

Afshin Karimi, M.D., J.D., Ph.D.

WORK ADDRESS:

University of California at San Diego
Assistant Clinical Professor
Department of Radiology
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EDUCATION:

Southern Illinois University
M.D. May 2002; **J.D.** December 1998 (*Joint Law and Medicine Program*)

University of California, San Diego
Ph.D. in Physics, December 1994; **M.S.** in Physics, March 1989; **B.S.** in Physics, June 1987

LICENSURE:

Members of California Bar Association(July 1999) & Illinois Bar Association (July 2000).
Permanent Missouri, Illinois, Indiana, and California State Medical Board Licensure
Board Certification, American Board of Radiology
Board Certification in Cardiac CT - Board Of Cardiovascular Computed Tomography (CBCCT)

RESIDENCY AND FELLOWSHIP TRAINING:

University of California, Irvine
MRI Fellowship, June 2007-July 2008
Program Directors: Allen J. Cohen, M.D. & Fred Greensite, M.D.

University of Illinois, Chicago
Resident in Diagnostic Radiology, June 2003-June 2007
Program Director: Andrew C. Wilbur, M.D.

Southern Illinois University
Resident Physician Internship in Pediatrics June 2002-June 2003
Program Director: Randy A. Kienstra, M.D.

M.D./J.D. student, September 1996-May 2002
Program Director: Theodore R. LeBlang, J.D.

University of California, San Diego
NIH Post-Doctoral Fellow in Department of Radiology/Psychiatry, July 1995- July 1996
Project: *Functional magnetic resonance imaging and in-vivo localized spectroscopy of psychiatric brain disorders.*
Program Director: Dilip V. Jeste, M.D.

TEACHING EXPERIENCE:

- University of California, San Diego
Assistant Clinical Professor, July 2008 - present
- University of California, Irvine
Clinical Instructor, July 2007 – July 2008
- University of Illinois, Chicago & Southern Illinois University
Medical Student and Resident Education, 2002-2007
- Grossmont College (La Mesa, CA)
Lecturer, Department of Physics, 1995-1996
- University of California, San Diego
Teaching Assistant, Undergraduate Physics courses, 1989-1994

LEGAL EXPERIENCE:

- University of California at San Diego Risk Management Committee
Member, Appointed October 2008- present
- University of California at Irvine Risk Management Committee
Member, Appointed August 2007- July 2008
- University of Illinois Institutional Review Board #3
Member, Appointed July 2005; Reappointment September 1, 2006 to August 31, 2009
- Springfield Committee for Research Involving Human Subjects (SCRIHS)
Reviewed research projects at the SIU School of Medicine as a member of the local IRB, 2002-03

PAST PROFESSIONAL AFFILIATIONS:

- Food & Drug Administration
Visiting Scholar, Summer 1998
Office of Health Affairs, Medicine Staff
Supervisor: Peter H. Rheinstein, M.D., J.D.
- The R.W. Johnson Pharmaceutical Research Institute (A division of Johnson & Johnson)
Position: Staff Scientist, Department of Drug Discovery, December 1994 - June 1995
Project: *Structural characterization of anti-inflammatory agents using X-ray crystallography.*
Principal Investigator: Dr. Per Peterson, Sr., Vice President at RW Johnson PRI.
- The Scripps Research Institute
Position: Graduate student in the Department of Molecular Biology, Feb. 1989 - Dec. 1994
Dissertation title: Structure and Dynamics of Helical Protein Fragments Investigated by Theory and Experiment.
Thesis Supervisor: Dr. Peter E. Wright.
- University of California at San Diego
Position: Graduate student in the Department of Biology and Physics, Sept. 1987 - Feb. 1989
Project: *Structural and functional studies of pore forming peptides.*
Advisor: Dr. Maurice Montal.

