

BIOGRAPHICAL SKETCH

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

NAME		POSITION TITLE	
Mark Mandelkern, M.D. Ph.D.		Professor/Physician	
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
Columbia College (Columbia University), NY	B.A.	1963	Physics, Pre-med
University of California, Berkeley	Ph.D.	1967	Physics
University of Miami, FL	M.D.	1975	Medicine
University of California, Irvine	Internship	1975-1976	Rotating
University of California, Los Angeles	Fellowship	1982-1984	Nuclear Medicine

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

1962, 1963	Research Assistant, Columbia Radiation Lab
1963 – 1965	Teaching Assistant, UC Berkeley
1964	Research Assistant, IBM Watson Lab
1965 – 1967	Research Assistant, UC Berkeley and Lawrence Berkeley Lab
1968 – Present	Professor of Physics and Radiological Sciences, Univ. of Calif., Irvine
1970, 1971	Research Physicist, Centre d'Etudes Nucleaire, Saclay, France
1975	Visiting Professor of Physics (University of Brasilia)
1977 – 1985	Scientific Associate, European Organization for Nuclear Research (CERN)
1978 – 1979	Physicist, Brookhaven National Laboratory
1979	Consultant to Department of Energy (Marshall Islands Survey of Radiation Induced Disease)
1988 – Present	Clinical Professor of Radiological Sciences, Univ. of Calif., Los Angeles
1984 – Present	Chief, Positron Emission Tomography, Greater Los Angeles VA Healthcare System
1987 – Present	Physicist, Fermi National Accelerator Center
1993 – 1994	Visiting Professor and SERC Fellow, University of Cambridge
2000 – Present	Medical Director, Research Imaging Center, UC Irvine

Honors

1959	New York State Regents College Scholarship (declined)
1959	New York State Regents Scholarship for Science and Engineering
1963	New York State Regents Medical Scholarship (declined)
1962	US Atomic Energy Commission Summer Student Award
1963	Biophysics Training Grant, UC Berkeley
1970	Enrico Fermi Fellowship, Univ. of Chicago (declined)
1993	Science and Engineering Council (United Kingdom) Fellowship

B. Selected peer-reviewed publications (in chronological order). (Medicine and related areas [Physics Excluded])

- Cornford E, Gee M, Swartz B, **Mandelkern M**, Bland W, Landaw E, Delgado-Escueta A. Dynamic ^{18}F fluorodeoxyglucose positron emission tomography and hypometabolic zones in seizures: Reduced capillary influx. *Ann Neurol* 1998;43:801-80.
- Swartz BE, Thomas K, Simpkins F, Kovalik E, **Mandelkern M**. Rapid quantitative analysis of individual ^{18}F FDG-PET scans. *Clinical Positron Imaging* 1999;2:47-56.
- Mendez MF, Ottowitz W, Brown CV, Cummings JL, Perryman KM, **Mandelkern MA**. Dementia with leukoaraiosis: Clinical differentiation by temporoparietal hypometabolism on (18)FDG-PET imaging. *Dement Geriatr Cogn Disord* 1999;10:518-25.
- Safa AA, Tran LM, Rege S, Brown CV, **Mandelkern MA**, Wang MB, Sadeghi A, Juillard G. The role of positron emission tomography in occult primary head and neck cancers. *Cancer Journal Scientific American* 1999;5:214-8.

