**Prof. Dr. Jae Sung Hwang**

**Education**

1988 - 1992, BS, Seoul National University, Biology Education

1992 - 1994, MS, Seoul National University, Cell Biology

2000 - 2003, Ph.D. Ajou University, School of Medicine, Skin Biology

2001 - 2002, Visiting Scientist, National Institute of Health, Lab of Cell biology

1994 - 2009, Principal researcher, Amorepacific R&D center

2009~ Present, Professor, Kyung Hee University, Genetic engineering

**Refereed papers in scientific journals**

1. Guo D, Jain R, Hwang JS, Weninger W, Beaumont KA, Tikoo S. RAB27A/Melanophilin Blocker Inhibits Melanoma Cell Motility and Invasion. Journal of Investigative Dermatology. 2020;140(7):1470-3.e3.

2. Choi BH, Hwang HJ, Lee JE, Oh SH, Hwang JS, Lee BY, et al. Microbial production of retinyl palmitate and its application as a cosmeceutical. Antioxidants. 2020;9(11):1-19.

3. Yoon SH, Park JI, Lee JE, Myung CH, Hwang JS. In vivo Change of Keratin-Bound Molecules in the Human Stratum Corneum following Exposure to Ultraviolet Radiation. Skin Pharmacology and Physiology. 2019;32(5):254-64.

4. Park JI, Lee JE, Myung CH, Jo CS, Jang HS, Hwang JS. The absence of Rab27a accelerates the degradation of Melanophilin. Experimental Dermatology. 2019;28(1):90-3.

5. Kim JK, Park NH, Hwang JS. Skin lightening effect of the dietary intake of citrus peel extract against UV-induced pigmentation. Natural Product Communications. 2019;14(6).

6. Kim D, Park NH, Hwang JA, Kim J, Na YJ, Hwang JS, et al. Camellia sinensis leaf extracts lacking catechins exert depigmentary effects through ERK-dependent, MiTF-mediated tyrosinase downregulation in melan-a cells and a human skin equivalent. Archives of Biological Sciences. 2019;71(3):483-8.

7. Jung ES, Park J, Park H, Holzapfel W, Hwang JS, Lee CH. Seven-day Green Tea Supplementation Revamps Gut Microbiome and Caecum/Skin Metabolome in Mice from Stress. Scientific Reports. 2019;9(1).

8. Jang HS, Lee JE, Myung CH, Park JI, Jo CS, Hwang JS. Particulate matter-induced aryl hydrocarbon receptor regulates autophagy in keratinocytes. Biomolecules and Therapeutics. 2019;27(6):570-6.

9. Lee M, Won K, Kim EJ, Hwang JS, Lee HK. Comparison of stratum corneum thickness between two proposed methods of calculation using Raman spectroscopic depth profiling of skin water content. Skin Research and Technology. 2018;24(3):504-8.

10. Choi H, Kim DJ, Nam S, Lim S, Hwang JS, Park KS, et al. Substance P restores normal skin architecture and reduces epidermal infiltration of sensory nerve fiber in TNCB-induced atopic dermatitis-like lesions in NC/Nga mice. Journal of Dermatological Science. 2018;89(3):248-57.

11. Choi H, Kim DJ, Nam S, Lim S, Hwang JS, Park KS, et al. Manifestation of atopic dermatitis-like skin in TNCB-induced NC/Nga mice is ameliorated by topical treatment of substance P, possibly through blockade of allergic inflammation. Experimental Dermatology. 2018;27(4):396-402.

12. Park JI, Lee JE, Shin HJ, Song S, Lee WK, Hwang JS. Oral administration of glycine and leucine dipeptides improves skin hydration and elasticity in UVB-irradiated hairless mice. Biomolecules and Therapeutics. 2017;25(5):528-34.

13. Lee JE, Park JI, Myung CH, Hwang JS. Inhibitory effects of ginsenosides on basic fibroblast growth factorinduced melanocyte proliferation. Journal of Ginseng Research. 2017;41(3):268-76.

14. Park JI, Lee HY, Lee JE, Myung CH, Hwang JS. Inhibitory effect of 2-methyl-naphtho[1,2,3-de]quinolin-8-one on melanosome transport and skin pigmentation. Scientific Reports. 2016;6.

15. Lee HJ, Jo SY, Hwang JS, Chang SE. Mevastatin suppresses melanogenesis by lowering the levels of cyclic adenosine monophosphate and cholesterol. Experimental Dermatology. 2016;25(10):820-2.

