9:00 a.m. Welcome & Introduction

9:15 a.m. Matrix metalloproteinase-degradable hydrogel-based tissue engineered periosteum improves allograft healing by recruiting host angiogenic networks and stabilizing

9:30 a.m. Development of anti-CD163 therapy for Staphylococcus aureus sepsis following surgical site infection

9:45 a.m. Reduced angiogenesis and delayed endochondral ossification during fracture healing in CD163-/- mice highlights a role for macrophages in ROS clearance during bone repair

10:15 a.m. Juvenile radiotherapy damages mouse muscle stem cells, impairing muscle maturation and regenerative capacity

10:30 a.m. Engineered Salivary Gland Tissue Chips

10:45 a.m. Defining tendon cell localization, function, and fate during acute flexor tendon injury and repair

11:00 a.m. TGFβ-induced degradation of TRAF3 and accumulation of RANKL- and TGFβ-expressing immune cells in bone during aging promote bone resorption and inhibit bone formation

11:15 a.m. In vitro screening for genes involved in S. aureus invasion of the osteocyte-lacuno canalicular network identifies penicillin binding protein 4 (PBP4) as a critical factor

11:30 a.m. Coaxial Electrospun Fiber Mesh Scaffold for High-Resolution Oxygen Tension Measurement in Cranial Bone Defect Repair

11:45 a.m. Poster Session in the Flaum Atrium

2:00 p.m. Natural Language Processing for the Identification of Surgical Site Infections in Orthopaedics

2:30 p.m. Clinical Utilization of Species-Specific Immunoassay for Diagnosis and Prognosis of Polymicrobial Orthopaedic Infection

3:00 p.m. Spatial Coupling: Another Piece in the Puzzle of Skeletal Structure

3:30 p.m. The Role of Sensory Nerves in Bone Development and Repair

Dr. Thomas Clemens is the Lewis Cass Spencer Professor of Orthopaedic Surgery and the Vice Chair for Research in the Department of Orthopaedic Surgery at Johns Hopkins University. He has authored over 160 original publications, and has published a number of book chapters. He has served as a council member of American Society of Bone and Mineral Research and was the program co-chair for the 2002 national meeting. He is the past Editor-in-Chief of the Journal of Bone and Mineral Research. His research focuses on the identification of the cellular and molecular mechanisms, which control bone osteoblast activity.