## **Andrés Rahal MD PhD**

# Musculoskeletal Radiologist

#### **EDUCATION**

Musculoskeletal Radiology, UTHSCSA, San Antonio, TX	12/2006 - 06/2007
PhD, Radiological Sciences, UTHSCSA, San Antonio, TX	07/2003 - 05/2007
Diagnostic Radiology, UTHSCSA, San Antonio, TX	07/2002 - 06/2007
Medicine Internship, UTHSCSA, San Antonio, TX	07/2001 - 06/2002
Radiology, Universidad CES, Medellín, Colombia	07/1997 - 10/2000
M.D. Universidad CES, Medellín, Colombia	01/1990 - 12/1995

#### **CURRENT POSITIONS AND EMPLOYMENT**

Musculoskeletal Radiologist,

12/2011 - Present

The San Antonio Orthopaedic Group, San Antonio, TX

On site radiologist at the imaging center, in charge of protocoling CT and MRI studies; performing image guided procedures including joint injections/aspirations, arthrograms, biopsies and MSK ultrasound.

Musculoskeletal Radiologist, Specialists in Diagnostic Imaging PA, NationalRad, Deerfield Beach, FL Interpretation of specialized MSK radiology studies. 12/2011 - Present

# **ACADEMIC APPOINTMENTS**

Assistant Professor of Radiology	07/2007 - Present
Section of Musculoskeletal Radiology,	
The University of Texas Health Science Center at San Antonio,	
Department of Radiology, San Antonio, TX	

Associate Program Director for Resident Research	02/2009 - 02/2012
The University of Texas Health Science Center at San Antonio,	
Department of Radiology, San Antonio, TX	

Director, Musculoskeletal Ultrasonography	07/2008 - 02/2012
The University of Texas Health Science Center	
and Affiliated Hospitals, Department of Radiology,	
San Antonio, TX	

#### **CERTIFICATION AND LICENSURE**

Board Certified in Diagnostic Radiology, active MOC 06/2007 – 06/2017 The American Board of Radiology

Certified Densitometrist – The International Society 01/2011 – 01/2016

For Clinical Densitometry (ISCD)

BLS Certified – American Heart Association 04/2014 – 04/2016

ECFMG - 0-618-560-7 09/2000 - Present

**Educational Commission for Foreign Medical Graduates** 

Diagnostic Radiology – Asociación Colombiana de Radiología 06/2000 – Present

### **Current State Medical Licenses:**

Texas Florida

California Delaware

07/1997-Present

## PROFESSIONAL MEMBERSHIPS AND ACTIVITIES

07/2009-Present Society of Skeletal Radiology The American Roentgen Ray Society 10/2007-Present 07/2007-Present American Medical Association **UTHSCSA Institutional Review Board Member** 01/2008-02/2012 International Society for Magnetic Resonance in Medicine 08/2005-07/2010 07/2002-Present **Texas Radiological Society** 07/2002-Present American College of Radiology **Texas Medical Association** 07/2001-Present 07/2001-Present Bexar County Medical Association 08/1997-Present Radiological Society of North America 07/1997-Present Asociación Colombiana de Radiología

Asociación Antioqueña de Radiología

#### **HONORS AND AWARDS**

04/2011 CERTIFICATE OF MERIT: RAHAL A, Wibskov JB, Smolik JS, Bean GW, Bridges SM, Garcia GM, Loredo RA, for Educational Exhibit: "Ultrasound in Early Rheumatoid Arthritis: How to Perform a Hand and Wrist Ultrasound Examination and Common Imaging Findings," designed for the 2011 American Roentgen Ray Society Annual Meeting in Chicago, Illinois.

03/2011 SOCIETY OF SKELETAL RADIOLOGY 2011 YOUNG INVESTIGATOR AWARD: RAHAL A, Smolik JS, Wibskov JB, Bean GW, Wirth MA, Bridges SM, Garcia GG, Loredo RA, for Educational Exhibit: "Shoulder Glenoid Version on CT Scan: Using a Plane Axial to the Scapula is Critical for a Precise Measurement," presented at the 2011 Society of Skeletal Radiology Annual Meeting in Scottsdale, Arizona.

