

CURRICULUM VITAE

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I. PERSONAL DATA:

Date of Birth: September 12, 1961 (Jeonju, Republic of Korea)
Citizenship: Republic of Korea
Marital Status: Married with two children

II. EDUCATION:

Ph.D. (Immunology, 1993)	Northwestern University, Chicago, IL, U.S.A.
M.S. (Microbiology, 1986)	Seoul National University, Seoul, Korea
B.S. (Plant Pathology, 1984)	Seoul National University, Seoul, Korea

III. AWARD:

Korean Government Overseas Scholarship, September 1987 ~ August 1990

IV. TEACHING AND RESEARCH EXPERIENCES:

Research Associate: Cancer Research Center, Seoul National University Med. School
(August 1993 ~ February 1994)
Full-time Lecturer: Department of Molecular Biology, Chonbuk National University
(March 1994 ~ March 1996)
Assistant Professor: Division of Biological Sciences, Chonbuk National University
(April 1996 ~ March 2000)
Associate Professor: Division of Biological Sciences, Chonbuk National University
(April 2000 ~ March 2005)
Visiting Scientist: Immunology Vaccine Center, Univ. of Alabama at Birmingham
(September 2002 ~ January 2004)
Professor: Department of Molecular Biology, Chonbuk National University
(April 2005 ~ present)

V. RESEARCH PUBLICATIONS & PRESENTATIONS

161 Scientific publications

277 Research presentations in international & domestic scientific meetings

VI. SCIENTIFIC ACTIVITIES:

American Association of Immunologists:	Member (1998 ~ present)
Korean Association of Immunologists:	Member (1993 ~ present)
	Editorial Board (1996 ~ 2001)
	Vice Chairman and Chairman for International Cooperation Committee (2012 & 2013)
	President elected (2019)
Korean Society for Biochem. & Molecular Biol.:	Member (1994 ~ present)
	Newsletter Editorial Board (2000 ~ 2001)
Korean Society for Molecular and Cell Biology:	Member (1994 ~ present)
Korean National Research Foundation of Korea	Review Board (2014 ~ 2017)

