

## AMIR HUDA

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## EDUCATION

### University of California, Los Angeles

*Los Angeles, CA*

September 1998

Ph.D. in Biomedical Physics. Dissertation Topic: "Clinical Investigations in Hepatic Encephalopathy: Applications of  $^1\text{H}$  Nuclear Magnetic Resonance Spectroscopy."

Published by UMI Dissertation Services (UMI No. 9906211). <http://www.umi.com>

### Kansas State University

09/85-12/87

MS in Nuclear Engineering. Thesis Topic: "A Computer Program for Internal Dosimetry Analysis using the methods of ICRP-30."

### Kansas State University

09/81-05/85

*Manhattan, KS*

BS in Nuclear Engineering.

## PROFESSIONAL EXPERIENCE

**Summary:** A scientist with a diverse educational and professional background; committed and enthusiastic with a multidisciplinary and holistic approach to teaching, research, and management. Extensive experience in teaching a diverse population of students from undergraduates, graduates, and technologists to medical residents and professors in different countries and cultures. Established the first Undergraduate Biomedical Physics program in the nation at California State University, Fresno. Proficient in independently handling various research projects such as image registration between Positron Emission Tomography (PET) and Magnetic Resonance Imaging (MRI), MRS in hepatic encephalopathy, schizophrenia, prostate cancer, and other diseases and disorders. Familiar with use and data analyses of neuropsychological tests. Excellent team management skills with demonstrated leadership qualities in projects as varied as decommissioning of the UCLA Argonaut research reactor and designing the UCLA Human-Use Research program involving radiation. Worked concurrently as a full-time Radiation Health Physicist while a candidate in the doctoral program. Interested and experienced in cross-disciplines from nuclear engineering to ionizing and non-ionizing radiation applications in medicine.

4/5/14- 8/5/2014	<p><b>Visting Professor, Departamento de Energia Nuclear, Centro de Tecnologia e Geociencias, Universidade Federal de Pernambuco (UFPE), Recife, Brazil</b>  Responsible for training physicists and students MRI and MRS and setting up collaborative research in the area of ionizing radiation and dosimetry.</p>
8/15/13-12/15/2013	<p><b>Fulbright Science Without Borders Distinguished Chair at the Departamento de Diagnostico por Imagem, Escola Paulista de Medicina, UNIFESP, São Paulo, Brazil</b>  Responsible for setting up infrastructure for research with MR Spectroscopy and teaching two MR courses, one to technologists and physicists and the other to medical residents in radiology. Also, gave several talks on various topics in medical physics at different universities and institutes in Brazil.</p>
08/2012 - Present	<p><b>Professor and Director, Biomedical Physics Program, Department of Physics California State University, Fresno</b>  Responsible for teaching a college physics course and lab, several radiation and medical physics courses such as Radiation Physics, Intro to MRI/MRS, Radiation Measurement Laboratory, etc. Established <b>the first undergraduate</b> biomedical physics program in the nation.   Website: <a href="http://www.fresnostate.edu/csm/medicalphysics/">www.fresnostate.edu/csm/medicalphysics/</a></p>
08/2000 - Present	<p><b>Adjunct Assistant Professor, Department of Radiological Sciences University of California, Los Angeles</b>  Work involves collaborating on research grant applications, interpreting data and results, and authoring journal articles and book chapters emanating from the research. Also involved with absolute quantification and standardization of research protocols with multi-dimensional, 3D-spatially localized in-vivo MRS and periodically teaching a graduate class on advanced techniques in MRS.</p>
08/2007 – 05/2012	<p><b>Associate Professor, Director, Biomedical Physics Program, Department of Physics California State University, Fresno</b></p>
10/2000 – 05/2007	<p><b>Assistant Professor, Director, Biomedical Physics Program, Department of Physics California State University, Fresno</b></p>
6/1/06-7/28/2006	<p><b>Hiroshima International Council for Health Care of the Radiation-Exposed (HICARE) Trainee, Hiroshima, Japan</b>  <a href="http://www.hiroshima-cdas.or.jp/HICARE/en/">http://www.hiroshima-cdas.or.jp/HICARE/en/</a>  The two-month project involved conceiving, writing, directing, and editing a <b>two-part documentary film on the health effects of atomic bomb radiation</b> highlighting the largest epidemiological study of the atomic bomb survivors in Hiroshima and Nagasaki. Participants included the Radiation Effects Research Foundation (RERF), Hiroshima A-bomb Casualty Council, Hiroshima University Research Institute for Radiation Biology and Medicine, Peace Memorial Museums in Hiroshima and Nagasaki and several A-bomb survivors.</p>

