



Do Jin Im is a Professor in the Department of Chemical Engineering at Pukyong National University in Korea. He received his B.S. degree (POSTECH, Korea), M.S. degree (POSTECH, Korea), and Ph.D. degree (POSTECH) all in Chemical Engineering and was a postdoctoral fellow at POSTECH. He worked for several years at the Samsung Corning Precision Glass, Co Ltd and worked at POSTECH as a research assistant Professor before joining Pukyong National University in 2014. His research interests include Droplet Microfluidics, Biomicrofluidics, Bio-Engineering, 3D Organ printing, and Numerical Modeling.

Currently, he is leading the development of a novel droplet biomicrofluidic system based on the electrophoresis of a charged droplet (ECD). A droplet in contact with an electrified electrode acquires charges and the charged droplet can be electrophoretically controlled. This novel droplet manipulation method has some advantages over conventional ones and especially beneficial to electroporation, which can be used for the delivery of exogenous genes or drugs to cells. (Typical examples are making an IPS cell from a fibroblast, electrochemotherapy for cancer treatment, and DNA vaccination.) This work also includes electrical dispensing of cell suspension droplets to make tissue or organ on a chip.