

## **Sang Ho Oh, M.D., Ph.D.**

Department of Dermatology and Cutaneous Biology Research Institute,  
Severance Hospital, Yonsei University College of Medicine

### **Education and Training :**

1999 M.D., Yonsei University College of Medicine

1999-2004 Intern and Dermatology Resident, Severance Hospital, Yonsei University Health System, Seoul, Korea

2010 Ph.D., Yonsei University College of Medicine

### **Current and Past Professional Positions :**

2007-2010 Fellow and Clinical Professor, Department of Dermatology, Yonsei University College of Medicine

2010-2016 Assistant Professor, Department of Dermatology, Yonsei University College of Medicine

2014-2016 Visiting Professor, Department of Dermatology, University of Pennsylvania, Philadelphia, PA

2016-2021 Associate Professor, Department of Dermatology, Yonsei University College of Medicine

2021-present Professor, Department of Dermatology, Yonsei University College of Medicine

2023-present Chair, Department of Dermatology, Yonsei University College of Medicine, Director of Cutaneous Biology Research Institute, Yonsei University College of Medicine

2023-present Head of Department of Dermatology, Severance Hospital

### **Awards :**

2010 Clinical Research Award (Asia-Pacific Foundation of La Roche-Posay)

2010 Academic Award for Excellence (Yonsei University College of Medicine)

2013 Young Investigator Award (Yonsei University College of Medicine)

2018 Yonsei Medical Journal Best Paper Award

2019 Stiefel Research Award (Korean Dermatological Association)

2021 Ohun Memorial Academic Award (Korean Dermatological Association)

2023 PCMR Thomas B. Fitzpatrick Medal (International Federation of Pigment Cell Societies)

### **Society :**

Council board member, Asian Society for Pigment Cell Research

Secretary General, Korean Society of Vitiligo and Pigment Cell Research

Treasurer, Korean Society of Dermatopathology

Education director, Korean Society of Photomedicine

Project director, Korean Society for Laser Medicine and Surgery

Member, Korean Dermatological Association

Member, Korean Society of Investigative Dermatology

Associate Editor, Journal of Investigative Dermatology Innovations

Associate Editor, Yonsei Medical Journal

### Featured Publications :

- 1) **Oh SH**, Park CO, Wu WH, Kim JY, Jin S, Byamba D, Bae BG, Noh S, Lim BJ, Noh JY, Lee KH. Corticotropin-releasing hormone downregulates IL-10 production by adaptive forkhead box protein 3-negative regulatory T cells in patients with atopic dermatitis. *J Allergy Clin Immunol* 2012;129(1):151-9.e1-6.
- 2) Kim JY, Shin JY, Kim MR, Hann SK, **Oh SH**. siRNA-mediated knock-down of COX-2 in melanocytes suppresses melanogenesis. *Exp Dermatol* 2012;21(6):420-5.
