

CURRICULUM VITAE

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Education:

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Department of Medical Biotechnology, Dongguk University, Seoul, Korea
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Department of Biomedical Science, CHA University, Seoul, Korea
Sep. 2010 ~ Jan. 2015: Associate Professor
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June. 2006 ~ Aug. 2010: Assistant Professor
Department of Biomedical Science, CHA University, Seoul, Korea
Feb. 2006 ~ May. 2006: Principal researcher
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Department of Bioengineering, Rice University, Houston, TX
Mar. 2002 ~ July 2003: Postdoctoral Research Associate
Biomaterial Research Center, KIST, Seoul, South Korea
Sep. 1997 ~ Feb. 2002: Ph.D., Department of Chemistry
Department of Chemistry, Hanyang University, Seoul, South Korea
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Mar. 1994 ~ Feb. 1997: M.S., Department of Chemistry,
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I. Publications (Citations = 7851, *h*-index = 43)

I-1. SCI(E) papers

The year 2023

1. Nityanand Prakash¹, Jiseong Kim¹, Jieun Jeon¹, Siyeon Kim¹, Yoshie Arai¹, Alvin Bacero Bello^{1*}, Hansoo Park^{2*}, and Soo-Hong Lee^{1*} Progress and emerging techniques for biomaterial-based derivation of mesenchymal stem cells (MSCs) from pluripotent stem cells (PSCs) *Biomaterials Research* 27,:31 (2023) I.F. = 15.863

2. Yoshie Arai, **Soo-Hong Lee***, “MMP13-overexpressing mesenchymal stem cells enhance bone tissue formation in the presence of collagen hydrogel”, *Tissue Engineering and Regenerative Medicine* (2023.04) I.F. = 4.323
3. Kyung-Yup Cha, Woongjin Cho, Sunghyun Park, Jinsung Ahn, Hyeon Park, Inho Baek, Minju Lee, Sunjun Lee, Yoshie Arai* and **Soo-Hong Lee***, “Generation of bioactive MSC-EVs for bone tissue regeneration by tauroursodeoxycholic acid treatment”, *Journal of controlled release*, accepted (2022.12) I.F. = 11.467

The year 2022

4. Sejin Son, Jutack Nam, April S. Kim, Jinsung Ahn, Kyung Soo Park, May Thazin Phoo, Brett Sherren, Weiping Zou, Soo-Hong Lee, Omid C. Farokhzad, Jinjun Shi & James J. Moon*, “Induction of T-helper-17-cell-mediated anti-tumour immunity by pathogen-mimicking polymer nanoparticles”, *Nature Biomedical Engineering*, online published (2022.12) I.F. = 29.234
5. Woong Jin Cho, Jinsung Ahn, Minju Lee, Hyejong Choi, Sunghyun Park, SunJun Lee, Kyung-Yup Cha, Yoshie Arai*, **Soo-Hong Lee***, “Combinatorial effect of mesenchymal stem cells and extracellular vesicles in a hydrogel on cartilage regeneration”, *Tissue Engineering and Regenerative Medicine*, online published (2022.12) I.F. = 4.451
6. Sumin Cho, Hyemin Choi, Hyundoo Jeong, Su Yeon Kwon, Eun Ji Roh, KwangHun Jeong, Inho Baek, Byoung Ju Kim, **Soo-Hong Lee**, Inbo Han, Jae Min Cha, “Preclinical Study of Human Bone Marrow-Derived Mesenchymal Stem Cells Using a 3-Dimensional Manufacturing Setting for Enhancing Spinal Fusion”, *STEM CELLS Translational Medicine*, 11(10):1072-1088 (2022.10) I.F. = 7.655
7. Inho Baek, Alvin Bacero Bello, Jieun Jeon, Yoshie Arai, Byung-Hyun Cha, Byoung Ju Kim, and **Soo-Hong Lee***, “Therapeutic potential of epiphyseal growth plate cells for bone regeneration in an osteoporosis model”, *Journal of Tissue Engineering*, 13:20417314221116754 (2022.08) I.F. = 7.940
8. Jinsung Ahn, Yoshie Arai, Byoung Ju Kim, Young-Kwon Seo, James J. Moon, Dong Ah Shin*, Bogyu Choi*, **Soo-Hong Lee***, “Combinatorial physicochemical stimuli in three-dimensional environment of hyaluronic acid hydrogel amplify chondrogenesis by stimulating phosphorylation of Smad and MAPKs signaling pathways”, *NPG Asia Materials*, 14:46 (2022.06) I.F.= 10.481
9. Ramasubba Reddy Palem, Sivalingam Ramesh, Iqra Rabani, Ganesh Shimoga, Chinna Bathula, Heung Soo Kim, Young-Soo Seo, Hyun-Seok Kim, Soo-Hong Lee*, “Microstructurally assembled transition metal oxides with cellulose nanocrystals for high-performance supercapacitors”, *Journal of Energy Storage*, 50 (2022) 104712 (2022.04) I.F.=8.78
10. Banavath Jayanna Naik, Ganesh Shimoga, Seong-Cheol Kim, Mekapogu Manjulatha, Chinnireddy Subramanyam, Ramasubba Reddy Palem, Manu Kumar, Sang-Youn Kim and **Soo-Hong Lee***, “CRISPR/Cas9 and Nanotechnology Pertinence in Agricultural Crop Refinement”, *Frontiers in Plant Science*. (2022.04) I.F. = 5.75
11. Ramasubba Reddy Palem, Iqra Rabani, Sivalingam Ramesh, Ganesh Shimoga, **Soo-Hong Lee***, Heung Soo Kim, Young-Soo Seo, Hyun-Seok Kim, Chinna Bathula, “Ultrasonically decorated zinc cobaltate on nanocellulose interface for supercapacitors”, *Surfaces and Interfaces*, volume 30, 101915 (2022.03) I.F.= 6.5
12. Ramasubba Reddy Palem, Ganesh Shimoga, Iqra Rabani, Chinna Bathula, Young-Soo Seo, Hyun-Seok Kim, Sang-Youn Kim, **Soo-Hong Lee,*** “Ball-milling route to design hierarchical nanohybrid Cobalt Oxide structures with cellulose nanocrystal interface for supercapacitors”, *International Journal of Energy Research*, 46: 8398-8412 (2022.02) I.F.= 5.1
13. Ramasubba Reddy Palem, Ganesh Shimoga, Sang-Youn Kim, Chinna Bathula, Gajanan S Ghodake, **Soo-Hong Lee,*** “Biogenic palladium nanoparticles: An effectual environmental benign catalyst for Organic Coupling Reactions”, *Journal of Industrial and Engineering Chemistry*, 106, 52-68. (2022.01) I.F.=6.064