4/20/04-05/06/2005	<b>Peer Review Panel Member – Congressionally Directed Medical Research Programs</b> <i>USAMRMC, Department of Defense – Anti-radiation Drug Development Program</i>
2003 - Present	<b>Peer Review Panel Member – Congressionally Directed Medical Research Programs</b> <i>USAMRMC, Department of Defense – Prostate Cancer Research Program</i>
1/29/2003	<b>Consultant – International Atomic Energy Agency (IAEA)</b> <i>Meeting to develop a cadre of US experts on safety and security of radioactive material</i>
2007 - Present	<b>Abstracts Reviewer – American Association of Physicists in Medicine (AAPM) and International Society of Magnetic Resonance in Medicine (ISMRM)</b>
2002 - Present	<b>Peer Review Panel Member – Congressionally Directed Medical Research Programs</b> <i>USAMRMC, Department of Defense – Breast Cancer Research Program</i>
07/1991 - 07/2000	<b>Senior Radiation Health Physicist/Alternate Radiation Safety Officer</b> <i>University of California, Los Angeles</i> <ul style="list-style-type: none"> <li>• In charge of designing, administering, and maintaining the UCLA program involved with use of radiopharmaceuticals in humans for research including PET, SPECT, etc. Also, an advisor to the Nuclear Medicine Clinic for unusual clinical cases.</li> <li>• In charge of designing and administering the training program at UCLA for radiation workers, which includes presentation of seminars and teaching various graduate-level classes.</li> <li>• In charge of granting and maintaining authorizations to 400 radioisotope researchers covering 3500 radioisotope labs. Supervision of health physicists. UCLA is a broad scope licensee.</li> <li>• Administration and Management of the external dosimetry program involving approximately 2500 people.</li> <li>• QA Engineer to oversee decommissioning of the UCLA Argonaut Research Reactor.</li> </ul>
01/1988 - 06/1991	<b>Radiation Health Physicist, Radiation Safety Office</b> <i>University of California, Los Angeles</i> <ul style="list-style-type: none"> <li>• Design and Management of the UCLA Bioassay program, which consists of urine, thyroid bioassays, and a Whole-Body Counter.</li> <li>• Supervision of the primary and secondary instrument calibration program.</li> <li>• Authorship of a Plan submitted to NRC for Phase II of the decommissioning of the research reactor. Also, in charge of all correspondence and reports submitted to the NRC for completion of Phase I.</li> <li>• Responsible for conducting special audits for facilities such as the Biomedical Cyclotron, the former Neutron Therapy Facility, etc.</li> </ul>

## **PROFESSIONAL MEMBERSHIPS AND ACTIVITIES**

Member, International Society of Magnetic Resonance in Medicine (ISMRM), Health Physics Society (HPS), and American Association of Physicists in Medicine (AAPM)

Member, International Society on Hepatic Encephalopathies and Nitrogen Metabolism (ISHEN)

Coordinating Committee and Judge, Central California Research Symposium, 2001-2006

Member of the Part II Panel of Examiners of the ABHP until 2001

Chair, Radiation Safety Committee, California State University, Fresno

Member, Magnetic Resonance Subcommittee, AAPM 2004-2010

Member, Middle East Affairs Subcommittee, American Association of Physicists in Medicine 2007-09.

Member, TG131: Medical Physics Training in Developing Countries, AAPM, 2007-2010

Member, Awards Selection Committee, AAPM, 2010-

Member, Latin American Affairs Subcommittee, AAPM, 2012 -

Nominee, Provost's Award for Promising New Faculty, 2006; Member, Provost's Award Cmte, 2007

Advisor, MBRS-RISE Program at California State University, Fresno.

