

Curriculum Vitae

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Education

2008. 03 – 2010. 08 | **Ph.D** in College of Veterinary Medicine, Chonnam National University, Korea.

Professional Experiences

2010. 09 – 2013. 09 | **Postdoctoral Fellow** in Department of Physiology, School of Medicine, Pusan National University, Korea.

2013. 09 – Present | **Assistant Professor** in Departments of Biochemistry, Soonchunhyang University College of Medicine, Cheonan, Korea.

Publications

Corresponding author

1. Lee JH, Yoon YM, Han YS, Jung SK, **Lee SH.** (2018) Melatonin protects mesenchymal stem cells from autophagy-mediated death under ischemic ER stress conditions by increasing prion protein expression. Cell Proliferrat. (accept)
2. Han YS, Kim S, Lee JH, Jung SK, Noh H, **Lee SH.** (2018) Melatonin protects chronic kidney disease mesenchymal stem cells against senescence via PrPC dependent enhancement of the mitochondrial function. J Pineal Res. 2018 Oct 29:e12535. (Epub)
3. Yun CW, **Lee SH.** (2018) The Roles of Autophagy in Cancer. Int. J. Mol. Sci. 2018, 19(11), 3466.

4. Yoon YM, Han YS, Yun CW, Lee JH, Kim R, **Lee SH.** (2018) Pioglitazone Protects Mesenchymal Stem Cells against P-Cresol-Induced Mitochondrial Dysfunction via Up-Regulation of PINK-1. *Int J Mol Sci.* 2018 Sep 24;19(10). pii: E2898.
5. Lee JH, Yun CW, Han YS, Kim SM, Jeong DJ, Kwon HY, Kim HJ, Baek MJ, **Lee SH.** (2018) Melatonin and 5-fluorouracil co-suppress colon cancer stem cells by regulating cellular prion protein-Oct4 axis. *J Pineal Res.* 2018 Nov;65(4):e12519
6. Kim SM, Han YS, Lee JH, **Lee SH.** (2018) Combination of MSC spheroids wrapped within autologous composite sheet dually protects against immune rejection and enhances stem cell transplantation efficacy. *Tissue cell.* 53(August 2018): 93-103.
7. Yun CW, Kim S, Lee JH, **Lee SH.** (2018) Melatonin Promotes Apoptosis of Colorectal Cancer Cells via Superoxide-mediated ER Stress by Inhibiting Cellular Prion Protein Expression. *Anticancer Res.* 2018 Jul;38(7):3951-3960.
8. Han YS, Kim SM, Lee JH, **Lee SH.** (2018) Co-Administration of Melatonin Effectively Enhances the Therapeutic Effects of Pioglitazone on Mesenchymal Stem Cells Undergoing Indoxyl Sulfate-Induced Senescence through Modulation of Cellular Prion Protein Expression. *Int J Mol Sci.* 2018 May 4;19(5). pii: E1367.
9. Kim SM, Yoon YM, Han YS, Lee JH, Hur J, **Lee SH.** (2018) Administration of Cripto in GRP78 overexpressed human MSCs enhances stem cell viability and angiogenesis during human MSC transplantation therapy. *Cell Proliferat.* 2018 May 2:e12463.
10. Han YS, Yun SP, Lee JH, Kwon SH, Kim SM Kim Hur J, **Lee SH.** (2018) C-Met-Activated Mesenchymal Stem Cells Rescue Ischemic Damage via Interaction with Cellular Prion Protein. *Cell Physiol Biochem.* 2018;46(5):1835-1848.
11. Lee JH, Yun CW, Hur J, **Lee SH.** (2018) Fucoidan Rescues p-Cresol-Induced Cellular Senescence in Mesenchymal Stem Cells via FAK-Akt-TWIST Axis. *Mar Drugs.* 6;16(4).
12. Lee JH, Yoon YM, Han YS, Yun CW, **Lee SH.** (2018) Melatonin Promotes Apoptosis of Oxaliplatin-resistant Colorectal Cancer Cells Through Inhibition of Cellular Prion Protein. *Anticancer Res.* 38(4):1993-2000.

