7:00am - 8:00am **BREAKFAST**

7:00am - 5:00pm REGISTRATION/INFORMATION DESK HOURS 7:00am - 4:00pm EXHIBIT HALL HOURS

9:35am - 10:00am Joint Function: Assessment with MR Imaging

Christine Chung, MD

COMBINED SESSION

8:00am - 8:10am INTRODUCTION Laura Bancroft, MD, FACR 8:50am - 9:15am Intraarticular Menisci and Discs Donald Resnick, MD 9:15am - 9:35am Intraarticular Labrum Christian Pfirrmann, MD, MBA

8:10am - 10:00am OPENING SESSION: JOINT

Moderators: Lawrence White, MD, Michael Tuite, MD

8:10am - 8:30am Human Articulations: Symphyses, Cynchondroses, and Synovial Joints S. Fiona Bonar, MB, FRCPath, FRCPA

Synovium and Cartilage 8:30am - 8:50am

SPORTS MEDICINE IMAGING

Bruce Forster, MD, MSc, FRCPC

MUSCULOSKELETAL DISEASE

BREAK 10:00AM - 10:30AM

10:30am - 12:00pm	HOT TOPICS Moderators: Charles Resnik, MD, Jonathan Baker, MD	10:30am - 12:00pm	WHAT'S IN AND WHAT'S OUT IN MSK INTERVENTION Moderators: Alberto Bazzocchi, MD, PhD, Thomas Le
10:30am - 10:45am	Biologic Injections for Treating Muscle Injuries: Show Me	10.20 10.45	Corroller, MD, PhD
10.45 11.00	the Data Ian Beggs, FRCPE, FRCR	10:30am - 10:45am	Bone Biopsy: Tricks of the Trade <i>Connie Chang, MD</i>
10:45am - 11:00am	Imaging Patients with the Female Athletic Triad Miriam Bredella, MD	10:45am - 11:00am	Percutaneous Cementoplasty interventions: An update Paul Mallinson, MBChB, FRCR, FRCPC
11:00am - 11:15am	Injuries in Adolescent Baseball Pitchers <i>David Rubin, MD</i>	11:00am - 11:20am	US Guided Injectables: What Does What?
11:15am - 11:30am	Imaging Evaluations after Chondrocyte Implantation Ali Guermazi, MD, PhD	11:20am - 11:40am	Emma Rowbotham, BSc, MB, Bchir, FRCR Pros and Cons of Stem Cells and PRP in Tendons,
11:30am - 11:45am	Core Injuries Outside of the Groin <i>Adam Zoga, MD</i>	44.40 40.00	Ligaments and Joints Kenneth Lee, MD
11:45am - 12:00am	Can Imaging Predict Return-to-Play in Stress Fractures? William Palmer, MD	11:40am - 12:00pm	Imaging Diagnosis and Treatment of Morton Neuroma James Linklater, MBBS
12:00pm - 1:30pm	LUNCH	12:00pm - 1:30pm	LUNCH
1:30pm - 3:00pm	ELBOW: THE GEM OF JOINTS (ARS) Moderators: Nancy Major, MD, Sarah Koles, MD, MSc, BScHon	1:30pm - 3:00pm	ARTIFICIAL INTELLIGENCE Moderators: Soterios Gyftopoulos, MD, Naveen Subhas, MD
1:30pm - 1:45pm	Common Flexor and Extensor Tendon Anatomy and Pathology Nathalie Bureau, MD, MSc	1:30pm - 2:00pm	Machine/Deep Learning (ML/DL): Basics for Radiologists <i>Larry Zitnick</i>
