CENTER *for* MUSCULOSKELETAL RESEARCH

9th Annual CMSR Symposium

Thursday, September 26, 2019 • Class of '62 Auditorium & Flaum Atrium

	9:00 a.m.	Welcome & Introduction	**Hani Awad, PhD** **Paul Rubery, MD**
Post-Doctoral Rosier Award Finalists Class of '62 Auditorium	9:15 a.m.	Matrix metalloproteinase-degradable hydrogel-based tissue engineered periosteum improves allograft healing by recruiting host angiogenic networks and stabilizing	**Yiming Li, PhD** (Benoit Lab)
	9:30 a.m.	Development of anti-CD163 therapy for Staphylococcus aureus sepsis following surgical site infection	**Yugo Morita, MD, PhD** (Schwarz Lab)
	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	**Shiyang Zhang, MD, PhD** (Xie Lab)
Pre-Doctoral Rosier Award Finalists Class of '62 Auditorium	10:15 a.m.	Juvenile radiotherapy damages mouse muscle stem cells, impairing muscle maturation and regenerative capacity	**John Bachman** (Chakkalakal Lab)
	10:30 a.m.	Engineered Salivary Gland Tissue Chips	**Lindsay Piraino** (DeLouise/Benoit Lab)
	10:45 a.m.	Defining tendon cell localization, function, and fate during acute flexor tendon injury and repair	**Katherine Best** (Loiselle Lab)
	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	**Jinbo Li** (Boyce Lab)
	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	**Elysia Masters** (Schwarz/Awad Lab)
	11:30 a.m.	Coaxial Electrospun Fiber Mesh Scaffold for High-Resolution Oxygen Tension Measurement in Cranial Bone Defect Repair	**Kevin Schilling** (Zhang/Brown Lab)

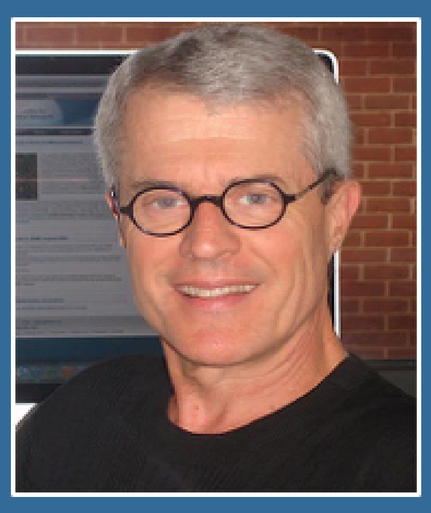
11:45 a.m. Poster Session in the Flaum Atrium

Plenary Lectures Class of '62 Auditorium	2:00 p.m.	Natural Language Processing for the Identification of Surgical Site Infections in Orthopaedics	**Caroline P. Thirukumaran, M.B.B.S., M.H.A., Ph.D.**
	2:30 p.m.	Clinical Utilization of Species-Specific Immunoassay for Diagnosis and Prognosis of Polymicrobial Orthopaedic Infection	**Irvin Oh, M.D.**
	3:00 p.m.	Spatial Coupling: Another Piece in the Puzzle of Skeletal Structure	**Edward Puzas, Ph.D.**

Keynote Presentation
Class of '62 Auditorium

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

Thomas L Clemens, PhD



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.

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