magnetic Resonance Imaging. Magn. Reson. Imaging, 8S1,171, 1990.
138. Hugg J.W., Maudsley A.A., Twieg D.B., Matson G.B., Sappey-Marini D., Hubesch B. and Weiner M.W. Spectroscopic imaging of 31P in the human brain. Ibid, p 165.
139. Hugg J.W., Maudsley A.A., Twieg D.B., Matson G.B., and Weiner M.W. Nuclear magnetic resonance spectroscopic imaging of 31P in the human brain. Proceedings American Physical Society, 1990.
140. Maudsley A.A., Elliott M.A. and Weiner M.W. Data display and analysis for 4D spectroscopic imaging. Society of Magnetic Resonance in Medicine, Ninth Annual Meeting, New York, 1990, p 571.
141. Fernandez E.J., Higuchi T., Shimizu H., Weinstein P.R., Weiner M.W. and Maudsley A.A. 1H spectroscopic imaging studies of rat brain. Ibid, p 1091.
1. Meyerhoff D.J., A. Maudsley, D. Twieg and Weiner M.W. Phosphorus metabolite mapping of human heart, liver and kidney by surface coil spectroscopic imaging. Ibid, p 140.
2. Hugg J.W., Matson G.B., Maudsley A.A., Twieg D.B., Hubesch B., D. Sappey- Marini and Weiner M.W. 31P spectroscopic imaging of human brain disease. Ibid, p 999.
3. Hugg J.W., Maudsley A.A., Weiner M.W. and Matson G.B. Enhanced birdcage coil for 31P spectroscopic imaging of human brain. Ibid, p 528.
4. Higuchi T., Fernandez E.J., Lara R., Shimizu H., Weinstein P.R., Maudsley A.A. and Weiner M.W. 1H MR spectroscopic imaging may detect irreversible ischemic injury of rat brain. Ibid, WIP, p 1235.
5. Hugg J.W., Matson G.B., Maudsley A.A., Twieg D.B., Sappey-Marini D. and Weiner M.W.: Magnetic resonance spectroscopic imaging in human brains. Proceedings of the Twelfth Annual International Conference of the IEEE/EMBS, November 12(1):65-66, 1990.
6. Meyerhoff D.J., Maudsley A.A., Twieg D.B. and Weiner M.W.: Phosphorus spectroscopic imaging of organs other than the brain. Radiology 177(P):275, 1990. Presented at RSNA.
7. Higuchi T., Fernandez E.J., Lara R., Shimizu H., Weinstein P.R., Maudsley A.A. and Weiner, M.W.: Metabolic mapping of postischemic delayed neuronal damage by proton magnetic resonance spectroscopic imaging. American Heart Association 16th International Joint Conference on Stroke and Cerebral Circulation, 1991. Stroke 22(1):138, 1991.

8. Hugg J.W., Matson G.B., Duijn J.H., Maudsley A.A. and Weiner M.W.: MR spectroscopic imaging of stroke. American Heart Association 16th International Joint Conference on Stroke and Cerebral Circulation, 1991. *Stroke* 22(1):143, 1991.
9. Meyerhoff D.J., Maudsley A.A., Twieg D.B. and Weiner, M.W.: Phosphorus spectroscopic imaging with surface coils. SMRI Annual Meeting. *J. Magn. Reson. Imaging*, 1:157, 1991.
10. Duijn J.H., Maudsley A.A., Hugg J.W. and Weiner M.W.: Proton spectroscopic imaging of stroke in human brain. Presented, SMRI Annual Meeting. *J. Magn. Reson. Imaging*, 1:119, 1991.
11. Higuchi T., Fernandez E.J., Maudsley A.A., Weinstein P.R. and Weiner, M.W.: Study of brain ischemia using in vivo ¹H spectroscopic imaging. Presented at the Annual Meeting of the Japan Neurosurgical Society.
12. Fernandez E.J., Maudsley A.A., Higuchi T. and Weiner M.W.: ¹H spectroscopic imaging of rat brain at 7 Tesla. Abstract, Proceedings ENC. St. Louis, 1991.
13. Meyerhoff D.J., Hugg J.W., Duijn J., Matson G.B., Maudsley A.A. and Weiner M.W.: Overview of spectroscopic imaging at the San Francisco VA Medical Center. Society for Magnetic Resonance in Medicine and Biology, Zurich, 1991.
14. Laxer K.D., Hugg J.W., Duijn J.H., Matson G.B., Maudsley A.A. and Weiner M.W.: ³¹P MR spectroscopic imaging of temporal lobe seizures. Abstract, American Society of Neuroradiology 29th Annual Meeting, Washington, D.C. p36, 1991.
15. Hugg J.W., Duijn J.H., Matson G.B., Maudsley A.A., Tsuruda J., and Weiner M.W.: ³¹P and ¹H spectroscopic imaging of brain infarcts. Abstract, American Society of Neuroradiology 29th Annual Meeting, Washington, D.C.
16. Higuchi T., Fernandez E.J., Shimizu H., Weinstein P.R., Maudsley A.A., Weiner M.W.: Effect of focal brain ischemia on lactate, N-acetyl aspartate, and glutamate. Abstract, Society of Magnetic Resonance in Medicine, Tenth Annual Meeting, San Francisco, 1991, p 145.
17. Maudsley A.A., Hugg J.W., Fernandez E.J., Matson G.B. and Weiner M.W.: Application of reduced K-space sampling in spectroscopic imaging. *Ibid*, p 186.
18. Hugg J.W., Matson G.B., Duijn J.H., Maudsley A.A., Laxer K.D. and Weiner M.W.: ³¹P MR spectroscopic imaging (MRSI) of focal epilepsy. *Ibid*, p 223.
19. Duijn J.H., Hugg J.W., Matson G.B., Maudsley A.A. and Weiner M.W.: ¹H and ³¹P spectroscopic imaging of human brain infarction. *Ibid*, p 225.
20. Higuchi T., Fernandez E.J., Maudsley A.A., and Weiner M.W.: Quantitative analysis of metabolites in rat brain using ¹H MR spectroscopic imaging. *Ibid*, p 436.
21. Fernandez E.J., Maudsley A.A., Higuchi T. and Weiner M.W.: Surface coil three-dimensional ¹H spectroscopic imaging of rat brain. *Ibid*, p 462.
22. Matson G.B., Lara R.S., Hugg J.W., Maudsley A.A., Elliott M. and Weiner M.W.: Molar quantitation of ³¹P metabolites in human brain magnetic resonance spectroscopic imaging (MRSI). *Ibid*, p 465.

23. Hugg J.W., Matson G.B., Husted C.H., Maudsley A.A., Laxer K.D. and Weiner M.W.: Chronic focal encephalitis studied by ¹H and ³¹P MR spectroscopic imaging. *Ibid*, p 979.
24. Husted C.A., Hugg, J.M., de Bie, S.H., Matson, G.B., Maudsley, A.A., and Weiner, M.W.: ¹H and ³¹P MR spectroscopic imaging of multiple sclerosis. *Ibid*, p 83.
25. Hugg J.W., Matson G.B., Duijn J.H., Maudsley A.A., Laxer K.D. and Weiner M.W.: ³¹P magnetic resonance spectroscopic imaging (MRSI) of focal epilepsy. 77th Scientific Assembly and Annual Meeting of RSNA, December 1991.
26. Maudsley A.A., Hugg J.W., Duijn J., Fernandez E.J., Higuchi T., Matson G.B. and Weiner M.W.: ³¹P and ¹H spectroscopic imaging of brain. Proceedings, World Congress Medical Physics and Biomedical Engineering. Kyoto, 1991.
27. Weiner M.W., Meyerhoff, D.J., Hugg, J.W., Matson, G.B. and Maudsley A.A.: Spectroscopic imaging of human organs and tumors. *Advanced Radiation Therapy*, p 9, 1991.
28. Hugg J.W., Maudsley A.A., Weiner M.W. and Matson G.B.: Reduced Voxel size and contamination in ³¹P MR spectroscopic imaging. Abstract, Proceedings Society of Magnetic Resonance in Medicine, 11th annual meeting, Berlin, 1992.
29. Higuchi, T., Fernandez, E.J., Rooney, W.D., Gaspary, H.L., Graham, S.H., Weinstein, P.R., Maudsley, A.A., and Weiner, M.W.: Regional specific changes of N-acetyl aspartate, lactate, alanine, and glutamate in post globally ischemic brain. Abstract, , pg. 547. *ibid*, 1992.
30. Husted, C.A., Duijn, J.H., Goodin, D.S., Fein, G., Dickinson, M., Maudsley, A.A., and Weiner, M.W.: Normal appearing white matter changes in multiple sclerosis detected by proton and phosphorous MR spectroscopic imaging. Abstract, *ibid*, pg. 1912, 1992.
31. Hugg, J.W., Laxer, K.D., Matson, G.B., Maudsley, A.A., and Weiner, M.W.: ¹H MR spectroscopic imaging detects neuron loss more sensitively than MRI in focal epilepsy. Abstract, *ibid*, pg. 1913, 1992.
32. Hugg, J.W., Laxer, K.D., Matson, G.B., Maudsley, A.A., and Weiner, M.W.: Quantitative ³¹P MR spectroscopic imaging lateralizes focal epilepsy. Abstract, *ibid*, pg. 1923, 1992.
33. Duijn, J.H., Husted, C.A., Matson, G.B., Maudsley, A.A., and Weiner, M.W.: Molar quantitation of in vivo proton metabolites in human brain with 3D MR spectroscopic imaging. Abstract, *ibid*, pg. 3807, 1992.
34. Higuchi, T., Fernandez, E.J., Graham, S.H., Weinstein, P.R., Maudsley, A.A., and Weiner, M.W.: In vivo metabolite mapping in experimental cerebral ischemia with ¹H MR spectroscopy: Spatial distribution of energy failure and early detection of neuronal damage. *Radiology* 185(P):172, 1992. Presented at RSNA.
35. Hugg, J.W., Laxer, K.D., Matson, G.B., Maudsley, A.A., and Weiner, M.W.: Lateralization of human focal epilepsy at phosphorus and proton MR spectroscopy. *Radiology* 185(P):200, 1992. Presented at RSNA.
36. Maudsley A.A., Wu Z. and Weiner M.W.: Automatic processing of MR spectroscopic images. Proceedings, Society of Magnetic Resonance in Medicine, 12th annual meeting, New York, 1993.

52. B. J. Soher, K. Young, V. Govindaraju and A. A. Maudsley. Analysis of short TE 1H spectra using spectral simulation and wavelet baseline characterization. Proceedings, ISMRM, Sydney, 1998.
53. B. J. Soher, K. Young, V. Govindaraju and A. A. Maudsley. Automated spectral analysis and formation of metabolite images for ¹H MRSI. Proceedings, ISMRM, Sydney, 1998.
54. N. Schuff, D.L. Amend, W.D. Rooney, D.F. Gelinas, R. Miller, B.J. Soher, K. Young, A.A. Maudsley, G. Fein, and M.W. Weiner. Quantitative assessment of NAA reductions in the motor cortex of amyotrophic lateral sclerosis. Proceedings, ISMRM, Sydney, 1998.
55. N. Schuff, D.L. Amend, A. Capizzano, B.J. Soher, K. Young, A.A. Maudsley, G. Fein, and M.W. Weiner. NAA reductions in parietal and frontal cortex of Alzheimer's disease. Proceedings, ISMRM, Sydney, 1998.
56. N. Schuff, B.J. Soher, K. Young, A.A. Maudsley, F. Ezekiel, D.L. Amend, G. Fein, and M.W. Weiner. Regression and histogram analysis of ¹H MR spectroscopic imaging data. Proceedings, ISMRM, Sydney, 1998.
57. P. Vermathen, K. D. Laxer, N. Schuff, A. A. Maudsley, G. B. Matson, and M. W. Weiner. Simultaneous detection of reduced NAA in hippocampal and other brain regions in mesial temporal lobe epilepsy using multislice proton MRSI. Proceedings, ISMRM, Sydney, 1998.
58. J. Suhy, W.D. Rooney, D.E. Goodkin, A.A. Maudsley, M.W. Weiner. Biochemical comparison of primary progressive and relapsing remitting multiple sclerosis by proton magnetic resonance spectroscopy. Presented at 34th ACS Western Regional Meeting. San Francisco, 1998.
59. Maudsley, A.A. Early development of line-scan NMR imaging. Nottingham NMR Symposium, Nottingham, U.K., Dec. 1998.
60. Maudsley, A.A. Future prospects for in vivo MR spectroscopy. Nottingham NMR Symposium, Nottingham, U.K., Dec. 1998.
61. A.A. Maudsley, M.W. Weiner. Clinical applications of MR spectroscopy in brain. Invited lecture, Computed Imaging, Saga, Japan, January 1999.
62. A.A. Maudsley. Methods and applications of high-speed MR spectroscopy. Invited lecture, International Symposium on Ultrafast Magnetic Resonance Imaging in Medicine. Kyoto, Japan, Jan. 1999.
63. A.A. Maudsley. Clinical Applications of MR spectroscopy in Brain. Symposium on MRI Research and Clinical Applications, Hong Kong, 4/1999.
64. N. Schuff, W.D. Rooney, D.F. Gelinas, R.G. Miller, D. Amend, A.A. Maudsley and M.W. Weiner. Abnormal levels of Cho but not of NAA in the posterior internal capsule of patients with ALS. Proceedings, ISMRM, Philadelphia, 1999. p467
65. P. Vermathen, A.A. Capizzano, K.D. Laxer, G.B. Matson and A.A. Maudsley. Enhancement of histidine detection in vivo. A new approach for measuring brain pH. Proceedings, ISMRM, Philadelphia, 1999. p640.

66. A.A. Capizzano, P. Vermathen, K. Laxer, G. Ende, D. Norman, G.B. Matson, A.A. Maudsley and M.W. Weiner. Qualitative reading of 1H MRS images in the presurgical evaluation of temporal lobe epilepsy patients. Proceedings, ISMRM, Philadelphia, 1999. p1424.
67. N. Schuff, A.A. Capizzano, D. Amend, A. Gamst, W. Jagust, G. Fein, A.A. Maudsley and M.W. Weiner. Regional pattern of diminished levels of cortical NAA in Alzheimer's disease and vascular dementia. Proceedings, ISMRM, Philadelphia, 1999. p1437.
68. A.A. Capizzano, N.W. Schuff, D.L. Amend, J.L. Tanabe, D. Norman, A.A. Maudsley, W. Jagust, H. Chui, G. Fein and M.W. Weiner. Decreased cortical NAA in subcortical ischemic vascular dementia. Proceedings, ISMRM, Philadelphia, 1999. p1438.
69. J. Suhy, W.D. Rooney, D.E. Goodkin, A.A. Capizzano, A.A. Maudsley and M.W. Weiner. Comparison of primary progressive and relapsing remitting multiple sclerosis by 1H MRSI. Proceedings, ISMRM, Philadelphia, 1999. p1443.
70. J. Suhy, N. Schuff, R.G. Miller, N. Gatto, A.A. Maudsley and M.W. Weiner. Quantitation of measurement error for motor cortex NAA in ALS. Proceedings, ISMRM, Philadelphia, 1999. p1577.
71. P. Vermathen, V. Govindaraju, G.B. Matson and A.A. Maudsley. Detection of downfield 1H resonances in human brain using single voxel and SI methods. Proceedings, ISMRM, Philadelphia, 1999. p1584.
72. K. Young, V. Govindaraju, A.A. Maudsley and D.J. Meyerhoff. T2 Measurement of J-coupled spin systems using volume localization. Proceedings, ISMRM, Philadelphia, 1999. p1606.
73. J. Suhy, N. Schuff, A. A. Maudsley, M. W. Weiner, R. G. Miller. Detection of ALS by Proton Magnetic Resonance Imaging. American Academy of Neurology 52nd Annual meeting, San Diego, CA, 2000.
74. M. W. Weiner, N. Schuff, J. Suhy, G. Matson, R. Miller, K. Laxer, A. Maudsley. 1H MRS of neurodegenerative diseases. Sienna, Italy. 2000
75. J. Suhy, N. Schuff, R.G. Miller, A.A. Maudsley, M.W. Weiner. Detection of ALS by proton magnetic resonance imaging. American Academy of Neurology Annual Meeting, San Diego, CA, 2000.
76. J. Suhy, N. Schuff, R.G. Miller, N. Gatto, A.A. Maudsley, M.W. Weiner. 1H MRSI measurement of early detection and longitudinal changes in ALS. International Society for Magnetic Resonance in Medicine, Denver, CO, 2000.
77. D. Wiedermann, N. Schuff, G. Matson, B. Soher, A.A. Maudsley and M.W. Weiner. Test-Retest Reliability of Short Multislice 1H-MRSI. Proceedings, ISMRM 2000, p369.
78. A. Ebel and A.A. Maudsley. Improved Lipid Removal Using Dual K-Space Sampling for EPSI. Proceedings, ISMRM 2000, p372.
79. J. Suhy, N. Schuff, R.G. Miller, N. Gatto, A.A. Maudsley and M.W. Weiner. 1H MRSI Measurement of Early Detection and Longitudinal Changes in ALS. Proceedings, ISMRM 2000, p630.
80. D. Khetselius, K. Young, B.J. Soher and A.A. Maudsley. Confidence Images for MR Spectroscopic Imaging. Proceedings, ISMRM 2000, p1846.

81. B.J. Soher, K. Young and A.A. Maudsley. Comparison of Methods for Baseline Characterization of In Vivo ¹H MR Spectra. Proceedings, ISMRM 2000, p1871.
82. V. Govindaraju, B.J. Soher, K. Young and A.A. Maudsley. Automated Analysis of In Vitro ¹H NMR Spectra Using Simulated Basis Functions. Proceedings, ISMRM 2000, p1956.
83. B.S.Y. Li, M. Sobel, B.J. Soher, A.A. Maudsley and O. Gonen. Quantification of the Serial Reproducibility of In Vivo 3D ¹H MRS in the Human Brain. Proceedings, ISMRM 2000, p1959.
84. P. Vermathen, A. A. Maudsley, R. Kreis, C. Boesch. In vivo histidine detection and brain pH mapping using ¹H MR spectroscopic imaging. Proceedings ESMRMB, MAGMA, 11, 2000, p177.
85. V. Govindaraju, B.J. Soher, K. Young and A.A. Maudsley. Automated spectral analysis using simulated a priori information. Proceedings, 36th ACS Western Regional Meeting, San Francisco, 2000.
86. J. Suhy, R. G. Miller, N. Schuff, R. C. Lopez, A. A. Maudsley, M. W. Weiner. Longitudinal corticospinal tract changes in ALS by ¹H MRSI, Proceedings, ISMRM 2001, p992.
87. A. Ebel, A. A. Maudsley. Assessment of 3D ¹H echo-planar spectroscopic imaging using automated spectral analysis. Proceedings, ISMRM 2001, p1697.
88. M. Büchert, J. O'Neill, P. Vermathen, A.A. Maudsley. In vivo brain pH mapping using 19x19 voxel ¹H MR spectroscopic imaging of the down field region. Proceedings, ISMRM 2001, p1701.
89. J. Kornak, K. Young, and A.A. Maudsley. Improved reconstruction of spectroscopic images using segmented MRIs. Proceedings in Functional and Spatial Data Analysis. Eds: Mardia, K. V. and Aykroyd R. G.. Leeds, University Press. 149-152, (2001).
90. V. Govindaraju, A. Ebel, G. E. Gauger, G. T. Manley, and A. A. Maudsley. Volumetric proton MRSI of mild traumatic brain injury. Neurotrauma Imaging Symposium, University of New Mexico, Albuquerque, 2002.
91. G. E. Gauger, V. Govindaraju, A. Ebel, G. T. Manley, and A. A. Maudsley. Volumetric proton MR spectroscopy of mild traumatic brain injury. 6th International Neurotrauma Symposium and The 20th National Neurotrauma Society, Tampa, Florida, October 27 – November 1, 2002.
92. Ebel, V. Govindaraju, A.A. Maudsley. Comparison of inversion recovery preparation schemes for lipid suppression in 3D MRSI of human brain. Proceedings ESMRMB, MAGMA, 15(S1): 173 (2002).
93. A.A. Maudsley. Current issues in MR spectroscopic image reconstruction and signal processing. Proceedings ISMRM, 2002, p724.
94. B. J. Soher and A. A. Maudsley. Improved spectral fitting in spectroscopic imaging using variable lineshapes. Proceedings ISMRM, 2002, p2508.
95. X-P Zhu, A-T Du, G Jahng, A Maudsley, M Weiner, and N Schuff. Improved SNR of proton MRSI using a deformation shape-intensity model. Proceedings ISMRM, 2002, p231.

96. Y. Bao, A.A. Maudsley. Improved MR Metabolite Image Reconstruction. IEEE Workshop on Statistical Signal Processing, St. Louis, 2003.
97. Z. Aygula, B.J. Soher, K. Young, A.A. Maudsley, GAVA – A Graphical Pulse Sequence Simulation, Display and Storage Environment. p852, Proceedings of the ISMRM, Toronto, 2003.
98. C. Studholme, V. Cardenas, E. Song, A. Maudsley, M. Weiner, High Accuracy Automated Template Based Correction of Brain MRI Intensity Distortion, p1046, Proceedings of the ISMRM, Toronto, 2003.
99. A. Ebel, A. A. Maudsley, High Spatial Resolution Acquisition Improves Spectral Quality for 3D MR Spectroscopic Imaging of the Brain, p1136, Proceedings of the ISMRM, Toronto, 2003.
100. B.J. Soher, A.A. Maudsley, J. Matson, Observation of 1H Coupled Spin Metabolite Groups at Long TE, p1164, Proceedings of the ISMRM, Toronto, 2003.
101. B.J. Soher, A.A. Maudsley, Improved Metabolite–Baseline Discrimination in Automated 1H Spectral Analysis Using a Flexible Lineshape Model, p1165, Proceedings of the ISMRM, Toronto, 2003.
102. V. Govindaraju, G. Gauger, G. Manley, A. Ebel, A.A. Maudsley Application of Volumetric Proton MRSI to Mild Traumatic Brain Injury, p2033, Proceedings of the ISMRM, Toronto, 2003.
103. A.A. Maudsley, V. Govindaraju. MR spectroscopy of mild traumatic brain injury. International Conference on Closed Head Trauma, San Juan, 2003.
104. J. Kornak, K. Young, N. Schuff, A.A. Maudsley, M.W. Weiner, Bayesian reconstruction of low resolution magnetic resonance imaging modalities. Leeds Statistical Image Analysis Workshop, Leeds, U.K., 2004.
105. Bandstra E.S., Govindaraju V., Simpson G.R., Bowen B.C., Leonard C.M., Moodley V., Morrow C.E., Maudsley A.A. Neuroimaging with anatomic magnetic resonance imaging and magnetic resonance spectroscopic imaging in prenatally cocaine-exposed children. 28th Annual Meeting of the Neurobehavioral Teratology Society, Vancouver, British Columbia, June, 2004.
106. Govindaraju V., Young K., Aygula Z.K. Pattany P, Soher B.J., Matson G.B., Maudsley A.A. Spectral simulations incorporating spatially-dependent variables for PRESS localized spectroscopy. Proceedings of the ISMRM, Miami Beach, 2005
107. Yu Y., Sheriff S., Soher B.J., Govindaraju V., Maudsley A.A. Water-referenced metabolite normalization for MR spectroscopic imaging. Proceedings of the ISMRM, Miami Beach, 2005.
108. Y. Bao, A.A. Maudsley. Brain metabolite image reconstruction from volumetric MRSI data. Proceedings of the ISMRM, Miami Beach, 2005.
109. Y. Yu, S. Sheriff, A. Ebel, A.A. Maudsley. Whole brain 1H MR spectroscopic imaging with 3-T phased-array detection. Proceedings of the ISMRM, Miami Beach, 2005.
110. A. Ebel, A.A. Maudsley, M.W. Weiner, N. Schuff. Spectral bandwidth considerations for high field volumetric proton echo-planar spectroscopic imaging. Proceedings of the ISMRM, Miami Beach, 2005.

111. F. Rousseau, A. Maudsley, A. Ebel, A. Darkazanli, P. Weber, K. Sivasankaran, Y. Yu, C. Studholme. Evaluation of sub-voxel registration accuracy between MRI and 3D MR spectroscopy of the brain. SPIE Medical Imaging, San Diego, 2005.
112. A.A. Maudsley, J.R. Alger, A. Darkazanli, A. Frew, D. Goldgof, L.O. Hall, R. Pagare, F. Rousseau, N. Schuff, K. Sivasankaran, B.J. Soher, C. Studholme, P. Weber, K. Young, Y. Yu, G. Yuhua. Metabolic Mapping of the Brain by Volumetric MR Spectroscopic Imaging. Proceedings ISMRM, Seattle, 2006.
113. A. Ebel, A.A. Maudsley, M.W. Weiner, and N. Schuff. Local B₀-shift correction for 3D EPSI of human brain at 4 Tesla. Proceedings ISMRM, Seattle, 2006.
114. J.R. Alger, A.J. Frew, R. Pagare, A. Darkazanli, A.A. Maudsley. Repeated Measures Performance of Volumetric Whole Brain Echo Planar Spectroscopic Imaging. Proceedings ISMRM, Seattle, 2006.
115. C. Domenig, Y. Yu, A. Maudsley. Water suppression in 1H MRSI by reference subtraction. Proceedings ISMRM, Seattle, 2006.
116. A. Frew, R. Pagare, D.J. Valentino, A.A. Maudsley, A. Darkazanli, J.R. Alger. A Java-based, platform-independent viewer for magnetic resonance spectroscopic imaging. Proceedings of the ISMRM. Seattle. 2006.
117. A.A. Maudsley, J.R. Alger, A. Darkazanli, A. Frew, D. Goldgof, L.O. Hall, R. Pagare, F. Rousseau, N. Schuff, K. Sivasankaran, B.J. Soher, C. Studholme, P. Weber, K. Young, Y. Yu, G. Yuhua. Metabolic Mapping of the Brain by MR Spectroscopic Imaging. Proceedings Organization of Human Brain Mapping, Florence, 2006.
118. J.R. Alger, A.J. Frew, R. Pagare, A. Darkazanli, A.A. Maudsley, Three-dimensional repeated-measures statistical mapping of brain metabolite distribution with volumetric echo planar magnetic resonance spectroscopic imaging. Proceedings Organization of Human Brain Mapping, Florence, 2006.
119. Y. Bao and A.A. Maudsley, MRSI Data Reconstruction With Generalized Sense. IEEE International Symposium on Biomedical Imaging, 2006.
120. K. Sharma, V. Govindaraju, B. Bowen, C. Domenig, J. Steele, W. Bradley and A. Maudsley. Volumetric Proton Spectroscopic Imaging in Amyotrophic lateral Sclerosis. 17th International Symposium on ALS/MND, Yokohama, Japan, , 2006.



RECEIVED JAN 03 2007

University of California, Los Angeles
760 Westwood Plaza, Suite 88-201
Los Angeles, California 90024-1759

Gary W. Small, M.D.

Director

Memory & Aging Research Center

voice (310) 825-0291

fax (310) 825-3910

gsmall@mednet.ucla.edu

January 2, 2007

Teresa W. Borchbeck
Corporate Trustee
The Evelyn F. McKnight Brain Research Foundation
The SunTrust Bank
Post Office Box 620005
Orlando, Florida 32862-0005

Dear Ms. Borchbeck:

Dr. Nina Ellenbogen Raim suggested that I write to you about the research and clinical initiatives I direct, which I believe are consistent with the vision and mission of the McKnight Foundation. At UCLA, I am Professor of Psychiatry and Biobehavioral Sciences, the Parlow-Solomon Professor on Aging, Director of the Center on Aging, and Director of the Aging and Memory Research Center at the Semel Institute for Neuroscience and Human Behavior. I lead a team of renowned scientists working on innovative technologies and strategies for early detection, prevention, and treatment of age-related memory loss. Our research emphasizes *early* detection and prevention because we believe that it will be easier to protect a healthy brain rather than attempt to repair it once it is damaged.

My studies receive funding from the National Institute on Aging, other government agencies, and foundations. We have developed neuroimaging technologies that allow physicians to detect the first signs of brain aging and age-related memory loss years before patients show symptoms suggesting severe forms of cognitive decline, such as Alzheimer's disease. I am co-inventor of a new positron emission tomography (PET) scanning method that provides a measure of brain plaques and tangles – the physical evidence of Alzheimer's disease – in living humans. Recently, we reported that this novel method could detect these abnormal protein deposits in people with mild cognitive impairment (Small et al, *N Engl J Med* 2006). Our group was the first to combine genetic risk with neuroimaging measures to detect subtle evidence of memory loss in people decades before they reach the age at risk for symptoms of dementia (Small et al, *JAMA* 1995; Small et al, *Proc Nat'l Acad Sci USA* 2000). We also were the first to introduce a "brain stress test" combining genetic risk measures for memory loss and functional MRI scanning (Bookheimer et al. *N Engl J Med* 2000). Among other honors and awards, *Scientific American* magazine named me one of the world's top innovators in science and technology.

Our group uses these imaging tools as surrogate markers to monitor treatments in people with mild age-related cognitive complaints. In addition to novel medicines under

dedicated to helping people make informed decisions about their quality longevity so they can enjoy cognitive and physical health throughout their lifetime.

In addition to our ongoing research and education programs, the Institute will provide state-of-the-art, scientifically-proven services and products to help people to live better longer, including:

- Brain checks for early diagnosis of age-related cognitive decline – the Institute will offer FDDNP-PET brain scans, the brain stress test and conventional PET scans, along with the latest genetic and laboratory methods.
- Memory boot camp – a two-week lifestyle program designed for middle-aged and older adults, which UCLA scientists have found to significantly improve memory ability, brain efficiency, and other health and longevity measures.
- Ongoing personalized memory improvement and longevity programs – participants will work with memory and longevity specialists/trainers, who will tailor lifestyle programs to optimize strategies that have an impact on health, well-being, and life expectancy.
- Testing of interventions – medicines, supplements, lifestyle strategies – to determine the most effective approach to optimize brain fitness and cognitive function.

As you can tell from this letter, I am enthusiastic about my work. From what I know of the McKnight Foundation, I believe that our goals and interests overlap considerably. Enclosed please find copies of this letter, a CV, and some selected reprints to distribute to the trustees. I would be delighted to have an opportunity to meet with them to discuss our mutual interests. I will be traveling to the southeast in January and would be happy to further discuss the possibility of working together to achieve these important goals.

Sincerely,



Gary W. Small, M.D.
Parlow-Solomon Professor on Aging
Professor of Psychiatry & Biobehavioral Sciences
Director, UCLA Center on Aging
Director, Semel Institute Memory & Aging Research Center

cc: John G. Clarkson, M.D., Michael L. Dockery, M.D., J. Lee Dockery, M.D.,
Nina Ellenbogen Raim, M.D., J.D.,

Encl.

CURRICULUM VITAE

Gary W. Small, M.D.

David Geffen School of Medicine at UCLA
Semel Institute for Neuroscience & Human Behavior
760 Westwood Plaza, #88-201 NPI
Los Angeles, CA 90024-1759
Telephone: (310) 825-0291
Fax: (310) 825-3910

UCLA Center on Aging
10945 Le Conte Avenue, Suite 3119
Los Angeles, CA 90095-6980
Telephone: (310) 794-0676
Fax: (310) 794-0681

E mail: gsmall@mednet.ucla.edu

PERSONAL HISTORY

Born: 28 July 1951, Los Angeles, CA; married, two children

EDUCATION AND POSTDOCTORAL TRAINING

Fellow in Geriatric Psychiatry, UCLA School of Medicine	1981-83
Chief Resident, Psychiatric Consultation-Liaison, Massachusetts General Hospital	1980-81
Clinical Fellow in Psychiatry, Harvard Medical School, Boston, MA	1978-81
Resident in Psychiatry, Massachusetts General Hospital, Boston, MA	1978-81
Intern in Internal Medicine, Children's Hospital and Adult Medical Center, San Francisco, CA	1977-78
M.D. - University of Southern California School of Medicine	1973-77
B.A. - University of California, Los Angeles (biology)	1969-73

LICENSURE AND BOARD CERTIFICATION

Added Qualification in Geriatric Psychiatry, American Board of Psychiatry and Neurology	1991-present
Diplomate American Board of Psychiatry and Neurology	1983-present
California License No. G043707	1980-present
Massachusetts License Registration No. 45612	1980-81
National Board of Medical Examiners	1978-present

ACADEMIC APPOINTMENTS AND PROFESSIONAL EXPERIENCE

Director, Imaging Core, UCLA Alzheimer's Disease Research Center	2003-present
Founding Director, UCLA Memory Clinic, Departments of Psychiatry and Biobehavioral Sciences and Molecular and Medical Pharmacology	2000-present
Director, Memory and Aging Research Center, Semel Institute for Neuroscience & Human Behavior	1998-present
Director, Imaging and Genetics Core, UCLA Alzheimer's Disease Research Center	1997-2003
Director, UCLA Center on Aging	1997-present
Associate Investigator, UCLA Department of Energy Laboratory of Structural Biology and Molecular Medicine, Nuclear Medicine Division	1997-present
Interim Director, UCLA Center on Aging	1996-97
Professor, Department of Psychiatry and Biobehavioral Sciences, UCLA	1995-present
Attending Psychiatrist, UCLA Neuropsychiatric Hospital	1993-present
Director, Education/Information Transfer Core, UCLA Alzheimer's Disease Center	1991-97
Associate Professor, Department of Psychiatry and Biobehavioral Sciences, UCLA	1990-95
Co-Chief, Behavioral Neuroscience Section, West Los Angeles VA Medical Center	1990-96
Chief, Geriatric Psychiatry Program, West Los Angeles VA Medical Center	1990-96
Coordinator, Medical Student Thesis Program, Department of Psychiatry	1990-present
Coordinator, VA Western Region Geriatric Psychiatry Training Consortium	1990-95
Director, Geriatric Psychiatry and Psychology Fellowship Program, UCLA School of Medicine (Westwood and Veterans Administration Campuses)	1988-04
Director, Geriatric Psychiatry Consultation-Liaison Service, UCLA Neuropsychiatric Hospital	1988-95
Consulting Psychiatrist, Geriatric Day Treatment, West Los Angeles VAMC	1988-95
Oral Examiner, American Board of Psychiatry and Neurology	1987-90
Consultant in Electroconvulsive Therapy, UCLA Neuropsychiatric Hospital	1986-2002
Assistant Professor, Department of Psychiatry and Biobehavioral Sciences, UCLA	1983-90
Attending Physician, Psychogeriatrics Unit, West Los Angeles VA Medical Center	1981-96

PROFESSIONAL & TEACHING EXPERIENCE

Department of Psychiatry and Biobehavioral Sciences

Attending Psychiatrist, GEC Psychiatry Resident Clinic	2004-present
Attending Physician, UCLA Memory Clinic	2000-present
Instructor, Psychiatry 415, On Call Supervision and Consultation	1999-present
Attending Psychiatrist, Psychiatry Resident Clinic	1995-98
Clinical Supervisor, Geriatric Assessment Program	1992-2004
Lecturer, Research Methodology Seminar, PS498	1992-2004
Lecturer, Psychiatric Residency Core Curriculum	1990-96
Lecturer, PS11, Psychiatry Core Seminar for Medical Students	1990-95
Lecturer, Advanced Geriatric Psychiatry Seminar (course coordinator until 2004)	1989-2000
Course Coordinator/Instructor, PS428, Geriatric Psychiatry Consultation Rounds	1988-96
Instructor, Biological Psychiatry Seminar Series, Harbor-UCLA Medical Center	1988-96
Instructor, Research on Alzheimer Disease (elective)	1988-present
Preceptor, Department of Psychiatry Honors Program	1986-90
Course Coordinator/Instructor, Geriatric Consultation Psychiatry	1984-95
Lecturer, PS202, Psychiatric Consultation-Liaison Seminar series	1983-93
Course Coordinator, Topics in Psychogeriatrics	1983-89
Small Group Leader, Psychiatry 101	1982-83

David Geffen School of Medicine at UCLA

Lecture on Drug Therapy in the Elderly, Clinical Pharmacology Training Program.	2003-05
Instructor on Translational Research, Clinical Scholars Seminar Series	1998-2001
Attending Physician for Dementia, Nuclear Medicine Clinic	1998-present
Research Preceptor, Neurosciences Interdisciplinary Program	1996-present
Martin Luther King, Jr. Psychiatry Residents Core Curriculum	1996
Co-Director, UCLA Intensive Course in Geriatric Medicine	1995-2001
Lecturer, Doctoring: Introductory Course for First-Year Medical Students	1993-98
Lecturer, Hartford-Gleitsman Summer Research Program	1993
Conference Co-Chair, Dementia Diagnosis and Management: UCLA Alzheimer's Disease Center and Los Angeles Alzheimer's Association	1992
Lecturer, Multicampus Geriatric Medicine Division Seminar Series	1990-2000
Lecturer, Psychiatry 101: Introductory Course for First-Year Medical Students	1987-93
Instructor, Interactive Teaching Seminar for First-Year Medical Students	1987-92
Preceptor, UCLA School of Medicine Freshman Preceptor Program	1986-88
Instructor, Fundamentals of Clinical Medicine for Second-Year Medical Students	1982-84

Additional Teaching

Guest Lecturer, Clinical Neuroscience (NS197A), UCLA Undergraduates	2005-present
Chair, Psychiatry Track, Annual Dementia Congress	2002-present
Symposium Chair, American Psychiatric Association Annual Scientific Meeting: Explorations in Dementia: New and Current Perspectives. Philadelphia, PA.	2002
Symposium Chair, American Association for Geriatric Psychiatry Annual Scientific Meeting: Recognition and Treatment of Alzheimer's Disease: San Francisco, CA.	2001
Symposium Chair, American Psychiatric Association Annual Scientific Meeting: Recognition and Treatment of Alzheimer's Disease. New Orleans, LA.	2001
Guest Lecturer, Cluster Course in Gerontology for UCLA undergraduates	2001-present
Course Director, Congress of the International Psychogeriatric Association	2001
Course Director, Advanced Update on Psychogeriatrics, Ninth Congress of the International Psychogeriatric Association	1999
Symposium Chair, American Psychiatric Association Institute on Psychiatric Services: Clinical Implications of New Dementia Research. Washington, DC	1999
Symposium Chair, American Geriatrics Society: Dementia Research Translated into Clinical Practice. Philadelphia, PA.	1999
Symposium Co-Chair, American Psychiatric Association Annual Scientific Meeting: Clinical Implications of New Dementia Research. Washington, DC	1999
Symposium Co-Chair, American Psychiatric Association Annual Scientific Meeting: Hot Topics in Alzheimer's Disease. Toronto, Canada	1998
Symposium Chair, American Psychiatric Association Annual Scientific Meeting: Age-Related Memory Loss: Detection and Treatment. Toronto, Canada	1998

Gary Small – Curriculum Vitae	Page 3
Co-Chair: Dementia: Common Issues in Geriatric Practice. American Geriatrics Society Annual Meeting. Seattle, WA.	1998
Director, 1998 AAGP Board Review Course. San Diego, CA.	1998
Chair, NIMH/AAGP Annual Summer Research Institute	1997
Co-Planner, UCLA Research Directions in Alzheimer's Disease, UCLA Alzheimer's Disease Center, Brain Research Institute, and Center on Aging	1997
Symposium Chair, American Psychiatric Association Annual Scientific Meeting: Estrogen and Mental Illness in Aging. San Diego, CA	1997
Symposium Co-Chair, APA Annual Scientific Meeting: Practical Advances in the Management of Alzheimer's Disease. San Diego, CA	1997
Symposium Chair, American Association for Geriatric Psychiatry Annual Scientific Meeting: Estrogen and Mental Illness in Aging. Orlando, FL	1997
Symposium Co-Chair, American Association for Geriatric Psychiatry Annual Scientific Meeting: Clinical Developments in Alzheimer's Disease. Tucson, AZ.	1996
Co-Chair, Panel Session, Apolipoprotein E in Alzheimer's Disease. American College of Neuropsychopharmacology. San Juan, Puerto Rico.	1996
Director, 1996 AAGP Board Review Course. Santa Monica, CA.	1996
Symposium Co-Chair, American Psychiatric Association Annual Scientific Meeting: Clinical Developments in Alzheimer's Disease. Miami Beach, FL.	1995
Symposium Co-Chair, American Psychiatric Association Institute on Psychiatric Services: Clinical Developments in Alzheimer's Disease. Boston, MA.	1995
Director, 1995 AAGP Board Review Course. Santa Monica, CA.	1995
Symposium Chair, Clinical Developments in Alzheimer's Disease. 1995 International Psychogeriatric Association Congress. Sydney, Australia	1995
Symposium Chair, Geriatric Psychiatry: A Model for Subspecialization. American Psychiatric Association Annual Meeting	1992
Symposium Chair, Social Influences on Mass Hysteria. American Psychiatric Association Annual Meeting	1992
Lecturer, Core Curriculum for Psychiatry Residents, Cedars-Sinai Medical Center	1990-97
Symposium Chair, Dementia: Research and Clinical Update, Third Annual Meeting and Symposium, American Association for Geriatric Psychiatry	1990
Co-Director, Psychiatric Disorders of Late Life, Intensive Course in Geriatric Medicine. UCLA Multicampus Program in Geriatric Medicine and Gerontology	1987
Instructor, Intensive Course in Geriatric Medicine, UCLA Multicampus Program in Geriatric Medicine and Gerontology	1985-2003
Guest Instructor, UCLA School of Law Fact Investigation Course	1984-89
Instructor, "Interviewing in Special Circumstances," course for American Psychiatric Association Annual Scientific Meeting	1984-86
Instructor, Psychiatry 98E (for UCLA undergraduates): "Professional Socialization in the Physician's Role."	1982-85
Instructor, Introduction to Clinical Medicine, Harvard Medical School	1980-81
Instructor, Medical Student Core Seminar Series, Massachusetts General Hospital	1980-81
<u>Experience As Research Mentor</u>	
Jennifer Salstrom, UCLA medical student	2006-present
Shadee Giurgius, undergraduate gerontology student	2005-present
Meredith Braskie, Ph.D. candidate in neuroscience	2001-06
Alison Burggren, Ph.D. candidate in neuroscience	2000-present
Joelle Scanlon, M.D., University of Pittsburgh (NIH career development award)	2001-02
Carolyn Meltzer, M.D., University of Pittsburgh (NIH career development award)	2001-02
Daniel Silverman, M.D., Ph.D., Deptl Molecular and Medical Pharmacology, recipient of 2000 Turken Scholarship from Los Angeles Alzheimer's Association	1999-2004
Eric Agdeppa, Postdoctoral Fellow (2000 Glenn/AFAR Scholarship)	1999-2004
Denise Feil, M.D., Hartford Fellow	1999-2003
Janet Conney, M.D., Geriatric Psychiatry Fellow, Hartford Fellow	1998-2001
Stephen Chen, M.D., VA Neuroscience Research Fellow	1998-2000
Yeran Bao, Hartford Medical Student Research Fellow	1998
Linda Ercoli, Geriatric Psychology Fellow (Larry L. Hillblom Foundation Fellow; recipient of Turken Award from L.A. Alzheimer's Association)	1997-present
Timothy Beal, Undergraduate Neuroscience Student (Psychiatry 199 student)	1997-2000

