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NEUROSCIENCE AND PHYSIOLOGY SEMINAR SERIES

ALEXANDRE TIRIAC, PhD

Assistant Professor of Biological Sciences | Vanderbilt University

"UNDERSTANDING THE ROLE OF SPONTANEOUS ACTIVITY ON BRAIN DEVELOPMENT"

Spontaneous neural activity is a hallmark of the developing nervous system, playing critical roles in circuit formation and refinement. The Tiriak Lab investigates how these intrinsically generated activity patterns shape neural development, with a particular emphasis on the visual system. Utilizing multidisciplinary approaches, including imaging techniques, electrophysiological recordings, and genetic manipulations, we have characterized the spatial and temporal dynamics of spontaneous activity and revealed its essential contributions to visual circuit maturation. In this talk, I will present an overview of our lab's past and current projects, highlighting novel insights about the circuits that may influence spontaneous activities and the tools we are building to study the role of spontaneous activity on visual system development.

TUESDAY, SEPTEMBER 9TH, 2025 | 12:00 PM | LILY 1-117