5. Leuchter A, Uijtdehaage S, Cook I, O'Hara R, **Mandelkern M**. Relationship between brain electrical activity and cortical perfusion in normal subjects. *Psychiatry Research: Neuroimaging* 1999;90:125-140.
6. Bartzokis G, Beckson M, Newton T, **Mandelkern M**, Mintz J, Foster JA, Ling W, Bridge TP. Selegiline effects on cocaine-induced changes in medial temporal lobe metabolism. *Neuropsychopharmacology* 1999;20:582-90.
7. Swartz BE, **Mandelkern MA**. Positron emission tomography: The contribution of cognitive activation paradigms to the understanding of the epilepsies. *Advances in Neurology* 1999;79:901-15.
8. Cook IA, O'Hara R, Uijtdehaage SHJ, **Mandelkern MA**, Leuchter AF. Assessing the accuracy of tomographic EEG mapping for determining local brain function. *Electroencephalogr Clin Neurophysiol* 1999;107:408-414.
9. Tatladil R, **Mandelkern M**. FDG-PET in the detection of gastrointestinal metastases in melanoma. *Melanoma Research* 2000;11:1-5.
10. Weng E, Tran L, Rege S, Safa A, Sadeghi A, Juillard G, Mark R, Santiago S, Brown C, **Mandelkern M**. Accuracy and clinical impact of mediastinal lymph node staging with FDG-PET imaging in potentially resectable lung cancer. *American Journal of Clinical Oncology* 2000;23:47-52.
11. Berman S, Munakata JA, Naliboff BD, Chang L, **Mandelkern MA**, Silverman D, Kovalik E, Mayer EA. Gender differences in regional brain response to visceral pressure in IBS patients. *Eur J Pain* 2000;4:157-172.
12. Swartz BE, Kovalik E, Thomas K, Torgerson D, **Mandelkern MA**. The effects of an alpha-2 adrenergic agonist, guanfacine, on rCBF in human cortex in normal controls and subjects with focal dysfunction. *Neuropsychopharmacology* 2000;23:263-275.
13. Swartz BE, Brown C, **Mandelkern M**, Khonsari A, Patell A, Thomas K, Torgerson D, et al. The use of 18-FDG positron emission tomography in the routine diagnosis of epilepsy. *Clin Positron Imaging* 2001;4
14. Brody AL, Saxena S, **Mandelkern MA**, Fairbanks LA, Ho M, Baxter LR. Brain metabolic changes associated with symptom factor changes from before to after treatment in major depressive disorder. *Biol Psychiatry* 2001;50:171-178
15. Naliboff BD, Derbyshire SW, Munakata J, Berman S, **Mandelkern M**, Chang L, Mayer EA. Cerebral activation in patients with irritable bowel syndrome and control subjects during rectosigmoid stimulation. *Psychosom Med* 2001;63:365-375.
16. Akhtari M, Bryant HC, Mamelak AN, Flynn ER, Heller L, Shih JJ, **Mandelkern M**, Matlachov A, Ranken DM, et al. Conductivities of the three-layer human skull. *Brain Topogr* 2002;14:141-167.
17. Sultzer DL, Chen ST, Brown C, Mahler ME, Cummings JL, Hinkin CH, **Mandelkern MA**. Subcortical hyperintensities in Alzheimer's Disease: Associated clinical and cortical metabolic findings. *J Neuropsychiatry Clin Neurosci* 2002;14:262-269.
18. Brody AL, **Mandelkern MA**, London ED, Childress AR, Bota RG, Ho ML, Lee GS, Saxena S, Baxter LR, Madsen D, Jarvik ME. Brain metabolic changes during cigarette craving. *Arch Gen Psychiatry* 2002;59:1162-72.
19. Mayer EA, Derbyshire SWG, Chang L, Fitzgerald L, Berman S, **Mandelkern M**, Hamm L, Vogt B, Naliboff BD. The effect of the 5-HT₃ receptor antagonist Alosetron on brain responses to visceral stimulation in IBS patients. *Aliment Pharmacol Ther* 2002;16:1357-66.
20. Berman S, Chang L, Suyenobu B, Derbyshire SWG, Fitzgerald L, **Mandelkern M**, Hamm L, Vogt B, Naliboff B, Mayer EA. Condition-specific deactivation of brain regions by 5-HT₃ receptor antagonist alosetron. *Gastroenterology* 2002;123:969-77.
21. **Mandelkern MA**, Raines J. Positron emission tomography in cancer research and treatment. *Technology in Cancer Research and Treatment* 2002;1:423-439.
22. **Mandelkern M**. Setting confidence intervals for bounded parameters. *Statistical Science* 2002;17:149-172.
23. Sultzer DL, **Mandelkern M**, Mendez MF, Brown CV, Mahler ME, Chen S. Delusional thoughts and regional frontal/temporal cortex metabolism in Alzheimer's disease. *Am J Psychiatry* 2003;160:341-9.
24. Brody AL, **Mandelkern MA**, Jarvik ME, Lee GS, Smith EC, Bartzokis G, Fairbanks LA, Baxter LR, M.D, London ED. Differences in regional gray matter volume between smokers and non-smokers. *Biol Psychiatry* 2003. (In Press)
25. Chang L, Berman S, Mayer EA, Suyenobu B, Derbyshire S, Naliboff B, Vogt B, FitzGerald L, **Mandelkern MA**. Brain responses to visceral and somatic stimuli in patients with irritable bowel syndrome with and without fibromyalgia. *Am J Gastroenterol* 2003; 98 1354-61.
26. Naliboff B, Berman S, Chang L, Derbyshire SWG, Suyenobu B, Vogt B, **Mandelkern M**, Mayer EA. Sex-related differences in IBS patients: Central processing of visceral stimuli. *Gastroenterology* 2003. (In Press)
27. Berman SM, **Mandelkern MA**, Phan H, Zaidel E. Complementary hemispheric specialization for word and accent identification. *Neuroimage* 2003;19:319-31.
28. Wong FC, Swartz BE, **Mandelkern M**. Occipital hypometabolism in post-lobectomy patients with epilepsy. *Neuro-Ophthalmology* 2003. (In Press)