The year 2021

14. Ramasubba Reddy Palem, Sivalingam Ramesh, Chinna Bathula, Vijay Kakani, Ganesh D. Saratale, Hemraj M. Yadav, Joo-Hyung Kim, Heung Soo Kim, **Soo-Hong Lee,*** “Enhanced supercapacitive behavior by CuO@MnO₂/carboxymethyl cellulose composites” *Ceramics International*, 47(19):26738-26747, (2021.10.01.) I.F.=3.830
15. Sunghyun Park, Yoshie Arai, Alvin Bello, Hansoo Park, Dohyun Kim, Kyung-Soon Park, **Soo-Hong Lee,*** “SPRY4 acts as an indicator of osteoarthritis severity and regulates chondrocyte hypertrophy and M protease expression” *NPJ Regenerative Medicine* 6:56, (2021.09.17) I.F.=10.364
16. Alvin Bacero Bello, Yunkyung Kim, Sunghyun Park, Manjunatha S Muttigi, Jiseong Kim, Hansoo Park*, and **Soo-hong Lee*** “Matrilin3/TGFβ3 gelatin microparticles promote chondrogenesis, prevent hypertrophy, and induce paracrine release in MSC spheroid for disc regeneration” *NPJ Regenerative Medicine*, 6:50, (2021.09.03.) I.F.=7.021
17. Park S, Bello A, Arai Y, Ahn J, Kim D, Cha K-Y, Baek I, Park H, **Soo-Hong Lee,*** “Functional Duality of Chondrocyte Hypertrophy and Biomedical Application Trends in Osteoarthritis.: *Pharmaceutics*. 2021; 13(8):1139., (2021.07.26), I.F.=6.321
18. Ganesh Shimoga*, Ramasubba Reddy Palem, Dong-Soo Choi, Eun-Jae Shin, Pattan-Siddappa Ganesh, Ganesh Dattatraya Saratale, Rijuta Ganesh Saratale, **Soo-Hong Lee** and Sang-Youn Kim* “Polypyrrole-Based Metal Nanocomposite Electrode Materials for High-Performance Supercapacitors †” *Metals*, 11(6), 905 (2021.06.01.) I.F.=2.117
19. Yoshie Arai, Bogyu Choi, Byoung Ju Kim, Sunghyun Park, Hyoeun Park, James J. Moon, **Soo-Hong Lee*** “Cryptic ligand on collagen matrix unveiled by MMP13 accelerates bone tissue regeneration via MMP13/Integrin α3/RUNX2 feedback loop” *Acta Biomaterialia*, Volume 125, 219-230, published (2021.04.15)
20. Ramasubba Reddy Palem, Kummara Madhusudana Rao, Ganesh Shimoga, Rijuta G. Saratale, Surendra K. Shinde, Gajanan S. Ghodake, **Soo-Hong Lee*** “Physicochemical characterization, drug release, and biocompatibility evaluation of carboxymethyl cellulose-based hydrogels reinforced with sepiolite nanoclay” *International Journal of Biological Macromolecules*, 178: 464–476 (2021.03) I.F.=5.162
21. Deogil Kim, Byung-Hyun Cha, Jinsung Ahn, Yoshie Arai, Bogyu Choi*, **Soo-Hong Lee*** “Physicochemical Properties in Three-Dimensional Hydrogel Modulate Cellular Reprogramming into Induced Pluripotent Stem Cells” *Advanced functional materials*, 200741: 1-11 (2021.02.10) I.F. = 16.836

The year 2020

22. Ganesh Shimoga, Ramasubba Reddy Palem, **Soo-Hong Lee**, Sang-Youn Kim* “Catalytic Degradability of p-Nitrophenol Using Ecofriendly Silver Nanoparticles” *Metals*, 10: 1661 (2020.12) I.F. = 2.117
23. Yoshie Arai¹, Hyoeun Park¹, Sunghyun Park, Dohyun Kim, Inho Baek, Lipjeong Jeong, Byoung Ju Kim, Kwideok Park, Dongwon Lee, **Soo-Hong Lee*** “Bile acid-based dual-functional prodrug nanoparticles for bone regeneration through hydrogen peroxide scavenging and osteogenic differentiation of mesenchymal stem cells” *Journal of Controlled Release*, 328: 596-607 (2020.12) I.F. = 7.727
24. Manjunatha S Muttigi¹, Byoung Ju Kim¹, Bogyu Choi, Inbo Han, Hansoo Park*, **Soo-Hong Lee*** “Matrilin-3-primed adipose-derived mesenchymal stromal cell spheroids prevent mesenchymal stromal-cell-derived chondrocyte hypertrophy” *International Journal of Molecular Sciences*, 21(23): 8911 (2020.11) I.F. = 4.556
25. Rajendran JC Bose¹, Nagendran Tharmalingam, Yonghyun Choi¹, Thiagarajan Madheswaran, Ramasamy Paulmurugan, Jason R McCarthy, **Soo-Hong Lee***, Hansoo Park*, “Combating Intracellular Pathogens with Nanohybrid-Facilitated Antibiotic Delivery” *International Journal of Nanomedicine*, 15: 8437-8449 (2020.10) I.F. = 5.115
26. Byung-Hyun Cha, Jin-Su Kim, Alvin Bello, Geun-Hui Lee, Do-Hyun Kim, Byoung Ju Kim, Yoshie Arai, Bogyu Choi, Hansoo Park, **Soo-Hong Lee*** “Efficient isolation and enrichment of mesenchymal stem cells from human embryonic stem cells by utilizing the interaction between integrin α5β1 and fibronectin” *Advanced Science*, 7(17): 2001365 (2020.09) I.F. = 16.836
27. Manjunatha S. Muttigi¹, Byoung Ju Kim¹, Hemant Kumar, Sunghyun Park, Un Yong Choi, Inbo Han*, Hansoo Park* and **Soo-Hong Lee***, “Efficacy of matrilin-3-primed adipose-derived mesenchymal stem cell spheroids in a rabbit model of disc degeneration” *Stem Cell Research & Therapy*, 11: 363 (2020.08) I.F. = 15.84

28. Tae-Keun Ahn¹, Kyoung-Tae Kim¹, Hari Prasad Joshi, Kwang Hwan Park, Jae Won Kyung, Un-Yong Choi, Seil Sohn, Seung-Hun Sheen, Dong-Eun Shin, **Soo-Hong Lee***, and In-Bo Han * “Therapeutic Potential of Tauroursodeoxycholic Acid for the Treatment of Osteoporosis” *International Journal of Molecular Sciences*, 21(12): 4274 (2020.06) I.F. = 4.56
29. Ramasubba Reddy Palem, Sivalingam Ramesh, H.M. Yadav, Ju Hyeon Kim, Arumugam Sivasamy, Heung Soo Kim, Joo-Hyung Kim, **Soo-Hong Lee***, Tae June Kang* “Nanostructured Fe₂O₃@nitrogen-doped multiwalled nanotube/cellulose nanocrystal composite material electrodes for high-performance supercapacitor applications” *Journal of Materials Research and Technology*, 9(4): 7615-7627 (2020.06) I.F. = 5.289
30. Tae-Jin Lee, Tepeng Wu, Jung Hwan Park, Jihun Song, Gun-Jae Jeong, Jiyu Hyun, Joo Young Lee, **Soo-Hong Lee**, Doo Sung Lee*, Suk Ho Bhanga* “Enzyme free cell detachment using pH-responsive poly(amino ester) for tissue regeneration” *Journal of Industrial and Engineering Chemistry*, 88: 373-381 (2020.05) I.F. = 5.278
31. Ramasubba Reddy Palem, Ganesh Shimoga, Tae June Kang*, **Soo-Hong Lee***, “Fabrication of multifunctional Guar gum-silver nanocomposite hydrogels for biomedical and environmental applications” *International Journal of Biological Macromolecules*. 2020 Sep 15, 159: 474-486 (2020.05) I.F. = 5.162
32. Bello Alvin, Deogil Kim, Dohyun Kim, Hansoo Park, **Soo-Hong Lee*** “Engineering and Functionalization of Gelatin Biomaterials; From cell Culture to Medical Applications” *Tissue Engineering Part B*, 1937-3368 (2020.04) I.F. = 5.724
33. Nopphadol Udomlucka, Haram Leea, **Soo-Hong Lee***, and Hansoo Park* “Surface functionalization of dual growth factor on hydroxyapatite-coated nanofibers for bone tissue engineering” *Applied Surface Science*, 520: 146311 (2020.04) I.F. = 6.182
34. Rajendran JC Bose, Nagendran Tharmalingam, Yonghyun Choi, Thiagarajan Madheswaran, Ramasamy Paulmurugan, Jason McCarthy, **Soo-Hong Lee***, Hansoo Park “Effect of surface charge of nanohybrids on the intracellular bacterial killing efficiency” *Research Square*, 11: 363 (2020.04) I.F. = ?
35. Ramasubba Reddy Palem, Ganesh Shimoga, K.S.V. Krishna Rao, **Soo-Hong Lee**, Tae June Kang* “Guar gum graft polymer-based silver nanocomposite hydrogels: synthesis, characterization and its biomedical applications” *Journal of Polymer Research*, 27:68 (2020.02) I.F. = 2.426