Position: Graduate student in the Department of Physics, summer 1987
Project: *Study of electrons confined to the surface of liquid helium with Dr. John Goodkind.*

Position: Undergraduate student in the Department of Physics, 1986
Project: *Simulations of novel superconducting materials with Dr. Richard Klemm.*

CURRENT PROFESSIONAL MEMBERSHIPS:

Society of Cardiovascular Computed Tomography (SCCT)
Radiological Society of North America (RSNA)
American Roentgen Ray Society (ARRS)
Society of Cardiovascular Magnetic Resonance (SCMR)

PROFESSIONAL EXPERIENCE:

Society of Cardiovascular Computed Tomography, July 2012
Chairman, Abstract Poster Sessions
Chairman, Non-Coronary Findings of Clinical Importance

PUBLICATIONS:

1. Engelkemier DR, Tadros A, **Karimi A**. Lower iodine load in routine contrast-enhanced CT: an alternative imaging strategy. *J Comput Assist Tomogr*. 2012 Mar-Apr; 36(2): 191-5
2. Tan J, Rivandi AH, Sawhney N, Feld G, **Karimi A**. Congenital narrowing of a pulmonary vein: Slit-like Pulmonary vein ostium., *Pacing Clin Electrophysiol*, 2011 May 31.
3. Du J, **Karimi A**, Wu Y, Korosec FR, Grist TM, Mistretta CA. Automated vessel segmentation using cross-correlation and pooled covariance matrix analysis. *Magn Reson Imaging*, 2011 Apr, 29(3):391-400. Epub 2010 Nov 12.
4. Obrzut S, Jamshidi N, **Karimi A**, Birgersdotter-Green U, Hoh C. Imaging and modeling of myocardial metabolism. *J Cardiovasc Transl Res*. 2010 Aug, 3(4):384-96. Epub 2010 Feb 25. Review.
5. Yokoo T, Bae WC, Hamilton G, **Karimi A**, Borgstede JP, Bowen BC, Sirlin CB, Chung CB, Crues JV, Bradley WG, Bydder GM. A quantitative approach to sequence and image weighting. *J Comput Assist Tomogr*, 2010 May-Jun;34(3):317-31. Review.
6. Garza AS, Renner J, Karimi A. Multifocal synchronous lung adenocarcinoma with brain metastasis: Case In Point. *ACR*. Online May 5 2009.
7. Mafee MF, **Karimi A**, Mathur S. Acute Optic Nerve Infarction demonstrated by diffusion weighted imaging in a case of Rhinocerebral Mucormycosis. *American Journal of Neuroradiology*, 2007 Mar; 28:489-490.
8. Mafee MF, Rapoport M, **Karimi A**, Ansari SA, Shah J. Orbital and ocular imaging using 3 and 1.5 Tesla MR Systems. *Neuroimaging Clinics of North America*, 2005, 15(1), 1-21.
9. Mafee MF, **Karimi A**, Shah J, Rapoport M, Ansari SA, Anatomy and pathology of the eye: Role of MRI and CT. *Neuroimaging Clinics of North America*, 2005, 15(1), 23-47; Reprinted in *Magnetic Resonance Imaging Clinics*, Vol 14, No. 2, May 2006.

10. Wilber A, O'Connor TP, Lu ML, **Karimi A**, and Schneider MC. Dnase113 deficiency in lupus-prone MRL and NZB/W F1 mice. *Clinical and Experimental Immunology*, 2003 Oct, 134(1): 46-52.
11. **Karimi A**, Matsumura M, Wright PE, Dyson HJ. Characterization of monomeric and dimeric B domain of Staphylococcal protein A. *Journal of Peptide Research*, 1999, 54(4): 344-52.
12. Kindermann S, **Karimi A**, Symonds L, Brown G, Jeste D. Review of Functional Magnetic Resonance Imaging in Schizophrenia. *Schizophrenia Research*, 1997, 27:143-156.
13. Bai Y, **Karimi A**, Dyson HJ, Wright PE. Absence of a Stable Intermediate on the Folding Pathway of Protein A. *Protein Science*, 1997, 6:1449-1457.
14. Soman KV, **Karimi A**, Case DA. Molecular Dynamics Analysis of a Ribonuclease C-peptide analogue. *Biopolymers*, 1993, 33:1567-1580.
15. Soman KV, **Karimi A**, Case DA. "Unfolding of an α helix in Water", *Biopolymers*, 1991, 31:1351-1361.