Gary Small – Curriculum Vitae	Page 4
Natalie Rasgon, M.D., Assistant Professor of Psychiatry (recipient of FIRST Award from NIMH)(currently associate professor, Stanford University)	1996-2004
Carol Banyas, M.D., Geriatric Psychiatry Fellow	1996-98
Kathy Tingus, Ph.D., Geriatric Psychology Fellow	1996-99
Helen Lavretsky, M.D., Geriatric Psychiatry Fellow, recipient of VA Neuroscience Fellowship for grant proposal (1997-98)	1996-2004
Morgan Levy, M.D., Geriatric Psychiatry Fellow, recipient of VA Neuroscience Fellowship for grant proposal (1997-98)	1996-98
Jurgen Unutzer, M.D., Geriatric Psychiatry Fellow (currently Vice Chair of Psychiatry, University of Washington)	1994-96
Deborah Ackerman, Ph.D., Adjunct Assistant Professor of Public Health, recipient of NIMH small grant (1996-98)	1994-2001
Susan Bookheimer, Ph.D., Assoc. Prof. Psychiatry, recipient 1995 Turken Award; grant support from State of California Dept. Health Services (1995-97)	1994-2000
Scott Komo, M.S. (Dr. P.H. candidate)	1994-99
David Sultzer, M.D., recipient of NIMH Geriatric Mental Health Academic Award (1991-1996) (currently Professor)	1994-96
Taryn Markee, Ph.D., Geriatric Psychology Fellow	1994-96
Monique Cherrier, Ph.D., Geriatric Psychology Fellow (currently Assistant Professor, University of Washington)	1994-96
Sanjaya Saxena, M.D., Dana Foundation Fellow (currently Assistant Professor)	1994-96
Lorena Barrio, Medical Student Summer Research Fellow; 1996 Medical Student Thesis Program	1993-96
Cara Adamson, UCLA Undergraduate Student Research Program	1993-95
Ilene Claudius, Medical Student Summer Research Fellow	1993
Mark Collins, Medical Student Summer Research Fellow	1993
Michael Mega, M.D., Neurobehavior Fellow (1992-94); awarded VA Neuroscience Fellowship (1994-96); NIH Clinical Investigator Award (1997-present)	1992-96
Ibrahim Gunay, M.D., Geriatric Psychiatry Fellow	1992-94
Chris Navarro, Medical Student Summer Research Fellow (research selected for oral presentation for student research symposium)	1992
Anna Okonek, Ph.D., Geriatric Psychology Fellow	1991-93
Carol Min, Medical Student Summer Research Fellow (poster presented at annual meeting of American Geriatrics Society)	1991
Lucy Cordona, Doctoral Program in School of Social Welfare	1990-91
Eve Wiseman, M.D., Geriatric Psychiatry Fellow (currently Associate Professor, University of Arkansas)	1990-91
Steven Keys, Medical Student Summer Research Fellow	1988
Jacob Mintzer, M.D., Geriatric Psychiatry Fellow, recipient of NIMH FIRST Award (currently Professor, Medical University of South Carolina)	1985-87
Ramu Komanduri, Medical Student Summer Research Fellow	1984

PROFESSIONAL ACTIVITIES: COMMITTEE SERVICE/CONSULTING

Department of Psychiatry and Biobehavioral Sciences

Search Committee, Geriatric Neuropsychologist	2004-06
Faculty Steering Committee	2001-present
Search Committee, Neurobehavioral Geneticist	1998-99
Search Committee, Opioid Biologist	1994-95
Coordinator, Multicampus Geriatric Psychiatry Academic Planning	1993-95
Search Committee, Adult Division Director	1992
Search Committee, Geriatric Psychologist	1992-93
Chair, Medical Student Thesis Committee	1991-present
Colloquium Clinical Conference Committee	1991
Search Committee, Junior Faculty Positions at WLA VAMC	1991
Adult Psychiatry Academic Appointments and Advancements Committee	1985-96

Semel Institute for Neuroscience and Human Behavior

Semel Institute Committee on Faculty Awards & Prizes	2006-present
Semel Institute Planning Committee	2004-present
Director's Forum	2001-present
Search Committee, Director of Neuropsychology	2000

Gary Small – Curriculum Vitae	Page 5
Board of Directors, Clinical Pharmacology Research Center	1998-2003
NPI Strategic Planning Education Implementation Committee	1994-96
Academic Work Group, NPI and NPH Strategic Planning Process	1992-94
Research Advisory Committee, Alzheimer's Disease and Memory Disorders Service	1986-90
Executive Planning Council (Alternate Representative, Geropsychiatry Program)	1986-89
Chair, Neuropsychiatric Hospital DEA Regulation Ad Hoc Committee	1986-87
Chair, Pharmacy and Therapeutics Committee	1985-97
<u>UCLA</u>	
Conflict of Interest Review Committee	2006-present
Faculty Mentor and Founder (with Shadee M. Giurgius), UCLA UGADAA (Undergraduate Geriatric Alzheimer's Disease Awareness Association)	2005-present
UCLA Extension Osher Lifelong Learning Institute Advisory Council	2004-present
School of Medicine Strategic Planning for Research on Aging	2004-present
Masters Thesis Committee, Helen Lavretsky	2004-present
Ph.D. Dissertation Committee for Meredith Braskie, Neuroscience Major	2003-present
Brain Research Institute Faculty Advisory Committee	2002
Brain Imaging Core, General Clinical Research Center Sub-Committee	2001
Search Committee, Chair, Department of Neurology	2000
Chair, Committee on Pilot Research Grants on Aging	2000-present
Advisory Committee, Geriatrics Mentored Clinical Scientist Program Award	2000-03
Search Committee, UCLA Director of the Ahmanson Biological Imaging Clinic	2000
GRECC Advisory Committee, VA Greater Los Angeles Healthcare System	1999-05
Executive Board, Borun Center for Gerontological Research	1999-05
Advisory Committee, Academic Geriatric Resource Center	1999-present
Advisory Committee, UCLA School of Medicine Program on Medicine, Technology, and Society	1998-05
General Clinical Research Center Advisory Committee (Chair, 1998-2004)	1998-present
Committee on Gerontology, College of Letters and Science	1998-present
Chair, Search Committee, Neurobiology of Aging Faculty Recruitment	1998-2001
Ph.D. Dissertation Committee for Jun Yang, Dept. Molecular Med. Pharmacology	1998-2001
Ph.D. Dissertation Committee for David B. Stout, Dept. Biomedical Physics	1998-99
Executive Committee, Alzheimer's Disease Center	1998-present
Steering Committee, Center for Policy Research on Aging	1997-present
School of Medicine Ad Hoc Committee on Clinical Trials	1997
Clinical Research User Workgroup for the New Hospital Master Planning	1997-99
Brain Research Institute Steering Committee	1996-2003
Search Committee, Chairmanship of the Department of Orthopaedic Surgery	1996-97
Search Committee, Center on Aging Plott Chair	1995-96
Dr. P.H. Thesis Committee for Scott Komo, School of Public Health	1995-99
Search Committee, Assistant Professor for Molecular and Medical Pharmacology	1995
Ad Hoc Working Group on Aging and Geriatrics, School of Medicine	1995-96
Search Committee, Geriatric Medicine Faculty Positions	1994-95
Executive Committee, Faculty Associates, Center on Aging (Chair since 1997)	1993-present
Strategic Planning Action Subcommittee on Faculty	1992-93
Steering Committee, Alzheimer's Disease Center	1991-97
Research Review Committee, Alzheimer's Disease Center	1991-present
UCLA/Veterans Health Administration Strategic Planning Steering Committee	1991-95
Co-Chair, Subcommittee on Faculty Development, UCLA/VA Steering Committee	1991-95
Chancellor's Administrative Committee on the Emeriti Center	1991-92
Core Curriculum Working Group on Aging, School of Medicine	1990-95
Legislative Assembly, Academic Senate	1990-93
Student Affairs Committee, School of Medicine	1987-89
Committee for School of Medicine on Academic Geriatric Resource Center	1985
<u>National/International</u>	
APA Diagnostic and Statistical Manual Committee on Dementia	2005-present
Program & Scientific Communications Committee, ACNP	2005-present
Member, Advisory Committee, 6th International Congress of Neuropsychiatry	2004-present
Member, Selection Committee, Scientific American 50 Technology Awards	2003
Contributor, Model ACNP Geriatric Psychopharmacology Curriculum	2003

Gary Small – Curriculum Vitae

Page 6

Testimony on PET Scanning for Dementia Diagnosis, Center for Medicare and Medicaid Services (CMS) hearings, Medicare Coverage Advisory Committee (MCAC) Diagnostic Imaging Panel	2000-04
Lilly Fellowship Awards Committee, Society of Biological Psychiatry (Chair, 2004-05; Co-Chair, 2002-03)	2002-present
Member, External Advisory Board, University of Southern California Alzheimer's Disease Research Center	2001-present
Member, Scientific Advisory Committee, International Psychogeriatric Association, Eleventh International Congress	2001-05
Chair, PET Research Subcommittee, Alzh. Assoc. Neuroimaging Work Group	2001-05
Member, International Scientific Advisory Board, The John Douglas French Alzheimer's Foundation	2001-present
Imaging Work Group of the Alzheimer's Association	2001-present
Janssen/Forest Awards Committee, West Coast College of Biological Psychiatry	2000-present
Council on Aging, American Psychiatric Association	2000-05
Scientific Advisory Board, Institute for the Study of Aging, Inc.	2000-present
Executive Committee, Alzheimer's Imaging Consortium	1999-present
Member, American Academy of Neurology Practice Parameter Committee on Dementia	1998-2001
Chair, Policy and Procedures Committee for the Women's Health Initiative-Memory Study	1997-2004
Member, Expert Consensus Panel for Agitation in Dementia, American Association for Geriatric Psychiatry	1997-98
Advisory Board, Alzheimer's Disease Caregiver Project, Consumer Health Sciences	1996-2004
AAGP Alzheimer's Research Fellowship Award Selection Committee	1996-present
Co-chair, Scientific Advisory Committee, American Association for Geriatric Psychiatry Initiative on Alzheimer's Disease and Related Disorders	1996-99
Member, National Institute on Aging/Alzheimer's Association Working Group on Apolipoprotein E Genotyping in Alzheimer's Disease	1995
AAGP Senior Investigator Award Research Subcommittee	1994-98
NIMH Study Section, Mental Disorders of Aging	1993-97
Consultant, American Society of Hospital Pharmacists	1994
American Association for Geriatric Psychiatry Committee on Research	1993-present
Alternate Member, Coalition on Mental Health and Aging, AARP	1991-99
External Advisory Board, Geriatric Academic Program, University of Washington	1991-2001
Board of Directors, American Association for Geriatric Psychiatry	1991-96
Psychogeriatric Field Advisory Group, VA Central Office, Washington, DC	1991-2001
Accreditation Subcommittee, AAGP Committee on Fellowship & Residency	1990-96
AAGP Committee on Fellowship and Residency Training	1989-96
APA Task Force on Education and Training in Geriatric Psychiatry	1988-91
APA Psychiatric Knowledge and Skills Self-Assessment Program (PKSAP VI) Subcommittee on Geriatric Psychiatry - Module C	1987-88
Panel on Organic Mental Disorders of the American Psychiatric Association Task Force on Treatments of Psychiatric Disorders	1985-89
Consultant, APA Task Force on Treatments of Psychiatric Disorders	1985-89
Consultant, NIMH Center for Mental Health Studies of Emergencies	1984-85
Publications Committee, American Association for Geriatric Psychiatry	1984-85
Education Committee, Clinical Medicine Section, Gerontological Society of America	1983-85
<u>Other Committees</u>	
Search Committee, ACOS Geriatrics & Extended Care, West Los Angeles VAMC	1992
Program Committee, Southern California Psychiatric Society	1991-92
Vice-Chair, Geriatric Health Subcommittee, L.A. County Medical Association	1991-95
Mental Health Committee, Los Angeles County Medical Association	1989-95
Geriatric Health Subcommittee, Los Angeles County Medical Association	1988-95
Board of Directors, Los Angeles Alzheimer's Association	1986-88
Project Care-line Advisory Committee, USC Andrus Gerontology Center	1985-88
Medical and Scientific Advisory Board, Los Angeles Alzheimer's Association	1984-present
Department of Psychiatry Steering Committee, Massachusetts General Hospital	1980
Department of Psychiatry Training Committee, Massachusetts General Hospital	1978-79
<u>Selected Community Service Presentations (Since 1996)</u>	
"Maximizing your memory: genetic testing, smart drugs and other new claims." KFWB's Well and Awareness Health Festival. Los Angeles, CA.	May 1996

"Genetic and brain imaging studies in Alzheimer's disease." First Annual UCLA Research Conference on Aging. Los Angeles, CA.	Jun 1996
"Genetics of Alzheimer's Disease." Education for the Lifespan, UCLA Extension. Los Angeles, CA.	Nov 1996
"Genetic research and counseling for Alzheimer's disease." Los Angeles Alzheimer's Association Volunteer's Program. Los Angeles, CA.	Nov 1996
"The sandwich generation: women's challenges." Women's Health: An Update. UCLA Medical Center. Los Angeles, CA.	Feb 1997
"Alzheimer's: an update." West Los Angeles VAMC Research Day, In Search of Longer Life. Los Angeles, CA.	Apr 1997
"Update on current research." Los Angeles Alzheimer's Association. Los Angeles, CA.	Apr 1997
"Update on research on Alzheimer's disease." Riverside/San Bernadino Alzheimer's Association. Riverside, CA.	May 1997
"The psychology of working with older people." The 1997 Western Regional Planned Giving Conference. Costa Mesa, CA.	May 1997
"Memory loss and aging." Local American Association of Retired Persons Chapter. Pacific Palisades, CA.	Sept 1997
"Brain imaging and Alzheimer's disease: Potential applications." The John Douglas French Alzheimer's Foundation Workshop. Redondo Beach, CA.	Feb 1998
"Aging boomers: senior caregiving." UCLA Las Donas Conference: Understanding the Human Brain. Los Angeles, CA.	Mar 1998
"Update on research." L.A. Alzheimer's Association, Los Angeles, CA.	Jun 1998
"Living better longer." Chief Executives Organization's Los Angeles University. Los Angeles, CA.	Oct 1998
"Update on research." Los Angeles Alzheimer's Association. Los Angeles, CA.	Nov 1998
"Early detection of Alzheimer disease." The John Douglas French Alzheimer's Foundation Workshop. Los Angeles, CA.	Dec 1998
"Recognition and treatment of late-life dementia." Southern California Council of Elderlaw Attorneys. Encino, CA.	Jan 1999
"Caregiving." Women of Los Angeles. Los Angeles, CA.	Jan 1999
Panelist for Southern Calif. Psychiatric Soc. Talking to Experts. Los Angeles, CA.	Mar 1999
"Forgetting to remember: early detection and prevention of age related memory loss." Skirball Cultural Center/UCLA Center on Aging. Los Angeles, CA.	Nov 1999
"Memory research in the year 2000." Women's Health Initiative. Los Angeles, CA.	Nov 1999
"Detection & prevention of memory loss." UCLA Healthcare 50 Plus. L.A., CA.	Nov 1999
"Staying active & healthy throughout life." UCLA Med. Ctr. Auxiliary. L.A., CA.	Nov 1999
"Memory and aging." California Congress of Seniors." Los Angeles, CA.	Feb 2000
"Aging & maintaining memory." UCLA Extension. Los Angeles, CA.	Mar 2000
"Preventing memory loss." UCLA Healthcare 50 Plus. Los Angeles, CA.	Apr 2000
"Living better through technology." UCLA Frontiers of Knowledge. L.A., CA.	Apr 2000
"Memory and aging." UCLA Plato Society. Los Angeles, CA.	Feb 2001
"New memory research." UCLA University Relations. Los Angeles, CA.	May 2001
"Recognizing and preventing memory loss." UCLA Medical Alumni Reunion 2001 Distinguished Speaker's Program. Los Angeles, CA.	June 2001
"New approaches to the psychopharmacology of dementia." Southern California Psychiatric Society. Los Angeles, CA.	Sep 2001
"Memory loss and aging: early detection and prevention." UCLA School of Medicine 50th Anniversary. Los Angeles, CA.	Oct 2001
"What we can do to keep our brains young." Skirball Cultural Center Lifespan Lecture Series. Los Angeles, CA.	Oct 2001
"Memory fitness." Ojai Chamber of Commerce. Ojai, CA.	Feb 2002
"Progress in early detection and prevention of Alzheimer's disease." UCLA Brain Research Institute. Los Angeles, CA.	Apr 2002
"Ten steps for keeping your brain young." UCLA Affiliates. Los Angeles, CA.	Apr 2002
"Maximizing memory." Las Donas, UCLA. Los Angeles, CA.	May 2002
"Memory decline, dementia, and epilepsy: The clinician's perspective." Molecular Imaging with PET: The UCLA Experience. Los Angeles, CA.	Jun 2002
"How to protect your memory." L.A. Times Festival of Health & Fitness. L.A., CA.	Oct 2002
"Improving memory." Jewish Home for the Aging Symposium. Los Angeles, CA.	Oct 2002

"The Memory Bible." 2002 Annual Conference on Aging, Orange County Office on Aging, Lake Forest, CA.	Nov 2002
"Strategies for memory improvement." Santa Monica Rotary, Santa Monica, CA.	Jan 2003
"Improving your memory and keeping your brain young." Keynote Address: Robert and Margaret Sprague Symposium. University of California, Irvine, CA.	Sept 2003
"Remember to keep your brain young with Dr. Gary Small." Los Angeles Times Festival of Health & Fitness. Los Angeles, CA.	Oct 2003
"Can Alzheimer's medicine help those without memory loss?" UCLA Healthcare 50+. Los Angeles, CA.	Oct 2003
"Keeping your brain young." Phi Beta Kappa Alumni in So. Calif. L.A., CA.	Apr 2004
"Improving memory and brain health." Brandeis University National Women's Committee. Los Angeles, CA.	Apr 2004
"Keeping your brain young." Distinguished Speakers Program, UCLA Medical Alumni Association. Los Angeles, CA.	May 2004
"Lifestyle choices for brain health." Big Thinking Women Conference. L.A., CA.	Oct 2004
"Memory and brain fitness." Los Angeles Orphanage Guild. Los Angeles, CA.	Oct 2004
"Alzheimer's prevention strategies." Reagan Presidential Library. Simi Valley, CA.	Feb 2005
"The Memory Prescription." UCLA Health Care 50+. Los Angeles, CA.	Feb 2005
"Improving memory and brain health." UCLA Medical Alumni Distinguished Speakers Series. Los Angeles, CA.	Apr 2005
"Healthy lifestyle for brain health." UCLA Emeriti Center. Los Angeles, CA.	Apr 2005
Authors and Celebrities Award Day. Brandeis University National Women's Committee. Los Angeles, CA.	Apr 2005
"Aging and mental function: How we forget, why we remember." Milken Institute Global Conference. Beverly Hills, CA.	Apr 2005
"Improving memory and brain function." Los Angeles Public Library Literary Odyssey Dinner Speaker. Los Angeles, CA.	Nov 2005
"Brain aging: Early detection and Intervention." UCLA Conference on Neural Control of Behavior. Los Angeles, CA.	Feb 2006
"8 essentials for living longer better." Keynote address for L.A. City Employees' Retirement System Open Enrollment Healthfair. Los Angeles, CA.	Oct 2006
"Quality longevity." University of Judaism Women's Group. Los Angeles, CA.	Oct 2006
"Physical and mental exercises for cognitive performance." Alzheimer's Foundation of America Annual Meeting. Dallas, TX.	Oct 2006
"Keeping your brain young." UCLA Undergraduate Geriatric & Alzheimer's Disease Awareness Association 1 st Annual UCLA Alzheimer's Disease & Aging Symposium. Los Angeles, CA.	Oct 2006
"How to live better longer." UCLA Alumni Association 50 th Reunion. Los Angeles, CA.	Nov 2006
Author Panel. Los Angeles Times Festival of Books. Los Angeles, CA.	Apr 2007
<u>Professional Associations and Scholarly Societies</u>	
International Society on Vascular Behavioural and Cognitive Disorders	2002-05
Academy of Molecular Imaging	2002-2005
AARP	2001-present
International College of Geriatric Psychoneuropharmacology	2001-present
American College of Psychiatrists	2000-present
Society of Biological Psychiatry	2000-present
American College of Neuropsychopharmacology	1999-present
Society for Neuroscience	1996-present
International Society for Neuroimaging Research in Psychiatry	1992-present
UCLA Psychiatric Alumni Association	1992-present
The Authors Guild	1988-present
The Authors League of America	1988-present
UCLA Faculty Association	1987-present
International Psychogeriatric Association	1987-present
American Association for the Advancement of Science	1987-2000
American Association of University Professors, UCLA Chapter	1986-present
American Psychopathological Association	1986-99
West Coast College of Biological Psychiatry (Fellow, 1996)	1986-present
International Association of Biomedical Gerontology	1985-2000

Gary Small – Curriculum Vitae	Page 9
World Psychiatric Association	1984-98
Association for Academic Psychiatry	1984-97
Southern California Psychiatric Society	1982-present
American Geriatrics Society	1982-present
American Association for Geriatric Psychiatry	1982-present
Gerontological Society of America (Fellow, 1998)	1982-present
American Psychosomatic Society	1982-97
American Psychiatric Association (Fellow, 1992; Distinguished Fellow, 2003)	1979-present
Massachusetts Psychiatric Society	1979-81
<u>Editorial Activities - Journals</u>	
Scientific Advisory Board, <i>Carma Publishing</i>	2005-present
Editorial Board, <i>Current Psychiatry Reviews</i>	2004
Editorial Board, <i>Public Library of Science, Medicine</i>	2004-present
Editorial Advisory Board, <i>Current Alzheimer Research</i>	2004-present
Editorial Board, <i>Journal of the American Medical Directors Association</i>	2000-02
Editorial Board, <i>Research and Practice in Alzheimer's Disease 1999</i>	1999
Associate Editor, <i>International Psychogeriatrics</i>	1996-present
Editorial Board, <i>Psychiatry Research: Neuroimaging</i>	1996-present
Guest Editor, Special Issue on Treatment of Depression, <i>International Psychogeriatrics</i>	1995
Editorial Board, <i>Journal of Clinical Psychiatry</i>	1993-present
Associate Editor, Book Reviews, <i>Alzheimer Disease and Associated Disorders: An International Journal</i>	1992-2002
Editorial Board, <i>Journal of the American Geriatrics Society</i>	1991-93
Editorial Board, <i>American Journal of Geriatric Psychiatry</i>	1991-2001
Associate Editor, <i>Year Book of Geriatrics and Gerontology</i>	1987-95
Editorial Board, <i>Journal of Geriatric Psychiatry and Neurology</i>	1986-present
Editorial Board, <i>Alzheimer Disease and Associated Disorders: An International Journal</i>	1985-2004
Editor, Book Review Section, <i>Alzheimer Disease and Associated Disorders: An International Journal</i>	1985-92
<u>Editorial Activities - Newsletters, Educational Programs</u>	
Editorial Advisory Board, <i>Medicare Disease Management</i>	2006-present
Director, CME Institute, <i>Physicians Postgraduate Press</i>	2004-05
Editorial Board, <i>Geriatric Times</i>	2000-present
Editorial Board, <i>ElderCom Initiative, American Geriatrics Society</i>	1998-2000
Editorial Advisory Board, <i>Senior Care Management</i>	1998-2005
Guest Editorial Board, <i>Vital Signs</i>	1998, 2000
Editorial Board, <i>Medicine & Behavior</i>	1997-2003
Guest Editor, <i>Presentations in Focus</i> , "Estrogen and Mental Illness in Aging"	1997
Co-Editor (with Dr. Steven DeKoskey), <i>Mediguide to Geriatric Neurology</i>	1996-99
Editorial Board, <i>UCLA Physicians' Forum</i>	1996-99
Editorial Advisory Board, <i>Neurology Awareness</i> (Newsletter for Athena Neurosciences)	1992-95
Editor, Geriatric Psychiatry Column, <i>Southern California Psychiatric Society Newsletter</i>	1991-95
Editorial Board, <i>UCLA Health Insights</i>	1988-89
<u>Editorial Activities - Reviewer for:</u>	
<i>Guideline for the Treatment of Patients With Alzheimer's Disease and Other Dementias of Late Life, 2nd edition</i>	2006
<i>Age and Ageing</i>	2004-present
<i>Neurology</i>	2001-present
<i>New England Journal of Medicine</i>	1999-present
<i>International Journal of Psychiatry in Medicine</i>	1999-present
<i>American Journal of Managed Care</i>	1999-2003
<i>Pharmacoeconomics</i>	1999-present
<i>Neuroscience Letters</i>	1998-present
<i>Annals of Neurology</i>	1996-present
<i>International Psychogeriatrics</i>	1995-present
<i>Psychiatry Research: Neuroimaging</i>	1994-present
<i>American Hospital Formulary Service Drug Information</i>	1993-2002
<i>Neuropsychiatry, Neuropsychology and Behavioral Neurology</i>	1990-present
<i>Journal of Neuropsychiatry and Clinical Neurosciences</i>	1989-present
<i>Journal of Clinical Psychiatry</i>	1989-present

Gary Small – Curriculum Vitae

Page 10

<i>Academic Psychiatry</i>	1989-2002
<i>Journal of the American Geriatrics Society</i>	1988-present
<i>Journal of the American Medical Association</i>	1987-present
<i>Journal of Geriatric Psychiatry and Neurology</i>	1986-present
<i>American Journal of Psychiatry</i>	1986-present
<i>General Hospital Psychiatry</i>	1986-2003
<i>Alzheimer Disease and Associated Disorders: An International Journal</i>	1985-present
<i>Archives of General Psychiatry</i>	1984-present
<i>Psychosomatics</i>	1984-2002
<i>Journal of Gerontology</i>	1984-present
<u>Editorial Activities - Grant Reviews:</u>	
Ad Hoc Reviewer, Board of Scientific Counselors	2000
UCLA Center on Aging Pilot Grant Program	1993-present
NIMH Mental Disorders of Aging Review Committee	1993-97
UCLA Alzheimer's Disease Center, Pilot Grant Program	1990-present
Los Angeles Alzheimer's Association, Turken Scholarship	1990-present
Ad Hoc Reviewer for NIA, NIMH, VA Medical Research Service, California Department of Health Services Alzheimer's Disease Program, and the Alzheimer's Association	1989-present

HONORS AND SPECIAL AWARDS

Finalist, Wellness Category, Books for a Better Life Award, for <i>The Memory Prescription</i>	2005
Brandeis University National Women's Committee Library Award	2005
Listed in <i>Guide to America's Top Psychiatrists</i> , Consumers' Research Council of America	2004-present
Distinguished Fellow, American Psychiatric Association	2003-present
Research Leader in Medical Diagnostics, Scientific American 50, <i>Scientific American Magazine</i>	2002
David H. Solomon Lectureship and Award	2002
Southern California Psychiatric Society Outstanding Achievement Award	2002
Listed in <i>Who's Who in the World</i>	2002-present
Listed in <i>Who's Who in Medicine and Healthcare</i>	2002-present
Listed in <i>America's Top Doctors</i> (top 4,000 specialists practicing in the U.S.)	2001-present
Image of the Year Award, Society of Nuclear Medicine: Agdeppa ED, Kepe V, Shoghi-Jadid K, Satyamurthy N, Small GW, Petric A, Vinters HV, Huang SC, Barrio JR. <i>In vivo</i> and <i>in vitro</i> labeling of plaques and tangles in the brain of an Alzheimer's disease patient: A case study.	2001
Visiting Professor, Washington University School of Medicine Alzheimer's Disease Center. St. Louis, MO	2001
Listed in <i>Who's Who in America</i>	2001-present
Senior Investigator Award, American Association for Geriatric Psychiatry	2000
APA Jack Weinberg Memorial Award for Excellence in Geriatric Psychiatry	2000
Fellow, Gerontological Society of America	1999-present
Member, American College of Neuropsychopharmacology	1999-present
Parlow-Solomon Professor on Aging, UCLA School of Medicine	1998-present
Visiting Professor, Department of Psychiatry, University of Pittsburgh	1998, 2000
Jake Tobolowsky Visiting Professorship, Department of Psychiatry, The University of Texas Southwestern Medical School	1998
Trustee, National Health Foundation	1997-present
Listed in <i>Who are the Best 2,000 Doctors in North America?</i>	1997-present
Fellow, West Coast College of Biological Psychiatry	1996-present
Listed in <i>Best Doctors in America: Pacific Region</i>	1996-present
Listed in <i>The Essential Guide to L.A.'s Best Doctors</i> , Los Angeles Magazine	1996
Annual Research Award, Los Angeles Alzheimer's Association	1995
Visiting Professor, University of Hawaii School of Medicine	1994, '96, 2005
Listed in <i>Best Doctors in America</i>	1993-present
2 nd Place, International Psychogeriatric Association Research Awards	1993
Fellow, American Psychiatric Association	1992-present
Sigma Xi Scientific Research Society	1987-present
Distinguished Visiting Professor, Wilford Hall USAF Medical Center, Lackland Air Force Base, Texas	1985
Edwin Dunlop Research Award, Harvard Medical School	1981

Alpha Omega Alpha, USC School of Medicine

1977

Summa Cum Laude, UCLA

1973

Phi Beta Kappa, UCLA

1973

Departmental Honors in Biology, UCLA

1973

Associated Western Universities Research Traineeship, UCLA

1972

Patents

Methods for Labeling β -Amyloid Plaques and Neurofibrillary Tangles. U.S. Patent 6,274,119, (August 20, 1999), and U.S. Patent 6,660,530 (December 9, 2003). Inventors: Jorge R. Barrio, Andrej Petric, Nagichettiar Satyamurthy, Gary W. Small, Gregory M. Cole, Sung-Cheng Huang. UCLA has licensed the technology to Siemens.

Methods for Labeling Beta-Amyloid Plaques and Neurofibrillary Tangles. J.R. Barrio, A. Petric, N. Satyamurthy, G.W. Small, G. Cole and S.-C. Huang. U.S. Patent Application 20020022002 A1 (February 21, 2002).

A New Binding Site for β -Amyloid Plaques. U.S. Patent Application Pending [UCLA Case No. 2003-195-1]. Inventors: Jorge R. Barrio, Eric A. Agdeppa, Nagichettiar Satyamurthy, Gary W. Small.

Compositions for Labeling Beta-Amyloid Plaques and Neurofibrillary Tangles, J.R. Barrio, A. Petric, N. Satyamurthy, G.W. Small, G. Cole and S.-C. Huang. U.S. Patent Application 20040072371 A1 (April 15, 2004).

Method for Detecting Alzheimer's Disease and Other Forms of Dementia and Measuring their Progression. J.R. Barrio, G.W. Small and V. Kepe. UCLA reference # 2004-562-1 (Patent pending, U.S. Provisional Application No. 60/569,136) 2004.

In vivo Monitoring of β -Amyloid Plaques and Neurofibrillary Tangles. V. Kepe, J.R. Barrio, G.M. Cole and G.W. Small. (U.S. Provisional Application No. 60/631,914) 2004.

Methods for Binding Agents to β -Amyloid Plaques. J.R. Barrio, A. Petric, N. Satyamurthy, V. Kepe, G.W. Small. (PCT WO 2005/040337 A3) 2005.

RESEARCH GRANTS AND CONTRACTS**Funded (Annual Direct Costs; G.W. Small – Principal Investigator, unless other P.I. indicated)**

National Institute on Aging (P01): "Amyloid Plaque and Tangle Imaging in Aging and Dementia." -- \$1,116,353; Purpose: To determine if FDDNP plaque and tangle PET imaging (1) correlates with neuropathological changes of aging and dementia; (2) predicts future decline; & (3) augments other diagnostic measures. 2005-10

Archstone Foundation: "Memory Training in the Community." -- \$100,000; Purpose: To expand UCLA Center on Aging memory training classes to under-served populations and to areas outside of Southern California. 2005-07

National Institutes of Health/National Institute on Aging (D. Reuben, P.I.): "Mentored Clinical Scientist Development Program (K12)." -- \$495,000; Purpose: To support career development experiences for UCLA geriatrics clinician-scientists that will lead to research independence. 2005-10

Bureau of Health Professionals (D. Farrell, P.I.): "Geriatric Training for Faculty in Medicine, Dentistry & Behavioral/Mental Health." -- \$426,035; Purpose: This is a multidisciplinary training program aimed at developing faculty in geriatrics. 2005-10

National Institute on Aging (J.L. Cummings, P.I.): "UCLA Alzheimer's Disease Research Center." -- \$1,763,000; Purpose: The major goal of this project is to understand the mechanisms and optimize the treatment for Alzheimer's disease. 2004-10

Ahmanson Foundation: "Novel PET Scan Technology to Detect Alzheimer's Disease in the Living Patient." -- \$365,000; Purpose: To further develop this new PET scan technology for new drug discovery in Alzheimer's disease. 2005-06

The Rotary CART Fund: "Amyloid Plaque and Tangle Imaging in Mild Cognitive Impairment." -- \$250,000; Purpose: To perform FDDNP-PET scans on subjects with MCI. Rotarians of North Carolina, South Carolina and Georgia. 2005-06

National Institutes of Health, National Institute of Neurological Disorders and Stroke (M. Braskie, P.I.): "Hippocampal activity and pathology in APOE-4 subjects." -- \$112,254; Purpose: To combine FDDNP and fMRI on young people with and without APOE-4. 2003-06

National Institute on Aging (R01): "Functional MRI for Early Diagnosis of Alzheimer Disease." -- \$250,000; Purpose: To further develop functional MRI in and genetic risk assessment for early detection of Alzheimer's disease. 2000-05

National Institute on Aging (R01): "Brain Imaging and Mental Disorders in Aging Intervention." -- \$450,000; <u>Purpose</u> : To perform FDG-PET and genetic risk assessment pre- and post-treatment with a cholinesterase inhibitor or placebo.	2000-05
National Institute of Mental Health (R01) Supplement: "Mental Disorders in Aging: Anti-Inflammation in AD." -- \$250,000; <u>Purpose</u> : To perform PET scans at baseline and follow-up in a placebo controlled trial of NSAIDs.	1999-2004
Judith Olenick Elgart Fund for Research on Brain Aging -- \$100,000; <u>Purpose</u> : To support studies of Alzheimer's disease and other forms of brain aging.	2000-03
Institute for the Study of Aging, Inc.: "FDDNP-PET Imaging for Early Detection of Alzheimer Disease." -- \$100,000; <u>Purpose</u> : To develop a method to image Alzheimer disease-specific lesions in living humans.	2000-03
The John Douglas French Alzheimer's Foundation: "Brain Metabolic Effects of Ginkgo Biloba." -- \$40,000; <u>Purpose</u> : To study brain metabolic effects of ginkgo biloba vs. placebo using PET imaging.	2000-01
Charles A. Dana Foundation: "PET Brain Imaging in Alzheimer's Disease for Early Detection and Treatment." -- \$100,000; <u>Purpose</u> : To develop a method to image Alzheimer disease-specific lesions in living humans.	2000-01
Alzheimer's Association Zenith Award: "FDDNP-PET Imaging for Early Detection of Alzheimer Disease." -- \$100,000; <u>Purpose</u> : To develop a method to image Alzheimer disease-specific lesions in living humans.	1999-2001
National Institute of Mental Health (R01): "Mental Disorders in Aging: Anti-Inflammation in AD." -- \$350,000; <u>Purpose</u> : To perform a placebo controlled trial of NSAIDs for persons with mild cognitive impairment.	1999-2004
National Institute on Aging (R01): "Functional MRI for Early Diagnosis of Alzheimer Disease." -- \$250,000; <u>Purpose</u> : To develop functional MRI in combination with genetic risk assessment for early detection of Alzheimer's disease.	1995-2000
National Institute of Mental Health (R01): "Functional Brain Imaging and Mental Disorders in Aging." -- \$225,000; <u>Purpose</u> : To develop FDG-PET and genetic risk assessment for early detection of Alzheimer's disease.	1995-2000
National Institute on Aging: UCLA Alzheimer's Disease Research Center (J.L. Cummings - P.I.); G.W. Small - Director, Imaging and Genetics Core -- \$250,000 (core budget); <u>Purpose</u> : To facilitate research and education in Alzheimer's disease.	1999-2004
National Institute of Mental Health: "ERT, Depression and Cognition in Postmenopausal Women." (N. Rasgon - P.I.) -- \$350,000; <u>Purpose</u> : To evaluate the influence of estrogen replacement therapy on antidepressant treatment.	1998-2003
National Institute of Mental Health: "Study of Relatives At Risk for Alzheimer's Disease." -- \$25,000; <u>Purpose</u> : To study psychological impact of genetic and familial risk for Alzheimer's disease.	1999-2000
Forest: "Double-Blind, Placebo-Controlled Trial of Citalopram for Geriatric Depression" - \$85,000; <u>Purpose</u> : To study the safety and efficacy of sertraline for geriatric depression.	1999-2000
Pfizer: "Double-Blind, Placebo-Controlled Trial of Sertraline for Geriatric Depression" -- \$85,000; <u>Purpose</u> : To study the safety and efficacy of sertraline for geriatric depression.	1997-98
National Institute on Aging: UCLA Alzheimer's Disease Center (J.L. Cummings - P.I.); G.W. Small - Director, Imaging and Genetics Core -- \$450,000; <u>Purpose</u> : To facilitate research and education in Alzheimer's disease.	1996-99
National Institute of Mental Health: "Costs and Outcomes of Inpatient Antidepressant Drugs" (D. Ackerman - P.I.) -- \$75,124; <u>Purpose</u> : To perform pharmacoeconomic analyses for geriatric depression.	1997-99
The Fran and Ray Stark Foundation Fund for Alzheimer's Disease Research (endowment) - \$500,000; <u>Purpose</u> : To advance research on Alzheimer's.	1997-present
Deanne Laboratories Research Foundation: "Genetics of Parkinson's Disease." -- \$60,000; <u>Purpose</u> : To identify genetic risks for Parkinson's disease.	1996-2003
Gateways Mental Health Center: Affiliation Agreement for Geriatric Psychiatry Clinical Training -- \$10,000 per year; <u>Purpose</u> : To provide geriatric training.	1996-99
Wyeth-Ayerst: "Double-Blind, Placebo-Controlled Study of Venlafaxine and Fluoxetine in Geriatric Outpatients with Major Depression" -- \$78,000; <u>Purpose</u> : To study safety and efficacy of antidepressants in geriatric depression.	1996-98
National Institute on Aging: "UCLA Geriatric Research Fellowship Program." -- \$366,680; <u>Purpose</u> : To provide clinical research training in geriatrics.	1995-98

