

연수 제안서

연구 분야	Behavioral, system, and cellular neuroscience
연구 과제명	<ul style="list-style-type: none"> - 정신건강을 조절하는 소뇌-복측피개영역과 소뇌-청반신경회로의 연구 - 뇌질환 예측 및 극복을 위한 AI-신경망 연구
연수 제안 업무	Researchs on neuronal circuit and synaptic regulation in the midbrain related to mental health
<p>- 연수기간 :</p> <p>~3 years (yearly renewal)</p> <p>- 연수 내용 :</p> <ol style="list-style-type: none"> 1. In vivo chemogenetic and optogenetic experiments <ul style="list-style-type: none"> • To express chemogenetic or optogenetic molecules in the specific circuits of midbrain regions, by utilizing AAV-based labeling method. • To establish the method to manipulate neural activity, and to measure neural activity. 2. Behavioral analyses <ul style="list-style-type: none"> • To establish appropriate behavioral analyses for stress application and assessment of mental conditions. • To analyze mental conditions using several types of assays and computer analysis. • To combine different situations (e.g., environmental enrichment and stress), or behavioral stimulation and neuronal activity manipulations. 3. Electrophysiological recording and circuit mapping <ul style="list-style-type: none"> • To test the specific synaptic connections and their regulation by ex-vivo patch clamp analysis • To detect specific network circuits by utilizing AAV-based labeling method and confocal imaging. 	
<p>소속 부 서 : 뇌과학융합연구단</p> <p>연수 책임자 : 게이코 야마모토</p>	