13. Yun SP, Yoon YM, Lee JH, Kook M, Han YS, Jung SK, **Lee SH** (2018) Tauroursodeoxycholic Acid Protects against the Effects of P-Cresol-Induced Reactive Oxygen Species via the Expression of Cellular Prion Protein. *Int J Mol Sci.* 25:19(2).
14. Kim SM, Park YJ, Shin MS, Kim HR, Kim MJ, **Lee SH**, Yun SP, Kwon SH. (2017) Acacetin inhibits neuronal cell death induced by 6-hydroxydopamine in cellular Parkinson's disease model. *Bioorg Med Chem Lett.* 2017 Dec 1;27(23):5207-5212.
15. Lee JH, Yoon YM, **Lee SH** (2017) GRP78 Regulates Apoptosis, Cell Survival and Proliferation in 5-Fluorouracil-resistant SNUC5 Colon Cancer Cells. *Anticancer Res.* 2017 Sep;37(9):4943-4951.
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18. Yun SP, Yun CW, Lee JH, Kim SM, **Lee SH.** (2017) Cripto enhances proliferation and survival of mesenchymal stem cells by up-regulating JAK2/STAT3 pathway in a GRP78-dependent manner. *Biomol Ther* (2017.099)
19. Yun SP, Han YS, Lee JH, Kim SM, **Lee SH.** (2017) Melatonin Rescues Mesenchymal Stem Cells from Senescence Induced by the Uremic Toxin p-Cresol via Inhibiting mTOR-Dependent Autophagy. *Biomol Ther.* 2017 Jun 27.
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21. Yun SP, Han YS, Lee JH, Kim S, **Lee SH** (2017) Enhanced Susceptibility to 5-Fluorouracil in Human Colon Cancer Cells by Silencing of GRP78. *Anticancer Res.* 2017 Jun;37(6):2975-2984.
22. Lee JH, Han YS, **Lee SH.** (2017) Potentiation of biological effects of mesenchymal stem cells in ischemic conditions by melatonin via upregulation of

cellular prion protein expression. *J Pineal Res.* 2017 Mar;62(2)

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25. Han YS , Lee JH, Yoon YM, Yun CW, Noh H, **Lee SH.** (2016) Hypoxia-induced expression of cellular prion protein improves the therapeutic potential of mesenchymal stem cells. *Cell Death Dis.* 7(Oct):e2395

26. Sun HY, Lee JH, Han YS, Yoon YM, Yun CW, Kim JH, Song YS, **Lee SH.** (2016) Pivotal Roles of Ginsenoside Rg3 in Tumor Apoptosis Through Regulation of Reactive Oxygen Species. *Anticancer Res.* 36(9):4647-54.

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2. **Lee SH**, Jeong D, Han YS, Baek MJ. (2015) Pivotal role of vascular endothelial growth factor pathway in tumor angiogenesis. *Ann Surg Treat Res.* 89(1):1-8.
3. **Lee SH**, Lee KB, Lee JH, Kang S, Kim HG, Asahara T, Kwon SM. (2015) Selective Interference Targeting of Lnk in Umbilical Cord-Derived Late Endothelial Progenitor Cells Improves Vascular Repair, Following Hind Limb Ischemic Injury, via Regulation of JAK2/STAT3 Signaling. *Stem Cells.* 33(5):1490-500.
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10. **Lee SH**, Lee YJ, Han HJ. (2010) Role of FAK phosphorylation in hypoxia-induced hMSCs migration: involvement of VEGF as well as MAPKs and eNOS pathways. *Am J Physiol Cell Physiol.* 298(4):C847-856.
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embryonic stem cells proliferation through cooperation of arachidonic acid and PI3K/Akt signal pathways. *Cell Proliferation*. 41(2):230-247.

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Coauthor

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4. Kim H, Ahn TS, Kim CJ, Bae SB, Kim HJ, Lee CS, Kim TH, Im J, **Lee SH**, Son MW, Lee MS, Baek MJ, Jeong D. (2017) Oncogenic function of angiopoietin-2 in vitro and its modulation of tumor progression in colorectal carcinoma. *Oncol Lett*. 14(1):553-560.

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6. Lee SS, Lee SJ, **Lee SH**, Ryu JM, Lim HS, Kim JS, Song EJ, Jung YH, Lee HJ, Kim CH, Han HJ. (2016) Netrin-1-Induced Stem Cell Bioactivity Contributes to the Regeneration of Injured Tissues via the Lipid Raft-Dependent Integrin α 6 β 4

Signaling Pathway. *Scientific Reports*. 24;6:37526

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