

PROFESSIONAL PREPARATION

Stanford University	Human Biology	AB	1973-74, 1976-79
Mass. Inst. of Technology	Electrical Engineering		1974-76
The Rockefeller University	Neurobiology and Behavior	Ph.D.	1979-1985

APPOINTMENTS

Current UCLA appointments are as Professor in Residence

- 2009 - Bioengineering, Field Chair, Image Acquisition and Analysis
- 2005 - Director UCLA/Semel Neuroimaging Training Program
- 2004 - Psychology, UCLA College of Arts and Sciences
- 2001- Professor in Residence, UCLA School of Medicine
- 2001 - Psychiatry and Biomedical Physics UCLA School of Medicine
- 1994 - Neurology and Radiological Sciences, UCLA School of Medicine
- 1988-1990 Senior Applications Scientist; Advanced NMR Systems, Inc.
- 1985-1988 MR Applications Scientist; Siemens Medical Systems, Inc.
- 1993-2001 Associate Professor in Residence, UCLA School of Medicine
- 1992-1993 Assistant Professor, Harvard Medical School, Boston, MA
- 1990-1991 Instructor, Harvard Medical School, Boston, Ma

Total Refereed Publications and Patents: 115. Published Abstracts: 195.

PUBLICATIONS MOST CLOSELY RELATED TO THE PROPOSED PROJECT

1. JB Colby, JD Rudie, JA Brown, PK Douglas, MS Cohen and Z Shehzad, "Insights into multimodal imaging classification of ADHD." *Frontiers in Neuroscience*. 2012 (in press).
2. WT Kerr, A Anderson, EP Lau, AY Cho, H Xia, J Bramen, PK Douglas, ES Braun, JM Stern and MS Cohen, "Automated diagnosis of epilepsy using EEG power spectrum." *Epilepsia*. 2012. 3447367
3. A Anderson, JS Labus, EP Vianna, EA Mayer and MS Cohen, "*Common component classification: what can we learn from machine learning?*" *NeuroImage*, **56**(2): p. 517-524. 2011.
4. H Xia, D Ruan and MS Cohen, "*BCG Artifact Removal for Reconstructing Full-scalp EEG inside the MR Scanner.*" *Pattern Recognition in NeuroImaging*. IEEE. 2013.
5. E Martinez-Montes, PA Valdes-Sosa, F Miwakeichi, RI Goldman and MS Cohen, "Concurrent EEG/fMRI analysis by multiway Partial Least Squares." *NeuroImage*, 22(3): p. 1023-1034. 2004.

FIVE OTHER SIGNIFICANT PUBLICATIONS

1. A Lenartowicz, GV Simpson, CM Haber and MS Cohen, "*Neurophysiological Signals of Ignoring and Attending Are Separable and Related to Performance during Sustained Intersensory Attention.*" *J Cogn Neurosci*. 2014.
2. RI Goldman, JM Stern, J Engel, Jr. and MS Cohen, "*Simultaneous EEG and fMRI of the alpha rhythm.*" *Neuroreport*, **13**(18): p. 2487-2492. 2002.
3. JW Belliveau, DN Kennedy, Jr., RC McKinstry, BR Buchbinder, RM Weisskoff, MS Cohen, JM Vevea, TJ Brady and BR Rosen, "*Functional mapping of the human visual cortex by magnetic resonance imaging.*" *Science*, **254**(5032): p. 716-719. 1991..
4. MS Cohen, "*Parametric analysis of fMRI data using linear systems methods.*" *NeuroImage*, **6**(2): p. 93-103. 1997.
5. KK Kwong, JW Belliveau, DA Chesler, IE Goldberg, RM Weisskoff, BP Poncelet, DN Kennedy, BE Hoppel, MS Cohen, R Turner, "*Dynamic magnetic resonance imaging of human brain activity during primary sensory stimulation.*" *Proceedings of the National Academy of Science U S A*, **89**(12): p. 5675-5679. 1992.

SYNERGISTIC ACTIVITIES

1. **Novel technologies for neuroscientific and biomedical research and applications.** Four member physics group that designed and built the first practical Echo Planar Imaging (EPI) device for

commercial applications. Promotion of its use in diverse applications, at Advanced NMR Systems, and at Harvard. Development and commercialization of a practical means to combine electrophysiology and fMRI (Patent 10/344,776, Goldman, 2002). Ultra-low field paramagnetic resonance imaging with SQUID (JPL).

