**CURRICULUM VITAE**

**JINAH JANG**

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**CONTACT INFORMATION**

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| Work:Phones:E-mail:Web: | Room 4004, Bio Open Innovation Center, Pohang University of Science and Technology (POSTECH), 77 Cheongam-ro, Namgu, Pohang, Gyeongbuk, Republic of Korea (37673)+82-54-279-8821 (Office)+82-10-8757-3055 (Cell)jinahjang@postech.ac.kr[www.btempostech.com](http://www.btempostech.com) |

**PERSONAL DATA**

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| Birth:Citizenship: | 09/05/1987Republic of Korea |

**EDUCATION**

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| 03/2010-08/2015: | **Ph. D.** in Biomedical Engineering (Integrative Biosciences and Biotechnology), Pohang University of Science and Technology (POSTECH), Republic of KoreaAdvisor: Prof. Dong-Woo Cho**Thesis Committee Members:**Prof. Hak Soo Choi (Associate Professor of Radiology, Harvard Medical School; Director of Bioengineering and Nanomedicine Program, Gordon Center for Medical Imaging, Massachusetts General Hospital)Prof. Hun-Jun Park (Associate Professor of Cardiology, The Catholic University of Korea, Seoul St. Mary’s Hospital)Prof. Dong Sung Kim (Mueunjae Chaired Professor of Mechanical Engineering, POSTECH)Prof. Junsang Doh (Associate Professor of Materials Science and Engineering, Seoul National University) |
| 07/2012-02/2013 | **Visiting Student,** Department of Bioengineering, University of Washington, Seattle, WA, USAAdvisor: Prof. Deok-Ho Kim (currently at JHU) |
| 03/2006-02/2010: | **B.S.** in Mechanical Design and Automation Engineering, Seoul National University of Science & Technology, Republic of Korea Advisor: Prof. Dong Young Jang**B.S.** in Manufacturing Systems and Design of Engineering, Northumbria University, Newcastle, United Kingdom (Graduation with **First Class Honor** and **Dual Bachelor’s degrees**) |

**ACADEMIC APPOINTMENTS**

|  |  |
| --- | --- |
| 03/2021-present | **Associate Professor** of Department of Mechanical Engineering, Convergence IT Engineering, and Life Science, POSTECH, Republic of Korea |
| 03/2019-02/2021 | **Assistant Professor** of Department of Convergence IT Engineering and Mechanical Engineering, POSTECH, Republic of Korea |
| 03/2017-02/2021 | **Assistant Professor** of Department of Convergence IT Engineering, Pohang University of Science and Technology (POSTECH), Korea |
| 09/2016-08/2017 | **Visiting Scholar,** Department of Pathology & Bioengineering,Institute for Stem Cell and Regenerative Medicine,Center for Cardiovascular Biology, University of Washington, Seattle, WA, USAAdvisors: Profs. Charles E. Murry, and Kelly R. Stevens |
| 08/2015-02/2017 | **Postdoctoral Fellow,** Department of Mechanical Engineering, POSTECH, Pohang, Republic of KoreaAdvisor: Prof. Dong-Woo Cho |

**ADJUNCT APPOINTMENTS**

|  |  |
| --- | --- |
| 04/2022-present03/2021-present | **Associate Professor** of School of Convergence Science and Technology (Medical Science and Engineering), POSTECH, Republic of Korea**Associate Professor** of Yonsei Institute of Convergence Technology, Yonsei University, Republic of Korea |
| 03/2021-present  | **Associate Professor** of School of Interdisciplinary Bioscience and Bioengineering, POSTECH, Republic of Korea |
| 10/2018-02/2021 | **Assistant Professor** of Yonsei Institute of Convergence Technology, Yonsei University, Republic of Korea  |
| 03/2017-02/2021 | **Assistant Professor** of School of Interdisciplinary Bioscience and Bioengineering, POSTECH, Republic of Korea |

**INDUSTRIAL APPOINTMENTS**

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| 01/2022-present04/2022-present01/2020-present | **Founder, Chief Executive Officer** of BioBricks Co., Ltd**Scientific Advisory Board** of Gradient Bio Convergence Corp.**Scientific Advisory Board** of EdmicBio Inc.  |

**AWARDS AND HONORS**

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| 10/202210/202210/202206/202204/202203/202201/202211/202110/202110/202109/202109/202107/202106/202105/202109/202008/202008/202008/202011/2019 | **Poster Session 1st Place** (to Yoo-mi Choi and Jinah Jang as a senior author), POSTECH Signature conference 2022**Best Oral Presentation Award** (to Seungyeun Cho and Jinah Jang as a senior author), Tissue Engineering and Regenerative Medicine International Society Asia-Pacific Chapter Conference 2022**Best Poster Presentation Awards** (to Sungkeon Cho, Jihwan Kim, Donghwan Kim, Yeonggwon Jo, Dong Gyu Hwang and Jinah Jang as a senior author), Tissue Engineering and Regenerative Medicine International Society Asia-Pacific Chapter Conference 2022**2022 Sandra L. Bouckley Outstanding Young Manufacturing Engineers**, Society of Manufacturing Engineering (SME)**Best paper Award** (to Uijung Yong and Jinah Jang as a senior author), 2022 Spring Meeting of the KSME (The Korean Society of Mechanical Engineers)**Research Excellence Award** (to Seungyeon Cho and Jinah Jang as a senior author), 2022 The Korean Society for Biomaterials Spring Conference**Research Excellence Award** (to Hohyeon Han and Jinah Jang as a senior author), 2021 The Korean Society for Precision Engineering Fall Conference**Best paper Award** (to Yeonggwon Jo and Jinah Jang as a senior author), 2021 The International Conference on Biomedical and Health Informatics (ICBHI 2021)**Research Excellence Award** (to Uijung Yong and Jinah Jang as a senior author), 2021 The Korean Society for Precision Engineering Spring Conference**Research Excellence Award** (to Dong Gyu Hwang and Jinah Jang as a senior author), 2021 The Korean Society for Biomaterials Fall Conference**2021 ISBF Best Poster Presentation Awards** (to Dong Gyu Hwang and Jinah Jang as a senior author), International Conference on Biofabrication 2021 in Australia **2021 IOP Biofabrication Best Poster Awards** (to Hohyeon Han and Jinah Jang as a senior author), International Conference on Biofabrication 2021 in Australia **Outstanding Presentation Award** (to Seungyeun Cho and Jinah Jang as a senior author),International Symposium on Precision Engineering and Sustainable Manufacturing 2021**Medipost Excellence Award for Young Investigator 2021,** Korean Tissue Engineering and Regenerative Medicine Society**Best Poster Award** (to Myungji Kim and Jinah Jang as a senior author), 2021 The Korean Society of Medical & Biological Engineering conference**Excellence Award (Finalist) for The 4th Precision Engineering Creativity Competition** (to Uijung Yong, Sungkeon Cho, Seungyeun Cho and Jinah Jang as a senior author),Korean Society for Precision Engineering 2020**Excellence Award for Young Investigator 2020,** Korean Society for Biomaterials **Best Poster Award** (to Byeongmin Kang and Jinah Jang as a senior author),The 21st International Annual Meeting of Korean Tissue Engineering and Regenerative Medicine Society (KTERMS 2020)**Best Presentation Award** (to Seunghyun Hwang and Jinah Jang as a senior author), 2020 KSPE-Bioengineering Division Spring Conference**Young Researcher Session Award** (to Sooyeon Lee and Jinah Jang as a senior author), The 13th IEEE Int’l Conference on Nano/Molecular Medicine & Engineering (IEEE-NANOMED 2019) |
| 05/2019 | **Best Presentation Award** (to Jaewook Kim and Jinah Jang as a senior author), 2019 KSPE-Bioengineering Division Spring Conference  |
| 05/2019 | **Best Poster Award** (to Yejin Park and Jinah Jang as a senior author), 2019 The Korean Society of Medical & Biological Engineering Spring Conference |
| 12/2017 | **BRIC Top 5 articles in Bioengineering (2017)** awarded to the published article entitled “Tissue Engineered Bio-Blood-Vessel using a Tissue Specific Bioink and 3D Coaxial Cell Printing Technique: A Novel Therapy for Ischemic Disease,” in Advanced Functional Materials. (Jinah Jang as a co-first authors) |
| 10/2016 | **Excellence Award for Young Scientist (Bioengineering)**, Korea Federation of Women’s Science & Technology Associations |
| 11/2015-10/2020 | **Presidential Post-Doc Fellowship,** The National Research Foundation of Korea (500,000,000 KRW) |
| 08/2015 | **Excellent Presentation Award**, Korean Tissue Engineering and Regenerative Medicine Society |
| 10/2014 | **Young Investigator Award**, International Conference on Biofabrication 2014 |
| 08/2014 | **Excellent Publication Award**, Pohang University of Science and Technology |