Editorial Board of Reports in Medical Imaging, 2008

Outstanding Advisor Award Nominee, California State University, Fresno, 2007, 2008

Member, Medical Response Subcommittee, HPS Homeland Security Committee, 2008-

Chair and Member of several Department RTP Review Committees, 2007-2012

American Academy of Health Physics Liaison to American Board of Medical Physics, 2013-

## **CERTIFICATION, GRANTS, AND AWARDS**

Diplomat of the American Board of Health Physics (ABHP), 1994-present

Winner of the Louis B. Silverman Memorial Award for 1996 (SCCHPS)

Faculty Fellow, Professions Capacity Building Program, 2001, Department of Health and Human Services and Hispanic Association of Colleges and Universities (HACU)

Recipient of the Fulbright Science without Borders Distinguished Chair 2013-2014

*External Grants:*

**Extramural Associates Research Development Award (EARDA) via the College of Health and Human Services**

Huda (Summer Support)

06/15/2012-08/15/2012

Eunice Kennedy Shriver National Institute of Child Health and Human Development of the National Institutes of Health

Train in radiobiological techniques in the lab of Drs. William McBride/Kei Iwamoto at UCLA

**1 R25 MH066082-01A1**

Huda (PI, 50%)

09/01/03-

07/31/09

National Institute of Mental Health (direct costs: \$673,374)

The Physics of Neuroimaging

To start a new undergraduate training program to attract and motivate students to pursue careers in quantitative neurosciences.

Role: Principle Investigator

**1 R01 MH065695-01A1**

Thomas (PI)

12/01/02-

11/30/06

National Institute of Health (direct costs: \$975,000)

Two-Dimensional MR Spectroscopic Characterization of Hepatic Encephalopathy

To correlate the metabolite ratios using the 2D L-COSY sequence on a 1.5T MRI scanner with neuropsychological test battery and MRI of basal ganglia.

Role: Co-Investigator (5%)

*Internal Grants:*

Between 2001-2006, over \$84,000 from several grants such as "The New Program Award" "Instructional Equipment Allocation", and "Faculty Research Equipment Award" were used to purchase special equipment to refurbish lab space and start the new Biomedical Physics Program.

## PUBLICATION AND PRESENTATIONS

1. "Technical Considerations for Brain Tumor Imaging with Tl-201 SPECT and correlation with x-ray CT studies." D. Marciano, C.K. Hoh, C. Carlson, T. Emerick, A.Huda, K.L. Black, D.P. Becker, J.C. Mazziotta, R.A. Hawkins. *Presented at the Society of Nuclear Medicine 38<sup>th</sup> Annual Meeting, Cincinnati, OH. June 11-14, 1991.*
2. "2-[18F]-Fluoro-2-deoxyglucose PET and MRI correlation of squamous cell carcinoma in the pharynx and the oral cavity." Y. Anzai, S. Rege, A. Huda, U. Sinha, R. Hawkins, R. B. Lufkin. *Presented at the ASNR/ASHNR/ASITN/WFITN Meeting in Vancouver, BC. May 13-20, 1993.*
3. "Positron Emission Tomographic Imaging of the Head and Neck." T. Lee, Y. Anzai, A. Huda, S. Rege, R. Hawkins, and R. B. Lufkin. *Western Journal of Medicine, Vol 159, No. 1, p 72, 1993.*
4. "Decommissioning of a University Research Reactor." E. Abelquist, A. Huda, S. State, and J. Takahashi. *Health Physics Journal, Vol. 67, No. 1, p80-7, July 1994.*
5. "Final decommissioning of the UCLA Boelter Reactor Facility." S. State, J. Gordon, J. Takahashi, A. Huda. *Presented at the Waste Management Conference in Tucson, Arizona. March 2, 1993.*
6. "Automated Image Registration with a New Similarity Measure." A. Huda, C.K. Hoh, U. Sinha, S. Sinha, S. Rege, R.A. Hawkins. *Presented at the RSNA Annual Meeting in Chicago, IL. December 3, 1993.*
7. "Regional Variations of Metabolites in Hepatic Encephalopathy." A. Huda, M.A. Thomas, M. Bugbee, Y. Ke, T. Oshiro, T. Strouse, J. Curran, and B. Guze. *Poster presented at the International Society of Magnetic Resonance in Medicine, 3<sup>rd</sup> Meeting in Nice, France. August 19-25, 1995.*
8. "<sup>1</sup>H MR Spectroscopy of Hepatic Encephalopathy." A. Huda, M.A. Thomas, M. Bugbee, Y. Ke, T. Oshiro, T. Strouse, and B. Guze. *Presented at the International Society of Magnetic Resonance in Medicine, 3<sup>rd</sup> meeting in Nice, France. August 19-25, 1995.*
9. "UCLA Procedure Manual for Bedside Cerebral Blood Flow Measurement Using Xenon-133 Clearance." Martin NA, Benalcazar HE, Alsina GA, Lee JH, Rinsky B, Thomas-Lukes K, Barcenos O, Carlson C, Huda A, Hoh C. *Los Angeles, CA. September 1995.*
10. "<sup>1</sup>H MR Spectroscopy in Management of patients with Hepatic Encephalopathy." A. Huda, M.A. Thomas, Y. Ke, M. Bugbee, T. Strouse, and B. Guze. *Presented at the RSNA 81<sup>st</sup> Meeting, Chicago, IL. November 26-December 1, 1995.*
11. "Magnetic Resonance Imaging and Spectroscopy of Hepatic Encephalopathy." M.A. Thomas, J.C. Curran, A. Huda, M. Bugbee, Y. Ke, T. Oshiro, T. Strouse, and B. Guze. *Presented at the Western Neuro '95 Annual Meeting in Vancouver, B.C. October 5-8, 1995.*

