

Abhijit J. Chaudhari, Ph.D.

CONTACT INFORMATION

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EDUCATION

University of Pune, All India Shri Shivaji Memorial Society's College of Engineering, Pune, Maharashtra 411001, India

1995 – 1999 Bachelor in Engineering (B.E.), Electronics Engineering

California State University, Northridge, CA 90089, USA

2000 – 2002 Master of Science (M.S.), Electrical Engineering

University of Southern California, Los Angeles, CA 90089, USA

2002 – 2007 Doctor of Philosophy (Ph. D.), Electrical Engineering

2006 – 2007 Master of Science (M. S.), Applied Mathematics

PROFESSIONAL EXPERIENCE

2014 Early Career Leadership Program certification, UC Davis

9/2013 – present Head, Imaging Core, UC Davis Center for Musculoskeletal Health

4/2010 – present Assistant Professor, Radiology, University of California Davis, Sacramento, CA 95817

2007 – 2010 Post-doctoral scholar, Biomedical Engineering/Radiology, University of California Davis, Davis, CA 95616

2002 – 2007 Research Assistant, Department of Electrical Engineering, University of Southern California, Los Angeles, CA 90089

2002 – 2002 Research Assistant, Department of Molecular and Medical Pharmacology, University of California Los Angeles (UCLA) School of Medicine, Los Angeles, CA 90095

2000 – 2002 Research Assistant, Department of Electrical Engineering, California State University, Northridge, CA 91330

HONORS AND AWARDS

For Abhijit Chaudhari

2014 Young Investigator Award, AAOS/CORR/ORS/CMH-UCD/SWHR Musculoskeletal Sex Differences Throughout the Lifespan Research Symposium, Rosemont, IL

- 2013 – 2018 Interdisciplinary Women’s Health Research Scholar, Building Interdisciplinary Careers in Women’s Health (BIRCWH) program, National Institutes of Health
- 2012 Outstanding abstract award, 6th International Workshop on Osteoarthritis Imaging, Osteoarthritis Research Society International, Hilton Head, SC (first author)
- 2011 Winner, Still Image category, American College of Rheumatology 2011 Annual Image Competition, presented at the college’s annual meeting in Chicago, IL, USA
- 2011 Bruce H. Hasegawa Young Investigator Medical Imaging Science Award, Nuclear Medical and Imaging Sciences Council, Institute of Electrical and Electronics Engineers (IEEE), presented at the IEEE Nuclear Sciences Symposium and Medical Imaging Conference, Valencia, Spain
- 2011 Cover page image of the journal *Rheumatology* (official journal of the British Society of Rheumatology) for all issues in 2011
- 2010 One of six investigators world-wide chosen for the Computer and Instrumentation Council Young Investigator Competition, Society of Nuclear Medicine Annual Meeting, Salt Lake City, UT
- 2010 Young Professionals Committee, Third Prize in Basic Science, Society of Nuclear Medicine Annual Meeting, award presented at Salt Lake City, UT
- 2009-2011 One of top ten images considered for the cover of the journal *Nature Reviews Rheumatology*
- 2008 Young Professionals Committee, Award Candidate, Society of Nuclear Medicine Annual Meeting, New Orleans, LA
- 2007 Outstanding Research Award, UC Davis Cancer Center, Sacramento, CA
- 2002 Student Commencement Speaker, College of Engineering and Computer Science Commencement, California State University Northridge, Northridge, CA
- 2002 President's Associates Outstanding Graduate Student Award, California State University, Northridge, CA
- 2002 First place, Engineering and Computer Science category, 16th Annual California State University Student Research Competition, California State University Long Beach, Long Beach, CA
- 2001-2002 James Russell Simpson Merit Scholarship, California State University, Northridge, CA
- 2001 First place, Engineering and Computer Science category, 15th Annual California State University Student Research Competition, San Jose State University, San Jose, CA
- 2001 Memorial Award, Association of Retired Faculty, California State University, Northridge, CA

