# JEFFREY J. KNAKE, M.D.

## Jknake@advancedrad.com

### **WORK EXPERIENCE**

Clinical Instructor, University of Virginia Department of Radiology, 2004-05 Assistant Professor, Musculoskeletal Radiology. Michigan State University Radiology, 2005-2021

Musculoskeletal Radiologist, Advanced Radiology Services, PC, 2021-current

### **EDUCATION**

Northwestern University Medical School, Chicago, IL, M.D., 1999 Northwestern University, Evanston, IL, B.A. Economics, 1995

# POSTGRADUATE EDUCATION AND TRAINING

*Internship and Residency* 

Diagnostic Radiology Resident, University of Virginia, Charlottesville, VA, 2000-04 Chief Radiology Resident, University of Virginia, 2002-03 Transitional Intern, Northwestern University, Evanston Northwestern Healthcare, Evanston, IL, 1999-2000

Fellowship

Musculoskeletal Radiology, University of Virginia, Charlottesville, VA, 2004-05

# **HONORS AND AWARDS**

Resident of the Year - Clinical Award, University of Virginia, 2003 Resident of the Year - Teaching Award, University of Virginia, 2002 "Leaders on the Horizon" RSNA Resident Program Scholar, 2001 Intern of the Year Award, Evanston Northwestern Healthcare, 2000

# **PUBLICATIONS**

Knake, J. Abdominal MRI: The role of dynamic scanning techniques in hepatic, renal, and pancreatic disease. App Radiol: 2002 31(6): 87-95.

Mata, J., Altes T., Knake, J., Mugler III, J., Brookeman, J., de Lange, E. MR Imaging of the Lung: Effect of Subject Immobilization on the Occurrence of Ventilation Defects. 2003 RSNA Annual Meeting

de Lange, E., Altes, T., Gaare, J., Knake, J., Clarke, B., Mentore, K., Brookeman, J., Mugler, J. Hyperpolarized helium-3 gas MR imaging of the lung in asthmatics: Comparison of ventilation defects with clinical symptoms and spirometry. American Roentgen Ray Society Meeting, Miami FL, May 1-5, 2004.

de Lange, E., Altes, T., Gaare, J., Knake, J., Clarke, B., Mentore, K., Brookeman, J.,

Mugler, J. Hyperpolarized helium-3 gas MR imaging of the lung in asthmatics: Comparison of ventilation defects with clinical symptoms and spirometry. AJR 2004; 182 (4): 49-50 (Suppl).

Gaare, J., Altes, T., Knake, J., Brookeman, J., Mugler, J., de Lange, E. Hyperpolarized Helium-3MR (H3-HeMR) Imaging of the Lung in Asthmatics: Ventilation Changes Following Treatment With Albuterol. 2004 RSNA

Benjamin-Watkins, J., Altes, T., Gaare, J., Knake, J., Clarke, B., Brookeman, J., de Lange, E. Hyperpolarized Helium-3 MR Lung Ventilation Imaging: Short Term Repeatability in Asthmatics. International Society for Magnetic Resonance in Medicine (ISMRM) May 2005.

Parmar, J., Knake, J., Bassignani, M. Incidence of deep venous thrombosis in emergency department patients and inpatients referred for fever. 2004 AUR

Knake, J., Smith, J., Kerr, H., Neitzschman, L., Bergeson, D. Brogdon Panel Discussion: "The Resident and the Malpractice Suit." AUR Annual Meeting 2005

Knake, J. Ewing's Sarcoma. ACR Case-in-Point. December 1, 2005.

Knake, J. Acute Lymphoblastic Leukemia. ACR Case-in-Point. March 13, 2006.

Knake, J. Iliotibial Band Syndrome. ACR Case-in-Point. May 11, 2006.

Knake, J. Pyogenic Cerebral Abscess. ACR Case-in-Point. September 21, 2006

Knake, J. Sports Medicine Imaging: Pelvic and Lower Extremity Injuries. Michigan State University Atis K. Freimanis Visiting Professor Program. March 13, 2006.

Knake, J. Sports Medicine Imaging: An Imaging Review of Lower Extremity Injuries in the Running Athlete. Michigan State University Sports Medicine Conference 2006: MSU the "Shoe U". May 12, 2006.

de Lange, EE., Altes, T., Patrie, J., Gaare, J., Knake, J., Mugler, J., Platts-Mills, T. Evaluation of Asthma With Hyperpolarized Helium-3 MRI: Correlation With Clinical Severity and Spirometry. Chest. 2006 Oct; 130(4): 1055-1062

Knake, J. First Rib Stress Fracture. ACR Case-in-Point. February 2, 2007

Knake, J. Academic Radiology: Time to Think Outside of the Box. J Am Coll Radiology 2007 Mar; 4(3): 148-149