16. Lee B, Kim J, Hwang J, Cho Y. Dietary effect of green tea extract on epidermal levels of skin pH related factors, lactate dehydrogenase protein expression and activity in UV-irradiated hairless mice. Journal of Nutrition and Health. 2016;49(2):63-71.

17. Kim K, Jeon S, Kim JK, Hwang JS. Effects of Kyunghee Facial Resistance Program (KFRP) on mechanical and elastic properties of skin. Journal of Dermatological Treatment. 2016;27(2):191-6.

18. Jung JM, Kim SY, Lee WJ, Hwang JS, Chang SE. Dopamine D4 receptor antagonist inhibits melanogenesis through transcriptional downregulation of MITF via ERK signalling. Experimental Dermatology. 2016;25(4):325-8.

19. Kim B, Hwang JS, Kim HS. N-Nicotinoyl dopamine inhibits skin pigmentation by suppressing of melanosome transfer. European Journal of Pharmacology. 2015;769:250-6.

20. Jeong YT, Jeong SC, Hwang JS, Kim JH. Modulation effects of sweroside isolated from the Lonicera japonica on melanin synthesis. Chemico-Biological Interactions. 2015;238:33-9.

21. Jeon SR, Lee KH, Shin DH, Kwon SS, Hwang JS. Synergistic antimicrobial efficacy of mesoporous zno loaded with 4-(α-l-rhamnosyloxy)-benzyl isothiocyanate isolated from the moringa oleifera seed. Journal of General and Applied Microbiology. 2015;60(6):251-5.

22. Kim JH, Jeong SC, Hwang JS, Lee ES, Lee SM. Modulation of melanin synthesis by rengyolone isolated from the root of eurya emarginata in melan-a cells. Phytotherapy Research. 2014;28(6):940-5.

23. Rho HS, Ahn SM, Hwang JS. Inhibitory effect of N-adamantyl-3,4-dihydroxybenzamide on melanogenesis in melan-a cells and brown guinea pigs. Archives of Dermatological Research. 2011;303(3):153-9.

24. Lee EJ, Lee YS, Hwang S, Kim S, Hwang JS, Kim TY. N-(3,5-dimethylphenyl)-3-methoxybenzamide (A 3 B 5) targets TRP-2 and inhibits melanogenesis and melanoma growth. Journal of Investigative Dermatology. 2011;131(8):1701-9.

25. Hwang JS, Lee HY, Lim TY, Kim MY, Yoon TJ. Disruption of tyrosinase glycosylation by N-acetylglucosamine and its depigmenting effects in guinea pig skin and in human skin. Journal of Dermatological Science. 2011;63(3):199-201.

26. Na JI, Hwang JS, Park HJ, Kim DH, Park WS, Youn SW, et al. A new moisturizer containing physiologic lipid granules alleviates atopic dermatitis. Journal of Dermatological Treatment. 2010;21(1):23-7.

27. Choi TY, Sohn KC, Kim JH, Kim SM, Kim CH, Hwang JS, et al. Impact of NAD(P)H:Quinone oxidoreductase-1 on pigmentation. Journal of Investigative Dermatology. 2010;130(3):784-92.

28. Jung CH, Yang YS, Kim JS, Shin YK, Hwang JS, Son ED, et al. Inhibition of SNARE-driven neuroexocytosis by plant extracts. Biotechnology Letters. 2009;31(3):361-9.

29. Yang ES, Hwang JS, Choi HC, Hong RH, Kang SM. The effect of genistein on melanin synthesis and in vivo whitening. Korean Journal of Microbiology and Biotechnology. 2008;36(1):72-81.

30. Lee JY, Kim YK, Seo JY, Choi CW, Hwang JS, Lee BG, et al. Loss of elastic fibers causes skin wrinkles in sun-damaged human skin. Journal of Dermatological Science. 2008;50(2):99-107.

31. Kim JH, Baek SH, Kim DH, Choi TY, Yoon TJ, Hwang JS, et al. Downregulation of melanin synthesis by haginin A and its application to in vivo lightening model. Journal of Investigative Dermatology. 2008;128(5):1227-35.

32. Son ED, Choi GH, Kim H, Lee B, Chang IS, Hwang JS. Alpha-ketoglutarate stimulates procollagen production in cultured human dermal fibroblasts, and decreases UVB-induced wrinkle formation following topical application on the dorsal skin of hairless mice. Biological and Pharmaceutical Bulletin. 2007;30(8):1395-9.