PROFESSIONAL MEMBERSHIPS

- 2013- Member and Head, Imaging Core, UC Davis Center for Musculoskeletal Health

2012 - Founding member, UC Davis Cancer Center Sarcoma Innovation Group
 2012- Affiliated Founding Faculty, UC Davis Center for Visualization
 2012- Elected member, Nuclear Medical and Imaging Sciences Council, Nuclear and Plasma Sciences Society, Institute of Electrical and Electronics Engineers (IEEE)
 2011- Senior Member, IEEE
 2011- Member, Committee on Membership, Society of Nuclear Medicine
 2011- Member, American College of Rheumatology
 2007- Associate Member, UC Davis Cancer Center and NSF Center for Biophotonics Sciences and Technology
 2000-2009 Member, IEEE
 2001- Member, Tau Beta Pi, the Engineering Honor Society
 2001- Member, Phi Kappa Phi, Honor Society for Academic Excellence
 2001 Member, Phi Beta Delta, Honor Society for International Scholars

REVIEW SERVICES

Grant review panels

2014 Invited grant reviewer, ZonMw Netherlands Organisation for Health Research and Development
 2013 Ad-hoc member, BMIT-B study section, National Institutes of Health
 2013 Ad-hoc member, Grant review panel, National Science Foundation
 2013 Invited member, Grant review panel, CancerCare Manitoba, Canada
 2012-present Foreign member, Grant review panel, The Wellcome Trust, UK and the Government of India
 2011 Ad-hoc member, Grant review panel, Ministry of Science and Innovation, Government of New Zealand

ARTICLES AND PRESENTATIONS

Invited reviews

1. J. T. Gu, L. Nguyen, **A. J. Chaudhari**, and J. D. MacKenzie, Molecular Characterization of Rheumatoid Arthritis with Magnetic Resonance Imaging, *Topics in Magnetic Resonance Imaging*, 22(2), 61-69 (2011), PMID: PMC3387734
2. **A. J. Chaudhari**, Conference Scene: 2009 IEEE NSS/MIC in the USA, *Imaging in Medicine*, 2(1), 13-15 (2010)

Book chapters

1. Chapter co-author, PET-CT and Molecular Imaging, Principles & Practice of PET/CT, a Pictorial Review', *Jaypee Brothers Medical Publishers, Philadelphia, PA*, in press