- State of California Department of Health Services (S. Bookheimer - PI): "Cognitive Stress Test for Early Detection of Alzheimer Disease." -- \$225,000; Purpose: To develop functional MRI in combination with genetic risk assessment for early detection of Alzheimer's disease. 1995-98
- Department of Veterans Affairs: "West Los Angeles, Sepulveda Veterans Affairs Medical Centers, and UCLA Multicampus Fellowship Program in Geriatric Psychiatry." -- \$180,000/year; Purpose: To provide clinical and research training in geriatric psychiatry. 1991-2004
- DiDi Hirsch Community Mental Health Center: Affiliation Agreement for Geriatric Psychiatry Clinical Training -- \$10,000 per year; Purpose: To provide clinical training in geriatrics. 1991-99
- Zeneca Pharmaceuticals: "Multicenter clinical trial of Seroquel in the treatment of elderly subjects with selected idiopathic and organic psychoses." -- \$75,000; Purpose: To study the efficacy of an atypical antipsychotic in elderly patients. 1995-96
- Alzheimer's Association: "Study of Familial Alzheimer's Disease Using PET and Genetic Markers." -- \$150,000; Purpose: To study PET and genetic risk in Alzheimer's disease. 1994-97
- National Heart, Lung, and Blood Institute (D. Carmelli - P.I.): "CVD Risk Factors and Brain Morphology in NHLBI Twins." -- \$2,680,000; Purpose: To study brain imaging and neuropsychological aspects of aging twins. 1994-96
- National Institute of Mental Health (D. Sultzer - P.I.): "Psychiatric Symptoms in Alzheimer Disease." -- \$280,000; Purpose: To study PET and psychiatric symptoms in Alzheimer's disease. 1994-96
- National Institute on Aging (R01): "HLA Association in Alzheimer Disease." -- \$73,500; Purpose: To study possible HLA associations in Alzheimer's disease. 1993-95
- Academic Geriatric Resource Program: Geriatric Psychology Fellowship Training Program -- \$23,660; Purpose: To provide training in geriatric psychiatry and psychology. 1993-94
- Substance Abuse and Mental Health Services Administration - Mental Disorders of Aging Institutional Clinical Training -- \$150,000; Purpose: To provide training in geriatric psychiatry and psychology. 1992-95
- Sandoz Pharmaceuticals: "Double-blind Placebo Control Trial of Abecarnil in Geriatric Anxiety." -- \$70,000; Purpose: To study efficacy and safety of abecarnil in geriatric anxiety. 1992-93
- National Institute on Aging: UCLA Alzheimer's Disease Center (J.L. Cummings - P.I.); G.W. Small - Director, Education Core -- \$2,017,000; Purpose: To facilitate research and education in Alzheimer's disease. 1991-96
- ADAMHA Small Instrumentation Grant to UCLA School of Medicine -- \$12,000 1991-92
- National Institute of Mental Health FIRST Award: "Mental Illness in Aging: Early Diagnosis." -- \$350,000; Purpose: To study persons at risk for Alzheimer's. 1990-96
- Lilly Pharmaceuticals: "Fluoxetine/Placebo Trial in Geriatric Patients with Major Depression." -- \$110,000; Purpose: To study the efficacy of fluoxetine. 1990-91
- Howard W. Cannon Center Services for Senior Citizens: Educational Videotape on Parentcare. -- \$10,000; Purpose: To create parentcare educational videotape. 1990
- NIMH Institutional Clinical Training - Mental Disorders of Aging -- \$195,000; Purpose: To provide clinical and research training in geriatrics. 1989-92
- California Department of Health Services: "Positron Emission Tomography in People at Risk for Familial Alzheimer Disease." -- \$150,000; Purpose: To study PET changes in relatives at risk for Alzheimer's disease. 1989-92
- Alzheimer's Association, Evelyn T. Stone Memorial Faculty Scholar Award: "Positron Emission Tomography in People at Risk for Familial Alzheimer Disease." -- \$120,000; Purpose: To study brain function in Alzheimer's. 1988-91
- Committee on Research, UCLA Academic Senate: "Emission Computed Tomography in Early- and Late-Onset Alzheimer's Disease." -- \$1,000; Purpose: To perform a secondary analysis on PET data on Alzheimer's disease. 1986-87
- National Institute of Mental Health, Clinical Research Center on Psychopathology of the Elderly (L.F. Jarvik - P.I.): Subproject funding -- \$5,000 1985-86
- L.A. Alzheimer Association: "HLA Antigens in Dementia, Depression, and Aging." -- \$1,000; Purpose: To study HLA associations in late-life. 1985

- UCLA/USC Long Term Care Gerontology Center: "A Pilot Study Investigating Physical Symptoms in Patients with Alzheimer's Disease." -- \$4,000; Purpose: To study physical symptoms in patients with Alzheimer's disease. 1984-85
- National Institute on Aging, Academic Award: "Dementia of the Alzheimer Type and the HLA Gene Complex." -- \$221,500; Purpose: To study HLA associations in dementia and late-life depression. 1983-88
- Committee on Research, UCLA Academic Senate: "Dementia of the Alzheimer Type and the HLA Gene Complex." -- \$2,400; Purpose: To study HLA associations in dementia. 1983-84
- NIMH Biomedical Research Support Grant: "A Study of the HLA Gene Complex and Dementia." -- \$2,300; Purpose: To study HLA associations in dementia. 1982-83

SELECTED LECTURES AND PRESENTATIONS (Since 1996)

- "Neuroimaging and genetic assessment." American Association for Geriatric Psychiatry Annual Scientific Meeting. Tucson, AZ Feb 1996
- "Low dose or high dose of a betacarboline: special issues in the elderly." XXth Collegium Internationale Neuro-Psychopharmacologicum Congress. Melbourne, Australia. Jun 1996
- "Evaluation and treatment of geriatric depression." University of Cincinnati Department of Psychiatry Grand Rounds. Cincinnati, OH. Sep 1996
- "Early detection of Alzheimer's disease using brain imaging and genetic risk assessment." Alzheimer's Association Poster Session Presented at the American College of Obstetrics and Gynecology (Denver, CO), American Academy of Family Physicians (New Orleans, LA), American Medical Women's Association (Boston, MA), American Academy of Reproductive Medicine (Boston, MA). Fall 1996
- "From forgetfulness to dementia: early detection of Alzheimer's disease." Medical University of South Carolina Grand Rounds. Charleston, SC. Nov 1996
- "Alzheimer's disease: early detection through brain imaging and genetic assessment." Annual Henry and Lillian Nesburn Gerontology Lectureship. Cedars-Sinai Medical Center. Los Angeles, CA. Mar 1997
- "Recognition and treatment of dementia in older persons." Geriatric Issues in Psychiatry, San Diego Psychiatric Society. San Diego, CA. Sep 1997
- "Recognizing and treating age-related memory loss." Skirball Cultural Center and UCLA Center on Aging. Los Angeles, CA. Nov 1997
- "Estrogen and mental illness in aging." Islami Memorial Lecture, Saint Barnabas Behavioral Health Network. Livingston, NJ. Nov 1997
- "Coping with aging parents." Young Presidents Organization of Los Angeles Mini-University at UCLA. Los Angeles, CA. Feb 1998
- "Managing Alzheimer's patients and troublesome behavior." National Council on Aging 1998 Conference. Washington, DC. Mar 1998
- "Dementia." American Geriatrics Society 1998 Annual Meeting Core Curriculum. Seattle, WA. May 1998
- "Women as elderly subject population (moderator)." Women as Research Subjects, co-sponsored by UCLA and FDA. Los Angeles, CA. Jul 1998
- Grand Rounds, Columbia College of Physicians and Surgeons, Department of Psychiatry. New York, NY. Dec 1998
- Grand Rounds, University of Pennsylvania, Geriatrics Division. Philadelphia, PA. Dec 1998
- Grand Rounds, University of Washington, Department of Psychiatry. Seattle, WA. Dec 1998
- Grand Rounds, University of Colorado, Department of Psychiatry. Denver, CO. Mar 1999
- Grand Rounds, University of Colorado, Department of Geriatrics. Denver, CO. Apr 1999
- Symposium Chair, Alzheimer's Disease: Early Intervention for Best Outcomes, National Council on Aging Annual Meeting, San Diego, CA. Apr 1999
- "Early detection and prevention of Alzheimer's disease using neural imaging and genetic risk." Los Angeles Gerontology Research Group. Los Angeles, CA. May 1999
- Medical Grand Rounds, University of Pennsylvania, Philadelphia, PA. May 1999
- "Safety of antipsychotics in the elderly." European Federation of Neurological Societies. Lisbon, Portugal. Sep 1999
- "Functional imaging and genetic risk measures for AD detection." Imaging & Biological Markers for Diagnosis & Progression of Alzheimer's Disease Meeting. National Institute on Aging Workshop. Bethesda, MD. Sep 1999
- "Age-related memory loss: update on early detection." Harbor-UCLA Department of Psychiatry Grand Rounds. Torrance, CA. Oct 1999

"AD risk and prediction: contributions of genetics and neuroimaging." XIIIth Recent Advances in Psychiatry Conference. Rouffach, France.	Oct 1999
"Detecting and preventing memory loss." UCLA Geriatric Psychiatry Grand Rounds. Los Angeles, CA.	Sep 2000
"Update on pharmacotherapy of dementia." UCLA's Fifth Annual Review of Psychiatry. Los Angeles, CA.	Oct 2000
"Brain imaging and genetic measures for detection and prevention of Alzheimer's Disease." The Ageing Brain: An International Conference, presented jointly by the University of New South Wales and UCLA. Sydney, Australia.	Nov 2000
"Recognizing and managing age-related memory loss." 2nd Annual Scientific Meeting, Faculty of Old Age Psychiatry, Royal Australia and New Zealand College of Psychiatry. Sydney, Australia.	Nov 2000
"Combining neuroimaging and genetic measures in clinical trials to prevent age-related memory loss." NIMH and APA Conference, Bethesda, MD.	Dec 2000
"Psychosis and agitation in the elderly." Loma Linda University School of Medicine. Loma Linda, CA	Dec 2000
"An update in brain imaging and genetic risk in Alzheimer's disease." American Association for Geriatric Psychiatry Annual Meeting. San Francisco, CA	Feb 2001
"Geropsychiatric update." 10 th Annual Psychopharmacology Review. University of Arizona College of Medicine. Tucson, AZ	Feb 2001
"Early diagnosis of Alzheimer's disease." Hormones and Dementia in Mice. John Douglas French Alzheimer's Foundation. Santa Monica, CA	Jun 2001
"Expanding the understanding of mild-moderate Alzheimer's disease." The 17 th Congress of the International Association of Gerontology. Vancouver, Canada	Jul 2001
"Using brain imaging for preclinical detection of Alzheimer's disease." The 17 th Congress of the International Association of Gerontology. Vancouver, Canada	Jul 2001
"Age-related memory loss: detection and prevention." 10 th Congress of the International Psychogeriatric Association. Nice, France.	Sep 2001
"Managing Alzheimer's disease in long-term care: treatment options." American Medical Director's Association Annual Meeting. San Diego, CA.	Mar 2002
"Markers in measuring deterioration." European College of Neuropsychopharmacology Consensus Meeting. Nice, France.	Mar 2002
"New brain imaging methods for detection of Alzheimer's disease." Alzheimer's Association Zenith Fellows Meeting. Chicago, IL.	May 2002
"Early detection and treatment of Alzheimer's disease." University of Arizona Department of Psychiatry Grand Rounds. Phoenix, AZ.	May 2002
"Diagnosis and treatment of dementia." University of Arizona Department of Medicine Grand Rounds. Phoenix, AZ.	May 2002
"In vivo brain imaging of tangle burden." Institute for the Study of Aging, Neurofibrillary Tangles as a Target for Drug Development. New York, NY.	Jun 2002
"Plaque and tangle imaging." Neuroimaging Initiative on Alzheimer's disease: National Institute on Aging. Bethesda, MD.	Jun 2002
"Improving memory and brain health." 92 nd Street Y. New York, NY.	Jun 2002
"Detection and prevention of age-related memory decline." University of Arkansas Center on Aging. Little Rock, AR.	Sep 2002
"Aging and memory loss: detection and prevention." Duke Center for the Study of Aging and Human Development Distinguished Guest Lecturer. Durham, NC.	Oct 2002
"Age-related memory loss and dementia." Psychiatry Grand Rounds, Duke University Medical Center. Durham, NC..	Oct 2002
"Memory and aging research update." Psychiatry Grand Rounds, University of North Carolina Medical Center. Chapel Hill, NC.	Oct 2002
"Early detection and prevention of age-related memory loss." UCLA Extension. Los Angeles, CA.	Nov 2002
"Advances in the diagnosis and treatment of dementia." American Society of Clinical Psychopharmacology. San Francisco, CA.	Nov 2002
"The Memory Workout: How to Keep Your Brain Forever Young." Brain Awareness 2003. Oregon Health Sciences University. Portland, OR.	Mar 2003
"Age-related memory loss and dementia." Madison Institute of Medicine. Madison, WI.	Mar 2003
"Keeping your brain forever young." Keynote Address. UCLA Neurosurgery 50 th Anniversary. Beverly Hills, CA.	Apr 2003

Graduate seminar on brain aging. University of Southern California. Los Angeles, CA.	Apr 2003
"Memory fitness: Never forget a name and face again." Chancellor's Associates Bruin Woods Weekend. Lake Arrowhead, CA.	Apr 2003
"The spectrum of dementia: From early identification to long-term treatment benefits." American College of Physicians. San Diego, CA.	Apr 2003
"Maximizing your memory." 2003 Corporate Symposium, Whitfield Healthcare Foundation. Dalton, GA.	May 2003
"PET surrogate markers in Alzheimer's: Early diagnosis, disease monitoring, and drug development." Institute for the Study of Aging, New York, NY	May 2003
"PET imaging of amyloid." Alzheimer's Disease: Update on Research, Treatment and Care. UCSD Alzheimer's Disease Research Center. San Diego, CA.	Jun 2003
"Update on in vivo imaging of plaques and tangles." 4 th Leonard Berg Symposium: Early Detection of Alzheimer's Disease. St. Louis, MO.	Sep 2003
"Geriatric medicine and gerontology." UCLA Board of Governors/Board of Councilors Meetings. Los Angeles, CA.	Sept 2003
"The Memory Prescription." Phi Beta Kappa Alumni in Southern California. Los Angeles, CA.	Jun 2004
"Brain function and physical effects of a healthy lifestyle." International Congress on Alzheimer's Disease. Philadelphia, PA.	July 2004
"In vivo imaging of tau aggregation in frontal temporal dementia." International Congress on Alzheimer's Disease. Philadelphia, PA.	July 2004
"Use of PET in the early diagnosis of dementia." Academy of Molecular Imaging Washington Symposium. Washington, DC.	Sep 2004
"Staying sharp forum." AARP National Meeting, panel sponsored by the Dana Alliance for Brain Initiatives. Las Vegas, NV.	Oct 2004
"Strategies for improving memory and decelerating brain aging." NIH Staff Training in Extramural Programs. Bethesda, MD.	Jan 2005
"Diagnosis and management of dementia and associated behavioral conditions." Central California Psychiatric Society. Monterrey, CA.	Feb 2005
"The case for PET." International Psychogeriatric Association Congress Debate on Imaging. Stockholm, Sweden.	Sep 2005
"FDDNP-PET and Alzheimer's disease." Amyloid Imaging Symposium, University College London. London, England.	Jul 2005
"Data supporting the impact of a healthy lifestyle on brain function." International Psychogeriatric Association. Stockholm, Sweden.	Sep 2005
"Effects of a 14-day healthy lifestyle program on brain function." American College of Neuropsychopharmacology. Kona, HI.	Dec 2005
"Diagnosis and treatment of dementia and age-associated memory loss." UCLA Department of Medicine Grand Rounds. Los Angeles, CA.	Jan 2006
"Developing sharper minds: The effect of lifestyle choices on brain and cognitive function." Dana Alliance Learning and Brain Conference. Boston, MA.	Nov 2006
Keynote Address. Florida Atlantic University Annual Conference. Fort Lauderdale, FL.	Mar 2007

BIBLIOGRAPHY

Research Papers (Peer Reviewed)

1. Small GW. House officer stress syndrome. *Psychosomatics* 1981;22:860-869.
2. Small GW, Liston EH, Jarvik LF. Diagnosis and treatment of dementia in the aged. *Western Journal of Medicine* 1981;135:469-481.
3. Small GW, Jarvik LF. The dementia syndrome. *Lancet* 1982;2:1443-1446 (Translated into French: Le syndrome de demence. *Le Journal International de Médecine* 1983;7:401-406).
4. Small GW, Nicholi AM. Mass hysteria among school children: Early loss as a predisposing factor. *Archives of General Psychiatry* 1982;39:721-724.
5. Small GW, Borus JF. Outbreak of illness in a school chorus: Toxic poisoning or mass hysteria? *New England Journal of Medicine* 1983;308:632-635.
6. Small GW, Rosenbaum JF. Nine psychiatric inpatients who leaped from a height. *Canadian Journal of Psychiatry* 1984;29:129-131.
7. Small GW. Revised ischemic score for diagnosing multi-infarct dementia. *Journal of Clinical Psychiatry* 1985;46:514-517.

8. **Small GW**, Matsuyama SS, Komanduri R, Kumar V, Jarvik LF. Thyroid disease in patients with dementia of the Alzheimer type. *Journal of the American Geriatrics Society* 1985;33:538-539.
9. **Small GW**, Matsuyama SS. HLA-A2 as a possible marker for early onset Alzheimer disease in men. *Neurobiology of Aging* 1986;7:211-214.
10. **Small GW**, Komanduri R. Physical symptoms in patients with primary degenerative dementia. *Comprehensive Psychiatry* 1986;27:540-544.
11. **Small GW**. Pseudocyesis: An overview. *Canadian Journal of Psychiatry* 1986;31:453-457.
12. **Siegel DJ**, **Small GW**. Borderline personality disorder in the elderly: a case study. *Canadian Journal of Psychiatry* 1986;31:859-860.
13. **Small GW**, Komanduri R, Gitlin M, Jarvik LF. The influence of age on guilt expression in major depression. *International Journal of Geriatric Psychiatry* 1986;1:121-126.
14. **Small GW**, Borus JF. The influence of newspaper reports on outbreaks of mass hysteria. *Psychiatric Quarterly* 1987;58:269-278.
15. **Small GW**, Fawzy FI. Data omitted from psychiatric consultation notes. *Journal of Clinical Psychiatry* 1988;49:307-309.
16. **Small GW**, Fawzy FI. Psychiatric consultation for the medically ill elderly: Need for a collaborative model of care. *Psychosomatics* 1988;29:94-103.
17. **Small GW**, Kuhl DE, Fujikawa D, Ashford JW. Clinical characterization of Alzheimer's disease: Comparison of "age at onset" and a new descriptor, "age at shift." *Journal of Geriatric Psychiatry and Neurology* 1988;1:207-211.
18. **Small GW**, Fong K, Beck JC. Training in geriatric psychiatry: Will the supply meet the demand? *American Journal of Psychiatry* 1988;145:476-478.
19. **Small GW**. Psychopharmacologic treatment of elderly demented patients. *Journal of Clinical Psychiatry* 1988;49:8-13.
20. **Small GW**, Greenberg DA. Biologic markers, genetics, and Alzheimer's disease. *Archives of General Psychiatry* 1988;45:945-947.
21. **Small GW**, Kuhl DE, Riege WH, Fujikawa DG, Ashford JW, Metter EJ, Mazziotta JC. Cerebral glucose metabolic patterns in Alzheimer's disease: Effect of gender and age at dementia onset. *Archives of General Psychiatry* 1989;46:527-532.
22. **Small GW**, Matsuyama SS, Komanduri R, Spar JE, Fairbanks L. HLA antigens in depressed, demented, and nondemented elderly. *Journal of Geriatric Psychiatry and Neurology* 1989;2:70-75.
23. **Cummings JL**, **Small GW**. Dealing with writer's block in an older man: Depression, Parkinson's disease, or both? *Hospital and Community Psychiatry* 1991;42:19-20.
24. **Small GW**, Ebeling SC, Matsuyama SS, Heyman A, Reisner EG, Renvoize EB, Sulkava R. Variable association of HLA-A2 in men with early-onset Alzheimer disease. *Neurobiology of Aging* 1991;12:375-377.
25. **Small GW**, Propper MW, Randolph E, Eth S. Mass hysteria among student performers: Social relationship as a symptom predictor. *American Journal of Psychiatry* 1991;148:1200-1205 (Translated into French for *Médecine des Arts* 1995;11:16-19).
26. **Small GW**. Tacrine for treating Alzheimer's disease. *Journal of the American Medical Association* 1992;268:2564-2565.
27. **Small GW**, Stern CE, Mandelkern M, Fairbanks L, Min CA, Guze BH. Reliability of drawing regions of interest for positron emission tomographic data. *Psychiatry Research: Neuroimaging* 1992;45:177-185.
28. **Small GW**. Geriatric psychiatry fellowship recruitment: Crisis or opportunity? *American Journal of Geriatric Psychiatry* 1993;1:67-73.
29. **Small GW**, Leuchter AF, Mandelkern MA, La Rue A, Okonek A, Lufkin RB, Jarvik LF, Matsuyama SS, Bondareff W. Clinical, neuroimaging, and environmental risk differences in monozygotic female twins appearing discordant for dementia of the Alzheimer type. *Archives of Neurology* 1993;50:209-219.
30. **Corder EH**, **Saunders AM**, **Strittmatter WJ**, **Schmechel D**, **Gaskell P**, **Small GW**, **Roses AD**, **Haines JL**, **Pericak-Vance MA**. Gene dose of apolipoprotein E type 4 allele and the risk of Alzheimer's disease in late onset families. *Science* 1993;261:921-923.
31. **Baktari JB**, **Tashkin DP**, **Small GW**. Factitious hemoptysis: Adding to the differential diagnosis. *Chest* 1994;105:943-945.
32. **Small GW**, Rosenthal M, Tourtellotte WW. Central nervous system IgG synthesis rates in Alzheimer disease: Possible differences in early-onset and late-onset subgroups. *Alzheimer Disease and Associated Disorders* 1994;8:29-37.
33. **Small GW**, Okonek A, Mandelkern MA, La Rue A, Chang L, Khonsary A, Ropchan JR, Bland WH. Age-associated memory loss: Initial neuropsychological and cerebral metabolic findings of a longitudinal study. *International Psychogeriatrics* 1994;6:21-43.

34. Corder EH, Saunders AM, Risch NJ, Strittmatter WJ, Schmechel DE, Gaskell PC, Rimmler JB, Locke PA, Conneally PM, Schmechel KE, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. Protective effect of apolipoprotein E type 2 allele for late onset Alzheimer disease. *Nature Genetics* 1994;7:180-183.
35. **Small GW**, Feinberg DT, Steinberg D, Collins MT. A sudden illness outbreak suggesting mass hysteria in schoolchildren. *Archives of Family Medicine* 1994;3:711-716.
36. Corder EH, Saunders AM, Strittmatter WJ, Schmechel DE, Gaskell PC, Rimmler JB, Locke PA, Conneally PM, Schmechel KE, Tanzi RE, Gusella JF, **Small GW**, Roses AD, Pericak-Vance MA, Haines JL. Apolipoprotein E, survival in Alzheimer's disease patients, and the competing risks of death and Alzheimer's disease. *Neurology* 1995;45:1323-1328.
37. **Small GW**, Komo S, La Rue A, Kaplan A, Mandelkern MA. Memory self-appraisal and cerebral glucose metabolism in age-associated memory impairment. *American Journal of Geriatric Psychiatry* 1995;3:132-143.
38. **Small GW**, Hamilton SL, Bystritsky A, Meyers BS, Nemeroff CB, and the Fluoxetine Collaborative Study Group. Clinical response predictors in a double-blind, placebo-controlled trial of fluoxetine for geriatric major depression. *International Psychogeriatrics* 1995;7(suppl):41-53.
39. **Small GW**, Mazziotta JC, Collins MT, Baxter LR, Phelps ME, Mandelkern MA, Kaplan A, La Rue A, Adamson CF, Chang L, Guze BH, Corder EH, Saunders AM, Haines JL, Pericak-Vance MA, Roses AD. Apolipoprotein E type 4 allele and cerebral glucose metabolism in relatives at risk for familial Alzheimer disease. *Journal of the American Medical Association* 1995;273:942-947.
40. **Small GW**, La Rue A, Komo S, Kaplan A, Mandelkern MA. Predictors of cognitive change in middle-aged and older adults with memory loss. *American Journal of Psychiatry* 1995;152:1757-1764.
41. La Rue A, **Small GW**, McPherson S, Komo S, Matsuyama SS, Jarvik LF. Subjective memory loss in AAMI: Family history and neuropsychological correlates. *Aging, Neuropsychology, and Cognition*. 1996;3:132-140.
42. **Small GW**, Schneider LS, Hamilton SL, Bystritsky A, Meyers BS, Nemeroff CB, and the Fluoxetine Collaborative Study Group. Site variability in a multisite geriatric depression trial. *International Journal of Geriatric Psychiatry* 1996;11:1089-1095.
43. Haines JL, Pritchard ML, Saunders AM, Schildkraut JM, Growden JH, Gaskell PC, Farrer LA, Auerbach SA, Gusella JF, Locke PA, Rosi BL, Yamaoka L, **Small GW**, Conneally PM, Roses AD, Pericak-Vance MA. No genetic effect of α 1-antichymotrypsin in Alzheimer disease. *Genomics* 1996;33:53-56.
44. Relkin NR, Tanzi R, Breitner J, Farrer L, Gandy S, Haines J, Hyman B, Mullan M, Poirer J, Strittmatter W, Folstein M, Mayeux R, Petersen R, Roses A, Schenk D, **Small GW**, Vangool W, Cook-Deegan R, Fleck L, Kapp M, Karlinsky H, Pericak-Vance M, Post S, Wolpert C. Apolipoprotein E genotyping in Alzheimer's disease: Position statement of the National Institute on Aging/Alzheimer's Association Working Group. *Lancet* 1996;347:1091-1095.
45. **Small GW**, Birkett M, Meyers BS, Koran LM, Bystritsky A, Nemeroff CB, and the Fluoxetine Collaborative Study Group. Impact of physical illness on quality of life and antidepressant response in geriatric major depression. *Journal of the American Geriatrics Society* 1996;44:1220-1225.
46. Pritchard ML, Saunders AM, Gaskell PC, **Small GW**, Conneally PM, Rosi B, Yamaoka LH, Roses AD, Haines JL, Pericak-Vance MA. No association between very low density lipoprotein receptor (VLDL-R) and Alzheimer Disease in American Caucasians. *Neuroscience Letters* 1996;209:105-108.
47. Yang J, Huang SC, Mega M, Lin KP, Toga A, **Small GW**, Phelps ME. Investigation of partial volume correction methods for brain FDG-PET studies. *IEEE Transaction On Nuclear Science* 1996;43:3322-3327.
48. **Small GW**, Komo S, La Rue A, Saxena S, Phelps ME, Mazziotta JC, Saunders AM, Haines JL, Pericak-Vance MA, Roses AD. Early detection of Alzheimer disease by combining apolipoprotein E and neuroimaging. *Annals of the New York Academy of Sciences* 1996;802:70-78.
49. Haines JL, Pritchard ML, Saunders AM, Schildkraut JM, Growden JH, Gaskell PC, Farrer LA, Auerbach SA, Gusella JF, Locke PA, Rosi BL, Yamaoka L, **Small GW**, Conneally PM, Roses AD, Pericak-Vance MA. No association between α 1-antichymotrypsin and familial Alzheimer disease. *Annals of the New York Academy of Sciences* 1996;802:35-42.
50. **Small GW**, La Rue A, Komo S, Kaplan A, Mandelkern MA. Mnemonics usage and cognitive decline in age-associated memory impairment. *International Psychogeriatrics* 1997;9:47-56.
51. Schneider LS, **Small GW**, and the Fluoxetine Collaborative Study Group. Estrogen replacement and response to fluoxetine in a multicenter geriatric depression trial. *American Journal of Geriatric Psychiatry* 1997;5:97-106.
52. **Small GW**, Bystritsky A. Double-blind, placebo-controlled trial of two doses of abecarnil for geriatric anxiety. *Journal of Clinical Psychiatry* 1997;58(suppl.11):24-29.
53. **Small GW**, Noble EP, Matsuyama SS, Jarvik LF, Komo S, Kaplan A, Ritchie T, Pritchard ML, Saunders AM, Conneally PM, Roses AD, Haines JL, Pericak-Vance MA. The D2 dopamine receptor A1 allele in Alzheimer disease and aging. *Archives of Neurology* 1997;54:281-285.
54. Payami H, Schellenberg GD, Zareparsis S, Kaye J, Sexton GJ, Head MA, Matsuyama SS, Jarvik LF, Miller B, McManus DQ, Bird TD, Katzman R, Heston L, Norman D, **Small GW**. Evidence for association of the HLA-A2 allele with onset age of Alzheimer's disease. *Neurology* 1997;49:512-518.

55. Mega MS, Chen SS, Thompson PM, Woods RP, Karaca TJ, Tiwari A, Vinters HV, **Small GW**, Toga AW. Mapping histology to metabolism: Coregistration of stained whole-brain sections to premortem PET in Alzheimer's disease. *NeuroImage* 1997;5:157-153.
56. Pericak-Vance MA, Bass ML, Yamaoka LH, Gaskell PC, Scott WK, Terwedow HA, Menold MM, Conneally PM, **Small GW**, Vance JM, Saunders AM, Roses AD, Haines JL. Complete genomic screen in late-onset familial Alzheimer disease: Evidence for a new locus on chromosome 12. *Journal of the American Medical Association* 1997;278:1337-1341.
57. Scott WK, Yamaoka LH, Locke PA, Rosi BL, Gaskell PC, Saunders AM, Conneally PM, **Small GW**, Farrer LA, Growdon JH, Roses AD, Pericak-Vance MA, Haines JL. No association or linkage between an intronic polymorphism of presenilin-1 and sporadic or late-onset familial Alzheimer disease. *Genetic Epidemiology* 1997;14:307-315.
58. Scott WK, Stajich JM, Yamaoka LH, Speer MC, Vance JM, Roses AD, Pericak-Vance MA, Nance M, Hubble J, Koller W, Stern MB, Colcher A, Watts RL, Goetz C, Pappert E, Allen FH, Jankovic J, Ondo W, Hiner BC, Aminoff M, Dowling G, **Small GW**. Genetic complexity and Parkinson's disease. *Science* 1997;277:388-389.
59. **Small GW**, Rabins PV, Barry PP, Buckholtz NS, DeKosky ST, Ferris SH, Finkel SI, Gwyther LP, Khachaturian ZS, Lebowitz BD, McRae TD, Morris JC, Oakley F, Schneider LS, Streim JE, Sunderland T, Teri LA, Tune LE. Diagnosis and treatment of Alzheimer disease and related disorders: consensus statement of the American Association for Geriatric Psychiatry, the Alzheimer's Association, and the American Geriatrics Society. *Journal of the American Medical Association* 1997;278:1363-1371. (Reprinted in *Primary Psychiatry*).
60. Cherrier M, **Small GW**, La Rue A, Komo S. Mood state and cerebral metabolism in persons with age-associated memory impairment. *Psychiatry Research: Neuroimaging* 1997;76:67-74.
61. Ackerman DL, Greenland S, Bystritsky A, **Small GW**. Characteristics of fluoxetine versus placebo responders in a randomized trial of geriatric depression. *Psychopharmacology Bulletin* 1997;33:707-714.
62. Scott WK, Yamaoka LH, Bass ML, Gaskell PC, Conneally PM, **Small GW**, Farrer LA, Auerbach SA, Saunders AM, Roses AD, Haines JL, Pericak-Vance MA. No genetic association between LRP receptor and sporadic or late-onset familial Alzheimer disease. *Neurogenetics* 1998;1:179-183.
63. Mega MS, Thompson PM, Cummings JL, Back CL, Xu LQ, Zohoori S, Goldkorn A, Moussai J, Fairbanks L, **Small GW**, Toga AW. Sulcal variability in the Alzheimer's brain: correlations with cognition. *Neurology* 1998;50:145-151.
64. Thompson PM, Moussai J, Zohoori S, Goldkorn A, Khan AA, Mega MS, **Small GW**, Cummings JL, Toga AW. Cortical variability and asymmetry in normal aging and Alzheimer's disease. *Cerebral Cortex* 1998;8:492-509.
65. Pericak-Vance MA, Bass ML, Yamaoka LH, Gaskell PC, Scott WK, Terwedow HA, Menold MM, Conneally PM, **Small GW**, Saunders AM, Roses AD, Haines JL. Complete genomic screen in late-onset familial Alzheimer disease. *Neurobiology of Aging* 1998;19(Suppl):S39-42.
66. **Small GW**, Donohue JA, Brooks RL. An economic evaluation of donepezil in the treatment of Alzheimer's disease. *Clinical Therapeutics* 1998;20:838-850.
67. Levy ML, Cummings JL, Fairbanks LA, Hoover TM, **Small GW**. Apolipoprotein E genotype and non-cognitive symptoms in Alzheimer's disease. *Biological Psychiatry* 1999;45:422-425.
68. Pedersen NL, Miller BL, Wetherell JL, Vallo, J, Toga AW, Knutson N, Mehninger CM, **Small GW**, Gatz M. Neuroimaging findings in twins discordant for Alzheimer's disease. *Dementia and Geriatric Cognitive Disorders* 1999;10:51-58.
69. **Small GW**, Scott WK, Komo S, Yamaoka LH, Farrer LA, Auerbach SH, Saunders AM, Roses AD, Haines JL, Pericak-Vance MA. No association between the HLA-A2 allele and Alzheimer disease. *Neurogenetics* 1999;2:177-182.
70. **Small GW**, Chen ST, Komo S, Ercoli L, Bookheimer S, Miller K, Saxena S, Lavretsky H, Kaplan A, Dorsey D, Scott WK, Saunders AM, Haines JL, Roses AD, Pericak-Vance MA. Memory self-appraisal in middle-aged and older adults with the apolipoprotein E-4 allele. *American Journal of Psychiatry* 1999;156:1035-1038.
71. Rogaeva EA, Premkumar S, Grubber J, Serneels L, Scott W, Kawarai T, Yu G, Hill D, Aboudonia S, Martin E, Claxton C, Song Y, Roberge B, Saunders A, Roses AD, Schmechel D, Crane A, **Small GW**, Conneally PM, Haines JL, Van Leuven F, St. George-Hyslop P, Farrer LA, Pericak-Vance MA. An α -2 macroglobulin insertion-deletion polymorphism in Alzheimer disease. *Nature Genetics* 1999;22:19-20.
72. Grubber JM, Saunders AM, Crane AR, Scott WK, Martin ER, Haynes CS, Conneally PM, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. Analysis of association between Alzheimer disease and the K variant of butyrylcholinesterase (BCHE-K). *Neuroscience Letters* 1999;269:115-119.
73. Ackerman DL, Greenland S, Bystritsky A, **Small GW**. Side effects and time course of response in a placebo-controlled trial of fluoxetine in geriatric depression. *Journal of Clinical Psychopharmacology* 2000;20:658-665.
74. Scott WK, Grubber JM, Conneally PM, **Small GW**, Hulette CM, Rosenberg CR, Saunders AM, Roses AD, Haines JL, Pericak-Vance MA. Fine mapping of the chromosome 12 late-onset Alzheimer disease locus: Potential genetic and phenotypic heterogeneity. *American Journal of Human Genetics* 2000;66:922-932.

75. **Small GW**, Ercoli LM, Silverman DHS, Huang S-C, Komo S, Bookheimer SY, Lavretsky H, Miller K, Siddarth P, Mazziotta JC, Saxena S, Wu HM, Mega MS, Cummings JL, Saunders AM, Pericak-Vance MA, Roses AD, Barrio JR, Phelps ME. Cerebral metabolic and cognitive decline in persons at genetic risk for Alzheimer's disease. *Proceedings of the National Academy of Sciences USA* 2000;97:6037-6042.
76. 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. *New England Journal of Medicine* 2000;343:450-456.
77. Beck C, Cody M, Souder E, Zhang M, **Small GW**. Dementia diagnostic guidelines: Methodologies, results, and implementation costs. *Journal of the American Geriatrics Society* 2000;48:1183-1195.
78. Grubber JM, Saunders AM, Yamaoka LH, Scott WK, Martin ER, Hill DM, Poulton SH, Standen CL, Schemechel DE, Conneally PM, **Small GW**, Lai EH, Gilbert JR, Roses AD, Haines JL, Pericak-Vance MA. Analysis of chromosome 12 candidate genes in late-onset Alzheimer disease. *Alzheimer's Report* 2000;3:221-226.
79. Pericak-Vance MA, Grubber J, Bailey LR, Hedges D, West S, Santoro L, Kemmerer B, Hall JL, Saunders AM, Roses AD, **Small GW**, Scott WK, Conneally PM, Vance JM, Haines JL. Identification of novel genes in late-onset Alzheimer's disease. *Experimental Gerontology* 2000;35:1343-1352.
80. Halpain M, Jeste DV, Katz IR, Reynolds CF, **Small GW**, Borson S, Lebowitz B. Summer Research Institute: Enhancing research career development in geriatric psychiatry. *Academic Psychiatry* 2001;25:48-56.
81. **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. *International Journal of Geriatric Psychiatry* 2001;16:1071-1077.
82. Mega MS, Cummings JL, Masterman DM, Dinov ID, Felix J, O'Conner SM, Phelps ME, **Small GW**, Toga AW. Cognitive and metabolic responses to metrifonate therapy in Alzheimer's disease. *Neuropsychiatry, Neuropsychology, and Behavioral Neurology* 2001;14:63-68.
83. Schneider LS, Tariot PN, Lyketsos CG, Dagerman KS, Davis KL, Davis S, Hsiao JK, Jeste DV, Katz IR, Olin JT, Pollock BG, Rabins PV, **Small GW**, Lebowitz B, Lieberman JA. National Institute of Mental Health Clinical Antipsychotic Trials in Intervention Effectiveness (CATIE): Alzheimer's disease trial methodology. *American Journal of Geriatric Psychiatry* 2001;9:346-360.
84. Martin ER, Scott WK, Nance MA, Watts RL, Hubble JP, Koller WC, Lyons K, Pahwa R, Stern MB, Colcher A, Hiner BC, Jankovic J, Ondo WG, Allen FH Jr, Goetz CG, **Small GW**, Masterman D, Mastaglia F, Laing NG, Stajich JM, Ribble RC, Booze MW, Rogala A, Hauser MA, Zhang F, Gibson RA, Middleton LT, Roses AD, Haines JL, Scott BL, Pericak-Vance MA, Vance JM. Association of single-nucleotide polymorphisms of the tau gene with late-onset Parkinson disease. *Journal of the American Medical Association* 2001;286:2245-2250.
85. Scott WK, Nance MA, Watts RL, Hubble JP, Koller WC, Lyons K, Pahwa R, Stern MB, Colcher A, Hiner BC, Jankovic J, Ondo WG, Allen FH Jr, Goetz CG, **Small GW**, Masterman D, Mastaglia F, Laing NG, Stajich JM, Slotterbeck B, Booze MW, Ribble RC, Rampersaud E, West SG, Gibson RA, Middleton LT, Roses AD, Haines JL, Scott BL, Vance JM, Pericak-Vance MA. Complete genomic screen in Parkinson disease: Evidence for multiple genes. *Journal of the American Medical Association* 2001;286:2239-2244.
86. Knopman DS, DeKosky ST, Cummings JL, Chui H, Corey-Bloom J, Relkin N, **Small GW**, Miller B, Stevens JC. Practice parameter: Diagnosis of dementia (an evidence-based review): Report of the Quality Standards Subcommittee of the American Academy of Neurology. *Neurology* 2001;56:1143-1153.
87. Rasgon NL, **Small GW**, Siddarth P, Miller K, Ercoli LM, Bookheimer SY, Lavretsky H, Huang S-C, Barrio JR, Phelps ME. Estrogen use and brain metabolic change in older adults. A preliminary report. *Psychiatry Research: Neuroimaging* 2001;107:11-18.
88. Silverman DHS, **Small GW**, Chang CY, Lu CV, Kung de Aburto MA, Chen W, Czernin J, Rapoport SI, Pietrini P, Alexander GE, Schapiro MB, Jagust WJ, Hoffman JM, Welsh-Bohmer KA, Alavi A, Clark CM, Salmon E, de Leon MJ, Mielke R, Cummings JL, Kowell AP, Gambhir SS, Hoh CK, Phelps ME. Positron Emission Tomography in evaluation of dementia: Regional brain metabolism and long-term clinical outcome. *Journal of the American Medical Association* 2001;286:2120-2127.
89. Schneider LS, **Small GW**, Clary C. Estrogen replacement therapy and antidepressant response to sertraline in older depressed women. *American Journal of Geriatric Psychiatry* 2001;9:393-399.
90. Agdeppa ED, Kepe V, Liu J, Flores-Torres S, Satyamurthy N, Petric A, Cole GM, **Small GW**, Huang SC, Barrio JR. Binding characteristics of radiofluorinated 6-dialkylamino-2-naphthylethylidene derivatives as PET imaging probes β -amyloid plaques in Alzheimer's disease. *Journal of Neuroscience* 2001;21:RC189:181-185.
91. Burggren AC, **Small GW**, Sabb FW, Bookheimer SY. Specificity of brain activation patterns in people at genetic risk for Alzheimer's disease. *American Journal of Geriatric Psychiatry* 2002;10:44-51.
92. **Small GW**, McDonnell DD, Brooks RL, Papadopoulos G. The impact of symptom severity on the cost of Alzheimer's disease. *Journal of the American Geriatrics Society* 2002;50:321-327.
93. Shoghi-Jadid K, **Small GW**, Agdeppa ED, Kepe V, Ercoli LM, Siddarth P, Read S, Satyamurthy N, Petric A, Huang SC, Barrio JR. Localization of neurofibrillary tangles and beta-amyloid plaques in the brains of living patients with Alzheimer's disease. *American Journal of Geriatric Psychiatry* 2002;10:24-35.

