

Selected Publications

1. [Madhuvanthi Vijayan, Young-Jin Seo, Curtis J Pritzl, Sarah A Squires, Stephen Alexander, and Bumsuk Hahm](#). 2014. Sphingosine kinase 1 regulates measles virus replication. *Virology* 450-451. 55-63.
2. [Young-Jin Seo and Bumsuk Hahm](#). 2014. Sphingosine analog AAL-R promotes activation of LCMV-infected dendritic cells. *Viral Immunology* 27(2):82-6.
3. [Madhuvanthi Vijayan and Bumsuk Hahm](#). 2014. Influenza viral manipulation of sphingolipid metabolism and signaling to modulate host defense system Invited review *Scientifica* vol. 2014, Article ID 793815, doi:10.1155/2014/793815.
4. [Daniel J Howard, Young-Jin Seo, Bumsuk Hahm, and Jae W. Kwon](#). 2014. A Microfluidic Device with concave surfaced micropost array for rare cell capture. *IEEE Sensors Journal*, 14:5-6.
5. [Young-Jin Seo, Curtis J. Pritzl, Madhuvanthi Vijayan, Kavita Bomb, Mariah E. McClain, Stephen Alexander, and Bumsuk Hahm](#). 2013. Sphingosine kinase 1 serves as a pro-viral factor by regulating viral RNA synthesis and nuclear export of viral ribonucleoprotein complex upon influenza virus infection. *PLoS One* Volume 8/Issue 8/e75005.
6. [Young-Jin Seo, Curtis J. Pritzl, Madhuvanthi Vijayan, Celeste Blake, Mariah E. McClain, and Bumsuk Hahm](#). 2012. Sphingosine analog AAL-R increases dendritic cell responses upon TLR7 stimulation via p38 and type I IFN signaling. *Journal of Immunology* 188(10):4759-4768.
7. Curtis J. Pritzl, Young-Jin Seo, and Bumsuk Hahm. 2012 Chapter 2. Viruses strive to suppress host immune responses and prolong persistence. Book Title: *Recent Advances in Immunology to Target Cancer, Inflammation and Infections*, Dr. Jagat Kanwar (Ed.) InTech ISBN: 978-953-51-0592-3. 23-42.
8. [Cho JH, Kim HO, Webster K, Palendira M, Bumsuk Hahm, Kim KS, King C, Tangye S, and J. Sprent](#). 2011 Calcineurin-dependent negative regulation of CD94/NKG2A expression on naive CD8⁺ T cells. *Blood* 118(1):116-128.
9. [Young-Jin Seo, Stephen Alexander, and Bumsuk Hahm](#). 2011. Does cytokine signaling link sphingolipid metabolism to host defense and immunity against virus infections? *Cytokine Growth Factor Rev.* 22(1):55-61.
10. [Ward SV, George CX, Welch MJ, Liou LY, Bumsuk Hahm, Lewicki H, de la Torre JC, Samuel CE, and MB Oldstone](#). 2011. RNA editing enzyme adenosine deaminase is a restriction factor for controlling measles virus replication that also is required for embryogenesis. *Proc Natl Acad Sci USA.* 108(1):331-6.
11. [Young-Jin Seo and Bumsuk Hahm](#). 2010 Type I interferon modulates the battle of host immune system against viruses. Invited review. *Adv Appl Microbiol.* 73C: 83-101.
12. [Young-Jin Seo, Celeste Blake, Stephen Alexander, and Bumsuk Hahm](#). 2010. Sphingosine 1-phosphate-metabolizing enzymes control influenza virus propagation and viral cyto-pathogenicity. *J. Virol.* 84: 8124-8131. This publication was highlighted in the Target Intelligence Service (TIS), a database used by pharmaceutical companies worldwide to identify groundbreaking research on potential drug targets.
13. [David Marsolais*, Bumsuk Hahm*, Kevin B. Walsh*, Kurt H. Edelmann, Dorian McGavern, Yasuko Hatta, Yoshihiro Kawaoka, Hugh Rosen and Michael B. A. Oldstone](#). 2009. A critical role for the sphingosine analog AAL-R in dampening the cytokine

response during influenza virus infection. Proc Natl Acad Sci USA. 106(5):1560-1565. *: Equal contribution.