**EXTRAMURAL RESEARCH GRANTS: PRINCIPAL INVESTIGATOR**

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| --- | --- | --- |
|  | Period:Award:PI:Title:Source: | 04/2022-12/202416,553,589,000 KRW Jinah JangThe establishment of 3D bioprinting technology applied platform for the advanced non-animal alternatives testingKorea Institute for Advancement of Technology (KIAT) |
|  | Period:Award:PI:Title:Source: | 08/2021-12/20252,146,000,000 KRW Jinah Jang3D Bioprinting of Multi-axially Contractible Cardiac Muscle Constructs using Decellularized Tissue-Specific BioinksKorean Fund for Regenerative Medicine |
|  | Period:Award:PI:Title:Source: | 03/2021-02/20231,200,000,000 KRW Jinah JangAutomation of the Manufacturing of Clinical Grade Decellularized ECM-based BioinksRIST-POSCO |
|  | Period:Award:PI:Title:Source: | 03/2021-02/20261,000,000,000 KRW Jinah JangBioprinted Multiscale Pancreatic Tissue-mimetic Constructs using Functional Stem Cell-derived Beta Cells for Diabetes TreatmentThe Basic Science Research Program (NRF) |
|  | Period:Award:PI:Title:Source: | 09/2020-08/202170,000,000 KRWJinah JangBiomatrials for culturing human-derived cancer organoids Interpark Bio-Convergence Center |
|  | Period:Award:PI:Co-PI:Title:Source: | 07/2020-12/2021246,145,376 KRWSoo Young Jang (of POSTECH)Jinah JangHealthcare Value Plus Ministry of Science and ICT (IITP) |
|  | Period:Award:PI:Title:Source:  | 02/2020 – 02/2021 150,000,000 KRWJinah JangDevelopment of biomaterials and cells for printing pancreatic tissues Samsung Advanced Institute of Technology (SAIT) |
|  | Period:Award:PI:Co-PI:Title:Source: | 09/2019 – 08/2021 234,500,000 KRWGunsik Cho (of Nexel, Korea), Sam Wardworth (of Aspect Biosystems, Canada) Jinah Jang 3D Bioprinting iPSC-derived immune protected issues with vascularization as implantable tissue therapies 2019 Korea/Canada Collaborative R&D by NRC IRAP and KIAT |
|  | Period:Award:PI:Title:Source: | 04/2019-11/201940,000,000 KRWJinah JangDevelopment of bioprinting processes for engineering soft tissues ETRI |
|  | Period:Award:PI:Title:Source: | 04/2019-03/202070,000,000 KRWJinah JangBiomatrials for culturing human-derived cancer organoids Interpark Holdings Inc. (Interpark Bio-Convergence Center) |
|  | Period:Award:PI:Co-PI:Title:Source: | 01/2019-12/2019290,000,000 KRWWon Soo Yun (of T&R Biofab Inc.)Jinah Jang 3D Printed Airway on a Chip Modules for In vitro Toxicology Test Ministry of Science and ICT (IITP) |
|  | Period:Award:PI:Title:Source: | 11/2019-10/202070,000,000 KRWJinah JangDevelopment of processes for printing iPSC-derived cell-laden 3D cardiac patch T&R Biofab Inc. |
|  | Period:Award:PI:Title:Source: | 09/2018-08/201970,000,000 KRWJinah JangDevelopment of processes for printing 3D cardiac patch and its commercialization T&R Biofab Inc. |
|  | Period:Award:PI:Co-PI:Title:Source: | 04/2017-03/2021790,000,000 KRWSong Cheol Kim (of Asan Medical Center)Jinah Jang “Engineering Pancreatic Tissues with Stem Cell Niche Environment via 3D Bioprinting Technology”The Bio & Medical Technology Development Program (MSIP) |
|  | Period:Award:PI:Co-PI:Title:Source: | 06/2017-12/201870,000,000 KRWYoung Joon Hong (of Chunnam National University Hospital)Jinah Jang “Development of 3D Printing-based Therapeutic Niche and Functionally Improved Stem Cell Therapeutics for Cardiovascular Diseases,”The Korean Health Technology R&D Project, Ministry of Health and Welfare. |
|  | Period:Award:PI:Co-PI:Title:Source: | 08/2016-12/201895,000,000 KRWJin-Hyung Shim (of T&R Biofab)Jinah Jang “Animal Resource-derived 3D Bioprinting Technology and Bioink for Medical Application”The Bio-Industry Technology Development Program (MAFRA) |
|  | Period:Award:PI:Title:Source: | 11/2015-10/2020500,000,000 KRWJinah Jang “3D Bioprinted High Functional Biomyocardium for the Treatment of Ischemic Heart Diseases,”The Basic Science Research Program (Presidential Postdoc Fellowship, NRF) |

**EXTRAMURAL RESEARCH GRANTS: NON-PRINCIPAL INVESTIGATOR**

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|  | Period:Award:PI:Title:Source: | 09/2022 – 18/2024Jang- 20,000,000 KRWJuyoung Park (of BioBricks Inc.)Automated manufacturing of clinical-grade extracellular matrix bio-ink using heterogeneous organ decellularization technology & Development of a treatment for corneal diseasesMinistry of SMEs and Startups |
|  | Period:Award:PI:Title:Source: | 06/2022 – 12/2026Jang- 890,000,000 KRWKihoon Kim (of POSTECH)Bionic Nerve Interface for Metaverse sharing Sensory-Motor Information of Multiple UsersNational Research Foundation |
|  | Period:Award:PI:Title:Source: | 04/2022 – 12/2026 Jang-1,520,000,000 KRW Wan Kyun Chung (of POSTECH)Fabrication and Assembly of Immune Suppressant Soft Organ ImplantsMinistry of Trade, Industry, and Energy |
|  | Period:Award:PI:Title:Source: | 07/2021 – 06/2022Lee- 100,000,000 KRW (Postdoctoral Fellow of Jang Lab)Geun Seon Ahn (of Sphebio Inc.)Production of extracellular vesicles from cell spheroid using by 3D bioprintingNational Research Foundation |
|  | Period:Award:PI:Title:Source: | 06/2021 – 05/2024Jang- $299,999Prof. Roger Narayan (North Carolina State University)IRES Track I: US-South Korea Collaborative Training Program on Advances in Medical 3D Printing National Science Foundation (NSF) |
| 1.
 | Period:Award:PI:Title:Source:  | 05/2021 – 04/2022 Jang- 64,000,000 KRWSungjin Cho (of Chungnam National University)Development of a Bioprinted Organ Evaluation Platform using ICT Fusion Nanomembrane System Ministry of Science and ICT (IITP) |
| 1.
 | Period:Award:PI:Title:Source:  | 04/2021-03/2024Kim-300,000,000 KRW (Postdoctoral Fellow of Jang and Cho Lab)Sung Won Kim (of Seoul St. Mary’s Hospital)Basic Research to Promote Clinically Practical Application of Advanced 3D Bioprinting ProductsNational Institute of Food and Frug Safety Evaluation |
|  | Period:Award:PI:Title:Source:  | 03/2021-02/2026Lee-150,000,000 KRW (per year)Jongwan Lee (Postdoctoral Fellow of Jang Lab)Development and Application of Functionalized Micro-/Nanofluidic Platform for Active Manipulation of Mass TransportNational Research Foundation |
|  | Period:Award:PI:Title:Source:  | 09/2020 – 04/2022 Jang-35,000,000 KRW Wan Kyun Chung Fabrication and Assembly of Immune Suppressant Soft Organ ImplantsMinistry of Trade, Industry, and Energy |
|  | Period:Award:PI:Title:Source:  | 06/2020 – 05/2029 Kang- 875,000,000 KRW (Research Professor of Jang Lab) (per year)Chulhong Kim Development and Commercialization of Patient-specific Diagnostic and Therapeutic SystemsNational Research Foundation |
|  | Period:Award:PI:Title:Source:  | 06/2020 – 05/2021 Jang- 59,334,000 KRWSungjin Cho (of Chungnam National University)3D bioprinted cardiac muscles to develop advanced Bio-ICT Technology for testing drug safety and efficacy Ministry of Science and ICT (IITP) |
|  | Period:Award:PI:Title:Source:  | 06/2020 – 05/2022 Nam- 87,500,000 KRW Hyoryung Nam (Postdoctoral Fellow of Jang Lab)Development of the 3D bioprinted alveolus-cylinderical perfusable vessel on-a-chip for testing particulate mattersThe Basic Science Research Program (NRF) |
|  | Period:Award:PI:Title:Source: | 01/2018 – 11/2019Jang- 50,000,000 KRW Sung Won Kim (of Seoul St.Mary’s Hospital) Development Study for Quality Assessment of 3D Bioprinting Product,” Drug Safety Research ProgramNational Institute of Food and Drug Safety Evaluation (NIFDS) |
|  | Period:Award:PI:Title:Source: | 09/2017-08/2018Jang- 44,450,000 KRWWan Kyun Chung (of POSTECH)Research Center for Advanced Robotic Surgery based on Deep Tissue Imaging and Haptic Feedback TechnologyNational Research Foundation |
| 1.
 | Period:Award:PI:Title:Source: | 07/2017-11/2019Total: 5,000,000,000 KRW (Jang- 92,308,000 KRW)Wan Kyun Chung (of POSTECH)Development of robotic-core technologies for patient-specific precision examination and keratoplasty based on fabrication of 50 µm level layered artificial cornea Ministry of Trade, Industry, and Energy |

**INTRAMURAL RESEARCH GRANTS**

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|  | Period:Award:PI:Title:Source: | 01/2021-12/202150,000,000 KRWJinah Jang3D Bioprinted Cerebral Blood Vessel Constructs for Testing Safety of Medical Devices POSCO (IT명품인재양성사업) |
|  | Period:Award:PI:Title:Source: | 03/2020-02/20215,000,000 KRWJinah Jang3D Bioprinted Kidney Organoids Construct for Testing Drug Efficacy *in vitro* POSTECH-Catholic Biomedical Institute |
|  | Period:Award:PI:Title:Source: | 03/2019-02/20202,000,000 KRWJinah Jang3D Bioprinting of Stimuli Responsive Biomaterials POSTECH (BSRI-ISP) |
|  | Period:Award:PI:Title:Source: | 01/2018-12/2018100,000,000 KRWJinah Jang “3D Bioprinted Neurovascular Unit Model for Testing the Effect of External Electrical Stimuli on Brain Physiology,”i-Lab Project (POSCO) |