Publication list

1. **Jang, Y.-S.**, K. H. Lim and B. S. Kim. 1991. Analysis of T cell reactivities to phosphorylcholine-conjugated hen egg lysozyme in C57BL/6 mice: hapten-conjugate specificity reflects an altered expression of a major carrier epitope. *Eur. J. Immunol.* 21: 1303-1310.
2. Kim, B. S. and **Y.-S. Jang**. 1992. Constraints in antigen processing result in unresponsiveness to a T cell epitope of hen egg lysozyme in C57BL/6 mice. *Eur. J. Immunol.* 22: 775-782.
3. **Jang, Y.-S.**, J. A. Mikszta and B. S. Kim. 1994. T cell epitope recognition involved in the low-responsiveness to a region of hen egg lysozyme (46-61) in C57BL/6 mice. *Mol. Immunol.* 31: 803-812.
4. Hong, S.-T., **Y.-S. Jang** and K.-I. Park. 1996. Choline-lipid release from normal and transformed cells. *J. Biochem. Mol. Biol.* 29: 73-80.
5. Kang, H.-S. and **Y.-S. Jang**. 1996. The role of a terminal amino acid within the minimal epitope region of the antigen in T lymphocyte stimulation. *Kor. J. Immunol.* 18: 317-324.
6. Mikszta, J. A., **Y.-S. Jang** and B. S. Kim. 1997. Role of a C-terminal residue of an immunodominant epitope in T cell activation and repertoire diversity. *J. Immunol.* 158: 127-135.
7. Lee, J.-S., S.-J. Choi, H.-S. Kang, W.-G. Oh, K.-H. Cho, T.-H. Kwon, D.-H. Kim, **Y.-S. Jang** and M.-S. Yang. 1997. Establishment of a transgenic tobacco cell suspension culture system for producing murine granulocyte-macrophage colony stimulating factor. *Mol. Cells* 7: 783-787.
8. Choi, S. H., E. J. Chung, D. Y. Whang, S. S. Lee, **Y.-S. Jang** and C. W. Kim. 1998. Alteration of signal-transducing molecules in tumor-infiltrating lymphocytes and peripheral blood T lymphocytes from human colorectal carcinoma patients. *Cancer Immunol. Immunother.* 45: 299-305.
9. Choi, S.-H., **Y.-S. Jang** and C.-H. Oh. 1998. Cytotoxicity of anti-CD4 antibody activated CD4⁺ T-lymphocytes against herpesvirus-infected target cells is dependent on p56^{lck} and p59^{lyn} protein tyrosine kinase activity. *J. Biochem. Mol. Biol.* 31: 355-363.
10. Chang, S.-H., K.-N. Yang and **Y.-S. Jang**. 1998. Comparative study on DNA-mediated vaccination efficiency among the plasmids with different promoters. *Kor. J. Immunol.* 20(4): 375-379.
11. Oh, C.-H., J. K. Woo, **Y.-S. Jang** and S. H. Choi. 1999. The structural properties of Israeli carp (*Cyprinus carpio* L.) immunoglobulin. *Kor. J. Immunol.* 21(1): 85-92.
12. Jang, H.-S., T.-H. Cho, **Y.-S. Jang** and P.-H. Choung. 1999. Administration of multiple cytokine genes with anti-tumor activity inhibits both tumor incidence and tumor growth. *Yonsei Med. J.* 40(4): 355-362.
13. Park, J.-H., J.-S. Chae, D.-H. Kim, **Y.-S. Jang**, O.-D. Kwon and J.-M. Lee. 1999. Production of *Theileria sergenti* recombinant protein by *E. coli* expression system. *Korean J. Vet. Res.* 39(4): 786-796.
14. Park, J.-H., J.-S. Chae, D.-H. Kim, **Y.-S. Jang**, O.-D. Kwon and J.-M. Lee. 1999. Analysis of partial cDNA sequence from *Theileria sergenti*. *Korean J. Vet. Res.* 39(4): 797-805.
15. Chang, S.-H., S.-H. Kim, W.-K. Lee, H.-J. Kim, S.-H. Choi, J.-H. Park, H.-S. Jang, G.-H. Chung, T.-H. Kwon, D.-H. Kim, M.-S. Yang and **Y.-S. Jang**. 1998. Cloning and analysis of the Epstein-Barr virus glycoprotein 350 genes. *Mol. Cells* 8(5): 585-593.
16. Park, J.-H., S.-H. Chang, M.-C. Kim, S.-H. Shin, H.-J. Youn, J.-K. Kim, **Y.-S. Jang** and C.-W. Kim. 1998. Up-regulation of the expression of major histocompatibility complex class I antigens by plasmid DNA transfection in non-hematopoietic cells. *FEBS Letters* 436(1): 55-60.