Mata J, Altes T, Knake J, Mugler J, Brookeman J, de Lange, E. Hyperpolarized 3He MR Imaging of the lung: effect of subject immobilization on the occurrence of ventilation defects. Academic Radiology 2008 Feb; 15(2): 260-4

Knake, J. Hook of the Hamate Fracture. ACR Case-in-Point. March 11, 2009

Impingement in Young Patients with Advanced Degenerative Changes Requiring Hip Arthroplasty. AOCR 2011

Davis L, Fajardo R, Knake J. Spectrum of Benign Musculoskeletal Lesions Presenting as Palpable Masses: Pictorial Review. International Skeletal Society Annual Meeting September 2013

Davis L, Fajardo R, and Knake J. MRI Evaluation of Calf Hematoma: Frequency of Plantaris Tendon versus Medial Gastrocnemius Injury as the Causative Etiology. SM Musculoskeletal Disord. 2017; 2(1). 1023

Davis L, Fajardo R, Knake J. Pain in the Calf: Imaging findings and differential diagnosis of acute calf pain. American Roentgen Society Annual Meeting April 2018

Fajardo, R., Jeranko, C., Jeranko, M., Knake, J. Pain with Needle Intervention in the Hip Using an Optimized Puncure Technique: How Much Does it Hurt? SCIAEON Journal of Radiology; February 2019.

Hawkins, J., Saffarian M., Knake, J. Atypical Planter Foot Pain in a 15 Year Old Basketball Player. American Medical Society for Sports Medicne (AMSSM) Annual Conference. April 2019.

Joyner, Patrick W, et al (including Knake, J). Novel Technique to Assess Glenoid Bone Loss Using Anterior Coracoglenoid Line. 2019 Society of Military Orthopedic Surgeons Annual Conference (presented December 20, 2019).

Joyner, Patrick W, et al (including Knake, J). Novel Technique to Assess Glenoid Bone Loss Using Anterior Coracoglenoid Line. 2020 Southern Orthopedic Society Annual Conference July 22-25, 2020 (presented online due to COVID-19).

Collins K, Fajardo R, Harkey M, Knake J, Lisee C, Wilcox L, Tasco J, Kuenze C. Knee Symptoms do not affect biomechanics among women 6 months after anterior cruciate ligament reconstruction. Journal of Orthopedic Research. January 9, 2022 Online publication (early release, predating print journal forthcoming later 2022).

Parkhurst D, Saffarian M, Andary M, Knake J, Fajardo R. Accessory Flexor Digitorum Longus Presenting as Tarsal Tunnel Syndrome: A Case Series. Clinical Journal of Sports Medicine. March 21, 2022.

Olmschied N, Crawford S, Dickenson C, Fajardo R, Knake J, Wilcox CL, Joyner P. Novel anterior coracoglenoid line utilizing magnetic resonance imaging (MRI) corresponds with critical glenoid bone loss. Skeletal Radiology 2022 July; 51(7): 1433-1438

# **INVITED LECTURES AND CONFERENCES**

August 23, 2005 Bone Conference. Michigan State University Radiology Residency Academic Conference. East Lansing, MI.
Bas

October 25, 2005 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

January 24, 2006 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI

March 13, 2006 Sports Medicine Imaging: pelvic and lower extremity injuries in the running athlete. Michigan State University Radiology Visiting Professor Program. Saginaw, MI.

April 25, 2006 Bone Seminar. Michigan State University Radiology Residency Academic Conference. East Lansing, MI.

May 12, 2006 Sports Medicine Imaging: review for the family practice physician. Michigan State University Statewide Campus Invited Lecturer. Okemos, MI.

August 8, 2006 Bone Seminar. Michigan State University Radiology Residency Academic Conference. East Lansing, MI.

August 22, 2006 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 16, 2007 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

April 9, 2007 Michigan State University Kinesiology (KIN) 825 Injury Control in Sports and Physical Activities Invited Lecturer: Imaging of Stress Injuries. Michigan State University. East Lansing, MI.

August 7, 2007 Bone Seminar. Michigan State University Radiology Residency Academic Conference. East Lansing, MI.

2007-present Founder and Director Radiology Resident/Fellow Weekly Case Conference

September 5, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 12, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 19, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 26, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 3, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 10, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 17, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 24, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 31, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 7, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 14, 2007 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 26, 2007 Radiologic Anatomy Michigan State University College of Osteopathic Medicine Anatomy-Imaging Correlation. Lower Limb. East Lansing, MI.

January 9, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 16, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 22, 2008 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

January 23, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 30, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 6, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 13, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 19, 2008 Michigan State University Sports Medicine Fellow Academic Conference.

February 20, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 27, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 5, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 12, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 19, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 25, 2008 Michigan State University Radiology Residency Oral Board Review. East Lansing, MI.