1:45pm - 2:00pm	Biceps and Triceps Tendon Pathology Anna Hirschmann, MD	2:00pm - 2:15pm	Deep Learning for image Reconstruction: How Fast Can We Go? How Little Radiation Can We Use? Michael Recht, MD
2:00pm - 2:15pm	Lateral Collateral Ligament Complex Instability	2:15pm - 2:30pm	Deep Learning for Image Interpretation: Are We
2:15pm - 2:30pm	Yuko Kobashi, MD, PhD Ulnar Collateral Ligament Complex Instability	2.10pm 2.00pm	Replaceable? Richard Kijowski, MD
	MRI and US Mihra Taljanovic, MD, PhD	2:30pm - 2:40pm	Workflow Optimization Using Machine Learning Martin Torriani, MD, MMSc
2:30pm - 2:45pm	Bone Abnormalities in the Skeletally Immature and Mature Elbow <i>Julia Crim, MD</i>	2:40pm - 2:50pm	How Artificial Intelligence Will Influence the Next Generation of PACS Kenneth Buckwalter, MD, MS, MBA
2:45pm - 3:00pm	Causes of Medial Elbow Pain and Postoperative Imaging Martin Torriani, MD, MMSc	2:50pm - 3:00pm	Deep Learning: How Will It Be Used By Bone and Soft Tissue Pathologists? Meera Hameed, MD
3:00pm - 3:30pm	BREAK	3:00pm - 3:30pm	BREAK
3:30pm - 5:00pm	HAND AND WRIST: TALK TO THE HAND Moderators: Ramon Gheno, MD	3:30pm - 5:00pm	SYSTEMIC AND CHRONIC DISORDERS (SAM)
	Nogah Shabshin, MD, MBA, BSc		Moderators: E. Remide Arkun, MD, Khaled Matrawy, MD
3:30pm - 3:45 pm	Wrist Extrinsic & Midcarpal Ligaments Daniel M. Walz, MD	3:30pm - 3:45pm	Osteoporosis Screening: State of the Art Catherine Petchprapa MD
3:45pm - 4:00 pm	Ultrasound and MRI of Wrist Injuries Luis Cerezal, MD, PhD	3:45pm - 4:00pm	Sarcopenia: From Research to Clinical Practice Robert Boutin, MD
4:00pm - 4:15 pm	Stress Injuries of the Hand and Wrist Howard Galloway, FRANZCR	4:00pm - 4:15pm	Opportunistic CT Screening: Bone, Muscle, Fat Measurements <i>Leon Lenchik, MD</i>
4:15pm - 4:30 pm	MRI of the Carpal Tunnel and Guyon Canal <i>Atul Taneja</i>	4:15pm - 4:30pm	Musculoskeletal Complications of Diabetes: What's
4:30pm - 4:40 pm	MRI of the Fingers Richard de Villiers, M.Med	4:30pm - 4:40pm	the Best Way to Image? <i>Mark Schweitzer, MD</i> Drug-Induced MSK Disorders
4:40pm - 4:50 pm	Postoperative Imaging of the Wrist Catherine Petchprapa MD		Michael Richardson, MD
4:50pm - 5:00 pm	Postoperative Imaging of the Fingers	4:40pm - 4:50pm	Soft Tissue Infections: Uncommon Culprits Johnny Monu, MB, BS, MS
•	Jenny Bencardino, MD	4:50pm - 5:00pm	Whole Body MRI: Clinical Applications Andrea Rosskopf, MD



