



MMI 291 Seminar Series

Current Theme: Interdisciplinary Research

Fall Quarter 2019 – CRN 51546

Friday Seminar – 12:10-1 p.m.



“Immunopathogenesis of Arbovirus: Severe Fever with Thrombocytopenia Syndrome Virus (SFTSV)”

Bio

A native of Seoul, Jung earned his bachelor's and master's degrees from Seoul National University. He moved to the United States in 1985 and earned his Ph.D. in microbiology at the University of California, Davis four years later. He completed post-doctoral training at Harvard Medical School and was later appointed as a faculty at Harvard Medical School Microbiology and Molecular Genetic Department, and eventually served as chair of the Tumor Virology Division. He became the first Korean-born faculty to be promoted to a tenured professorship at Harvard University. Jung has been awarded South Korea's 2012 Ho-Am Prize in Medicine, an honor that is often referred to as the Korean equivalent of the Nobel Prize. Dr. Jung is regarded as a preeminent expert in the field of virus-induced cancer, emerging virus and programmed cell death. Virus-induced cancer includes Kaposi's sarcoma and lymphoma; emerging virus includes mosquito-borne virus (Dengue virus and Zika virus), and tick-borne virus (Severe Fever with Thrombocytopenia virus); and programmed cell death includes apoptosis, autophagy, pyroptosis and necroptosis. In addition, Dr. Jung's research is highly translational to the field of cancers, autoimmune diseases and emerging viral diseases.

Publications

Development of a SFTSV DNA vaccine that confers complete protection against lethal infection in ferrets. Kwak JE¹, Kim YI², Park SJ², Yu MA², Kwon HI², Eo S¹, Kim TS³, Seok J³, Choi WS², Jeong JH², Lee H⁴, Cho Y⁴, Kwon JA⁴, Jeong M⁴, Maslow JN⁴, Kim YE⁵, Jeon H⁵, Kim KK⁵, Shin EC^{1,3}, Song MS², Jung JU⁶, Choi YK⁷, Park SH^{8,9}.

Severe fever with thrombocytopenia syndrome phlebovirus non-structural protein activates TPL2 signalling pathway for viral immunopathogenesis. Younho Choi,¹ Su-Jin Park,² Yinyan Sun,³ Ji-Seung Yoo,¹ Raghavendra Sumanth Pudupakam,¹ Suan-Sin Foo,¹ Woo-Jin Shin,¹ Sally B. Chen,¹ Philip N. Tsichlis,⁴ Won-Ja Lee,⁵ Jong-Soo Lee,⁶ Wenhui Li,³ Benjamin Brennan,⁷ Young-Ki Choi,² and Jae U. Jung^{1,*}

Ferret animal model of severe fever with thrombocytopenia syndrome phlebovirus for human lethal infection and pathogenesis. Park SJ^{1,2}, Kim YI^{1,2}, Park A³, Kwon HI^{1,2}, Kim EH^{1,2}, Si YJ^{1,2}, Song MS^{1,2}, Lee CH⁴, Jung K³, Shin WJ³, Zeng J³, Choi Y³, Jung JU⁵, Choi YK^{6,7}.

December 6



Jae U. Jung, Ph.D.

Chair and Distinguished Professor of the
Molecular Microbiology & Immunology
Department, Keck School of Medicine of
University of Southern Ca.,
Director, UCS Institute of Emerging
Pathogens & Immune Diseases

**December 6, 2019
12:10 – 1 p.m.
GBSF 1005**

Medical Microbiology &
Immunology
School of Medicine

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We hope to see you there!