**INVITED BOOK CHAPTERS**

\*Co-first and #Co-corresponding authors

1. Suhun Chae, Jungbin Yoon, Hyeonji Kim, Wonbin Park, and **Jinah Jang** (2022), Organ Printing (2nd edition), IOP (in preparation)
2. Jisoo Kim, Yoo-mi Choi, Dong-Woo Cho, and **Jinah Jang** (2022), Chapter 14. Tissue-derived Biomaterials in Regenerative Medicine (5th Edition), in *Regenerative Medicine*, James J. Yoo and Mun Suk Kim (Eds.), Kunja Publisher. *(Submitted)*
3. Jungbin Yoon, and **Jinah Jang** (2022), Chapter 44. Decellularized tissue-derived materials as advanced bioinks *in Handbook of the Extracellular Matrix: Biologically-Derived Materials*, F. Raquel Maia, Rui L. Reis, and Joaquim M. Oliveira (Eds.), Springer Nature. *(Submitted)*
4. Se-Hwan Lee, Hyoryung Nam, Bosu Jeong, and **Jinah Jang** (2020), Chapter 9. 3D Printing and Bioprinting Technologies, *in Biomimetic Microengineering*, Hyun Jung Kim (Ed.), CRC Press (Taylor & Francis Group)*.*
5. Byoung Soo Kim, **Jinah Jang**, Ge Gao, Wonil Han, Narendra K. Singh, Dong-Woo Cho (Eds.) (2019), *3D Bioprinting*, Springer Nature.
6. Sanskrita Das\*, Anthony Safaa Mukhtar,\* **Jinah Jang#,** and Jin-Hyung Shim# (2019), Chapter 8. Decellularized Extracellular Matrix as Bioink for 3D-Bioprinting *in Decellularized Extracellular Matrix*, Takashi Hoshiba and Tetsuji Yamaoka (Eds.), RSC.
7. Sanskrita Das, and **Jinah Jang** (2019), Chapter 4. Bioprinting Vasculature in 3D Bioprinting in Medicine-Technologies, Murat Guvendiren (Ed.), Springer Nature*.*
8. Sanskrita Das, Ge Gao, Jae Yeon Lee, **Jinah Jang**#, and Dong-Woo Cho# (2019), Chapter 7. Decellularized tissue matrix-based 3D tissue modeling in *Biofabrication and 3D Tissue Modeling*, Dong-Woo Cho (Ed.), RSC.
9. **Jinah Jang**, Ju Young Park, Jin Woo Lee, Seung Jae Lee, and Dong-Woo Cho (2018), Invited Chapter regarding 3D Printing-based Biofabrication, in *Regenerative Medicine*, James J. Yoo and Mun Suk Kim (Eds.), Kunja Publisher.
10. Falguni Pati, **Jinah Jang**, Jin Woo Lee, and Dong-Woo Cho (Invited Book Chapter) (2015), Chapter 14. Extrusion Bioprinting, in *Essentials of 3D Biofabrication and Translation*, Anthony Atala and James J. Yoo (Eds.), Elsevier.
11. Jung-Seob Lee, Falguni Pati, Jin Woo Jung, **Jinah Jang**, Jeong Hun Park, and Dong-Woo Cho (Invited Text book) (2015), *Organ Printing*, Morgan & Claypool Publishers (IOP Concise Physics).

**PEER-REVIEWED JOURNAL ARTICLES AND STATISTICS**

\*Co-first and #Co-corresponding authors; Google Scholar H-index 42; total citation # 8,202

**Selected Articles (6 out of 107)**

|  |  |
| --- | --- |
| 1 | Uijung Yong\*, Donghwan Kim\*, Hojoong Kim\*, Dong Gyu Hwang, Sungkeon Cho, Hyoryung Nam, Sejin Kim, Tae Yeong Kim, Unyong Jeong, Keehoon Kim, Wan Kyun Chung, [Woon‐Hong Yeo**#**, and **Jinah Jang#**], “Biohybrid 3D Printing of a Tissue-Sensor Platform for Wireless, Real-Time, and Continuous Monitoring of Drug-Induced Cardiotoxicity,” ***Advanced Materials***, 2022. |
| 2 | Yeonggwon Jo\*, Dong Gyu Hwang\*, Myungji Kim, Uijung Yong, and **Jinah Jang**, “Bioprinting-assisted Tissue Assembly to Generate Organ Substitutes at Scale,” ***Trends in Biotechnology***, 2022. |
| 3 | Hyeonji Kim\*, Byeongmin Kang\*, Xiaolin Cui\*, Se-Hwan Lee, Kwangseok Lee, Dong-Woo Cho, Woonbong Hwang, Tim B. F. Woodfield, [Khoon S. Lim#, **Jinah Jang#**], "Light-Activated Decellularized Extracellular Matrix-Based Bioinks for Volumetric Tissue Analogs in Centimeter-Scale*,*" ***Advanced Functional Materials***, 2021, 2011252. *(Selected as a front cover article)*  |
| 4 | Byoung Soo Kim\*, Sanskrita Das\*, [**Jinah Jang#**, Dong-Woo Cho#], “Decellularized Extra-cellular Matrix-based Bioinks for Engineering Tissue- and Organ-specific Microenvironments,” ***Chemical Reviews***, 2020, 120(19), pp.10608-10661.  |
| 5 | **[Jinah Jang\***, Hun-Jun Park\*], Seok-Won Kim, Heejin Kim, Ju Young Park, Soo Jin Na, Hyeon Ji Kim, Moon Nyeo Park, Seung Hyun Choi, Sun Hwa Park, Sung Won Kim, Sang-Mo Kwon, Pum Joon Kim, Dong-Woo Cho, “3D Printed Complex Tissue Construct using Stem Cell-laden Decellularized Extracellular Matrix Bioinks for Cardiac Repair,” ***Biomaterials****,*2017, 112, pp.264-74. *(Selected as one of the most cited Biomaterials articles published since 2017)* (IF=10.317) |
| 6 | [Falguni Pati\*, **Jinah Jang\*]**, Dong-Heon Ha, Sung Won Kim, Jong-Won Rhie, Jin-Hyung Shim, Deok-Ho Kim, Dong-Woo Cho, "Printing three-dimensional tissue analog with decellularized extracellular matrix bioink," ***Nature Communications***, 2014, 5 (3935). (Highlighted in various media including Dong-A ilbo, MBC news, YTN Science, etc; Excellent publication award from POSTECH)  |

**2023**

1. Hyeonji Kim, Je-Hwan Jang, Wonil Han, Hyun-Jeong Hwang, [**Jinah Jang#**, Joon Young Kim#, and Dong-Woo Cho#], “Extracellular matrix-based sticky sealants for scar-free corneal tissue reconstruction,” ***Biomaterials***, 2023, 292, pp.121941.
2. Suhun Chae\*, Uijung Yong\*, Wonbin Park, Yoo-mi Choi, In-Ho Jeon, Homan Kang, **Jinah Jang**, Hak Soo Choi#, and Dong-Woo Cho#, “3D cell-printing of gradient multi-tissue interfaces for rotator cuff regeneration,” ***Bioactive Materials***, 2023, 19, pp.611-625.

