

The Centre for Blood Research presents

CBR SEMINAR SERIES



Wednesday, October 25, 2023
1:00PM - 2:00PM PT

Life Sciences Centre
1003 (LSC3) & Zoom

“New insights into immune regulation of development during the embryonic period.”

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Extensive proliferation of stem cells and early progenitors is required to generate all of the complex cell types and tissues that comprise the embryo. This often results in the overproduction of cells that need to be removed. Highly dynamic phagocytic immune cells, such as macrophages, exist across all embryonic tissues and are responsible for surveying their surrounding environment to remove dead or dying cells and dispose of cellular debris in order to maintain homeostasis. An emerging body of literature from our lab and others now demonstrates that microglia, the resident macrophages and phagocytic immune cells of the central nervous system, play an important role during neurodevelopment, beyond phagocytosis and cell removal. Considering recent advances in the microglia field highlight the importance of these cells to brain development, a fundamental question is whether these same developmental roles evolved in other regions of the embryo, including craniofacial tissues. Our research aims to address this question, focusing on the contribution of macrophages and osteoclasts to craniofacial morphogenesis in the developing embryo, and whether distinct populations of macrophages and/or osteoclasts signal to nearby cells during embryogenesis to contribute to normal craniofacial development.

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