12. "MR Spectroscopy and Neuropsychological Characterization of Sub-clinical and Mild Hepatic Encephalopathy: a Clinical Correlation Study." A. Huda, M.A. Thomas, B. Guze, J. Curran, L. Fairbanks, M. Bugbee, and F. I. Fawzy. *Presented at the International Society of Magnetic Resonance in Medicine, Fifth Scientific Meeting in Vancouver, B.C. April 12-18, 1997.*
13. "Clinical Correlation of Neuropsychologic Tests with <sup>1</sup>H Magnetic Resonance Spectroscopy in Hepatic Encephalopathy." A. Huda, B. Guze, M.A. Thomas, M. Bugbee, L. Fairbanks, T. Strouse, and F.I. Fawzy. *Psychosomatic Medicine, 60:550-556, 1998.*
14. "Cerebral <sup>1</sup>H MR Spectroscopy and Neuropsychological Status of Patients with Hepatic Encephalopathy." M.A. Thomas, A. Huda, B. Guze, J. Curran, M. Bugbee, L. Fairbanks, Y. Ke, T. Oshiro, P. Martin, F.I. Fawzy. *American Journal of Roentgenology, 171:1123-1130, 1998.*
15. "Proton MRS in schizophrenia: Differences from controls and psychiatric symptom correlates." J. Ventura, M.A. Thomas, B. Guze, A. Huda, D. Gutkind. *Biological Psychiatry, Meeting Abstracts, Vol 43, p 88, 1998.*
16. "Absolute Quantitation of Cerebral Metabolites in Hepatic Encephalopathy patients awaiting liver transplantation using <sup>1</sup>H Magnetic Resonance Spectroscopy." A. Huda, M.A. Thomas, B. Guze, J. Ventura, K. Chao. *Presented at the 20<sup>th</sup> International Congress of Radiology in New Delhi, India. September 19-23, 1998.*
17. "Clinical Investigations in Hepatic Encephalopathy." A. Huda, M.A. Thomas, B. Guze, J. Ventura, G. Gitnick. *Presented at the 10<sup>th</sup> International Symposium on Hepatic Encephalopathy and Nitrogen Metabolism in Istanbul, Turkey. May 5-8, 1999. Published in Advances in Hepatic Encephalopathy and Metabolism in Liver Disease, ISHE99, Edited by Cihan Yurdaydin and Hakan Bozkaya, Ankara University Press, 2000, pp 291-296.*
18. "Cerebral Metabolite Levels in patients awaiting liver transplantation observed with <sup>1</sup>H MR Spectroscopy." M.A. Thomas, A. Huda, B. Guze, et al. *Presented at the Seventh International Society for Magnetic Resonance in Medicine (ISMRM) Scientific Meeting and Exhibition, May 22-23, Philadelphia, 1999; Book of Abstracts, pp 1563.*
19. "Unequivocal characterization of NAA, glutamate/glutamine, GABA, glutathione, and macromolecules in Hepatic Encephalopathy." M.A. Thomas, N. Binesh, K. Yue, A. Huda, B. Guze, and P. Martin. *Presented at the 86<sup>th</sup> Scientific Assembly and RSNA Meeting, Chicago, 2000.*
20. "Neurochemical Correlates of late-life Major Depression." A. Kumar, M.A. Thomas, H. Lavretsky, A. Toga, M. Mega, D. Pham, K. Yue, A. Huda, T. N. Venkatraman. *Presented at the ISMRM/ESMRMB Joint Annual Meeting, April 23-27, Glasgow, Scotland, 2001; Book of Abstracts, pp1013.*