The year 2019

36. Na-Eun Ryu, **Soo-Hong Lee**.* and Hansoo Park,* “Spheroid Culture System Methods and Applications for Mesenchymal Stem Cells” *Cells*. 2019 Dec 12;8(12) (2019.12) I.F. = 5.656
37. Sunghyun Park, Yoshie Arai, Byoung-Ju Kim, Alvin Bello, Sajjad Ashraf, Hansoo Park, Kyoung-Soon Park, **Soo-Hong Lee*** “Suppression of SPRY4 promotes osteogenic differentiation and bone formation of mesenchymal stem cell” *Tissue Engineering Part A*, 2019 Dec;25(23-24):1646-1657(2019.12) I.F. = 3.616
38. Sajjad Ashraf¹, Byoung-Ju Kim¹, Sung Hyun Park, Hansoo Park*, **Soo-Hong Lee*** “RHEB gene therapy maintains the chondrogenic characteristics and protects cartilage tissue from degenerative damage during experimental murine osteoarthritis” *Osteoarthritis and Cartilage*, Oct;27(10):1508-1517 (2019.06) I.F. = 4.879
39. Yein Lee¹, Yoshie Arai¹, Jinsung Ahn, Deogil Kim, Seunghee Oh, Donyoung Kang, Hyungsuk Lee, James J. Moon, Bogyu Choi, **Soo-Hong Lee*** “Three-dimensional microenvironmental priming of human mesenchymal stem cells in hydrogels facilitates efficient and rapid retroviral gene transduction via accelerated cell cycle synchronization” *NPG Asia Materials*, 11:27 (2019.06) I.F. = 8.052
40. Yoshie Arai, Bogyu Choi, Byoung-Ju Kim, Won-Kyu Rhim, Sunghyun Park, Hyeon Park, Jinsung Ahn, **Soo-Hong Lee*** “Tauroursodeoxycholic acid (TUDCA) counters osteoarthritis by regulating intracellular cholesterol levels and membrane fluidity of degenerated chondrocytes” *Biomaterials Science*, 7(8):3178-3189 (2019.05) I.F.= 5.251
41. Ting Zheng, Parisa Pour Shahid Saeed Abadi, Jungmok Seo, Byung-Hyun Cha, Beatrice Miccoli, Yi-Chen Li, Kijun Park, Sunghyun Park, Seon-Jin Choi, Rasoul Bayaniahangar, Dongxing Zhang, **Soo-Hong Lee**, Chang-Kee Lee, Ali Khademhosseini*, Su Ryon Shin* “Biocompatible Carbon Nanotube-Based Hybrid Microfiber for Implantable Electrochemical Actuator and Flexible Electronic Applications” *ACS applied Materials&Interfaces* Jun 12;11(23):20615-20627 (2019.05) I.F. = 8.456

42. Rajendran J.C. Bose¹, Minwoo Kim¹, Ji Hyun Chang, Ramasamy Paulmurugan, James J Moon, Won-Gun Koh, Hansoo Park, **Soo-Hong Lee*** "Biodegradable polymers for modern vaccine development" *Journal of Industrial and Engineering Chemistry*, 77:12-24 (2019.04) I.F. = 4.978
43. Jae-Yong Lee, **Soo-Hong Lee**, Kwang-Soo Kim, Keun-Hong Park, Kyung-Soon Park* "Ell3 functions as a critical decision maker at the crossroad between stem cell senescence and apoptosis" *Stem Cell Research & Therapy*, 10(1):32, (2019.01) I.F. = 4.627

The year 2018

44. Rajendran JC Bose¹, Byoung-Ju Kim¹, Yoshie Arai, In-bo Han, James J. Moon, Ramasamy Paulmurugan, Hansoo Park*, **Soo-Hong Lee*** "Bioengineered stem cell membrane functionalized nanocarriers for therapeutic targeting of severe hindlimb ischemia" *Biomaterials*, 185:360-370 (2018.12) I.F. = 10.273
45. Bogyu Choi, Deogil Kim, Inbo Han, **Soo-Hong Lee*** "Microenvironmental Regulation of Stem Cell Behavior Through Biochemical and Biophysical Stimulation" *Advances in Experimental Medicine and Biology*, 1064:147-160. (2018.11) I.F. = 2.126
46. Hemant Kumar, **Soo-Hong Lee**, Kyoung-Tae Kim, Xiang Zeng*, Inbo Han* "TRPV4: a Sensor for Homeostasis and Pathological Events in the CNS." *Molecular Neurobiology*, 55(11):8695-8708 (2018.11) I.F. = 4.586
47. Min-Jae Jo, Hemant Kumar, Hari P. Joshi, Hyemin Choi, Wan-Kyu Ko, J. M. Kim, Sean S. S. Hwang, Song Y. Park, Seil Sohn, Alvin B. Bello, Kyoung-Tae Kim, **Soo-Hong Lee**, Xiang Zeng, and Inbo Han* "Corrigendum: Oral Administration of α -Asarone Promotes Functional Recovery in Rats With Spinal Cord Injury." *Frontiers in Pharmacology*, 9:949 (2018.08) I.F. = 3.845
48. Hemant Kumar, Hyemin Choi, Min-Jae Jo, Hari Prasad Joshi, Manjunatha Muttigi, Dario Bonanomi, Sung Bum Kim, Eunmi Ban, Aeri Kim, **Soo-Hong Lee**, Kyoung-Tae Kim, Seil Sohn, Xiang Zeng, and Inbo Han* "Neutrophil elastase inhibition effectively rescued angiopoietin-1 decrease and inhibits glial scar after spinal cord injury." *Acta Neuropathologica Communications*, 6(1):73 (2018.08) I.F. = 5.414
49. Bogyu Choi and **Soo-Hong Lee*** "Nano/Micro-Assisted Regenerative Medicine" *International Journal of Molecular Sciences*, 19(8):pii2187 (2018.07) I.F. = 5.883
50. Kwang-Sook Park, Byoung-Ju Kim, Eugene Lih, Wooram Park, **Soo-Hong Lee**, Yoon Ki Joung, Dong Keun Han* "Versatile effects of magnesium hydroxide nanoparticles in PLGA scaffold-mediated chondrogenesis" *Acta Biomaterialia*, 73:204-216 (2018.06) I.F. = 6.638
51. Byoung Ju Kim¹, Yoshie Arai¹, Bogyu Choi, Sunghyun Park, Jinsung Ahna, Inbo Han*, **Soo-Hong Lee*** "Restoration of articular osteochondral defects in rat by a bi-layered hyaluronic acid hydrogel plug with TUDCA-PLGA microsphere" *Journal of Industrial and Engineering Chemistry*, 61:295-303 (2018.05) I.F. = 4.978
52. Alvin Bacero Bello, Hansoo Park*, **Soo-Hong Lee*** "Current Approaches in Biomaterial-Based Hematopoietic Stem Cell Niches" *Acta Biomaterialia*, 72:1-15 (2018.05) I.F. = 6.638
53. Jin-Su Kim¹, Daegi Kwon¹, Byung-Hyun Cha, Bo Kyung Moon, Younghyen Jeong, In-Bo Han, Hansoo Park*, **Soo-Hong Lee*** "Restoration of chondrogenic properties of degenerative nucleus pulposus cells by repeated co-culture with adipose-derived stem cells" *Journal of Industrial and Engineering Chemistry*, 60:185-191 (2018.04) I.F. = 4.978
54. Dong-Jin Lim, Jeremy B. Vines, Hansoo Park*, **Soo-Hong Lee*** "Microneedles: A Versatile Strategy for Transdermal Delivery of Biological Molecules" *International Journal of Biological Macromolecules*, 110:30-38 (2018.04) I.F. = 3.671
55. Shin Hyuk Kang, Chanutchamon Sutthiwanjampa, Chan Young Heo, Woo Seob Kim, **Soo-Hong Lee***, Hansoo Park* "Current Approaches Including Novel Nano/Microtechniques to Reduce Silicone Implant-Induced Contracture with Adverse Immune Responses" *International Journal of Molecular Sciences*, 19(4):1171 (2018.04) I.F. = 4.183
56. Wan-Kyu Ko, Seong Jun Kim, Min-Jae Jo, Hyemin Choi, Donghyun Lee, Il Keun Kwon, **Soo-Hong Lee**, In-Bo Han*, Seil Sohn* "Ursodeoxycholic Acid Inhibits Inflammatory Responses and Promotes Functional Recovery After Spinal Cord Injury in Rats." *Molecular Neurobiology*, 56(1):267-277 (2019.01) I.F. = 4.586