- 3) Kim JY, Shin JY, Kim M, Hann SK, **Oh SH**. Expression of cytosolic NADP(+)-dependent isocitrate dehydrogenase in melanocytes and its role as an antioxidant. *J Dermatol Sci* 2012;65(2):118-25.
- 4) Kim JY, Kim DY, Son H, Kim YJ, **Oh SH**. Protease-activated receptor-2 activates NQO-1 via Nrf2 stabilization in keratinocytes. *J Dermatol Sci* 2014;74(1):48-55.
- 5) Kim JY, Kim DS, Sohn H, Lee EJ, **Oh SH**. PAR-2 is involved in melanogenesis by mediating stem cell factor production in keratinocytes. *Exp Dermatol* 2016;25(6):487-9.
- 6) Shin S, Hann SK, **Oh SH**. Combination treatment with excimer laser and narrowband UVB light in vitiligo patients. *Photodermatol Photoimmunol Photomed* 2016;32(1):28-33.
- 7) Lee H, Chu H, **Oh SH**. Investigation of suitable starting doses of narrowband UVB in Asian vitiligo patients: a pilot study. *J Eur Acad Dermatol Venereol* 2017;31(5):894-7.
- 8) Lee EJ, Kim JY, **Oh SH**. Advanced glycation end products (AGEs) promote melanogenesis through receptor for AGEs. *Sci Rep* 2016;6:27848.
- 9) Kim JY, Lee EJ, Seo J, **Oh SH**. Impact of high-mobility group box 1 on melanocytic survival and its involvement in the pathogenesis of vitiligo. *Br J Dermatol* 2017;176(6):1558-68.
- 10) Kim JY, Lee H, Lee EJ, Kim MK, Kim TG, Kim HP, **Oh SH**. Keap1 knockdown in melanocytes induces cell proliferation and survival via HO-1-associated beta-catenin signaling. *J Dermatol Sci* 2017 Oct;88(1):85-95.
- 11) Kim JY, Lee EJ, Ahn Y, Park S, Kim SH, **Oh SH**. A chemical compound from fruit extract of *Juglans mandshurica* inhibits melanogenesis through p-Erk-associated MITF degradation. *Phytomedicine* 2019;57:57-64.
- 12) Kim TG, Shin J, Hwang S, Lee SH, Kim HC, **Oh SH**. Risk of neurodegenerative disorders in Korean patients with vitiligo: A nationwide retrospective cohort study. *J Am Acad Dermatol* 2019 Aug;81(2):621-623.
- 13) Hwang SW, Shin JY, Kim TG, Kim DY, **Oh SH**. Large-scale retrospective cohort study of psychological stress in patients with alopecia areata according to the frequency of intralesional steroid injection. *Acta Derm Venereol* 2019;99:236-237.
- 14) Bae JM, **Oh SH**, Kang HY, Ryoo YW, Lan CE, Xiang LH, Kim KH, Suzuki T, Katayama I, Lee SC; East Asia Vitiligo Association. Development and validation of the Vitiligo Extent Score for a Target Area (VESTA) to assess the treatment response of a target lesion. *Pigment Cell Melanoma Res*. 2019 Mar;32(2):315-319.
- 15) Lee EJ, Kim JY, Ahn Y, Lee BM, Heo Y, Hwang S, Lee SH, Lee J, Chung G, **Oh SH**. Critical role of ATP-P2X7 axis in UV-induced melanogenesis. *J Invest Dermatol* 2019 Jul;139(7):1554-1563.e6