94. Silverman DHS, Gambhir SS, Huang J-WC, Schwimmer J, Kim S, **Small GW**, Chodosh J, Czernin J, Phelps ME. Evaluating early dementia with and without assessment of regional cerebral metabolism by PET: A comparison of predicted costs and benefits. *Journal of Nuclear Medicine* 2002;43:253-266.
95. Li Y-J, Scott WK, Hedges DJ, Zhang F, Gaskell PC, Nance MA, Watts RL, Hubble JP, Koller WC, Pahwa R, Stern MB, Hiner BC, Jankovic J, Allen FA, Goetz CG, Mastaglia F, Stajich JM, Gibson RA, Middleton LT, Saunders AM, Scott BL, **Small GW**, Reed AD, Schmechel DE, Welsh-Bohmer KA, Conneally PM, Roses AD, Gilbert JR, Vance JM, Haines JL, Pericak-Vance MA. Age-at-onset in two common neurodegenerative diseases is genetically controlled. *American Journal of Human Genetics* 2002;70:985-993.
96. Miller KJ, Conney JC, Rasgon NL, Fairbanks LA, **Small GW**. Mood symptoms and cognitive performance in women estrogen users, non-users, and men. *Journal of the American Geriatrics Society* 2002;50:1826-1830.
97. Mega MS, **Small GW**, Xu ML, Felix J, Ercoli LM, Bookheimer SY, Toga AW. Hippocampal atrophy in persons with age-associated memory impairment; Volumetry within a common space. *Psychosomatic Medicine* 2002;64:487-492.
98. Silverman DHS, **Small GW**. Prompt identification of Alzheimer's disease with brain PET imaging of a woman with multiple previous diagnoses of other neuropsychiatric conditions. *American Journal of Psychiatry* 2002;159:1482-1488.
99. Silverman DH, Cummings JL, **Small GW**, Gambhir SS, Chen W, Czernin J, Phelps ME. Added clinical benefit of incorporating 2-deoxy-2-[18F]fluoro-D-glucose with positron emission tomography into the clinical evaluation of patients with cognitive impairment. *Molecular and Imaging Biology* 2002;4:283-293.
100. Ercoli LM, Siddarth P, Dunkin JJ, **Small GW**. MMSE items predict cognitive decline in persons at genetic risk for Alzheimer's disease. *Journal of Geriatric Psychiatry and Neurology* 2003;16:67-73.
101. van der Walt JM, Martin ER, Scott WK, Zhang F, Nance MA, Watts RL, Hubble JP, Haines JL, Koller WC, Lyons K, Pahwa R, Stern MB, Colcher A, Hiner BC, Jankovic J, Ondo WG, Allen FH, Goetz CG, **Small GW**, Masterman D, Mastaglia F, Laing NG, Roses AD, Stajich JM, Booze MW, Fujiwara K, Gibson RA, Middleton LT, Scott BL, Pericak-Vance MA, Vance JM. Genetic polymorphisms of the N-acetyltransferase genes and risk of Parkinson's disease. *Neurology* 2003;60:1189-1191.
102. van der Walt JM, Nicodemus KK, Martin ER, Scott WK, Nance MA, Watts RL, Hubble JP, Haines JL, Koller WC, Lyons K, Pahwa R, Stern MB, Colcher A, Hiner BC, Jankovic J, Ondo WG, Allen Jr FH, Goetz CG, **Small GW**, Masterman D, Mastaglia F, Stajich JM, McLaurin AC, Middleton LT, Scott BL, Schmechel DE, Pericak-Vance MA, Vance JM. Mitochondrial polymorphisms significantly reduce the risk of Parkinson disease. *American Journal of Human Genetics* 2003;72:804-811.
103. Oliveira SA, Scott WK, Martin ER, Nance MA, Watts RL, Hubble JP, Koller WC, Pahwa R, Stern MB, Hiner BC, Ondo WG, Allen Jr FH, Scott BL, Goetz CG, **Small GW**, Mastaglia F, Stajich JM, Zhang F, Winn MP, Middleton LT, Haines JL, Pericak-Vance MA, Vance JM. Parkin mutations and susceptibility alleles in late-onset Parkinson disease. *Annals of Neurology* 2003;53:624-629.
104. Agdeppa ED, Kepe V, Petric A, Satyamurthy N, Liu J, Huang S-C, **Small GW**, Cole GM, Barrio JR. *In vitro* detection of (S)-naproxen and ibuprofen binding to plaques in the Alzheimer's brain using the positron emission tomography molecular imaging probe 2-(1-{6-[(2-[¹⁸F]fluoroethyl)(methyl)amino]-2-naphthyl}ethylidene)malononitrile. *Neuroscience* 2003;117:723-730.
105. Oliveira SA, Martin ER, Scott WK, Nicodemus KK, **Small GW**, Schmechel DE, Doraiswamy M, Roses AD, Saunders AM, Gilbert JR, Haines JL, Vance JM, Pericak-Vance MA. The Q7R Saitohin gene polymorphism is not associated with Alzheimer disease. *Neuroscience Letters* 2003;347:143-146.
106. Erkinjuntti T, Kurz A, **Small GW**, Bullock R, Lilienfeld S, et al. An open-label extension trial of galantamine in probable vascular dementia and mixed dementia. *Clinical Therapeutics* 2003;25:1765-1782.
107. Oliveira SA, Martin ER, Scott WK, Nance MA, Watts RL, Hubble JP, Koller WC, Lyons K, Pahwa R, Stern MB, Colcher A, Hiner BC, Jankovic J, Ondo WG, Allen Jr FH, Scott BL, Goetz CG, **Small GW**, Masterman D, Gibson RA, Mastaglia F, Laing NG, Stajich JM, Roses AD, Zhang F, Booze MW, Reaves JA, Winn M, Middleton LT, Haines JL, Pericak-Vance MA, Vance JM. Association study of Parkin gene polymorphisms with idiopathic Parkinson disease. *Archives of Neurology* 2003;60:975-980.
108. Kurz AF, Erkinjuntti T, **Small GW**, Lilienfeld S, Damaraju CV. Long-term safety and cognitive effects of Galantamine in the treatment of probable vascular dementia or Alzheimer's disease. *European Journal of Neurology* 2003;10: 633-640.
109. Lavretsky H, Ercoli LM, Siddarth P, Bookheimer S, Miller K, **Small GW**. Apolipoprotein E-4 allele status, depressive symptoms, and cognitive decline in middle-aged and elderly non-demented persons. *American Journal of Geriatric Psychiatry* 2003;11:667-673.
110. Li Y-J, Oliveira SA, Xu P, Martin ER, Stenger JE, Hulette C, Hauser MA, Scott WK, **Small GW**, Nance MA, Watts RL, Hubble JP, Koller WC, Pahwa R, Stern MB, Hiner BC, Jankovic J, Goetz CG, Mastaglia F, Middleton LT, Roses AD, Saunders AM, Welsh-Bohmer KA, Schmechel DE, Gullans SR, Haines JL, Gilbert JR, Vance JM, Pericak-Vance MA. Glutathione S-Transferase Omega 1 modifies age at onset of Alzheimer disease and Parkinson disease. *Human Molecular Genetics* 2003;12:3259-3267.

111. Silverman DHS, Truong CT, Kim SK, Chang CY, Chen W, Kowell AP, Cummings JL, Czernin J, **Small GW**, Phelps ME. Prognostic value of regional cerebral metabolism in patients undergoing dementia evaluation: Comparison to a quantifying parameter of subsequent cognitive performance and to prognostic assessment without PET. *Molecular Genetics and Metabolism* 2003;80:350-355.
112. Scott WK, Hauser ER, Schmechel DE, Welsh-Bohmer KA, **Small GW**, Roses AD, Saunders AM, Gilbert JR, Vance JM, Haines JL, Pericak-Vance MA. Ordered subsets linkage analysis detects novel Alzheimer disease loci on chromosomes 2q34 and 15q22. *American Journal of Human Genetics* 2003;73:1041-1051.
113. van der Walt JM, Dementieva YA, Martin ER, Scott WK, Nicodemus KK, Kroner CC, Welsh-Bohmer KA, Saunders AM, Roses AD, **Small GW**, Schmechel DE, Doraiswamy PM, Gilbert JR, Haines JL, Vance JM, Pericak-Vance MA. Analysis of European mitochondrial haplogroups with Alzheimer disease risk. *Neuroscience Letters* 365:28-32, 2004.
114. Li Y-J, Hauser MA, Scott WK, Martin ER, Nance MA, Hubble JP, Koller WC, Pahwa R, Stern MB, Hiner BC, Jankovic J, Goetz CG, **Small GW**, Mastaglia F, Booze MW, Haines JL, Pericak-Vance MA, Vance JM. Apolipoprotein E controls the risk and age at onset of Parkinson disease. *Neurology* 2004;62:2005-2009.
115. Farlow MR, **Small GW**, Quarg P, Krause A. Efficacy of rivastigmine in Alzheimer's disease patients with rapid disease progression: Results of a meta-analysis. *Dementia and Geriatric Cognitive Disorders* 2005;20:192-197.
116. Rasgon NL, Silverman DH, Siddarth P, Miller K, Ercoli LM, Elman S, Lavretsky H, Huang S-C, Phelps ME, **Small GW**. Estrogen use and brain metabolic change in postmenopausal women at risk for Alzheimer's disease. *Neurobiology of Aging* 2005;26:229-235.
117. Miller KJ, Rogers SA, Siddarth P, **Small GW**. Object naming and semantic fluency among individuals with genetic risk for Alzheimer's disease. *International Journal of Geriatric Psychiatry* 2005;20:128-136.
118. **Small GW**, Kaufer D, Mendiondo MS, Quarg P, Spiegel R. Cognitive performance in Alzheimer's disease patients receiving rivastigmine for up to five years. *International Journal of Clinical Practice* 2005;59:473-477.
119. Shoghi-Jadid K, Barrio JR, Kepe V, Wu HM, **Small GW**, Phelps ME, Huang SC. Imaging beta-amyloid fibrils in Alzheimer's disease: A critical analysis through simulation of amyloid fibril polymerization. *Nuclear Medicine and Biology* 2005;32:337-351.
120. Martin E, Bronson P, Li Y-J, Wall N, Schmechel D, **Small GW**, Xu P-T, Bartlett J, Schnetz-Boutaud N, Haines J, Gilbert J, Pericak-Vance M. Interaction between the α -T catenin gene (VR22) and APOE in Alzheimer's disease. *Journal of Medical Genetics* 2005;42:787-792.
121. Kepe V, Barrio JR, Huang S-C, Ercoli L, Siddarth P, Shoghi-Jadid K, Cole GM, Satyamurthy N, Cummings JL, **Small GW**, Phelps ME. Serotonin 1A receptors in the living brain of Alzheimer's disease patients. *Proceedings of the National Academy of Sciences USA* 2006;103:702-707.
122. Ercoli LM, Siddarth P, Huang S-C, Miller K, Bookheimer SY, Wright BC, Phelps ME, **Small GW**. Perceived loss of memory ability and cerebral metabolic decline in persons with the apolipoprotein E-4 genetic risk for Alzheimer's disease. *Archives of General Psychiatry* 2006; 63:442-448.
123. **Small GW**, Silverman DHS, Siddarth P, Ercoli LM, Miller KJ, Wright BC, Bookheimer SY, Barrio JR, Phelps ME. Effects of a 14-day healthy longevity lifestyle program on cognition and brain function. *American Journal of Geriatric Psychiatry* 2006;14:538-545.
124. **Small GW**, Kepe V, Ercoli L, Siddarth P, Miller K, Bookheimer SY, Lavretsky H, Burggren AC, Cole G, Vinters HV, Thompson PM, Huang S-C, Satyamurthy N, Phelps ME, Barrio JR. PET of brain amyloid and tau in mild cognitive impairment. *New England Journal of Medicine* 2006;355:2652-2663.

Research Papers – Peer Reviewed (Submitted)

- S1. Nicodemus KK, Hedges DJ, Menold MM, Saunders AM, Gilbert JR, Conneally PM, **Small GW**, Haines JL, Pericak-Vance MA, Scott WK. Association between late-onset Alzheimer disease and microsatellite markers on chromosome 12 is modified by apolipoprotein E (APOE) genotype. Submitted to *American Journal of Human Genetics*.
- S2. Silverman DHS, Marseille DM, Hussain SA, Ercoli LM, Siddarth P, Czernin J, Phelps ME, **Small GW**. Early cerebral hypometabolism associated with educational and genetic risk factors for Alzheimer's disease. Submitted to *Archives of General Psychiatry*.
- S3. Wright BC, Siddarth P, Ercoli LM, Huang S-C, Bookheimer SY, **Small GW**. Influence of depressive symptoms on cerebral metabolism in people with age-related memory complaints. Submitted to *American Journal of Psychiatry*.
- S4. Lin PI, Martin ER, Bronson PG, Browning-Large C, **Small GW**, Schmechel DE, Welsh-Bohmer KA, Haines JL, Gilbert JR, Pericak-Vance MA. Exploring the association of glyceraldehyde-3-phosphate dehydrogenase gene and Alzheimer disease. Submitted to *Neurology*.
- S5. Burggren AC, Zeineh MM, Braskie MN, Thompson, PM, **Small GW**, Bookheimer SY. Reduced cortical thickness in hippocampal subregions in people at genetic risk for Alzheimer's disease. Submitted to *Annals of Neurology*.

- S6. Protas H, Huang S-C, Thompson P, Hayashi K, Yu C-L, **Small G**. Partial volume correction for FDG PET cortical surface maps. Submitted to *Proceedings and Abstracts, 2007 IEEE International Symposium on Biomedical Imaging: From Nano to Macro* (April 2007, Washington, D.C.)

Review Articles, Other Peer-Reviewed Publications (e.g., Journal Supplements)

- R1. **Small GW**. Geriatric psychiatry: A specialty in its youth. *Psychiatric Clinics of North America* 1982;5:229-232.
- R2. **Small GW**, Jarvik LF. Paranoid disorders in the aged: Diagnostic and therapeutic issues. *Psychiatric Clinics of North America* 1982;5:119-120.
- R3. **Small GW**, Jarvik LF. Depression in the aged: A commentary. *Psychiatric Clinics of North America* 1982;5:45-48.
- R4. Plotkin DA, **Small GW**. Pseudodementia: an approach to treatment. *Drug Therapy* 1984;14:195-203.
- R5. Ouslander JG, **Small GW**. Management of depression in the elderly patient with physical illness. *Geriatric Medicine Today* 1984;3:90-96.
- R6. **Small GW**. Psychiatric problems affecting dental care of the elderly. *Gerodontology* 1984;3:225-230.
- R7. **Small GW**, Natterson B. The elderly critically ill patient. *Problems in Critical Care* 1988;2:101-116.
- R8. **Small GW**. Tricyclic antidepressants for medically ill geriatric patients. *Journal of Clinical Psychiatry* 1989;50:27-31.
- R9. **Small GW**. Behavioral disorders in Alzheimer's disease: Depression is common. *Bulletin of Clinical Neurosciences* 1989;54:2-7.
- R10. **Small GW**, Margolin R, Guze BH. Positron emission tomographic studies of glucose metabolism in Alzheimer's disease. *Journal of Clinical Brain Imaging* 1990;1:3-12.
- R11. **Small GW**. Recognition and treatment of depression in the elderly. *Journal of Clinical Psychiatry* 1991;52:11-22.
- R12. **Small GW**, Randolph ET, Eth S. Symptomes predictifs d'hysterie collective (French translation of *Symptom predictors for mass hysteria*). *Medicine et Hygiene* 1993;51:1938-1940.
- R13. Reynolds CF, **Small GW**, Stein EM, Teri L. When depression strikes the elderly patient. *Patient Care* 1994;28:85-102.
- R14. Fernandez F, Levy JK, Lachar B, **Small GW**. The management of depression and anxiety in the elderly. *Journal of Clinical Psychiatry* 1995;56(Suppl 2):20-29.
- R15. **Small GW**, Howard RJ. Treatment of late-life depression: Progress and challenge. *International Psychogeriatrics* 1995;7(Suppl):3-6.
- R16. **Small GW**. Neuroimaging and genetic assessment for early diagnosis of Alzheimer's disease. *Journal of Clinical Psychiatry* 1996;57 (Suppl 14):9-13.
- R17. **Small GW**. Recognizing and treating anxiety in the elderly. *Journal of Clinical Psychiatry* 1997;58(Suppl 3):41-47.
- R18. **Small GW**. Differential diagnosis and early detection of dementia. *American Journal of Geriatric Psychiatry* 1998;6:S26-S33.
- R19. Schneider LS, Tariot PN, **Small GW**. Update on treatment for Alzheimer's disease and other dementias, in Dunner DL, Rosenbaum JF (Eds). *Psychiatric Clinics of North America: Annual of Drug Therapy* 1997;4:135-166.
- R20. **Small GW**. Early diagnosis of Alzheimer's disease, in Schneider LS (Ed). *Developments in Geriatric Psychiatry. New Directions for Mental Health Services* 1997;76:39-51.
- R21. **Small GW**. Treatment of Alzheimer's disease: Current approaches and promising developments. *American Journal of Medicine* 1998;104:32S-38S.
- R22. **Small GW**. Treatment of geriatric depression. *Depression* 1998;8(Suppl 1):32-42.
- R23. **Small GW**. The pathogenesis of Alzheimer's disease. *Journal of Clinical Psychiatry* 1998;59(Suppl 9):7-15.
- R24. **Small GW**, Leiter F. Neuroimaging for diagnosis of dementia. *Journal of Clinical Psychiatry* 1998;59(Suppl 11):4-7.
- R25. **Small GW**. Estrogen effects on the brain. *Journal for Gender-Specific Medicine* 1998;1:23-27.
- R26. Silverman DHS, **Small GW**, Phelps ME. Clinical value of neuroimaging in the diagnosis of dementia: sensitivity and specificity of regional cerebral metabolic and other parameters for early identification of Alzheimer's disease. *Clinical Positron Imaging* 1999;2:119-130.
- R27. **Small GW**. Hormone treatments for behavioral and psychological symptoms of dementia. *International Psychogeriatrics* 2000;12(Suppl 1):291-295.
- R28. **Small GW**. Treatment of Alzheimer's disease: current approaches and future prospects, in Dunner DL, Rosenbaum JF (Eds). *Psychiatric Clinics of North America: Annual of Drug Therapy* 2000;7:201-218.
- R29. **Small GW**. Genetics of Alzheimer's disease: Apolipoprotein E in research and practice. *International Journal of Geriatric Psychopharmacology* 2000;2:109-112.

- R30. **Small GW**. Investigations into Geriatric Psychiatry Challenges: AAGP Senior Investigator Award 2000. *American Journal of Geriatric Psychiatry* 2000;8:276-283.
- R31. **Small GW**, de Leon MJ, Foster NL, Friedland RP, O'Brien JT. Brain imaging and Alzheimer's disease: Clinical and post-mortem validation studies. *NeuroScience News* 2000;3:30-37.
- R32. **Small GW**. When is it Alzheimer's? *Hippocrates* 2000;14:33-38.
- R33. **Small GW**. State-of-the-Art Alzheimer's treatment. *Hippocrates* 2000;14:47-50.
- R34. **Small GW**, Tariot PN, Katz PR Teamwork in Alzheimer's disease: The interdisciplinary approach to treatment. *Journal of the American Medical Directors Association* 2000;1(Suppl):S11-S14.
- R35. **Small GW**. Meeting the challenges of vascular dementia: Introduction. *International Journal of Clinical Practice* 2001;suppl 120:1-4.
- R36. Jann MW, Shirley KL, **Small GW**. Clinical pharmacokinetics and pharmacodynamics of cholinesterase inhibitors. *Clinical Pharmacokinetics* 2002;41:719-739.
- R37. **Small GW**. What we need to know about age related memory loss. *British Medical Journal* 2002;324:1502-1505.
- R38. **Small GW**. Brain-imaging surrogate markers for detection and prevention of age-related memory loss. *Journal of Molecular Neuroscience* 2002;19:17-21.
- R39. **Small GW**. Use of neuroimaging to detect early brain changes in people at genetic risk for Alzheimer's disease. *Advanced Drug Delivery Reviews* 2002;54:1561-1566.
- R40. Kostrey E, **Small GW**. Neuroimaging techniques and strategies for early detection of Alzheimer's disease. *CPD Bulletin Old Age Psychiatry* 2002;3:70-73.
- R41. **Small GW**. Overview: Vascular dementia: Galantamine (Reminyl) as an emerging therapeutic option. *Acta Neurologica Scandinavica* 2002;106 (Suppl):4-5.
- R42. **Small GW**. The role of neuroimaging in the diagnosis of vascular dementia. *Supplement to Acta Neurologica Scandinavica* 2002;106 (Suppl):10-14.
- R43. **Small GW**, Agdeppa ED, Kepe V, Satyamurthy N, Huang S-C, Barrio JR. *In vivo* brain imaging of tangle burden in humans. *Journal of Molecular Neuroscience* 2002;19:323-327.
- R44. **Small GW**. Age-related memory loss: early detection and prevention strategies. *The Economics of Neuroscience* 2003;5:48-54.
- R45. **Small GW**. Assessing economic benefits in Alzheimer's disease (In Japanese). *Clinical Psychopharmacology* 2003;6:867-877.
- R46. **Small GW**, Erkinjuntti T, Kurz A, Lilienfeld S. Galantamine in the treatment of cognitive decline in patients with vascular dementia or Alzheimer's disease with cerebrovascular disease. *CNS Drugs* 2003;17:905-914.
- R47. Agdeppa ED, Kepe V, Liu J, **Small GW**, Huang S-C, Petric A, Satyamurthy N, Barrio JR. 2-Dialkylamino-6-acylmalononitrile substituted naphthalenes (DDNP analogs): Novel diagnostic and therapeutic tools in Alzheimer's disease. *Molecular Imaging and Biology* 2003;5:404-417.
- R48. **Small GW**. Neuroimaging as a diagnostic tool in dementia with Lewy bodies. *Dementia & Geriatric Cognitive Disorders* 2004;17:25-31.
- R49. **Small GW**. What does imaging add to the management of Alzheimer's disease? *CNS Spectrums* 2004;9(Suppl 5):20-23.
- R50. Orgogozo J-M, **Small GW**, Hammond G, Van Baelen B, Schwalen S. Effects of galantamine in patients with mild Alzheimer's disease. *Current Medical Research and Opinion* 2004;20:1815-1820.
- R51. Grossberg GT, Corey-Bloom J, **Small GW**, Tariot PN. Academic highlights: Emerging therapeutic strategies in Alzheimer's disease. *Journal of Clinical Psychiatry* 2004;65:255-266.
- R52. **Small GW**, Kepe V, Barrio JR. Seeing is believing: Neuroimaging adds to our understanding of cerebral pathology. *Current Opinion in Psychiatry* 2006;19:564-569.
- R53. **Small GW**. Diagnostic issues in dementia: Neuroimaging as a surrogate marker of disease. *Journal of Geriatric Psychiatry and Neurology* 2006; 19:180-185 [reprinted in Sunderland T, Jeste D, Baiyewu O, Sirovatka PJ, Regier DA (eds): *Diagnostic Issues in Dementia: Advancing the Research Agenda for DSM-V*. Washington, DC, American Psychiatric Association, 2007].
- R54. Kepe V, Huang S-C, **Small GW**, Barrio JR. Visualizing pathology deposits in the living brain of Alzheimer's disease patients. *Methods Enzymology* 2006;412:144-160.

Books, Journal Volumes (Edited or Authored)

- B1. Jarvik LF, **Small GW** (Eds). *Psychiatric Clinics of North America*, Issue on Aging, Vol. 5, No. 1, 1982, 236 pages.
- B2. Coombs RH, May DS, **Small GW** (Eds). *Inside Doctoring: Stages and Outcomes in the Professional Development of Physicians*. New York: Praeger, 1986, 299 pages.
- B3. Jarvik LF, **Small GW**. *Parentcare*. Crown: New York: 1988, 320 pp.(hardback edition); Bantam, New York: 1990, 388 pp. (paperback edition). [Reviewed in *J Geriatr Psychiatry Neurol* 1989;2:167; *JAMA* 1988;260:3204, *Am J Psychiatry* 1989;146:792, *J Am Med Assoc* 1989;44:135]

- B4. Beck JC, Abrass IB, Burton JR, Cummings JL, Makinodan T, **Small GW** (Eds). *The Year Book of Geriatrics and Gerontology* 1988. Year Book Medical Publishers: Chicago: 1988, 319 pages.
- B5. Beck JC, Abrass IB, Burton JR, Cummings JL, Makinodan T, **Small GW** (Eds). *The Year Book of Geriatrics and Gerontology* 1989. Year Book Medical Publishers: Chicago: 1989, 312 pages.
- B6. Beck JC, Abrass IB, Burton JR, Cummings JL, Makinodan T, **Small GW** (Eds). *The Year Book of Geriatrics and Gerontology* 1990. Year Book Medical Publishers: Chicago: 1990, 318 pages.
- B7. Beck JC, Abrass IB, Burton JR, Cummings JL, Makinodan T, **Small GW** (Eds). *The Year Book of Geriatrics and Gerontology* 1991. Year Book Medical Publishers: Chicago: 1991, 291 pages.
- B8. Beck JC, Abrass IB, Burton JR, Cummings JL, Makinodan T, **Small GW** (Eds). *The Year Book of Geriatrics and Gerontology* 1992. Year Book Medical Publishers: Chicago: 1992, 314 pages.
- B9. Beck JC, Burton JR, Goldstein S, Reuben DB, **Small GW**, Whitehouse PJ (Eds). *The Year Book of Geriatrics and Gerontology* 1993. Year Book Medical Publishers: Chicago: 1993, 369 pages.
- B10. Beck JC, Burton JR, Goldstein S, Reuben DB, **Small GW**, Whitehouse PJ (Eds). *The Year Book of Geriatrics and Gerontology* 1994. Year Book Medical Publishers: Chicago: 1994, 417 pages.
- B11. Beck JC, Burton JR, Goldstein S, Reuben DB, **Small GW**, Whitehouse PJ (Eds). *The Year Book of Geriatrics and Gerontology* 1995. Year Book Medical Publishers: Chicago: 1995, 463 pages.
- B12. **Small GW**, Howard RJ (Editors). Issue on treatment of late-life depression. *International Psychogeriatrics* 1995;7(suppl).
- B13. Schneider LS, **Small GW** (Editors): Issue on clinical developments in Alzheimer's disease. *Journal of Clinical Psychiatry* 1996;57(Suppl 15).
- B14. **Small GW** (Geriatric Psychiatry Section Editor). In Sadock BJ, Sadock VA (Eds). *Comprehensive Textbook of Psychiatry/VII*. . Seventh edition. Williams & Wilkins: Baltimore, 1999.
- B15. Reuben DB, Herr K, Pacala JT, Potter JF, Semla TP, **Small GW**. *Geriatrics At Your Fingertips: 2001 Edition*. Excerpta Medica: New Jersey, 2001, 215 pages.
- B16. **Small GW** (Section Editor). Sadavoy J, Jarvik LF, Grossberg G, Meyers B (Eds). *Comprehensive Review of Geriatric Psychiatry*. Third edition. American Psychiatric Press: Washington DC, 2001.
- B17. **Small GW** (Guest Editor). Meeting the challenges of vascular dementia. *International Journal of Clinical Practice* 2001: 120(suppl).
- B18. **Small GW**. *The Memory Bible: An Innovative Strategy for Keeping Your Brain Young*. Hyperion, New York, 2002 (in U.S. and Canada; Penguin, London [United Kingdom, Australia, New Zealand]). Also published in Catalan, China, France, Germany, Israel, Japan, Korea, Netherlands, Poland, Russia, Saudi Arabia, Spain, Serbia, Sweden, Turkey, Taiwan).
- B19. **Small GW**, Vorgan G. *The Memory Prescription: Dr. Gary Small's 14-Day Plan to Keep Your Brain and Body Young*. Hyperion, New York, 2004 (also published in China, Italy, Japan, Netherlands, South Korea, Taiwan).
- B20. **Small GW** (Contributing Editor and Geriatric Psychiatry Section Editor). In Sadock BJ, Sadock VA (Eds). *Comprehensive Textbook of Psychiatry*. Eighth edition. Williams & Wilkins, Baltimore 2005.
- B21. **Small GW**, Vorgan G. *The Longevity Bible*. Hyperion, New York, 2006 (also to be published in Brazil, China, Germany, Romania, Spain, and Taiwan).

Book Chapters

- C1. Read SL, **Small GW**, Jarvik LF. Dementia syndrome, in RE Hales, AJ Frances (Eds). *American Psychiatric Association Annual Review -- Vol. 4*. American Psychiatric Press, Inc.: Washington, D.C., 1985, pp. 211-226.
- C2. Jarvik LF, **Small GW**. Geriatric psychiatry: introduction and overview, in Kaplan HE, Sadock BJ (Eds). *Comprehensive Textbook of Psychiatry/V*. Fifth edition. Williams & Wilkins: Baltimore, 1989, pp. 2013-2014.
- C3. **Small GW**. Geriatric psychiatry: Alzheimer's disease and other dementing disorders, in Kaplan HE, Sadock BJ (Eds). *Comprehensive Textbook of Psychiatry/V*. Fifth edition. Williams & Wilkins: Baltimore, 1989, pp. 2028-2031.
- C4. **Small GW**. Geriatric psychiatry: psychiatric problems of the medically ill geriatric patient, in Kaplan HE, Sadock BJ (Eds). *Comprehensive Textbook of Psychiatry/V*. Fifth edition. Williams & Wilkins: Baltimore, 1989, pp. 2049-2053.
- C5. **Small GW**. Treatment of dementia and amnestic syndromes, in Karasu TB (Ed). *Treatments of Psychiatric Disorders. A Task Force Report of the American Psychiatric Association*. Washington, D.C.: APPI, 1989, pp. 815-831.
- C6. **Small GW**. Psychiatric aspects of dementia, in Swash M, Oxbury J (Eds). *Clinical Neurology*. Churchill Livingstone: Edinburgh, 1991, pp. 164-172.
- C7. Jarvik LF, **Small GW**. Geriatric psychiatry, in Kaplan HE, Sadock BJ (Eds). *Comprehensive Textbook of Psychiatry/VI*. Sixth edition. Williams & Wilkins: Baltimore, 1995, pp. 2507-2513.
- C8. **Small GW**. Alzheimer's disease and other dementing disorders, in Kaplan HE, Sadock BJ (Eds). *Comprehensive Textbook of Psychiatry/VI*. Sixth edition. Williams & Wilkins: Baltimore, 1995, pp. 2562-2565.

- C9. Unutzer J, **Small GW**. Geriatric psychiatric consultation services, in Abrams WB, Beers MH, Berkow R (Eds). *The Merck Manual of Geriatrics*. Second edition. Merck Research Laboratories: Whitehouse Station, NJ, 1995, pp. 1249-1253.
- C10. Corder EH, Saunders AM, Risch NJ, Strittmatter WJ, Schmechel DE, Gaskell PC, Rimmler JB, Locke PA, Conneally M, Schmechel KE, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. Apolipoprotein E and the epidemiology of Alzheimer's disease, in Iqbal K, Mortimer JA, Winblad B, Wisniewski HM (Eds). *Research Advances in Alzheimer's Disease and Related Disorders*. John Wiley & Sons: New York, 1995.
- C11. **Small GW**, Gunay I. Geriatric medicine and consultation-liaison psychiatry, in Rundell JR, Wise MG (Eds). *American Psychiatric Press Textbook of Consultation-Liaison Psychiatry*. American Psychiatric Press: Washington DC, 1996, pp. 878-898. (Condensed version in *Essentials of Consultation-Liaison Psychiatry* 1999, pp. 479-492).
- C12. Unutzer J, **Small GW**. Geriatric consultation-liaison psychiatry, in Sadavoy J, Lazarus LW, Jarvik LF (Eds). *Comprehensive Review of Geriatric Psychiatry*. Second edition. American Psychiatric Press: Washington DC 1996, pp. 937-972.
- C13. **Small GW**, Mazziotta JC, Baxter LR, Phelps ME, Mandelkern MA, La Rue A, Komo S, Kaplan A, Saunders AM, Haines JL, Pericak-Vance MA, Roses AD. Neuroimaging, neuropsychological, and genetic assessments for early detection of Alzheimer disease, in Vellas B, Fitten LJ, Dubois B, Albaredo JL (Eds). *Facts and Research in Gerontology: Alzheimer Disease*. Springer: New York, 1996, pp. 39-53.
- C14. Pericak-Vance MA, Conneally PM, **Small GW**, Saunders AM, Yamaoka L, Gaskell PC, Robinson C, Ter-Minassian M, Locke PA, Pritchard M, Haynes CS, Growden J, Gusella JF, Roses AD, Haines JL. The search for additional Alzheimer's disease genes, in Roses AD, Weisgraber KH, Christen Y (Eds). *Apolipoprotein E and Alzheimer's Disease*. Springer: New York, 1996, pp. 180-186.
- C15. Pericak-Vance MA, Gaskell PC, Conneally PM, **Small GW**, Saunders AM, Locke PA, Ter-Minassian M, Pritchard M, Ang J, Justice E, Haynes CS, Growden J, Roses AD, Haines JL. Complete genomic screen in late-onset familial Alzheimer's disease, in Iqbal K, Winblad B, Nishimura T, Takeda M, Wisniewski HM (Eds). *Alzheimer's Disease: Biology, Diagnosis and Therapeutics*. John Wiley & Sons Ltd: New York, 1997, pp. 111-115.
- C16. **Small GW**, Salzman C. Treatment of depression with new and atypical antidepressants, in Salzman C (Ed). *Clinical Geriatric Psychopharmacology, 3rd Edition*. Williams & Wilkins: Baltimore 1998, pp. 245-261.
- C17. **Small GW**. Dementia, in *Geriatrics Review Syllabus, 4th edition*. American Geriatrics Society, New York, NY; 1999 - 2001; pp. 103-111.
- C18. Jarvik LF, **Small GW**. Geriatric psychiatry: Introduction, in Sadock BJ, Sadock VA (Eds). *Comprehensive Textbook of Psychiatry/VII*. Seventh edition. Williams & Wilkins: Baltimore, 1999, pp. 2980-2988.
- C19. **Small GW**. Alzheimer's disease and other dementing disorders, in Sadock BJ, Sadock VA (Eds). *Comprehensive Textbook of Psychiatry/VII*. Seventh edition. Williams & Wilkins: Baltimore, 1999, pp. 3068-3073.
- C20. **Small GW**. Brain imaging surrogate markers for detection and prevention of cognitive aging and Alzheimer's disease, in Fillit H (Ed). *Drug Discovery and Development for Alzheimer's Disease*. Springer: New York, 2000, pp. 42-49.
- C21. **Small GW**. Dementia, in *Geriatrics Review Syllabus, 5th edition*. American Geriatrics Society, Blackwell Publishing, NY, 2001, pp. 117-125.
- C22. **Small GW**, Ercoli LM, Silverman DHS, Huang S-C, Bookheimer SY, Lavretsky H, Miller K, Siddarth P, Mazziotta JC, Saunders AM, Pericak-Vance MA, Roses AD, Barrio JR, Phelps ME. Influence of APOE genotype and PET brain imaging on preclinical prediction of Alzheimer disease. In Iqbal K, Sisodia SS, Winblad B (eds): *Alzheimer's Disease: Advances in Etiology, Pathogenesis and Therapeutics. The Proceedings of the 7th International Conference on Alzheimer's disease and Related Disorders*. John Wiley & Sons, Ltd: London, 2001; pp. 193-203.
- C23. Haines JL, Bailey LR, Grubber JM, Hedges D, Hall JL, West S, Santoro L, Kemmerer B, Saunders AM, Roses AD, **Small GW**, Scott WK, Conneally PM, Vance JM, Pericak-Vance MA. A genomic search for Alzheimer's disease genes. *Alzheimer's Disease: Advances in Etiology, Pathogenesis and Therapeutics. The Proceedings of the 7th International Conference on Alzheimer's disease and Related Disorders*. John Wiley & Sons, Ltd: London, 2001; pp. 33-43.
- C24. Unutzer J, **Small GW**, Gunay I. Geriatric medicine, in Wise MG, Rundell JR, (Eds). *American Psychiatric Association Textbook of Consultation-Liaison Psychiatry, Psychiatry in the Medically Ill*. Second Edition. American Psychiatric Publishing: Washington DC, 2002, pp. 853-869.
- C25. **Small GW**. Structural and functional brain imaging of Alzheimer disease, in Davis KL, Charney D, Coyle JT, Nemeroff C (Eds). *Neuropsychopharmacology the Fifth Generation of Progress*. Lippincott, Williams, & Wilkins: Philadelphia, 2002, pp. 1231-1242.
- C26. **Small GW**. Detecting Alzheimer's disease at the pre-symptomatic stage, in Sachdev P (Ed). *The Ageing Brain: The Neurobiology and Neuropsychiatry of Ageing*. Swets and Zietlinger, Lisse, Netherlands, 2003, pp. 259-274.

- C27. **Small GW.** The Psychiatry Report: Introduction. *The Psychiatry Report: Selected Sessions from the American Psychiatric Association's 2003 Annual Meeting* Direct One Communications 2004;1:1.
- C28. **Small GW.** Remembering names, in Ettus S (Ed). *The Experts Guide to 100 Things Everyone Should Know How to Do.* Clarkson Potter, New York, New York, 2004, pp. 88-90.
- C29. Salzman C, **Small GW.** Treatment of depression with new and atypical antidepressants, in Salzman C (Ed). *Clinical Geriatric Psychopharmacology, 4th Edition.* Williams & Wilkins, Baltimore 2004, pp. 305-333.
- C30. Lavretsky H, **Small GW.** Mixed cognitive and depressive syndromes, in Roose SP (Ed). *Late-Life Depression.* Oxford University Press, New York, 2004, pp. 81-94.
- C31. **Small GW.** Alzheimer's disease and other dementing disorders, in Sadock BJ, Sadock VA (Eds). *Comprehensive Textbook of Psychiatry, 8th Edition.* Williams & Wilkins, Baltimore 2005, pp. 3687-3693.
- C32. Jann M, **Small GW.** Cholinesterase inhibitors, in Sadock BJ, Sadock VA (Eds). *Comprehensive Textbook of Psychiatry, 8th Edition.* Williams & Wilkins, Baltimore 2005, pp. 2808-2817.
- C33. Jarvik LF, **Small GW.** Geriatric psychiatry: Introduction, in Sadock BJ, Sadock VA (Eds). *Comprehensive Textbook of Psychiatry, 8th Edition.* Williams & Wilkins, Baltimore 2005, pp. 3587-3595.
- C34. **Small GW,** Agdeppa ED, Ercoli LM, Miller K, Silverman DHS, Bookheimer SY, Kepe V, Satyamurthy N, Huang S-C, Phelps ME, Barrio JR. Genetic risk and neuroimaging measures for early detection of Alzheimer's disease, in Iqbal K, Winblad B (Eds). *Alzheimer's Disease and Related Disorders: Research Advances.* Ana Aslan International Academy of Aging: Bucharest, Romania, 2005, pp. 217-224.
- C35. Barton C, **Small GW,** Yaffe K. Dementia, in: Pompei P, Murphy JB, eds. *Geriatrics Review Syllabus: A Core Curriculum in Geriatric Medicine, 6th edition.* American Geriatrics Society, New York, NY, 2006, pp. 221-230.
- C36. Barrio JR, Kepe V, Satyamurthy N, Huang S-C, **Small GW.** Brain pathology and neuronal losses in the living brain of Alzheimer's patients. In *ICS 1290 Stroke and Dementia,* Elsevier, New York, 2006.

Book Chapters – In Press

- CP1. Kepe V, Huang S-C, **Small GW,** Satyamurthy N, Barrio JR. Microstructural imaging of neurodegenerative changes. In Silverman DHS (Ed). *PET in the Evaluation of Alzheimer's disease and Related Disorders,* Springer Science+Media, New Mexico, 2007.
- CP2. **Small GW.** Alzheimer's disease and other dementing disorders, in Sadock BJ, et al (Eds). *Comprehensive Textbook of Psychiatry, 9th Edition.* Williams & Wilkins, Baltimore 2007.