57. Manjunatha S Muttigi, Byoung Ju Kim, Bogyu Choi, Arai Yoshie, Hemant Kumar, Inbo Han, Hansoo Park*, **Soo-Hong Lee*** “Matrilin-3 codelivery with adipose-derived mesenchymal stem cells promotes articular cartilage regeneration in a rat osteochondral defect model” *Journal of Tissue Engineering and Regenerative Medicine*, 12(3):667-675 (2018.03) I.F.= 3.319
58. Byoung Ju Kim, Yoshie Arai, Eun-Mi Park, Sunghyun Park, Alvin Bello, InBo Han, **Soo-Hong Lee*** “Osteogenic potential of tauroursodeoxycholic acid (TUDCA) as an alternative to rhBMP-2 in a mouse spinal fusion model”, *Tissue Engineering Part A*, 24(5-6):407-417 (2018.03) I.F. = 3.616
59. Hemant Kumar, Min-Jae Jo, Hyemin Choi, Manjunatha S. Muttigi, Seil Shon, Byung-Joo Kim, **Soo-Hong Lee***, In-Bo Han* “Matrix Metalloproteinase-8 Inhibition Prevents Disruption of Blood-Spinal Cord Barrier and Attenuates Inflammation in Rat Model of Spinal Cord Injury” *Molecular Neurobiology*, 55(3):2577-2590 (2018.03) I.F. = 4.586
60. Sejong Huh¹, Hwa-Ryung Song¹, Geuk-Rae Jeong, Hyejin Jang, Nan-Hee Seo, Ju-Hyun Lee, Ji-Yeun Yi, Byongsun Lee, Hyun Woo Choi, Jeong Tae Do, Jin-Su Kim, **Soo-Hong Lee**, Jae-Won Jung, Taekyu Lee, Jaekyung Shim, Myung-Kwan Han*, Tae-Hee Lee* “Suppression of the ERK–SRF axis facilitates somatic cell reprogramming” *Experimental & Molecular Medicine*, 50(2):e448 (2018.02) I.F. = 5.063
61. Tae-Jin Lee, Min Suk Shim, Taekyung Yu, Kyunghee Choi, Dong-Ik Kim, **Soo-Hong Lee***, Suk Ho Bhang* “Bioreducible Polymer Micelles Based on Acid-degradable Poly(ethylene glycol)-poly(amino ketal) for Enhancing Stromal Cell Derived Factor-1 α Gene Transfection Efficacy and Therapeutic Angiogenesis of Human Adipose Derived Stem Cells” *International Journal of Molecular Sciences*, 19(2):529 (2018.02) I.F. = 4.183
62. Rajendran JC Bose, Ramasamy Paulmurugan, James Moon, **Soo-Hong Lee***, Hansoo Park* “Cell Membrane-Coated Nanocarriers – the Emerging Targeted Delivery System for Cancer Theranostics” *Drug Discovery Today*, 23(4):891-899 (2018.02) I.F. = 6.88

The year 2017

63. Hemant Kumar¹, Doo-Hoe Ha¹, Eun-Jong Lee¹, Jun Hee Park, Jeong Hyun Shim, Tae-Keun Ahn, Kyoung-Tae Kim, Alexander E. Ropper, Seil Sohn, Chung-Hun Kim, Devang Kashyap Thakor, **Soo-Hong Lee***, In-Bo Han* “Safety and tolerability of intradiscal implantation of combined autologous adipose-derived mesenchymal stem cells and hyaluronic acid in patients with chronic discogenic low back pain: 1-year follow-up of a phase I study” *Stem Cell Research & Therapy*, 8(1):262 (2017.11) I.F. = 4.211
64. Kyoung-Won Ko, Bogyu Choi, Sunghyun Park, Yoshie Arai, Won Chul Choi, Joong-Myung Lee, Hojae Bae, In-Bo Han*, **Soo-Hong Lee*** “Down-Regulation of Transglutaminase 2 Stimulates Redifferentiation of Dedifferentiated Chondrocytes through Enhancing Glucose Metabolism.” *International Journal of Molecular Sciences*, 18(11):2359 (2017.11) I.F. = 3.226
65. Sajjad Ashraf, Jongchan Ahn, Byung-Hyun Cha, Jin-Su Kim, Inbo Han, Hansoo Park, **Soo-Hong Lee*** “RHEB: a potential regulator of chondrocyte phenotype for cartilage tissue regeneration” *Journal of Tissue Engineering and Regenerative Medicine*, 11(9):2503-2515 (2017.09) I.F. = 3.989
66. Hemant Kumar, Alexander E. Ropper, **Soo-Hong Lee***, Inbo Han* “Propitious therapeutic modulators to prevent blood-spinal cord barrier disruption in spinal cord injury” *Molecular Neurobiology*, 54(5):3578-3590, (2017.07) I.F. = 6.19
67. Wan-Kyu Ko¹, **Soo-Hong Lee¹**, Sung Jun Kim, Min-Jae Jo, Hemant Kumar, InBo Han*, Seil Sohn* “Anti-inflammatory effects of ursodeoxycholic acid by lipopolysaccharide-stimulated inflammatory responses in RAW 264.7 macrophages”, *PLoS One*, 12(6):e0180673 (2017.06, co-first author) I.F. = 3.057
68. Sajjad Ashraf, In-Bo Han, Hansoo Park*, **Soo-Hong Lee*** “Role of RHEB in Regulating Differentiation Fate of Mesenchymal Stem Cells for Cartilage and Bone Regeneration” *International Journal of Molecular Sciences*, 18(4):piiE880 (2017.04), I.F. =3.257
69. Inho Kim, **Soo-Hong Lee**, Byungkwon Lim, Bum Jun Park, Suk Ho Bhang, Taekyung Yu* “Aqueous-phase synthesis of metal nanoparticles using phosphates as stabilizers” *Korean Journal of Chemical Engineering*, 34(1):231-233 (2017.01) I.F. = 1.408

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70. In Bo Han, Min Soo Kim, **Soo Hong Lee**, Jin Kwon Kim, Se Hoon Kim, Jong Hee Chang*, Yang D. Teng* “Down-regulation of MicroRNA-126 in Glioblastoma and Its Correlation with Patient Prognosis: A Pilot Study” *Anticancer Research*, 26(12): 6691-6697, (2016.12) I.F. = 1.895
71. Haram Lee¹, Sooseok Lim¹, Mallinath S. Birajdar, **Soo-Hong Lee**^{*}, Hansoo Park* “Fabrication of FGF-2 immobilized electrospun gelatin nanofibers for tissue engineering” *International Journal of Biological Macromolecules*, 93(Pt B):1559-1566 (2016.12) I.F. = 3.138
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4. Byung Joo Kim, Jong Chan Ahn, Yoshie Arai, In Bo Han, **Soo Hong Lee*** "유전자 전달에 의한 중간엽 줄기세포의 골분화와 골조직재생 증대" *대한운동계줄기세포재생의학회지*, 2(2)L 35-40 (2015.11)
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6. Jin-Su Kim, Seung-Taeh Hwang, **Soo-Hong Lee*** "Porous Membrane Culture Method for Expansion of Human Pluripotent Stem Cells" *Stem Cell Renewal and Cell-Cell Communication. Methods in Molecular Biology* 2015, 1212:65-72 (2015.01)