21. "LC- Model Analysis of Anterior Cingulate <sup>1</sup>H MRS in Juvenile Bipolar Disorder." P. Davanzo, K. Yue, A. Huda, T.N. Venkatraman, M.A. Thomas. *Presented at the ISMRM/ESMRMB Joint Annual Meeting, April 23-27, Glasgow, Scotland, 2001; Book of Abstracts, pp 1356.*
22. **Book Chapter:** "Magnetic Resonance Imaging and Spectroscopic techniques in CNS Infections." S. Sinha, A. Huda, M.A. Thomas. *MR Imaging and Spectroscopy of CNS Infections, Edited by Rakesh K. Gupta and Robert B. Lufkin, Plenum Press, 2001, pp 1-55.*
23. "Neurochemical correlates of late-life major depression detected using proton MRS." A. Kumar, M.A. Thomas, H. Lavretsky, A. Huda, K. Yue, M. Mega, A. Toga. *Presented at the 31<sup>st</sup> Annual Meeting of the Society for Neuroscience, November 10-15, San Diego, CA, 2001; Society for Neuroscience Abstracts 27 (2):2075.*
24. "Frontal White Matter Biochemical Abnormalities in Late-Life Major Depression Detected with Proton Magnetic Resonance Spectroscopy." A. Kumar, A. Thomas, H. Lavretsky, K. Yue, A. Huda, J. Curran, T. Venkatraman, L. Estanol, J. Mintz, M. Mega, and A. Toga. *American Journal of Psychiatry, 159 (4): 630-636, 2002.*
25. "MRS of Pediatric Bipolar and Disruptive Behavior Disorders." P. Davanzo, S. Barnett, T. Venkatraman, K. Yue, M. Frye, N. Binesh, A. Huda, and M.A. Thomas. *Presented at the ISMRM Tenth Scientific Meeting, May 18-24, Honolulu, Hawaii, 2002; Proceedings on CDROM*
26. **Invited Plenary Lecture:** "Adding a New Spectral Dimension to Localized MR Spectroscopy in vivo: From Phantoms to Humans." M.A. Thomas, A. Huda, K. Yue, N. Binesh, N. Hattori, S. Han, S. Banakar, et. Al. *Presented at the First International Conference on Biomedical Spectroscopy: From Molecules to Men, July 7-10, Cardiff, Wales, UK, 2002; Book of Abstracts.*
27. "Adding a new spectral dimension to localized <sup>1</sup>H MR spectroscopy of human prostates using an endorectal coil." M.A. Thomas, N. Binesh, K. Yue, S. Banakar, N. Wyckoff, A. Huda, A. Marumoto, and S. Raman. *Spectroscopy, 17(2-3):521-527, 2003.*
28. **Book Chapter:** "1D and 2D MR Spectroscopy of Human Prostate Cancer." A. Huda, A. Marumoto, K. Yue, N. Wyckoff, M.A. Thomas. *Recent Advances in MR Imaging and Spectroscopy in Experimental and Clinical Research, Edited by N R Jaganathan, Jaypee Brothers Publishers (P) Ltd., New Delhi, 2004, pp 281-300.*
29. "The Effects of Gamma Irradiation on *Arabidopsis Thaliana*." T. Pixton, J. Constable, A. Huda. *Poster Presentation of Works-in-Progress at the 49th Annual HPS Meeting, July 11-15, Washington DC, 2004; pp21, Final Program, poster 62.*
30. "The Effects of Gamma Irradiation on *Arabidopsis Thaliana*." T. Pixton, J. Constable, A. Huda. *Oral Presentation at the Annual Meeting of AAPM, Medical Physics, 31 (6):1758, 2004.*