Letters to the Editor

- L1. **Small GW,** Mandel MR. The medically ill elderly, tricyclic response, and ECT. *American Journal of Psychiatry* 1981;138:703-704.
- L2. **Small GW.** House officer stress: The author replies. *Psychosomatics* 1982;23:650.
- L3. **Small GW.** Comment on "When psychiatric residents treat medical students." *General Hospital Psychiatry* 1982;4:167.
- L4. **Small GW.** Treatment of depression in the elderly. *Journal of the American Medical Association* 1983;249:2330-2331.
- L5. **Small GW,** Jarvik LF. DSM-III diagnosis of dementia. *American Journal of Psychiatry* 1983;140:948.
- L6. **Small GW.** Health manpower shortage in geriatric psychiatry. *Archives of General Psychiatry* 1983;40:1256.
- L7. **Small GW,** Jarvik LF. More on dementia syndrome. *Lancet* 1983;1:938.
- L8. **Small GW,** Borus JF. Toxic poisoning or mass hysteria? *New England Journal of Medicine* 1983;309:438-439.
- L9. Klein MV, **Small GW.** Money and medicine. *New England Journal of Medicine* 1984;311:542.
- L10. Davis JW, **Small GW.** Munchausen's syndrome in an 85-year-old man. *Journal of the American Geriatrics Society* 1985;33:154-155.
- L11. **Small GW,** Purcell JJ. Trazodone and cocaine abuse. *Archives of General Psychiatry* 1985;42:524.
- L12. **Small GW.** That boorish, insensitive, loudmouthed, crass physician in the elevator. *Journal of the American Medical Association* 1985;253:2645.
- L13. **Small GW.** Age at onset vs. age at examination of Alzheimer-type dementia. *American Journal of Psychiatry* 1986;143:271-272.
- L14. **Small GW.** Mass media and mass hysteria. *American Journal of Psychiatry* 1986;143:395-396.
- L15. **Small GW.** Revised ischemic score for diagnosing multi-infarct dementia -- Dr. Small replies to Drs. Wade and Hachinski. *Journal of Clinical Psychiatry* 1986;47:437-438.
- L16. **Small GW,** Spar JE, Plotkin DA. Oral tetrahydroaminoacridine (THA) in treatment of senile dementia, Alzheimer type. *New England Journal of Medicine* 1987;316:1603-1604.
- L17. **Small GW,** Siegel DJ. Borderline personality disorder in the elderly. *Canadian Journal of Psychiatry* 1987;32:414-415.
- L18. **Small GW,** Beck JC. Need for geriatric psychiatrists, Drs. Small and Beck reply. *American Journal of Psychiatry* 1989;146:288-289.

- L19. **Small GW.** Chronic fatigue syndrome. *New England Journal of Medicine* 1989;321:188.
- L20. Pardo MC, **Small GW.** The Alzheimer's disease research imperative. *American Journal of Psychiatry* 1989;146:1642-1643.
- L21. **Small GW,** Keatinge DW. Concurrent Munchausen's and 'VIP' syndromes. *Western Journal of Medicine* 1992;156:211-212.
- L22. **Small GW,** Rosenthal MJ. Coexistence of Alzheimer's disease and diabetes mellitus. *Journal of the American Geriatrics Society* 1992;40:1075-1076.
- L23. **Small GW.** The Hachinski ischaemic score: A re-evaluation. *International Journal of Geriatric Psychiatry* 1993;8:182.
- L24. **Small GW.** Sick building syndrome. *New England Journal of Medicine* 1993;329:504.
- L25. Brody AL, **Small GW.** On early Alzheimer's disease presenting as pseudoseizures. *American Journal of Geriatric Psychiatry* 1994;2:90-91.
- L26. Pericak-Vance MA, Corder EH, Saunders AM, Gaskell PC, Strittmatter WJ, Roses AD, Schmechel DE, **Small GW,** Haines JL. Alzheimer's disease and possible gene interaction. *Science* 1994;263:537.
- L27. Corder EH, Saunders AM, Strittmatter WJ, Schmechel DE, Gaskell PC, Roses AD, Pericak-Vance MA, **Small GW,** Haines JL. The apolipoprotein E *E4* allele and sex-specific risk of Alzheimer's disease. *Journal of the American Medical Association* 1995;273:373-374.
- L28. Boteva K, Vitek M, Mitsuda H, de Silva H, Xu P-T, **Small GW,** Gilbert JR. Mutation analysis of presenilin 1 gene in Alzheimer's disease. *Lancet* 1996;347:130-131.
- L29. **Small GW,** Rabins PV. Consensus statement on diagnosis and treatment of Alzheimer disease and related disorders: response of co-chairs. *Journal of the American Medical Association* 1998;279:655-656.
- L30. Scott WK, Grubber JM, Abou-Donia SM, Church TD, Saunders AM, Roses AD, Pericak-Vance MA, Conneally PM, **Small GW,** Haines JL. Further evidence linking late-onset Alzheimer disease with chromosome 12. *Journal of the American Medical Association* 1999;281:513-514.
- L31. Scott WK, Yamaoka LH, Stajich JM, Scott BL, Speer MC, Watts RL, Nance M, Hubble J, Koller W, Stern MB, Colcher A, Allen FH, Hiner BC, Jankovic J, Ondo W, Laing NG, Mastaglia F, Goetz C, Pappert E, **Small GW,** Masterman D, Haines JL, Davis T, Aminoff M, Dowling G, Vance JM, Roses AD, Pericak-Vance MA. The α -synuclein gene is not a major risk factor in familial Parkinson disease. *Neurogenetics* 1999;2:191-192.
- L32. **Small GW.** PET scans yield better results in AD. *Patient Care* 1999;14:10.
- L33. Silverman DHS, **Small GW.** Usefulness of positron emission tomography in evaluating dementia, In reply. *Journal of the American Medical Association* 2002;287:985-987
- L34. Schneider LS, **Small GW.** The increasing power of placebos in trials of antidepressants. *Journal of the American Medical Association* 2002;288:450.
- L35. Cummings JL, Silverman DHS, **Small GW,** Phelps M. The role of positron emission tomography in the diagnosis of Alzheimer's disease. *Journal of the American Geriatric Society* 2004;32:467-468.
- L36. **Small GW.** Response to "Possible role of Unsaturated Fatty Acids in a 14-Day Healthy Longevity Lifestyle Program" by Dr. Francesco Panza. *American Journal of Geriatric Psychiatry* (in press).

Brief Publications

- ED1. **Small GW.** Mass hysteria. *Western Journal of Medicine* (Epitome) 1985;142:682-683.
- ED2. **Small GW.** Psychopharmacology of the aged. *Western Journal of Medicine* (Epitome) 1987;147:76-77.
- ED3. **Small GW.** Geriatric psychopharmacology. *Western Journal of Medicine* (Epitome) 1989;151:312-313.
- ED4. **Small GW.** Research proposals: a guide to success. *Alzheimer Disease and Associated Disorders--An International Journal* (Book Review) 1991;5:211-212.
- ED5. **Small GW.** Memory, aging, and dementia. *Alzheimer Disease and Associated Disorders--An International Journal* (Book Review) 1991;5:270-271.
- ED6. **Small GW,** Gilman LB. Dementia. *Journal of the American Medical Association* (Journal Review) 1992;267:1275-1276.
- ED7. Tierney H, **Small GW.** Genes, brain and behavior. *Alzheimer Disease and Associated Disorders--An International Journal* (Book Review) 1992;6:62-63.
- ED8. **Small GW.** Positron emission tomography in dementia. *American Journal of Psychiatry* (Book Review) 1993;150:1743.
- ED9. **Small GW.** Hannah's heirs: the quest for the genetic origins of Alzheimer's disease. *American Journal of Geriatric Psychiatry* (Book Review) 1994;2:86-87.
- ED10. **Small GW.** Geriatric psychiatry: key research topics for clinicians. *American Journal of Geriatric Psychiatry* (Book Review) 1997;5:271-272.
- ED11. **Small GW.** Commentary on American Medical Directors Association (AMDA)--*Depression: Clinical Practice Guideline. Abstracts of Clinical Care Guidelines. A Joint Commission Newsletter* 1997.
- ED12. **Small GW.** Living better longer through technology. *International Psychogeriatrics* 1999;11:3-6.
- ED13. **Small GW.** Neurobiology of primary degenerative dementia. *Psychiatric Times* (Book Review) 1999;16:49.

- ED14. **Small GW.** Positron emission tomography scanning for the early diagnosis of dementia would improve quality of care for patients and save money. *Western Journal of Medicine* 2000;171:293-294.
- ED15. **Small GW.** Positron emission tomography imaging of dementia. *Dialogues in Clinical Neuroscience* 2000;2:168-169.
- ED16. **Small GW.** The continuum of brain aging and dementia: Introduction. *The Psychiatry Report* 2003;1:1.
- ED17. **Small GW.** Boost your memory. *iVillage.com* 2003. ivillage.com/ivillagehealth/features/healthyresolutions/memory.
- ED18. **Small GW.** Vitamin E and donepezil for treating mild cognitive impairment. *AAGP Online Abstract Services*. 2005 (www.aagponline.org/abstracts/default.asp).

Brief Publications – In Press

- EDS1. **Small GW.** *The Estrogen-Depression Connection: The Hidden Link Between Hormones and Women's Depression*. Foreward. (New Harbinger Press, January 2007)

Abstracts

- A1. **Small GW, Nicholi AM.** Death and divorce in an epidemic of hysteria. *Massachusetts General Hospital - Research Activities* 1979;341-342.
- A2. **Small GW, Nicholi AM.** Divorce and death in epidemics of conversion. *Scientific Proceedings, American Psychiatric Association* 1980;278.
- A3. **Clark EO, D'Elia LF, La Rue A, Masters MR, Small GW.** Does anti-hypertensive medication improve cognitive functioning in the elderly? *The Gerontologist* 1982;22:113.
- A4. **Small GW, Borus JF.** Sudden mass illness: Poisoning or hysteria? *Scientific Proceedings, American Psychiatric Association* 1983;257.
- A5. **Small GW, Read SL, Schoene-Seifert B, Steuer JL, Winslade WJ.** Consent responsibility in treatment decisions for the demented patient. *The Gerontologist* 1983;23:282.
- A6. **Small GW.** Multi-infarct dementia: The ischemic score revised. *Scientific Proceedings, American Psychiatric Association* 1984;160.
- A7. **Small GW, Rosenbaum JF.** Nine psychiatric inpatients who leaped from a height. *Digest of Psychiatry and Neurology* 1984; June-July.
- A8. **Small GW, Nicholi AM.** Mass hysteria among school children. *1984 Yearbook of Pediatrics*. Year Book Medical Publishers: Chicago, 1984.
- A9. **Small GW, Matsuyama SS.** HLA antigens and dementia of the Alzheimer type. *Scientific Proceedings, American Psychiatric Association* 1985;166.
- A10. **Matsuyama SS, Small GW.** Human leukocyte antigens (HLA) in Alzheimer disease. *Age* 1985;8:90.
- A11. **Small GW, Matsuyama SS, Komanduri R, Kumar V, Jarvik LF.** Thyroid and Alzheimer disease: Is there a relationship? *The Gerontologist* 1985;25:220.
- A12. **Small GW.** Mass hysteria and the media. *Scientific Proceedings, American Psychiatric Association* 1986;222.
- A13. **Kuhl DE, Small GW, Riege WH, Fujikawa DG, Metter EJ, Benson DF, Ashford JW, Mazziotta JC, Maltese A, Dorsey DA.** Abnormal PET-FDG scans in early Alzheimer's disease. *Journal of Nuclear Medicine*: 1987;28:645.
- A14. **Small GW, Kuhl DE, Riege WH, Fujikawa DG, Metter EJ.** Diagnosis of Alzheimer subtypes with PET scan. *American Psychiatric Association Annual Meeting, New Research Abstracts* 1987;93.
- A15. **Small GW, Komanduri R.** Physical symptoms in patients with primary degenerative dementia. *Psychiatry Digest* 1987;5:27-28.
- A16. **Kuhl DE, Small GW, Riege WH, Fujikawa DG, Metter EJ, Benson DF, Ashford JW, Mazziotta JC, Maltese A, Dorsey DA.** Cerebral metabolic patterns before the diagnosis of probable Alzheimer's disease. *Journal of Cerebral Blood Flow and Metabolism* 1987;7(Suppl. 1):S406.
- A17. **Small GW, Kuhl D, Riege W, Fujikawa D, Metter E, Mazziotta J.** Local cerebral metabolic differences in subgroups of Alzheimer disease. *IIIrd Congress of the International Psychogeriatric Association* 1987;45-46.
- A18. **Mintzer J, D'Elia L, Mintz J, Small GW, Jarvik LF.** Are symptoms of anxiety and depression related in geriatric patients? *IIIrd Congress of the International Psychogeriatric Association* 1987;28.
- A19. **Small GW.** Calcium antagonist for treatment of dementia. *Scientific Proceedings, American Psychiatric Association* 1988;238.
- A20. **Riege WH, Metter EJ, Kuhl DE, Lanto AB, Small GW, Fujikawa DG, Mazziotta JC, Dorsey DA, Maltese A.** Alzheimer's disease: cerebral metabolic abnormalities coincide with early memory deficits. *Society of Neurosciences Abstracts* 1987;13 (Pt 3):1628.
- A21. **Metter EJ, Riege WH, Kuhl DE, Fujikawa DG, Small GW.** Cortical glucose metabolic asymmetries in Alzheimer's disease. *Society of Neurosciences Abstracts* 1987;13 (Pt 2):814.
- A22. **Small GW.** Treatment of dementia in the geriatric patient. *Scientific Proceedings, American Psychiatric Association* 1988;18.

- A23. **Small GW**. Psychopharmacologic treatments of elderly demented patients. *Psychiatry Digest* 1989;1:12-13.
- A24. **Small GW**, Fawzy FI. Psychiatric consultation for the medically ill elderly in the general hospital: Need for a collaborative model of care. *International Synopses* 1989.
- A25. **Small GW**, Greenberg DA. Biologic markers, genetics, and Alzheimer's disease. *Parkinson/Alzheimer Digest* 1989;3:2-3.
- A26. Hoffman JM, Guze BH, Baxter L, Hawkins TC, Fujikawa DG, Dorsey D, Maltese A, **Small GW**, Mazziotta JC, Kuhl DE. Metabolic homogeneity in familial and sporadic Alzheimer's disease: an FDG-PET study. *Neurology* 1989;39(Suppl):167.
- A27. **Small GW**. Social influences on mass hysteria. *Scientific Proceedings, American Psychiatric Association* 1990;191-192.
- A28. **Small GW**, Matsuyama SS, Heyman A, Reisner EG, Renvoize EB, Sulkava R. Variable HLA association in Alzheimer disease. *New Research Abstracts, American Psychiatric Association*, 1991.
- A29. Wiseman EJ, **Small GW**. Effect of age on psychiatric patient requests. *New Research Abstracts, American Psychiatric Association*, 1991.
- A30. **Small GW**. Heterogeneity of Alzheimer's disease according to age, sex, and familiarity. *Gerontologist* 1991;31:278.
- A31. **Small GW**. Fellowship recruitment: crisis or opportunity? *Scientific Proceedings, American Psychiatric Association* 1992;237.
- A32. **Small GW**, Okonek A, Mandelkern MA, La Rue A. Subjective memory loss and frontal metabolism. *American Psychiatric Association New Research Program and Abstracts* 1993;171.
- A33. **Small GW**, Leuchter LF, Okonek A, Mandelkern MA, La Rue A, Lufkin RB, Jarvik LF, Matsuyama SS, Bondareff W, Ropchan JR, Bland WH. Brain structure, neurophysiology and glucose metabolism of monozygotic twins discordant for Alzheimer's disease. *American Journal of Geriatric Psychiatry* 1993;1:260-261.
- A34. **Small GW**, Leuchter AF, Mandelkern MA, La Rue A, Okonek A, Lufkin RB, Jarvik LF, Matsuyama SS, Bondareff W. Clinical, neuroimaging, and environmental risk differences in monozygotic female twins appearing discordant for dementia of the Alzheimer type. *Parkinson/Alzheimer Digest*. 1993.
- A35. **Small GW**, Okonek A, La Rue A, Mandelkern MA, Bland W. Cerebral glucose metabolism and subjective memory loss in age-associated memory impairment. *West Coast College of Biological Psychiatry*, 1993.
- A36. Woodbury MA, Corder EH, Saunders AM, Strittmatter WJ, Schmechel D, Gaskell P, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. Grade of membership analysis distinguishes linkage from allelic association at the apolipoprotein E locus. *The American Journal of Human Genetics* 1993;53:1105.
- A37. Okonek A, **Small GW**, La Rue A, Mandelkern MA. Verbal and visual memory and cortical metabolism. *American Psychiatric Association New Research Program and Abstracts* 1993;60.
- A38. Corder EH, Saunders AM, Strittmatter WJ, Schmechel D, Gaskell P, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. Apolipoprotein E4 gene dose affects the risk of Alzheimer disease in late onset families. *American Society of Human Genetics* 1993.
- A39. Corder E, Saunders A, Strittmatter W, Schmechel D, Gaskell P, **Small GW**, Roses A, Haines J, Pericak-Vance M. The association of apolipoprotein E allele 4 with late onset Alzheimer disease contributes substantially to the prevalence of the disease. *9th International Conference on Pharmacoeconomics*, 1993.
- A40. **Small GW**, Mazziotta JC, Baxter LR, Phelps ME, Mandelkern MA, La Rue A, Saunders AM, Haines JL, Pericak-Vance MA, Roses AD. Brain function and genetic risk for early Alzheimer disease. *Annual Scientific Meeting, West Coast College of Biological Psychiatry*, 1994.
- A41. Corder EH, Saunders AM, Risch NJ, Strittmatter WJ, Schmechel DE, Gaskell PC, Rimmeler JB, Locke PA, Conneally PM, Schmechel KE, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. Apolipoprotein E type 2 allele decreases the risk of late-onset Alzheimer disease. *Neurobiology of Aging* 1994;15(Suppl. 1):S72-S73.
- A42. Corder E, Saunders A, Risch N, Strittmatter W, Schmechel D, Gaskell P, **Small GW**, Roses A, Haines J, Pericak-Vance M. Apolipoprotein E genotype and Alzheimer disease. *American Journal of Epidemiology* 1994;139:S35.
- A43. **Small GW**, Collins MT, Mazziotta JC, Baxter LR, Phelps ME, Mandelkern MA, Kaplan A, Adamson CF, Chang L, Guze BH, Corder EH, Conneally PM, Haines JL, Pericak-Vance MA, Roses AD. Apolipoprotein E type 4 allele is associated with lowered cerebral parietal metabolism in relatives at risk for familial Alzheimer disease. *Neurobiology of Aging* 1994;15(Suppl. 1):S155.
- A44. Pericak-Vance MA, Corder EH, Robinson LC, Termissian M, **Small GW**, Saunders AM, Locke P, Tanzi RT, Conneally PM, Gusella JF, Roses AD, Haines JL. Genomic screen to identify additional Alzheimer disease effects in late onset disease. *Neurobiology of Aging* 1994;15(Suppl. 1):S134.
- A45. Corder EH, Haynes CS, Saunders AM, Locke PA, Conneally PM, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. A Bayesian extension to the transmission disequilibrium test: application to apolipoprotein E and Alzheimer disease. *American Society of Human Genetics*, 1994.

- A46. La Rue A, **Small GW**, McPherson S, Komo S. Subjective memory loss in AAMI: family history, neuropsychological, and positron emission tomography (PET) correlates. *International Neuropsychological Society*, 1994.
- A47. **Small GW**, Schneider LS, Holman S, Brysritsky A, Meyers BS, Nemeroff CB. Estrogen plus fluoxetine for geriatric depression. *American Psychiatric Association New Research Program and Abstracts* 1994;203.
- A48. **Small GW**, Schneider LS, Holman S, Brysritsky A, Meyers BS, Nemeroff CB. Site variability in geriatric depression trial. *American Psychiatric Association New Research Program and Abstracts* 1994;182.
- A49. Schneider LS, **Small GW**, Farlow M, Pogoda JW, Hamilton SL. Does estrogen augment psychopharmacologic response in elderly patients? *American College of Neuropsychopharmacology*, 1995.
- A50. **Small GW**, La Rue A, Komo S, Kaplan A, Mandelkern MA. Decline predictors for age-related memory loss. *American Psychiatric Association Syllabus and Scientific Proceedings* 1995;19-20.
- A51. **Small GW**. Gender differences in aging brain function. *American Psychiatric Association Syllabus and Scientific Proceedings* 1995;71.
- A52. Schneider LS, **Small GW**, Farlow M, Pogoda JW, Hamilton SL. Does estrogen augment psychopharmacologic response in elderly patients? *American Journal of Geriatric Psychiatry* 1995;3:247-248.
- A53. **Small GW**. Memory and aging: update on neuropsychological, genetic, and brain imaging findings. *American Journal of Geriatric Psychiatry* 1995;3:255.
- A54. Yang J, Mega M, Lin KP, Huang SC, Toga A, **Small GW**, Phelps ME. Validation of a combined neural network art2 and statistical map method for brain MRI segmentation. *IEEE Medical Imaging Conference Abstracts*, 1995.
- A55. **Small GW**. Neuroimaging in dementia: utility or extravagance? *American Psychiatric Association Syllabus and Scientific Proceedings* 1995;255.
- A56. Lehmann LS, Guggenheim FG, Olsen EJ, **Small GW**, Dysken MW, Reading A. Veterans Affairs psychiatry research advances: geropsychiatry. *American Psychiatric Association Syllabus and Scientific Proceedings* 1995;179.
- A57. **Small GW**, La Rue A, Mazziotta J, Mandelkern M, Saunders A, Pericak-Vance M, Roses A. Genetics and brain imaging in dementia. *7th International Psychogeriatric Association Congress Abstracts*. 1995;33.
- A58. **Small GW**, Bystritsky A, Meyers BS, Nemeroff CB, Birkett M. Co-morbid disease states in the elderly and the impact on quality of life. *7th International Psychogeriatric Association Congress Abstracts*. 1995;33.
- A59. Roses AD, Devlin B, Conneally PM, **Small GW**, Saunders AM, Pritchard M, Locke PA, Haines JL, Pericak-Vance MA, Risch N. Measuring the genetic contribution of APOE in late-onset Alzheimer disease (AD). *Am J Hum Gen* 1995;57:suppl:A202.
- A60. Mega MS, Xu LQ, Karaca TJ, Altshuler LL, Payne BA, Cohen MS, **Small GW**, Cummings JL, Toga AW. Standardization of MRI volumetric studies: hippocampal atrophy predates clinical symptoms in individuals at risk for Alzheimer's disease. *American Academy of Neurology* 1995.
- A61. Matsuyama SS, Jarvik LF, Bondareff W, Cummings JL, Leuchter A, **Small GW**. Apolipoprotein E type 4 allele and early onset Alzheimer disease. *25th Annual Meeting of the American Aging Association*, 1995.
- A62. Bookheimer SY, Dapretto M, Cohen MS, Wang J, **Small GW**. Functional MRI of the hippocampus during short term memory tasks: parametric responses to task difficulty and stimulus novelty. *Second International Conference of Functional Mapping of the Human Brain* 1995;S531.
- A63. Cherrier M, **Small GW**, La Rue A, Komo S. Mood state and cerebral metabolism in persons with age-associated memory impairment. *Journal of the International Neuropsychological Society* 1996;2:661.
- A64. **Small GW**. Neuroimaging and diagnosis. *American Psychiatric Association Syllabus and Scientific Proceedings* 1996;284.
- A65. Scott WK, Yamaoka L, Locke PA, Rosi BL, Gaskell PC, Saunders AM, Conneally PM, **Small GW**, Farrer LA, Growden JH, Roses AD, Haines JL, Pericak-Vance MA. No association or linkage between the BamH1 polymorphism of the presenilin-1 gene and late-onset Alzheimer disease. *Fifth International Conference on Alzheimer's Disease and Related Disorders*, 1996.
- A66. **Small GW**, Saxena S, Mazziotta JC, Barrio JR, Cole GM, La Rue A, Mandelkern MA, Saunders AM, Haines JL, Pericak-Vance MA, Roses AD, Phelps ME. Strategies using PET for early detection of Alzheimer disease. *J Nucl Med* 1996;37(Suppl):79P.
- A67. **Small GW**, La Rue A, Komo S, Kaplan A, Mandelkern MA. Predictors of cognitive change in middle-aged and older adults with memory loss. *Focus on Neurology*, 1996.
- A68. Bookheimer SY, Dapretto M, **Small GW**, Wang J, Cohen M. Hippocampal activation during memory acquisition and retrieval using functional MRI. *Annual Meeting of the Society for Neuroscience*, 1996;22:967.
- A69. Thompson PM, Mega MS, Moussai J, Zohoori S, Xu LQ, Goldkorn A, Khan AA, Coryell J, **Small GW**, Cummings J, Toga AW. 3D probabilistic atlas an average surface representation of the Alzheimer's brain, with local variability and probability maps of ventricles and deep cortex. *Annual Meeting of the Society for Neuroscience* 1996;22:1105.

- A70. Yang J, Huang SC, **Small GW**, Phelps ME. MRI-based partial volume correction method for brain FDG-PET images. *J Nucl Med* 1996;37(Suppl):42P-43P.
- A71. Yang J, Huang SC, Lin KP, **Small GW**, Phelps ME. MRI-based elastic-mapping method for inter-subject and inter-group comparison of brain FDG-PET images. Conference Record of 1996 *IEEE Nucl. Sci. Symposium and Medical Imaging Conference*, Anaheim, California, Nov. 3-9, 1996.
- A72. **Small GW**, Noble EP, Matsuyama SS, Jarvik LF, Komo S, Kaplan A, Ritchie T, Pritchard ML, Saunders AM, Conneally PM, Roses AD, Haines JL, Pericak-Vance MA. The DRD2 A1 allele in aging and Alzheimer disease. *American Society of Human Genetics* 1996:A190.
- A73. Pritchard ML, Scott WK, Yamaoka LH, Locke PA, Rosi BL, Gaskell PC, Saunders AM, Conneally PM, **Small GW**, Farrer LA, Growdon JH, Roses AD, Pericak-Vance MA, Haines JL. No linkage or association between an intronic polymorphism of presenilin-1 and sporadic or late-onset familial Alzheimer disease. *American Society of Human Genetics*, 1996:A232.
- A74. Rogus JJ, Pericak-Vance MA, Gaskell PC, Saunders AM, **Small GW**, Harrington DP, Haines JL. Analysis of early onset Alzheimer disease genes in late onset families using WPC to incorporate APOE genotypes. *American Society of Human Genetics*, 1996:A234.
- A75. **Small GW**, Barrio JR, Cole GM, Bookheimer SY, Cohen MS, Mazziotta JC, Phelps ME, Saunders AM, Haines JL, Pericak-Vance MA, Roses AD. APOE and brain imaging for early detection of Alzheimer disease. *American College of Neuropsychopharmacology Scientific Abstracts*, 1996:17.
- A76. Scott WK, Yamaoka LH, Locke PA, Rosi BL, Gaskell PC, Saunders AM, Conneally PM, **Small GW**, Farrer LA, Growdon JH, Roses AD, Haines JL, Pericak-Vance MA. No association or linkage between the BamHI polymorphism of the Presenilin-I gene and late-onset Alzheimer disease. *Neurobiology of Aging* 1996; 17(4S):S14.
- A77. Pritchard ML, Scott WK, Yamaoka LH, Locke PA, Rosi BL, Gaskell PC, Saunders AM, Conneally PM, **Small GW**, Farrer LA, Growdon JH, Roses AD, Pericak-Vance MA, Haines JL. No linkage or association between an intronic polymorphism of Presenilin-I and sporadic or late-onset familial Alzheimer disease. *American Journal of Human Genetics* 1996;59(4S):A225.
- A78. Payami H, Schellenberg G, Zarepari S, Kaye J, Sexton G, Head M, Matsuyama S, Jarvik L, Miller B, McManus D, Bird T, Katzman R, Heston L, Norman D, **Small GW**. Association of HLA-A2 allele with onset age of Alzheimer disease. *Annual Meeting of the American Academy of Neurology*. 1997.
- A79. Ackerman DL, **Small GW**. Comparison of costs associated with antidepressant medications in a university-affiliated psychiatric hospital, 1994-1996. *Society for Epidemiologic Research*, 1997.
- A80. Ackerman DL, Greenland S, **Small GW**, Bystritsky A. Characteristics of fluoxetine vs. placebo responders in a randomized trial of geriatric depression. *Society for Epidemiologic Research*, 1997.
- A81. Ackerman DL, Greenland S, **Small GW**, Bystritsky A. Characteristics of fluoxetine vs. placebo responders in a randomized trial of geriatric depression. *NIMH NCDEU*, 1997;96.
- A82. Mega MS, **Small GW**, Xu ML, Kim RS, Toga AW. Family history of dementia and apolipoprotein E ϵ 4 allele reverse normal hippocampal asymmetry. *Society for Neuroscience Abstracts* 1997;Vol. 23, Part 2, p. 2216.
- A83. Payami H, Zarepari S, Kaye J, Schellenberg GD, Matsuyama SS, Jarvik LF, Miller B, Bird TD, McManus DQ, Katzman R, Heston L, Sexton GJ, Head MA, Norman D, **Small GW**. Genes and onset age of Alzheimer disease. *Society for Neuroscience Abstracts* 1997;Vol. 23, Part 2, p. 2215.
- A84. Ercoli LM, Bookheimer SY, Felix J, Kaplan AR, Mega M, **Small GW**. Functional MRI during memory tasks in persons with the APOE-4 allele. *Proceedings and Abstracts 2nd Annual UCLA Research Conference on Aging*. 1997;26.
- A85. **Small GW**, Scott WK, Yamaoka LH, Bass MP, Gaskell PC, Conneally PM, Farrer LA, Auerbach SA, Saunders AM, Roses AD, Haines JL, Pericak-Vance MA. No genetic association between the LRP receptor and sporadic or late-onset Familial Alzheimer Disease (AD). *American Journal of Human Genetics* 1997;61(Suppl):A295.
- A86. Thompson PM, Mega MS, Blanton RE, Moussai J, Khan AA, Zohoori S, Mogy J, Aron J, Goldkorn A, Holmes CJ, **Small GW**, Cummings J, MacDonald D, Evans AC, Collins RC, Toga AW. A detection system for mapping abnormal structure, anatomic variability & brain asymmetry in Alzheimer's disease & aging with 3D deformable probabilistic brain atlases. *Society for Neuroscience Abstracts* 1997;Vol. 23, Part 2, p. 2173.
- A87. Payami H, Zarepari S, Kaye J, Schellenberg GD, Matsuyama SS, Jarvik LF, McManus DQ, Miller B, Bird TD, Katzman R, Heston L, Sexton GJ, Head MA, Norman D, **Small GW**. HLA-A2 and onset age of Alzheimer disease. *American Journal of Human Genetics* 1997;61(Suppl):A317.
- A88. Bass MP, Scott WK, Terwedow HA, Menold MM, Aboudonia S, Yamaoka LH, Gaskell PC, Conneally PM, Schamel M, **Small GW**, Vance JM, Saunders AM, Roses AD, Haines JL, Pericak-Vance MA. The chromosome 12 AD locus is restricted to large late-onset pedigrees. *American Journal of Human Genetics* 1997;61(Suppl):A267.
- A89. **Small GW**, Bookheimer SY, Ercoli LM, Zeineh MM, Strojwas MH, Cohen MS, Felix J. Functional MRI of memory tasks in older persons with APOE-4. *American College of Neuropsychopharmacology Scientific Abstracts*, 1997.

- A90. **Small GW**. Recognizing and treating anxiety in the elderly. *Psychiatry Digest* February 1998;pp.5-6.
- A91. Scott WK, Yamaoka LH, Stajich JM, Speer MC, Scott BL, Nance M, Hubble J, Watts RL, Koller W, Jankovic J, Ondo W, Stern MB, Colcher A, Hiner BC, Allen FH, Goetz C, Pappert E, Mastaglia F, Laing NG, **Small GW**, Masterman D, Haines JL, Davis T, Aminoff M, Dowling G, Vance FM, Roses AD, Pericak-Vance MA. Exclusion of the α -synuclein gene as a major genetic risk factor in idiopathic Parkinson disease (PD). *American Academy of Neurology* 1998.
- A92. **Small GW**. Diagnostic testing: benefits or just costs? *American Psychiatric Association Syllabus and Scientific Proceedings* 1998;36B:317-318.
- A93. **Small GW**. Methods for early detection of memory loss. *American Psychiatric Association Syllabus and Scientific Proceedings* 1998;31C:312.
- A94. Schneider LS, **Small GW**, Clary C. ERT status and antidepressant response to sertraline. *American Psychiatric Association New Research Program & Abstracts* 1998;NR426:182.
- A95. Schneider LS, **Small GW**, Clary C. Does estrogen replacement therapy augment response to sertraline in depressed elderly women? *XXIst CINP Congress* 1998.
- A96. **Small GW**, Scott WK, Komo S, Yamaoka LH, Saunders AM, Roses D, Haines JL, Pericak-Vance MA. No association between the HLA-A2 allele and Alzheimer disease. *Neurobiology of Aging* 1998;19:S293.
- A97. Scott WK, Bass MP, Gaskell PC, Yamaoka LH, Conneally PM, **Small GW**, Saunders AM, Roses AD, Haines JL, Pericak-Vance MA. Two-locus maximum lod score analysis suggests APOE and the putative chromosome 12 locus exert independent effects in late-onset familial Alzheimer disease. *Neurobiology of Aging* 1998:S33.
- A98. Schneider, **Small GW**, Clary C. Estrogen replacement therapy status and antidepressant response to sertraline. *Proceedings and Abstracts 3rd Annual UCLA Research Conference on Aging*. 1998:A15.
- A99. Bookheimer S, Strojwas M, Ercoli L, Felix G, Zeineh M, **Small GW**. Differential patterns of memory activation during fMRI in genetically at-risk elderly volunteers. *Society for Neuroscience Abstracts* 1998;503:1269.
- A100. Ercoli LM, Bookheimer SY, Zeineh MM, Strojwas MH, Cohen MS, Felix J, **Small GW**. Functional MRI of memory tasks in older persons with APOE-4. *Proceedings and Abstracts 3rd Annual UCLA Research Conference on Aging*. 1998:A8.
- A101. Garcia ME, Hall JL, Scott WK, Aboudonia SA, Saunders AM, **Small GW**, Conneally PM, Roses AD, Pericak-Vance MA, Haines JL. Examination of linkage to Alzheimer disease (AD) for regions of chromosomes 4, 6, and 20. *American Journal of Human Genetics* 1998;63(4S):A290.
- A102. Gruber JM, Saunders AM, Crane AR, Scott WK, Martin ER, Haynes CS, Conneally PM, **Small GW**, Roses AD, Haines JL, Pericak-Vance MA. Analysis of association between butyrylcholinesterase K (BCHEK) and apolipoprotein E (APOE) in Alzheimer disease. *American Journal of Human Genetics* 1998.
- A103. Scott WK, Grubber JM, Abou-Donia SM, Church TD, Yamaoka LH, Conneally PM, **Small GW**, Saunders AM, Roses AD, Haines JL, Pericak-Vance MA. Fine mapping and two-locus maximum lod score analysis in chromosome 12-linked late-onset familial Alzheimer disease (AD). *American Journal of Human Genetics* 1998.
- A104. Saxena S, Silverman DHS, Mega M, Levy M, Knox A, Ercoli L, Huang S-C, Phelps ME, Masterman DL, Cummings JL, **Small GW**. Effects of donepezil treatment on cerebral metabolism in Alzheimer's disease: Preliminary findings. *American College of Neuropsychopharmacology Scientific Abstracts*, 1998.
- A105. Grubber JM, Saunders AM, Crane AR, Scott WK, Martin ER, Haynes CS, Conneally PM, **Small GW**, Goses AD, Haines JL, Pericak-Vance MA. Analysis of association between butyrylcholinesterase K (BCHEK) and apolipoprotein E (APOE) in Alzheimer's disease. *American Journal of Human Genetics* 1998;63(4S):A292.
- A106. Saxena S, Silverman DHS, Mega M, Levy M, Knox A, Masterman DL, Cummings JL, Phelps ME, **Small GW**. Effects of anticholinesterase therapy on regional cerebral activity of patients with Alzheimer's disease: Preliminary findings. *Winter Brain Meeting*, 1998.
- A107. Halpain MC, Lebowitz B, Katz I, Borson S, Reynolds CF, **Small GW**, Jeste DV. The Summer Research Institute in Geriatric Psychiatry: Three years of follow-up data. *Annual Meeting, American Association for Geriatric Psychiatry* 1999.
- A108. Kwong EM, Mega MS, Thompson PM, Xu ML, Ercoli LM, Cummings JL, **Small GW**, Felix J, Toga AW. Three dimensional hippocampal maps in normal aging, older persons with mild cognitive impairment and patients with Alzheimer's disease. *Neurology* 1999;52(suppl 2):S82.005.
- A109. Hubble JP, Weeks CC, Nance M, Watts RL, Koller WC, Stern MB, Colcher A, Ondo W, Jankovic J, Goetz C, Pappert E, **Deanne-Glaxco Wellcome PD Genetics Collaborators**, Scott WK, Stajich JM, Scott BL, Vance JM, Pericak-Vance MA. Parkinson's disease: Clinical features in sibships. *American Academy of Neurology* 1999.
- A110. Silverman DHS, Ercoli LM, Komo S, Huang S-C, Phelps ME, **Small GW**. Influence of single apolipoprotein E type 4 allele on regional brain metabolism of healthy subjects. *Journal of Nuclear Medicine* 1999;40[Suppl]:70.
- A111. Barrio JR, Huang S-C, Cole GM, Satyamurthy N, Petric A, **Small GW**. PET imaging of tangles and plaques in Alzheimer disease. *Journal of Nuclear Medicine* 1999;40[Suppl]:70-71.

- A112. **Small GW**, Ercoli LM, Huang S-C, Komo S, Bookheimer SY, Saxena S, Silverman DHS, Mega MS, Mazziotta JC, Wu HM, Cummings JL, Phelps ME. PET and genetic risk for Alzheimer disease. *Journal of Nuclear Medicine* 1999;40[Suppl]:70.
- A113. Silverman DHS, Chang CY, Cummings JL, Kowell AP, Czernin J, **Small GW**, Gambhir SS, Hoh CK, Phelps ME. Prognostic value of regional brain metabolism in evaluation of dementia. *Journal of Nuclear Medicine* 1999;40[Suppl]:71.
- A114. Ackerman DL, Greenland S, Bystritsky A, **Small GW**. Side effects and time course of response in a placebo-controlled trial of fluoxetine in geriatric depression. *NCDEU*, 1999.
- A115. Barrio JR, Huang S-C, Cole GM, Satyamurthy N, Petric A, **Small GW**. Neurofibrillary tangles (NFTs) and β -amyloid plaques ($A\beta$) demonstrated in vivo in Alzheimer's disease (AD) patients. *Journal of Cerebral Blood Flow and Metabolism* 1999;19:S2.
- A116. **Small GW**, Bookheimer SY, Strojwas MH, Cohen MS, Saunders AM, Pericak-Vance MA, Mazziotta JC. Functional MRI of memory tasks in older persons with APOE-4. *Biological Psychiatry* 1999;45:49S.
- A117. **Small GW**. Early detection and prevention of dementia. *Syllabus & Proceedings Summary American Psychiatric Association 1999 Annual Meeting*. 28A, p. 256.
- A118. **Small GW**. Genetics of Alzheimer's disease. *Syllabus & Proceedings Summary American Psychiatric Association 1999 Annual Meeting*. 78A, p. 139.
- A119. Scott WK, Lai EH, Grubber JM, Martin ER, Hill DM, Poulton SH, Menold MM, Farrer LA, Conneally PM, **Small GW**, Saunders AM, Roses AD, Gilbert JR, Haines JL, Pericak-Vance MA. Examination of association between LRP1 and late-onset Alzheimer disease using single nucleotide polymorphisms (SNPs). *American Journal of Human Genetics* 1999;65:A445.
- A120. Garcia ME, Bailey LR, Hall JL, Scott WL, Aboudonia SA, Saunders AM, **Small GW**, Conneally PM, Roses AD, Pericak-Vance MA, Haines JL. Examination of multiple loci in late onset familial Alzheimer disease (AD). *American Journal of Human Genetics* 1999; 65:A99.
- A121. **Small GW**, Klunk WE, Barrio JR, May PC, Lieberburg I. Amyloid beta plaques and neurofibrillary tangles in Alzheimer's disease: Progress toward in vivo imaging and novel treatments. *American College of Neuropsychopharmacology 1999 Annual Meeting*.
- A122. Barrio JR, Huang S-C, Cole G, Satyamurthy N, Kiziloglu Z, Petric A, Phelps ME, **Small GW**. In vivo visualization of neurofibrillary tangles and β -amyloid plaques in patients with Alzheimer disease. *American College of Neuropsychopharmacology 1999 Annual Meeting*.
- A123. Grubber JM, Saunders AM, Yamaoka LH, Scott WK, Martin ER, Hill DM, Standen CL, Schmechel DE, Conneally PM, **Small GW**, Lai EH, Roses AD, Haines JL, Pericak-Vance MA. Analysis of chromosome 12 candidate genes in late-onset Alzheimer disease (AD). *American Journal of Human Genetics* 1999;65:A252.
- A124. Barrio JR, Huang S-C, Cole G, Satyamurthy N, Petric A, Phelps ME, **Small GW**. PET imaging of tangles and plaques in Alzheimer disease with a highly hydrophobic probe. *J Label Compds Radiopharm* 1999;42:S194-S195.
- A125. Silverman DHS, **Small GW**, Kung de Aburto MA, Hoffman JM, Salmon E, de Leon MJ, Mielke R, Jagust WJ, Pietrini P, Alexander G, Furmuly R, Czernin J, Phelps ME. Diagnostic accuracy of FDG-PET in evaluation of dementia: International multi-center pooled brain scan and autopsy data. *Journal of Nuclear Medicine* 2000;41:63 (No. 247).
- A126. Silverman DHS, Lu CS, Czernin J, **Small GW**, Phelps ME. Prognostic value of brain PET in patients with early dementia symptoms, treated or untreated with anticholinesterase therapy. *Journal of Nuclear Medicine* 2000;41:64P(No. 251).
- A127. Hussain SA, Silverman DH, Ercoli LM, Czernin J, Phelps ME, **Small GW**. Evidence of early cerebral metabolic decline in subjects predisposed to senile development of Alzheimer's disease. *Journal of Nuclear Medicine* 2000;41:63P (No. 248).
- A128. Scott WK, Grubber JM, Conneally PM, **Small GW**, Gilbert JR, Haines JL, Pericak-Vance MA. Fine-mapping of the chromosome 12 Alzheimer disease locus using family-based association tests of microsatellite markers. *World Alzheimer Congress* 2000.
- A129. Silverman DHS, Ercoli LM, Huang S-C, Phelps ME, **Small GW**. Apolipoprotein E ϵ 4 allele in non-demented subjects is associated with decreased cerebral metabolism of language processing regions. *Society for Neuroscience Abstracts* 2000.
- A130. Scott WK, Rogala AR, Rampersaud E, Stajich JM, Nance MA, Watts RL, Hubble JP, Scott BL, Haines JL, Koller WC, Stern MB, Hiner BC, Jankovic J, Allen FH, Goetz CG, **Small GW**, Laing NG, Pericak-Vance MA, Vance JM, for the Duke Center for Human Genetics/GlaxoWellcome/Deane PD Genetics Collaboration. Parkin mutations and idiopathic Parkinsons disease (PD). *American Journal of Human Genetics* 2000;67(2S):A52.
- A131. Agdeppa ED, Kepe V, Kiziloglu N, Petric A, Zabjek A, Satyamurthy N, Cole GM, Vinters HV, **Small GW**, Barrio JR. FDDNP analogs as probes for plaques and tangles in Alzheimer's disease. *Journal of Nuclear Medicine* 2000;41 Suppl 5:25P(No. 95).