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Han*, **Soo-Hong Lee*** “Delivery of growth factor-associated genes to mesenchymal stem cells for cartilage and bone tissue regeneration” *Biomaterials and Biomedical Engineering*, 1(3):143-155 (2014.09)

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8. Seung-Taeh Hwang, Suk-jun Lee, Sun-Woong Kang, **Soo-Hong Lee** “Human embryonic stem cell culture technique on mitomycin C-free feeder cells using porous membrane” *Tissue Engineering and Regenerative Medicine*, 6(14) 1375-1380 (2009.12)
9. **Soo-Hong Lee**, Hyung Min Chung, Young Ha Kim, Soo-Hyun Kim “RGD direct conjugation using co-solvent system to increase cell attachment on poly(lactide-co-glycolide) without change in hydrophobic/hydrophilic properties” *Key Engineering Materials*, 342-343:157-160 (2007.10)
10. Jumi Kim, Sung-Hwan Moon, **Soo-Hong Lee**, Dong-Ryul Lee, Hyung-Min Chung “Isolation and in vivo study of human embryonic stem cells derived endothelial cells to investigate feasibility for vascular tissue regeneration” *Tissue Engineering and Regenerative Medicine* 3(4) 451-456 (2006.12)

I-3. Domestic papers

The year 2016

1. Rajendran JC Bose, **Soo-Hong Lee***, Hansoo Park* “Lipid-based surface engineering of PLGA nanoparticle for drug and gene delivery applications” *Biomaterials Research*, 20(1):34 (2016.10)
2. Min Jeong Kim, Yong Cheol Shin, Jong Ho Lee, Seung Won Jun, Chang-Seok Kim, Yunki Lee, Jong-Chul Park, **Soo-Hong Lee**, Ki Dong Park, Dong-Wook Han “Multiphoton imaging of myogenic differentiation in gelatin-based hydrogels as tissue engineering scaffolds” *Biomaterials Research*, 20(1):8-14 (2016.03)

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3. Byoung Ju Kim, Jongchan Ahn, Yoshie Arai, In Bo Han, **Soo-Hong Lee*** “Bone tissue regeneration and osteogenic differentiation of mesenchymal stem cells by gene transfer” *Korean Society of Stem Cell and Regenerative Medicine for Locomotor System*, 2(2):35-40 (2015.11)

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4. Sung Geum Lee, Sung-Hwan Moon, **Soo-Hong Lee**, Hyung Min Chung* “Passaging method for expansion of undifferentiated human embryonic stem cells by pipetting technique” *Reproductive & Development Biology*, 30(4):287-291 (2006.12)
5. **Soo-Hong Lee**, Yang-Kyoo Han, Eng Ryul Kim, Seung Soon Im* “Synthesis and polymerization of new sequentially ordered aliphatic ester diol” *Polymer Korea*, 21(6):926-936 (1997)

II. Books

1. **Soo-Hong Lee**, Byung-Hyun Cha, Yoshie Arai, *Regenerative Medicine (Korean) Editor for Small Molecule Therapy*, Chapter 48, 945-963 (2018.01)
2. **Soo-Hong Lee**, Yoshie Arai, Kyoung-Won Ko, Nathaniel S. Hwang, Seung-Woo Cho, *Biomaterials (Korean) Editor for Stem Cells*, Chapter 14, 406-464 (2016.02)
3. **Soo-Hong Lee**, *Experiment of Tissue Engineering & Regenerative Medicine (Korean) Editor for Cell Culture Part*, Chapter 10, 12 & 19 (2012.12)
4. Young Ha Kim, Soo Hyun kim, Seoung Soon Im, **Soo-Hong Lee**, Ji Won Pack and Jun Wuk Park, “Characteristics and Application of Star-shaped Architecture for PL and PGCL”, in “Biodegradable Polymers and Plastics”, Ed. Chiellini and Solaro, 223-241, Kluwer Academic/Plenum Publishers, New York (2003)

III. Patents

The year 2022

1. **Soo-Hong Lee**, Yoshie Arai, Siyeon Kim, Jisung Kim, Alvin Bello, “Extracellular vesicles

overexpressed fibronectin fragment protein and use for drug delivery thereof” KP Appl. 10-2022-0137524 (2022.10.24)

2. **Soo-Hong Lee**, Yoshie Arai, Woong-Jin Cho, Hyoeun Park, “Mass production method of functional extracellular vesicles through cell spheroid incorporated with differentiation stimulator-loaded microparticles” KP Appl. 10-2022-0071587 (2022.06.13)
3. **Soo-Hong Lee**, Yoshie Arai, Woong-Jin Cho, “Nanoparticles comprising bile acids and methods of manufacturing the same” KP Appl. 10-2388779 (2022.04.15)
4. **Soo-Hong Lee**, Byoung-ju Kim, In-ho Baek, Hye-Jong Choi, “Growth plate tissue-derived cells, their by-products, and a skeleton comprising its extracellular matrix as an active ingredient Composition for promoting direct regeneration” KP Appl. 10-2022-0064199 (2022.05.25)

The year 2021

5. **Soo-Hong Lee**, Yoshie Arai, “Surface-modified exosomes using bile acid, method for producing thereof and method for inducing proliferation of cells” KP Appl. 10-2285913 (2021.07.29)
6. **Soo-Hong Lee**, Byoung-ju Kim, In-ho Baek, Hye-Jong Choi “Growth plate tissue-derived cells, their by-products, and a skeleton comprising its extracellular matrix as an active ingredient Composition for promoting direct regeneration” KP Appl. 10-2021-0075497 (2021.06.10.)

The year 2020

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8. **Soo-Hong Lee**, Yoshie Arai, Hansoo Park, Alvin Bello, Sunghyun Park, “Cell differentiation composition comprising dual microparticles, and cell differentiation method using same incorporated with controlled and sustained releasing microparticles” KP Appl. 10-2020-0079373 (2020.06.29)
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11. **Soo-Hong Lee**, Inbo Han, Jae Min Cha, “A Composition for Transplantation Comprising Tissue Beads Derived from Stem Cell Spheroids” KP Appl. 10-2019-0145787 (2019.11.14)
12. **Soo-Hong Lee**, Yoshie Arai “Surface-modified exosome using bile acid, its production method and cell proliferation induction method” KP Appl. 10-2019-0009347 (2019.01.24)

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13. Dongwon Lee, **Soo-Hong Lee**, Jeonghun Lee, Yoshie Arai, Hyoeun Park “Novel polymer compounds including UDCA and usage” KP Appl. 10-2018-0014100 (2018.02.05)

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14. **Soo-Hong Lee**, Jin-Su Kim, Bogyu Choi, Inbo Han, Byung-Hyun Cha, Geunhui Lee “Sorting method of mesenchymal stem cell derived from pluripotent stem cell” PCT Appl. PCT/KR2017/011488 (2017.10.18); PCT WO/2018/074826 (2018.04.26)

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15. **Soo-Hong Lee**, Ashraf Sajjad, Seah Park, Byung-Hyun Cha, Jongchan Ahn, Seongeun Byun “Methods for inhibiting senescence and dedifferentiation of chondrocytes using Rheb gene” KP Appl. 10-2014-0134679 (2014.10.07); KP Open 10-2016-0042196 (2016.04.19); KP 10-16766090000 (2016.11.10)