WELCOME RECEPTION 6:30PM - 8:30PM

SPORTS MEDICINE IMAGING

MUSCULOSKELETAL DISEASE

Francesca D. Beaman, MD

8:00am - 10:00am	CANADIAN SESSION	8:00am - 10:00am	ARTHRITIS
	Moderators: Zaid Jibri, MBChB, MRCS, FRCR,	8:00am- 8:15am	Moderators: Daniel Siegal, MD Anthony Doyle, MBChB, FRANZCR The Plain Radiograph: Help! It's Arthopathy, But What More Can I
	Hema Choudur, MBBS, FRCPC	0.00aiii= 0.13aiii	Say? Mark Murphey, MD
8:00am - 8:15am	Debate: MRI vs US for Rotator Cuff Tears: Which	8:15am- 8:30am	MRI for Peripheral Arthritis: Optimizing My Technique
	Modality Prevails? MRI Bruce Forster, MD, MSc, FRCPC		Monique Reijnierse, MD, PhD
8:15am - 8:30am	Debate: MRI vs US for Rotator Cuff Tears: Which	8:30am- 8:45am	Assessing the Sacroiliac Joints: Is it Spondyloarthritis?
	Modality Prevails? US Philip O'Connor, MD	0.45 0.00	Robert Lambert, MB, FRCPC
8:30am - 8:45am	Debate: MRI vs US for Rotator Cuff Tears: Which	8:45am- 9:00am	Assessing the spine: Is it spondyloarthritis? Winston Rennie, MB, MSc(SEM), FRCR
	Modality Prevails? Discussion	9:00am- 9:15am	Enthesitis in Arthritis: Why Does It Matter And What Does It Look
	Bruce Forster, MD, MSc, FRCPC, Philip O'Connor, MD		Like? Andrew Grainger, BM, BS, MRCP, FRCR
8:45am - 9:00am	Top 3 MRI Pitfalls in Sports imaging <i>Clarissa Canella, PhD</i>	9:15am- 9:30am	Gout and Pyrophosphate: Plain Films and Beyond
9:00am - 9:15am	Top 3 US Pitfalls in Sports Imaging	0.20 0.45	Hillary W. Garner, MD
	Ronald Adler, MD, PhD	9:30am- 9:45am	Connective Tissue Disease: Findings in the Joints Anne Cotten, MD
9:15am - 9:30am	When and How CT Can Excel in Sports Imaging	9:45am- 10:00am	Septic Arthritis: How Not to Miss It Brady Huang, MD
	Hugue Ouellette, MD	10:00am - 10:30am	BREAK
9:30am - 9:40am	Rapid Fire Sports Imaging, Canadian Style: Nordic Skiing	10:30am - 12:00pm	
	Michael Tuite, MD	10.20 10.40	Moderators: Elisabeth Dion, MD, Francisco Aparisi-Rodriguez, MD
9:40am - 9:50am	Rapid Fire Sports Imaging, Canadian Style:	10:30am- 10:40am	The Spinal Cord for the MSK Radiologist Marcelo Bordalo-Rodrigues MD, PhD
	Downhill Skiing Peter Munk, MDCM, FRCPC, FSIR	10:40am- 10:50am	Less Common Causes of Spinal Stenosis Frederic LeCouvet, MD
9:50am - 10:00am	Rapid Fire Sports Imaging, Canadian Style: Rock	10:50am- 11:00am	Current Concepts on the Sagittal Balance of the Spine
	Climbing Jung-Ah Choi, MD		Marcello Nogueira-Barbosa, MD, PhD
10:00am - 10:30am	BREAK	11:00am- 11:15am	Imaging of Spine Infection Prudencia Tyrrell, MD
10:30am - 12:00pm	TRAUMA/STRESS INJURIES (ARS)	11:15am- 11:30am	Acute Cervical Spine Trauma Richard Daffner, MD, FACR
	Moderators: Wilfred Peh, MD Guillaume Bierry, MD,	11:30am- 11:45am	How to Differentiate Osteoporotic from Malignant Fractures Elisabeth Dion, MD
	Joseph Craig, MB, ChB	11:45am- 12:00pm	Postoperative Spine: Basic Concepts and Pathological Aspects
10:30am - 10:45am	Acute Hand and Wrist Injuries Laura Bancroft, MD, FACR		Iris-Melanie Noebauer-Huhmann, MD
10:45am - 11:00am	Traumatic Facial Injuries Stacy Smith, MD	12:00pm - 1:30pm	LUNCH
11:00am - 11:15am	Acute Pelvic Injuries Karen Finlay, MD	1:30pm - 3:00pm	BONE TUMORS
11:15am - 11:30am	Stress Fractures and Atypical Femoral Fractures		Moderators: Violeta Vasilevska Nikodinovska MD, PhD, MSc, Leanne L. Seeger, MD, FACR, Hakan Ilaslan, MD
	Linda Probyn, MD	1:30pm - 1:40pm	Molecular Diagnosis of Bone Tumors: Where Can It Help
11:30am - 11:45pm	Return To Play in Collegiate Athletes Nancy Major, MD		Andrew Horvai, MD, PhD
11:45am - 12:00pm	Commonly Missed Injuries Jack Porrino, MD	1:40pm - 1:50pm	Enchondroma vs Chondrosarcoma: The Great Debate –
