



Sang Jin Lee, PhD

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Candidate Statement: It is an honor to be nominated to run as a board member of the International Society for Biofabrication (ISBF). The tremendous growth of the ISBF has made our field more vibrant than ever before. Fortunately, my first ISBF task was as the Conference Scientific Program Chair at the 2016 Annual Meeting. Continually, I have been an active member of Award Committee since 2016. I would be particularly interested in developing a tool that facilitates interdisciplinary collaboration in the field of biofabrication. I would be most honored to use my experiences and skills in service to the society.

Professional Appointments and Activities:

- Editorial Board: J Biotech Biomater, Inter J Tissue Regen, JSM Regen Med, Austin J Biomed Eng, Front Bioeng Biotech, Bioprinting, Heliyon
- Reviewer (Journal): JBMR A/B, J Urol, Tissue Eng, Artif Organs, Cells, Tissues, Organs, Macromol Biosci, Transplantation, Urol, JTERM, Acta Biom, J Cardiovasc Transl Res, J Biom Appl, Biomaterials, JBS-PE, Biomacromolecules, Medical Eng Phys, Nature Mat, ACS Appl Mater Inter, Stem Cells Intern, KTERM, Ann Biom Eng, Bone, Cell Proliferation, Polymers, J Royal Soc Inter, Rec Pat Biomed Eng, Polymer Inter, PLOS One, J Mater Sci, J Mater Chem B, Mater Lett, Colloid Surf B, Adv Healthcare Mater, Pharm Rep, Sci Rep, Biofabrication, Adv Funct Mater, Langmuir, Stem Cells, Nat Biotechnol, Stem Cells Transl Med, Biotechnol Bioeng
- Reviewer (Grant): DOD PRORP & PRMRP, Singapore National Science Foundation, FCT Project Grant (Portugal), Musculoskeletal Transplant Foundation, AAAS CBIF, NSC Grant (Poland), Canada Foundation of Innovation, French National research Agency (ANR), Netherlands Organization for Scientific Research (NOW), Swiss National Science Foundation (SNSF)
- Scientific Societies: TERMIS, ACS, MRS, SFB, BMES, KTERM, CRS, and ISBF

Research Grants (Current Active):

- DOD AFRIM II: Engineered small diameter blood vessels for limb reconstruction (PI, \$900K); Engineered testicular tissue organoids for young soldiers with injury to the testes (co-PI, \$1M); Injectable and implantable soft tissue for craniofacial reconstruction (co-I, \$440K); Biofabrication of complex tissue components for craniofacial reconstruction (co-PI, \$1M); Engineering of innervated volumetric skeletal muscle tissue for accelerated restoration of pelvic floor muscle function (co-I, \$1M), 7/1/13-6/30/19
- NIH, P41, Center for Engineering Complex Tissues (CECT) (co-I, \$6.25M) 4/1/17-3/31/22
- NSF, Hybrid bioprinting of regenerative osteochondral tissues (sub-contract PI, \$300K) 10/01/17-09/30/20
- NAVY/X.C.E.L. Program, Integrated organoid testing system (co-I, \$25M) 3/1/13-12/31/18

Selected Recent Publications from 1 Textbook, 33 Book Chapters, 114 Journals, & 15 Patents:

- Merceron TK, Burt M, Seol Y-J, Kang H-W, **Lee SJ**, Yoo JJ, Atala A, A 3-D bioprinted complex structure for engineering muscle-tendon unit, *Biofabrication*, 2015;7:035003.
- Kang H-W, **Lee SJ**, Ko IK, Kengla C, Yoo JJ, and Atala A, A 3D bioprinting system to produce human-scale tissue constructs with structural integrity, *Nat Biotechnol*, 2016;34(3):312-9.
- Jung SY, **Lee SJ**, Kim HY, Par HS, Wang Z, Kim HJ, Yoo JJ, Chung SM, and Kim HS, 3D printed polyurethane prosthesis for partial tracheal reconstruction: a pilot animal study, *Biofabrication* 2016;8:045015.
- Kengla C, Renteria E, Wivell C, Atala A, Yoo JJ, and **Lee SJ**, Clinical relevant bioprinting workflow and imaging process for tissue construct design and validation, *3D Printing Manufac*, 2017;4(4):239-247.
- Wang Z, **Lee SJ**, Cheng H-J, Yoo JJ, and Atala A, 3D bioprinted functional and contractile cardiac tissue constructs. *Acta Biomater*, 2018;70:48-56.
- Lee JM, Yeon YK, Kim SH, Lee YJ, Seo YB, Sultan T, Chao J, Yoon S-I, **Lee SJ**, Yoo JJ, and Park CH, Precisely printable and biocompatible silk fibroin bio-ink for digital light processing 3D printing, *Nat Comm*. 2018;9:1620.
- Gao T, Gillispie GJ, Copus JS, PR AK, Seol Y-J, Atala A, Yoo JJ, and **Lee SJ**, Optimization of bioink printability using rheological parameters: a systematic approach, *Biofabrication*, 2018;10(3):034106.
- Moroni L, Burdick JA, Highley C, **Lee SJ**, Morimoto Y, Takeuchi S, and Yoo JJ, Biofabrication of 3D tissue models and regenerative medicine, *Nat Rev Mater*. 2018;3:21-37.
- Kim JH, Seol Y-J, Ko IK, Kang H-W, Lee YK, Yoo JJ, Atala A, and **Lee SJ**, 3D Bioprinted Human Skeletal Muscle Constructs for Muscle Function Restoration, *Sci Rep*, 2018;*in press*