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17. Inbo Han, **Soo-Hong Lee** “Composition including mesenchymal stem cell derived from adipose tissue and hyaluronic acid derivative and method for preparing the same, and method of preventing or treating low back pain using the same” KP Appl. 10-2016-0092903 (2016.07.21); KP Open 10-2017-0015127 (2017.02.02); KP 10-18857290000 (2018.07.31); USA Appl. US15/655,273 (2017.07.20); USA US20180021380A1 (2018.01.25)
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19. **Soo-Hong Lee**, Bogyu Choi, Kyoung-Won Ko “Method for preparing induced pluripotent stem cell using hydrogel” KP Appl. 10-2016-0007739 (2016.01.21); KP Open 10-2017-0087762 (2017.07.31)

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21. **Soo-Hong Lee**, Kwang-Sook Park “Elasticity-controlled cell culture plate and method for enhancing efficient production of induced pluripotent stem cells using the same” KP Appl. 10-2015-0014597 (2015.01.29), KP Open 10-2016-0093491 (2016.08.08); KP 10-16627900000 (2016.09.28)

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22. Han Soo Park, Ah Yeon Ryang, Ha Ram Lee, **Soo-Hong Lee**, In Bo Han, Byoung Ju Kim “Trypsin free cell stamp system using scaffold and method for cell culturing using thereof” KP Appl. 10-2014-0141828 (2014.10.20); KP Open 10-2016-0046970 (2016.05.02); KP 10-19199530000 (2018.11.13); PCT Appl. PCT/KR2015/011045 (2014.10.20); PCT WO2016064154A1 (2016.04.28)
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24. Hyun Ok Kim, **Soo-Hong Lee**, Kwang-Sook Park “Composition for Inducing Erythroid Differentiation” KP Appl. 10-2013-0059159 (2013.05.24); KP 10-14427830000 (2014.09.15)
25. **Soo-Hong Lee**, Jongchan Ahn, Byung-Hyun Cha, Jin-Su Kim, Sang Gyu Park, Hanna Lee “Method for converting dedifferentiated chondrocytes to normal chondrocytes” KP Appl. 10-2014-0024810 (2014.03.03); KP Open 10-2015-0103770 (2015.09.14); KP 10-15817030000 (2015.12.24)

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29. Dong Sung Kim, **Soo Hong Lee**, Kyoung Je Cha, Kwang Sook Park “Container for culturing cells having nanostructures, and preparation method thereof” KR1020110123730A (2011.11.24) PCT/KR2012/002267 (2012.03.28), US20140295539A1 (2014.10.02)
30. **Soo-Hong Lee**, Sun-Woong Kang, Jin Soo Kim, Byung-Hyun Cha “Process for preparing scaffold for tissue-reconstruction using biodegradable polymer having thermal stability” PCT Appl. PCT/KR2011/000799 (2011.02.08); PCT WO2011099736A3 (2012.01.05)
31. **Soo-Hong Lee**, Sun-Woong Kang, Jae-Hwan Kim, Inbo Han, Dong-Ah Shin “Process for the differentiation of adipose-derived mesenchymal stem cells to chondrocytes and method for analyzing chondrogenic differentiation efficacy of mesenchymal stem cells” KP Appl. 10-2011-0015369 (2011.02.22); KP Open 10-2012-0096150 (2012.08.30); KP 10-12878610000 (2013.07.15)
32. **Soo-Hong Lee**, Byung-Hyun Cha, Jin-Su Kim, Sang-Kyoo Park, Inbo Han, Dong Ah Shin “Process for the differentiation of adult stem cells to chondrocytes or osteocytes using tauroursodeoxycholic acid” KP Appl. 10-2011-0010937 (2011.02.08); KP Open 10-2012-0090483 (2012.08.17); KP 10-12809110000 (2013.06.26)
33. **Soo-Hong Lee**, Byung-Hyun Cha, Sun-Woong Kang, Jin-Su Kim, Sang-Kyoo Park, Inbo Han, Dong Ah Shin “Pharmaceutical composition for preventing or treating obesity comprising tauroursodeoxycholic acid or its salt” KP Appl. 10-2011-0010938 (2011.02.08); KP Open 10-2012-0099324 (2012.09.10)

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35. **Soo-Hong Lee**, Seung-Taeh Hwang “Method for cultivating human embryonic stem cells or dedifferentiated pluripotent stem cell” PCT Appl. PCT/KR2010/000969 (2010.02.17); PCT WO2011055886A1 (2011.05.12)
36. Dong Sung Kim, **Soo-Hong Lee**, Kyoung Je Cha, Sun-Woong Kang, Min Jin Choi, Bong-Kee Lee, Kwang-Sook Park “Cell culture container and method of fabricating the same” KP Appl. 10-2010-0093313 (2010.09.27); KP Open 10-2012-0031748 (2012.04.04); KP 10-12285780000 (2013.01.25)
37. Tai Hun Kwon, Dong-Woo Cho, Dong Sung Kim, Bong-Kee Lee, Kwang-Sook Park, Sun-Woong Kang, Hyunseop Lee, Moonwoo Rha, Kyoung Je Cha, **Soo-Hong Lee** “Cell culture container and method of fabricating the same” KP Appl. 10-2010-0054988 (2010.06.10); KP Open 10-2011-0135211 (2011.12.16)
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39. **Soo-Hong Lee**, Sun-Woong Kang, Jin Soo Kim, Inbo Han, Dong-Ah Shin “Construct for tissue-reconstruction comprising coating later formed by coating hyaluronic acid or its salt and fibrinogen on surface of support frame” KP Appl. 10-2009-0133756 (2009.12.30); KP 10-11415470000 (2012.04.24)
40. **Soo-Hong Lee**, Sun-Woong Kang, Jin Soo Kim “Kit for forming construct for tissue-reconstruction” KP Appl. 10-2009-0133762 (2009.12.30); KP 10-11622690000 (2012.06.27)
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42. Byung-Soo Kim, Oju Jeon, **Soo-Hong Lee** “Composite scaffold for bone regeneration comprising undifferentiated human adipose-derived stem cell” KP Appl. 10-2007-0077291 (2007.08.01); KP 10-09209510000 (2008.10.01)
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44. Hyung-Min Chung, Sung-Hwan Moon, Ju-Mi Kim, **Soo-hong Lee**, “A process for isolating vascular endothelial cells from embryoid bodies differentiated from embryonic stem cells” KP Appl. 10-2006-0049183 (2006.06.01); KP 10-07444400000 (2007.07.25)

45. Hyung-Min Chung, Sung-Hwan Moon, S.G.,Lee, **Soo-Hong Lee**, “A method for forming cell cluster of human embryonic stem cells and a method for culturing human embryonic stem cells using the same” KP Appl. 10-2006-0049186 (2006.06.01)
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47. Young Ha Kim, Soo Hyun Kim, Ki-Dong Park, **Soo-hong Lee**, “Biodegradable Triblock Copolymers and process for Their Preparation” KP Appl. 10-2000-006745 (2000.02.14), KP Open 10-2000-0006745 (2000.02.14); KP 10-03580270000 (2002.10.10), JP Appl. 13-33281 (2001.02.09), JP Appl. 13-261838 (2001.09.26), USP Appl. US09/778,081 (2001.02.07), USP Open US20020161134A1 (2002.10.31), USP US6476156B1(2002.11.05), JP 3554282(2004.05.14)
48. Young Ha Kim, Soo Hyun Kim, Ki-Dong Park, Sung-Won Choi, **Soo-hong Lee**, Il-Keun Kwon “Synthesis and Fabrication of Porous Biodegradable Polymer Scaffold for Tissue Engineering”, KP Appl. 10-2000-0082684 (2000.12.27), KP Open10-2002-0054061(2002.07.06), KP 10-04084580000 (2003.11.24), USP Appl. US10/144,813 (2002.05.13); USP Open US20030215483A1 (2003.11.20); USP US6946143B2 (2005.09.20)
49. Young Ha Kim, Soo Hyun Kim, **Soo-hong Lee**, Oju Jeon “Sequentially ordered biodegradable lactide (glycolide or lactide/glycolide).epsilon.-caprolactone multi-block copolymer and process for the preparation thereof” KP Appl. 10-2001-0072538 (2001.11.21); USP Appl. US10/298,111(2002.11.14), USP Open US20030139567A1(2003.07.24),USPUS67707171B2(2004.08.03),JP Appl. 14-336846(2002.11.20), JP 15-192774(2003.07.09), JP 3526856(2004.02.27)