MANUSCRIPTS:

1. Lambeth L, Goyal A, Tadros A, Asadoorian M, Roberts AC, Karimi A. Peripherally inserted central catheter tip malposition caused by power contract injection. Manuscript Number: JVIR-D-12-00039R1, Letter to the Editor.

ABSTRACTS:

1. Rose SC, **Karimi A**, Matusov Y, Read WL. Transcatheter Intra-Arterial Infusion of Supradose Cisplatinium with Sodium Thiosulfate Rescue Using Bronchial or Chest Wall Arteries to Treat Pulmonary or Pleural Malignancies: Description of Technique and Preliminary Results of a Phase I Study. *Cardiovascular and Interventional Radiology Society of Europe Annual Meeting Abstract Book*. 2011; 346. Abstract Number 2102.1.

POSTER AND ORAL PRESENTATIONS:

1. Blanchard D, **Karimi A**. "Imaging the Heart to Determine the Presence and Cause of Heart Failure". Presented at: Eighteenth Annual San Diego Heart Failure Symposium; June 2, 2012; San Diego, CA, USA
2. **Karimi A**. The Role of Cardiac CT in Clinical Practice. Presented at: Topics in Advance Internal Medicine 2012; March 14, 2012; San Diego, CA, USA.
3. Tuan A, Tadros A, **Karimi A**. How Big Is Your Heart?: What Determines Abnormal Cardiac Chamber Size and Morphology on a Routine Nongated Thoracic CT?. Presented at: Radiological Society of North America (RSNA) 97th Annual Scientific Assembly and Annual Meeting; December 2011; Chicago, IL, USA
4. Goyal A, **Karimi A**. Low Radiation Dose, Low Volume IV Contrast-enhanced CT as an Effective Imaging Strategy in Routine Clinical Practice. Presented at: Radiological Society of North America (RSNA) 97th Annual Scientific Assembly and Annual Meeting; December 2011; Chicago, IL, USA
5. Jani A, Obzrut S., **Karimi A**, Do P, Moreshdi M. The new PET Response Criteria in Solid Tumors (PERCIST) system for monitoring tumor response to therapy. Presented at: Radiological Society of North America (RSNA) 97th Annual Scientific Assembly and Annual Meeting; December 2011; Chicago, IL, USA