**2022**

1. Jungbin Yoon, Narendra K Singh, [**Jinah Jang#,** and Dong-Woo Cho#], “3D bioprinted in vitro secondary hyperoxaluria model by mimicking intestinal-oxalate-malabsorption-related kidney stone disease,” ***Applied Physics Reviews***, 2022, 9(4), pp.041408.
2. Uijung Yong\*, Donghwan Kim\*, Hojoong Kim\*, Dong Gyu Hwang, Sungkeon Cho, Hyoryung Nam, Sejin Kim, Tae Yeong Kim, Unyong Jeong, Keehoon Kim, Wan Kyun Chung, [Woon‐Hong Yeo**#**, and **Jinah Jang#**], “Biohybrid 3D Printing of a Tissue-Sensor Platform for Wireless, Real-Time, and Continuous Monitoring of Drug-Induced Cardiotoxicity,” ***Advanced Materials***, 2022.
3. Hyeonji Kim\*, Keonhyeok Park\*, Jung-Min Yon, Sung Won Kim, Soo Young Lee, Iljoo Jeong, [**Jinah Jang#**, Seungchul Lee#, and Dong-Woo Cho#], “Predicting multipotency of human adult stem cells derived from various donors through deep learning,” ***Scientific Reports***, 2022, 12(1), pp.21614.
4. Jongmin Kim\*, Jeong Sik Kong\*, Hyeonji Kim, Yeonggwon Jo, [Dong-Woo Cho**#**, and **Jinah Jang#**], "A Bioprinted Bruch’s Membrane for Modeling Smoke-induced Retinal Pigment Epithelium Degeneration via Hybrid Membrane Printing Technology," ***Advanced Healthcare Materials***, 2022, 2200728. ​
5. Seung Hyeon Hwang\*, Jongbeom Kim\*, Chaejeong Heo, Jungbin Yoon, Hyeonji Kim, Se-Hwan Lee, Hyung Woo Park, Man Seung Heo, Hyo Eun Moon, [Chulhong Kim#, Sun Ha Paek#, and **Jinah Jang#**], “3D printed multi-growth factor delivery patches fabricated using dual-crosslinked decellularized extracellular matrix-based hybrid inks to promote cerebral angiogenesis,” ***Acta Biomaterialia***, 2022.
6. Jihwan Kim, and **Jinah Jang**, “3D printable conductive composite inks for the fabrication of biocompatible electrodes in tissue engineering application,” ***International Journal of Bioprinting***, 2022, 9(1).
7. Hyoryung Nam, Yoo-mi Choi, Sungkeon Cho, Ge Gao, Donghwan Kim, Jongmin Kim, Hwanyong Choi, Se-Hwan Lee, and **Jinah Jang**, “Modular assembly of bioprinted perfusable blood vessel and tracheal epithelium for studying inflammatory respiratory diseases,” ***Biofabrication***, 2022, 15(1), pp.015101.
8. Im Kyung Han\*, Kang-il Song\*, Sang-Mun Jung, Yeonggwon Jo, Taehun Chung, Surim Yoo, **Jinah Jang**, Yong-Tae Kim, Dong Soo Hwang, Youn Soo Kim", Electroconductive, Adhesive, Non-swelling, and Viscoelastic Hydrogels for Bioelectronics," ***Advanced Materials***, 2022, 2203431.
9. ​Yeonggwon Jo\*, Dong Gyu Hwang\*, Myungji Kim, Uijung Yong, and **Jinah Jang**, “Bioprinting-assisted Tissue Assembly to Generate Organ Substitutes at Scale,” ***Trends in Biotechnology***, 2022.
10. Kiwon Ban, Hyeok Kim, Soon-Jung Park, Jae-Hyun Park, Sunghun Lee, Bong Woo Park, Soon Min Lee, Hwang Ji-Won, Jin-Ju Kim, Byeongmin Kang, Woo-Sup Sim, Hyo-Jin Kim, Seung Hwan Jeon, Dong-Bin Kim, **Jinah Jang**, Dong-Woo Cho, Sung-Hwan Moon, and Hun-Jun Park, "Enhancement strategy for effective vascular regeneration following myocardial infarction through a dual stem cell approach," ***Experimental & Molecular Medicine***, 2022. ​
11. Daekeun Kim\*, Minseok Kim\*, [Jongwan Lee#, and **Jinah Jang**#], “Review on Multicomponent Hydrogel Bioinks Based on Natural Biomaterials for Bioprinting 3D Liver Tissues,” ***Frontiers in Bioengineering and Biotechnology***, 2022, 10, p.55.
12. In Kyong Shim\*, SeongJin Lee\*, Yu Na Lee\*, Dohui Kim, HanSe Goh, Jaeseung Youn, **Jinah Jang**, Dong Sung Kim#, Song-Cheol Kim#, "Enhanced differentiation capacity and transplantation efficacy of insulin-producing cell clusters from human iPSCs using-permeable nanofibrous microwell-arrayed membrane for diabetes treatment," ***Pharmaceutics***, 2022, 14 (2) 400.
13. Jeongwoo Park\*, Byullee Park\*, Uijung Yong\*, Joongho Ahn, Jin Kim, Hyung Ham Kim, [**Jinah Jang**#, Chulhong Kim#], "Bi-modal Near-infrared Fluorescence and Ultrasound Imaging via a Transparent Ultrasound Transducer for Sentinel Lymph Node Localization," ***Optics Letters***, 2021, 47(2), pp. 393-396.
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3. **[Jinah Jang\***, Jongwan Lee\*], Young-Joon Seol, Young Hun Jeong, Dong-Woo Cho, “Improving mechanical properties of alginate hydrogel by reinforcement with ethanol treated polycaprolactone nanofibers for the cartilage regeneration,” ***Composite part B: Engineering***, 2013, 45(1), pp. 1216-1221.

**2012**

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**LICENSED PATENTS**

D.-W. Cho, **J. Jang**, H. Kim, “Manufacturing method of transparent corneal tissue containing aligned collagen fibrils using three dimensional printing,” *(Tech. transfer to BioBricks Inc., August 31, 2022)*

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**J. Jang**, Y. M. Choi, D. G. Hwang, M. Kim, and H.R. Lee, “Preparation method of composition for culturing lung organoid, composition thereby, and organoid culture method using the same,” *(Exclusive license agreement with EdmicBio, 2022)*

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CN: 2017101201967100 (10/17/2017)

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**PATENTS AND DISCLOSURES**

Patents (Registered)

1. **J. Jang**, S. Jung, H. B. Kim, and Y. J. Hong, “Animal model of ischemic heart disease with a 3-dimensional bioprinted occluder and method for producing the same,”

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1. **J. Jang**, Y. M. Choi, J. Kim, H. G. Yi, D.-W. Cho, D.-C. Na, S. Y. Min, C. Lee, J. Y. Kwon, “An ex vivo drug testing platform for recapitulating *in vivo* tumor microenvironment and method of manufacturing that,”

Domstic: 10-2400168 (Registration date: 05/16/22)

1. **J. Jang**, S.-J. Lee, Y.-S. Cho, K.D. Seo, H.-J., Jeong, D.-W. Cho, “Fabrication of artificial Vascular scaffold with multi-layer tubular using 3D bioprinting and fabricating method thereof,”

Domstic: 10-2306282 (Registration date: 09/23/21)

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1. **J. Jang**, Y. M. Choi, D. G. Hwang, M. Kim, and H.R. Lee, “Preparation method of composition for culturing lung organoid, composition thereby, and organoid culture method using the same,”

Domstic: 10-2282070 (Registration date: 07/21/21)

1. **J. Jang**, Y. M. Choi, D. G. Hwang, M. Kim, and H.R. Lee, “Preparation method of composition for culturing pancreatic organoid, composition thereby, and organoid culture method using the same,”

Domstic: 10-2282073 (Registration date: 07/21/21)

1. S.-J. Lee, **J. Jang,** Y.S. Cho, K.D.Seo, H.-J. Jeong, H. Nam, J.-H. Kim, J. H. Chung, Y. Jo, D.-W. Cho, D.-H. Ha, “Artificial esophageal scaffold with multi-layer tubular using 3D bioprinting and fabricating device and fabricating method thereof,”

Domstic: 10-2274151 (Registration date: 07/01/21)

PCT: PCT/KR2020/011880 (09/03/2020)

1. J. Won, Y.H. Park, D.-W. Cho, G. Gao, J.M. Kim, J. Kim, **J. Jang**, “DRUG DELIVERY CARRIER FOR DUAL DRUG RELEASE,”

Domstic: 10-2183669 (Registration date: 11/20/2020)

PCT: PCT/KR2020/002545 (02/21/2020))

1. D.-W. Cho, J.-S. Kong, **J. Jang**, H.-G. Yi, J.-W. Kim, “Modularized Cell Culture Block,”

Domstic: 10-1937039 (Registration date: 01/03/2019)

1. H.-J. Kim, H. Ko, **J. Jang**, J.-C. Shin, D.-W. Cho, D.-H. Ha,” Plug for healing amniotic membrane,”

Domstic: 10-1962373 (Registration date: 03/20/2019)

1. D.-W. Cho, Y.-J. Choi, T.-G. Kim, H.-G. Yi, **J. Jang**, S.-W. Kim, W. Hwang, J.H. Jeong, J.W. Park,” Development of decellularized skeletal muscle structure for augmenting volumetric muscle loss,”

Domstic: 10-1846087 (Registration date: 03/30/2018)

1. D.-W. Cho, M.N. Park, Y.M. Moon, **J. Jang**, and H.J. Kim, “Biocompatibility cornea generation method and biocompatibility tissue decellularized compostion,”

Domstic: 10-1717234 (Registration date: 03/10/2017)

Patents (Pending)