- A132. Bailey LR, Grubber J, Scott WK, Gardiner MB, Hall JL, Saunders AB, Roses AD, **Small GW**, Conneally PM, Haines JL, Pericak-Vance MA. Genomic Screen of 739 sibpairs with late onset Alzheimer Disease. *American Journal of Human Genetics* 2000.
- A133. Grubber JM, Scott WK, Lai EH, Saunders AM, Desombre KA, Conneally PM, **Small GW**, Roses AD, Gilbert JR, Vance JM, Haines JL, Pericak-Vance MA. Association of late-onset familial Alzheimer disease (AD) and single nucleotide polymorphisms (SNPs) in the LRP1 gene. *American Journal of Human Genetics* 2000;67(2S):A1965.
- A134. **Small GW**, Ercoli LM, Silverman DHS, Huang S-C, Bookheimer SY, Mazziotta JC, Barrio JR, Phelps ME. Influence of APOE genotype and PET brain imaging on preclinical prediction of Alzheimer disease. *Neurobiology of Aging* 2000;21:S74.
- A135. Haines JL, Scott WK, Bailey LR, Grubber JM, Hall JL, **Small GW**, Hedges D, Pericak-Vance MA. Genomic screen of 739 sibpairs with late onset Alzheimer disease. *Neurobiology of Aging* 2000;21:S129.
- A136. Scott WK, Grubber JM, Conneally PM, **Small GW**, Gilbert JR, Haines JL, Pericak-Vance MA. Fine-mapping of the chromosome 12 Alzheimer disease locus using family-based association tests of microsatellite markers. *Neurobiology of Aging* 2000;21:S129.
- A137. **Small GW**. Neurology: Dementia. 12th Annual International PET Conference, Institute for Clinical PET. 2000 pp. 18-19.
- A138. **Small GW**, Huang S-C, Cole G, Satyamurthy N, Agdeppa ED, Kiziloglu Z, Petric A, Vinters HV, Phelps ME, Barrio JR. PET studies of cerebral glucose metabolism and amyloid plaques and tangles in persons at genetic risk for Alzheimer's disease. *American College of Neuropsychopharmacology Scientific Abstracts* 2000;10.
- A139. Miller K, Conney J, Fairbanks L, Rasgon N, **Small GW**. Effects of estrogen on cognition and mood functioning in older adults. *Proceedings and Abstracts 5th Annual UCLA Research Conference on Aging* 2000; 22.
- A140. **Small GW**, Fillit H. The impact of donepezil on burden, health-related expenses, and productivity of caregivers of patients with Alzheimer's disease. *American Journal of Geriatric Psychiatry* 2000; Fall (Suppl. 1): 5-6.
- A141. Scott WK, Stajich JM, Scott BL, Rogala AR, Booze MW, Ribble RC, Nance MA, Watts RL, Hubble JP, Haines JL, Koller WC, Pahwa R, Stern MB, Colcher A, Hiner BC, Jankovic J, Ondo WG, Allen FH, Goetz CG, Pappert EJ, **Small GW**, Masterman D, Mastaglia F, Laing NL, Middleton LT, Roses AD, Vance JM, Pericak-Vance MA. Complete genomic screen in familial Parkinson disease. *Annual Meeting of the American Academy of Neurology* 2001.
- A142. **Small GW**, Kornstein S, Schneider L, Clary CM. Effect of ERT with and without progesterone on clinical response to sertraline in elderly depression. 14th Annual Meeting, American Association for Geriatric Psychiatry 2001.
- A143. Lavretsky H, **Small GW**, Ercoli LM, Siddarth P, Bookheimer S, Miller K. Apolipoprotein E-4 allele status, depressive symptoms, and cognitive decline in middle-aged and elderly non-demented persons. 14th Annual Meeting, American Association for Geriatric Psychiatry 2001.
- A144. Ercoli L, **Small GW**, Siddarth P, Dunkin J. Individual MMSE items predict cognitive decline in persons at genetic risk for Alzheimer's disease. 14th Annual Meeting, American Association for Geriatric Psychiatry 2001.
- A145. Conney J, Miller K, Rasgon N, Fairbanks L, **Small GW**. Estrogen, cognition, and mood functioning. 14th Annual Meeting, American Association for Geriatric Psychiatry 2001.
- A146. Wu HM, Huang S-C, Ercoli LM, Phelps ME, **Small GW**. Study of partial volume effect (PVE) to investigate atrophy and FDG uptake changes in persons at risk for Alzheimer disease (AD). *Journal of Nuclear Medicine* 2001;42:61-62 (No. 230).
- A147. Agdeppa ED, Kepe V, Shoghi-Jadid K, Satyamurthy N, **Small GW**, Petric A, Vinters HV, Huang SC, Barrio JR. *In vivo* and *in vitro* labeling of plaques and tangles in the brain of an Alzheimer's disease patient: A case study. *Journal of Nuclear Medicine* 2001; 42:Suppl 5:65 (No. 242).
- A148. Agdeppa ED, Kepe V, Flores-Torres S, Liu J, Satyamurthy N; Petric A, **Small GW**, Huang SC, Barrio JR. *In vitro* binding characteristics of FDDNP and a new analog for synthetic β -Amyloid fibrils. *Journal of Nuclear Medicine* 2001;42, Suppl 5:64-65 (No. 241).
- A149. Silverman DHS, Ercoli LM, Huang S-C, Phelps ME, **Small GW**. Perceived loss of memory function correlates with subsequent decline in metabolism of hippocampus. *Journal of Nuclear Medicine* 2001;42:61 (No. 228).
- A150. Marseille DM, Silverman DHS, Hussain SA, Ercoli LM, Czernin J, Phelps ME, **Small GW**. Cerebral hypometabolism characteristic of Alzheimer's disease occurs early enough to affect ultimate educational level. *Journal of Nuclear Medicine* 2001;42:146 (No. 546).
- A151. Silverman DHS, Lu CS, Wong GR, Aung AMK, Czernin J, Phelps ME, **Small GW**, Dahlbom M. Comparison of methods for comparing brain images of individually cognitively impaired patients to a normal group. *Journal of Nuclear Medicine* 2001;42:224 (No. 952).

- A152. Burggren AC, **Small GW**, Sabb FW, Bookheimer SY. An attentional task in subjects at genetic risk for Alzheimer's disease. *Human Brain Mapping* 2001.
- A153. **Small GW**. Brain imaging and genetic measures for early detection and prevention of Alzheimer's disease. *West Coast College of Biological Psychiatry*, 2001.
- A154. **Small GW**. An update on brain imaging and genetic risk in Alzheimer's disease assessment research. *Syllabus & Proceedings Summary American Psychiatric Association 2001 Annual Meeting*. 33B, p. 305.
- A155. **Small GW**. Depression and dementia in older men. *Syllabus & Proceedings Summary American Psychiatric Association 2001 Annual Meeting*. 12E, p. 278.
- A156. Marseille DM, Silverman DHS, Hussain SA, Ercoli LM, Czernin J, Phelps ME, **Small GW**. Healthy young and middle-aged adults with less education have lower metabolism in the brain region most sensitive to Alzheimer's disease. *Proceedings and Abstracts 5th Annual UCLA Research Conference on Aging* 2001;36.
- A157. Wu HM, Huang SC, Ercoli LM, Barrio JR, Phelps ME, **Small GW**. Investigation of atrophy and glucose uptake changes in persons at risk for Alzheimer's disease. *Proceedings and Abstracts 5th Annual UCLA Research Conference on Aging* 2001;43.
- A158. Pericak-Vance MA, Saunders AM, Roses AD, **Small GW**, Scott WK, Conneally PM, Vance JM, Gilbert JR, Haines JL. Modulation of age at onset and risk in Alzheimer disease. *Society for Neuroscience Abstracts* 2001.
- A159. **Small GW**, Agdeppa ED, Kepe V, Shoghi-Jadid K, Satyamurthy N, Petric A, Vinters HV, Huang SC, Barrio JR. Imaging amyloid plaques and tangles with PET. *1st Annual Meeting of the International College of Geriatric Psychopharmacology Scientific Abstracts* 2001, p. 24.
- A160. **Small GW**, Shoghi-Jadid K, Agdeppa ED, Kepe V, Satyamurthy N, Petric A, Vinters HV, Huang SC, Barrio JR. *In vivo* localization of neurofibrillary tangles and beta-amyloid plaques in Alzheimer's patients. *1st Annual Meeting of the International College of Geriatric Psychopharmacology Scientific Abstracts* 2001, p. 66.
- A161. **Small GW**, Lilienfeld S. Treatment of vascular dementia with acetylcholinesterase inhibitors. *American College of Neuropsychopharmacology 2001 Annual Meeting Scientific Abstracts* 2001, p.415 (No. 186).
- A162. Agdeppa ED, Kepe V, Liu J, Shoghi-Jadid K, Satyamurthy N, **Small GW**, Petric A, Vinters HV, Huang S-C, Barrio JR. *In vitro* and *in vivo* binding characteristics of two biological probes for plaques and tangles in Alzheimer's disease. *Journal of Labeled Compounds and Radiopharmaceuticals* 2001. 44(Suppl.1):S242-S244.
- A163. Lavretsky H, **Small GW**, Ercoli LM, Siddarth P, Bookheimer S, Miller K. APO E-4 status, depressive symptoms, and cognitive decline in elderly non-demented persons. *International Psychogeriatrics* 2001;13 (Suppl. 2): p. 140-S (No. P-043).
- A164. Li Y, Saunders AM, Roses AD, **Small GW**, Scott WK, Conneally PM, Vance JM, Gilbert JR, Haines JL, Pericak-Vance M. Genome-wide scan for age at onset of Alzheimer's disease. *American Journal of Human Genetics* 2001;69:A126.
- A165. Oliveira SA, Martin ER, Scott WK, Nance MA, Watts RL, Hubble JP, Koller WC, Pahwa R, Stern MB, Hiner BC, Jankovic J, Goetz CG, **Small GW**, Hauser MA, Middleton LT, Roses AD, Haines JL, Scott BL, Pericak-Vance MA, Vance JM. Association of tau with late-onset Parkinson disease. *American Journal of Human Genetics* 2001;69:A1932.
- A166. Scott WK, Stajich JM, Scott BL, Nance MA, Watts RL, Hubble JP, Haines JL, Koller WC, Pahwa R, Stern MB, Hiner BC, Jankovic J, Allen FH, Goetz CG, **Small GW**, Mastaglia F, Middleton LT, Roses AD, Vance JM, Pericak-Vance MA. Complete genomic screen in idiopathic Parkinson disease. *American Journal of Human Genetics* 2001;69:A1943.
- A167. Nicodemus KK, Hedges D, Saunders AM, Conneally PM, **Small GW**, Gilbert JR, Haines JL, Pericak-Vance MA, Scott WK. Chromosome 12 and late-onset Alzheimer disease (AD) is modified by apolipoprotein E (APOE) genotype. *American Journal of Human Genetics* 2001;69:A2067.
- A168. deLeon M, **Small GW**. Diagnosis of dementia. *Neurobiology of Aging* 2001;22:334.
- A169. **Small GW**, Huang S-C, Cole G, Satyamurthy N, Agdeppa ED, Kiziloglu Z, Kepe V, Petric A, Vinters HV, Phelps ME, Barrio JR. *In vivo* visualization of amyloid senile plaques and neurofibrillary tangles in Alzheimer's disease. *Neurobiology of Aging* 2001;22:337.
- A170. Marseille DM, **Small GW**, Phelps ME, Kim S, Silverman DHS. Empirical test of diagnostic algorithm for use of PET in evaluation of dementia. *Journal of Nuclear Medicine* 2002;43(Suppl 5):62.
- A171. Agdeppa ED, Kepe V, Petric A, Liu J, Satyamurthy N, Shoghi-Jadid K, **Small GW**, Huang S-C, Barrio JR. Torsionally modified FDDNP analogs have picomolar binding affinity to plaques in Alzheimer's disease. *Journal of Nuclear Medicine* 2002;43(Suppl 5):166.
- A172. Agdeppa ED, Kepe V, Petric A, Liu J, Satyamurthy N, Shoghi-Jadid K, **Small GW**, Huang S-C, Barrio JR. The *in vivo* molecular imaging probe [F-18]DDNP demonstrates NSAID binding to A2 senile plaques in Alzheimer's disease. *Neurobiology of Aging* 2002;23:S422.
- A173. **Small GW**. Genetic risk and imaging. *Neurobiology of Aging* 2002;23:S561-S562.
- A174. Scott W, Nicodemus K, Gaskell PC, Hedges D, Walters S, **Small GW**, Conneally PM, Roses A, Hauser E, Gilbert J, Vance J, Haines J, Pericak-Vance M. Ordered subsets analysis refines linkage to chromosome 9p and detects novel very-late onset AD genes on chromosomes 2q and 15q. *Neurobiology of Aging* 2002;23:S314.

- A175. Li YJ, Scott WK, Hedges DJ, Zhang F, Gaskell PC, Nance MA, Watts RL, Hubble JP, Koller WC, Pahwa R, Stern MB, Hiner BC, Jankovic J, Allen Jr. FA, Goetz CG, Mastaglia F, Stajich JM, Gibson RA, Middleton LT, Saunders AM, Scott BL, **Small GW**, Nicodemus KK, Reed AD, Schmechel DE, Welsh-Bohmer KA, Conneally PM, Roses AD, Gilbert JR, Vance JM, Haines JL, Pericak-Vance MA. Location of common age-at-onset genes in Alzheimer and Parkinson diseases. *Neurobiology of Aging* 2002;23:S317.
- A176. Silverman DHS, Marseille DM, Phelps ME, Kim S, **Small GW**. For which patients is brain PET most useful in assisting with the diagnosis of Alzheimer's disease and related dementias. *Neurobiology of Aging* 2002;23:S421.
- A177. **Small GW**, Lilienfeld S. Galantamine exhibits broad, sustained efficacy in patients with mixed or vascular dementia. *Journal of the American Geriatrics Society Annual Scientific Meeting Abstract Book* 2002;50(Suppl 4):S3(No. A9).
- A178. Ercoli L, Siddarth P, **Small GW**. Perceived loss of memory function correlates with subsequent decline in regional cerebral metabolism. *The 7th Annual Research Conference on Aging*, 2002.
- A179. van der Walt J, Nicodemus K, Martin ER, Scott WK, Haines JL, McLaurin A, Nance MA, Hubble JP, Koller WC, Pahwa R, Stern M, Hiner BC, Jankovic J, Goetz CG, **Small GW**, Mastaglia F, Gibson RA, Middleton LT, Pericak-Vance MA, Vance JM. Specific mitochondrial haplogroups affect risk for late-onset Parkinson disease. *American Journal of Human Genetics*, 2002.
- A180. Scott WK, Nicodemus KK, Gaskell PC, Hedges DJ, Walters SN, **Small GW**, Conneally PM, Roses AD, Hauser ER, Gilbert JR, Vance JM, Haines JL, Pericak-Vance MA. Ordered subsets analysis in Alzheimer disease: Refined linkage to 9p and novel linkage to 2p and 15q. *The 8th International Conference on Alzheimer's Disease and Related Disorders*, 2002.
- A181. **Small GW**. Galantamine demonstrates sustained cognitive benefits in patients with Alzheimer's disease (AD), vascular dementia (VaD), or AD with cerebrovascular disease. *Syllabus & Proceedings Summary American Psychiatric Association Annual Meeting*, 2002.
- A182. Rasgon NL, **Small GW**, Siddarth P, Miller K, Ercoli L, Bookheimer SY, Phelps ME. Estrogen use, mood, and cerebral metabolism in menopausal women. *Syllabus & Proceedings Summary American Psychiatric Association 2002 Annual Meeting*. No. 22D, p. 78.
- A183. **Small GW**. Early detection and genetic risk assessment in Alzheimer's disease. *Syllabus & Proceedings Summary American Psychiatric Association 2002 Annual Meeting*. No. 49A, p. 308.
- A184. **Small GW**. Differential diagnosis of dementia and genetic risk factors. *American Journal of Geriatric Psychiatry* 2002;10(Suppl 1):30.
- A185. **Small GW**. Explorations in dementia: New and current perspectives. *American Journal of Geriatric Psychiatry* 2002;10(Suppl 1):29.
- A186. Haines J, Bradford Y, Kenealy S, Stanton K, Schnetz-Boutaud N, Nicodemus K, Scott W, Gilbert J, Pericak-Vance M, Conneally MP, **Small GW**. Allelic association analysis of SNPs on chromosome 10Q to Alzheimer's disease. *Neurobiology of Aging* 2002;23:S267.
- A187. **Small GW**, Brashear H.R. Galantamine demonstrates overall efficacy regardless of baseline disease severity in patients with vascular dementia or Alzheimer's disease with cerebrovascular disease. *127th Annual Meeting of the American Neurological Association*, 2002.
- A188. Pericak-Vance MA, Martin ER, Grasso P, Xu P, Browning C, Schmechel DE, Welsh-Bohmer KA, **Small GW**, Roses AD, Saunders AM, Haines JL, Gilbert JR. Mapping the chromosome 9 Alzheimer Disease gene. *55th Annual Meeting of the American Academy of Neurology*, 2002.
- A189. Li Y-J, Oliveira AS, Hauser MA, Hauser ER, Scott WK, Stenger JE, Hubble JP, Koller WC, Hiner BC, Jankovic J, Allen, Jr. FH, Roses AD, Saunders AM, Schmechel DA, **Small GW**, Gullans SR, Gilbert JR, Vance JM, Pericak-Vance MA. Glutathione S-Transferase, Omega-1 (GSTO1) modifies age at onset of Alzheimer disease and Parkinson disease. *55th Annual Meeting of the American Academy of Neurology*, 2002.
- A190. **Small GW**, Erkinjuntti T, Kurz A, Lilienfeld S, Mahableshwarkar A. Galantamine is safe and effective over 24 months in patients with Alzheimer's disease with cerebrovascular disease or probable vascular dementia: an interim analysis. *41st Annual Meeting of the American College of Neuropsychopharmacology*, 2002.
- A191. **Small GW**, Huang SC, Satyamurthy N, Agdeppa ED, Kepe V, Petric A, Barrio JR. PET measures of amyloid plaques and tangles for treatment monitoring of persons at risk for Alzheimer's disease, *41st Annual Meeting of the American College of Neuropsychopharmacology*, 2002.
- A192. Haines J, Bradford Y, Kenealy S, Stanton K, Schnetz-Boutaud N, Nicodemus K, Scott W, Gilbert J, Pericak-Vance M, Conneally PM, **Small GW**. Allelic association analysis of SNPs on Chromosome 10q to Alzheimer's disease. *Neurobiology of Aging* 2002;23:S267.
- A193. Silverman DHS, Marseille DM, Peng NX, Dahlbom M, **Small GW**, Chen W, Czernin J, Phelps ME. Comparing brain PET scans of individuals undergoing dementia evaluation to co-registered normal databases: Effect of varying how "normal" is defined. *Journal of Nuclear Medicine* 44:5(Suppl);No. 52, 2003.

- A194. Burggren AC, Braskie MN, **Small GW**, Bookheimer SY. Early decreases in entorhinal cortical thickness in persons at genetic risk for Alzheimer's disease. *9th Annual Meeting of the Organization for Human Brain Mapping*, 2003.
- A195. Feil D, Siddarth P, Ercoli LM, **Small GW**. Cerebral glucose metabolism predicts cognitive decline in people with normal memory ability. *American Association for Geriatric Psychiatry Annual Meeting*, 2003.
- A196. Wright C, Ercoli LM, Siddarth P, **Small GW**. Anxiety symptoms, apolipoprotein E4 allele status, and cerebral metabolism in middle-aged and older non-demented persons. *American Association for Geriatric Psychiatry Annual Meeting*, 2003.
- A197. Ercoli LM, Siddarth P, Huang SC, Phelps M, **Small GW**. Perceived loss of memory function correlates with subsequent decline in regional cerebral metabolism. *American Association for Geriatric Psychiatry Annual Meeting*, 2003.
- A198. Ercoli LM, **Small GW**, Silverman DHS, Siddarth P, Dorsey D, Miller K, Kaplan A, Skura S, Byrd G, Huang SC, Phelps ME. The effects of ginkgo biloba on cognitive and cerebral metabolic function in age-associated memory impairment. *Society for Neuroscience*, 2003.
- A199. Burggren A, Braskie M, **Small GW**, Bookheimer S. Early stage atrophic patterns in the medial temporal lobe of Alzheimer's disease and fronto-temporal dementia. *Society for Neuroscience*, 2003.
- A200. Braskie M, Burggren A, **Small GW**, Bookheimer S. Correlation of left CA1 thickness and neuropsychological scores in older adults. *Society for Neuroscience*, 2003.
- A201. **Small GW**. Strategies for keeping the brain young. *Syllabus & Proceedings Summary American Psychiatric Association Annual Meeting*, 2003.
- A202. **Small GW**, Lilienfeld S. Maintenance of cognition for 24 months in patients treated with galantamine for probable vascular dementia. *NCDEU 43rd Annual Meeting*, 2003.
- A203. **Small GW**, Brashear HR. Galantamine demonstrates overall efficacy regardless of baseline disease severity in patients with vascular dementia or Alzheimer's disease with cerebrovascular disease. *International Psychogeriatric Association 11th International Conference*, 2003.
- A204. **Small GW**. Early detection and prevention of age-related memory loss. *International Psychogeriatric Association 11th International Conference*, 2003.
- A205. **Small GW**. PET surrogate markers for early diagnosis, disease monitoring, and drug development in Alzheimer's disease. *International Psychogeriatric Association 11th International Conference*, 2003.
- A206. Martin E, Bronson P, Mitchell J, Marvin S, Schmechel D, **Small GW**, Saunders A, Roses A, Xu P-T, Li Y-J, Gilbert J., Haines J, Vance J, Pericak-Vance M. Association analysis of the VR22 locus on chromosome 10 in late-onset Alzheimer disease. *American Society of Human Genetics*, 2003.
- A207. Kepe V, Liu J, Agdeppa ED, Satyamurthy N, **Small GW**, Petric A, Huang SC, Barrio JR. Medial temporal lobe serotonin 1A receptor density decreases in Alzheimer's disease with the increase of β -amyloid deposits. *Journal of Nuclear Medicine* 2003;4 (Suppl):69.
- A208. Miller KJ, Halabi C, Rivas R, Halabi A, Siddarth P, Ercoli LM, **Small GW**. Normative data for Rey-Osterrieth complex test in older adults. *8th Annual UCLA Conference on Aging Proceedings & Abstracts*, 2003.
- A209. Symington S, Miller K, Siddarth P, Ercoli LM, Bookheimer SY, **Small GW**. Memory functioning among those at risk for Alzheimer's disease. *8th Annual UCLA Conference on Aging Proceedings & Abstracts*, 2003.
- A210. Ercoli LM, **Small GW**, Silverman DHS, Siddarth P, Dorsey D, Miller K, Kaplan A, Crowe-Lear T, Skura S, Byrd G, Huang S-C, Phelps ME. The effects of ginkgo biloba on cognitive and brain cerebral metabolic function in age-associated memory impairment. *8th Annual UCLA Conference on Aging Proceedings & Abstracts*, 2003.
- A211. Ercoli LM, Siddarth P, Thompson PM, Hayashi KM, **Small GW**. The Apolipoprotein Epsilon 4 genetic risk for Alzheimer's disease, memory decline and cerebral gray matter atrophy in healthy older adults. *American College of Neuropsychopharmacology 42nd Annual Meeting Scientific Abstracts*, 2003.
- A212. **Small GW**, Mendiondo MS, Quarg P, Spiegel R. Efficacy of rivastigmine treatment in Alzheimer's disease over 5 years. *American College of Neuropsychopharmacology 42nd Annual Meeting Scientific*, 2003.
- A213. Symington S, Miller KJ, Siddarth P, Ercoli LM, Bookheimer SY, **Small GW**. Memory functioning among those at risk for Alzheimer's disease. *International Neuropsychological Society 32nd Annual Meeting*, 2004.
- A214. Symington S, Miller KJ, Siddarth P, Ercoli LM, Bookheimer SY, **Small GW**. Pre-clinical cognitive signs for those at risk for Alzheimer's disease. *International Neuropsychological Society 32nd Annual Meeting*, 2004.
- A215. Siddarth P, Ercoli LM, Thompson PM, Hayashi KM, **Small GW**. Apolipoprotein Epsilon-4 genetic risk for Alzheimer's disease is associated with accelerated loss in the ratio of gray to white matter volume. *American Association for Geriatric Psychiatry 17th Annual Meeting*, 2004.
- A216. **Small GW**, Orgogozo J-M, Hammond G, Schwalen S. Safety and efficacy benefits of Galantamine treatment in patients with "very mild" Alzheimer's disease. *American Association for Geriatric Psychiatry 17th Annual Meeting*, 2004.
- A217. Ercoli LM, Siddarth P, Thompson PM, Hayashi KM, **Small GW**. Reduced cerebral gray matter volumes may have prognostic significance for memory decline in healthy older adults. *American Association for Geriatric Psychiatry 17th Annual Meeting*, 2004.

- A218. **Small GW**, Quarg P, Spiegel R. Rivastigmine demonstrated efficacy over 5 years in Alzheimer's disease. *American Association for Geriatric Psychiatry 17th Annual Meeting*, 2004.
- A219. **Small GW**. Alzheimer's disease prevention: Strategies for improving brain and memory fitness. *American Psychiatric Association Annual Meeting Proceedings Summary*, 2004.
- A220. **Small GW**, Hammond G, Schwalen S. Subset analysis of patients with very mild Alzheimer's diseases treated with galantamine in four placebo-controlled trials. *American Geriatrics Society Annual Scientific Meeting*, 2004.
- A221. **Small GW**, Silverman DH, Siddarth P, Ercoli L, Miller KJ, Wright BC, Bookheimer SY, Barrio J, Phelps M. Brain function and physical effects of a 14-day healthy lifestyle program. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A222. Silverman DH, Lai J, Lu PH, **Small GW**, Swerdloff RS, Cummings JL. Effect of transdermal testosterone on metabolism of posterior cingulate cortex and other brain regions: A prospective double-blind randomized placebo-controlled pilot study. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A223. Yang F, Kepe V, Chen P, **Small GW**, Barrio JR, Ashe KH, Cole GM. Testing a PET imaging probe for Alzheimer's plaque and tangle pathology in animal models. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A224. Kepe V, Shoghi-Jadid K, Liu J, Huang S-C, Satyamurthy N, Cole GM, Phelps ME, **Small GW**, Barrio JR. Positron emission tomography imaging of neurodegeneration in Alzheimer's disease and frontotemporal dementia. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A225. Burggren A, **Small GW**, Bookheimer SY. Morphological alterations within the medial temporal lobe in subjects at genetic risk for Alzheimer's disease. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts* 2004.
- A226. Halabi A, Thomson PM, Ercoli LM, **Small GW**. Methods used in measuring gray matter loss over time in persons with apolipoprotein-Epsilon-4 genetic risk for Alzheimer's disease compared to nondemented persons with memory decline. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A227. Ercoli LM, Siddarth P, Thompson PM, Hayashi KM, **Small GW**. Reduced cerebral gray matter volumes may have prognostic significance for memory decline in healthy older adults. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A228. Siddarth P, Ercoli LM, Thompson PM, Hayashi KM, **Small GW**. Apolipoprotein epsilon-4 genetic risk for Alzheimer's disease is associated with accelerated loss in the ratio of gray to white matter volume. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A229. Halabi C, Ercoli LM, Siddarth P, **Small GW**. The apolipoprotein E4 genetic risk for Alzheimer's disease is associated with cerebral glucose hypometabolism in nondemented older adults. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A230. Wright BC, Siddarth P, Ercoli LM, Huang S-C, Phelps M, Bookheimer SY, **Small GW**. Influence of depressive symptoms on cerebral metabolism in people with mild memory complaints. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A231. Story TJ, Miller KJ, Lautzenhiser A, Siddarth P, **Small GW**. Questioning the validity of the WMS-III verbal pairs recognition test. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A232. Miller KJ, Boudelock B, **Small GW**. Early onset of Alzheimer's disease: Genetic risks and case study. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A233. Kernan C, Genest C, Miller KJ, Siddarth P, Ercoli LM, **Small GW**. Mood and cognition during perimenopause: An underexplored life phase. *9th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2004.
- A234. Silverman DHS, Lai J, Lu PH, **Small GW**, Swerdloff R, Cummings JL. Effect of transdermal testosterone on metabolism of posterior cingulate cortex and other brain regions: a prospective double-blind randomized placebo-controlled pilot study. *Journal of Nuclear Medicine*, 2004.
- A235. Kepe V, Shoghi-Jadid K, Wu H-M, **Small GW**, Satyamurthy N, Petric A, Phelps ME, Huang S-C, Barrio JR. Global and regional [F-18] FDDNP binding as in vivo measure of Alzheimer's disease neuropathology. *Journal of Nuclear Medicine Abstracts*, 2004.
- A236. Wu H, Shoghi-Jadid K, Kepe V, **Small GW**, Barrio JR, Huang S-C. "Diagnostic Index" parametric images using [¹⁸F]FDDNP-PET in Alzheimer's disease (AD)—A new and simplified procedure. *Journal of Nuclear Medicine* 2004;45:126P-127P.
- A237. **Small GW**, Kepe V, Huang SC, Wu HM, Ercoli L, Siddarth P, Miller K, Lavretsky H, Wright BC, Shoghi-Jadid K, Satyamurthy NE, Phelps ME, Barrio JR. Plaque and tangle brain imaging using [F-18]FDDNP-PET differentiates Alzheimer's disease, mild cognitive impairment, and older controls. *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.
- A238. Farlow M, **Small GW**, Quarg P. Does rivastigmine response vary according to rate of change? *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.

- A239. **Small GW**, Kepe V, Huang SC, Wu HM, Siddarth P, Ercoli L, Miller K, Lavretsky H, Wright BC, Shoghi-Jadid K, Satyamurthy NE, Phelps ME, Barrio JR. In vivo brain imaging of tau aggregation in frontal temporal dementia using [F-18]FDDNP positron emission tomography. *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.
- A240. **Small GW**, Kaufer D, Quarg P, Spiegel R. Slower cognitive decline in patients receiving rivastigmine for up to five years. *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.
- A241. Pericak-Vance MA, Bronson P, Martin ER, Browning C, Rayner M, Xu P, **Small GW**, Roses AD, Schmechel DE, Doraiswamy PM, Welsh-Bohmer KA, Haines JL, Gilbert JR. Genetic studies of Alzheimer disease on Chromosome 9p. *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.
- A242. Martin E, Bronson P, Jiang L, Welsh-Bohmer K, Schmechel D, **Small GW**, Haines J, Gilbert J, Pericak-Vance M, Moore J. A multilocus association analysis of APOE, LRP1 and A2M in Alzheimer disease. *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.
- A243. Quan H, Haines JL, Sanchez-Boutard N, **Small GW**, Roses A, Schmechel D, Welsh-Bohmer K, Xu P-T, Li Y-J, Gilbert JR, Vance JM, Pericak-Vance MA. Genomic convergence of Chromosome 12 in Alzheimer disease. *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.
- A244. **Small GW**, Kaufer D, Mendiondo MS, Quarg P, Spiegel R. Cognitive decline delayed in patients receiving rivastigmine for up to 5 years. *8th Congress of the European Federation of Neurological Societies*, 2004.
- A245. Orgogozo J-M, **Small GW**, Hammond G, Van Baelen B, Schwalen S. Galantamine improves cognition and function in patients with very mild Alzheimer's disease. *8th Congress of the European Federation of Neurological Societies*, 2004.
- A246. Miller KJ, Genest C, Kernan C, Siddarth P, Ercoli L, **Small GW**. Cognitive profile during perimenopause: parallels to post-menopause? *Archives of Clinical Neuropsychology* 2004;19:977.
- A247. Miller KJ, Goudelock B, **Small GW**. Potential pre-clinical symptoms associated with early onset of Alzheimer's disease: genetic risks and cognition. *Archives of Clinical Neuropsychology* 2004;19:986-987.
- A248. Miller KJ, Lautzenhiser A, Story TJ, Siddarth P, **Small GW**. Questioning the validity of the WMS-III Verbal Pairs recognition test: A newly proposed approach. *Archives of Clinical Neuropsychology* 2004;19:977-978.
- A249. **Small GW**, Kepe V, Huang SC, Ercoli L, Siddarth P, Miller K, Lavretsky H, Wright BC, Satyamurthy NE, Wu HH, Shoghi-Jadid K, Petric A, Phelps ME, Barrio JR. Plaque and tangle brain imaging using [F-18]FDDNP-PET differentiates Alzheimer's disease, mild cognitive impairment, and older controls. *Neuropsychopharmacology* 2004;29 (Suppl 1).
- A250. **Small GW**, Silverman DH, Siddarth P, Ercoli L, Miller KJ, Wright BC, Bookheimer SY, Barrio J, Phelps M. Brain function and physical effects of a 14-day healthy lifestyle program. *9th International Conference on Alzheimer's Disease and Related Disorders*, 2004.
- A251. Rogers SA, Miller KJ, Siddarth P, **Small GW**. Semantic language functioning and genetic risk for Alzheimer's disease. *American Psychological Association*, 2004.
- A252. Yang F, Kepe V, Chen P, **Small GW**, Barrio J, Ashe KH, Cole GM. Testing a PET imaging probe for Alzheimer's plaque and tangle pathology in animal models. *Society for Neuroscience Annual Meeting*, 2004.
- A253. Story TJ, Miller KJ, Lautzenhiser A, Siddarth P, **Small GW**. A new recognition test for the WMS-III Verbal Paired Associates. *Journal of the International Neuropsychological Society*, 2005.
- A254. Silverman DHS, Siu E, Dahlbom M, Peng NX, Cummings JL, Chen W, Phelps ME, **Small GW**. How can we tell whether regional brain metabolism of an individual patient is significantly different from what it was two years ago? *Society of Nuclear Medicine Annual Meeting*, 2005.
- A255. Kernan C, Miller KJ, Genest C, Siddarth P, Ercoli L, **Small GW**. Cognitive profile during perimenopause: Parallels to post-menopause? *Journal of the International Neuropsychological Society*, 2005.
- A256. Genest C, Miller KJ, Ercoli LM, Siddarth P, **Small GW**. Cognitive effects of hormone replacement therapy in post-menopausal women. *Journal of the International Neuropsychological Society*, 2005.
- A257. Rogers SA, Miller KJ, Ercoli LM, Siddarth P, **Small GW**. Verbal memory among those at risk for Alzheimer's disease. *Journal of the International Neuropsychological Society*, 2005.
- A258. Ercoli LM, Crowe-Lear T, Siddarth P, Miller K, Dunkin J, Moody T, Kaplan A, Halabi C, Halabi A, Dorsey D, Byrd G, **Small GW**. The effects of memory enhancement training on verbal memory in healthy older adults. *American Association for Geriatric Psychiatry Annual Meeting*, 2005.
- A259. Ercoli LM, Siddarth P, Huang S-C, Miller K, Halabi C, Halabi A, Lavretsky H, Bookheimer SY, Phelps ME, **Small GW**. A comprehensive model for the prediction of memory decline in healthy older adults. *American Association for Geriatric Psychiatry Annual Meeting*, 2005.
- A260. Siddarth P, Ercoli LM, Kepe V, Huang, S-C, Wu HM, Phelps ME, Barrio JR, **Small GW**. [F-18]FDDNP-PET imaging of plaques and tangles in brain differentiates Alzheimer's disease, mild cognitive impairment, and older controls. *American Association for Geriatric Psychiatry Annual Meeting*, 2005.
- A261. Braese R, Kim J, Miller KJ, Kaplan A, **Small GW**. The neurocognitive profile of patients with Gerstmann-Straussler-Scheinker disease. *Proceedings and Abstracts of the 10th annual UCLA Research Conference on Aging*, 2005.

- A262. DeJong J, Rogers SA, Miller KJ, Siddarth P, Ercoli LM, **Small GW**. Preclinical neuropsychological markers of Alzheimer's disease. *Proceedings and Abstracts of the 10th annual UCLA Research Conference on Aging*, 2005.
- A263. Apelian T, Genest C, Rouss T, Dapretto M, Iacoboni M, Mazziotta J, Miller KJ, **Small GW**. Changes in verbal memory retention across the life span. *Proceedings and Abstracts of the 10th annual UCLA Research Conference on Aging*, 2005.
- A264. Demertzis KH, Miller KJ, **Small GW**. Verbal memory retention and recognition in at-risk Alzheimer's individuals. *Proceedings and Abstracts of the 10th annual UCLA Research Conference on Aging*, 2005.
- A265. Rogers SA, Miller KJ, Ercoli LM, Siddarth P, **Small GW**. Verbal memory deficits among those at risk for Alzheimer's disease. *Proceedings and Abstracts of the 10th annual UCLA Research Conference on Aging*, 2005.
- A266. Crowe-Lear T, Ercoli LM, Siddarth P, Miller KJ, Dunkin J, Moody T, Kaplan A, Halabi C, Halabi A, Dorsey D, Byrd G, **Small GW**. A randomized clinical trial for memory enhancement training in healthy older adults: Possible moderating effects of premorbid memory technique use. *Proceedings and Abstracts of the 10th annual UCLA Research Conference on Aging*, 2005.
- A267. **Small GW**, Silverman DHS, Siddarth P, Ercoli LM, Miller KJ, Wright BC, Bookheimer SY, Barrio J, Phelps ME. Data supporting the impact of a healthy life style on brain function. *International Psychogeriatrics* 2005;17 (Suppl 2):101-102.
- A268. Rogers SA, Miller KJ, Ercoli LM, Siddarth P, **Small GW**. Verbal memory deficits as a preclinical risk factor for Alzheimer's disease. *Proceedings of the American Psychological Association Annual Meeting*, 2005.
- A269. Cole GM, Yang F, Kepe V, Chen PP, Ashe KH, **Small GW**, Barrio J. Potential for early diagnosis and prevention using PET imaging probes for misfolded protein accumulation. *Gerontological Society of America 58th Annual Meeting Abstracts and Proceedings*, 2005.
- A270. Demertzis KH, Miller KJ, **Small GW**. Verbal memory retention and recognition in at-risk for Alzheimer's individuals. *Archives of Clinical Neuropsychology*, 2005.
- A271. Demertzis KH, Rogers SA, Miller KJ, Ercoli LM, Siddarth P, **Small GW**. Neuropsychological functioning in individuals at-risk for Alzheimer's disease: Targets for intervention. *Proceedings for the GTC Biotherapeutic Conference*, 2005.
- A272. **Small GW**, Silverman DH, Siddarth P, Ercoli L, Miller K, Bookheimer S, Barrio JR, Phelps ME. Effects of a 14-day healthy aging lifestyle program on brain function. *Neuropsychopharmacology* 2005;30 (suppl 1):S6.
- A273. Kepe V, Cole GM, Liu J, Flood DG, Trusko SP, Satyamurthy N, Huang S-C, **Small GW**, Phelps ME, Barrio JR. In vivo [F-18]FDDNP microPET imaging of brain beta-amyloid in a transgenic rat model of Alzheimer's disease. *Alzheimers & Dementia* 2005;1(suppl 1):S45.
- A274. **Small GW**, Kepe V, Ercoli LM, Siddarth P, Miller KJ, Bookheimer SY, Lavretsky H, Cole GM, Vinters HV, Thompson PM, Huang S-C, Satyamurthy SN, Phelps ME, Barrio JR. FDDNP-Pet scanning of cerebral amyloid and tau deposits in MCI. *American Academy of Neurology Late Breaking Science Abstracts*, 2006.
- A275. Silverman DHS, Siu E, Dahlbom M, Peng NX, Phelps ME, **Small GW**. How accurately can FDG-PET scans predict individual rates of cognitive decline? *Society of Nuclear Medicine Annual Meeting Abstracts*, 2006.
- A276. Kepe V, **Small GW**, Ercoli LM, Siddarth P, Vinters HV, Cole GM, Satyamurthy N, Huang S-C, Phelps ME, Barrio JR. Differentiating mild cognitive impairment from normal aging and Alzheimer's disease with [F-18]FDDNP PET. *Society of Nuclear Medicine Annual Meeting Abstracts*, 2006.
- A277. Apostolova LG, Dinov ID, Thompson PM, Zoumalan C, Steiner CA, Siu E, Dutton RA, Hayashi KM, **Small GW**, Cummings JL, Toga AW, Phelps ME, Silverman DH. MR-guided 3D PET *International Congress on Alzheimer's Disease Annual Meeting Abstracts*. 2006.
- A278. Demertzis, KH, Rogers SA, Miller KJ, Ercoli L, Siddarth P, **Small GW**. Emotional and neuropsychological functioning in individuals at-risk for Alzheimer's disease. Poster and abstract accepted to the 34th Annual International Neuropsychological Society, Boston, MA, 2006.
- A279. Rogers SA, DeJong J, Miller KJ, Siddarth P, Ercoli L, **Small GW**. Preclinical neuropsychological markers of Alzheimer's disease. Poster and abstract accepted to the 34th Annual International Neuropsychological Society, Boston, MA, 2006.
- A280. Braese R, Miller KJ, Kim J, Kaplan A, **Small GW**. GSS and cognition: An examination of 5 neurocognitive profiles. Poster and abstract accepted to the 34th Annual International Neuropsychological Society, Boston, MA, 2006.
- A281. Lowe, C, Miller KJ, Rogers SA, **Small GW**. Mood and cognitive deficits associated with subclinical hypothyroidism in older adults. Poster and abstract accepted to the 34th Annual International Neuropsychological Society, Boston, MA, 2006.
- A282. Burggren AC, Dutton RA, Kepe V, **Small GW**, Huang SC, Barrio JR, Bookheimer SY. [18F]MPPF as an in vivo marker for hippocampal dysfunction in Alzheimer's disease. *Society for Neuroscience Annual Meeting Abstracts*, 2006.