17. Park, J.-H., C.-J. Kim, J.-H. Lee, S.-H. Shin, G.-H. Chung and **Y.-S. Jang**. 1999. Effective immunotherapy of cancer by DNA vaccination. *Mol. Cells* 9(4): 384-391.
18. Kim, M.-J., T.-H. Kwon, **Y.-S. Jang**, M.-S. Yang and D.-H. Kim. 2000. Expression of murine GM-CSF in recombinant *Aspergillus niger*. *J. Microbiol. Biotechnol.* 10: 287-292.
19. Chang, S.-H. and **Y.-S. Jang**. 2000. Enhancement of immunogenicity of the inefficient antigen by modification of an amino acid involved in the epitope peptide binding onto MHC class II molecules. *Kor. J. Immunol.* 22(3): 103-110.
20. Chang, S.-H., M.-J. Kim and **Y.-S. Jang**. 2000. Enhancement of immunogenicity of the inefficient antigen through DNA vaccine-based epitope modification. *Kor. J. Immunol.* 22(3): 111-116.
21. Cho, T. H., S.-H. Chang and **Y.-S. Jang**. 2000. Dose-dependent selective priming of Th1 and Th2 immune responses is achieved only by an antigen with an affinity over a certain threshold level. *Mol. Cells* 10(6): 695-704.
22. Lee, J.-C., J. Kim, K.-T. Lim, M.-S. Yang and **Y.-S. Jang**. 2001. Ethanol eluted extract of *Rhus verniciflua* Stokes showed both antioxidant and cytotoxic effects on mouse thymocytes depending on the dose and time of the treatment. *J. Biochem. Mol. Biol.* 34(3): 250-258.
23. Woo, J.-K., H.-N. Jang, Y.-H. Cho, **Y.-S. Jang** and S.-H. Choi. 2001. Production of monoclonal antibody (Mabs) against surface antigens on Israeli carp lymphocytes and their applications. *Asian-Aust. J. Anim. Sci.* 14(8): 1179-1187.
24. Jung, S., Y.-K. Chung, S.-H. Chang, J. Kim, H.-R. Kim, H.-S. Jang, J.-C. Lee, G.-H. Chung and **Y.-S. Jang**. 2001. DNA-mediated immunization of glycoprotein 350 of Epstein-Barr virus induces the effective humoral and cellular immune responses against the antigen. *Mol. Cells* 12(1): 41-49.
25. Kim, J., H.-R. Kim, J. L. Bae, D.-H. Kim, H.-J. Kim, H.-K. Lee, S.-H. Choi and **Y.-S. Jang**. 2001. Cross-linking of MHC class II molecules with anti-MHC class II antibody or epitope peptide prevents resting B lymphocyte differentiation by inhibiting NF- κ B-dependent gene expression. *Mol. Cells* 12(1): 67-76.
26. Park, E.-K., B.-Y. Soh, **Y.-S. Jang**, J.-H. Park and G.-H. Chung. 2001. Immune induction and modulation in mice following immunization with DNA encoding F protein of Respiratory Syncytial Virus. *Mol. Cells* 12(1): 50-56.
27. Kim, J., H.-R. Kim, J.-C. Lee and **Y.-S. Jang**. 2002. Involvement of ERK, p38 MAP kinase, and PKC in MHC class II-mediated signal transduction in a resting B cell line. *Biochem. Biophys. Res. Commun.* 291: 139-145.
28. Kim, H., **Y.-S. Jang** and C. T. Hou. 2002. Effect of metal ions on the production of isomeric 9,10,13 (9,12,13)-trihydroxy-11E(10E)-octadecenoic acid from linoleic acid by *Pseudomonas aeruginosa* PR3. *Enzyme Microb. Technol.* 30(6): 752-757.
29. Lim, Y.-Y., M.-Y. Lee, B.-W. Chung, S.-M. Park, S.-G. Park, **Y.-S. Jang**, M.-S. Yang and D.-H. Kim. 2002. Expression of a functional human interleukin-18 in yeast. *Enzyme Microb. Technol.* 30(6): 703-709.
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31. Lee, J.-C., K.-T. Lim and **Y.-S. Jang**. 2002. Identification of *Rhus verniciflua* Stokes compounds that exhibit free radical scavenging and anti-apoptotic properties. *Biochim. Biophys. Acta-General.* 1570(3): 181-191.
32. Kim, E.-H., J.-C. Lee, M.-Y. Lee, C.-H. Park and **Y.-S. Jang**. 2002. Soamsan, a traditional Korean medicine, enhances antigen-specific immune responses in low-responder mice via the combined activity of glycoproteins and endotoxins. *Int. Immunopharmacol.* 2(11): 1529-1540.
33. Kim, E.-H., J.-C. Lee, J. Kim, Y.-O. Son, G.-H. Chung and **Y.-S. Jang**. 2002. Modulation of antigen-specific immune responses by the oral administration of a traditional medicine,

