技術シーズに関連する研究業績

	研究業績
Ⅰ. 光デバイス全般に関する業績	Implantable Microimaging Device for Observing Brain Activities of Rodents,” Proc. IEEE, 105(1), 158-166, 2017
	"Implantable imaging and photostimulation devices for biomedical applications"Neuroelectronics, vol.2, no.1, pp.1-33, 2025.2.10.doi:10.55092/neuroelectronics20250002
Ⅱ. 脳刺激デバイスに関する業績	“Optical communication with brain cells by means of an implanted duplex micro-device with optogenetics and Ca2+ fluoroimaging,” Sci. Reports, 6(21247), 1-13, 2016.
	“Micro-LED Array-Based Photo-Stimulation Devices for Optogenetics in Rat and Macaque Monkey Brains,” IEEE Access, 9, 127937-127949, 2021.
	“Investigating the Influence of GABA Neurons on Dopamine Neurons in the Ventral Tegmental Area Using Optogenetic Techniques,” Int’l J. Mol. Sci., 23(3), 1114, 2022。
	“Region of interest determination algorithm of lensless calcium imaging datasets、” PLoS One、17;19(9):e0308573、2024.
	"Brain-implantable needle-type CMOS imaging device enables multi-layer dissection of seizure calcium dynamics in the hippocampus、” Journal of Neural Engineering、vol.21、no.4、046022、2024.
	“Investigating the Influence of Morphine and Cocaine on the Mesolimbic Pathway Using a Novel Microimaging Platform、” International Journal of Molecular Sciences、vol.24、no.22、pp.16303、2023.
Ⅲ. 脳埋植センサーに関する業績	“Novel implantable imaging system for enabling simultaneous multiplanar and multipoint analysis for fluorescence potentiometry in the visual cortex,” Biosen. Bioelectron. 38(1), 321- 330, 2012.
	“Monitoring Neural Activities in the VTA in Response to Nicotine Intake Using a Novel Implantable Microimaging Device,” IEEE Access, 8, 68013 - 68020, 2020.
	“Optical communication with brain cells by means of an implanted duplex micro-device with optogenetics and Ca2+ fluoroimaging,” Sci. Reports, 6(21247), 1-13, 2016.

技術シーズに関連する研究業績

Ⅳ. 光整体デバイス全般に関する業績 ヒトにおける電気DBS（脳深部刺激療法）と脳活動解析	"Balancing Risk-Return Decisions by Manipulating the Mesofrontal Circuits in Primate," Science, vol.383, no.6678, pp.55-61, 2024.
	“The effects of chronic subthalamic stimulation on nonmotor symptoms in advanced Parkinson’s disease, revealed by an online questionnaire program.“ Acta Neurochir (Wien). 162(2):247-255. 2020
	“Predictive Factors of Antiparkinsonian Drug Reduction after Subthalamic Stimulation for Parkinson's Disease.” Neurol Med Chir (Tokyo). 59(9):331-336, 2019
	“Time Neurofeedback to Modulate β-Band Power in the Subthalamic Nucleus in Parkinson's Disease Patients.” eNeuro. 1;5(6). pii: ENEURO.0246-18, 2018
	“Parkinsonian impairment correlates with spatially extensive subthalamic oscillatory synchronization.” Neuroscience, 24;171(1):245-57. 2010
	“Value of subthalamic nucleus local field potentials recording in predicting stimulation parameters for deep brain stimulation in Parkinson’s disease.” Journal of Neurology, Neurosurgery & Psychiatry, 81(8):885-9. 2010
	”Subthalamic nucleus stimulation does not cause deterioration of preexisting hallucinations in Parkinson's disease patients.” Stereotact Funct Neurosurg. 87(1):45-9. 2009
	“Assessment of contact location in subthalamic stimulation for Parkinson’s disease by co-registration of computed tomography images.” Stereotact Funct Neurosurg. 86(3):162-6. 2008.
光遺伝学ツール、アデノ随伴ウイルス技術の霊長類への応用と霊長類疾患症状評価方法	“Quantitative behavioral evaluation of a non-human primate stroke model using a new monitoring system.” Front Neurosci 1;16:964928, 2022
	“MarmoDetector: A novel 3D automated system for the quantitative assessment of marmoset behavior. “J Neurosci Methods.;322:23-33. 2019.
	“Long-Term Implantable, Flexible, and Transparent Neural Interface Based on Ag/Au Core-Shell Nanowires.” Adv Healthc Mater. 8(10): e1900130. 2019
	“Near-infrared fluorescent proteins engineered from bacterial phytochromes in neuroimaging.” Biophys J. 113(10) 2299-309, 2017
	Optogenetically motor evoked potentials in mice. Clinical neurophysiology. 128(9) e172, 2017.
	“Implantable wireless 64-channel system with flexible ECoG electrode and optogenetics probe.” Biomedical Circuits and Systems Conference (BioCAS), 2016 IEEE, 476-479
	”Expansion Microscopy of Biological Specimens with Protein Retention.” Nat Biotechnol.; 34(9):987-992. 2016.