14. [Bumsuk Hahm](#). Hostile communication of measles virus with host innate immunity and dendritic cells. Curr Top Microbiol Immunol. 2009. Chapter 13. 330: 271-287.
15. [David Marsolais*](#), [Bumsuk Hahm*](#), [Kurt H. Edelmann](#), [Kevin B. Walsh](#), [Miguel Guerrero](#), [Yasuko Hatta](#), [Yoshihiro Kawaoka](#), [Edward Roberts](#), [Michael B. A. Oldstone](#), and [Hugh Rosen](#). 2008. Local not systemic modulation of dendritic cell S1P receptors in lung blunts virus-specific immune responses to influenza. Mol. Pharmacol. 74: 896-903. *: Equal contribution.
16. Bumsuk Hahm and Michael B.A. Oldstone. 2009. Measles virus captures specific host machineries to cause immunosuppression and disease. In a book: RNA Viruses: Host Gene Responses to Infection. World Scientific. Chapter 12:269-292.
17. [Elina I. Zuniga](#), [Bumsuk Hahm](#), and [Michael, B.A. Oldstone](#). 2007. Type I interferon during viral infections: multiple triggers for a multifunctional mediator. In a book: Interferon: The 50th anniversary. Curr. Top. Microbiol. Immunol. 316:337-357. Springer.
18. [Jae-Ho Cho](#), [Onur Boyman](#), [Hee-Ok Kim](#), [Bumsuk Hahm](#), [Mark P. Rubinstein](#), [Chris Ramsey](#), [David M. Kim](#), [Charles D. Surh](#), [Jonathan Sprent](#). 2007. Aug. An intense form of homeostatic proliferation of naïve CD8⁺ cells driven by IL-2. J. Exp. Med. 204(8): 1787-1801.
19. [Bumsuk Hahm](#), [Jae-Ho Cho](#), and [Michael B.A. Oldstone](#). 2007. Feb. Measles virus-dendritic cell interaction via SLAM inhibits innate immunity: Selective signaling through TLR4 but not other TLRs mediates suppression of IL-12 synthesis. Virology 358: 251-257.
20. [Matthew J. Trifilo*](#), [Bumsuk Hahm*](#), [Elina I. Zuniga](#), [Kurt H. Edelmann](#) and [Michael B.A. Oldstone](#). 2006. Dendritic Cell Inhibition: Memoirs from Immunosuppressive Viruses. The Journal of Infectious Diseases. 194. Suppl 1:S3-10. *: Equal contribution.
21. Elina I. Zuniga, Bumsuk Hahm, Kurt H. Edelman, and Michael, B.A. Oldstone. 2005. June 7, Immunosuppressive viruses and dendritic cells: a multi-front war. ASM News. 71:285-290.
22. [Chengyu Liang](#), [Elizabeth Rieder](#), [Bumsuk Hahm](#), [Sung K. Jang](#), [Aniko Paul](#), and [Eckard Wimmer](#). 2005 Mar 1. Replication of a Novel Subgenomic HCV Genotype 1a Replicon Expressing a Puromycin Resistance Gene in Huh-7 Cells. Virology 333(1): 41-53.
23. [Bumsuk Hahm](#), [Matthew J. Trifilo](#), [Elina I. Zuniga](#), and [Michael B. A. Oldstone](#). 2005 Feb. 23, Viruses evade the immune system through type I interferon-mediated STAT2-dependent but STAT1-independent signaling. Immunity 22(2): 247-257.
24. [Bumsuk Hahm](#), [Nathalie Arbour](#), and [Michael B. A. Oldstone](#). 2004 Jun 1. Measles virus interacts with human SLAM receptor on dendritic cells to cause immunosuppression. Virology 323(2):292-302.
25. [Bumsuk Hahm](#), [Nathalie Arbour](#), [Denise Naniche](#), [Dirk Homann](#), [Marianne Manchester](#), and [Michael B. A. Oldstone](#). 2003 Mar. Measles virus infects and suppresses proliferation of T lymphocytes from transgenic mice bearing human signaling lymphocytic activation molecule. Journal of Virology 77(6):3505-3515.
26. [Jong H. Kim](#), [Ki Y. Paek](#), [Kobong Choi](#), [Tae-D. Kim](#), [Bumsuk Hahm](#), [Kyong-T. Kim](#), and [Sung K. Jang](#). 2003 Jan. Heterogeneous Nuclear Ribonucleoprotein C Modulates Translation of c-myc mRNA in a Cell Cycle Phase-Dependent Manner. Molecular and Cellular Biology 23(2):708-720.