March 26, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 2, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 9, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 16, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 23, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 30, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

May 5, 2008 Michigan State University Radiology Residency Oral Board Review. East Lansing, MI.

May 9, 2008 Michigan State University Radiology Residency Oral Board Review. East Lansing, MI.

June 3, 2008 Michigan State University Sports Medicine Fellow Academic Conference.

July 19, 2008 Bone Seminar. Michigan State University Radiology Residency Academic Conference. East Lansing, MI.

September 3, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 10, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 17, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 23, 2008 Michigan State University Sports Medicine Fellow Academic Conference.

September 24, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 1, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 8, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 8, 2008 Introduction to Musculoskeletal Radiology. Michigan State University College of Osteopathic Medicine Radiology Interest Group. East Lansing, MI

October 15, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 22, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 29, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 4, 2008 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 7, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 14, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 20, 2009 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

January 21, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 28, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 4, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 11, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 18, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 24, 2009 Michigan State University Sports Medicine Fellow Academic Conference.

February 25, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 4, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 11, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 18, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 24, 2009 Michigan State University Sports Medicine Fellow Academic Conference.

March 25, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 1, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 8, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 15, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 22, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 29, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 21, 2009 Michigan State University Radiology Residency Academic Conference. East Lansing, MI. Musculoskeletal Imaging: Cervical Spine Trauma.

July 22, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 29, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 5, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 12, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 19, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 26, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 26, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 9, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 16, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 23, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 30, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 7, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 13, 2009 Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI

October 14, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 21, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 28, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 4, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 11, 2009 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 12, 2009. Michigan State University Stress Fracture Study Group Invited Lecture: Imaging of Stress Injuries. East Lansing, MI.

January 13, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 20, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 27, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 3, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 3, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 17, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 24, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 31, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 31, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 7, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 14, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 21, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 28, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 21, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 27, 2010 Michigan State University Radiology Residency Academic Conference. East Lansing, MI. Musculoskeletal Imaging: Case Based Practical MSK Radiology: lower extremity.

July 28, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 4, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 11, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 25, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 1, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 8, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 15, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 22, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 29, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 6, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 13, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 14, 2010 Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI

October 19, 2010 Michigan State University Sports Medicine Fellow Academic Conference.

October 20, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 27, 2010 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 18, 2011 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

January 19, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 2, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 8, 2011 Michigan State University Sports Medicine Fellow Academic Conference.

March 2, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 15, 2011 Michigan State University Radiology Residency Oral Board Review. East Lansing, MI.

March 23, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 14, 2011 Michigan State University Orthopedic Residency Invited Lecture: Principles of Musculoskeletal Imaging. East Lansing, MI.

April 27, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

May 11, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

June 1, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

June 29, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 20, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 27, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 9, 2011 Michigan State University Radiology Residency Academic Conference. East Lansing, MI. Musculoskeletal Imaging: Case Based Practical MSK Radiology: upper extremity.

August 24, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 7, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 5, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 13, 2011 Michigan State University Sports Medicine Invited Lecture: Practical Sports Medicine Imaging. East Lansing, MI.

October 14, 2011 Michigan State University College of Human Medicine Specialty Panel. East Lansing, MI.

October 18, 2011 Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI.

November 2, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

December 7, 2011 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 3, 2012 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

January 4, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 17, 2012 Michigan State University Sports Medicine Fellow Academic Conference.

March 25, 2012 Michigan State University Undergraduate Athletic Training Invited Lecture: Fundamentals of Sports Medicine Imaging. East Lansing, MI.

April 25, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 27, 2012 Michigan State University Annual Sports Medicine Conference Invited Lecture: Imaging of Lower Extremity Injuries of the Running Athlete. East Lansing, MI.

May 29, 2012 Michigan State University Sports Medicine Fellow Academic Conference.

June 27, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 1, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 22, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 5, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

September 19, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 3, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 9, 2012 Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI

October 17, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 24, 2012 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 30, 2012 Michigan State University Sports Medicine Fellow Academic Conference.

January 16, February 6, March 20, April 3, April 24, May 15, June 19, June 26, July 24, August 28, September 4, October 2, October 30, and December 4, 2013. Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 15, 2013 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

February 19, 2013 Oral Board Review. Michigan State University Radiology Residency. East Lansing, MI.

March 5, 2013 Michigan State University Sports Medicine Fellow Academic Conference.

April 26, 2013 Oral Board Review. Michigan State University Radiology Residency. East Lansing, MI.

June 19, 2013 Radiologic Anatomy Michigan State University College of Osteopathic Medicine Anatomy-Imaging Correlation. East Lansing, MI.

July 30, 2013 Michigan State University Radiology Residency Academic Conference. East Lansing, MI. Musculoskeletal Imaging: Aunt Minnie and Beyond.