- A283. **Small GW**, Kepe V, Ercoli LM, Siddarth P, Vinters HV, Bookheimer SY, Cole GM, Thomson PM, Huang SC, Barrio JR. Cerebral FDDNP-PET binding increases in MCI and aging as neurodegeneration progresses. *Alzheimers Imaging Consortium Abstracts*, 2006.
- A284. **Small GW**, Kepe V, Ercoli LM, Siddarth P, Vinters HV, Satyamurthy N, Huang SC, Phelps ME, Barrio JR. FDDNP-PET binding differentiates MCI from dementia and increases with clinical progression. *The 10th International Conference on Alzheimer's Disease and Related Disorders*, 2006.
- A285. **Small GW**. Neuroimaging as a surrogate marker of dementia. *American Psychiatric Association's 159th Annual Meeting Syllabus*, 2006.
- A286. Burggren AC, Dutton RA, Kepe V, **Small GW**, Huang S-C, Barrio J, Bookheimer SY. [18F]MPPF, combined with high-resolution MRI, as an in-vivo marker for hippocampal dysfunction in Alzheimer's disease. *11th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2006.
- A287. Giurgius SM, Miller KJ, Bedics JD, Kaplan AR, **Small GW**. Semantic fluency among individuals with normal and age consistent memory impairment, mild cognitive impairment, and Alzheimer's disease. *11th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2006.
- A288. Miller KJ, Bedics JD, Kaplan AR, Giurgius SM, Siddarth P, Ercoli L, **Small GW**. Verbal fluency among individuals at familial and genetic risk for Alzheimer's disease. *11th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2006.
- A289. Miller KJ, Siddarth P, Ercoli L, **Small GW**. The impact of age and Alzheimer's disease risk factors on memory performance over time. *11th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2006.
- A290. Miller KJ, Lowe C, Rogers S, **Small GW**. The effects of subclinical hypothyroidism on mood and cognition in older adults. *11th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2006.
- A291. Bedics JD, Miller KJ, Rogers SA, Siddarth P, Ercoli L, **Small GW**. Normative data stratified by age for measures of semantic fluency: Animals and fruits/vegetables. *11th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2006.
- A292. Bedics JD, Miller KJ, Siddarth P, Ercoli L, **Small GW**. Moderating factors of semantic and phonemic fluency: The role of gender, education, and age. *11th Annual UCLA Research Conference on Aging Proceedings and Abstracts*, 2006.
- A293. Apostolova LG, Dinov ID, Thompson PM, Zoumalan C, Steiner CA, Siu E, Dutton RA, Hayashi KM, **Small GW**, Cummings JL, Toga AW, Phelps ME, Silverman DHS. MR-Guided 3D PET mapping of longitudinal changes in regional cerebral metabolism of normal subjects. *Abstracts from the 10th International Conference on Alzheimer's Disease and Related Disorders (ICAD)*, 2006.
- A294. **Small GW**, Kepe V, Ercoli LM, Siddarth P, Vinters HV, Satyamurthy N, Huang SC, Phelps ME, Barrio JR. FDDNP-PET binding differentiates MCI from dementia and increases with clinical progression. *Abstracts from the 10th International Conference on Alzheimer's Disease and Related Disorders (ICAD)*, 2006.
- A295. Ringman JM, Wardak M, Kepe V, Barrio J, Huang SC, Yu C-L, Geschwind D, Schaffer B, Rodriguez Y, **Small GW**, Cummings JL. [18F]FDDNP-PET imaging in persons at-risk for familial AD. *Abstracts from the 10th International Conference on Alzheimer's Disease and Related Disorders (ICAD)*, 2006.
- A296. Barrio JR, Kepe V, Huang S-C, Ercoli L, Siddarth P, Cole GM, Satyamurthy N, Cummings JL, Phelps ME, **Small GW**. In vivo quantification of neuronal loss and neuropathological deposition in Alzheimer's disease with PET. *Abstracts from the 10th International Conference on Alzheimer's Disease and Related Disorders (ICAD)*, 2006.
- A297. **Small GW**, Kepe V, Ercoli LM, Siddarth P, Vinters HV, Bookheimer SY, Cole GM, Thompson PM, Huang SC, Barrio JR. Cerebral FDDNP-PET binding increases MCI and aging as neurodegeneration progresses. *Abstracts from the 10th International Conference on Alzheimer's Disease and Related Disorders (ICAD)*, 2006.

Abstracts – In Press

- AP1. David S, Ercoli LM, Siddarth P, Miller K, Dunkin J, **Small GW**. The relationship of memory controllability beliefs to memory enhancement training in healthy older adults. *Abstracts from the 35th Annual Meeting of the International Neuropsychological Society*, 2007 (in press).
- AP2. Ercoli L, David S, Siddarth P, Miller KM, Dunkin J, Kaplan A, Dorsey D, Small G. Memory enhancement training effects in healthy older adults compared to health education and weight list conditions. *Abstracts from the 35th Annual Meeting of the International Neuropsychological Society*, 2007 (in press).

Other Educational Publications, Newsletters, Non-Refereed Reviews, Videotapes, etc.

- E1. **Small GW**. Biologic treatments for geriatric depression. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*. Regents of the University of California, 1987, pp. 257-263.
- E2. **Small GW**. Psychopharmacology. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*. Regents of the University of California, 1988, pp. 217-223.

- E3. Jarvik LF, **Small GW**. Adult children are unprepared for parentcare. *Psychiatric Times* May 1988.
- E4. **Small GW**. THA: The answer to Alzheimer's disease? *UCLA Health Insights*, Nov 1988.
- E5. **Small GW**. Neuroleptics aid in treatment of elderly dementia. *Psychiatric Times* Jan 1989.
- E6. Jarvik L, **Small G**. How to cope when a parent gets depressed. *UCLA Health Insights* Feb 1989.
- E7. Jarvik LF, **Small GW**. Parents and adult children: improving our relationships. *Executive Health Report*, Nov 1989: Vol 26, No. 2.
- E8. **Small GW**. Psychopharmacologic treatment of geriatric depression. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1989, pp. 281-287.
- E9. **Small GW**. Depression and anxiety. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1990, pp. 95-106.
- E10. **Small GW**. Parenting our parents. *Ethics: Easier Said Than Done*, Issues 7 & 8, 1990, pp. 82-85.
- E11. **Small GW**. A new kind of family medicine. *UCLA Magazine*. Fall 1990.
- E12. **Small GW**. Differentiating multi-infarct dementia from Alzheimer disease. *Southern California Psychiatric Society Newsletter*. Jan 1991.
- E13. Yang J, **Small GW**. Memory and aging. *Southern California Psychiatric Society Newsletter*. Mar 1991.
- E14. **Small GW**. Antidepressant side effects of concern in elderly patients. *Southern California Psychiatric Society Newsletter*. Apr 1991.
- E15. Yang J, **Small GW**. Memory changes in aging. *Senior Highlights*. May 1991.
- E16. **Small GW**. Depression and anxiety. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1991, pp. 59-72.
- E17. McPherson S, **Small GW**. Clinical features of Alzheimer's disease. *Southern California Psychiatric Society Newsletter*. Jul 1992.
- E18. Yang JA, **Small GW**. Eight ways to revive your aging memory. *Total Health* 14:24-25, 1992.
- E19. Sheppard E, **Small GW**, Addis B (producers). Coping with Parentcare. Educational videotape. NPI Behavioral Science Media Laboratory. 1992.
- E20. **Small GW**. Family studies of Alzheimer's disease: new Technologies to answer old questions. *Southern California Psychiatric Society Newsletter*. Sep 1993.
- E21. **Small GW**. Psychopharmacology. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1993, pp. 161-171.
- E22. **Small GW**. New genetic risk found for Alzheimer's disease. *UCLA Alzheimer's Disease Newsletter*. Winter 1994.
- E23. **Small GW**. Update on tacrine for treating Alzheimer's disease. *UCLA Alzheimer's Disease Newsletter*. Winter 1994.
- E24. **Small GW**. Management of behavioral disorders associated with dementia. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1994, pp. 205-216.
- E25. **Small GW**. Update on genetic risk and treatment for Alzheimer's disease. *Southern California Psychiatric Society Newsletter*. Sept 1994.
- E26. **Small GW**. Treating Alzheimer disease. *Southern California Psychiatric Society Newsletter*. Nov 1994.
- E27. **Small GW**. Mood disorders in the elderly. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1995, pp. 415-428.
- E28. **Small GW**. Mass hysteria and sick building syndrome. *Syllabus for American Academy of Neurology Annual Meeting*. 1995, pp. 44-51.
- E29. **Small GW**. Depression and anxiety in the elderly. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1996, pp. 291-308.
- E30. **Small GW**. New Alzheimer Disease Research. *International Psychogeriatrics Association Bulletin*. Winter 1995-Spring 1996, p. 22.
- E31. Yang J, Mega M, Huang SC, Lin KP, Toga A, **Small GW**, Phelps ME. Investigation of partial volume correction methods for brain FDG-PET studies. *1995 IEEE Nuclear Science Symposium and Medical Imaging Conference Record* 1996:1670-1674.
- E32. **Small GW**. Focus on site: the UCLA Geriatric Psychiatry Fellowship Training Program (Article based upon interview). *Current Approaches to Dementia*. 1996;2:4-5.
- E33. **Small GW**. Practical implications of Alzheimer's research: neuroimaging, neuropsychological and genetic findings. *Psychiatric Times* February 1997, pp. 52-54.
- E34. **Small GW**. Genetics of Alzheimer's disease. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 1997, pp. 349-364.
- E35. **Small GW**. Consensus reached on diagnosis and treatment of Alzheimer's disease. *National Council on Aging Innovations in Aging*. 1997;4:20-23.
- E36. **Small GW**. Estrogen and mental illness in aging. *Presentations in Focus: Reports and Expert Commentary*. 1997.

- E37. Salzman C, Schneider LS, **Small GW**. Geriatric psychiatry update. *American College of Psychiatrists Audiotape*. Volume 18, Mar. 1998.
- E38. Folstein MF, Schneider LS, **Small GW**, Williams TF. Alzheimer's disease: current progress, future promise. *Patient Care*. 1998;32:156-180.
- E39. **Small GW**. Book Review of *Neurobiology of Primary Dementia*. *Psychiatric Times*, 1999.
- E40. **Small GW**. Diagnosing and treating Alzheimer's disease and related disorders: The vital role of the primary care physician. *Guidelines Compendium*, 1999.
- E41. **Small GW**. Benefits of early diagnosis of Alzheimer's disease. In *Alzheimer's Disease: Management and Expectations* (Educational Monograph) 1999.
- E42. **Small GW**. Neuroimaging in AD diagnosis: Focus on positron emission tomography. *Alzheimer's Disease: Management Today* 1999;2:10-13.
- E43. Fillit HM, **Small GW**, Wilson NL. Managing the care of demented elderly patients in a primary care setting. *ElderCom Educational Program*. American Geriatrics Society. 1999.
- E44. **Small GW**. Advances in research: Neuroprotectant agents in the treatment of Alzheimer's disease (interview). *Perspectives on Geriatric Mental Health* 1999;5:4-6.
- E45. **Small GW**. Early detection and prevention of Alzheimer's disease. *Los Angeles Alzheimer's Association A Helping Hand Newsletter*. Winter, 1999.
- E46. **Small GW**. Early diagnosis of Alzheimer's disease: Update on combining genetic and brain imaging measures. Scientific Proceedings XIIIth Recent Advances in Psychiatry Conference. Rouffach, France, 1999.
- E47. **Small GW**. Neuroimaging, genetics and other diagnostic tools. *Syllabus, Intensive Course in Geriatric Medicine and Board Review*, Regents of the University of California, 2000.
- E48. Weiner M, DeCarli C, deLeon M, Fox N, Jack C, Scheltens P, **Small GW**, Katchaturian Z, Petersen R, Thal L. Neuroimaging for detection, diagnosis, and monitoring of Alzheimer's disease and other dementias: Proceedings of the Alzheimer's Imaging Consortium. 2000. Washington, DC.
- E49. Silverman DHS, **Small GW**. Positron emission tomography (PET) in the evaluation of Alzheimer's disease and related dementias. *Applied Imaging* 2003;1:1-6.
- E50. **Small GW**, Devanand DP, Knopman DS, Morris JC. The evolution of Alzheimer's disease: Clinical criteria and therapeutic options. *Medical Crossfire* 2001;3:36-44.
- E51. **Small GW**, Wagner M. Advances in the treatment of vascular dementia. Oxford Institute for Continuing Education. Philadelphia, 2002.
- E52. **Small GW**, Gorelick PB, Hanley DF, Roman GC, Zorowitz RD. Vascular dementia : The basics with Case Presentations. Vascular Dementia Clinical Case Series: #1. Medical Education Resources, Inc., Littleton, CO (Educational Monograph; 22 pp.), 2002.
- E53. **Small GW**, Gorelick PB, Hanley DF, Roman GC, Zorowitz RD. Vascular dementia : A topic review with case presentations. Vascular Dementia Clinical Case Series: #2. Medical Education Resources, Inc., Littleton, CO (Educational Monograph; 22 pp.), 2002.
- E54. **Small GW**, McDonnell DD, Brooks RL, Papadopoulos G. The impact of symptom severity on the cost of Alzheimer's disease. *Research and Practice in Alzheimer's Disease and Cognitive Decline*, 2003.
- E55. **Small GW**. Secrets of building a better memory at any age. *Bottom Line Health* 2003;17:5,1-3.
- E56. Silverman DHS, **Small GW**. Positron emission tomography (PET) in the evaluation of Alzheimer's disease and related dementias. *Applied Imaging* 2003;1:1-6.
- E57. **Small GW**. Improve your memory now (compact discs/cassettes). *Sounds True Productions*, Boulder, Colorado, 2003.
- E58. Grossberg GT, Corey-Bloom J, **Small GW**, Tariot PN. Emerging therapeutic strategies for treating Alzheimer's disease in primary care. *Journal of Clinical Psychiatry* 2003;5:6.
- E59. **Small G**. Executive Producer and Host: *Dr. Gary Small's Memory Bible*. Public Television (PBS) Pledge Drive Special. 2004.
- E60. **Small GW**. Brain boosters: New ways to prevent and treat Alzheimer's disease. *Bottom Line Personal* 2004;25:11.
- E61. **Small GW**. Dementia: Novel intervention strategies (introduction). *The Psychiatry Report, An Academic Perspective* 2004;2:11.
- E62. Silverman DHS, **Small GW**. PET in the evaluation of Alzheimer's disease and related dementias. *CTI/PETNET Internet article* (www.iame.com/learning/alz_rc/alz_cintro.html) 2004.
- E63. Grossberg GT, Corey-Bloom J, **Small GW**, Tariot PN. Emerging therapeutic strategies in Alzheimer's disease. *Journal of Clinical Psychiatry* 2004;65:2.
- E64. **Small GW**. Dr. Gary Small tells how to keep your brain and body young. *Bottom Line Tomorrow* 2005;13:3.
- E65. **Small GW**. Sharpen your mind to live longer and better. *Care Advantage* 2006:18-21.

SEMEL
INSTITUTE

U C L A



Office of the Director, Memory & Aging Research Center
Jane & Terry Semel Institute for Neuroscience & Human Behavior

RECEIVED FEB 9 2007

University of California, Los Angeles
760 Westwood Plaza, Suite 88-201
Los Angeles, California 90024-1759

Gary W. Small, M.D.

Director

Memory & Aging Research Center

voice (310) 825-0291

fax (310) 825-3910

gsmall@mednet.ucla.edu

February 2, 2007

Teresa W. Borcheck
Corporate Trustee
The Evelyn F. McKnight Brain Research Foundation
The SunTrust Bank
Post Office Box 620005
Orlando, Florida 32862-0005

Dear Ms. Borcheck:

I was delighted to learn that the Foundation Trustees will be discussing a possible UCLA proposal on February 20, 2007. As I described in the material I sent, we have an outstanding research team, including renowned experts in basic science (e.g., Jorge Barrio, Greg Cole, Harry Vinters), neuroimaging (e.g., Paul Thompson, Mike Phelps), neuropsychology (Susan Bookheimer), biomathematics (Henry Huang) and more. We also have adequate space. However, if we are to accelerate our research in memory so that we can see its impact as soon as possible, we need increased funding to support salaries, recruitment, and costs of experiments.

As I mentioned, I will be available by telephone during the time of the meeting, if any questions arise.

Sincerely,

Gary W. Small, M.D.
Parlow-Solomon Professor on Aging
Professor of Psychiatry & Biobehavioral Sciences
Director, UCLA Center on Aging
Director, Semel Institute Memory & Aging Research Center

cc: Nina Ellenbogen Raim, M.D., J.D.



Gary W. Small, M.D.

Director

Memory & Aging Research Center

voice (310) 825-0291

fax (310) 825-3910

gsmall@mednet.ucla.edu

February 15, 2007

Teresa W. Borcheck
McKnight Brain Research Foundation
The SunTrust Bank
200 South Orange Ave.
SOAB-8
Orlando, FL 32801
Phone: (407) 237-5907

Dear Ms. Borcheck:

I am writing to provide some additional information about the scientists in my group here at UCLA, which might be helpful when the Board reviews our work. The group I lead includes scientists working on a range of focused, integrated studies from basic research to clinical investigations and technology development. Among many others, our team includes:

- Dr. Jorge Barrio is the lead chemist for PET scan probe development. Jorge Barrio is not only a scholarly scientist, but he has served for many years in the US Pharmacopeia (USP) in the area of radiopharmaceuticals. The USP is a non-profit organization that provides the standards for drug compounding, preparations, uses and indications. The USP was established long before the FDA, and until the FDA was formed, provided the scientific and medical criteria, guidelines and good practices for drugs and radiopharmaceuticals. It still does that today. Dr. Barrio has also led the Society of Nuclear Medicine and Academy of Molecular Imaging engagement of the FDA regarding PET radiopharmaceuticals. Dr. Barrio was invited to present to the Nobel Foundation in Stockholm this May. He is the only speaker invited on the topic of molecular imaging.
- Dr. Michael Phelps, who chairs the Department of Molecular and Medical Pharmacology at UCLA and is the original inventor of PET (Positron Emission Tomography). Dr. Phelps has received numerous awards, including the Enrico Fermi Presidential Award in 1998 and election to the National Academy of Sciences in 1999.

As I summarized earlier, my own work in memory and aging has received extensive awards and recognition. I have been a member of the American Academy of

Ms. Teresa W. Borchek
Page 2

Neurology Practice Parameter Committee, which determines the clinical diagnostic criteria for differentiating age-related memory loss from dementia. Under my leadership, my group has received continuous support from the NIH for the past 25 years. Last week, I was invited to present my research to the U.S. Congress March of this year.

I hope that this additional information is helpful. I have included some of our team's NIH biosketches for additional detail.

Sincerely,

A handwritten signature in cursive script that reads "Gary Small".

Gary W. Small, M.D.
Parlow-Solomon Professor on Aging
Professor of Psychiatry & Biobehavioral Sciences
Director, UCLA Center on Aging
Director, Semel Institute Memory & Aging Research Center

Encl.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Small, Gary William		POSITION TITLE Professor of Psychiatry and Biobehavioral Sciences	
eRA COMMONS USER NAME			
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
University of California, Los Angeles	B.A.	1973	Biology
University of Southern California	M.D.	1977	Medicine

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

1977-1978 Internship, Internal Medicine, Children's Hospital & Adult Med. Center, S.F., CA
 1978-1981 Psychiatry Residency, Massachusetts General Hospital, Boston, MA
 1978-1981 Clinical Fellow in Psychiatry, Harvard Medical School
 1981-1983 Geriatric Psychiatry Fellow, UCLA School of Medicine
 1983-Present Assistant ('83) to Associate ('90) to Full Professor ('95) of Psychiatry, UCLA
 1988-Present Director, UCLA Geriatric Psychiatry and Psychology Fellowship Program
 1997-Present Director, Imaging Core, UCLA Alzheimer Disease Center
 1997-Present Director, UCLA Center on Aging
 1998-Present Parlow-Solomon Professor on Aging, UCLA School of Medicine
 1998-Present Director, Memory and Aging Research Center, Semel Institute for Neuroscience

Other Experience and Professional Memberships

1984-Present Medical/Scientific Advisory Board, Alzheimer's Association, Los Angeles
 1985-Present Editor, Book Review Section, *Alzheimer Disease and Associated Disorders*
 1993-1997 Member, NIMH Study Section, Mental Disorders of Aging
 2004-present Editorial Board, Public Library of Science, Medicine

Honors

1973 Phi Beta Kappa, Summa Cum Laude (UCLA)
 1977 Alpha Omega Alpha (USC School of Medicine)
 1993 International Psychogeriatrics Association Research Award
 1988-1991 Alzheimer's Association Evelyn T. Stone Faculty Scholar Award
 1998-present Fellow, Gerontological Society of America
 1999-present Member, American College of Neuropsychopharmacology
 1999-2001 Zenith Award, Alzheimer's Association
 2000 Senior Investigator Award, American Association for Geriatric Psychiatry
 2000 Jack Weinberg Geriatric Psychiatry Award, American Psychiatric Association
 2002 *Scientific American* Magazine's Research Leader in Medical Diagnostics
 2003-present Distinguished Fellow, American Psychiatric Association

B. Selected peer-reviewed publications (from 354 articles, books, chapters; 297 abstracts).

1. Small GW, Jarvik LF. The dementia syndrome. *Lancet* 1982;2:1443-6.
2. Small GW. Tacrine for treating Alzheimer's disease. *JAMA* 1992;268:2564-5.
3. Small GW, Leuchter AF, Mandelkern MA, et al. Clinical, neuroimaging, and environmental risk differences in monozygotic female twins appearing discordant for dementia of the Alzheimer type. *Arch Neurol* 1993;50:209-19.
4. Corder EH, Saunders AM, Strittmatter WJ, Schmechel DE, Gaskell PC, Small GW, Roses AD, Haines JL, Pericak-Vance MA. Gene dose of apolipoprotein E type 4 allele and the risk of Alzheimer's disease in late onset families. *Science* 1993;261:921-3.
5. Small GW, Okonek A, Mandelkern MA, La Rue A, et al. Age-associated memory loss: initial neuropsychological and cerebral metabolic findings of a longitudinal study. *Int Psychogeriatr* 1994;6:21-43.

6. Corder EH, Saunders AM, Risch NJ, Strittmatter WJ, Schmechel DE, Gaskell PC, Rimmler JB, Locke PA, Conneally PM, Schmechel KE, Small GW, Roses AD, Haines JL, Pericak-Vance MA. Protective effect of apolipoprotein E type 2 allele for late onset Alzheimer disease. *Nature Genetics* 1994;7:180-3.
7. Small GW, Mazziotta JC, Collins MT, et al. Apolipoprotein E type 4 allele and cerebral glucose metabolism in relatives at risk for familial Alzheimer disease. *JAMA* 1995;273:942-7.
8. Small GW, La Rue A, Komo S, Kaplan A, Mandelkern MA. Predictors of cognitive change in middle-aged and older adults with memory loss. *Am J Psychiatry* 1995;152:1757-64.
9. Small GW, Schneider LS, Hamilton SL, et al. Site variability in a multisite geriatric depression trial. *Int J Geriatr Psychiatry* 1996;11:1089-95.
10. Relkin NR, Tanzi R, Breitner J, Farrer L, Gandy S, Haines J, Hyman B, Mullan M, Poirer J, Strittmatter W, Folstein M, Mayeux R, Petersen R, Roses A, Schenk D, Small GW, et al. Apolipoprotein E genotyping in Alzheimer's disease: position statement of the National Institute on Aging/Alzheimer's Association Working Group. *Lancet* 1996;347:1091-1095.
11. Small GW, Birkett M, Meyers BS, et al. Impact of medical burden on quality of life and antidepressant response in geriatric major depression. *J Am Geriatr Soc* 1996;44:1220-5.
12. Yang J, Huang SC, Mega M, Lin KP, Toga A, Small GW, Phelps ME. Investigation of partial volume correction methods for brain FDG-PET studies. *IEEE Transaction On Nuclear Science* 1996;43:3322-7.
13. Small GW, La Rue A, Komo S, Kaplan A, Mandelkern MA. Mnemonics usage and cognitive decline in age-associated memory impairment. *Intl Psychogeriatr* 1997;9:45-54.
14. Small GW, Noble EP, Matsuyama SS, et al. The D2 dopamine receptor A1 allele in Alzheimer disease and aging. *Arch Neurol* 1997;54:281-5.
15. Payami H, Schellenberg GD, Zarepari S, Kaye J, Sexton GJ, Head MA, Matsuyama SS, Jarvik LF, Miller B, McManus DQ, Bird TD, Katzman R, Heston L, Norman D, Small GW. Evidence for association of the major histocompatibility complex allele A2 with onset age of Alzheimer disease. *Neurology* 1997;49:512-8.
16. Small GW, Rabins PV, Barry PP, et al. Diagnosis and treatment of Alzheimer disease and related disorders: consensus statement of the American Association for Geriatric Psychiatry, the Alzheimer's Association, and the American Geriatrics Society. *JAMA* 1997;278:1363-71.
17. Pericak-Vance MA, Bass ML, Yamaoka LH, Gaskell PC, Scott WK, Terwedow HA, Menold MM, Conneally PM, Small GW, Saunders AM, Roses AD, Haines JL. Complete genomic screen in late-onset familial Alzheimer disease. *Neurobiology of Aging* 1998;19(Suppl):S39-S42.
18. Cherrier M, Small GW, La Rue A, Komo S. Mood state and cerebral metabolism in persons with age-associated memory impairment. *Psychiatry Research: Neuroimaging* 1997;76:67-74.
19. Ackerman DL, Greenland S, Bystritsky A, Small GW. Characteristics of fluoxetine versus placebo responders in a randomized trial of geriatric depression. *Psychopharm Bulletin* 1997;33:707-714.
20. Small GW, Donohue JA, Brooks RL. An economic evaluation of donepezil in the treatment of Alzheimer's disease. *Clinical Therapeutics* 1998;20:838-50.
21. Small GW, Scott WK, Komo S, Yamaoka LH, Farrer LA, Auerbach SH, et al. No association between the HLA-A2 allele and Alzheimer disease. *Neurogenetics* 1999;2:177-182.
22. Small GW, Chen ST, Komo S, et al. Memory self-appraisal in middle-aged and older adults with the apolipoprotein E-4 allele. *Am J Psychiatry* 1999; 156:1035-8.
23. Small GW, Ercoli LM, Silverman DHS, et al. Cerebral metabolic and cognitive decline in persons at genetic risk for Alzheimer's disease. *Proc Natl Acad Sci USA* 2000;97:6037-6042.
24. Bookheimer SY, Strojwas MH, Cohen MS, Saunders AM, Pericak-Vance MA, Mazziotta JC, Small GW. Brain activation in people at genetic risk for Alzheimer's disease. *N Engl J Med* 2000;343:450-456.
25. Beck C, Cody M, Souder E, Zhang M, Small GW. Dementia diagnostic guidelines: methodologies, results, and implementation costs. *J Amer Geriatr Soc* 2000;48:1183-95.
26. Rasgon NL, Small GW, Siddarth P, et al. Estrogen use and brain metabolic change in older adults. *Psychiatry Research: Neuroimaging* 2001;107:11-8.
27. Silverman DHS, Small GW, Chang CY, et al. Neuroimaging in evaluation of dementia: Regional brain metabolism and long-term clinical outcome. *JAMA* 2001;286:2120-7.
28. 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.
29. Silverman DHS, Gambhir SS, Huang J-WC, Schwimmer J, Kim S, Small GW, Chodosh J, Czernin J, Phelps ME. Evaluating early dementia with and without assessment of regional cerebral metabolism by PET: A comparison of predicted costs and benefits. *J Nucl Med* 2002;43:253-266.
30. Shoghi-Jadid K, Small GW, Agdeppa ED, et al. Localization of neurofibrillary tangles and beta-amyloid plaques in the brains of living patients with Alzheimer's disease. *Am J Geriatr Psychiatry* 2002;10:24-35.

31. Small GW, McDonnell DD, Brooks RL, Papadopoulos G. The impact of symptom severity on the cost of Alzheimer's disease. *J Am Geriatr Soc* 2002;50:321-7.
32. Scott WK, Hauser ER, Schmechel DE, Welsh-Bohmer KA, Small GW, Roses AD, Saunders AM, Gilbert JR, Vance JM, Haines JL, Pericak-Vance MA. Ordered subsets linkage analysis detects novel Alzheimer disease loci on chromosomes 2q34 and 15q22. *Am J Hum Genetics* 2003;73:1041-51.
33. Silverman DHS, Truong CT, Kim SK, Chang CY, Chen W, Kowell AP, Cummings JL, Czernin J, Small GW, Phelps ME. Prognostic value of regional cerebral metabolism in patients undergoing dementia evaluation: Comparison to a quantifying parameter of subsequent cognitive performance and to prognostic assessment without PET. *Molecular Genetics and Metabolism* 2003;80:350-355.
43. Rasgon NL, Silverman DH, Siddarth P, Miller K, Ercoli LM, Elman S, Lavretsky H, Huang S-C, Phelps ME, Small GW. Estrogen use and brain metabolic change in postmenopausal women at risk for Alzheimer's disease. *Neurobiol Aging* 2005;26:229-35.
44. Miller KJ, Rogers SA, Siddarth P, Small GW. Object naming and semantic fluency among individuals with genetic risk for Alzheimer's disease. *Intl Geriatr Psychiatry* 2005;20:128-136.
45. Shoghi-Jadid K, Barrio JR, Kepe V, Wu HM, Small GW, Phelps ME, Huang SC. Imaging beta-amyloid fibrils in Alzheimer's disease: A critical analysis through simulation of amyloid fibril polymerization. *Nucl Med Biol* 2005;32:337-351.
46. Kepe V, Barrio JR, Huang S-C, Ercoli L, Siddarth P, Shoghi-Jadid K, Cole GM, Satyamurthy N, Cummings JL, Small GW, Phelps ME. Serotonin 1A receptors in the living brain of Alzheimer's disease patients. *Proc Natl Acad Sci USA* 2006;103:702-7.
47. Ercoli LM, Siddarth P, Huang S-C, Miller K, Bookheimer SY, Wright BC, Phelps ME, Small GW. Perceived loss of memory ability and cerebral metabolic decline in persons with the apolipoprotein E-4 genetic risk for Alzheimer's disease. *Arch Gen Psychiatry* 2006; 63:442-8.
34. Small GW, Silverman DHS, Siddarth P, Ercoli LM, Miller KJ, Wright BC, Bookheimer SY, Barrio JR, Phelps ME. Effects of a 14-day healthy longevity lifestyle program on cognition and brain function. *Am J Geriatric Psychiatry* 2006;14:538-545.
35. Small GW, Kepe V, Ercoli L, Siddarth P, Miller K, Bookheimer SY, Lavretsky H, Burggren AC, Cole G, Vinters HV, Thompson PM, Huang S-C, Satyamurthy N, Phelps ME, Barrio JR. PET of brain amyloid and tau in mild cognitive impairment. *N Engl J Med* 2006;355:2652-2663.

C. Research Support.

P01-AG024831 (Small, G.W., Principal Investigator [PI])

09/01/05-08/31/09

NIA: Amyloid Plaque and Tangle Imaging in Aging and Dementia

This program project grant is designed to determine whether FDDNP plaque and tangle PET imaging (1) correlates with the expected neuropathological changes associated with aging and dementia; (2) predicts future decline in people at risk for dementia and in patients with dementia; and (3) augments other informative imaging, neuropsychological, and genetic risk measures in diagnosis and differential diagnosis of normal aging and dementia.

P50 AG 16570 (Cummings, J.L., PI; Small, G.W., Director, Imaging Core)

04/1/04-03/31/09

NIA: UCLA Alzheimer's Disease Research Center

The major goal of this project is to understand the mechanisms and optimize the treatment for Alzheimer Disease.

9 R01 AG18487-06 (Small, G.W., PI)

09/01/00-08/31/06

NIA: Brain Imaging and Mental Disorders of Aging Intervention

The goal of this project is to determine if a cholinesterase inhibitor is more effective than placebo in delaying cognitive and brain functional decline in people at risk for Alzheimer's disease.

U54 RR021813 (Toga, A., PI)

09/24/04-07/31/09

NIH/NCRR/Center for Computational Biology)

This is a proposal to establish a new Center for Computational Biology (CCB), in order to apply computational and mathematical approaches to the study of genes, cells, systems and whole brains.

P20 RR020750 (Bilder, R., PI)

09/28/04-07/31/07

NIH: Cognitive Phenotyping for Neuropsychiatric Therapeutics

This project aims to develop a "Center for Cognitive Phenomics" to systematically identify discrete cognitive endophenotypes important for interdisciplinary research on neuropsychiatric illnesses and their effective treatments.

The Rotary CART Fund (Small, G.W., PI)

07/01/05-12/31/06

Amyloid Plaque and Tangle Imaging in Mild Cognitive Impairment

The goal of this project is to perform FDDNP-PET scans on subjects with mild cognitive impairment.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2.
Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Michael E. Phelps, Ph.D.		POSITION TITLE Norton Simon Professor	
eRA COMMONS USER NAME			
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
Western Washington State University	B.S.	1965	Chemistry & Math
Washington University, St. Louis, MO	Ph.D.	1970	Chemistry

A. Positions and Honors**Professional Experience**

6/70 - 7/74 Asst. Prof. of Radiation Sciences and Elec. Engin., Washington Univ. Sch. of Med.
 7/74 - 10/75 Assoc. Prof. of Radiation Sciences and Elec. Engin., Washington Univ. Sch. of Med.
 10/75 - 9/76 Assoc. Prof. of Radiology, Hospital of the University of Pennsylvania
 9/76 - 7/92 Prof. of Radiological Sciences, Dept. of Radiological Sci., UCLA School of Medicine
 12/80 - present Prof. of Biomathematics, Dept. of Biomathematics, UCLA School of Medicine
 2/83 - Present Norton Simon Professor
 10/84 - present Director, Institute for Molecular Medicine (DoE), UCLA, School of Med.
 12/89 - present Director, Crump Institute for Molecular Imaging, UCLA School of Medicine
 7/91 - 7/01 Chief of Nuclear Medicine, UCLA School of Medicine
 7/92 - present Chair, Department of Molecular and Medical Pharmacology, UCLA School of Medicine

Honors and Awards

CRC Achievement Award in Mathematics (1962, 1963); George von Hevesy Prize (Nobel Laureate in Chemistry), George von Hevesy Foundation, Zurich, Switzerland (1978, 1982); Certificate of Excellence, Society of Cerebral Blood Flow and Metabolism (1979); Oldendorf Award, Society for Computerized Tomography and Neurological Imaging (1980); S. Weir Mitchell Award, Amer. Academy of Neurology (1981); Paul Abersold Award, Society of Nuclear Medicine (1983); Ernest O. Lawrence Presidential Award, Dept. of Energy (1984); Sarah L. Poiley Memorial Award, New York Acad. of Sciences (1984); Elected to the Institute of Medicine (1986); Richard and Hinda Rosenthal Foundation Award, Amer. College of Physicians (1987); Pasarow Foundation Award (1992); Enrico Fermi Presidential Award (1999); Elected to the National Academy of Sciences (1999); Kettering Prize, General Motors Cancer Foundation (2001), Benedict Cassen Memorial Prize, Society of Nuclear Medicine (2002).

Selected Professional Experience

Chair, NIH Biomathematics Study Section Biomath and Computer Sciences (1974-1978); Editorial Boards: J. of Computer Assisted Tomography (1976-1996); J. of Cerebral Blood Flow & Metabolism (1980-1988)-Founding Member of Journal and International Society; J. of Nuclear Medicine (1981-1987, 1998-present); Synapse (1988-1990); Cerebral Vascular and Brain Metabolism Reviews (1988-1992); Member of Science Advisory Board (1981-1985) and Board of Trustees (1992-present) of Hereditary Disease Foundation; Founder and Board member of the Institute for Clinical PET (1990-2000), Founding member, Board Member & President Academy of Molecular Imaging (2001-present), Senior Editor, Molecular Imaging & Biology (2001).

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

(Selected from total of 653 peer reviewed scientific articles, books, and book chapters)

1. **Phelps ME**, Hoffman EJ, Mullani NA, Ter-Pogossian MM: Application of annihilation coincidence detection to transaxial reconstruction tomography. *J Nucl Med* 16:210-224, 1975.
2. **Phelps ME**, Hoffman EJ, Huang SC, Kuhl DE: ECAT: A new computerized tomographic imaging system for positron-emitting radio-pharmaceuticals. *J Nucl Med* 19:635-647, 1978.
3. **Phelps ME**, Huang SC, Hoffman EJ, Selin CE, Kuhl DE: Tomographic measurement of local cerebral glucose metabolic rate in man with (F-18) fluorodeoxyglucose: Validation of method. *Ann Neurol* 6:371-388, 1979.
4. **Phelps ME**, Kuhl DE, Mazziotta JC: Metabolic mapping of the brain's response to visual stimulation: studies in man. *SCIENCE* 211:1445-1448, 1981 (Cover Article).
5. **Phelps ME**, Mazziotta JC, Kuhl DE: Positron computed tomography. *JAMA* 247:850-851, 1982.
6. **Phelps ME**, Huang SC, Hoffman EJ, Plummer D, Carson, RE: An analysis of signal amplification using small detectors in positron emission tomography. *J Comput Assist Tomogr* 6:551-565, 1982.
7. Hoffman EJ, **Phelps ME**, Huang SC, Plummer D, Kuhl DE: Evaluating the performance of multiplane positron tomographs designed for brain imaging. *IEEE Nucl Sci* 29:469-473, 1982.
8. **Phelps ME**, Mazziotta JC: Positron emission tomography: human brain function and biochemistry. *SCIENCE* 228:799-809, 1985 (Invited Review).
9. Tillisch JH, Brunken RC, Marshall RC, Schwaiger M, Mandelkern M, **Phelps ME**, Schelbert HR: Reversibility of cardiac wall motion abnormalities predicted by positron tomography. *New Engl J Med* 314:884-888, 1986.
10. Chugani HT, **Phelps ME**: Maturational changes in cerebral function in human infants determined by ¹⁸FDG positron emission tomography. *SCIENCE* 231:840-843, 1986.
11. Mazziotta JC, **Phelps ME**, Huang SC, Baxter LR, Pahl J, Riege W, Kuhl DE, Wapenski J, Markham C: Cerebral glucose utilization reductions in clinically asymptomatic subjects at risk for Huntington's disease. *New Engl J Med* 316:357-362, 1987.
12. Chugani HT, Shewmon DA, Peacock WJ, Shields WD, Mazziotta JC, **Phelps ME**: Surgical treatment of intractable neonatal onset seizures: the role of positron emission tomography. *Neurol* 38:1178-1188, 1988.
13. **Phelps ME**: PET: A biological imaging technique. *J Neurochem Res* 16:929-940, 1991.
14. Dahlbom M, Hoffman EJ, Hoh CK, Schiepers C, Rosenqvist G, Hawkins RA, **Phelps ME**: A Positron Emission Tomography (PET) scanner for whole body imaging. *J Nucl Med* 33:1191-1199, 1992.
15. Small GW, Mazziotta JC, Collins MT, Baxter LR, **Phelps ME**, et al: Apolipoprotein E type 4 allele and cerebral glucose metabolism in relatives at risk for familial Alzheimer disease. *JAMA* 273:942-947, 1995.
16. Moon DH, Maddahi J, Silverman DHS, Glaspy JA, **Phelps ME**, Hoh CK. Accuracy of whole-body fluorine-18-FDG PET for the detection of recurrent or metastatic breast carcinoma. *J Nuc Med* 39:431-435, 1998.
17. Gambhir SS, Barrio JR, **Phelps ME**, et al: Imaging adenoviral-directed reporter gene expression in living animals with positron emission tomography. *Proc Natl Acad Sci* 96:2333-2338, 1999.
18. MacLaren DC, Gambhir SS, Satyamurthy N, Barrio JR, Sharfstein S, Toyokuni T, Wu L, Berk AJ, Cherry SR, **Phelps ME**, Herschman HR: Repetitive, non-invasive imaging of the dopamine D2 receptor as a reporter gene in living animals. *Gene Therapy* 6:785-791, 1999.
19. Chatziioannou AF, Cherry SR, Shao Y, Silverman RW, Meadors K, Farquhar TH, Pedarsani M, **Phelps ME**: Performance evaluation of microPET: A high resolution lutetium oxyorthosilicate PET scanner for animal imaging. *J Nucl Med* 40:1164-1175, 1999.
20. Namavari M, Barrio JR, Gambhir SS, Cherry SR, Herschman HR, **Phelps ME**, Satyamurthy N: Synthesis of 8-[¹⁸F]fluoroguanine derivatives: In vivo probes for imaging gene expression with positron emission tomography. *Nucl Med Biol* 27:157-162, 2000.
21. Small GW, Ercoli LM, Silverman DH, **Phelps ME**, et al: Cerebral metabolic and cognitive decline in persons at genetic risk for Alzheimer's disease. *Proc Nat Acad Sci* 97:6037-6042, 2000.
22. **Phelps ME**: Positron emission tomography provides molecular imaging of biological processes. *Proc Nat Acad Sci* 97:9226-9233, 2000.
23. Gambhir SS, Bauer E, Black ME, Liang Q, Kokoris MS, Barrio JR, Namavari M, **Phelps ME**, Herschman HR. A mutant herpes simplex virus type 1 thymidine kinase reporter gene shows improved sensitivity for imaging reporter gene expression with positron emission tomography. *Proc Nat Acad Sci* 97:2785-2790, 2000.
24. Gambhir SS, Czernin J, Schwimmer J, Silverman DH, Coleman RE, **Phelps ME**: A tabulated summary of the FDG PET literature. *J Nucl Med* 42 (Supplement):1-93, 2001.