27. [Yoon K. Kim, Bumsuk Hahm, and Sung K. Jang.](#) 2000 Nov. Polypyrimidine tract-binding protein (PTB) inhibits translation of bip mRNA. *Journal of Molecular Biology* 304(2):119-133.
28. [Sung H. Back, Jung-E. Kim, Jungmin Rho, Bumsuk Hahm, Tae G. Lee Eunice E. Kim, Joong-M. Cho, and Sung K. Jang.](#) 2000 Nov. Expression and purification of an active, full-length hepatitis C viral NS4A. *Protein Expression and Purification* 20(2):196-206.
29. [Kyung M. Chung, Juhang Lee, Jung-E. Kim, Ok-K. Song, Sungchan Cho, Jeongsim Lim, Matthias Seedorf, Bumsuk Hahm, and Sung K. Jang.](#) 2000 Jun. Nonstructural protein 5A of the hepatitis C virus inhibits the function of karyopherin β 3. *Journal of Virology* 74(11):5233-41.
30. [Jong H. Kim, Bumsuk Hahm, Yoon K. Kim, Mieyoung Choi, and Sung K. Jang.](#) 2000 May. Protein-Protein Interaction among hnRNPs Shuttling between Nucleus and Cytoplasm. *Journal of Molecular Biology* 298(3): 395-405.
31. [Bumsuk Hahm, Yoon K. Kim, Jong H. Kim, Tae Y. Kim, and Sung K. Jang.](#) 1998. HnRNP L interacts with the 3' border of internal ribosomal entry site of hepatitis C virus. *Journal of Virology* 72(11): 8782-8788.
32. [Bumsuk Hahm, Ook H. Cho, Jung-E. Kim, Yoon K. Kim, Jong H. Kim, Young L. Oh, and Sung K. Jang.](#) 1998. Polypyrimidine tract-binding protein interacts with hnRNP L. *FEBS letter* 425(3): 401-406.
33. [Bumsuk Hahm, Sung H. Back, Tae G. Lee, Eckard Wimmer, and Sung K. Jang.](#) 1996. Generation of a novel poliovirus with a requirement of hepatitis C virus NS3 protease activity. *Virology* 226(2):318-326.
34. [Bumsuk Hahm, Dae S. Han, Sung H. Back, Ok-K. Song, Myung-J. Cho, Chul-J. Kim, Kunitada Shimotohno, and Sung K. Jang.](#) 1995. NS3-4A of hepatitis C virus is a chymotrypsin-like protease. *Journal of Virology* 69(4): 2534-2539.

Patents

- Bumsuk Hahm, Young-Jin Seo, Stephen Alexander, and Madhuvanthi Vijayan “Modulation of sphingosine 1-phosphate-metabolizing enzymes for the treatment of negative strand RNA virus infections” Based on the Univ MO docket number 11UMC024, the non-provisional US Application (127185.0008-US; USSN 14/122,399) was filed on 11/26/2013.
- Sung K. Jang, and Bumsuk Hahm, “Hepatitis C Surrogate Virus for Testing the Activity of Hepatitis C Virus Protease, A Recombinant Gene and a use Thereof”, LG Chemicals Co., USA Patent No: US6395471; Issued May 28, 2002.
- Eckard Wimmer, Chengyu Liang, Sung K. Jang, and Bumsuk Hahm, “Efficient Hepatitis C virus replicon and its use in identifying antiviral compounds” The State Univ. of New York, USA Patent No. 6,689,559, Issued February 10, 2004.