Peer-reviewed journal articles

1. L. Zheng, **A. J. Chaudhari**, R. D. Badawi, K. L. Ma, Global Illumination in Volume Visualization of Rheumatoid Arthritis Patient Data, *IEEE Computer Graphics and Applications*, in press (2014)
2. J. Santos, **A. J. Chaudhari**, A. A. Joshi, A. Ferrero, K. Yang, J. M. Boone, and R. D. Badawi, Non-rigid registration of serial dedicated breast CT, longitudinal dedicated breast CT and PET/CT images using the diffeomorphic demons method, *Physica Medica*, in press (2014)
3. S. K. Raychaudhuri, A. Mitra, A. Datta-Mitra, **A. J. Chaudhari**, S. P. Raychaudhuri, In vivo quantification of mouse autoimmune arthritis by PET/CT, *International Journal of Rheumatic Diseases*, in press (2014)
4. **A. J. Chaudhari**, R. M Leahy, B. L Wise, N. E Lane, R. D. Badawi and AA Joshi, Global point signature for shape analysis of carpal bones, *Physics in Medicine and Biology*, 59(4), pp 961-974 (2014), PMID: PMC3966902, NIHMSID: NIHMS564423
5. R. D. Boutin, M. H. Buonocore, I. Immerman, Z. Ashwell, G. J. Sonico, R. Szabo, and **A. J. Chaudhari**, Real-time MRI during active wrist motion – initial observations, *PLOS One*, 8(12): e84004 (2013), PMID: PMC3877133
6. **A. J. Chaudhari**, Rheumatoid Arthritis: Synovitis, Hand and Paw, Honorable mention, *American College of Rheumatology* (2013), available at the Rheumatology Image Bank: <http://images.rheumatology.org/viewphoto.php?imageId=6945292>
7. M. Lam, **A. J. Chaudhari**, Y. Sun, F. Zhou, A. Dobbie, R. F. Gandour-Edwards, S. L. Tinling, D. G. Farwell, W. L. Monsky, K. Kirk Shung and L. Marcu, Ultrasound backscatter microscopy for imaging of oral carcinoma, *Journal of Ultrasound in Medicine*, 32(10), pp 1789-1797 (2013) (highlighted by the journal and MDLinx.com), PMID: PMC3835773
8. W. L. Monsky, B. Jin, C. Molloy, R. J. Canter, S. C. Li, T-C Lin, D. Borys, W. Mack, I. Kim, M. H. Buonocore and **A. J. Chaudhari**, Semi-Automated Determination of Tumor Necrosis in Soft Tissue Sarcoma Using Contrast-Enhanced MRI, *Anticancer Research*, 32(11):4951-4961 (2012) (highlighted by the journal and MDLinx.com), PMID: 23155265
9. Y. Sun, H. Xie, J. Liu, M. Lam, **A. J. Chaudhari**, F. Zhou, J. Bec, D. R. Yankelevich, A. Dobbie, S. L. Tinling, R. F. Gandour-Edwards, W. L. Monsky, D. G. Farwell, and L. Marcu, In vivo validation of a bimodal technique combining time resolved fluorescence spectroscopy (TRFS) and ultrasonic backscatter microscopy (UBM) for diagnosis of oral carcinoma, *Journal of Biomedical Optics*, 17(11):116003 (2012), PMID: PMC3484195
10. F. Godinez, **A. J. Chaudhari**, Y. Yang, R. Farrell and R. D. Badawi, Characterization of high resolution hybrid DOI detector for a dedicated breast PET/CT, *Physics in Medicine and Biology*, 57(11):3435-49 (2012) (highlighted by MedicalPhysicsWeb), PMID: PMC3397825
11. **A. J. Chaudhari**, R. D. Badawi and S.P. Raychaudhuri, Psoriatic Arthritis: Tenosynovitis and synovitis, Winner-Still Image category, *American College of Rheumatology Annual Image competition* (2012), available at the Rheumatology Image Bank: <http://images.rheumatology.org/viewphoto.php?imageId=6086326>
12. Y. Sun, **A. J. Chaudhari**, M. Lam, H. Xie, D. Yankelevich, J. Phipps, M. C. Fishbein, J. M. Cannata, K. K. Shung, and L. Marcu, Multimodal characterization of compositional, structural and functional features of atherosclerotic plaques, *Biomedical Optics Express*,

2(8), 2288-2298 (2011) (highly downloaded paper over 2 years of the journal), PMID: PMC3149526