IV. International conference

IV-1. Oral presentation

1. **Soo-Hong Lee** “Biomaterials-based cellular reprogramming and stem cell differentiation for personalized regenerative medicine” Emerging Healthcare Materials Research in The Korean Society for Biomaterials for WBC (JSB&ABMC collaborative session), November 28-30, Nagoya, Japan (2021) **INVITED**
2. **Soo-Hong Lee** “Biomaterials accelerate efficiency of cellular reprogramming and stem cell differentiation for personalized regenerative medicine” 2021 Autumn Meeting of The Korean BioChip Society, November 17-19, Jeju, Korea (2021) **INVITED**
3. **Soo-Hong Lee** “Biomaterials based therapeutic approaches stimulating stem cells for tissue regeneration” REMIX-Winter school on Tissue engineering and Regenerative Medicine, January 14-18, Thailand (2020) **INVITED**
4. **Soo-Hong Lee** “Remodeling of collagen matrix by MMP accelerates bone tissue regeneration” International Conference on Nano/Molecular Medicine & Engineering (IEEE-NANOMED 2019) Nov 22, Gwangju, Korea (2019) **INVITED**
5. **Soo-Hong Lee** “Repositioning of Bile Acid for Bone Tissue Regeneration” The 2nd International Combined Meeting of Orthopaedic Research Societies, June 19-22, Montreal, Canada (2019)
6. **Soo-Hong Lee** “Bioengineered stem cell membrane functionalized nanocarriers for therapeutic targeting of severe hindlimb ischemia” Energy Materials and Nanotechnology, Dec 17-20, Auckland, New Zealand (2018)
7. **Soo-Hong Lee** “Remodeling of collagen matrix by matrix metalloproteinase-13 accelerates osteogenic differentiation of stem cells and bone tissue formation” International conference on emerging healthcare materials (ICEHM), Nov 14-15, Seoul, South Korea (2018)
8. **Soo-Hong Lee** “Repositioning of tauroursodeoxycholic acid for bone tissue regeneration” 4th Hoffman Family Symposium, Sep 21-22, National Taiwan University (2016) **INVITED**
9. **Soo-Hong Lee** “The Role of Tauroursodeoxycholic Acid for Bone Tissue Regeneration” APA 2016, Sep 5-7, Mauritius (2016) **INVITED**
10. **Soo-Hong Lee** “The Effect of Tauroursodeoxycholic Acid on Stem Cells followed by Tissue Regeneration” KSSCR 2016, Aug 18-19, Seoul, South Korea (2016) **INVITED**
11. **Soo-Hong Lee** “Drug repositioning of tauroursodeoxycholic acid for bone tissue regeneration” 2016 Spring Meeting of The Korean Society of Industrial and Engineering Chemistry, May 2-4, Yeosu, South Korea (2016) **INVITED**
12. **Soo-Hong Lee** “The Role of Tauroursodeoxycholic Acid for Bone Tissue Regeneration” 2016 KSBB Spring Meeting and International Symposium, Apr 20-22, Gyeongju, South Korea (2016) **INVITED**

13. **Soo-Hong Lee** “Application of Biomaterials for Bone and Cartilage Tissue Regeneration” The 7th Seminar of Korean Society of Osteoarthritis and Cartilage Research, Nov 19, Korea University, South Korea (2015) **INVITED**
14. **Soo-Hong Lee** “Tunable Microenvironments Regulating Expansion and Differentiation of Stem Cells and Cellular Reprogramming” IBEC 2015, Nov 12-14, Gyeongju, South Korea (2015) **INVITED**
15. **Soo-Hong Lee** “Perspective on Tissue Engineering for Future Regenerative Medicine”, NANOPIA 2015, Nov 12-13, Changwon, South Korea (2015) **INVITED**
16. **Soo-Hong Lee** “Development of TGFβ receptor expressing mesenchymal stem cells for cartilage tissue regeneration” 2015 Fall Meeting of Korean Society of Stem Cell and Regenerative Medicine for Locomotor System, Nov 8, The Catholic University of Korea, Seoul ST. Mary’s Hospital, South Korea (2015) **INVITED**
17. **Soo-Hong Lee** “Regulation of stem cells differentiation and cellular reprogramming on tunable substrates” IUMRS 2015, Oct 25-29, Jeju, South Korea (2015) **INVITED**
18. **Soo-Hong Lee** “What Scaffolds Are Used in Stem Cell Therapy?” The 7th Training Course of The Korean Orthopedic Pain Society, Oct 25, Chonnam National University Bitgoeul Hospital, South Korea (2015) **INVITED**
19. **Soo-Hong Lee** “Regulation of stem cells differentiation and cellular reprogramming by altering physical properties of substrate” Korea-China Symposium, Oct 23-26, (2015) **INVITED**
20. **Soo-Hong Lee** “The Role of Tauroursodeoxycholic Acid on Stem Cells for Bone Tissue Regeneration” 2015 Fall Meeting of The Korea Society for Biomaterials, Sep 17-18, CHA Bio Complex, South Korea (2015) **INVITED**
21. **Soo-Hong Lee** “Regulation of stem cells and cellular reprogramming on tunable substrates” 2015 Spring Meeting of The Korean BioChip Society, May 20-21, CHA Bio Complex, South Korea (2015) **INVITED**
22. **Soo-Hong Lee** “The Role of Tauroursodeoxycholic Acid on Stem Cells for Bone Tissue Regeneration” 2015 Spring International Convention of The Pharmaceutical Society of Korea , Apr 23-24, Osong, South Korea (2015) **INVITED**
23. **Soo-Hong Lee** “Regulation of Stem Cells Functions and Regenerative Medicine”, Polymer New Technologies Course 2015, Apr 8, Daejeon, South Korea (2015) **INVITED**
24. **Soo-Hong Lee** “Regulation of chondrogenic characteristics of adipose-derived stem cell followed by cartilage tissue regeneration” International of adipose stem cells conference, Jan 30 (2015) **INVITED**
25. **Soo-Hong Lee** “Modification of scaffolds thermally fabricated by 3D printing for enhancing cartilage and bone tissue regeneration” 2014 China-Korea Symposium on Biomimetic and Regenerative Medical Materials, Nov 26-28, Wuhan, China (2014) **INVITED**
26. **Soo-Hong Lee** “Physical and Chemical Surface Microenvironments Regulating Expansion and Differentiation of Stem Cells”, TERMIS-AP, Oct 22-26, Wuzhen, Shanghai (2013)
27. Byung-Hyun Cha, Jin-Su Kim, Jong Chan Ahn, Hansoo Park, Sang-Kyoo Park, **Soo-Hong Lee*** “Tauroursodeoxycholic Acid Attenuates Lipid Accumulation and Adipogenesis of Adipose-derived Stem Cells” Controlled Release Society (CRS 2013), Hawaii Convention Center, July 21-24, Honolulu, Hawaii (2013)
28. **Soo-Hong Lee** “The regulation of the oxidative stress response in chondrocytes during in vitro expansion followed by cartilage tissue regeneration” World Congress on Biomimetics, Artificial Muscles and Nano-Bio, August 26-30, Jeju Grand Hotel, Jeju, South Korea (2013) **INVITED**
29. **Soo-Hong Lee** “Engineering adipose-derived stem cell and scaffold for cartilage and bone tissue regeneration” 15th International Biotechnology Symposium and Exhibition, September 16-21, EXCO, Daegu. South Korea (2012) **INVITED**
30. **Soo-Hong Lee** “POROUS MEMBRANE TECHNIQUE FOR REGULATING STEM CELL EXPANSION AND DIFFERENTIATION” The 3rd Asian Biomaterials Congress, Sep 16-20, Busan, South Korea (2011) **INVITED**
31. **Soo-Hong Lee** “Porous membranes as a physical barrier support human ES and iPS cell culture on proliferating human ASCs ” BIT's 3rd Annual World Congress of Regenerative Medicine & Stem Cells, Dec 5-7, Shanghai, China (2010).
32. **Soo-Hong Lee** “Bone formation of Human Embryonic Stem Cells-derived Osteogenic Cells and adipose derived stromal cells using PLGA/Hydroxyapatite Composite Scaffold” Orthopedic Research Society, Feb 21-25, Las Vegas (2009).