- Bo-Yang-Hwan-O-Tang. *Immunopharmacol. Immunotoxicol.* 24(3): 423-440.
34. Chang, S.-H., J.-L. Bae, T.-J. Kang, J. Kim, G.-H. Chung, C.-W. Lim, H. Laude, M.-S. Yang and **Y.-S. Jang**. 2002. Identification of the epitope region capable of inducing the neutralizing antibodies against porcine epidemic diarrhea virus. *Mol. Cells.* 14(2): 295-299.
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 37. Lee, J.-H., N.-S. Kim, T.-H. Kwon, **Y.-S. Jang** and M.-S. Yang. 2002. Increased production of human granulocyte-macrophage colony stimulating factor (hGM-CSF) by the addition of stabilizing polymer in plant suspension cultures. *J. Biotechnol.* 96: 205-211.
 38. Lee, J.-C., H.-N. Jung, J. Kim, W.-H. Woo, W.-Y. Jeong, G.-H. Chung and **Y.-S. Jang**. 2003. Selective priming of Th1-mediated antigen-specific immune responses following oral administration of mixed prescriptions of traditional Korean medicine. *Clinica Chimica Acta* 329: 133-142.
 39. Kwon, T.-H., J.-E. Seo, J. Kim, J.-H. Lee, **Y.-S. Jang** and M.-S. Yang. 2003. Expression and secretion of the heterodimeric protein interleukin-12 in plant cell suspension culture. *Biotechnol. Bioengin.* 81(7): 870-875.
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 41. Lee, J.-C., J. Kim and **Y.-S. Jang**. 2003. Ethanol-eluted extract of *Rhus verniciflua* Stokes inhibits cell growth and induces apoptosis in human lymphoma cells. *J. Biochem. Mol. Biol.* 36(4): 337-343.
 42. Bae, J.-L., J.-G. Lee, T.-J. Kang, H.-S. Jang, **Y.-S. Jang** and M.-S. Yang. 2003. Induction of antigen-specific systemic and mucosal immune responses by feeding animals transgenic plants expressing the antigen. *Vaccine* 21(25-26): 4052-4058.
 43. Shin, S. J., J. L. Bae, Y. W. Cho, M. S. Yang, D. H. Kim, **Y. S. Jang**, and H. S. Yoo. 2003. Expression of apxIA of *Actinobacillus pleuropneumoniae* in *Saccharomyces cerevisiae*. *J. Vet. Sci.* 4(3): 225-228.
 44. Kang, T.-J., N. H. Loc, M. O. Jang, **Y.-S. Jang** and M.-S. Yang. 2003. Expression of the B subunit of *E. coli* heat-labile enterotoxin in the chloroplast of plants and its characterization. *Transgen. Res.* 12(6): 683-691.
 45. Lee, J.-C., J. Kim, J.-K. Park, G.-H. Chung and **Y.-S. Jang**. 2003. The anti-oxidant, rather than pro-oxidant activities of quercetin on normal cells: Quercetin protects mouse thymocytes from glucose oxidase-mediated apoptosis. *Exp. Cell Res.* 291: 386-397.
 46. Lim, Y.-Y., S.-M. Park, **Y.-S. Jang**, M.-S. Yang and D.-H. Kim. 2003. Production of a functional mouse interferon γ from recombinant *Saccharomyces cerevisiae*. *J. Microbiol. Biotechnol.* 13(4): 537-543.
 47. Kwon, T.-H., Y.-M. Shin, Y.-S. Kim, **Y.-S. Jang** and M.-S. Yang. 2003. Secretory production of hGM-CSF with a high specific biological activity by transgenic plant cell suspension culture. *Biotechnol. Bioproc. Engin.* 6: 135-141.
 48. Park, C.-H., H.-R. Kim, J. Kim, S.-H. Jang, K.-Y. Lee, G.-H. Chung and **Y.-S. Jang**. 2004. Latent membrane protein 1 of Epstein-Barr virus plays an important role in the serum starvation resistance of Epstein-Barr virus-immortalized B lymphocytes. *J. Cell. Biochem.* 91: 777-785.
 49. Chang, S.-H., J. Kim, K.-Y. Lee, H.-J. Kim, Y. J. Chung, C. U. Park, B. S. Kim, and **Y.-S. Jang**. 2004. Modification of the inhibitory amino acid for epitope peptide binding onto MHC class II molecules enhances immunogenicity of the antigen. *Scan. J. Immunol.* 59: 123-132.

