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## 강연제목: 딥러닝 기반 생체광학영상의 품질 향상/

## Deep learning-based quality improvement of biophotonic imaging

### Abstract

Biophotonic imaging utilizes light properties such as scattering, absorption, and polarization to provide structural and functional information of biological tissues in real-time at various scales. Based on these advantages, it is currently being used in various fields of medical diagnosis and life science. However, there is a physical limitation that makes it difficult to show the images of deep tissue, and a large amount of data and high computational processes are required to extract functional image information. Recently, various deep learning techniques have been used to overcome the physical limitations of biophotonic imaging such as low resolution, shallow depth, and low sensitivity. In this presentation, the quality improvement of various biophotonic imaging using generative adversarial networks (GANs) will be introduced.

### Brief Biosketch

CHANGHO LEE is currently an associate professor at Chonnam National University (CNU) in Republic of Korea since 2017. He received his Ph.D. in 2013 at Kyungpook National University. Before joining CNU, he worked as an assistant research professor and a postdoctoral fellow at POSTECH (2013-2016) and Johns Hopkins University (2016-2017). He focused on developing novel-biomedical imaging modalities such as optical coherence tomography, photoacoustic imaging, multimodal optical imaging, molecular optical imaging, and intraoperative surgical imaging.