12:00pm - 12:30pm	LUNCH		Multidisciplinary Case Based Approach (Perspective 1) Daniel Rosenthal, MD
1:30pm - 3:00pm	MUSCLE: MAY THE FORCE BE WITH YOU	1:50pm - 2:00pm	Enchondroma vs Chondrosarcoma: The Great Debate –
	Moderators: Nathalie Bureau, MD, MSc		Multidisciplinary Case Based Approach (Perspective 2)
	Hee Kyung Kim, MD	2.00 2.10	Andrew Rosenberg, MD Enchondroma vs Chondrosarcoma: The Great Debate –
1:30pm - 1:45pm	Pathophysiology and Classification of Muscle Injuries	2:00pm - 2:10pm	Multidisciplinary Case Based Approach (Perspective 3)
	George Koulouris, MD, MBBS, MMed, FRANZCR		Carol D. Morris, MD, MS
1:45pm - 2:00pm	Imaging of Muscle Injuries: Role of MR and US	2:10pm - 2:20pm	Chordoma Versus Benign Notochordal Cell Tumor: Radiologic
	Joshua Polster, MD	2:20pm - 2:30pm	Distinction <i>Mark Kransdorf, MD</i> What's Cooking with Imaging Guided Ablation: Do We Microwave,
2:00pm - 2:15pm	Indirect Trauma: DOMS, Hernia, Compartment	2.20pm 2.30pm	Freeze or Fry and Does It Matter? Jack Jennings, MD, PhD
	Syndrome Lawrence White, MD	2:30pm - 2:40pm	Common Bone Tumor Mimics: Oh the Trouble I've Seen
2:15pm - 2:30pm	Imaging of Upper Limb Muscle Injuries		Hans (J. L.) Bloem, MD
0.00	Philip Robinson, FRCR	2:40pm - 2:50pm	Lipomatous Lesions of Bone: Are They Really That Unusual Paul O'Donnell, MBBS, FRCP, FRCR
2:30pm - 2:45pm	Myositis - Infectious, Inflammatory and Congenital	2:50pm - 3:00pm	Whole Body MR Imaging for Evaluation of Bone Tumors:
0.45	Mini N. Pathria, MD		What Can It Add Frank Roemer, MD
2:45pm - 3:00pm	Advanced MR Imaging Techniques for Assessment of	3:00pm - 3:30pm	BREAK
	Muscle Patrick Omoumi, MD, PhD	3:30pm - 5:00pm	SOFT TISSUE TUMORS
3:00pm - 3:30pm	BREAK		Moderators: Darius Borys, MD, Murali Sundarm, MD, MBBS, FRCR, Suphaneewan Jaovisidha, MD
3:30pm - 5:00pm	SHOULDER	3:30pm - 3:40pm	The Pathologists Perspective of the Importance of Radiologic
	Moderators: Michael Zlatkin, MD, Nancy Major, MD	' '	Assessment in Soft Tissue Tumors: A Team Approach
3:30pm - 3:45pm	Impingement-Cuff Mark Anderson, MD	2.40 2.50	S. Fiona Bonar, MB, FRCPath, FRCPA
3:45pm - 4:00pm	Instability Brady Huang, MD	3:40pm - 3:50pm	Lipoma vs Well Differentiated Liposarcoma of the Extremity: What to Do and Why – Multidisciplinary Case Based Approach
4:00pm - 4:15pm	Impingement-Non Cuff Lynne Steinbach, MD		(Perspective 1) Mark Murphey, MD
4:15pm - 4:30pm	Idiopathic (Neurogenic) Luis Beltran, MD	3:50pm - 4:00pm	Lipoma vs Well Differentiated Liposarcoma of the Extremity:
4:30pm - 4:45pm	Injuries in the Throwing Athlete		What to Do and Why – Multidisciplinary Case Based Approach
	Andrew Sonin, MD, FACR	4:00pm - 4:10pm	(Perspective 2) Carol D. Morris, MD, MS Lipoma vs Well Differentiated Liposarcoma of the Extremity:
4:45pm - 5:00pm	Tip of the Iceberg Lesions-Osseous Lesions as		What to Do and Why – Multidisciplinary Case Based Approach
	Indicators of Pathology <i>Eva Llopis, MD</i>		(Perspective 3) Julie Fanburg-Smith, MD
		4:10pm - 4:20pm	Hematoma Versus Hemorrhagic Neoplasm: What are the
		4:20pm - 4:30pm	Important Radiologic Clues Leanne L. Seeger, MD, FACR The 3 T's: Trials and Tribulations in Soft Tissue Tumor Imaging
		op 1.00piii	David M. Panicek, MD
		4:30pm - 4:40pm	Diffusion Weighted Imaging in Soft Tissue Tumors: Can it Help
		1.10nm 1.E0nm	and Where Laura Fayad, MD
		4:40pm - 4:50pm	Vascular Lesions of Soft Tissue: Diagnosis and Differentiation Jeffrey Peterson, MD
		4:50pm - 5:00pm	Post-Operative MR Evaluation: How to Detect Tumor Recurrence