1. **J. Jang**, M. Kim, "Composition for culturing islet cell having pancreatic derived extracellular matrix, and Preparation method thereof", KR10-2023-0009798 (01/26/23)
2. **J. Jang**, H. Kim, D.-W. Cho, B. Kang., D. K. Kim, "Bioink compositions for visible light curing, method of manufacturing the same, and method of printing the same", KR10-2022-0116901 (09/16/22)
3. D.-W. Cho, **J. Jang**, S. Tugce, J. Ahn, D. Lee, M. H. Bae, Y. Kang, “Composition for endometrium regeneration having uterus derived extracellular matrix, and Preparation method thereof," KR10-2022-0131178 (10/13/22)
4. D.-W. Cho, **J. Jang**, H. Cho, M. H. Bae, N. D. Huyen, "Composition for culturing brain immune cells having matrigel, and Preparation method thereof", KR10-2022-0057849 (05/11/22)
5. D.-W. Cho, **J. Jang**, H. Cho, M. H. Bae, N. D. Huyen, "Composition for differentiating human neural progenitor cell and culturing neuron having porcine-brain derived extracellular matrix, and Preparation method thereof ", KR10-2022-0057848 (05/11/22)
6. **J. Jang**, C. Kim, S. H. Hwang, J. B. Kim, S. H. Paek, S. B. Park, "Biomaterial-based drug delivery patch, manufacturing method of the same and use of the same," KR10-2022-0002182 (01/06/22)
7. **J. Jang**, S. H. Hwang, H. Kim, “Extracellular matrix-based hybrid ink and mufacturing method of the same ", KR10-2021-0182375 (12/20/21)
8. **J. Jang**, D.G. Hwang, “MULTIAXIAL ARTIFICIAL MUSCLE TISSUE, METHOD AND STRUCTURE FOR FORMING SAME,” 10-2021-0147809 (11/01/21); PCT/KR2021/015609 (11/01/2021)
9. **J. Jang**, U.Yong, S.K. Cho, H. Nam, D. Kim, “STRAIN GAUGE SENSOR AND MEHTOD FOR MANUFACTURING THEREOF,” 10-2021-0143053 (10/25/21)
10. **J. Jang**, H. Kim, J.H. Jang, W. Han, J.Y. Kim, D.-W. Cho, “Extracellular matrix-based bioadhesive,” 10-2021-0133757 (10/08/21)
11. **J. Jang**, D.G. Hwang, Y. Jo, “Manufacturing method of capsule-type artificial tissue using 3D printing and capsule-type artificial tissue manufactured therefrom,” 10-2021-0057587 (05/04/21)
12. **J. Jang**, J. Kim, D.-W. Cho, “Decellularization method of porcine stomach mucosa tissue, composition for producing scaffold and tissue culture method for culturing gastric tissue or gastric cancer tissue,” 10-2021-0029911 (03/08/21)
13. **J. Jang**, H. Kim, D.-W. Cho, “Modified extracellular matrix-based hydrogel, manufacturing method of the same and use of the same,” 10-2021-0005008 (01/14/21); 17/502,152 (US) (10/15/2021)
14. **J. Jang**, S. Lee, G. Gao, H.-G, Yi, H.Han, S.H. Paek, “Hydrogel composition comprising two or more types of tissue-derived decellularized extracellular matrix and organoid using that,” 10-2020-0186802 (12/29/20)
15. H. Kim, **J. Jang**, D.-W. Cho “Manufacturing method of transparent corneal tissue containing aligned collagen fibrils using three dimensional printing,” 10-2020-0048830 (04/22/20)
16. **J. Jang**, S.H. Lee, U. Yong, Archimedean sprial g code generator for the Cartesian coordinate system," C-2019-026431 (09/25/19)
17. H.-J. Park, B.W. Park, S.H. Jung, S. M. Lee, H. Y. Kim, D.-W. Cho, **J. Jang**, S. W. Kim, S. Das., “Pharmaceutical Composition for Preventing or Treating Vascular Disorders Including Mesenchymal Stem Cell Expressing Hepatocyte Growth Factor as Active Ingredient,” 10-2018-0091280 (08/06/2018); PCT/KR2018/008903 (08/06/2018)

**INVITED PRESENTATIONS**

**2023**

1. **J. Jang,** “Bioprinting Technology for Advanced Tissue Therapeutics,” Bioengineering Department @ Hanyang University, January 17, 2023.

**2022**

1. **J. Jang,** “Bioprinting Technology for Advanced Tissue Therapeutics,” The Korean Institute of Metals and Materials: Biomaterials sector, December 16, 2022.
2. **J. Jang,** “Bioprinting Technology for Advanced Tissue Therapeutics,” Departmental Seminar @ Mechanical Engineering, The University of British Columbia, November 21, 2022.
3. **J. Jang,** “Bioprinting Technology for Advanced Tissue Therapeutics,” Departmental Seminar @ School of Pharmacy, Sungkyunkwan University, November 14, 2022.
4. **J. Jang,** “Recapitulating Human Physiology by Bioprinting Tissue-specific Microenvironment,” 2022 Annual Meeting of the Organoid Society, November 9, 2022. *(Invited speaker)*
5. **J. Jang,** “Recapitulating Human Physiology by Bioprinting Tissue-specific Microenvironment,” The Catholic Basic Research Symposium for Surgeons 2022, November 12, 2022. *(Invited speaker)*
6. **J. Jang,** “Decellularized Extracellular Matrix-based Bioinks for Printing Human Tissues,” SelectBio Bioprinting and Bioink Innovations for 3D Tissues, Bioinks session, November 7, 2022. *(Invited speaker)*
7. **J. Jang,** “Bioprinted Human Tissues for Advanced Therapeutics,” International Conference on Biofabrication 2022, September 27, 2022. *(Invited plenary speaker)*
8. **J. Jang,** “3D Bioprinting Technology for Advanced Tissue Therapeutics,” 2022 첨단재생의료 교육포럼, 한국조직공학재생의학회, September 14, 2022. *(Invited speaker)*
9. **J. Jang,** “Bioprinted Human Tissues for Advanced Therapeutics,” 2022 13th Meeting of Korean Spinal Neurosurgery Society, September 14, 2022. *(Invited speaker)*
10. **J. Jang,** “Bioprinted Human Tissues for Advanced Therapeutics,” Mechanical Engineering BDM Global Seminar (Biofabrication and Bio-inspired Devices), Zhejiang University, August 24, 2022.
11. **J. Jang,** “3D Bioprinting Technology for Advanced Tissue Therapeutics,” Korea institute of industrial technology (KITECH), August 24, 2022.
12. **J. Jang,** “Bioprinting Technology for Advanced Tissue Therapeutics,” UNIST, July 19, 2022.
13. **J. Jang,** “3D Bioprinting Technology for Advanced Tissue Therapeutics,” KETI 첨단신소재 워크샵, July 8, 2022.
14. **J. Jang,** “Bioprinted Human Tissues for Advanced Therapeutics,” The 19th International Conference on Ubiquitous Robots (UR 2022), July 5, 2022. *(Invited keynote speaker)*
15. **J. Jang,** “Decellularized Extracellular Matrix-based Bioinks for Printing Human Tissues,” CIMTEC 2022 9th Forum on New Materials, FA-5/FQ-8 3D Bioprinting of Soft Tissues and Organs, June 27, 2022. *(Invited keynote speaker)*
16. **J. Jang,** “Promoting Maturation of Bioprinted Constructs using Induced Vascularization,” 2022 16th Spring Meeting @ Korean Society of Stem Cells and Regenerative Medicine for Locomotor System, May 1, 2022. *(Invited speaker)*
17. **J. Jang,** “Decellularized Extracellular Matrix-based Bioinks for Printing Human Tissues,” Society for Biomaterials 2022 Annual Meeting, Workshop 5: Recent Advances in 3D Printing of Biomaterials, April 27, 2022. *(Invited speaker)*

**2021**

1. **J. Jang,** “Decellularized Extracellular Matrix-based Bioinks for Printing Human Tissues,” Virtual Biofabrication Seminar, Biomanufacturing Center @ Tsinghua University, December 27, 2021.
2. **J. Jang,** “Bioprinting Technology for Engineering Human Tissues,” KAIST Innovative Manufacturing Forum, December 24, 2021.
3. **J. Jang,** “3D Bioprinting Technology for Advanced Tissue Therapeutics,” 포항시 조찬포럼, December 23, 2021.
4. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” MD-PhD (Physician Scientist) Training Program, Korea University College of Medicine, December 9, 2021.
5. **J. Jang,** “Bioprinted Human Tissues for Advanced Therapeutics,” 2021 The Korean Urological Oncology Society Research Symposium, December 4, 2021. *(Invited speaker)*
6. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Departmental seminar @ Biomedical Science, Korea University College of Medicine, December 1, 2021.
7. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Webinar on translational research, Korean Association for the Study of Intestinal Diseases, November 24, 2021. *(Invited speaker)*
8. **J. Jang,** “Bioprinting of 3D Engineered Tissue Models for the Next Generation Therapeutics,” 2021 TERMIS-WC 6th World Congress, BF10.2 Disruptive Techniques for Biofabrication, November 19, 2021. *(Invited Keynote speaker)*
9. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” IQB Colloguium @ Sungkyunkwan University, November 19, 2021.
10. **J. Jang,** “Bioprinting Technology for Engineering Human Tissues,” 2021 Fall meeting of the Korean BioChip Society, November 17, 2021. *(Invited speaker)*
11. **J. Jang,** “Bioprinted Human Tissues for Advanced Therapeutics,” 15th IEEE International Conference on Nano/Molecular Medicine & Engineering (IEEE-NANOMED 2021), Printing Technology in Nano-Bio-Medicine Session, November 15, 2021. *(Invited speaker)*
12. **J. Jang,** “Engineering Human Tissues using Decellularized Extracellular Matrix-based Bioinks,” Korea Life Science Week 2021, 제2회 첨단재생의료 발전전략 포럼, November 4, 2021.
13. **J. Jang,** “Bioprinting Technology Towards Cardiovascular Tissue Modeling,” Annual Conference of Korean Society for Cardiology 2021, Basic Research Hot Session, October 17, 2021. *(Invited speaker)*
14. **J. Jang,** “Bioprinting Technology for Engineering Human Tissues,” BK4 plus Seminar Series of Mechanical Engineering @ Kyunghee University, October 13, 2021.
15. **J. Jang,** “Bioprinting Technology Towards Cardiovascular Tissue Therapies,” Discovery Ecosystem Virtual Symposium 2021 (hosted by Aspect Biosystems), October 7, 2021.
16. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Physiomimetic Human Tissues,” 2021 KSBB Fall Meeting and International Symposium, October 5, 2021. *(Invited speaker)*
17. **J. Jang,** “dECM Bioinks for Engineering Tissue and Organ Specific Microenvironment,” Materials Research Society/Society for Biomaterials Joint Virtual Workshop on “3D Printing for Medical Applications”, October 5, 2021.
18. **J. Jang,** “3D Bioprinting Technology for Advanced Tissue Therapeutics,” Global Bio Conference 2021, GBC 7: Advanced Biopharmaceuticals & Combine Products Regulatory Science Forum, September 14, 2021. *(Invited speaker)*
19. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” K-BioX 10th Global Class Seminar Series, September 2, 2021.
20. **J. Jang,** “Bioprinting Technology Towards Cardiovascular Tissue Therapies,” 2021 중재의료기기학회 산학연 워크샵, August 21, 2021. *(Invited speaker)*
21. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Physiomimetic Human Tissues,” Joint Symposium on Advanced Biomaterials for Tissue Engineering and Tissue Synthesis and Manipulation @ Hanyang University, June 25, 2021.
22. **J. Jang,** “Bioprinting Technology Towards Cardiovascular Tissue Modeling,” The 22nd annual meeting of Korean Tissue Engineering and Regenerative Medicine Society, June 19, 2021. *(Invited speaker)*
23. **J. Jang,** “바이오프린팅 및 생체소재 기반 인체조직 및 장기 제조 기술,” 미래 지상전력기획 심포지엄 (대한민국 육군 군수사령부), June 16, 2021.
24. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Physiomimetic Human Tissues,” Korea Flexible & Printed Society: Flexible electronics 3D to 4D online seminar for the future technology, June 3, 2021.
25. **J. Jang,** “Tissue-specific Bioinks for Organ Manufacturing,” Departmental Seminar of Material Science and Engineering @ POSTECH, June 2, 2021.
26. **J. Jang,** “Bioprinting Technology Towards Organ Fabrication,” Korean Orthopaedic Research Society Spring Meeting 2021, May 29, 2021. *(Invited speaker)*
27. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Physiomimetic Human Tissues,” Invited Seminar @ Ministry of Food and Drug Safety, May 25, 2021.
28. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Human Tissues,” The 48th World Polymer Congress IUPAC-MACRO 2020+, May 17, 2021. *(Invited speaker)*
29. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Physiomimetic Human Tissues,” Departmental Seminar of Biomedical Science and Engineering @ GIST, April 28, 2021.
30. **J. Jang,** “Bioprinting Technology for Advanced Organ Manufacturing,” Society for Biomaterials 2021 Annual Meeting (Workshop on Recent Advances in 3D Printing of Biomaterials), April 20, 2021. *(Invited speaker)*
31. **J. Jang,** “Bioprinting Technology for Advanced Organ Manufacturing,” Design of Medical Devices Conference 2021, April 14, 2021. *(Invited speaker)*
32. **J. Jang,** “Multiscale Bioprinted Tissue Blocks using dECM-based Bioinks,” invited talk at Korea Institute of Materials Science, Feb. 22, 2021.
33. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Human Tissues,” Seminar of Korean Pancreatobiliary Association, Feb. 5, 2021.