- 16) Kim JY, Lee SH, Ahn Y, Lee EJ, Park MY, Hwang S, Almurayshid A, Lim BJ, **Oh SH**. Role of senescent fibroblasts in the development of idiopathic guttate hypomelanosis. *Br J Dermatol*. 2020 Jun;182(6):1481-1482.
- 17) Kim JY, Kim J, Ahn Y, Lee EJ, Hwang S, Almurayshid A, Park K, Chung HJ, Kim HJ, Lee SH, Lee MS, **Oh SH**. Autophagy induction can regulate skin pigmentation by causing melanosome degradation in keratinocytes and melanocytes. *Pigment Cell Melanoma Res*. 2020 May;33(3):403-415.
- 18) Ahn Y, Seo J, Lee EJ, Kim JY, Park MY, Hwang S, Almurayshid A, Lim BJ, Yu JW, **Oh SH**. ATP-P2X7-induced inflammasome activation contributes to melanocyte death and CD8<sup>+</sup> T-cell trafficking to the skin in vitiligo. *J Invest Dermatol*. 2020 Sep;140(9):1794-1804.e4.
- 19) Yun CY, Choi N, Lee JU, Lee EJ, Kim JY, Choi WJ, **Oh SH**, Sung JH. Marliolide Derivative Induces Melanosome Degradation via Nrf2/p62-Mediated Autophagy. *Int J Mol Sci*. 2021 Apr 13;22(8):3995.
- 20) Park S, Ha KH, Kim TG, Kim HC, Kim C, **Oh SH**. Air pollution and risk of hospital outpatient visits for eczematous skin disorders in metropolitan cities of South Korea. *Br J Dermatol*. 2021;185(3):641-644.
- 21) Kim SM, Hwang S, Almurayshid A, Park MY, **Oh SH**. Non-Ablative 1927 nm Fractional Thulium Fiber Laser: New, Promising Treatment Modality for Riehl's Melanosis. *Lasers Surg Med* 2021 Jul;53(5):640-646.
- 22) Oh J, Lee RW, Lee HR, Lee SB, Ju HJ, Park J, Park HR, Park JH, Hann SK, Almurayshid A, Shin J, Kang HY, Bae JM, **Oh SH**. Classification of facial and truncal segmental vitiligo and its clinical courses including recurrence rate and patterns: a retrospective review of 956 patients. *Br J Dermatol*. 2021 Apr;184(4):750-753.
- 23) Kim JY, Lee EJ, Seong YJ, Ahn Y, Park S, Lee J, **Oh SH**. AZD-9056, a P2X7 receptor inhibitor, suppresses ATP-induced melanogenesis. *J Dermatol Sci*. 2020 Dec;100(3):227-229.
- 24) Kim W, Lee EJ, Bae IH, Myoung K, Kim ST, Park PJ, Lee KH, Pham AVQ, Ko J, **Oh SH**, Cho EG. *Lactobacillus plantarum*-derived extracellular vesicles induce anti-inflammatory M2 macrophage polarization *in vitro*. *J Extracell Vesicles*. 2020 Jul 17;9(1):1793514.
- 25) Park S, Lee EJ, Kim JY, Bae YJ, **Oh SH**. Blood high mobility group box 1 levels are not a suitable biomarker for disease activity or severity in nonsegmental vitiligo. *Clin Exp Dermatol*. 2021 Dec;46(8):1597-1599.
- 26) Ahn Y, Lee EJ, Luo E, Choi J, Kim JY, Kim S, Kim SH, Bae YJ, Park S, Lee J, **Oh SH**. Particulate Matter Promotes Melanin Production through Endoplasmic Reticulum Stress-Mediated IRE1 $\alpha$  Signaling. *J Invest Dermatol*. 2022 May;142(5):1425-1434.e6.
- 27) Kim JY, Lee EJ, Ahn Y, Park S, Bae YJ, Kim TG, **Oh SH**. Cathepsin L, a Target of Hypoxia-Inducible Factor-1- $\alpha$ , Is Involved in Melanosome Degradation in Melanocytes. *Int J Mol Sci*. 2021 Aug 10;22(16):8596.
- 28) Kim JY, Lee EJ, Seo J, Lee Y, Ahn Y, Park S, Bae YJ, Lee J, Lim BJ, Kim D, Cho JW, **Oh SH**. Nephren expression in human epidermal keratinocytes and its implication in poor wound closure. *FASEB J*. 2022 Jul;36(7):e22424.
- 29) Ju HJ, Lee RW, Park S, Bae JM, **Oh SH**, Shin J, Kang HY. Maintenance phototherapy for vitiligo: A multicenter, randomized controlled trial. *Photodermatol Photoimmunol Photomed*. 2022 Mar 11. doi: 10.1111/phpp.12784.
- 30) Park S, Lee JH, Kang E, Kim H, Kim JY, Lee EJ, Bae YJ, Kim J, **Oh SH**. A randomized split-face comparative study of long-pulsed alexandrite plus low-fluence Nd:YAG laser versus pulsed-dye laser in the treatment of rosacea. *Lasers Surg Med*. 2022 Nov;54(9):1217-1225.
- 31) Lee JH, Ahn Y, Lee HE, Jang YN, Park AY, Kim S, Jung YH, Sung SH, Shin JH, Lee SH, Park SH, Kim KS, Jang MS, Kim BJ, **Oh SH**, Lee KJ. Wearable Surface-Lighting Micro-Light-Emitting Diode Patch for Melanogenesis Inhibition. *Adv Healthc Mater*. 2022 Oct 3:e2201796.

- 32) Kim JY, Lee EJ, Bae YJ, Park S, Kim SH, Lee J, Kwon IJ, Seong SH, Lee J, Kim TG, **Oh SH**. The involvement of gremlin-1 in external stress-induced melanogenesis. *J Dermatol Sci.* 2022 Dec 24:S0923-1811(22)00279-1.
- 33) Park S, Choi EJ, Kim JY, Lee EJ, Bae YJ, Seong SH, Lee J, **Oh SH**. 7-desacetoxy-6,7-dehydrogedunin discovered by high-throughput screening system suppresses melanogenesis through ATP-P2X7 signaling inhibition. *J Dermatol Sci.* 2022 Dec;108(3):157-166.