2. **Functional Magnetic Resonance Imaging (fMRI).** Performed the first experiments using MRI to localize functional activations in humans (Belliveau, 1991). Development of the first fMRI methods that work without the use of extrinsic contrast agents (Kwong, 1992).
3. **NeuroImaging Training Program.** Director of NIH program designed to increase participation of STEM scientists in neuroimaging research. Enrolled more than 110 graduate and post-graduate students into the academic program and more than 320 additional students worldwide in the summer sessions. Online courses attracted viewers in more than 100 countries.
4. **Real-time Decoding and Detection of Cognitive States; Real-time Functional MRI.** This continuing area of study now exploits machine learning methods that classify cognitive states based on systems-level features of brain images and identifiable components of electroencephalographic signals (NIH award DA026109, Anderson, 2010, Douglas, 2010).
5. **Reviewer** on study sections for NSF, NIH, UC Discovery Grant Program. Associate editor, *Journal of Magnetic Resonance Imaging* (1993-8). Reviews for *Academic Radiology*, *Brain*, *J. Cognitive, Affective and Behavioral Neuroscience*, *European Journal of Neuroscience*, *Human Brain Mapping*, *IEEE Transactions in Medical Imaging*, *J. Magnetic Resonance Imaging*, *Magnetic Resonance in Medicine*, *Medical Physics*, *Nature Neuroscience*, *NeuroImage*, *Neurology*, *Neuron*, *NeuroReport*, *Science*.

COLLABORATORS AND OTHER AFFILIATIONS within 48 months (co-authors and grants)

UCLA Collaborators: A Bystritsky, A Desalles, A Gupta, A Head, A Lenartowicz, A Shaikh, A Trefler, A Yuille, AA Anderson, AB Patel, AC Chu, AD Castel, AF Leuchter, AL Brody, AL Yuille, AP Mulgaonkar, AS Korb, AY Cho, BJ Knowlton, C Rodriguez, CA Sugar, CS Culbertson, CT Braesch, D Ruan, DH Geschwind, DHS Silverman, E Mirakhor, EA Janio, EA Mayer, EC Davis, ED London, EP Vianna, ES Braun, ES Hwang, GC Gee, GE Wyatt, H Xia, I Rodriguez-Pinto, J Jerome Engel, J Lee, J Quintana, J Rissman, JB Colby, JD Rudie, JJ Distefano III, JJ Gan, JK Wynn, JM Stern, JS Labus, K Kelson, KH Nuechterlein, KR Raman, LL Altshuler, LM Hernandez, M Dapretto, M Malekmohammadi, M-F O'connor, MA Mandelkern, MF Green, N Pouratian, N Reggente, N Salamon, NI Eisenberger, NM Reddy, P Douglas, PK Douglas, PK Douglas, PO Harvey, RC Reid, RE Olmstead, S Shulenberg, S Torrisi, ST Nguyen, SY Bookheimer, TD Moody, VS Haynes, W Li, WG Clark, WP Melega, WT Kerr, Z Shehzad, Z Zheng *Other:* B-H Eom, I Hahn, K Penanen (Cal. Tech.); D Tucker, P Luu (Electrical Geodesics, Inc.); D Mills, BY Min, SS Yoo (Harvard); PK Day (JPL), C C Cheong (Korea Basic Sciences Institute); DS Rivera (Max Planck Leipzig); JW Judy (NIST); F Schmitt (Siemens); J Brown, LC Foland-Ross, G Glover (Stanford); V Calhoun (UNM); GV Simpson (ThinkNow); SA Engel (U Minn); D Han, M Turk (UCSB); J Gilles (UCSD); JD Townsend (UCSF); FG SHellock (USC); JE Sherin (WLAVAMC); ID Dinov, P Thompson (USC); DC Glahn (Yale).

Graduate and Postdoctoral Advisors

S. Schwartz-Giblin (graduate). SUNY Downstate. Donald Pfaff (graduate) the Rockefeller Univ.

Graduate Students (12 total): Ariana Anderson (UCLA), Jennifer Bramen (UCLA), Pamela Douglas (UCLA), Richard DuBois (Palomar College), Robin Goldman (Columbia U.), Dianna Han (current), Samuel Harris (the Reason Project), Wesley Kerr (current), Cameron Rodriguez (current), Debra Rivera (Max Planck, Leipzig), David Wozny (Max Planck), Xia Hongjing (current), Austin Head (current), Dianna Han (UCSB). **Postdoctoral Associates (7 total):** Ariana Anderson (UCLA), PK Douglas (UCLA), Jianxin Wang (private sector), Yong Ke (Harvard), David Glahn (Yale), Wilfred Gordon, Agatha Lenartowicz (UCLA).