03/2011 SOCIETY OF SKELETAL RADIOLOGY 2011 YOUNG INVESTIGATOR AWARD: RAHAL A, Wibskov JB, Smolik JS, Bean GW, Bridges SM, Garcia GM, Loredo RA, for Educational Exhibit: "Ultrasound in Early Rheumatoid Arthritis: How to Perform a Hand and Wrist Ultrasound Examination and Common Imaging Findings", designed for the 2011 Society of Skeletal Radiology Annual Meeting in Scottsdale, Arizona.

12/2010 CERTIFICATE OF MERIT: Loredo R, RAHAL A, Garcia G, Zgonis T, Wibskov J, for Educational Exhibit: "Imaging of the Diabetic Foot Revisited," designed for the 96th Annual Radiological Society of North America Conference, in Chicago, Illinois.

11/2007 CERTIFICATE OF MERIT: Citation to: Gomez-Cintron A, RAHAL A, Loredo RA, Garcia GM, Chhaya SA, for Educational Exhibit: "Metatarsal Plantar Plate Anatomy: A Pictorial Exhibit Featuring Microscopy Coil-MR Imaging and Ultrasonography," designed for the 93rd Annual Radiological Society of North America Conference, in Chicago, Illinois.

05/2007 AWARD - RADIOLOGICAL SOCIETY OF NORTH AMERICA: ROENTGEN RESIDENT/FELLOW RESEARCH AWARD.

06/2001 AWARD – BEST INTERN: AT THE UNIVERSITY OF TEXAS HEALTH SCIENCE CENTER AT SAN ANTONIO. Awarded by the UTHSCSA medical students.

12/1995 AWARD – THIRD PLACE RANKING: Recognized for 3rd place rank in the 1995 Medical School Graduating class.

12/1992 AWARD – "ESTÍMULO ACADEMICO": Received this award at the Instituto de Ciencias de la Salud (CES) for best grades in the third year medical school class.

12/1990 AWARD – "ESTÍMULO ACADEMICO": Received this award at the Instituto de Ciencias de la Salud (CES) for best grades in the first year medical school class.

#### ABSTRACTS AND PRESENTATIONS

### **Podium Presentations and Invited Speaker Lectures**

- 1. 09/2013 Degenerative spine disease, update. Invited speaker at the International MRI symposium in Cancún, Mexico. Held by IATM from Medellín, Colombia.
- 2. 09/2013 Plexopathies. Magnetic resonance neurography. IATM (invited speaker).
- 3. 09/2013 Update spine MRI: 3T, sequences for metal, diffusion and tractography.
- 4. 09/2013 What's new in spine trauma? IATM (invited speaker).
- 5. 09/2011 Musculoskeletal CT Scan, Orthopedic Surgery residents core curriculum lecture, Orthopedic Surgery Residents UTHSCSA, San Antonio, TX (Invited speaker).
- 6. 09/2011 Web Based Research Resources, Radiology residents' research conference series, Department of Radiology, UTHSCSA, San Antonio, TX.
- 7. 03/2011 Musculoskeletal Radiology, Orthopedic Surgery residents core curriculum lecture, Orthopedic Surgery Residents UTHSCSA, San Antonio, TX (Invited speaker).
- 8. 01/2011 Shoulder MRI, UTHSCSA Radiology Residents, UTHSCSA Department of Radiology, San Antonio, TX.
- 9. 12/2010 Educational exhibit "Imaging of the diabetic foot revisited", RSNA 2010, Musculoskeletal Radiology, Radiological Society of North America, Chicago, IL.
- 10. 02/2010 Bone marrow imaging, Imágenes Medicas Avanzadas, Madrid, SP (Invited Speaker).
- 11. 02/2010 Imaging ankle and foot trauma, Imágenes Medicas Avanzadas, Madrid, SP (Invited Speaker).
- 12. 02/2010 Muscle Imaging, Imágenes Medicas Avanzadas, Madrid, SP (Invited Speaker).
- 13. 02/2010 Shoulder MRI and CT, Imágenes Medicas Avanzadas, Madrid, SP (Invited Speaker).
- 14. 02/2010 Imaging of muscle lesions, Radiology residents seminar series, Department of Radiology, UTHSCSA, San Antonio, TX.
- 15. 01/2010 Web based research resources, Radiology residents research conference series, Department of Radiology, UTHSCSA, San Antonio, TX.
- 01/2010 Musculoskeletal System radiologic anatomy, Radiologic anatomy course, Radiological Sciences students, Graduate School of Biomedical Sciences, UTHSCSA, San Antonio, TX.
- 17. 10/2009 Radiographic positioning for upper and lower extremity studies, 13th Technologists Education Day, Texas Radiology Technologists, UTHSCSA, San Antonio, TX (Invited Speaker).
- 18. 02/2009 MSK radiologic anatomy. Radiologic anatomy course. Radiological Sciences students, Graduate School of Biomedical Sciences, UTHSCSA, San Antonio, TX.
- 19. 01/2009 Ankle and foot fractures., Radiology Resident Noon Conference, Department of Radiology, UTHSCSA, San Antonio, TX.
- 20. 09/2008 Ultrashort TE MRI on the musculoskeletal system, Philips Medical advisory board meeting for musculoskeletal magnetic resonance imaging., Philips Medical Systems, Vancouver, BC, Canada (Invited Speaker).

