8:00 am – 8:05 am  Welcome
Michelle Ghert MD, FRCSC, MSTS President
Santiago A. Lozano Calderón, MD, PhD, Program Chair

8:05 am - 8:10 am  First Show  Musculoskeletal Oncology unknowns (5 cases) (Lukas Nystrom, MD; Krista Goulding, MD, MPH, FRCSC)

8:10 am – 8:40 am  Session I: International Discussion. Custom made implants in orthopaedic oncology  (Moderator Alexandra Callan, MD)

8:10 am - 8:20 am  Introduction  (Alexandra Callan, MD)
“Custom-made megaprostheses as individual reconstruction options in tumor cases” (Martin Wessling, MD, PhD) (10 min)

8:20 am – 8:25 am  Case: Custom made Pelvic Reconstruction (Nathan Mesko, MD)

8:25 am – 8:40 am  Panel discussion case:  Joseph Benevenia, MD; Alexandra Callan, MD; Nathan Mesko, MD; Martin Wessling, MD, PhD

8:40am - 9:45 am  Session II: Now you don’t see me, now you do.... New Technologies in the intraoperative assessment of soft tissue sarcomas.  (Moderators:  Tessa Balach, MD; Santiago A. Lozano Calderón, MD, PhD)

8:45 am - 8:55 am  Infrared light in intraoperative soft tissue sarcoma margins  (Eric R. Henderson, MD)

8:55 am - 9:05 am  Protease activated fluorescent probe in intraoperative soft tissue sarcoma margins (Brian E. Brigman, MD)

9:05 am - 9:15 am  Indocyanine Green Dye in intraoperative soft tissue sarcoma margins (Kurt Weiss, MD)

9:15 am - 9:25 am  The Physics of Indocyanine Green (Anand Kumar, PhD)
9:25 am - 9:35 am Half-life Indocyanine Green Dye in intraoperative soft tissue sarcoma margins – Pros and Cons (Thinzar Lwin, MD)

9:35 am – 9:50 am Questions from the audience to the panel

9:50 am – 10:15 am **Morning Break**

10:15 am - 12:00 pm **Session III: From amputation to functional ablative surgery.**  
(*Moderators: Julia Visgauss, MD; Lukas Nyström, MD*)

10:15 am - 10:25 am Indications and Contraindications (Rossana Wustrack, MD)

10:25 am - 10:55 am Point/Counterpoint: One Stage vs. Two-Stage Surgery  
(Rickard Branemark, MD and Taylor Reif, MD)

10:50 am - 11:05 am Soft Tissue and Nerve Considerations  
(Jason Souza, MD, FACS)

11:05 am - 11:20 am Ongoing Clinical Trials (Jonathan Forsberg, MD)

11:20 am - 11:30 am Registry Update (Kyle Potter, MD)

11:30 am - 11:50 am Questions and Panel Discussion

12:00 pm – 1:00 pm **Lunch – MSTS Members Only Meeting**

1:00 pm – 1:30 pm **Specialty Day Key-Note Speaker** (*intro Panayiotis Papagelopoulos, MD*)

Artificial Intelligence in Medical Imaging – Brad Erickson, MD, PhD  
(Mayo Clinic)

1:30 pm – 2:00 pm **International Collaboration – MSTS global role**  
(*Introduction by Panayiotis Papagelopoulos - Moderators: Doug Letson, MD and Valerae Lewis, MD*)

MSTS – Michelle Gert, MD, FRCS  
ISOLS – Francis J. Hornicek, MD  
EMSOS – Pietro Ruggieri, MD

2:00 pm – 2:15 pm **Afternoon Break**
2:15 pm – 3:15 pm  
**Session IV: Research and Education**  
(Moderators: Brooke Crawford, MD; Matthew DiCaprio, MD)

2:15 pm - 2:25 pm  
Sarcoma Strong Grants 2019:  
“Delineating Mechanisms of Checkpoint Blockade Failure While Manipulating MDSCs as a Treatment to this Conundrum". (Brock A. Lindsey, MD, PhD)

“MicroRNA Profiling in Extraskeletal Osteosarcoma” (Santiago A. Lozano Calderón, MD, PhD)

2:25 pm - 2:30 pm  
Sarcoma Strong Grant 2020:  
“A Pilot Study to Assess the Safety and Efficacy of Preoperative Stereotactic Body Radiotherapy for the Treatment of Metastatic Bone Disease Requiring Surgical Stabilization” (Maksim Vaynrub, MD)

2:30 pm – 2:40 pm  
Sarcoma Strong Grants 2022:  
“Investigating the Role of LCP1 In Metastatic Progression of Chondrosarcoma”. (Julia Visgauss, MD)

“Interrogating the Downstream Effects of Macrophage Polarization in the Osteosarcoma Tumor Microenvironment on Alveolar Resident Tissue Macrophages”. (Steven Thorpe, MD, FACS)

2:40 pm – 2:45 pm  
Questions

2:45 pm – 2:55 pm  
Update GCT + Zolendronic Acid (David Greenberg, MD)

2:55 pm – 3:05 pm  
Proximal tibia reconstruction study group update (John Alexander, MD; Mitchell Fourman, MD)

3:05 pm – 3:15 pm  
SAFETY Study Update (Michelle Ghert, MD FRCSC)

3:15 pm – 3:25 pm  
Questions

3:25 pm – 3:35 pm  
Musculoskeletal Oncology unknowns (10 cases) show and award presentation (Lukas Nystrom, MD; Stella Joo Lee, MD)

3:35 pm – 3:40 pm  
**Final Remarks and Adjourn**