33. Na YJ, Baek HS, Ahn SM, Shin HJ, Chang IS, Hwang JS. [4-t-Butylphenyl]-N-(4-imidazol-1-yl phenyl)sulfonamide (ISCK03) inhibits SCF/c-kit signaling in 501mel human melanoma cells and abolishes melanin production in mice and brownish guinea pigs. Biochemical Pharmacology. 2007;74(5):780-6.

34. Mu Q, Choi HJ, Wang LF, Li XJ, Hwang JS, Lee BG, et al. Inhibitory effects of Saussurea involucrata against melanogenesis of mouse-derived melanocyte cells. Pharmaceutical Biology. 2007;45(9):678-82.

35. Choi TY, Kim JH, Ko DH, Kim CH, Hwang JS, Ahn S, et al. Zebrafish as a new model for phenotype-based screening of melanogenic regulatory compounds. Pigment Cell Research. 2007;20(2):120-7.

36. Ahn SM, Hwang JS, Soo HL. Fructose 1,6-diphosphate alleviates UV-induced oxidative skin damage in hairless mice. Biological and Pharmaceutical Bulletin. 2007;30(4):692-7.

37. Kim S, Hong I, Hwang JS, Choi JK, Rho HS, Kim DH, et al. Phytosphingosine stimulates the differentiation of human keratinocytes and inhibits TPA-induced inflammatory epidermal hyperplasia in hairless mouse skin. Molecular Medicine. 2006;12(1-3):17-24.

38. Kang HY, Hwang JS, Lee JY, Ahn JH, Kim JY, Lee ES, et al. The dermal stem cell factor and c-kit are overexpressed in melasma. British Journal of Dermatology. 2006;154(6):1094-9.

39. Choi SY, Hwang JS, Kim S, Kim SY. Synthesis, discovery and mechanism of 2,6-dimethoxy-N-(4-methoxyphenyl)benzamide as potent depigmenting agent in the skin. Biochemical and Biophysical Research Communications. 2006;349(1):39-49.

40. Choi H, Ahn S, Lee BG, Chang I, Hwang JS. Inhibition of skin pigmentation by an extract of Lepidium apetalum and its possible implication in IL-6 mediated signaling. Pigment Cell Research. 2005;18(6):439-46.

41. Hwang JS, Choi H, Rho HS, Shin HJ, Kim DH, Lee J, et al. Pigment-lightening effect of N,N′-dilinoleylcystamine on human melanoma cells. British Journal of Dermatology. 2004;150(1):39-46.

42. Choi SY, Kim S, Hwang JS, Lee BG, Kim H, Kim SY. Benzylamide derivative compound attenuates the ultraviolet B-induced hyperpigmentation in the brownish guinea pig skin. Biochemical Pharmacology. 2004;67(4):707-15.

43. Choi H, Lee J, Shin HJ, Lee BG, Chang I, Hwang JS. Deoxypodophyllotoxin reduces skin pigmentation of brown guinea pigs. Planta Medica. 2004;70(4):378-80.

44. Kim DH, Hwang JS, Baek HS, Kim KJ, Lee BG, Chang I, et al. Development of 5-[(3-aminopropyl)phosphinooxy]-2-(hydroxymethyl)-4H-pyran- 4-one as a novel whitening agent. Chemical and Pharmaceutical Bulletin. 2003;51(2):113-6.

45. Kang HH, Rho HS, Hwang JS, Oh SG. Depigmenting activity and low cytotoxicity of alkoxy benzoates or alkoxy cinnamte in cultured melanocytes. Chemical and Pharmaceutical Bulletin. 2003;51(9):1085-8.

46. Lee SH, Choi SY, Kim H, Hwang JS, Lee BG, Gao JJ, et al. Mulberroside F isolated from the leaves of Morus alba inhibits melanin biosynthesis. Biological and Pharmaceutical Bulletin. 2002;25(8):1045-8.

47. Choi SY, Kim S, Kim H, Suk K, Hwang JS, Lee BG, et al. (4-Methoxy-benzylidene)-(3-methoxy-phenyl)-amine, a nitrogen analog of stilbene as a potent inhibitor of melanin production. Chemical and Pharmaceutical Bulletin. 2002;50(4):450-2.

48. Kim J, Hwang JS, Cho YK, Han Y, Jeon YJ, Yang KH. Protective effects of (-)-epigallocatechin-3-gallate on UVA- and UVB-induced skin damage. Skin Pharmacology and Applied Skin Physiology. 2001;14(1):11-9.