C. Research Support

Ongoing Research Support

Mandelkern (PI) 8/1/89 – 06/30/04
Mathers Charitable Foundation
PET Studies of Cognition
The goals of this project are to use PET activation studies to investigate normal human cognition
Role: PI

NR04881-03 Naliboff (PI) 08/15/98 – 7/31/01 (no cost extension to 7/31/03)
NIH/NINR
Gender related differences in visceral sensitivity in IBS
The major goals of this project are: 1) Compare symptoms, visceral sensitivity and regional brain activation using PET in male and female patients with IBS, 2) Compare symptoms, visceral sensitivity and regional brain activation in female patients with IBS at two time points during the menstrual cycle.
Role: PI

Bronstein (PI) 1/1/2001 – 12/31/2006
VA SW Parkinson's Disease Center of Excellence
Surgical Therapies in Parkinson's Disease
The goal of this project is to evaluate the efficacy of surgical therapy in Parkinson's Disease
Role: Investigator

P50 AG-16573 Su (PI) 4/1/02 – 3/30/03
NIH/NIA
Imaging Studies of Mild Cognitive Impairment (MCI)
The goals of this project are MRI and SPECT characterization of longitudinal changes in MCI patients
Role: Investigator

1RO1DA 01059-01 Brody (PI) 9/1/02 – 8/30/06
NIH/NIDA
PET/MRI Studies of Treatment Modalities in Nicotine Addiction
The goals of this project are PET and fMRI characterization of treatment effects in nicotine abuse
Role: Investigator

AG17066 supplement Su (PI) 2/03-3/06
NIH/NIA
Imaging Age-Related Changes in A Canine Model of Aging
This is a supplement proposal to the funded NIA grant # AG17066. We propose to study the brain of young animals to be compared to the old animals. Also a pilot study for in-vivo beta-amyloid imaging using PET was proposed.
Role: Investigator

Completed Research Support

RO1 DK48351 Mayer (PI) 9/30/96 – 6/30/00
NIH/NIDDK
Perception and Modulation of Visceral Sensations
The major goals of this project are: 1) Compare rectal sensitivity in patients with IBS, inflammatory bowel disease and controls. 2) Compare rectal and esophageal sensitivity in IBS patients. 3) Using PET imaging, examine the brain regions associated with rectal and esophageal stimulation in patients with IBS, inflammatory bowel disease, and controls. 4) Examine opioid mechanisms of visceral sensitivity using naloxone challenge.
Role: Investigator

MH-56031-01A1 Sultzter (PI) 4/1/97 – 3/31/02

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

NIMH

PET studies of Alzheimers Disease

The goal of this project was to characterize metabolic changes in DAT

Role: Investigator

CSP027 Mandelkern (PI)

6/1/98 – 3/30/01

VA Cooperative Study

PET-FDG Studies of Single Pulmonary Nodules

The goal of this project was to evaluate FGD-PET in the diagnosis of single pulmonary nodules

Role: GLA PI

Brody (PI)

7/1/98 – 6/30/01

California TRDRP

Metabolic Imaging in Smoking

The goal of this project was to characterize the metabolism of smokers vs. nonsmokers

Role: Investigator

Brody (PI)

10/1/99-9/30/02

Veteran's Administration Advanced Research Career Development Award

PET Studies of Smoking

The goal of this project was brain imaging in craving vs. non-craving in cigarette abuse

Role: Investigator-Mentor

London (PI)

6/1/02 – 6/30/02

ONDCP subcontract to UCI

Primate PET with Stereotactic Probes

The goal of this project was to develop techniques for simultaneous PET scanning and microdialysis

Role: PI