13. A. Ferrero, J. K. Poon, **A. J. Chaudhari**, L. R. MacDonald and R. D. Badawi, Effect of object size on of scatter fraction estimation methods for PET - a computer simulation study, *IEEE Transactions on Nuclear Science*, 58(1), 82-86 (2011)
14. W. L. Monsky, A. Garza, I. Kim, S. Loh, T. Lin, C. Li, J. Fisher, P. Sandhu, V. Sidhar, **A. J. Chaudhari**, F. Lin, L.S. Deutsch, R.D. Badawi, Treatment Planning and Volumetric Response Assessment for Yttrium-90 Radioembolization: Semiautomated Determination of Liver Volume and Volume of Tumor Necrosis in Patients with Hepatic Malignancy, *Cardio Vascular & Interventional Radiology*, Online first, 1-13 (2011), PMID: PMC3058556
15. A. A. Joshi, **A. J. Chaudhari**, C. Li, J. Dutta, S. R. Cherry, D. W. Shattuck, A. W. Toga and R. M. Leahy, DigiWarp: a method for deformable mouse atlas warping to surface topographic data, *Physics in Medicine and Biology*, 55(20), 6197-6214 (2010), PMID: PMC3051844
16. **A. J. Chaudhari**, S. L. Bowen, G. W. Burkett, N. J. Packard, F. Godinez, A. A. Joshi, S. M. Naguwa, D. K. Shelton, J. C. Hunter, J. M. Boone, M. H. Buonocore and R. D. Badawi, High resolution 18F-FDG-PET with MRI for monitoring response to treatment in Rheumatoid Arthritis, *European Journal of Nuclear Medicine and Molecular Imaging*, 37(5), 1047 (2010), PMID: PMC2854399
17. **A. J. Chaudhari**, S. Ahn, R. Levenson, S. R. Cherry, and R. M. Leahy, Excitation spectroscopy in multispectral optical fluorescence tomography: methodology, feasibility, and computer simulation studies, *Physics in Medicine and Biology*, 54(15), 4687-4704 (2009), PMID: PMC2740369
18. S. L. Bowen, Y. Wu, **A. J. Chaudhari**, L. Fu, N. J. Packard, G. W. Burkett, K. Yang, K. K. Lindfors, D. K. Shelton, A. D. Borowsky, S. R. Martinez, J. Qi, J. M. Boone, S. R. Cherry, and R. D. Badawi, Initial Characterization of a Combined and Dedicated Breast PET/CT Scanner During Human Imaging, *Journal of Nuclear Medicine*, 50(9), 1401-8 (2009), PMID: PMC2872060
19. **A. J. Chaudhari**, A. A. Joshi, Y. Wu, R. M. Leahy, S. R. Cherry, and R. D. Badawi, Spatial distortion correction and crystal identification for MRI-compatible position-sensitive avalanche photodiode-based PET scanners, *IEEE Transactions on Nuclear Science*, 56(3), 549-556 (2009), PMID: PMC2749315
20. **A. J. Chaudhari**, A. A. Joshi, S. L. Bowen, R. M. Leahy, S. R. Cherry, and R. D. Badawi, Crystal identification in positron emission tomography using nonrigid registration to a Fourier-based template, *Physics in Medicine and Biology*, 53(18), 5011-5027 (2008) (featured article and paper highlighted by MedicalPhysicsWeb), PMID: PMC2748910
21. S. Ahn, **A. J. Chaudhari**, F. Darvas, C. Bouman, R. M. Leahy, Fast Iterative Image Reconstruction Methods for Fully 3D Multispectral Optical Bioluminescence Tomography, *Physics in Medicine and Biology*, 53(14), 3921-3942 (2008), PMID: 18591735
22. **A. J. Chaudhari**, Y. Yang, S. R. Cherry, R. D. Badawi, PSPMT/APD hybrid DOI detectors for the PET component of a dedicated breast PET/CT system - a feasibility study, *IEEE Transactions on Nuclear Science*, 55(3), 853-861 (2008)

23. **A. J. Chaudhari**, F. Darvas, J. R. Bading, R. A. Moats, P.S. Conti, D. J. Smith, S. R. Cherry, R. M. Leahy, Hyperspectral and multispectral bioluminescence optical tomography for small animal imaging, *Physics in Medicine and Biology*, 50(23), 5421-5441 (2005) (selected as one of the most accessed papers of the 2005-2006, featured article), PMID: 16306643
24. R. P. Singh, D. Liu, **A. J. Chaudhari**, S. R. Cherry, R. M. Leahy, D. J. Smith, Investigation of different transcript quantitation tools for high-throughput mapping of brain gene expression using voxelation, *Journal of Molecular Histology*, 35(4), 397-402 (2004)
25. R. P. Singh, V. M. Brown, **A. J. Chaudhari**, A. H. Khan, A. Ossadtchi, D. M. Sforza, A. K. Meadors, S. R. Cherry, R. M. Leahy, D. J. Smith, High-resolution voxelation mapping of human and rodent brain gene expression, *Journal of Neuroscience Methods*, 125(1-2), 93-101 (2003)

