KOREA-US

Frontiers in Health and Life Sciences

2025. 11. 6(Thu) - 7(Fri)

Four Seasons Hotel, Grandballroom(3F)

Curriculum Vitae

Name	First Name	Woong	Last Name	Sun
Country	South Korea (ROK)			
Affiliation	Korea University College of Medicine			

Educational Background	
1987.03 ~ 1991.02	BS, Department of Molecular Biology, Seoul National University
1991.03 ~ 1993.02	MS, Department of Molecular Biology, Seoul National University
1993.03 ~ 1997.02	PhD, Department of Molecular Biology, Seoul National University

Professional Career	
1997.08 ~ 2000.06	Postdoctoral Fellow, Department of Biochemistry Osaka University School of Medicine, Japan (Nakamura Lab)
2000.09 ~ 2002.08	Postdoctoral Fellow, Department of Neurobiology and Anatomy Wake Forest University School of Medicine North Carolina, USA (Oppenheim Lab)
2002.08 ~ 2005.08	Assistant Professor, Department of Anatomy, Korea University College of Medicine
2005.09 ~ 2009.08	Associate Professor, Department of Anatomy, Korea University College of Medicine
2009.09 ~ 2010.08	Visiting Professor, Dept of Ophthalmology, UCSD
2018.01 ~ 2019.12.	Associate Dean for Research and Global Affairs, Korea University College of Medicine
2009.09 ~ Present	Professor, Department of Anatomy, Korea University College of Medicine
2025.02 ~ Present	Head Professor, Department of Anatomy, Korea University College of Medicine

Research Field

Developmental Neuroscience, Stem Cell, Neural Organoids

Papers, Books, etc. presented or published by your name

Selected Publication list

https://scholar.google.co.kr/citations?hl=en&user=4QmGW54AAAAJ&view_op=list_works

Kim J, Park SH, **Sun W**. *The Differential Developmental Neurotoxicity of Valproic Acid on Anterior and Posterior Neural Induction of Human Pluripotent Stem Cells*. Int J Stem Cells. 2025 Feb 28;18(1):49-58.

Kwak T, Park SH, Lee S, Shin Y, Yoon KJ, Cho SW, Park JC, Yang SH, Cho H, Im HI, Ahn SJ, **Sun W**, Yang JH. *Guidelines for Manufacturing and Application of Organoids: Brain*. Int J Stem Cells. 2024 May 30;17(2):158-181.

Shin AR, **Sun W**. *Establishment and Validation of a Model for Fetal Neural Ischemia Using Necrotic Core-Free Human Spinal Cord Organoids*. Stem Cells Transl Med. 2023 14:268-277

Lee JH, Shaker MR, Park SH, **Sun W**. *Transcriptional Signature of Valproic Acid-Induced Neural Tube Defects in Human Spinal Cord Organoids.* Int J Stem Cells. 2023 Nov 30;16(4):385-393

Seo K, Cho S, Shin H, Shin A, Lee JH, Kim JH, Lee B, Jang H, Kim Y, Cho HM, Park Y, Kim HY, Lee T, Park WY, Kim YJ, Yang E, Geum D, Kim H, Cho IJ, Lee S, Ryu JR, **Sun W.** *Symmetry Breaking of Human Pluripotent Stem Cells (hPSCs) in Micropattern Generates a Polarized Spinal Cord-Like Organoid (pSCO) with Dorsoventral Organization*. Adv Sci (Weinh). 2023 Jul;10(20):e2301787.

Lee JH, Shin H, Shaker MR, Kim HJ, Park SH, Kim JH, Lee N, Kang M, Cho S, Kwak TH, Kim JW, Song MR, Kwon SH, Han DW, Lee S, Choi SY, Rhyu IJ, Kim H, Geum D, Cho IJ, **Sun W**. *Production of human spinal-cord organoids recapitulating neural-tube morphogenesis.* Nat Biomed Eng. 2022 Apr;6(4):435-448.

Lee E, Kim HJ, Shaker MR, Ryu JR, Ham MS, Seo S-H, Kim DH, Lee Kiwon, Jung N, Choe Y, Son GH, Rhyu IJ, **Sun W.** *High-performance acellular tissue scaffold combined with hydrogel polymers for regenerative medicine.* ACS Biomaterials. 2019, 5:3462-3474.

Cho HM, Ryu JR, Jo Y, Seo TW, Choi YN, Kim JH, Chung JM, Cho B, Kang HC, Yu SW, Yoo SJ, Kim H, **Sun W**. *Drp1-Zip1 interaction regulates mitochondrial quality surveillance system*. Mol Cell. 2018, 73:364-376

Book, book chapters etc

선웅 등 (2015) 생물학명강, 해나무

선웅 (2021) 나는 뇌를 만들고 싶다, 이음출판사