

Virology SEMINAR

With

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« *Post-acute sequelae of viral infections
and bone marrow hematopoiesis* »

October 24, 2025 at noon

Retrovirus room

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Abstract

The COVID-19 pandemic, along with its etiologic agent, SARS-CoV-2, has drawn increasing attention to the long-term health impacts of acute viral infections. While chronic inflammation is known to negatively affect bone marrow homeostasis and hematopoiesis, the effects of post-acute sequelae of viral infections on the bone marrow niche are not well understood. In this seminar, we will present evidence of significant bone marrow hematopoietic dysregulation in the context of post-acute sequelae of COVID-19 (PASC). We will first introduce a novel mouse model of PASC, RAB/6N, and its unique ability to recapitulate persisting systemic inflammation and immune dysregulation months post SARS-CoV-2 infection. We will then characterize the impact of PASC on bone marrow hematopoiesis in this model, and expand these findings to other viral infections associated with long-lasting sequelae. Finally, we will discuss how mice engrafted with a human immune system could enable us to investigate PASC-associated bone marrow hematopoietic dysregulation in a human context.