31. "Adding Another Spectral Dimension to  $^1\text{H}$  Magnetic Resonance Spectroscopy of Hepatic Encephalopathy." N. Binesh, A. Huda, M. Bugbee, et. al. *Journal of Magnetic Resonance Imaging*, 21: 398-405, 2005.
32. **Book Chapter:** "Multi-dimensional NMR Spectroscopy and Editing in vivo." M.A. Thomas, N. Binesh, K. Yue, HK Chung, S.Han, N. DeBruhl, A. Huda, A. Kumar. *Biomedical Magnetic Resonance: Proceedings of the International Workshop, Edited by NR Jagannathan, Jaypee, New Delhi, 2005, pp 86-109.*
33. "Implications of 2D L-COSY  $^1\text{H}$  Magnetic Resonance Spectroscopy on Minimal HE." A. Huda, N. Binesh, and M.A. Thomas. *Oral Presentation at the 12<sup>th</sup> International Symposium on Hepatic Encephalopathy and Nitrogen Metabolism in Schloss Burg, Solingen, Germany. June 1-4, 2005.*
34. **Book Review:** A. Huda. "Primer on MR Imaging of the Abdomen and Pelvis" by Diego R. Martin, Michèle A. Brown, and Richard C. Semelka. *Journal of Applied Clinical Medical Physics*, 6 (2), Spring, 2005.
35. "Hepatic Encephalopathy: A neurochemical, neuroanatomical, and neuropsychological study." N. Binesh, A. Huda, M. A. Thomas, N. Wyckoff, M. Bugbee, S. Han, N. Rasgon, P. Davanzo, J. Sayre, B. Guze, P. Martin, and F. Fawzy. *Journal of Applied Clinical Medical Physics*, 7 (1), 2006.
36. "Biochemical and Anatomical Characterization of Minimal HE" M.A. Thomas, N. Binesh, Rajesh Kumar, Shery Liu, B. Sawale, A. Huda, S. Han. *Oral Presentation at the ISMRM 14<sup>th</sup> Scientific Meeting, May 6-12, 2006, Seattle, WA; Proceedings on CDROM.*
37. "Comparison of Global T2 values and Globus Pallidal T1-Weighted Signal Changes in Sub-Clinical HE." M.A. Thomas, R. Kumar, B. Sawale, A. Huda, S. Han. *Poster Presentation at the ISMRM 14<sup>th</sup> Scientific Meeting, May 6-12, 2006, Seattle, WA; Proceedings on CDROM.*
38. **Book Chapter:** "Localized magnetic resonance-correlated spectroscopy using two spectral dimensions: theoretical description and pilot investigation in hepatic encephalopathy." A. Huda, N. Binesh, S. Han, M.A. Thomas. *Hepatic Encephalopathy and Nitrogen Metabolism, Edited by D. Häussinger, G. Kircheis and F. Schliess, Springer, The Netherlands, 2006.*
39. **Book Chapter:** "Spatially Resolved Two-Dimensional MR Spectroscopy *in-vivo*." M.A. Thomas, A. Huda, HK Chung, N. Binesh, T. Venkatraman, A. Ambrosio, S. Banakar. *Modern Magnetic Resonance - Part 2: Applications in Medical and Pharmaceutical Sciences, Edited by Carolyn E. Mountford, Springer Publishers, 2007.*
40. "Response of Arabidopsis thaliana to Ionizing Radiation." T. Kurimoto, J.V. H. Constable, S. Hood, and A. Huda. *Oral Presentation at the Fourth International Summer School on Nuclear Physics Methods and Accelerators in Biology and Medicine, Prague, Czech Republic; July 8-19, 2007; AIP Conference Proceedings pages 290-1.*

