

Motivation Statement – Sang Jin Lee

I am currently a Professor at Wake Forest Institute for Regenerative Medicine (WFIRM), Wake Forest University School of Medicine. I received my Ph.D. in Chemical Engineering at Hanyang University, Seoul, Korea in 2003 and took a postdoctoral fellowship in the Laboratories for Tissue Engineering and Cellular Therapeutics at Harvard Medical School and Children's Hospital Boston and the WFIRM where he is currently a faculty member.

The field of regenerative medicine has always been my passion due to its translational nature. Although my educational training involved polymer sciences and chemical engineering, I recognized the need to acquire additional scientific knowledge and technical skills in multiple disciplines and a broader vision to better conduct research investigations in this field. Currently, my research focuses on 3D bioprinting strategy that can manufacture complex, multi-cellular living tissue constructs. In order to establish a clinically relevant bioprinting workflow, my team has developed multiple biomaterial formulations as bioinks that provide the tissue-specific biological microenvironment needed for the successful delivery of cells to discrete locations within the 3D tissue architectures.

I have published leading, peer-reviewed, international journals in the field of regenerative medicine such as Nature Biotechnology, Nature Communications, Biomaterials, and so on. This includes 150 peer-reviewed journal articles, 37 book chapters, and 15 patents/applications. These publications indicate the interdisciplinary quality of my scholarship. Additionally, I was the lead editor for two books titled "In Situ Tissue Regeneration: Host Cell Recruitment and Biomaterial Design (Elsevier, 2016)" and "Organ Tissue Engineering (Springer Nature, 2021). These books included chapters by international and multidisciplinary groups of scholars.

Since 2004, I have mentored 180 trainees at all career levels which include 19 graduate students, 33 postdoctoral fellows, 8 research trainees, 39 visiting scholars, 8 laboratory technicians, 13 undergraduate students, 30 summer internship undergraduate students, 2 high school internship students, and 28 international graduate students. I continue to develop mentoring skills through various means to effectively train young scientists so that they could successfully pursue their careers in science.

I am truly honored to be nominated for continued service to the International Society for Biofabrication (ISBF) as a member of the board of directors. The Board of Directors for ISBF plays an essential role in guiding the organization and shaping its future. The ISBF has been my professional home organization since I served as a Program Chair at the 2016 Biofabrication Conference in Winston-Salem, NC, USA. The field of biofabrication has undergone significant changes, and the pace of change seems to be happening at an ever-increasing speed. If elected as a board member, I will work with the ISBF leadership to further our strategic goals as an organization, and to advance the profession as opportunities arise. There are many ways to do this, including collaboration with industry and other scientific societies, working with our divisions and local sections, and other emerging leaders in the profession to take an active role in furthering these goals. The role of the Board of Directors is to ensure that the ISBF remains strong, the field remains vital, and that our members continue to have rewarding professional opportunities. I am fully committed to all of these.