

Syllabus Reference

Course title	Special Lectures in Physiological Sciences 1		
Term	通年(前期開始) Whole Year		
Credit(s)	1		
The main day		The main period	
Program/Department	48 Physiological Sciences		
Lecturers	Furuse, Nemoto, Kitajo, Takemura et al.		
成績評価区分 Grading Scale	A, B, C, Dの4段階評価 Four-grade evaluation		
レベル Level	Level 3		
力量 Competence	専門力 Academic expertise、独創性 Creativity		

Instructor

Full name

* FURUSE MIKIO

NEMOTO TOMOMI

KITAJO KEIICHI

TAKEMURA HIROMASA

MURAKAMI MASAACKI

WAKE HIROAKI

SASAKI RYO

SOKABE TAKAACKI

HASEBE RIE

Outline

Lectures describing recent progress and cutting-edge techniques in the physiological science field.

Learning objectives

To acquire new knowledge and a wide range of information in physiological sciences

Grading policy

Attendance of at least half of each of the first half (1st to 4th lectures) and the second half (5th to 8th lectures) is required for credit acquisition.

Students choose one of four lectures in the first (from May to August) and second semester (from October to January), respectively, and write an essay report summarizing the lecture content with about 600 English words.

The grade is determined based on the quality of the submitted report, which is indicated by A (corresponding to score 80-100), B (70-79), C (60-69), or D (less than 60); A, B or C is 'passed.'

Lecture Plan

The lectures will take place from 15:00 to 16:30 on the following dates.

2025

April 23 (wed) Mikio Furuse "Molecular mechanisms of the regulation of epithelial permeability"

May 14 (Wed) Hiroaki Wake "Physiological and pathological functions of glia"

June 4 (Wed) Tomomi Nemoto "Microscopic visualization analysis methods for cellular physiological functions "

July 9 (Wed) Hiromasa Takemura "Structural and functional neuroimaging on the human visual system"

October 22(Wed) Masaaki Murakami, Emi Hasebe "Gateway reflex is a novel neuroimmune interaction"

November 12 (Wed) Takaaki Sokabe "Sensory molecules and their physiological roles in Drosophila"

	December 2 (Wed) Ryo Sasaki "Neural systems for flexible decisions and behavior" 2026 January 28 (Wed) Keiichi Kitajo "The functional roles of oscillatory synchronization of neural activity"
Location	Online using Zoom
Language	English
Textbooks and references	None
Notes for students of other programs	Students in courses other than the Physiological Sciences course should contact the following email address before enrolling in the course. sokendai-adm@nips.ac.jp
Others	D1 and D2 students in the Physiological Sciences course are strongly recommended to take this class. Students from all courses are also welcome.
Contact for Course Inquiries	Prof. Mikio Furuse furuse@nips.ac.jp

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Syllabus Reference

Course title	Special Lectures in Physiological Sciences 1		
Term	通年(後期開始) 2nd - 1st		
Credit(s)	1		
The main day		The main period	
Program/Department	48 Physiological Sciences		
Lecturers	Furuse, Nemoto, Kitajo, Takemura et al.		
成績評価区分 Grading Scale	A, B, C, Dの4段階評価 Four-grade evaluation		
レベル Level	Level 3		
力量 Competence	専門力 Academic expertise、独創性 Creativity		

Instructor

Full name

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2025

October 22(Wed) Masaaki Murakami, Emi Hasebe "Gateway reflex is a novel neuroimmune interaction"

November 12 (Wed) Takaaki Sokabe "Sensory molecules and their physiological roles in Drosophila"

December 2 (Wed) Ryo Sasaki "Neural systems for flexible decisions and behavior"

2026

January 28 (Wed) Keiichi Kitajo "The functional roles of oscillatory synchronization of neural activity"

The latter lectures will be announced in April 2026.

Location

Online using Zoom

Language

English

Textbooks and references	None
Notes for students of other programs	Students in courses other than the Physiological Sciences course should contact the following email address before enrolling in the course. sokendai-adm@nips.ac.jp
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