41. "Voxel-based Diffusion Tensor Magnetic Resonance Imaging Evaluation of Low Grade Hepatic Encephalopathy." R. Kumar, R. Gupta, V. Elerkin-Thompson, A. Huda, J. Sayre, C. Kirsch, B. Guze, S. Han, M.A. Thomas. *Journal of Magnetic Resonance Imaging*, 27 (5):1061-1068, 2008.
42. "Diffusion Tensor Imaging and Three-dimensional MR Spectroscopic Imaging of Low Grade Hepatic Encephalopathy." M.A. Thomas, N. Rajakumar, S. Lipnick, G. Verma, R. Kumar, A. Huda, et. al. *Oral Presentation at the RSNA Annual Meeting in Chicago, IL; November 25-30, 2007.*
43. "Role of Magnetic Resonance in Understanding the Pathogenesis of Hepatic Encephalopathy." A. Huda, R. Gupta, N. Rajakumar, M.A. Thomas. *Magnetic Resonance Insights*, 2:109-122, 2008.
44. "Current Status of Cardiac MR Spectroscopy." A. Singhal, K. Shivkumar, A. Huda, M.A. Thomas. *Prog. Nucl. Magn. Reson. Spectroscopy*, 54:255-277, 2009.
45. "Magnetic Resonance T<sub>2</sub> Relaxometry and 2D L-Related Spectroscopy in Patients with Minimal Hepatic Encephalopathy." A. Singhal, N. Rajakumar, R. Kumar, A. Huda, R. Gupta, M.A. Thomas. *Journal of Magnetic Resonance Imaging*, 30:1034-1041, 2009.
46. "Effects of Ionizing Radiation on *Arabidopsis Thaliana*." T. Kurimoto, J.V.H. Constable, A. Huda. *Presented at the 54th Annual Meeting of the Health Physics Society, Minneapolis, MN; July 12-16, 2009 and the AAPM 51st Annual Meeting in Anaheim, CA; July 26-30, 2009.*
47. Invited Guest for Panel Discussion on "Implications of the new CAMPEP/ABR Requirements" at the Southern California Chapter of the AAPM, Midwinter Symposium, Sheraton Universal Hotel, January 29, 2010.
48. "Two-dimensional MR Spectroscopy of Minimal Hepatic Encephalopathy and Neuropsychological Correlates in vivo." A. Singhal, R. Nagarajan, C. Hinkin, R. Kumar, J. Sayre, V. Elderkin-Thompson, A. Huda, R. Gupta, S. Han, M.A. Thomas. *Journal of Magnetic Resonance Imaging*, 32:35-43, 2010.
49. "Radiation Biodosimetry via Clinical Magnetic Resonance Spectroscopy at 3T?" A. Huda, S. Ramadan, R. Nagarajan, M. A. Thomas. *Presentation at the 55th Annual Meeting of the Health Physics Society, Salt Lake City, UT; June 27-July 1, 2010.*
50. "Effects of Ionizing Radiation Exposure on *Arabidopsis Thaliana*." T. Kurimoto, J.V.H. Constable, A. Huda. *Health Physics*, 99 (1): 49-57, 2010.
51. "Prior Knowledge Fitting of 2D L- COSY in Hepatic Encephalopathy: Differentiation of Glutamine from Glutamate." MK. Sarma, A. Huda, R. Nagarajan, M.A. Thomas. *Presentation at the Asian Pacific Association for the Study of the Liver (APASL 2011) Conference in Bangkok, Thailand; February, 2011.*

