

연수 제안서

연구 분야	뇌신경 이미징
연구 과제명	형광전압센서를 이용한 뇌신경 이미징 연구
연수 제안 업무	신규 형광전압센서 개발과 이를 이용한 뇌절편에서의 신경회로 이미징
<p>(연수 내용)</p> <p>A genetically encoded fluorescent voltage indicator (GEVI) is an alternative research tool that can be used to image neuronal activity. It senses membrane potential change of a neuron and converts it to fluorescence signal. One of our main goals is to develop and improve GEVIs. Bongwoori-R3 is our latest GEVI we reported last year that resolves action potentials with high signal to noise ratio (SNR). The next goal is to introduce various targeting motifs to Bongwoori-R3 in order to achieve better membrane trafficking which eventually will improve SNR of voltage imaging. Once we achieve such goals, we plan to apply new probes in voltage imaging of mouse brain slices so that neural circuits can be studied optically. This project will require knowledge and experience in protein engineering, electrophysiology, fluorescence microscopy and skills to conduct mouse brain slice experiment.</p>	
<p>소속 부 서 : 뇌과학연구소 / 기능커넥토믹스센터</p> <p>연수 책임자 : 브래들리 베이커</p>	