

Marty Vanier and Bob Krause **BRI** Research Fellows LECTURE SERIES



Co-Sponsor: Diagnostic Medicine and Pathobiology Seminar Series

Induction and Suppression of the Interferon Response by Segmented Negative-Strand RNA Viruses



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Type I interferons (IFN-alpha/beta) are among the first cytokines produced in response to virus infection. They stimulate the expression of genes which have immunoregulatory or antiviral activity. In our group, we investigate the interplay between the IFN system and negative-stranded RNA viruses with a segmented genome (s-NSVs) (e.g. influenza virus (family Orthomyxoviridae), or Rift Valley fever virus (family Phenuiviridae)).

On one hand, we study how cellular sensor proteins recognize virus-specific RNA structures and activate the signaling chain leading to IFN induction. On the other hand, we are elucidating the astonishing variety of strategies by which viruses inhibit the IFN response. Viral proteins, the so-called IFN antagonists, can disturb or even completely block all stages of the IFN response, e.g. IFN induction, IFN signaling, or expression or action of antiviral genes.

3:30 p.m., Thursday, Sept. 6, 2018
Biosecurity Research Institute
Pat Roberts Hall, 1900 Denison

*The Marty Vanier and Bob Krause
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