**2020**

1. **J. Jang,** “Extracellular Matrix-derived Bioinks for Engineering Human Normal and Disease Models,” 11th World Biomaterials Congress (Workshop on recent advances in 3D printing of biomaterials), Dec. 9, 2020. *(Invited speaker)*
2. **J. Jang,** “Extracellular Matrix-derived Printable Biomaterials for Engineering Human Tissues,” 2020 Virtual MRS Sprinting/Fall meeting & exhibit (Symposium F.SM06), Dec. 2, 2020 *(Invited speaker)*
3. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Departmental Seminar of Mechanical Engineering @ Kyunghee University, Nov. 16, 2020.
4. **J. Jang,** “Decellularized Extracellular Matrix as a Bioink for Engineering Human Tissues,” The 3rd Annual Meeting of the Organoid, Oct. 29, 2020. *(Invited speaker)*
5. **J. Jang,** “Decellularized Extracellular Matrix as a Bioink for Engineering Human Tissues,” Korean Society for Biomaterials, Aug. 13, 2020. *(Invited Session; awarded)*
6. **J. Jang,** “Decellularized Extracellular Matrix Bioinks for Printing Human Tissues,” The Discovery Ecosystem Virtual Symposium (organized by Aspect Biosystems), May 29, 2020.
7. **J. Jang,** “Decellularized Extracellular Matrix Bioinks for Printing Human Tissues,” Biofabrication Seminar Series (Webinar; organized by ISBF), May 28, 2020.
8. **J. Jang,** “새로운 의료기술의 미래: 바이오프린팅,” 2020 금요일에과학터치 (한국연구재단), Apr. 23, 2020.
9. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Invited talk at Aspect Biosystems (in British Columbia, Canada), Jan. 23, 2020.
10. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Invited talk at Department of Electrical Engineering, KAIST, Jan. 16, 2020.

**2019**

1. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” SCRC Annual International Symposium 2019, Dec. 18, 2019.
2. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Korean BioSpine Society Annual Meeting 2019, Dec. 14, 2019. *(Invited speaker)*
3. **J. Jang,** “3D 바이오프린팅 기반 조직 재생 기술,” 한국제약바이오협회 주관 바이오산업 유망기술 설명회, Nov. 29, 2019.
4. **J. Jang,** “Decellularized Extracellular Matrix Bioinks for Printing Human Tissues,” IEEE Nanomed 2019, Nov. 22, 2019. *(Invited speaker)*
5. **J. Jang,** “Tissue-specific Bioinks for Building Human Tissues,” Korean BioChip Society Annual Meeting 2019, Nov. 15, 2019. *(Invited speaker)*
6. **J. Jang,** “Evaluation of the Efficacy of 3D Cell-Printed Cardiac Patch using a Swine Model,” Korean Society of Precision Engineering Fall Conference 2019, Oct. 30, 2019. *(Invited speaker)*
7. **J. Jang,** “Biomaterials, Stem Cells, and 3D Bioprinting Technology for the next generation Therapy,” The 7th US-Korea Joint Workshop on Biomedical Engineering, BMES 2019, Oct. 17, 2019. *(Invited speaker)*
8. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” SelectBio-3D Printing in the Life Sciences 2019, Oct. 15, 2019. *(Invited speaker)*
9. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” DMDC Korea 2019, Oct. 11, 2019. *(Invited speaker)*
10. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” CAOS (대한정형외과컴퓨터수술학회) 2019, Sept. 28, 2019. *(Invited speaker)*
11. **J. Jang,** “Printing Human Pancreatic Tissues for the Treatment of Diabetes,” 2019 ISSCR/KSSCR International Symposium, Sept. 26, 2019. *(Invited speaker)*
12. **J. Jang,** “Decellularized Extracellular Matrix Bioinks for Printing Human Tissues,” Annual Meeting of Korean Society for Biomaterials 2019, Sept. 19, 2019.
13. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Invited atlk at Samsung Advanced Institute of Technology- Cell Research Lab, Aug. 27, 2019.
14. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Invited talk at Helix Animal Hospital, Aug. 7, 2019.
15. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” RIST 조찬세미나, July 15, 2019.
16. **J. Jang,** “Evaluation of the Efficacy of 3D Cell-Printed Cardiac Patch using a Swine Model,” Annual Meeting of The Korean Society of Cardiology: Korean Working Group on Basic Cardiovascular Sciences 2019, July 12, 2019. *(Invited speaker)*
17. **J. Jang,** “Decellularized Extracellular Matrix Bioinks for Printing Human Tissues,” Yonsei-POSTECH Symposium 2019, June 21, 2019.
18. **J. Jang,** “Biomaterials, Stem Cells, and 3D Bioprinting Technology for the next generation Therapy,” KITOX, June 7, 2019.
19. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” The 20th International Annual Meeting of Korean Tissue Engineering and Regenerative Medicine Society 2019, June 7, 2019. *(Invited speaker)*
20. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Printing the Future of Therapeutics in 3D (by Aspect Biosystems), May 7, 2019.
21. **J. Jang,** “3D Bioprinting of Functional Tissue Models with Cell-favorable Microenvironments,” KSPE-Bioengineering Division Spring Conference 2019, Apr. 26, 2019. *(Invited speaker)*
22. **J. Jang,** “Bioprinting and Stem Cells for Engineering Human Tissues,” Korean Interventional Medical Devices Society Spring Conference 2019, Mar. 22, 2019. *(Invited speaker)*
23. **J. Jang,** “Bioprinting: Beginning a new way for artificial organs,” 한국의공학전공대학생연합 초청 세미나, Mar. 16, 2019.
24. **J. Jang,** “Decellularized ECMs for Printing Human Tissues,” KHIDI-MRC Korea-UK Partnering awards- Decellularized Tissue Workshop 2019, Feb. 16, 2019.

