

# <sup>17</sup>O Labeled Stable Isotope Water Imaging Symposium

March 9th  
Sat 2024

13:00 to 18:50

Admission  
Free of  
Charge

Format : Hybrid

School of Medicine Centennial Hall,  
Graduate School of Medicine,  
Hokkaido University

URL / <https://forms.gle/Nc19qPvCTt5Vy2Dh6>

Pre-registration Online

[https://us06web.zoom.us/webinar/register/WN\\_QrxotaNpQhOb7yYcGJtYvA](https://us06web.zoom.us/webinar/register/WN_QrxotaNpQhOb7yYcGJtYvA)

Pre-registration  
Onsite



Lectures will be broadcast on YouTube after March 9th

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Nonprofit organization  
Medical Image Lab.

## Schedule

(JST)

Opening Remarks	13:00-
<sup>17</sup> O Labeled Stable Isotope Water MR Imaging and Aquaporin-4	13:10-
<b>Water Movement in AQP4-knockout Mouse Brain after MCA Occlusion</b> National Institutes for Quantum Science and Technology / Takayuki OBATA	
<b>Functional Analysis of AQP-4 Using Water and Solute Tracers in MRI</b> Radiology, Hokkaido University Hospital / Daisuke KATO	
<b>Modulation of Brain Water Dynamics through AQP-4 Regulation and Its Implications for Disease Treatment Strategies</b> Brain Research Institute, Niigata University / Hironaka IGARASHI	
Intermission	14:10-14:25
<b>Attempt to Visualize Neurofluid Using Oxygen-<sup>17</sup>O Labeled Stable Isotope Water</b>	14:25-
<b>Neurofluid MR Imaging using CSF Tracers in Rat Models</b> Radiology, Hokkaido University Hospital / Naoya KINOTA	
<b>Analysis of Brain Water Dynamics using H<sub>2</sub><sup>17</sup>O MRI in ALS Model Mice Administered <sup>17</sup>O Labeled Water</b> Central Institute for Experimental Animals / Yuji KOMAKI	
<b>Cerebrospinal Fluid Dynamics using <sup>17</sup>O-Labeled Water in <i>Macaca fascicularis</i></b> Radiology, Shiga University of Medical Science / Yoshiyuki WATANABE	
<b>MR Imaging of Neurofluid in Humans using <sup>17</sup>O-Labeled Water</b> Radiology, Hokkaido University Hospital / Hiroyuki KAMEDA	
Intermission	15:45-16:00
<b>Application of <sup>17</sup>O Labeled Stable Isotope Water in Human</b>	16:00-
<b>Visualization of Human Intraocular Water Dynamics using <sup>1</sup>H-MRI with <sup>17</sup>O Labeled Water</b> National Institutes for Quantum Science and Technology / Moyoko TOMIYASU	
<b>MR Imaging of Intrapyranically Administered <sup>17</sup>O Labeled Water in the Human Inner Ear: Insight into Lymphatic Dynamics and Vestibular Function</b> Department of Radiology Nagoya University, Graduate School of Medicine / Shinji NAGANAWA	
<b>Development of MRI Evaluation Modalities for the Diagnosis of Articular Cartilage Lesions</b> Department of Orthopaedic Surgery, Hokkaido University Graduate School of Medicine / Tomohiro ONODERA	
Intermission	17:00-17:15
<b>Integration with Other Fields</b>	17:15-
<b>D<sub>2</sub>O Containing Organ Preservation Solution Suppresses Cold Storage and Reperfusion Injury: Emerging Needs to Assess Solvent Isotope Effect of D<sub>2</sub>O Inside and Outside the Body</b> Department of Gastroenterological Surgery 1, Hokkaido University Graduate School of Medicine / Moto FUKAI	
<b>Cryogenic Isotope Microscope from Stars to Life</b> Creative Research Institution, Hokkaido University / Naoya SAKAMOTO	
Intermission	17:55-18:10
<b>Special Lecture</b>	18:10-
<b>Physiological and Pathological Roles of Aquaporin-4 in Glymphatic System</b> Department of Pharmacology, Keio University School of Medicine / Masato YASUI	
Closing Remarks	18:40-

Contact  
Information

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