25. Adonai N, Nguyen K, Walsh J, Iyer M, Toyokuni T, **Phelps ME**, McCarthy T, McCarthy D, Gambhir SS: Ex Vivo Cell Labeling with ⁶⁴Cu-Pyruvaldehyde-Bis(N4-Methylthiosemicarbazone) for Imaging Cell Trafficking in Mice with Positron Emission Tomography. *Proc Nat Acad Sci* 99(5):3030-3035, 2002.
26. Ray P, Pimenta H, Paulmurugan R, Berger F, **Phelps ME**, Iyer M, Gambhir SS: Noninvasive quantitative imaging of protein-protein interactions in living subjects. *Proc Nat Acad Sci* 99(5):3105-3110, 2002.
27. Heath JR, **Phelps ME**, Hood L: NanoSystems Biology. *Molec Imag Biol* 5:312-25, 2003.

C. Research Support

Ongoing Research Support

DE-FC03-02ER63420 Phelps (PI)

01/01/2005 - 12/31/2009

Department of Energy

UCLA-DOE Institute for Molecular Medicine

To develop the molecular imaging technologies of positron emission tomography (PET) using radiotracers and radiopharmaceuticals in the study, diagnosis and treatment of diseases at the level of the molecular systems of cells that establish the basis of normal organ function and contain the molecular errors of disease in living subjects. Further, it is to use PET radiopharmaceuticals as molecular imaging probes to guide the discovery and evaluation process of pharmaceuticals for treatment of disease.

Role: Director

R01 AG18487 Small (PI)

09/01/2000 – 08/31/2005

NIH

Brain Imaging and Mental Disorders of Aging Intervention

This project is designed to assess the clinical and brain metabolic progression of age-related decline in the autosomal dominant form of familial Alzheimer's disease (FAD).

Role: Investigator

R01 HL3317 Schelbert (PI)

09/01/2000 – 08/31/2005

NIH

Positron Tomography in Ischemic Heart Disease

Employs measurement of MBF with ¹³N ammonia and PET in coronary risk factors in order to detect noninvasively alterations in coronary vasoreactivity as likely events in the evolution of coronary atherosclerosis.

Role: Investigator

P50 CA86306 Herschman (PI)

05/01/2000 - 04/30/2005

NIH

Phelps (Co-PI)

The UCLA Center for In Vivo Imaging in Cancer Biology

The goal of the UCLA ICMIC is to translate new in vivo imaging technology to cancer research. We are proposing projects that utilize microPET in living animals to answer questions in cancer initiation, progression, metastasis, vascularization, immune modulation and gene therapy that would otherwise be difficult to approach.

Role: Co- Principle Investigator

R24-CA92865 Phelps (PI)

10/01/2003 – 09/30/2006

NIH

UCLA Imaging Resource for Mouse Cancer Models

The Goal is to provide a multimodality (microPET, optical, microCT and autoradiography) imaging facility for biological and pharmacological research, supported by a software platform for data storage & retrieval, network communication, image processing and tools for tracer kinetic and pharmacokinetic modeling and data analysis

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
Photocopy this page or follow this format for each person. **DO NOT EXCEED FOUR PAGES**

NAME	POSITION TITLE		
Jorge Raul Barrio, Ph.D.	Professor		
eRA COMMONS USER NAME			
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
University of Buenos Aires, Argentina	B.S.	1964	Biochemistry
University of Buenos Aires, Argentina	Ph.D.	1969	Biochemistry
University of Illinois	Ph.D.	1979	Chemistry

A. Positions and Honors**Professional Experience**

1970-1973 Research Associate, Univ. of Illinois, School of Chemical Sciences, Urbana, Ill.
 1974-1975 Assist. Prof., Univ. of Buenos Aires, School of Pharm. & Biochemistry, Argentina
 1975-1977 Visiting Scientist, Univ. of Illinois, School of Chemical Sciences, Urbana, Ill.
 1977-1979 Research Chemist, Univ. of Illinois, School of Chemical Sciences, Urbana, Ill.
 1979-present Principal Investigator, Lab. of Biomedical & Environmental Sciences, UCLA
 1979-1983 Associate Professor of Radiological Sciences & Pharmacology, UCLA
 1983-1992 Professor of Radiological Sciences & Pharmacology, UCLA
 1992-present Professor of Molecular and Medical Pharmacology
 1994-present Chair, Medical Radiation Safety Committee and Radiation Drug Research Committee, UCLA
 1997-present Chair, Institute of Clinical PET Radiopharmaceutical Committee

Honors

1982 George Von Hevesy Prize (George Von Hevesy Foundation, Zurich, Switzerland)
 1987 Who is Who in America
 1991-present President, UCLA Chapter, Sigma Xi
 1992 Honorary Member, Spanish Society of Radiopharmacy
 1992 Honorary Member, Argentine Society of Radiopharmacy
 1995 Elected Member, Division of Standards (US Pharmacopeia; period 1995-2000)

B. Selected peer-reviewed publications

(Selected from 176)

- Barrio JR**, Secrist III AJ, Leonard NJ (1972) A fluorescent Analog of Nicotinamide Adenine Dinucleotide. *Proc Nat Acad Sci US* 69:2039-2042.
- Barrio JR**, Dammann LG, Kirkegaard LH, Switzer RL, Leonard NJ (1973) Enzymatic Activity and Gamma-32P Labeling of Fluorescent Derivatives of Cytidine Triphosphate and Adenosine Triphosphate. *J Amer Chem Soc* 95:961-962.
- Barrio JR**, Tolman GL, Spencer RD, Weber G, Leonard NJ (1973) Flavin 1, N6-ethenoadenine Dinucleotide: Dynamic and Static Quenching of Fluorescence. *Proc Nat Acad Sci US* 70: 941-943.
- Barrio JR**, Sattsangi P, Gruber BA, Dammann LG, Leonard NJ (1976) Species Responsible for the Fluorescence of 3, N4-ethenocytidine. *J Amer Chem Soc* 98:7408-7414.
- Barrio JR**, Barrio MCG, Leonard NJ, England TE, Uhlenbeck OC (1978) Synthesis of Modified Nucleoside 3', 5'-bisphosphates and their Incorporation into Oligoribonucleotides with T4 RNA Ligase. *Biochemistry* 17:2077-2081.
- Barrio JR**, Liu FT, Keyser G, VanDerlijn P, Leonard NJ (1979) Linear-benzoadenine Nucleotides: Inter and Intramolecular Interactions in Aqueous Solutions as Observed by Proton Magnetic Resonance. *J Amer Chem Soc* 101:1564-1569.
- Barrio JR**, Bryant JD, Keyser GE (1980) A Direct Method for the Preparation of 2-hydroxyethoxymethyl Derivatives of Guanine, Adenine and Cytosine. *J Med Chem* 23: 572-574.
- Barrio JR**, Satyamurthy N, Ku H, Phelps ME (1983) The Acid Decomposition of 1-aryl-3, 3-Dialkyltriazenes. Mechanistic Changes as a Function of Aromatic Substitution, Nucleophile Strength and Solvent. *J Chem Soc, Chem Comm* 443-444.

- Bida GT, Satyamurthy N, **Barrio JR** (1984) The Synthesis of 2-[F-18]Fluoro-2-deoxy-d-glucose Using Glycols: A Re-examination. *J Nucl Med* 25:1327-1334.
- Satyamurthy N, Bida GT, **Barrio JR**, Luxen A, Mazziotta JC, Phelps ME (1986) No-carrier-added 3-(2-[F-18]fluoroethyl)Spiperone, A New Dopamine Receptor-binding Racer for Positron Emission Tomography. *Nucl Med Biol* 13:617-624.
- Luxen A, **Barrio JR** (1988) Fluorination of Substituted Veratroles Via Regioselective Mercuration. *Tetrahedron Lett* 29:1501-1504.
- Barrio JR**, Huang SC, Phelps ME (1988) In Vivo Assessment of Neurotransmitter Biochemistry in Humans. *Ann Rev Pharmacol Toxicol* 28:213-230.
- Padgett HC, Schmidt DG, Luxen A, Bida GT, Satyamurthy N, **Barrio JR** (1989) Computer-controlled Radiochemical Synthesis: A Chemistry Process Control Unit for the Automated Production of Radiochemicals. *Appl Radiat Isot* 40:433-449.
- Keen RE, **Barrio JR**, Huang SC, Hawkins RA, Phelps ME: (1989) In-vivo Cerebral Protein Synthesis Rates with Leucyl-transfer RNA Used as Precursor Pool: Determination of Biochemical Parameters to Structure Tracer Kinetic Models for Positron Emission Tomography. *J Cereb Blood Flow Metab* 9:429-445.
- Melega WP, Luxen A, Perlmutter MM, Nissenson CHK, Phelps ME, **Barrio JR** (1990) Comparative In-vivo Metabolism of 6-[¹⁸F]Fluoro-L-dopa and [³H]L-dopa in Rats. *Biochemical Pharmacology* 39:1853-1860.
- Barrio JR**, Huang SC, Melega WP, Yu DC, Hoffman JM, Schneider JS, Satyamurthy N, Mazziotta JC, Phelps ME (1990) 6-[¹⁸F]Fluoro-L-dopa Probes Dopamine Turn-over Rates in Central Dopaminergic Structures. *J Neurosci Res* 27:487-493.
- Melega WP, Grafton ST, Huang SC, Satyamurthy N, Phelps ME, **Barrio JR** (1991) 6-[¹⁸F]Fluoro-L-DOPA Metabolism in Monkeys and Humans: Biochemical Parameters for the Formulation of Tracer Kinetic Models with PET. *J Cereb Blood Flow Metab* 11:890-897.
- Melega WP, Hoffman JM, Schneider JS, Phelps ME, **Barrio JR** (1991) 6-[¹⁸F]Fluoro-L-DOPA metabolism in MPTP-treated monkeys: Assessment of Tracer Methodologies for Positron Emission Tomography. *Brain Res* 543:271-276.
- Barrio JR** (1991) Approaches to the Design of Biochemical Probes for Positron Emission Tomography. *Neurochem Res* 16: 1047-1054.
- Namavari M, Bishop A, Satyamurthy N, Bida G, **Barrio JR** (1992) Regioselective Radiofluorodestannylation with [¹⁸F]OF₂, [¹⁸F]F₂, and [¹⁸F]CH₃COOF: A High Yield Synthesis of 6-[¹⁸F]Fluoro-L-dopa. *Appl Rad Isot* 43:989-996.
- Namavari M, Satyamurthy N, **Barrio JR** (1993) Synthesis of 6-[¹⁸F]- and 4-[¹⁸F]Fluoro-L-m-tyrosines via Regioselective Radiofluorodestannylation. *Appl Rad Isot* 44:527-536.
- Keen RE, Nissenson CH, **Barrio JR** (1993) Analysis of Femtomole Concentrations of α -Ketoisocaproic Acid in Brain Tissue by Pre-Column Fluorescence Derivatization with 4,5-Dimethoxy-1,2-diaminobenzene. *Anal Biochem* 213:23-28.
- Satyamurthy N, Namavari M, **Barrio JR** (1994) Making ¹⁸F Radiotracers for Medical Research. *CHEMTECH* 24:25-32.
- Bishop A, Satyamurthy N, Bida GT, **Barrio JR** (1996) Chemical Reactivity of the ¹⁸F Electrophilic Reagents from the ¹⁸O(p,n),¹⁸F Gas Target Systems. *Nucl Med Biol* 23: 559-565.
- Barrio JR**, Huang SC, Yu DC, Melega WP, Quintana J, Cherry S, Jacobson A, Namavari M, Satyamurthy N, Phelps ME (1996) Radiofluorinated L-m-Tyrosines: New in-vivo Probes for Central Dopamine Biochemistry. *J Cereb Blood Flow Metab* 16: 667-678.
- Barrio JR**, Namavari M, Phelps ME, Satyamurthy N (1996) Regioselective Fluorination of Substituted Guanines with Dilute F₂: A Facile Entry to 8-Fluoroguanine Derivatives. *J Org Chem* 61: 6084-6085.
- Jacobson A, Petric A, Hogenkamp D, Sinur A, **Barrio JR** (1996) 1,1-Dicyano-2-[6-[Dimethylamino]-2-naphthalenyl]-Propane: A Solvent Polarity and Viscosity Sensitive Fluorophore for Fluorescence Microscopy. *J Am Chem Soc* 118: 5572-5579.
- Barrio JR**, Namavari M, Phelps ME, Satyamurthy N (1996) Elemental Fluorine to 8-Fluoropurines in One Step. *J Am Chem Soc* 118(43): 10408-10411.
- Barrio JR**, Huang SC, Phelps ME (1997) Biological Imaging and the Molecular Basis of Dopaminergic Diseases. *Biochem Pharmacol* 54: 431-348, 1997.
- Stout DB, Huang SC, Melega WP, Phelps ME, **Barrio JR** (1998) Effects of Large Neutral Amino Acid Concentrations on 6-[¹⁸F]Fluoro-L-DOPA Kinetics. *J Cereb Blood Flow Metab* 18: 43-51.
- Gambhir SS, **Barrio JR**, Herschman HR, Phelps ME (1999) Imaging Gene Expression: Principles and Assays. *J Nucl Cardiol* 6: 219-233.
- Gambhir SS, **Barrio JR**, Iyer M, Namavari M, **Satyamurthy N**, Wu L, Green LA, Bauer E, MacLaren DC, Nguyen K, Berk AJ, Cherry SR, Phelps ME, Herschman HR (1999) Imaging Adenoviral-Directed Reporter Gene Expression in Living Animals with Positron Emission Tomography. *Proc Natl Acad Sci* 96: 2333-2338.

C. Research Support

Ongoing Research Support

DE-FC03-87ER60615 Phelps (PI)

07/01/2002 - 12/31/2005

Department of Energy

Center for Molecular Medicine Research Program

Design, Synthesis and Validation of Molecular Imaging Probes - This project is based on the long standing objective on the development and validation of positron-emitting and fluorescent labeled probes for specific tissue targets, namely enzyme function, receptor binding or pathological depositions.

Role: Project PI

R01 AG18487-07 Small (PI)

09/01/2000 - 08/31/2005

National Institutes of Health

Brain Imaging and Mental Disorders of Aging Intervention

Perform PET and genetic risk studies in people with age-associated memory impairment (AAMI) using a double-blind placebo-controlled clinical trial of the cholinesterase inhibitor donepezil.

Role: Investigator

P50 CA86306-03 Herschman (PD)

05/01/2000 - 04/30/2005

NIH-National Cancer Institute

The UCLA Center for In Vivo Imaging in Cancer Biology

Resource Project 1: Cyclotron and Radiochemistry Facility. The cyclotron and radiochemistry facility plays a key role for the ICMIC and development studies. The cyclotron laboratory has the capability to provide more than thirty different radiopharmaceuticals labeled with positron emitting isotopes.

Role: Project PI

Completed Research Support

R21 MH64679 Silverman (PI)

04/01/2002 - 03/31/2004

NIH-National Institute of Mental Health

Evaluation of Pre-Synaptic Calcium Channels In Vivo

The goal of this project is to study the feasibility of quantitatively assessing regional synaptic density in the living brain, while helping to lay the basic groundwork necessary to achieving quantitative imaging of presynaptic calcium channels in vivo.

Role: Investigator

biostar01-10186 Barrio (PI)

08/01/2002 - 07/30/2004

UC Biotechnology STAR Program

COX-2 Specific In Vivo Molecular Imaging Probes

Development of a variety of fluorine-18 labeled positron emission tomography (PET) molecular diagnostic probes that will be useful for the identification and monitoring of COX-2 based inflammatory response in humans. The utility of these probes will be demonstrated by their biochemical characterization using non-invasive microPET techniques.

Role: PI

biostar01-10184 Barrio (PI)

08/01/2002 - 07/30/2004

UC Biotechnology STAR Program

Molecular Imaging Probes for the In Vivo Assessment of Signal Pathways

Development of a variety of fluorine-18 labeled positron emission tomography (PET) molecular diagnostic probes that will be useful for the identification and monitoring of cancer treatment in humans. The utility of these probes will be demonstrated by their biochemical characterization using non-invasive microPET techniques.

Role: PI

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel and other significant contributors in the order listed on Form Page 2. Follow this format for each person. **DO NOT EXCEED FOUR PAGES.**

NAME Bookheimer, Susan		POSITION TITLE Professor	
eRA COMMONS USER NAME			
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 & BioBehavioral Sciences, UCLA School of Medicine
 2000-2004 Associate Professor, Dept. Psychiatry & BioBehavioral Sciences, UCLA School of Medicine
 2004-present Professor, Dept. Psychiatry & BioBehavioral Sciences, UCLA David Geffen 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) (selected from >60 publications)

1. Bhatia, S.; Bookheimer, S.Y.; Gaillard, W.; and Theodore, W.T. (1993). Measurement of whole temporal lobe and hippocampus for MR volumetry: Normative data. *Neurology*, 43(10): 2006-2010.
2. Cohen, M.S. and Bookheimer, S.Y. (1994). Functional Magnetic Resonance Imaging. *TINS*, 17(7): 268-77.
3. Bookheimer, S.Y.; Zeffiro, T.A.; Blaxton, T.; Gaillard, W.D.; Malow, B. and Theodore, W.H. (1998). Regional Cerebral Blood Flow during Auditory Responsive Naming: Evidence for Cross-Modality Neural Activation. *Neuroreport*, Vol 9 (10).
4. Small, G; Chen, ST; Komo, S.; Ercoli, L; Bookheimer, S.Y., Miller, K; Kaplan, A, Dorsey, D.; Scott, W.K., Saunders, A.M., Haines, L.; Roses, A.D., Pericak-Vance, M. (1999) Memory Self-appraisal in middle aged and older adults with the apolipoprotein E-4 Allele. *Am. J Psychiatry* 156:1035-1038.
5. Dapretto, M. and Bookheimer, S.Y. (1999) Form and Content: Dissociating Syntax and Semantics in Sentence Comprehension. *Neuron* 24(2):427-32.
6. Theodore WH, Bhatia S, Hatta J, Fazilat S, DeCarli C, Bookheimer SY, Gaillard WD. (1999). Hippocampal atrophy, epilepsy duration, and febrile seizures in patients with partial seizures. *Neurology*. 52(1):132-6.
7. Small G.W., Ercoli L.M., Silverman D.H., Huang S.C., Komo S., Bookheimer S.Y., Lavretsky H., Miller K., Siddarth P, Rasgon NL, Mazziotta JC, Saxena S, Wu HM, Mega MS, Cummings JL, Saunders AM, Pericak-Vance MA, Roses AD, Barrio JR, Phelps ME. (2000) Cerebral metabolic and cognitive decline in persons at genetic risk for Alzheimer's disease. *Proc Natl Acad Sci U S A* 2000 May 23;97(11):6037-42.

8. Zeineh, M, Engel, SE, and Bookheimer, S.Y..(2000) Application of Cortical Unfolding Techniques to functional MRI of the human hippocampus. *Neuroimage*. Jun;11(6 Pt 1):668-83.
9. Bookheimer SY, Strojwas MH, Cohen MS, Saunders AM, Pericak-Vance MA, Mazziotta JC, Small GW. (2000) Patterns of brain activation in people at risk for Alzheimer's disease. *N Engl J Med*, Aug 17;343(7):450-6.
10. Eldridge LL, Knowlton BJ, Furmanski CS, Bookheimer SY, Engel SA (2000) Remembering episodes: a selective role for the hippocampus during retrieval. *Nat Neurosci* 3(11):1149-52
11. Bookheimer, S.Y.; Zeffiro, T.A.; Blaxton, T.; Gaillard, W.D and Theodore, W.H. (2000). Activation of language cortex with automatic speech tasks. *Neurology*. 55(8):1151-1157.
12. Hariri, A, Bookheimer, S.Y., and Mazziotta, J.(2000) A neural network for modulating the emotional response to faces. *Neuroreport* 11(1), 43-48.
13. Zeineh MM, Engel SA, Thompson PM, Bookheimer SY (2001) Unfolding the human hippocampus with high resolution structural and functional MRI. *Anat Rec* 2001 Apr15;265(2):111-20.
14. Rasgon NL, Small GW, Siddarth P, Miller K, Ercoli LM, Bookheimer SY, Lavretsky H, Huang SC, Barrio JR, Phelps ME Estrogen use and brain metabolic change in older adults. A preliminary report. *Psychiatry Res* 2001 Jul 1;107(1):11-8.
15. Burggren AC, Small GW, Sabb FW, Bookheimer SY (2001). Specificity of brain activation patterns in people at genetic risk for Alzheimer's disease. *American Journal of Geriatric Psychiatry*, 2002 Jan-Feb;10(1):44-51.
16. Small GW, Chen ST, Komo S, Ercoli L, Miller K, Siddarth P, Kaplan A, Dorsey D, Lavretsky H, Saxena S, Bookheimer SY. 2001. Memory self-appraisal and depressive symptoms in people at genetic risk for Alzheimer's disease. *Int J Geriatr Psychiatry*: 16(11):1071-7.
17. Small, G.W.; Ercoli, L.M.; Silverman, D.H.S.; Huang, S.C.; Bookheimer, S.Y.; Lavretsky, H.; Miller, K.; Siddarth, P.; Mazziotta, J.; Saunders, A.M.; Pericak-Vance, M.A.; Roses, A.D.; Barrio, J.R. and Phelps, M.E. (2001). Influence of apoE Genotype and PET Brain Imaging on Preclinical Prediction of Alzheimer's Disease. *Alzheimer's Disease: Advances in Etiology, Pathogenesis and Therapeutics* (18):193-203.
18. Burggren AC, Bookheimer SY. 2002 Structural and functional neuroimaging in Alzheimer's disease: an update. *Curr Top Med Chem*.;2(4):385-93.
19. Mega MS, Small GW, Xu ML, Felix J, Manese M, Tran NP, Dailey JI, Ercoli LM, Bookheimer SY, Toga AW. 2002. Hippocampal Atrophy in Persons With Age-Associated Memory Impairment: Volumetry Within a Common Space. *Psychosom Med*;64(3):487-492.
20. Bookheimer, S.Y. Functional MRI of Language: New Approaches to Understanding the Cortical Organization of Semantic Processing. (2002). *Annual Review of Neurosciences*, 25:151-88.
21. Pouratian, N., Gioui, M., Bookheimer, S., and Toga, A.W. (2002). Utility of preoperative functional magnetic resonance imaging for identifying language cortices in patients with vascular malformations.. *J Neurosurg* 97(1):21-32.
22. Zeineh,M, Engel, S., Thompson, P., and Bookheimer, S. Dynamics of the Hippocampus during encoding and retrieval of face-name pairs (2003). *Science*, 299, pp. 577-580
23. Pouratian, N.; Sheth, S.; Bookheimer, S.; Martin, N.; Toga, A. (2003), Applications and limitations of perfusion-dependent functional brain mapping for neurosurgical guidance, *Neurosurg Focus*, July, 2003, Volume 15, 1-8.
24. Gelfand, J. and Bookheimer, S.Y.(2003) Dissociating Neural Mechanisms of Temporal Sequencing and Processing Phonemes. *Neuron*, *Neuron* 38(5):831-42.
25. Lavretsky H, Ercoli LM, Siddarth P, Bookheimer S, Miller K, Small GW. Apolipoprotein E-4 allele status, depressive symptoms, and cognitive decline in middle-aged and elderly non-demented persons. (2003) *American Journal of Geriatric Psychiatry* 11:6, 667-673.
26. Moody, T., Bookheimer, SY, Vanek, Z, and Knowlton B. An Implicit Learning Task Activates Medial Temporal Lobe in Patients With Parkinson's Disease. (2004) *Brain Research* 118, 438-442
27. Lieberman, M., Chang, G., Chiao, J., Bookheimer, S.Y., and Knowlton, B. (2004). An event-related fMRI study of artificial grammar learning in a balanced chunk strength design. *J Cog neuro*, 16 (3), 3-32.
28. Wang AT, Dapretto M, Hariri AR, Sigman M, Bookheimer SY Neural correlates of facial affect processing in children and adolescents with autism spectrum disorder. *J Am Acad Child Adolesc Psychiatry*. 2004 Apr;43(4):481-90.

C. Research Support**Ongoing Research Support**

1 RO1 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.

Role: Co-PI

1 RO1 AG13308-01 Small (PI)

7/01/000-6/30/05

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.

Role: Co-PI

1 RO1 HD 29891 Manis (PI) Bookheimer (Subcontract PI)

9/01/02-9/30/07

Bases of Normal and Disordered Reading

The UCLA subcontract uses fMRI to distinguished among subtypes of dyslexia in coordination with behavioral and neural network models.

Role: Subcontract PI

PO1 HD 354700003 Sigman (Program PI) Bookheimer (Project PI) 7/1/97-8/30/07

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 PI

1 RO1 EY12722-01A1 Cohen (PI)

5/12/00-4/30/05

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.

Role: Investigator

1 RO1 DA017830-01 Sowell (PI)

9/30/04-8/31/09

Longitudinal MRI in Prenatal Methamphetamine or Alcohol Exposure

The goal is to understand the effects of prenatal methamphetamine or alcohol exposure in the developing human brain using functional and structural magnetic resonance imaging and a longitudinal study design.

Role: Investigator

Completed Support

1 RO1 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.

Role: Investigator

1 RO1 NS 33310 Engel (PI)

7/01/00-6/30/04

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.

Role: Investigator

Pending Support:

1 PO1 AG025831-01 Small, G (PI)

2/1/06-2/1/11

Amyloid plaque and tangle imaging in aging and dementia

Project 3: Multimodal imaging in Aging and Dementia (Project PI Bookheimer)

This program project uses FDDNP to measure amyloid burden in patients with MCI and AD. Project 3 uses structural and functional MRI to measure the relationship between amyloid burden, functional abnormalities and hippocampal atrophy.

Role: Project 3 PI; Imaging Core Investigator; Project 1 (clinical) Investigator.

BIOGRAPHICAL SKETCH

Provide the following information for the key personnel in the order listed on Form Page 2.
Photocopy this page or follow this format for each person. **DO NOT EXCEED FOUR PAGES**

NAME Sung-Cheng Huang, D.Sc. eRA COMMONS USER NAME		POSITION TITLE 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
National Taiwan University, China	B.S.E.E.	1966	Electrical Engineering
Washington University, St. Louis, MO	M.S.	1969	Electrical Engineering
Washington University, St. Louis, MO	D.Sc.	1973	Biomed. Engineering
Washington University, St. Louis, MO	Postdoc	1973-74	Biomed. Comput. Lab.

A. Positions and Honors**Professional Experience**

1974-1977 Project Engineer, Picker Corporation, Cleveland, OH
 1977-1982 Assistant Professor, Dept. of Radiological Sciences, School of Medicine, UCLA
 1977-present Principal Investigator, Laboratory of Biomedical and Environmental Sciences and of Radiological Sciences, School of Medicine, UCLA
 1982-1986 Associate Professor, Laboratory of Biomedical and Environmental Sciences and of Radiological Sciences, School of Medicine, UCLA
 1986-1992 Professor, Dept. of Radiological Sciences, School of Medicine, UCLA
 1986-present Professor, Dept. of Biomathematics; School of Medicine, UCLA
 1992-present Professor, Dept. of Molecular and Medical Pharmacology, School of Medicine, UCLA

Honors

1982 Von Hevesy Prize for Nuclear Medicine Third World Congress of Nuclear Medicine and Biology

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

(Publications selected from over 250 peer-reviewed publications)

Hoffman EJ, **Huang SC**, Phelps ME: Quantitation of Positron Emission Computed Tomography: 1. Effect of Object Size. *J Compt Asst Tomogr* 3:299-308, 1979.
 Phelps ME, **Huang SC**, Hoffman EJ, Kuhl DE: Validation of Tomographic Measurement of Cerebral Blood Volume with C-11 Labeled Carboxyhemo-Globin. *J Nucl Med* 20:328-334, 1979.
Huang SC, Hoffman EJ, Phelps ME, Kuhl DE: Quantitation in Positron Emission Computed Tomography: 2. Effects of Inaccurate Attenuation Correction. *J Compt Assist Tomogr* 3:804-814, 1979.
 Phelps ME, **Huang SC**, Hoffman EJ, Selin CE, Kuhl DE: Tomographic Measurement of Regional Cerebral Glucose Metabolism Rate in Man with (F-18) Fluorodeoxyglucose: Validation of Method. *Ann Neurol* 6:371-388, 1979.
Huang SC, Phelps ME, Hoffman EJ, Sideris K, Selin CJ, Kuhl DE: Non-Invasive Determination of Local Cerebral Metabolic Rate of Glucose in Man. *Am J Physiol* 238:E69-E82, 1980.
 Schelbert HR, Phelps ME, **Huang SC**, MacDonald NS, Hansen H, Selin CE, Kuhl DE: N-13 Ammonia as an Indicator of Myocardial Blood Flow. *Circ* 63:1259-1272, 1981.
 Hoffman EJ, **Huang SC**, Phelps ME, Kuhl DE: Quantitation in Positron Emission Computed Tomography: 4. Effects of Accidental Coincidences. *J Compt Assist Tomogr* 5:391-400, 1981.

- Huang SC**, Carson RE, Phelps ME: A Boundary Method of Attenuation Correction in Positron Computed Tomography. *J Nucl Med* 22:627-637, 1981.
- Phelps ME, **Huang SC**, Kuhl DE, Hoffman EJ, Selin CE: Cerebral Extraction of N-13 Ammonia, its Dependence on Cerebral Blood Flow and Capillary Permeability. *Stroke* 12:607-619, 1981.
- Phelps ME, **Huang SC**, Hoffman EJ, Plummer D, Carson R: The Signal Amplification Technique (SAT): An Approach for Improving Resolution and Reducing Image Noise in Computed Tomography. *J Comput Assist Tomogr* 6:551-565, 1982.
- Huang SC**, Carson RE, Hoffman EJ, Carson J, MacDonald N, Barrio JR, Phelps ME: Quantitative Measurement of Local Cerebral Blood Flow in Humans by Positron Computed Tomography and 0-15 Water. *J Cereb Blood Flow and Metabol* 3:141-153, 1983.
- Huang SC**, Feng D, Phelps ME: Model Dependency and Estimation Reliability in Measurement of Cerebral Oxygen Utilization Rate with 0-15 Oxygen and Dynamic Positron Emission Tomography. *J Cereb Blood Flow and Metabol* 6:105-119, 1986.
- Huang SC**, Williams BA, Barrio JR, Krivokapich J, Nissenson C, Hoffman EJ, Phelps ME: Measurement of Glucose and FDG Transport and Phosphorylation Rates in Myocardium Using Dual-Tracer Kinetic Experiments. *FEBS Letters* 216:128-132, 1987.
- Weinberg IN, **Huang SC**, Hoffman EJ, et al: Validation of PET Acquired Input Functions for Cardiac Studies. *J Nucl Med* 29:241-247, 1988.
- Huang SC**, Bahn MM, Barrio JR, et al: A Double-Injection Technique for In Vivo Measurement of Dopamine D2 Receptor Density in Primates with FESP and Dynamic PET. *J Cereb Blood Flow Metabol* 9:850-858, 1989.
- Huang SC**, Williams BA, Krivokapich J, Araujo L, Phelps ME, Schelbert HR: Myocardial Rubidium-82 Kinetics in Rabbit Myocardium and a Compartmental Model for Estimation of Myocardial Blood Flow. *Am J Physiol* 256:H1156-H1164, 1989.
- Chen K, **Huang SC**, Yu D: Effects of Measurement Errors in Plasma Radioactivity Curve on Parameter Estimation in PET. *Physics in Med & Biol* 36:1183-1200, 1991.
- Huang SC**, Barrio JR, Yu DC, Chen B, Grafton S, Melega WP, Hoffman JM, Satyamurthy N, Mazziotta JC, Phelps ME: Modelling Approach for Separating Blood Time-Activity Curves in Positron Emission Tomographic Studies. *Phys Med Biol* 36:749-761, 1991.
- Huang SC**, Yu DC, Barrio JR, Grafton S, Melega WP, Hoffman JM, Satyamurthy N, Mazziotta JC, Phelps ME: Kinetics and Modeling of L-6-[¹⁸F]Fluoro-DOPA in Human Positron Emission Tomographic Studies. *J Cereb Blood Flow Metab* 11:898-913, 1991.
- Huang SC**, Yu DC: Capability Evaluation of a Sinogram Error Detection and Correction Method in Computed Tomography. *IEEE Trans Nucl Sci* 39:1106-1110, 1992.
- Lin KP, **Huang SC**, Guerrero TM, Baxter L, Yu DC, Melega W, Barrio J, Phelps ME: A General Technique for Inter-Study Registration of Multi-Function and Multi-Modality Images. *IEEE Trans Nucl Sci* 41:2850-2855, 1994.
- Barrio JR, **Huang SC**, Yu DC, Melega WP, Quintana J, Cherry SR, Jacobson A, Namarari M, Satyamurthy N, Phelps ME. Radiofluorinated L-m-tyrosine: new in-vivo probes for central dopamine biochemistry. *J Cereb. Blood Flow & Metab.* 16:667-678, 1996.
- Wu HM, **Huang SC**, Allada V, Wolfenden PH, Schelbert HR, Phelps ME and Hoh CK. Factor analysis for derivation of input function from dynamic FDC PET studies in small hearts. *J. Nucl. Med.* 37:1717-1722, 1996.
- Huang SC**, Hoh C, Barrio JR, Phelps ME. Measurement of BBB permeability in humans with PET. *An Introduction to the Blood Brain Barrier: Methodology & Biology*, Ed. W. Pardridge, 1997.
- Chinn G, **Huang SC**. A general class of preconditioners for statistical iterative reconstruction of emission computed tomograph. *IEEE Trans Med Imaging* 16:1-10, 1997.
- Truong D, **Huang SC**, Image analysis through the World Wide Web, *J. Nucl. Medicine* 38:309P, 1997.
- Huang SC**, Stout DB, Yee R, Satyamurthy N, Barrio JR, Distribution volume of radiolabeled large neutral amino acid in brain tissue, *J. Cereb. Blood Flow and Metab.* 18:1288-1293, 1998
- Huang SC**, Image oscillation reduction and convergence acceleration for OS-EM reconstruction, *IEEE Trans. Nucl. Sci.* 46:603-607, 1999
- Stout DB, **Huang SC**, Namavari M, Yee RE, Satyamurthy N, Barrio JR, Distribution volume of 3-O-methyl-6-[F-18]FDOPA in rat brain, *J. Cereb. Blood Flow Metab.* 20:1717-1724, 2000

Yee RE, **Huang SC**, Stout DB, Irwin I, Shoghi-Jadid K, Togasaki D, DeLanney LE, Langston JW, Satyamurthy N, Farahani KF, Phelps ME, Barrio JR, Nigrostriatal reduction of aromatic L-amino acid decarboxylase activity in MPTP-treated squirrel monkeys: in-vivo and in-vitro investigations, J. Neurochemistry, 74:1147-1157, 2000

Huang SC, Anatomy of SUV (Standardized Uptake Value), Nuclear Medicine & Biology, 27:643-646, 2000

Shoghi-Jadid K, **Huang SC**, Stout DB, Yee RE, Yeh EL, Farahani KF, Satyamurthy N, Phelps ME, Barrio JR, Striatal kinetic modeling of FDOPA with a cerebellar-derived constraint on the distribution volume of 3OMFD: a positron emission tomography (PET) investigation using non-human primates, J. Cereb. Blood Flow Metab. 20:1134-1148, 2000

Small GW, Ercoli LM, Silverman DHS, **Huang SC**, Komo S, Bookheimer SY, Lavretsky H, Miller K, Siddarth P, Mazziotta JC, Saxena S, Wu HM, Mega MS, Cummings JL, Saunders AM, Pericak-Vance MA, Roses AD, Barrio JR, Phelps ME, Cerebral metabolic and cognitive decline in persons at genetic risk for Alzheimer's disease, Proc. Natl. Acad. Sci., 97:6037-6042, 2000

Bergsneider M, Hovda DA, McArthur DL, Etchepare M, **Huang SC**, Sehati N, Satz P, Phelps ME, Becker DP, Metabolic recovery following human traumatic brain injury based on FDG-PET: time course and relationship to neurological disability, Journal of Head Trauma Rehabilitation, 16(2):135-148, 2001

Yee RE, Cheng DW, **Huang SC**, Namavari M, Satyamurthy N, Barrio JR, Blood-brain barrier and neuronal membrane transport of 6-[F-18]fluro-L-DOPA, Biochemical Pharmacology, 62:1409-1415, 2001

Zhou Y, **Huang SC**, Bergsneider M, Wong DF, Improved parametric image generation using spatial-temporal analysis of dynamic PET studies, Neuroimaging, 15:697-707, 2002

C. Research Support

Ongoing Research Support

R01 AG18487 (Small)

09/01/2000 - 08/31/2005

National Institutes of Health

Brain Imaging and Mental Disorders of Aging Intervention

Perform PET and genetic risk studies in people with age-associated memory impairment (AAMI) using a double-blind placebo-controlled clinical trial of the cholinesterase inhibitor donepezil.

Role: Investigator

Completed Research Support

DE-FC03-02ER63420 (Phelps)

07/01/2002 - 12/31/2004

Department of Energy

Center for Molecular Medicine Research Program

Computation & Modeling Tech Center-Provides computational and modeling support for quantitative analysis of images and data for the Center for Molecular Medicine. This Tech Center is responsible for the development and maintenance of an image database system for microPET, microCT, photon-imaging and other images generated in the Center for Molecular Medicine

Role: Investigator

R21 MH64679 (Silverman)

04/01/2002 – 03/31/2004

NIH-National Institute of Mental Health

Evaluation of Pre-Synaptic Calcium Channels In Vivo

The goal of this project is to study the feasibility of quantitatively assessing regional synaptic density in the living brain, while helping to lay the basic groundwork necessary to achieving quantitative imaging of presynaptic calcium channels in vivo.

Role: Investigator

DE-FC03-87ER60615 (Phelps)

01/01/1998 - 04/30/2002

Department of Energy

Structural Biology and Molecular Medicine Research Program - DOE Cooperative Agreement

Role: Investigator

R01 HL33177-15 (Schelbert) 12/01/1984-11/30/2000
NIH
Positron Tomography In Ischemic Heart Disease
Role: Investigator

R01 CA56655-06 (Hoffman) 07/02/1996-06/30/2000
NIH
Whole Body PET: 3-D Data Collection and Reconstruction
Role: Investigator

R01 NS33356-04 (Barrio) 06/01/1995-05/31/2000
NIH
In-Vivo Probes of Nigrostriatal Cell Degeneration
Role: Co-PI

L99-10063 (Barrio) 02/01/2001 - 11/18/2001
Life Sciences Informatics Program
Database of Pharmacokinetics Properties Determined by PET
Role: Investigator