**2018**

1. **J. Jang,** “Bioprinting and Stem Cells for Engineering Human Tissues,” Korean BioSpine Conference 2018, Dec. 16, 2018.
2. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Invited talk at Korea Research Institute of Bioscience and Biotechnology (KRIBB), Dec. 13, 2018.
3. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Invited talk at Daegu Gyeongbuk Medical Innovation Foundation (New Drug Development Center), Nov. 28, 2018.
4. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” Invited talk at Dankuk University, Nov. 22, 2018.
5. **J. Jang,** “3D 프린팅 기반 인공장기 제조 기술,” 과학기술정보통신부 2018 미래융합포럼, Nov. 21, 2018.
6. **J. Jang,** “Decellularized Tissue Bioinks in Tissue Engineering,” 2018 Korean Musculoskeletal Tissue Transplantation Society Conference, Nov. 17, 2018.
7. **J. Jang,** “Engineering Human Tissues using 3D Bioprinting Technology,” SMIT2018-IBEC2018 Joint Conference, Nov. 9, 2018.
8. **J. Jang,** “Bioprinting and Stem Cell for Building 3D Human Tissues,” 6th Symposium on Biomedical Engineering @ Asan Medical Center, Nov. 8, 2018.
9. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Invited talk at KERI, Oct.24, 2018.
10. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Invited talk at Interpark Bio-Convergence Center, Oct. 12, 2018.
11. **J. Jang,** “3D Printing for Future Medicine,” Invited talk at Department of Life Science, POSTECH, Oct. 10, 2018.
12. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Invited talk at ETRI, Aug. 22, 2018.
13. **J. Jang,** “새로운 의료기술의 미래 바이오프린팅,” 2018 금요일에과학터치 (한국연구재단), July 20, 2018.
14. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2018 IBS Conference on Molecular Recognition & Imaging in Complex System, July 13, 2018.
15. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Invited talk at RIST, July 11, 2018.
16. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2018 Spring Conference on Korea Medical 3D Printing Society, June 2, 2018.
17. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2018 재생생식재형 연구회, June 1, 2018.
18. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Invited seminar at Biomedical Engineering of Korea University College of Medicine, May 31, 2018.
19. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2018 KOSOMBE Spring Conference, May 12, 2018.
20. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2018 KSPE-BED Spring Conference, Apr. 27, 2018.
21. **J. Jang,** “Advances in Biotechnologies for Spine Care,” Biospine Asia Pacific 2018, Apr. 26, 2018.
22. **J. Jang,** “State-of-the-art of Artificial Blood Vessels,” 국제지식재산연수원, Apr. 3, 2018.
23. **J. Jang,** “Cell Printing for Tissue Regeneration,” 3D Bioprinting Pioneer Committee Symposium, Feb. 10, 2018.
24. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Invited seminar at Ehwa-Jax International Research Center for Cancer Immunotherapy, Feb. 9, 2018.
25. **J. Jang,** “Building 3D Human Tissues Using Bioprinting and Stem Cell Bioink Toolkit,” Gordon Lecture Series Presentation, Gordon Center for Medical Imaging at Massachusetts General Hospital, Feb. 2, 2018.

**2017**

1. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2017 The Korean Society of 3D Printing in Medicine: Fall Meeting, Dec. 8, 2017.
2. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2017 CiTE Forum, Dec. 7, 2017.
3. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2017 The Korean Association of Stem Cell and Tissue Engineering: Fall Meeting, Dec. 3, 2017.
4. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2017 Symposium on 3D Bioprinting for Clinical Applications, Nov. 29, 2017.
5. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” 2017 5th AMC Symposium on Biomedical Engineering, Nov. 29, 2017.
6. **J. Jang,** “Engineering Human Tissues Using Stem Cell and Bioprinting Technology,” 2017 DGMIF Workshop for Experimental Animals, Nov. 8, 2017.
7. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Pohang Technopark, Oct. 25, 2017.
8. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” School of Medicine, Pusan National University, Oct. 23, 2017.
9. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” SK Bioland, Sept. 27, 2017.
10. **J. Jang,** “Engineering Human Tissues Using Stem Cell and Bioprinting Technology,” 2017 DGMIF Workshop for Experimental Animals, Nov. 8, 2017.
11. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Pohang Technopark, Oct. 25, 2017.
12. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” School of Medicine, Pusan National University, Oct. 23, 2017.
13. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” SK Bioland, Sept. 27, 2017.
14. **J. Jang,** “Bioprinting and Stem Cells for Engineering Human Tissues,” 2017 2nd Catholic iPSC International Symposium, Sept. 9, 2017.
15. **J. Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” KITECH, Aug. 31, 2017.
16. **J.Jang,** “Engineering Human Tissues via 3D Bioprinting Technology,” Creative Seminar 2017, CiTE, POSTECH, Mar. 8, 2017.

**2016**

1. **J.Jang,** “Engineering Bioinks for Tissue Fabrication,” The 7th Symposium of Korean Tissue Engineering and Regenerative Medicine Society (KTERMS), Nov. 25, 2016. *(Invited speaker)*
2. **J. Jang,** “Cardiac Tissue Repair Using 3D-Printed Stem Cell Bioink,” School of Life Sciences, UNIST, July 28, 2016.
3. **J. Jang,** “3D Bioprinted Complex Tissue Construct Using Stem Cell-laden Decellularized Extracellular Matrix Bioinks,” 2016 Presidential Post-doc Fellowship Workshop, July 22, 2016.
4. **J. Jang,** “Development of Tissue Mimetic Microenvironment Via 3D Cell Printing with Decellularized Extracellular Matrix Bioink,” The 17th International Annual Meeting of Korean Tissue Engineering and Regenerative Medicine Society (KTERMS), Jun. 11, 2016. *(Invited speaker)*
5. **J. Jang,** “Cardiac Tissue Repair Using 3D Printed Stem Cell Delivery Platform,” Korea Basic Science Institute (KBSI), Mar. 23, 2016.
6. **J. Jang,** “Cardiac Tissue Repair Using 3D Printed Stem Cell Delivery Platform,” I-BIO, POSTECH, Mar. 22, 2016.
7. **J. Jang,** “Cardiac Tissue Repair Using 3D-Printed Stem Cell Bioink,” Hans Schoeler Stem Cell Research Center, UNIST, Feb. 22, 2016.
8. **J. Jang***,* “Cardiac Tissue Repair Using 3D-Printed Stem Cell Bioink,” Center for Molecular Imaging, Beth Israel Deaconess Medical Center and Harvard Medical School, Feb. 12, 2016
9. **J. Jang**, “Development of tissue mimetic microenvironment via 3D cell printing with decellularized extracellular matrix bioink,” T&R Biofab. (Company), Jan. 15, 2016

**2015**

1. **J. Jang**, “Development of tissue mimetic microenvironment via 3D cell printing with decellularized matrix bioink,” 2015 Annual Meeting of Korean Society for Precision Engineering, December 16-18, 2015 *(Invited Session for Selected Woman Engineers)*

**RESEARCH FACULTIES, RESEARCH ASSOCIATES, POSTDOCS, AND STAFF**

**COMPLETED**

1. 09/2020-09/2021, Hyejin Kim M.S. from POSTECH. Placement: PhD student of CITE, POSTECH
2. 09/2017-02/2021, Sanskrita Das, Ph.D. from IIT-Dehli. Placement: Post-doctoral Research Associate, Emory University
3. 02/2019-02/2020, Hohyeon Han, B.S. from Yonsei University. Placement: PhD student of IBIO, POSTECH.
4. 09/2018-03/2020, Se-Hwan Lee, Ph.D. from Wonkwang University. Placement: PDRA of UPenn.
5. 08/2018-02/2020, Yoo-mi Choi, M.S. from Seoul Women’s University. Placement: PhD student of Creative IT Engineering, POSTECH.
6. 08/2017-01/2018, Somi Park, M.S. from Kyungpook National University.

**CURRENT**

1. 03/2019-present, Nam Young Kang, Ph.D. from A-STAR
2. 05/2018-present, Hyoryung Nam, Ph.D. from POSTECH
3. 03/2018-present, Soyoung Ham B.S. from Kyungpook National University.
4. 04/2021-present, Jongwan Lee, Ph.D. from UNIST
5. 04/2022-present, Jungbin Yoon, Ph.D. from Seoul National University
6. 08/2022-present, Da-Yoon Kang, Ph.D. from POSTECH

**DOCTORAL STUDENTS**

**CURRENT**

1. 03/2017-present, Jaewook Kim (co-advisor), Mechanical Engineering, POSTECH
2. 03/2018-present, Uijung Yong, Convergence IT Engineering, POSTECH (Bolt & Nuts Fellow)
3. 03/2018-present, Dong Gyu Hwang, IBIO, POSTECH (Global PhD Fellow)
4. 09/2018-present, Myung Ji Kim, IBIO, POSTECH (Asan Foundation Fellow)
5. 02/2019-present, Yeonggwon Jo, IBIO, POSTECH
6. 03/2020-present, Yoo-mi Choi, Convergence IT Engineering, POSTECH (The Samil Scholarship Fellow)
7. 03/2020-present, Dae Keun Kim, Convergence IT Engineering, POSTECH
8. 03/2020-present, Hohyeon Han, IBIO, POSTECH (Asan Foundation Fellow)
9. 09/2020-present, Donghwan Kim, IBIO, POSTECH
10. 09/2021-present, Jihwan Kim, Mechanical Engineering, POSTECH
11. 09/2021-present, Hyejin Kim, Convergence IT Engineering, POSTECH
12. 09/2022-present, Hwanyong Kim, Mechanical Engineering, POSTECH

**MASTER'S STUDENTS**

**COMPLETED**

1. 09/2020-02/2023, Seungyeun Cho, Convergence IT Engineering, POSTECH. Placement: Researcher @ POSTECH
2. 09/2019-02/2022, Byeongmin Kang, Convergence IT Engineering, POSTECH. Placement: Ph.D student @ KAIST
3. 03/2020-02/2022, Seung Hyeon Hwang, Mechanical Engineering, POSTECH
4. 02/2019-07/2021, Yejin Park, M.S. Convergence IT Engineering, POSTECH (Kwanjeong Fellow). Placement: Samsung Electronics
5. 03/2018-02/2021, Sooyeon Lee, M.S. Creative IT Engineering, POSTECH. Placement: LG Households & Healthcare