Peer-reviewed conference papers

1. A. A. Joshi, R. M. Leahy, R. D. Badawi and **A. J. Chaudhari**, Morphometry for early monitoring of treatment response in Arthritis, *Proc. IEEE International Symposium on Biomedical Imaging*, pp 121--124 (2013), PMCID: PMC3767479
2. A. Ferrero, F. Godinez, **A. J. Chaudhari**, W. W. Moses, and Ramsey D. Badawi, Design and Initial Performance Evaluation of DbPET2, an intermediate generation breast PET prototype, *IEEE Nucl. Sci. Symp. Conf.* (2011)
3. A. A. Joshi, **A. J. Chaudhari**, D. W. Shattuck, J. Dutta, R. M. Leahy, and A. W. Toga, Posture correction and elastic registration of a mouse atlas to surface topography range data, *Proc. IEEE International Symposium on Biomedical Imaging* (2009), 366–369 PMCID: PMC2975998
4. **A. J. Chaudhari**, A. A. Joshi, Y. Wu, R. M. Leahy, S. R. Cherry, and R. D. Badawi, Spatial distortion correction and crystal identification for position-sensitive avalanche photodiode-based PET scanners, *IEEE Nucl. Sci. Symp. Conf. Rec.* (2008)
5. **A. J. Chaudhari**, G. W. Burkett, R. Harse, S. L. Bowen, N. Packard, S. Naguwa, R. L. Stern, J. C. Hunter, J. M. Boone, M. H. Buonocore, and R. D. Badawi, Multimodality high resolution wrist imaging for monitoring response to therapy in Rheumatoid Arthritis: instrumentation and techniques, *IEEE Nucl. Sci. Symp. Conf. Rec.* (2008)
6. J. Dutta, S. Ahn, **A. J. Chaudhari**, R. M. Leahy, Computationally Efficient Perturbative Forward Modeling for 3D Multispectral Bioluminescence and Fluorescence Tomography, *Proc. SPIE*, 6913, 69130C (2008)
7. **A. J. Chaudhari**, Y. Yang, S. R. Cherry, R. D. Badawi, PSPMT/APD hybrid DOI detectors for the PET component of a dedicated breast PET/CT system - a feasibility study, *IEEE Nucl. Sci. Symp. Conf. Rec.* (2007)
8. S. Ahn, **A. J. Chaudhari**, F. Darvas, C. Bouman, R. M. Leahy, Fast Image Reconstruction Methods for Fully 3D Multispectral Optical Bioluminescence Tomography, *Proc. IEEE International Symposium on Biomedical Imaging*, 22932 (2007)
9. **A. J. Chaudhari**, A. A. Joshi, F. Darvas, R. M. Leahy, A method for atlas-based volumetric registration with surface constraints for Optical Bioluminescence Tomography in small animal imaging, *Proc. SPIE*, 6510, 651024 (2007)

Conference Presentations (oral and poster)

