



Targeting the peripheral nervous system in the war against cancer

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Malignant cells are embedded in altered complex tissue ecosystems involving a wide range of non-malignant cell types, including immune cells, fibroblasts, endothelial cells, and pericytes, and their myriad interactions. Recent studies by our group and others have demonstrated that the nervous system and cancer bear a close, entangled relationship, and nervous system components are also part of the complex tumor microenvironment. In this talk, we will present what we discovered so far about the role of sensory neurons and Schwann cells in cancer progression.

ABOUT the SPEAKER

Alexander Birbrair finished his PhD in Neuroscience under the mentorship of Osvaldo Delbono. Then, he joined as a postdoc in Stem Cell Biology at Paul Frenette's laboratory at the Albert Einstein School of Medicine. In 2016, he returned to Brazil for personal reasons, and was appointed faculty at the Federal University of Minas Gerais in Brazil, where he started his own lab. His research was funded by the Serrapilheira Institute, CNPq, CAPES, and FAPEMIG. In 2018, Alexander was elected affiliate member of the Brazilian Academy of Sciences (ABC), and in 2019, he was elected member of the Global Young Academy (GYA). In 2022, Alexander returned to the U.S. and started his lab in the Department of Dermatology at UW—Madison. His laboratory is interested in understanding how the cellular components of different tissues function and control disease progression. His group explores the roles of specific cell populations in the tissue microenvironment by using state-of-the-art techniques.

