Robert M. Berne CVRC Seminar

The Robert M. Berne Cardiovascular Research Center Presents

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Intersecting pathways: Immune mechanisms linking cardiovascular disease and cancer

Cardiovascular disease and cancer, while distinct, exhibit cross-disease communication that exacerbates morbidity. Cancer patients are at significantly increased risk for CVD and ischemic cardiovascular events can in turn accelerate tumor growth. Immune cells play a critical role in cancer cell survival and metastatic niche formation. MI modulates the immune setpoint to suppress anti-tumor immune responses, leading to increased primary breast cancer and metastatic growth in the lung. Cardiac ischemia on its own induces a pro-metastatic state in the lung that allows for tumor growth. In the bone marrow, ischemia synergizes with signals from the tumor to epigenetically reprogram early hematopoietic progenitors to encourage myelopoiesis at the expense of adaptive immune responses. The resulting immune system dysfunction is mirrored in the circulation and the primary tumor. These findings help elucidate the mechanisms that underlie metastatic risk in CVD patients, as well as advance our understanding of the nascent field of Reverse Cardio-Onocology.

Thursday January 22, 2026
11:00 AM-12:00 PM
MR5 3005

Refreshments served
Hosted By: Vlad Serbulea, PhD

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