1. **A. J. Chaudhari**, R. D. Boutin, R. J. Szabo, N. E. Lane, R. D. Badawi and M. H. Buonocore, First carpometacarpal joint motion differences by sex, *NIH Office of Research on Women's Health Eleventh Annual Interdisciplinary Women's Health Research Symposium*, Bethesda, MD, Nov 5 – 6, 2014 (Poster)
2. R. D. Boutin, J. Katz, **A. J. Chaudhari**, Y. Nakache; C. Li, R. Lamba, G. Fanazapir, R. J. Canter, Significance of Sarcopenia in Soft-tissue Sarcoma Patients: Do Skeletal Muscle and Fat Measures of Body Composition on Routine CT Exams Help Predict Clinical Outcomes? *Radiological Society of North America Annual Meeting*, Nov 30 – Dec 5, 2014, Chicago, IL (**Oral**)
3. **A. J. Chaudhari**, R. D. Boutin, R. J. Szabo, N. E. Lane, R. D. Badawi and M. H. Buonocore, First carpometacarpal joint motion differences by sex, *AAOS/CORR/ORS/CMH-UCD Musculoskeletal Sex Differences Throughout the Lifespan Research Symposium*, July 30 – August 1, 2014, Rosemont, IL (**Young Investigator Award to Dr. Chaudhari, Poster**)
4. F. Godinez, M.G. B. Sumanasema, A. Ferrero, K. Yang, J. Zhou, **A. J. Chaudhari**, M. S. Judenhofer, J. M. Boone, S. R. Cherry and R. D. Badawi, PET toolkit: Concept for rapid reconfiguration of application-specific PET systems, *Society of Nuclear Medicine and Molecular Imaging Annual Meeting*, St Louis, MI, June 7-11, 2014, *J Nucl Med.*; 55 (Supplement 1):2161 (**Poster**)
5. M.G. B. Sumanasena, F. Godinez, A. Ferrero, **A. J. Chaudhari**, Q. Peng, R. Farrell, W. W. Moses and R. D. Badawi, A modular hybrid PSPMT/APD depth encoding detector for high resolution positron emission tomography, *Society of Nuclear Medicine and Molecular Imaging Annual Meeting*, St Louis, MI, June 7-11, 2014, *J Nucl Med.*; 55 (Supplement 1):2134 (**Poster**)
6. M. H. Buonocore, R. D. Boutin, I. Immerman, and **A. J. Chaudhari**, Imaging of the moving wrist using rapid undersampled k-space acquisition with iterative reconstruction, *International Society for Magnetic Resonance in Medicine*, Milan, Italy, 10-14 May, 2014 (**Poster**)
7. **A. J. Chaudhari**, A. A. Joshi, R. M. Leahy, B. L. Wise, N. E. Lane, R. D. Badawi, R. D. Boutin and M. H. Buonocore, Thumb carpometacarpal joint motion and bone shape differences by sex, *Proceedings of the 1st International Thumb Osteoarthritis Workshop*, Newport, Rhode Island, USA October 25-26, 2013 (**Oral**)
8. **A. J. Chaudhari**, A. A. Joshi, R. M. Leahy, N. E. Lane, R. D. Badawi, R. D. Boutin, and M. H. Buonocore, Sex-based imaging biomarkers of carpal bone motion and shape in Hand Osteoarthritis, *NIH Office of Research on Women's Health Tenth Annual Interdisciplinary Women's Health Research Symposium*, Bethesda, MD, Oct 24-25, 2013 (**Poster**)
9. S. Agarwal, R. D. Badawi, and **A. J. Chaudhari**, Sampling considerations for a sub-millimeter resolution zoom-in PET insert of a dedicated extremity PET/CT system, *World Molecular Imaging Congress*, Savannah, GA (2013) (**Oral**)
10. M.G. Sumanasena, Q. Peng, F. Godinez, W. W. Moses, **A. J. Chaudhari** and R. D. Badawi, Integration of a PSPMT/APD depth-encoding PET detector with a high-performance PET data acquisition system, *World Molecular Imaging Congress*, Savannah, GA (2013) (**Poster**)