6. Matusov Y, Rose SC, **Karimi A**, Read WL. Using Neovascularity for Regional Delivery of Therapy – Preliminary Findings of a Phase I Study of Intra-Arterial Cisplatin for Lung Tumors. Presented at: American Society of Clinical Oncology (ASCO) annual meeting; June 2010; Chicago, IL, USA.
7. Herrera A, Burke B, Seamans J, **Karimi A**. Optimization of Cardiac CT Acquisition Parameters: Retrospective review of UCSD's Clinical Cardiac CT practice. Presented at: Society of Cardiovascular Computed Tomography (SCCT) 6th Annual Scientific Meeting, July 2011, Denver, CO, USA.
8. Kang G, Engelkemier DR, **Karimi A**. Prospective-gated Computer Tomography (CT) Method for Evaluation of Suspect Pulmonary Embolism (PE). Presented at: Radiological Society of North America (RSNA) 96th Scientific Assembly and Annual Meeting; November 2010; Chicago, IL, USA.
9. Herrera AJ, Torshizy H, Seamans JL, **Karimi A**. ECG Editing in Cardiac CT: A How-to-Guide. Presented at: Radiological Society of North America (RSNA) 96th Scientific Assembly and Annual Meeting; November 2010; Chicago, IL, USA.
10. Engelkemier DR, **Karimi A**. Low Volume Contrast-enhanced Thoracic CT as an Alternative Imaging Strategy. Presented at: Radiological Society of North America (RSNA) 96th Scientific Assembly and Annual Meeting; November 2010; Chicago, IL, USA.
11. Engelkemier DR, Cronin M, Renner J, **Karimi A**. "Triple Rule-Out" Thoracic MRI Applied to Emergency Radiology: Workflow Issues, Protocols, Pathologies, Artifacts, Pitfalls, and Useful Tips. Presented at: Radiological Society of North America (RSNA) 95th Scientific Assembly and Annual Meeting; November 2009; Chicago, IL, USA (Merit award)
12. Amerson B, **Karimi A**. Standardization of Follow-up Recommendations by Radiologists: Going beyond Clinical Correlation. Presented at: Radiological Society of North America (RSNA) 95th Scientific Assembly and Annual Meeting; November 2009; Chicago, IL, USA.
13. Saremi F, **Karimi A**. Single Shot Inversion Recovery Gradient Echo MRI at 3T for Diagnosis of Venous Thrombosis. Presented at: Society for Cardiovascular Magnetic Resonance Annual Meeting; February 2008; Los Angeles, CA, USA.
14. Sepahdari AR, **Karimi A**, Elbich J, Bazzani M, Mafee MF. Retinoblastoma: The Role of MRI and Diffusion-weighted Imaging. Presented at: American Society of Head and Neck Radiology (ASHNR) 40th Annual Meeting; September/October 2006; Phoenix, AZ, USA
15. Sepahdari AR, **Karimi A**, Elbich J, Bazzani M, Mafee MF "Orbital masses: Magnetic Resonance Imaging at 3.0 T and 1.5T". Presented at: American Society of Head and Neck Radiology (ASHNR) 40th Annual Meeting; September/October 2006; Phoenix, AZ, USA
16. Wilbur A, Huang J, Ebeling CD, **Karimi A**, Schneider MC. "The main DNASE barriers to liposomal transfection occupies a non-lysosomal pathway. Presented at: American Society of Gene Therapy, Sixth Annual Meeting; June 2003, Washington, D.C., USA
17. **Karimi A**, Matsumura M, Millar DP, Mikawa Y, Maruyama H, Maruyama I, Wright PE. Heteronuclear NMR studies of bacterially expressed peptides. Presented at: *1993 Keystone Symposia; March 1993*; Taos, NM, USA (*Journal of Cellular Biochemistry*, Supplement 17, 1993).
18. **Karimi A**, Wright PE. Investigation of the structure and dynamics of synthetic and recombinant peptides. Presented at: 35th Experimental Nuclear Magnetic Resonance Conference; April 1994; Pacific Grove, CA, USA.

19. **Karimi A**, Wright PE. Interdomain interaction in the three helical bundles of protein A studied by two and three dimensional ^1H NMR. Presented at: ASBMB/Biophysical Meeting; February 1992; Houston, TX, USA (Oral Presentation).
20. **Karimi A**, Wright PE. Application of homonuclear 3D spectroscopy to peptides. Presented at: 30th Experimental Nuclear Magnetic Resonance Conference; March/ April 1992; Pacific Grove, CA, USA.
21. Waltho JP, Dyson HJ, **Karimi A**, Feher VA, Shin HC, Wright P. A comparison of helicity in fragments of helical proteins by circular dichroism and NMR spectrometry. Presented at: 1990 Protein Society Meeting; San Diego, CA, USA.
22. Gippert GP, **Karimi A**, Case DA, Wright PE. Completing the bounds matrix representation of local regions of proteins. Presented at: 1990 Protein Society Meeting; San Diego, CA, USA.

RESEARCH INTERESTS:

Cardiac MRI/CT; Vascular Imaging; Thoracic MRI; Brachial Plexus and Peripheral Nerve Imaging;

CURRENTLY FUNDED RESEARCH PROJECTS:

1. PROMISE TRIAL LEVEL III READER; (with Drs. Kahn & Renner)
2. Phase I Study of Intra-Arterial Cisplatin for Lung Tumors (with Drs. Rose & Read)