Dr. Shaochen Chen, Zable Endowed Chair Professor
Departments of NanoEngineering and Bioengineering, University of California, San Diego, USA

I am honored to be nominated as a potential member of the Board of Directors (BoD) of ISBF. Please see below my qualifications and commitments to the BoD.

Qualifications:

Expertise in Biofabrication: I started 3D printing and bioprinting research in 2000 with over 180 journal papers (H index = 67, Total citations = 17510) in top journals such as *Nature Medicine*, *Nature Materials*, *PNAS,* and *Biofabrication*. I have received prestigious awards, including NSF CAREER, ONR Young Investigator award, NIH Edward Nagy New Investigator Award, NSF BRITE Fellow award, Milton C. Shaw Manufacturing Research Medal from ASME, and Frederick W. Taylor Research Medal from SME. My major contributions include:

a) Pioneering work in DLP-based 3D printing and bioprinting (*J. Biomed Mater Res 2006,* 393 citations), which is among the firsts in the field for projection 3D printing of hydrogel biomaterials for tissue engineering. Our dynamic optical stereolithography method (DOPsL) (*Advanced Mater 2012*, 368 citations) is another first in the field about dynamic and continuous 3D printing of hydrogels. Our recent high-throughput, direct in-well printing technique for 3D micro-tissue fabrication in a multi-well plate (*Biofabrication* 2020) is now commercialized by Cellink (model: BIONOVA X).

b) 3D bioprinted tissue constructs: I am one of the world authorities in bioprinting functional tissue models such as liver, heart, eye, brain tumor (*PNAS* 2016, 703 citations). We have also created vascularized tissues with complex 3D microarchitectures and multiple cell types (*Biomaterials* 2017, 450 citations; *Science Advances* 2023). Recently, we integrated neuron stem cells within a 3D printed biomimetic scaffold, to repair a severely damaged spinal cord in rats with significant functional recovery (*Nature Medicine* 2019, 456 citations). This is a giant step towards future clinical treatment for spinal cord injury (highlighted in *Nat Rev Neuroscience* and reported by *NIH Director's Blog* in 2019).

Demonstrated Leadership: In 2010, I was recruited from the University of Texas at Austin to UC San Diego to build a brand-new NanoEngineering Department, the first of its kind in the US, where I have the leadership role including Chair of the Department. In particular, from 2020 to 2023, I was able to effectively lead the entire department going through the COVID-19 pandemic. The department grew from the original 6 faculty to 32 faculty in 15 years enrolling about 800 undergraduates and 300 graduate students. As the Chair, I held regular townhall meetings to hear about feedbacks from the students, staff and faculty and then take actions thoughtfully and swiftly to improve our teaching, research, and services.

From 2008 to 2010, I served as the Program Director of the Nanomanufacturing Program at the US National Science Foundation (NSF). This US government position allowed me to work with the nanomanufacturing community at large to define the future directions of nanomanufacturing research in the US and collaborate with key international partners such as EU and Asia countries. As an active member in my professional community, I was elected Fellow of 7 major societies including the National Academy of Inventors (NAI), the American Association for the Advancement of Science (AAAS), and the European Academy of Sciences and Arts (EASA). I have served as the Associate Editor of *J. Manufacturing Science and Engineering*, *J. Biomedical Nanotechnology,* and *J. Nanoparticles Research,* and on the editorial boards of several journals such as *Biofabrication* and *Additive Manufacturing*.

Commitments as a BoD Member:

As a BoD member, I will be a strong advocate of ISBF. I will carefully listen to the ISBF community and collaborate closely with other BoD members and the ISBF leadership. As a society, we should maintain a transparent environment for its operation. We should encourage inputs from everyone in the ISBF society, especially young investigators. We should also promote excellence and diversity in ISBF.