11. I. Immerman, R. D. Boutin, M. H. Buonocore, Z. Ashwell, R. M. Szabo, and **A. J. Chaudhari**, Real-time 2D and 3D MR Imaging During Active Wrist Motion, *American Society for Surgery of the Hand (ASSH) Annual Meeting*, San Francisco, CA (2013)
12. R. D. Boutin, **A. J. Chaudhari** and R. J. Canter, The significance of Sarcopenia: Myopenia, Malignancy, and the Musculoskeletal Imager, International Skeletal Society, Philadelphia, PA (2013) **(Electronic Exhibit)**
13. S. Agarwal, A. Ferrero, B. Sumanasena, S. Walsh, C. B. Capel, R. D. Badawi and **A. J. Chaudhari**, Sub-millimeter PET for improving outcomes in Breast Cancer, *California Breast Cancer Research Program Symposium*, Costa Mesa, CA (2013) **(Poster)**
14. M. H. Buonocore, R. D. Boutin, I. Immerman, Z. Ashwell, G. J. Sonico, R. Szabo, and **A. J. Chaudhari**, Quantitative kinematics of the wrist using dynamic MRI, *International Society for Magnetic Resonance in Medicine, Salt Lake City, UT* (2013) **(Poster)**
15. R. D. Boutin, Z. Ashwell, I. Immerman, R. Szabo, G. J. Sonico, M. H. Buonocore, and **A. J. Chaudhari**, Carpal kinematics from dynamic wrist MRI during active range of motion, *Society of Skeletal Radiology Annual Meeting*, San Antonio, TX (2013) **(Oral)**
16. F. Zhou, Y. Sun, **A. J. Chaudhari**, J. Bec, J. Liu, D. Yankelevich, S. Poti, S. P. Tinling, G. D. Farwell, R. F. Gandour-Edwards, L. Marcu, Multimodal tissue diagnostic technique combining fluorescence lifetime imaging (FLIm), ultrasound backscatter microscopy (UBM) and photoacoustic imaging (PAI): design and in vivo validation in a hamster oral carcinoma model, *Proc SPIE Photonics West – BIOS*, 8574-27 (2013) **(Poster)**
17. Z. Ashwell, R. D. Boutin, I. Immerman, R. Szabo, G. J. Sonico, M. H. Buonocore, and **A. J. Chaudhari**, Dynamic Wrist MRI in Real Time during Active Range of Motion, *American Roentgen Ray Society Annual meeting* (2013) **(Oral)**
18. J. Kuo, **A. J. Chaudhari** and D. K. Shelton, Pulmonary Parenchymal 18F-FDG-PET SUV in Sarcoma Patients, *Annual meeting of the Western Regional Society of Nuclear Medicine*, Monterey, CA (2012) **(Oral)**
19. S. K. Raychaudhuri, A. Mitra, K. Gong, J. Zhou, J. Qi, S. P. Raychaudhuri and **A. J. Chaudhari**, In vivo quantification of joint inflammation in a murine arthritis model by anatomical molecular imaging, *American College of Rheumatology Annual Meeting* (2012) **(Poster)**
20. F. Godinez, A. Ferrero, R.D. Badawi and **A.J. Chaudhari**, A hand phantom for the quantitative assessment of nuclear medicine-based extremity imaging, *IEEE Nucl. Sci. Symp. Conf.* (2012) **(Oral)**
21. F. Godinez, **A. J. Chaudhari**, J. Fung, Y. Yang, R. Farrell, S. K. Raychaudhuri, S. P. Raychaudhuri and Ramsey D. Badawi, pawPET: a high sensitivity, high resolution PET scanner for rodent paws, *IEEE Nucl. Sci. Symp. Conf.* (2012) **(Oral)**
22. **A. J. Chaudhari**, D. Rowland, R. D. Badawi, Nancy E. Lane and M. H. Buonocore, Ultra-high-field MRI for hand osteoarthritis, *Osteoarthritis Research Society International, Workshop on Biomarkers* (2012) **(Poster)**
23. **A. J. Chaudhari**, A. Ferrero, F. Godinez, K. Yang, S. M. Naguwa, D. K. Shelton, J. M. Boone, J. C. Hunter, S. P. Raychaudhuri, and R. D. Badawi, Characterization of an extremity PET/CT system for assessing early response to treatment in human inflammatory arthritis, *Society of Nuclear Medicine Annual Meeting* (2012) **(Oral)**

