

### **Medical Microbiology & Immunology**

MMI 291 Seminar Series

Emerging Challenges in Microbiology and Immunology



## **MMI 291 Seminar Series**

Current Theme: Interdisciplinary Research Winter Quarter 2020 – CRN 65452 Friday Seminar – 12:10-1 p.m.

"Antibody-Dependent Memory-Like NK Cells"

#### Research

Our research focuses on antiviral and antitumor responses of natural killer (NK) cells, the third major population of lymphocytes. Although NK cells are traditionally categorized as part of the innate immune system, our lab has recently discovered a distinct subset of NK cells that display adaptive immune features. This NK cell subset, termed g-NK cells, has been found in approximately one-third of healthy individuals and the presence of these cells is associated with prior infection by cytomegalovirus (CMV), a common herpesvirus that infects billions of people worldwide. Compared to conventional NK cells, g-NK cells exhibit significantly heightened potential to mediate antibody-dependent protection against a broad spectrum of viral infections. The goals of our current research are to understand how g-NK cells function better than conventional NK cells, how g-NK cells are generated and maintained, and what role g-NK cells play in immune responses to viral infections.

#### **Publications**

Phenotypic and Functional Analysis of Human NK Cell Subpopulations According to the Expression of FcεRlγ and NKG2C.Kim et al. Front Immunol. 2019 December.

NK Cells of Lacking FcεRlγ Associated with Reduced Liver Damage in Chronic Hepatitis C Virus Infection. Oh et al. Eur J Immunol. 2016 February.

Epigenetic Modification and Antibody-Dependent Expansion of Memory-Like NK Cells in Human Cytomegalovirus-Infected Individuals. Lee et al. Immunity. 2015 March.

# March

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March 6, 2020 12:10 – 1 p.m. GBSF 1005

Medical Microbiology & Immunology School of Medicine

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We hope to see you there!