33. **Soo-Hong Lee**¹, Sinae Kim¹, Sang-Soo Kim², Seung Eun Ahn¹, So-Jung Gwak³, Byung-Soo Kim² and Hyung-Min Chung¹ “Bone formation of Human Embryonic Stem Cells-derived Osteogenic Cells in PLGA/Hydroxyapatite Composite Scaffold”, 8th World Biomaterials Congress, Amsterdam, May 28-Jun 1 (2008).
34. **Soo-Hong Lee**, Jordan S. Miller, James J. Moon, Jennifer L. West “Protease sensitive fluorogenic peptides to track cellular proteolytic activity during migration”, Biomedical Engineering Society, Sep 28- Oct 1, Baltimore MD, USA (2005)
35. **Soo-Hong Lee**, Jordan S. Miller, Jennifer L. West “Proteolytic degradable hydrogels with fluorogenic substrate for tracking cellular proteolytic activity and migration”, Society for Biomaterials, April 27-30, Memphis, TN, USA (2005)

IV-2. Chair

1. 2023 Spring Meeting of the KSBM(Korean Society for Biomaterials), Mar 31, South Korea (2023)
2. Korea Society for Stem Cell Research 2020 Annual Meeting, Aug 13-14, Seoul, Korea (2020)
3. International Conference on Nano/Molecular Medicine & Engineering (IEEE-NANOMED 2019), Nov 22, Gwangju, Korea (2019)
4. The 5th Asian Biomaterials Congress (ABMC5), May 6-9, Taipei, Taiwan (2015)
5. 2014 China-Korea Symposium on Biomimetic and Regenerative Medical Materials, Nov 26-28, Wuhan, China (2014)
6. International Biomedical Engineering Conference 2014, Nov 20-22, Gwangju, South Korea (2014)
7. World Congress on Biomimetics, Artificial Muscles and Nano-Bio, August 26-30, Jeju Grand Hotel, Jeju, South Korea (2013)
8. 15th International Biotechnology Symposium and Exhibition, September 16-21, EXCO, Daegu. South Korea (2012)

V. Awards

1. **2022 메디포스트 학술상** Award by Korean Tissue Engineering and Regenerative Medicine Society
2. **2021 중견연구자상(Senior Researcher)** Award by The Polymer Society of Korea (2021.04.09)
3. **2021 우수학술상** 동국대학교
4. **2020 CONTRIBUTION** Award by Korean Tissue Engineering and Regenerative Medicine Society
5. **2017 CGBIO Senior Researcher** Award by The Korea Society for Biomaterials
6. **2017 CONTRIBUTION** Award by Korean Tissue Engineering and Regenerative Medicine Society
7. **2014 Minister’s Award** by The Ministry of Science, ICT and Future Planning (a ministry of the Government of South Korea) (2014.12.30)
8. **2013 Best Reviewer** Award by the Basic Science Research Program (2014.01.24)
9. **2010 New Scientist** Award by The Polymer Society of Korea(2010.10.07)
10. **2008 학술진흥재단 50 대 우수성과 선정**(Great Achievements in Academic Research Building Program) “Development of functional hydrogel and novel method for stem cells culture” (2008.11.21).
11. **2007 교육과학기술부 100 대 우수성과**(Top 100 Achievements of 2010 National Research and Development) “Development of functional hydrogel and novel method for stem cells culture” (2008.12.05)
12. **2009 Intramural Medical Science** Award by CHA University (2009.02.25)

VI. Academic activities

Year	Societies & Associations	Position
2008	2008 Tissue Engineering and Regenerative Medicine International Society (TERMIS)	Academics Committee
2009	2010 The Korea Society for Biomaterials	Academics Committee
2010	2010 Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Academics Committee
2010	2011 Medical Division, The Polymer Society of Korea	General Affairs
2010	2012 The Korea Society of Medical & Biological Engineering	Academics Committee
2011	2012 Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Director of Education
2011	2012 The Korea Society for Biomaterials	Chair, Academics Committee
2012	2012 International Biotechnology Symposium and Exhibition	Local Scientific Committee
2013	2013 The 7 th World Congress on Biomimetic, Artificial Muscles and Nano-Bio	Program committee
2013	2013 The Korea Society for Biomaterials	General Affairs, Director of Tissue Engineering Division
2014	2014 The Korea Society for Biomaterials	Managing Director
2013	2015 Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Director of Education
2013	2015 Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Director of Membership
2013	2015 Research Council of Biomaterials for The Regulating Stem Cells Functions	Congress President
2014	2015 The Korea Society for Biomaterials	Vice-Chairman of Compilation Board for 20-year History
2015	2016 Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Director of Membership
2015	2016 The Korea Society for Biomaterials	Internal Auditor
2010	2017 World Journal of Stem Cell I.F. = 5.326 (JCR2020)	Editorial Board Member
2014	2017 Biomaterials & Biomedical Engineering (BME)	Editorial Board Member
2017	2017 IEEE Engineering in Medicine and Biology Society (EMBC17) International Conference	Organizing Committee

2017	2018	Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	General Affairs
2017	2018	The Korea Society for Biomaterials	Vice-Chairman of Academics Board
2017	2018	The Korea Society for Stem Cell Research (KSSCR)	Academic Secretary
2019	2019	Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Director of General Affairs
2019	2019	The Korea Society for Biomaterials	Chairman of public finance
2019	2019	The Polymer Society of Korea	Vice-Chairman of Editorial Board
2012	Present	BioMed Research International I.F. = 3.411 (JCR2020)	Editorial Board Member
2013	Present	Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Associate Editorial Board Member
2013	Present	Tissue Engineering and Regenerative Medicine I.F. = 4.169 (JCR2020)	Associate Editor
2015	Present	Bio-Therapeutics Delivery Society (BTDS)	Academics Committee
2015	Present	Korean Society of Stem Cell and Regenerative Medicine for Locomotor System	Academics Committee
2015	Present	Macromolecular Research IF 2.227 (JCR2020)	Associate Editor
2015	Present	The Polymer Society of Korea	Vice-Chairman of Editorial Board
2016	Present	Convergence Research Department, National Research Council of Science & Technology	Chairman of Responsibility Assessment Board
2016	Present	Institute of Science & Technology (ICT) Convergence Research Department, Basic Research Division, National Research Foundation of Korea	Review Board (RB)
2016	Present	Tissue Engineering	Editorial Board Member
2017	Present	Hanyang University	Educational Advisor of University-Industry Linkages
2017	Present	International Journal of Biological Macromolecules I.F. = 6.953 (JCR2020)	Guest Editor for the special issue
2017	Present	International Journal of Molecular Sciences I.F. = 5.924 (JCR2020)	Guest Editor for the special issue
2017	Present	Seoul Biohub	Knowledge Community Review Board
2018	Present	The Polymer Society of Korea	Councilor

2019	Present	The Korea Society for Biomaterials	Congress Vice-President
2020	Present	The Korea Society for Biomaterials	Program Chair
2020	Present	Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Chairman of General Affairs
2020	Present	Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)	Vice-Chairman of Editorial Board