24. **A. J. Chaudhari**, S. P. Raychaudhuri, F. Godinez, A. Ferrero, K. Yang, D. K. Shelton, J. M. Boone, J. C. Hunter, M. H. Buonocore and R. D. Badawi, High resolution extremity PET/CT imaging of disease activity and pathology in inflammatory arthritis, *Society of Nuclear Medicine Annual Meeting (2012) (Oral)*
25. **A. J. Chaudhari**, M. Lam, R. Gandour-Edwards, W. L. Monsky, D. Gregory Farwell, L. Marcu, Early detection of human head and neck cancer using in vivo multimodality microscopic imaging: Initial validation in a hamster model, *Society of Nuclear Medicine Annual Meeting (2012) (Poster)*
26. A. Ferrero, A. Borowsky, **A. J. Chaudhari**, J. Santos, J. M. Boone, S. Martinez, R. D. Badawi, Novel methods for accurate, multi-modality in-vivo image registration with pathologic specimens: Preliminary results, *Society of Nuclear Medicine Annual Meeting (2012) (Poster)*
27. **A. J. Chaudhari**, Y. Sun, R. D. Badawi, S. P. Raychaudhuri, and L. Marcu, Optical/ultrasound microscopy for early detection of inflammatory arthritis, *American College of Rheumatology Research Workshop (2012) (Oral and poster, invited)*
28. **A. J. Chaudhari**, A. Ferrero, F. Godinez, K. Yang, J. M. Boone, M. H. Buonocore, J. C. Hunter, D. K. Shelton, S. W. Falen, R. D. Tesar, S. M. Naguwa, N. E. Lane, S. P. Raychaudhuri, and R. D. Badawi, Molecular Imaging of Rheumatoid, Psoriatic and Osteoarthritis in the Hand, *American College of Rheumatology Annual Meeting (2011) (Poster)*
29. A. Ferrero, F. Godinez, **A. J. Chaudhari**, W. W. Moses, and Ramsey D. Badawi, Design and Initial Performance Evaluation of DbPET2, an intermediate generation breast PET prototype, *IEEE Nucl. Sci. Symp. Conf. (2011) (Poster)*
30. **A. J. Chaudhari**, A. Ferrero, F. Godinez, K. Yang, J. M. Boone, M. H. Buonocore, J. C. Hunter, D. K. Shelton, S. W. Falen, R. D. Tesar, S. M. Naguwa, N. E. Lane, S. P. Raychaudhuri, and R. D. Badawi, High resolution molecular imaging of Rheumatoid, Psoriatic and Osteoarthritis in the hand, *American College of Rheumatology Research Workshop (2011) (Oral and poster, invited)*
31. J. Santos, A. A. Joshi, K. Yang, J. M. Boone, **A. J. Chaudhari**, and R. D. Badawi, Assessment of the advanced 3D registration for the spatial normalization of cross-sectional and longitudinal high resolution breast PET/CT images, *NIH/SNM Breast Cancer Imaging: State of the Art (2011) (Poster)*
32. F. Godinez, A. Ferrero, **A. J. Chaudhari**, and R. D. Badawi, Detectors for the Next Generation of High Resolution Dedicated PET/CT Scanners for Breast Imaging, *NIH/SNM Breast Cancer Imaging: State of the Art (2011) (Poster, award winner)*
33. A. Ferrero, **A. J. Chaudhari**, S.L. Bowen, K. Yang, K. K. Lindfors, J. M. Boone, S. R. Martinez and R. D. Badawi, Quantification of early response to neoadjuvant chemotherapy in breast cancer: initial studies in humans using a high resolution PET/CT scanner, *NIH/SNM Breast Cancer Imaging: State of the Art (2011) (Poster award winner)*
34. Y. Sun, **A. J. Chaudhari**, H. Xie, M. Lam, D. R. Yankelevich, Y. Sun, J. Phipps, A. Dobbie, S. P. Tinling, D. G. Farwell, D. S. Elson, J. M. Cannata, K. K. Shung, and L. Marcu, Development of a Multimodal Tissue Diagnostic System, *BMES Annual Meeting, (2010) (Poster)*

35. **A. J. Chaudhari**, S. L. Bowen, S. Naguwa, D. K. Shelton, M. H. Buonocore, J. M. Boone, J. C. Hunter and R. D. Badawi, Initial assessment of high resolution FDG-PET/CT with MRI for quantifying early response to TNF-alpha inhibitor treatment in rheumatoid arthritis, *Society of Nuclear Medicine Annual Meeting* (2010) **(Oral)**
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