

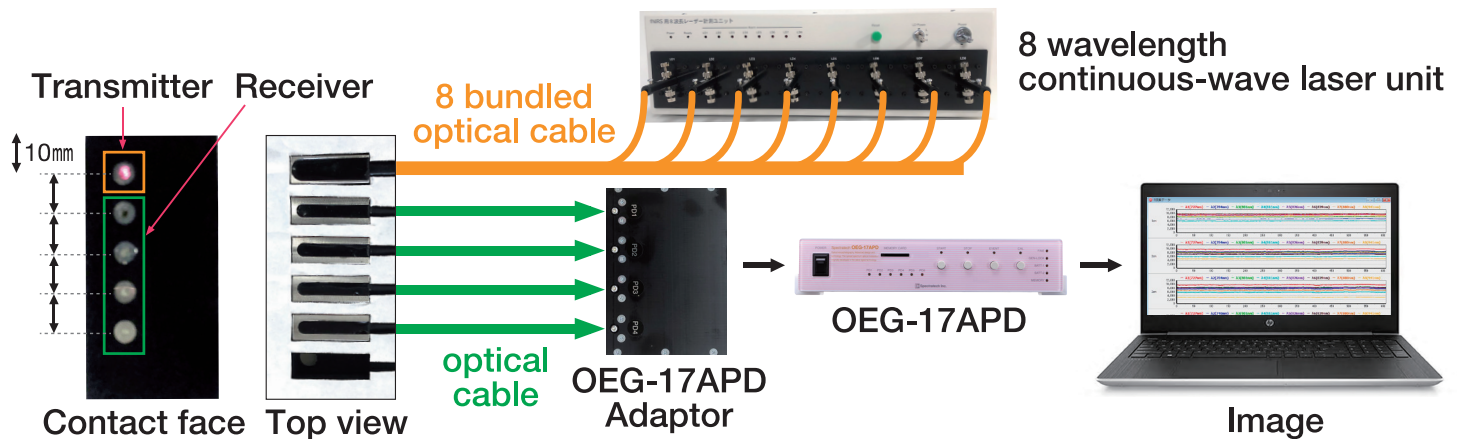


Prototype of a multi-distance and multi-wavelength fNIRS system

Session 5 : Advances in NIRS F8 (Sep.29 11:00~)

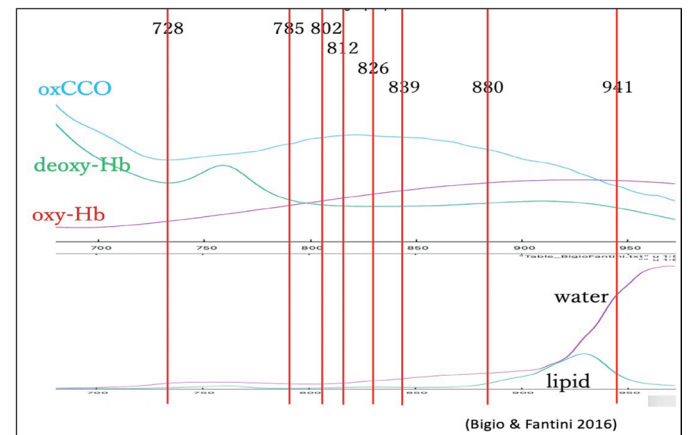
“Respiration-entrained hemo-metabolic-glymphatic dynamics of the cortex measured with continuous wave functional near-infrared spectroscopy.” Gentaro Taga and Hama Watanabe, Graduate School of Education, The University of Tokyo, Japan

System configuration diagram



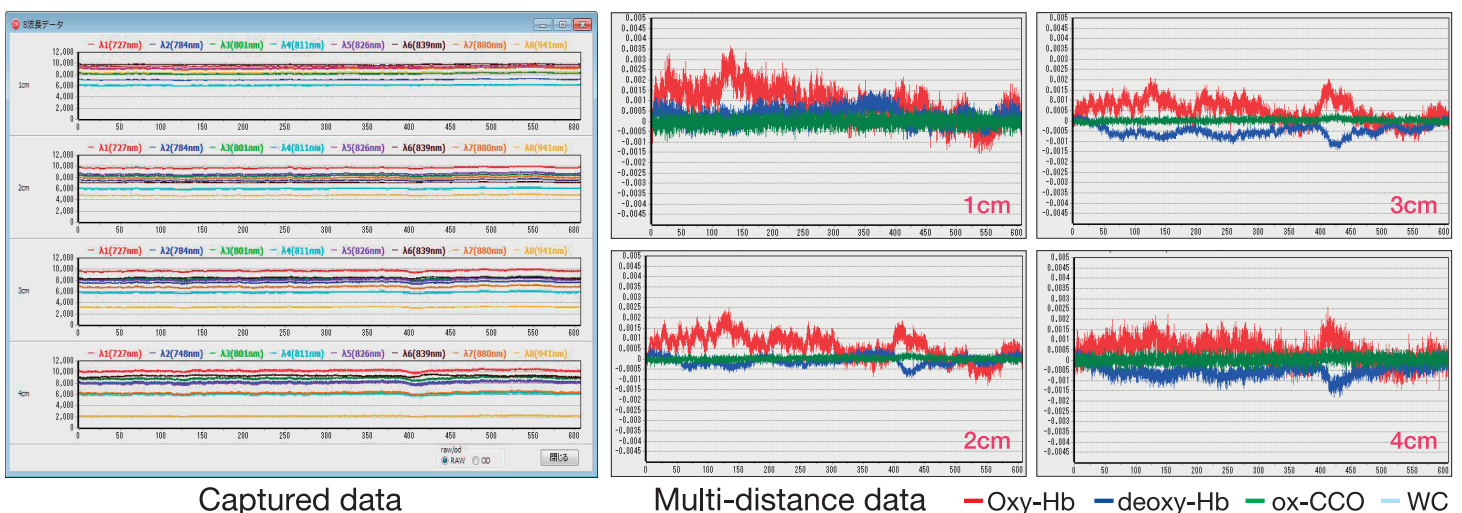
Specification

Item	specification
Laser transmitter	
Light source	Semiconductor laser
1 output	With 8 combined optical cable
Laser wavelength (nm)	727, 784, 801, 811, 826, 839, 880, 941
Receiver	
Light detection	Avalanche photodiode
4 inputs	Multi distance (1.2.3.4cm)
Optical modulation method	Code Division Multiple Access (CDMA)
Sampling time	81.9ms
Safety	IEC60825-1 Class1



Laser light wavelength distribution

Images



Captured data

Multi-distance data

— Oxy-Hb — deoxy-Hb — ox-CCO — WC