**CURRENT**

1. 09/2020-present, Sungkeon Cho, Mechanical Engineering, POSTECH

**COMMITTEES OF DOCTORAL STUDENTS**

1. 06/2022, External examiner of PhD thesis Mr. Jihyuk YANG, University of Hong Kong
2. 06/2022, Eunbi Ye, Convergence IT Engineering, POSTECH
3. 06/2022, Wonju Seo, Convergence IT Engineering, POSTECH
4. 08/2022, Dayoon Kang, IBIO, POSTECH
5. 02/2022, Jongbeom Kim, Convergence IT Engineering, POSTECH (proposal)
6. 12/2021, Joongho Ahn, Convergence IT Engineering, POSTECH
7. 08/2020, Jungho Kong, Life Science, POSTECH
8. 11/2021, Laura Ha, Chemical Engineering, POSTECH
9. 11/2021, Seongsu Eom, Mechanical Engineering, POSTECH
10. 07/2021, Wonju Seo, Convergence IT Engineering, POSTECH (proposal)
11. 07/2021, Joongho Ahn, Convergence IT Engineering, POSTECH (proposal)
12. 07/2021, Kibum Lee, Materials Science and Engineering, POSTECH (proposal)
13. 07/2021, Seonghui Cho, Materials Science and Engineering, POSTECH (proposal)
14. 07/2021, Sanghoon Hong, Materials Science and Engineering, POSTECH (proposal)
15. 06/2021, Hun Jin Jeong, Mechanical Engineering, Wonkwang University
16. 06/2021, Suhun Chae, Mechanical Engineering, POSTECH
17. 01/2021, Jeonghun Choi, Chemistry, POSTECH (proposal)
18. 01/2021, Taehun Chung, Materials Science and Engineering, POSTECH (proposal)
19. 12/2020, Andrew Choi, Mechanical Engineering, POSTECH
20. 08/2020, Jungho Kong, Life Science, POSTECH (proposal)
21. 08/2020, Dayoon Kang, IBIO, POSTECH (proposal)
22. 06/2020, Sanghoon Jung, Materials Science and Engineering, POSTECH (proposal)
23. 06/2020, Seungwan Jeon, Creative IT Engineering, POSTECH
24. 02/2020, Changhoon Choi, Creative IT Engineerring, POSTECH
25. 02/2020, Donghyun Lee, Creative IT Engineering, POSTECH
26. 02/2020, Eunyeong Park, Electrical Engineering, POSTECH
27. 12/2019, Hyeonjon Hong, Mechanical Engineering, POSTECH
28. 12/2019, Juan Park, Creative IT Engineering, POSTECH
29. 06/2019, Hyung Woo Kim, Mechanical Engineering, POSTECH

**COMMITTEES OF MASTER'S STUDENTS**

1. 12/2021, Geunho Lee, Mechanical Engineering, POSTECH
2. 06/2021, Hyujin Kim, Convergence IT Engineering, POSTECH
3. 06/2021, Jiwon Kim, Convergence IT Engineering, POSTECH
4. 12/2020, Sehyeon Kim, Creative IT Engineering, POSTECH
5. 12/2020, Hyun Hee Kim, IBIO, POSTECH
6. 12/2020, Chanyang Ju, Creative IT Engineering, POSTECH
7. 12/2020, Mina Lee, Creative IT Engineering, POSTECH
8. 06/2020, Hyeonseok Han, Mechanical Engineering, POSTECH
9. 06/2020, Dong-Hyun Yim, Creative IT Engineering, POSTECH
10. 12/2019, Chae-yeong Hwang, Mechanical Engineering, POSTECH
11. 12/2019, Taewoong Park, Creative IT Engineering, POSTECH
12. 06/2019, Soo Young Park, Mechanical Engineering, POSTECH

**DEPARTMENTAL OR UNIVERSITY COMMITTEES**

1. POSTECH IACUC Member (09/2021-present)
2. POSTECH Department Graduate Affairs Committee (ME; 05/2021-present)
3. POSTECH Biohealth Sector, TF member of MD-PhD Course (05/2021-present)
4. POSTECH Academic Information Affairs Committee (2020-present)
5. POSTECH Student Affairs Committee (03/2017-02/2021)
6. POSTECH Department Undergraduate Affairs Committee (CITE; 2017-present)

**SOCIETY MEMBERSHIPS**

**Membership**

1. International Society for Biofabrication (ISBF)
2. Biomedical Engineering Society (BMES)
3. Tissue Engineering and Regenerative Medicine International Society (TERMIS)
4. Korean Society of Mechanical Engineering (KSME)
5. Korean Society for Precision Engineering (KSPE)
6. Korean Tissue Engineering and Regenerative Medicine Society (KTERMS)
7. Korean Society for Biomaterials (KSBM)

**SOCIETY SERVICES**

**International**

1. **Executive Board of Directors** **(General Secretariat),** International Society for Biofabrication (01/2023-present)
2. **Board of Directors**, International Society for Biofabrication (09/2021-present)
3. **Committee of Early Career Researchers**, International Society for Biofabrication (06/2020-present)
4. **Representative Conference Secretariat**, Conference organization, International Conference on Biofabrication 2014 in Pohang, Korea, International Society for Biofabrication. (12/2013- 10/2014)

**Domestic**

1. **Council member**, Korean Society for Precision Engineering (04/2021-03/2023)
2. **Academic Committee**, Korean Tissue Engineering and Regenerative Medicine Society (01/2023-Present)
3. **Education Committee**, Korean Tissue Engineering and Regenerative Medicine Society (01/2022-12/2022)
4. **Young Investigator Committee**, Korean Tissue Engineering and Regenerative Medicine Society (01/2021-12/2021)
5. **Women in Science Committee**, Korean Society for Biomaterials (01/2021-12/2021)
6. **Editorial Advisory Committee**, Korean Society for Precision Engineering (01/ 2021-present)
7. **Biodata Working Group**, Device Sector, National Research Foundation of Korea (08/2020-present)
8. **Technical Advisory Committee**, 3D Bioprinting Sector, ROK Army Logistics Command (09/2020-present)
9. **Young Investigator Committee**, Korean Society for Biomaterials (01/2020-present)
10. **Academic Committee**, Korean Society of Mechanical Engineering (01/2019-present)
11. **Educational Committee,** Korean Society for Precision Engineering (01/ 2019-present)
12. **Board of Additive Manufacturing,** Korean Society for Precision Engineering (02/ 2019-present)
13. **3D Bioprinting sub-committee,** Korean Society for Organoid (07/2018-present)
14. **Board of Materials and Design,** Korean Society for Precision Engineering (01/ 2018-present)

**CONFERENCE SESSION CHAIRS OR COMMITTEE MEMBERS**

**Conference session chair**

1. CIMTEC 2022
2. 2022 International Conference on Biofabrication in Italy
3. 2022 TERMIS-AP
4. MPS summit 2022
5. 2021 TERMIS-WC
6. 2018 IEEE International Conference on Cyborg and Bionic Systems, CBS 2018 (10/2018)
7. Bioprinting for Regenerative Medicine Applications session in the 39th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, ICC Jeju, Jeju, Korea (07/2017)

**Program committee**

1. **Scientific Committee**, International Conference on Biofabrication 2022 in Italy.
2. **Publication committee**, International Symposium on Precision Engineering and Sustainable Manufacturing 2022, Korean Society for Precision Engineering
3. **Publicity committee**, co-chair, International Conference on Biomedical and Health Informatics (ICBHI) 2021.
4. **Publication committee**, International Conference on Convergence (BIEN) 2021, The Association of Korean Woman Scientists and Engineers.
5. **Sponsorship sub-committee**, International Conference on Biofabrication 2021, Wollongong, Australia, International Society for Biofabrication
6. **Publication committee**, International Symposium on Precision Engineering and Sustainable Manufacturing 2021, Korean Society for Precision Engineering

**EDITORIAL SERVICES**

**Associate editor**

1. Bio-Design & Manufacturing (04/2021-present)
2. 2020 IEEE International Conference on Intelligent Robots and Systems (IROS 2020)
3. 2018 IEEE International Conference on Cyborg and Bionic Systems (CBS 2018)

**Editorial board**

1. Journal of Korean Society for Precision Engineering (01/2019-present)
2. International Journal of Molecular Science (07/2020-present)
3. Applied Sciences, Section Board for 'Applied Biosciences and Bioengineering' (12/2020-present)

**Guest editor**

1. International Journal of Bioprinting, Special issue on Novel Materials and Processing for Medical 3D Printing and Bioprinting (01/2022-12/2022)
2. Essays in Biochemistry, Special issue on 3D Bioprinting (08/2020-12/2021)

**JOURNAL REFEREES (Selected)**

1. Advanced Materials
2. Advanced Functional Materials
3. Advanced Healthcare Materials
4. Nature Reviews Materials
5. Nature Communications
6. Acta Biomaterialia
7. Biomaterials
8. ACS Biomaterials Science & Engineering
9. ACS Applied Materials & Interfaces
10. Trends in Biotechnology
11. Biofabrication
12. Drug Discovery Today
13. Chemical Reviews
14. Lab on a Chip
15. Bioprinting
16. Drug Delivery