SPORTS MEDICINE IMAGING

8:00am - 10:00am	KNEE Moderators: Garry Gold, MD, Francisco Chagas-Neto, MD, PhD, Filippo Del Grande, MD, MBA, MHEM
8:00am - 8:15am	Pre-Operative Meniscus: Tear Types - What I tell the Surgeon <i>Thomas Magee, MD</i>
8:15am - 8:30am	Pre-Operative Meniscus: Pitfalls and Traps to Avoid Kyung Nam Ryu, MD, PhD
8:30am - 8:45am	Post-Operative Meniscus: Did the Surgeon Fix it and has it Torn Again? <i>Andreas Heuck, MD</i>
8:45am - 9:00am	The Pre-Operative ACL and PCL: Diagnosing the Tear Anagha Parkar, MD
9:00am - 9:15am	The ACL is Torn, What else Should I Look For? Thomas Pope, MD, FACR
9:15am - 9:30am	The Post Operative ACL: What Could Possibly Go Wrong? <i>Tobias Dietrich, MD</i>
9:30am - 9:40am	Patellar Maltracking and Instability - What I Tell the Surgeon <i>Eugene McNally, MD</i>
9:40am - 9:50am	Knee MRI: Methods to Accelerate Your Acquisition Naveen Subhas, MD
9:50am - 10:00am	Imaging the Knee: What Role is there for Ultrasound? Carlo Martinoli, MD
10:00am - 10:30am	BREAK
10:30am - 12:00pm	HIP (ARS)
	Moderators: Srinivasan Harish, FRCPC, Donna Blankenbaker, MD
10:30am - 10:45am	Femoroacetabular Impingement: Assessment of Predisposing Osseous Deformities <i>Reto Sutter, MD</i>
10:45am - 11:00am	Labral Tears: Symptomatic or Variant? <i>Donna Blankenbaker, MD</i>
11:00am - 11:15am	FAI: How I investigate and What I Tell the Surgeon Soterios Gyftopoulos, MD
11:15am - 11:30am	Gluteal Tendons and Iliotibial Band: Anatomy and Pathology <i>William Morrison, MD</i>
11:30am - 11:40am	Hip Pain: Role of US Examination Marnix Van Holsbeeck, MD
11:40am - 11:50am	Advanced MR imaging Techniques for Cartilage Evaluation <i>Carl Winalski</i> , <i>MD</i>
11:50am - 12:00pm	Extraarticular Causes of Hip and Groin Pain <i>Michael Zlatkin, MD</i>
12:00pm - 1:30pm	LUNCH
1:30pm - 3:00pm	SPORTS INJURY OF THE FOOT AND ANKLE Moderators: F. Bilge Ergen, MD, Brady Huang, MD
1:30pm - 1:45pm	Adolescent Sports Injury of the Foot and Ankle Ara Kasserajan, MD, FRCPC
1:45pm - 2:00pm	Impingement Syndromes of the Ankle David Fessell, MD
2:00pm - 2:15pm	Imaging Midfoot ligamentous injuries Zehava Rosenberg, MD
2:15pm - 2:30pm	Imaging Turf Toe and Plantar Plate Injury Kathryn Stevens, MD, BS (hons)
2:30pm - 2:50pm	Plantar Fascial Injury and Insertional Lateral Cord Plantar Fasciopathy <i>Hilary Umans, MD</i>
2:45pm - 3:00pm	Nerve Lesions of the Foot and Ankle Michel De Maeseneer, MD, PhD
3:00pm - 3:30pm	BREAK