- 21. 09/2007 Radiographic positioning for upper and lower extremity studies, 11th Technologists Education Day, Texas Radiology Technologists, UTHSCSA, San Antonio, TX (Invited Speaker).
- 22. 01/2007 Bone Marrow Imaging, Noon conference radiology residents, Department of Radiology, UTHSCSA, San Antonio, TX.
- 23. 12/2006 MRI Methods to Demonstrate Urinary Tract Stones: An Alternative to Thin Slice CT Preliminary Results of in Vitro Studies. Rahal A, El-Merhi F, Dalrymple NC, Fullerton GD, RSNA 2006, Scientific Presentation, Chicago, IL.
- 24. 12/2006 Ultrashort Echo-time (UTE) MRI and Traditional MRI Sequences at 3.0 Tesla to Diagnose Tendon Pathologies from Hyperglycemia, Sports Injury, or Repetitive Stress., RSNA 2006, Scientific Presentation, Chicago, IL.
- 25. 11/2005 High Frequency Ultrasound and MR Imaging of tendons: Evaluation of exvivo models of normal and injured bovine tendon with histopathologic correlation, Rahal A, Chhaya SA, Garcia GM, Heim-Hall J, Fullerton GD., RSNA 2005, Scientific Presentation, Chicago, IL.
- 26. 04/2004 Radiofrequency Ablation of Hepatic Tumors: Variability of Lesion Size Using a Single Ablation Device, RS Montgomery, Rahal A, Dodd GD, Leyendecker JR, Hubbard LG, Society of Gastrointestinal Radiology 2004, Scientific Presentation, Scottsdale, AZ.
- 27. 12/2003 Radiofrequency Ablation of Hepatic Tumors: Variability of Lesion Size Using a Single Ablation Device, RS Montgomery, Rahal A, Dodd GD, Leyendecker JR, Hubbard LG., RSNA 2003, Scientific Presentation, Chicago, IL.