50. Lee, J.-C., K.-Y. Lee, J. Kim, C.-S. Na, N.-C. Jung, G.-H. Chung, and **Y.-S. Jang**. 2004. Extract from *Rhus verniciflua* Stokes is capable of inhibiting the growth of human lymphoma cells. *Food Chem. Toxicol.* 42: 1383-1388.
51. Kang, T.-J., G.-H. Kang, J.-A. Kim, T.-H. Kwon, **Y.-S. Jang** and M.-S. Yang. 2004. High-level expression of the neutralizing epitope of porcine epidemic diarrhea virus by a tobacco mosaic virus-based vector. *Protein Expr. Purif.* 38: 129-135.
52. Son, Y.-O., K.-Y. Lee, K.-C. Choi, Y. Chung, J.-G. Kim, Y.-M. Jeon, **Y.-S. Jang** and J.-C. Lee. 2004. Inhibitory effects of glycoprotein (G-120) isolated from *Ulmus davidiana* Nakai on cell growth and activation of matrix metalloproteinases in NIH3T3 cells. *Mol. Cells* 18(2): 163-170.
53. Oh, J. S., D. S. Song, J. S. Yang, J. Y. Song, H. S. Yoo, **Y.-S. Jang** and B. K. Park. 2004. Effect of soluble porcine aminopeptidase N on antibody production against porcine epidemic diarrhea virus. *J. Vet. Sci.* 5(4): 353-357.
54. Kang, T.-J., S.-C. Han, M.-O. Jang, K.-H. Kang, **Y.-S. Jang** and M.-S. Yang. 2004. Enhanced expression of B-subunit of *Escherichia coli* heat-labile enterotoxin in tobacco by optimization of coding sequence. *Appl. Biochem. Biotechnol.* 117: 175-187.
55. Son, Y.-O., K.-Y. Lee, S.-H. Kook, J.-C. Lee, J.-G. Kim, Y.-M. Jeon and **Y.-S. Jang**. 2004. Selective effects of quercetin on the cell growth and antioxidant defense system in normal versus transformed mouse hepatic cell lines. *Eur. J. Pharmacol.* 502: 195-204.
56. Kim, A., Y.-W. Noh, K. D. Kim, **Y.-S. Jang**, Y.-K. Choe and J.-S. Lim. 2004. Activated natural killer cell-mediated immunity is required for the inhibition of tumor metastasis by dendritic cell vaccination. *Exp. Mol. Med.* 36(5): 428-443.
57. Park, S.-M., A.-Y. Mo, **Y.-S. Jang**, J.-H. Lee, M.-S. Yang and D.-H. Kim. 2004. Expression of a functional human tumor necrosis factor- α (hTNF- α) in yeast *Saccharomyces cerevisiae*. *Biotechnol. Bioproc. Engin.* 9: 292-296.
58. Son, Y.-O., K.-Y. Lee, J.-C. Lee, H.-S. Jang, J.-G. Kim, Y.-M. Jeon and **Y.-S. Jang**. 2005. Selective antiproliferative and apoptotic effects of flavonoids purified from *Rhus verniciflua* Stokes on normal versus transformed hepatic cell lines. *Toxicol. Letters* 155: 115-125.
59. Shin, S. J., J. L. Bae, Y. W. Cho, D. Y. Lee, D.-H. Kim, M.-S. Yang, **Y.-S. Jang** and H. S. Yoo. 2005. Induction of antigen-specific immune responses by oral vaccination with *Saccharomyces cerevisiae* expressing *Actinobacillus pleuropneumoniae* ApxIIA. *FEMS Immunol. Med. Microbiol.* 43: 155-164.
60. Lee, J.-C., K.-Y. Lee, H.-N. Jung, J.-G. Kim and **Y.-S. Jang**. 2005. Glycoproteins contained within Soamsan, a traditional Oriental medicine, are the main class of active ingredients responsible for the medicine-induced immune stimulation. *J. Biochem. Mol. Biol.* 38(2): 253-257.
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64. Kang, T.-J., J.-E. Seo, D.-H. Kim, T.-G. Kim, **Y.-S. Jang** and M.-S. Yang. 2005. Cloning and sequence analysis of the Korean strain of spike gene of porcine epidemic diarrhea virus and expression of its neutralizing epitope in plants. *Protein Exp. Purif.* 41: 378-383.
65. Kim, S.-H., H.-N. Jung, K.-Y. Lee, J. Kim, J.-C. Lee and **Y.-S. Jang**. 2005. Suppression of Th2-type immune response-mediated allergic diarrhea following oral administration of

- traditional Korean medicine, *Atractylodes macrocephala* Koidz. *Immunopharmacol. Immunotoxicol.* 27(2): 331-343.
66. Kook, S.-H., Y.-O. Son, S.-K. Han, H.-S. Lee, B.-T. Kim, **Y.-S. Jang**, K.-C. Choi, K.-S. Lee, S.-S. Kim, J.-Y. Lim, Y.-M. Jeon, J.-G. Kim and J.-C. Lee. 2005. Epstein-Barr virus-infected Akata cells are sensitive to histone deacetylase inhibitor TSA-provoked apoptosis. *J. Biochem. Mol. Biol.* 38(6): 755-762.
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- of BJAB cells through the formation of hydroxyl radical via intracellular iron-mediated fenton chemistry in glucose oxidase-mediated oxidative stress. *Mol. Cells* 22(1): 21-29.
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