Page Morton Hunter Distinguished Seminar Series

"The Role of Telocytes in the Synovial Lymphatic System"
Dr. Edward M. Schwarz, Ph.D.

Dr. Edward M. Schwarz is the Burton Professor of Orthopaedics and Director of the Center for Musculoskeletal Research at the University of Rochester, NY. He is Director of NIH P50 CORT "Translating the Osteoimmunology of Bone Infection", the Director of NIH P30 "The University of Rochester Resource-Based Center for Musculoskeletal Biology and Medicine", and Co-Director of NIH CTSA-fund Pilot Studies. He is the Editor-in-Chief of the Journal of Orthopaedic Research, Chief Science Officer of Telephus Biomedical, LLC and Chief Product Officer of BioVinc, LLC.

Dr. Edward Schwarz's laboratory focuses on inflammatory bone loss, such as that seen in rheumatoid arthritis, infections, tumor metastasis and wear debris-induced osteolysis. Dr. Schwarz is also a leader in orthopaedic drug and biologic therapies, for which his lab developed novel bone-targeted antibiotics for osteomyelitis, passive immunizations for MRSA, and revitalizing allograft approaches.

Burton Professor of Orthopaedics, Director of the Center for Musculoskeletal Research

Rheumatoid Arthritis (RA) is a prevalent autoimmune inflammatory disorder characterized by inflammation, pain and tissue damage in affected joints from an array of etiologies. Our interests are in lymphatic dysfunction in RA patients and murine models, which resulted in several technical innovations (i.e. real time assessment of joint-draining lymphatics via near-infrared (NIR) imaging of injected indocyanine green (ICG) in mice and the human hand) and conceptual innovations (i.e. discovery of the Synovial Lymphatic System (SLS) and its dysfunction in arthritic progression). In this lecture I will describe this lymphatic disfunction and the discovery of mast cells integrated into telocytes adjacent to collecting lymphatic vessels that drain joints and are lost during inflammatory arthritis.

DATE: April 24, 2025 at 3:30 p.m.

LOCATION: MUSC Baruch Auditorium - 284 Calhoun St. Charleston, SC 29401

(Zoom link: https://clemson.zoom.us/j/99311936954)

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