

세미나 초록

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발표 주제	Advanced Physiological Fluid Monitoring for Human Healthcare
발표 내용	<p>Physiological fluid, such as physiological fluid, for example, cerebrospinal fluid, breast milk for mothers, blood plasma, urine and lymph, is any liquid or fluid within our body that contributes to normal body function. Monitoring the physiological fluid is important to maintaining physiological balance and determining human health and recovery after surgery. This talk will present our efforts in developing the bioelectronics to monitoring the breast milk for infant's health and bladder function activity for long-term recovery phase after partial cystectomy. First, to monitor changes in breast milk volume during breastfeeding, we developed a wearable device based on impedance technology and validated this technology by conducting a multi-measurement human clinical trial with various subjects. In addition, for bladder cancer patients, monitoring bladder function activity is essential during the long-term recovery period of at least 2 months after partial cystectomy as a treatment. We developed a fully implantable bladder monitoring system based on stretchable strain gauge and validated our system over 2 month period in rodent and non-human primate model.</p>