## **Educational Exhibits and Posters**

- 05/2011 Educational Exhibit: "Shoulder glenoid version on CT Scan: using a plane axial to the scapula is critical for a precise measurement", American Roentgen Ray Society Meeting 2011, Musculoskeletal Radiology, American Roentgen Ray Society, Chicago, IL.
- 2. 05/2011 Educational exhibit: "Ultrasound in early rheumatoid arthritis. How to perform a handand wrist ultrasound examination and common imaging findings", American Roentgen Ray Society Meeting 2011, Musculoskeletal Radiology, American Roentgen Ray Society, Chicago, IL.
- 03/2011 Educational exhibit: "Ultrasound in early rheumatoid arthritis. How to perform a hand and wrist ultrasound examination and common imaging findings", Society of Skeletal Radiology Meeting 2011, Society of Skeletal Radiology, Scottsdale, AZ.
- 4. 03/2011 Educational Exhibit: "Shoulder glenoid version on CT Scan: using a plane axial to the scapula is critical for a precise measurement", Society of Skeletal Radiology Meeting 2011, Society of Skeletal Radiology, Scottsdale, AZ.
- 5. 04/2009 Educational Exhibit: Off on the right foot: A pictorial exhibit on conventional radiology and MDCT of talar injuries., American Roentgen Ray Society 2009 annual meeting, ARRS, Boston, MA J Wibskov, A RAHAL, RA Loredo, GM Garcia.
- 6. 04/2009 Scientific Poster: Ankle and foot fractures, Multidetector CT imaging versus plain film evaluation, American Roentgen Ray Society 2009 meeting, ARRS, Boston, MA.

- 7. 11/2008 Educational exhibit: Monday Physics case of the day, RSNA 2008, Radiological Society of North America, Chicago, IL Designated as 1 AMA PRA Category 1 Credit. Q Peng and A. RAHAL.
- 8. 09/2008 Ankle and foot fractures: Multidetector CT imaging versus plain film evaluation, Medical student research day poster, Medical School, UTHSCSA, San Antonio, TX.
- 12/2007 Metatarsal Plantar Plate Anatomy: A Pictorial Exhibit Featuring Microscopy Coil-MR Imaging and Ultrasonography. Gomez-Cintron A, A Rahal, RA Loredo, GM Garcia, SA Chhaya., RSNA 2007, Educational Exhibit, Chicago, IL.
- 10. 06/2006 MRI method to monitor lifetime hyperglycemic damage in diabetes. Rahal A, Fullerton GD., BIROW 2006, Scientific Poster, Bethesda, MD.
- 11. 05/2006 MRI measurement of advanced glycation end-products: the MRI hyperglycemic damage index. Rahal A, Fullerton GD., International Society of Magnetic Resonance in Medicine., Scientific Poster, Seattle, WA.
- 12. 12/2005 The Human Imaging Radiology-Residency/PhD Program at the University of Texas Health Science Center at San Antonio: A new paradigm for the education of academic radiologists. Rahal A, Head H, Jung AJ, Garcia Rojas X, Dodd GD, RSNA 2005, Educational Poster, Chicago, IL.

#### **JOURNAL PUBLICATIONS**

- 1. Loredo R, Rahal A, Garcia G, Metter DF. Imaging of the Diabetic Foot, Diagnostic Dilemmas. Foot and Ankle Specialist 2010 3:249 2010 Oct:249-264.
- Rahal A, Head HW, Jung AJ, Garcia-Rojas X, Vargas D, Dalrymple NC, Clarke GD, Dodd III GD, Fullerton GD. A combined radiology residency-PhD program for the education of academic radiologists: A response to the RSNA Revitalizing the Radiology Research Enterprise (RRRE) Initiative. Radiology 2007 Oct;245(1):14-20.
- 3. Bydder M, Rahal A, Fullerton GD, Bydder GM. The magic angle effect: a source of artifact, determinant of image contrast, and technique for imaging. J Magn Reson Imaging 2007 Feb;25(2):290-300.
- 4. Fullerton GD, Rahal A. Collagen structure: the molecular source of the tendon magic angle effect. J Magn Reson Imaging 2007 Feb;25(2):345-361.
- 5. Fullerton GD, Nes E, Amurao M, Rahal A, Krasnosselskaia L, Cameron I. An NMR method to characterize multiple water compartments on mammalian collagen. Cell Biol Int 2006 Jan;30(1):66-73.
- 6. Rahal A, Montgomery RS, Dodd GD, Leyendecker JR, Hubbard LG. Radiofrequency Ablation of Hepatic Tumors: Variability of Lesion Size Using a Single Ablation Device. American Journal of Radiology 2004;182:657-661.