October3, 2013 Michigan State University College of Human Medicine Specialty Panel. East Lansing, MI

October 8, 2013 Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI

January 14, 2014 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

January 15, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

February 5, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 19, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 23, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 16, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 6, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 13, 2014 Radiologic Anatomy Michigan State University College of Osteopathic Medicine Anatomy-Imaging Correlation. East Lansing, MI.

September 24, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 2, 2014 Michigan State University College of Human Medicine Specialty Panel. East Lansing, MI

October 7, 2014 Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI.

October 29, 2014 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 5, 2014 Michigan State University Department of Sports Medicine: MRI with Arthroscopic Correlation. East Lansing, MI.

2014-2015 Michigan State University Radiology Resident Journal Club Faculty Director

January 28, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

February 3, 2015 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI

February 24, 2015 Michigan State University Radiology Resident Journal Club. East Lansing, MI

February 26, 2015 Shoulder Imaging. Michigan State University Sports Medicine Fellow Academic Conference.

March 4, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

March 31, 2015 Michigan State University Radiology Resident Journal Club. East Lansing, MI

March 31, 2015 Michigan State University Radiology Residency Oral Board Review. East Lansing, MI

April 1, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

April 21, 2015 Michigan State University Radiology Resident Journal Club. East Lansing, MI

May 20, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

June 17, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

July 22, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

July 28, 2015 Foot and Ankle Imaging: An Update. Michigan State University Radiology Residency Academic Conference. East Lansing, MI.

August 6, 2015 Radiologic Anatomy Michigan State University College of Osteopathic Medicine Anatomy-Imaging Correlation. East Lansing, MI.

September 16, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

October 8, 2015 Michigan State University College of Human Medicine Specialty Panel. East Lansing, MI

October 13, 2015 Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI

October 28, 2015 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

January 6, 2016 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

January 12, 2016 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI

February 24, 2016 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

April 27, 2016 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

May 25, 2016 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI

July 20, 2016 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 26, 2016 Michigan State University Radiology Residency Academic Conference. East Lansing, MI. Musculoskeletal Imaging: The Lost Art of the Plain Film Diagnosis with CT and MR Correlation.

September 21, 2016 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

October 11, 2016. Introduction to Musculoskeletal Radiology. Michigan State University College of Human Medicine HM517. East Lansing, MI.

January 10, 2017 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

January 25, 2017 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

April 19, 2017 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

June 28, 2017 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

July 10, 2017 Radiologic Anatomy Michigan State University College of Osteopathic Medicine Anatomy-Imaging Correlation: Limbs. East Lansing, MI.

July 12, 2017 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 1, 2017 Michigan State University Radiology Residency Academic Conference. East Lansing, MI. Practical Musculoskeletal Imaging: Upper Extremity.

September 27, 2017 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

November 29, 2017 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

January 31, 2018 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

August 21, 2018 Michigan State University Radiology Residency Academic Conference. East Lansing, MI. MRI of the Elobw.

January 15, 2019 Mock Oral Boards (Musculoskeletal). Michigan State University Radiology Residency. East Lansing, MI.

January 16, 2019 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

March 20, 2019 Michigan State University Department of Radiology Musculoskeletal Case Conference. East Lansing, MI.

Multiple additional Musculoskeletal Case Conferences 2019, 2020, 2021 Michigan State University Department of Radiology. East Lansing, MI.

### DEPARTMENT OF RADIOLOGY/UNIVERSITY SERVICE

Department of Radiology Chairperson Search Committee, MSU CHM/COM (2012-13)

College Advisory Committee, MSU COM (2012-2014)

MSU CHM Admissions Interviewer (2007-2012)

MSU CHM Career Programs Specialty Panel Representative (2011-2020)

MSU Faculty Mentor (2005-2021)

MSU Department of Radiology Scheduling Committee (2007-2021)

MSU Department of Radiology Performance Evaluation and Promotion Committee (2013)

MSU Department of Radiology, Director Musculoskeletal Imaging (2005-2010)

MSU Department of Radiology, Co-Director Musculoskeletal Imaging (2010-2018)

MSU Health Team Patient Safety Committee (2017-2019)

### RECENT OUTREACH

Lansing Boys and Girls Club (2010-current)

East Lansing Board of Education Principal Search Committee, Donley Elementary (2011-12)

East Lansing Baseball Club Youth Baseball Coach (2013-2019)

St. Martha's Parish

### PROFESSIONAL SERVICE

American College of Radiology (ACR)

Radiological Society of North America (RSNA)

American Roentgen Ray Society (ARRS)

Michigan State Medical Society (MSMS)

# Society of Skeletal Radiology (SSR)

# LICENSURE AND CERTIFICATION

- American Board of Radiology (2004), Recertification (2015)
- USMLE
- State of Michigan Physician License