Curriculum Vitae

Jeon-Soo Shin (신전수, 申銓秀), M.D., Ph.D.

Position and Address

Professor, Department of Microbiology and Immunology
Yonsei University College of Medicine
50-1 Yonsei-ro Seodaemun-gu Seoul 03722, South Korea
Tel) 82-2-2228-1816 (office), 010-4108-3069 (Cell)
Fax) 82-2-392-7088
Email) jsshin6203@yuhs.ac
Home page (Department home page): http://www.yuhs-microbiology.org/

Education and Appointment

1980-1986	M.D. Yonsei University College of Medicine (YUMC) & Internship (1 yr)
1987-1992	Ph.D.
1993-1996.4	FDA Korea (3.3 yrs)
1996-Present	Assistant, Associate, and Full Professor, YUMC
1998-1999	Visiting Scientist, University of Rochester
2007	Visiting Professor (3 m), Northwestern University, USA
2009-2010	Vice Dean for Graduate Affairs, YUMC
2011	Chief organizer in Academic Committee, Korean Society of Microbiology
2014	Chief organizer in Academic Committee, Korean Association for Immunologists
2010-2016	Chairman, Department of Microbiology and Immunology, YUMC
2010-present	Director, Severance Biomedical Science Institute, YUMC
2016-Present	Director, Institute for Immunology and Immunological Diseases, YUMC

Academic activity

Korea Association for Immunologists
Korea Society of Microbiology
American Association for Immunologists
American Society of Microbiology
American Society for Biochemistry and Molecular Biology

Specialty & Research Field of Interest

Innate immunity and Inflammation (DAMP molecule and inflammation), Host-microbe interaction, Nanomedicine

Awards

2007, Distinguished professor in research	YUMC
2010, Professor of the Year	YUMC Senior medical students

2014, Beomsuk's prize in research	Eulji Foundation in Korea
2016, Distinguished professor in Education	Yonsei University

Recent Selected Publications

- YH Kim, MS Kwak, JB Park, SA Lee, JE Choi, HS Cho, JS Shin*. N-linked glycosylation plays a crucial role in the secretion of HMGB1. J Cell Sci 2016;129:29-38
- Lee SM, Han N, Lee R, Choi IH, Park YB, Shin JS*, Yoo KH*. Real-time monitoring of 3D cell culture using a 3D capacitance biosensor. Biosens Bioelectron 2016;77:56-61.
- SJ Han, HJ Min, SC Yoon, EA Ko, JH Yoon, JS Shin*, KY Seo*. HMGB1 in the pathogenesis of ultraviolet-induced ocular surface inflammation. Cell Death Dis 2015;6:e1863.
- MS Kwak, M Lim, YJ Lee, HS Lee, YH Kim, JH Youn, JE Choi, JS Shin**. HMGB1 binds to lipoteichoic acid and enhances TNF-α and IL-6 production through HMGB1-mediated transfer of lipoteichoic acid to CD14 and TLR2. J Innate Immunity 2015;7(4):405-14
- SA Lee, MS Kwak, S Kim, JS Shin**. The Role of High Mobility Group Box 1 in Innate Immunity (review). Yonsei Med J 2014;55(5):1165-76.
- J Wu, S Kim, MS Kwak, JB Jeong, HJ Min, HG Yoon, JH Ahn, JS Shin**. HMGN2 SUMOylation by the SUMO E3 ligase PIAS1 decreases the binding affinity to nucleosome core particles. J Biol Chem 2014;289(29):20000-11.
- JH Kim, YW Chang, E Bok, HJ Kim, H Lee, SN Cho, JS Shin**, KH Yoo**. Detection of IFN-γ for latent tuberculosis diagnosis using an anodized aluminum oxide-based capacitive sensor. Biosens Bioelectron 2014;51:366-70.
- IH Park, J Lin, JE Choi, JS Shin**. Characterization of *Escherichia coli* K1 colominic acid-specific murine antibodies that are cross-protective against *Neisseria meningitidis* groups B, C, and Y. Mol Immunol 2014;59:142-53.
- JR Choi, K Kim, Y Oh, AL Kim, SY Kim, JS Shin*, D Kim**. Extraordinary transmission based plasmonic nanoarrays for axially super-resolved cell imaging. Adv Opt Mat 2014;2:48-55
- SM Lee, HJ Kim, SY Kim, MK Kwon, S Kim, A Cho, M Yun, JS Shin**, KH Yoo**. Drug-Loaded Gold Plasmonic Nanoparticles for Treatment of Multidrug Resistance in Cancer. Biomaterials 2014;35:2272-82
- HJ Min, EA Ko, J Wu, ES Kim, MK Kwon, MS Kwak, JE Choi, JE Lee, JS Shin**. Chaperone-like activity of HMGB1 and its role in reducing the formation of polyglutamine aggregates. J Immunol 2013;190(4):1797-806.
- MH Cho, EJ Lee, M Son, JH Lee, D Yoo, Jw Kim, SW Park, JS Shin,** J Cheon**. A Magnetic Switch for the Control of Cell Death Signaling in in vitro and in vivo Systems. Nat Mater 2012;11(12):1038-43.
- R Lee, J Kim, SY Kim, SM Jang, SM Lee, IH Choi, SW Park, JS Shin**, KH Yoo**. Capacitance-Based Assay for Real-Time Monitoring of Endocytosis and Cell Viability. Lab Chip 2012;12(13):2377-84.
- Jieun Choi, Hyun Jin Min, Jeon-Soo Shin**. Increased levels of HMGB1 and pro-inflammatory cytokines in children with febrile seizures. J Neuroinflammation 2011;8(1):135.
- JH Youn, MS Kwak, J Wu, ES Kim, Y Ji, HJ Min, JH Yoo, JE Choi, HS Cho, JS Shin**. HMGB1-derived peptides can bind to LPS and prevent subclinical endotoxemia in a mouse model. Eur J Immunol 2011;41(9):2753-62.

- JH Lee, ES Kim, MH Cho, M Son, SI Yeon, JS Shin*****, J Cheon*****. Artificial control of nano-cell signaling and growth via magnetic nanoparticles. Angew Chem Int Ed 2010;49(33):5698-702.
- YJ Oh, JH Youn, Y Ji, SE Lee, KJ Lim, JE Choi, JS Shin*****. HMGB1 is phosphorylated by classical protein kinase C and is secreted by a calcium-dependent mechanism. J Immunol 2009;182(9):5800-9.
- JH Youn, YJ Oh, ES Kim, JE Choi, JS Shin*****. HMGB1 binding to lipopolysaccharide (LPS) facilitates transfer of LPS to CD14 and enhances LPS-mediated TNF-α production in human monocytes. J Immunol 2008;180(7):5067-74.
- JH Youn and JS Shin*****. Nucleocytoplasmic shuttling of HMGB1 is regulated by phosphorylation that redirects it towards secretion. J Immunol 2006;177(11):7889-97.

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