Fall 2024

Biochemistry and Molecular Biology Brown Bag Series

Jeff Travers
Professor and Chair

"Microvesicles as effectors for environmental injuries"

Tuesday, October 15, 2024

11:00 AM

Location 105 Biological Sciences Building

Lab: Jeff Travers, M.D., Ph.D.

Boonshoft School of Medicine
WRIGHT STATE UNIVERSITY

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https://science-math.wright.edu/biochemistry-and-molecular-biology

Abstract:

I have the good fortune to be both a physician and scientist. For the past 30 years our research group has been investigating the potent lipid mediator Platelet-activating Factor (PAF). We have demonstrated that many environmental injuries ranging from cold injury to sunlight generates PAF. Of interest, we also have discovered a novel mechanism by which this highly labile lipid travels, namely, through subcellular microvesicle particles. In this lecture I will provide two important clinical settings in which PAF and microvesicles are involved in the pathologies. The first is abnormal UV light reactions (photosensitivity) in which we demonstrate the importance of this pathway using cells, mice, and human subjects. The second is thermal burn injury in which we employ cells and mice. These studies provide new insights into the pathogenesis of environmental injuries which can result in new therapeutic strategies.

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