52. "Multi-dimensional MR Spectroscopy: Towards a Better Understanding of Hepatic Encephalopathy." M. Sarma, A. Huda, R. Kumar, C. Hinkin, N. Wilson, R.K. Gupta, E. Frias-Martinez, J. Sayre, B. Guze, S. Han, M. A. Thomas. *Metabolic Brain Disease*. 26(3): 173-184, 2011.
53. Invited Guest Speaker for the Professional Enrichment Program (PEP) on "The Basics of Magnetic Resonance Imaging and Spectroscopy" at the 56<sup>th</sup> Annual Meeting of the Health Physics Society in Palm Beach, Florida; June 27, 2011.
54. "Improved Quantification of Cerebral Metabolites in Hepatic Encephalopathy Using 2D L-COSY and ProFit." A. Huda, M Sarma, R Nagarajan, C Hinkin, N Wilson, R Gupta, J Sayre, B Guze, S Han, M Thomas. *Presentation at the 2011 Joint AAPM/COMP Meeting in Vancouver, Canada; July 31-August 4, 2011.*
55. Invited Guest Speaker to the Radiation Therapy Group on "Fukushima Dai-ichi Nuclear Disaster and the Consequences Related to Radiation Doses" at UNIFESP, Escola Paulista de Medicina, Sao Paulo, Brazil; September 30, 2013.
56. Invited Guest Speaker for the Medical Physics Colloquium on "Advanced Two-Dimensional MR Spectroscopic Techniques In-Vivo" at Universidade de Sao Paulo in Ribeirao Preto, SP, Brazil; October 8, 2013.
57. Invited Guest Speaker to the Radiology Residents on "State of the Art: What's New in MRS Clinical Applications" at UNIFESP, Escola Paulista de Medicina, Sao Paulo, Brazil; October 15, 2013.
58. Invited Guest Speaker as part of the 1<sup>st</sup> International Day of Medical Physics to present the documentary and discuss "After the A-Bombs: The Fog of Knowledge" at USP, Ribeirao Preto, SP, Brazil on November 7, 2013.
59. Invited Guest Speaker for an Inter-Departmental Colloquium on " The Role of Biomedical Physics in Medicine and Neurosciences" at Universidade Federal de Pernambuco, Departamento de Energia Nuclear, Recife, Pernambuco, Brazil; October 29, 2013 and at Instituto de Radioprotecao e Dosimetria, Commisao Nacional de Energia Nuclear, Rio de Janiero, Brazil; December 6, 2013.
60. "Multidimensional MR spectroscopic imaging of prostate cancer in vivo." M Albert Thomas, Rajakumar Nagarajan, Amir Huda, Daniel Margolis, Manoj K Sarma, Ke Sheng, Robert E Reiter, Steven S Raman. *NMR in Biomedicine*, 27:53-66, 2014.
61. **Book Chapter:** "In-vivo Two-Dimensional Magnetic Resonance Spectroscopy." A. Huda, R. Nagarajan, J. Furuyama, M.A. Thomas. *Comprehensive Biomedical Physics, Edited by Professors. Dzevad and Karen Belkic, Elsevier BV Publishers, 2014, Vol 3: 359-377.*
62. Invited Guest Speaker on "Applications of Magnetic Resonance Spectroscopy in Neurosciences" at the Núcleo de Telessaúde da Universidade Federal de Pernambuco (NUTES-UFPE), Hospital das Clinicas, Recife, PE, Brazil on June 4, 2014.

63. Invited Guest Speaker for the Physics Department Colloquium on "In-vivo MRS: Techniques and Applications" at the **Universidade Federal de Pernambuco (UFPE) on June 13, 2014.**
64. Invited Guest Lecturer for a class of medical students on "MRI in Medicine" at the **Universidade Federal de Pernambuco (UFPE) on July 1, 2014.**
65. "Dosimetric study of mandible examinations performed with three cone-beam computed tomography scanners." H. J. Khoury, M.E. Andrade, M.W. Araujo, I.V. Brasileiro, R. Kramer, A.Huda. *Radiation Protection Dosimetry (in press for publication).*
66. "Radiation exposure to patients and medical staff in hepatic chemoembolization interventional procedures in Recife, Brazil." H. J. Khoury, W. J. Garzon, G. Andrade, N. Lunelli, R. Kramer, V.S.M. de Barros, A. Huda. *Radiation Protection Dosimetry (in press for publication).*
67. "Evaluation of Staff, Patient, and Fetal Radiation Dose due to Endoscopic Retrograde Cholangiopancreatography (ERCP) Procedure in a pregnant." A. Huda, W.J. Garzon, G. L. Filho, R. Kramer, X.G. Xu, B. Vieira, H.J. Khoury. *Radiation Protection Dosimetry (in press for publication).*

#### SHORT COURSES AND WORKSHOP

- Risk Workshop with **Charles Meinhold**, President of the National Council on Radiation Protection and Measurements (NCRP). *Presented by the HPS-Southern California Chapter. October 19, 1999.*
- CT in Medicine: A (Still) Evolving Modality - New Frontiers in Radiology, Radiation Oncology, & Nuclear Medicine. *Presented by the Southern California Chapter of the American Association of Physicists in Medicine. February 25, 2005.*
- Radiation Detection and Measurement. *Presented by Glenn F. Knoll. Organized by Technical Management Services, Inc. April 18-22, 2005.*
- AAPM Summer School on Shielding Methods for Medical Facilities: Diagnostic Imaging, PET and Radiation Therapy. *Presented by the American Association of Physicists in Medicine. July 27-29, 2007.*
- 2008 AAPM Workshop on "Becoming a Better Teacher of Medical Physics." *July 31- Aug 3, 2008.*
- Teaching with Technology in the Sciences. *Hosted by Chabot College, Hayward, CA. Presented by Pearson Higher Education, March 10, 2012.*
- Lessons We are Learning from Fukushima. *Professional Development School, Health Physics Society, Jan 30-Feb 1, 2013.*