MUSCULOSKELETAL DISEASE

8:00am - 10:00am	ORTHOPEDIC IMPLANTS
	Moderators: Henk-Jan van der Woude, MD, PhD, Felix Chew, MD
8:00am - 8:20am	CT Techniques for Metal Artifact Reduction Jean Luc Drape, MD
8:20am - 8:35am	Imaging Total Shoulder Arthroplasties David Rubin, MD
8:35am - 8:55am	Added Value of MRI in Total Hip & Knee Arthroplasty Theodore Miller, MD
8:55am - 9:15am	Complications of Spine Fusion and Instrumentation Leon Rybak, MD
9:15am - 9:30am	Imaging Bone Allografts and Endoprostheses in Tumor Surgery <i>Alice Ha, MD, MS</i>
9:30am - 9:45am	Evaluation of Pelvic and Acetabular Fractures Following Treatment <i>Carol Andrews, MD</i>
9:45am - 10:00am	Modern Evaluation of Potentially Infected Joint Replacements <i>Jan Fritz, MD</i>
10:00pm - 10:30pm	
10:30am - 12:00pm	PERIPHERAL NERVE
10.20 10.45	Moderators Kimberly Amrami, MD, Shivani Ahlawat, MD
10:30am - 10:45am	Peripheral Nerves: Anatomy and Imaging Pearls Benjamin Howe, MD
10:45am - 11:00am	images Gustav Andreisek, MD, MBA
11:00am - 11:10am	Intraneural Tumors and Perineural Tumor Extension Kimberly Amrami, MD
11:10am - 11:25am	Peripheral Neuropathies of the Upper Limb Violeta <i>Vasilevska Nikodinovska MD, PhD, MSc</i>
11:25am - 11:35am	Peripheral Neuropathies of the Lower Limb Joel Newman, MD
11:35am - 11:50am	US of Peripheral Nerves Jon Jacobson, MD
11:50am - 12:00pm	MRI of Peripheral Nerves : Influence on Medical Decision Making <i>John Carrino, MD, MPH</i>
12:00pm - 1:30pm	LUNCH
1:30pm - 3:00pm	THE CHILD'S SKELETON: WHAT MAKES IT UNIQUE
	Moderators: Nancy Chauvin, MD, Diego Jaramillo, MD, MPH
1:30pm - 1:45pm	Growth Cartilage and Marrow Diego Jaramillo, MD, MPH
1:45pm - 2:00pm	Gender Differences in Bone Growth and Their Lifelong Implications <i>Vicente Gilsanz, MD, PhD</i>
2:00pm - 2:15pm	Joint Development and Dysplasia Jacob Jaremko, MD, PhD
2:15pm - 2:30pm	Trauma: Child Abuse Jeannette Perez-Rossello, MD
2:30pm - 2:45pm	Tumors: The ISSVA Classification and More Ricardo Restrepo, MD
2:45pm - 3:00pm	Inflammation: Arthritis and Chronic Nonbacterial Osteomyelitis <i>Diego Jaramillo, MD, MPH</i>
3:00pm - 3:30pm	BREAK

MUSCULOSKELETAL