Course title: Clinical pathophysiology 2
Term: 2nd Half
Credit(s): 1

Program/Department: 48 Physiological Sciences
Lecturers: Keichi Kitajo and others

Grading Scale: A, B, C, D

Level: 3

Competence: Academic expertise

Outline:
Lecturers in the basic fields will give an overview of the mechanisms of the normal functioning of cortical networks, basal ganglia circuits, and synapses. After that, clinical researchers invited from outside will give a lecture on the clinical pathology and treatment for diseases caused by abnormalities in these mechanisms.

Learning objectives:
This course will focus on the pathophysiology of the brain at three different neuroscientific spatial scales: the cortical network, basal ganglia, and synaptic levels. By relating the basic understanding of physiology to pathologies, students will learn how abnormalities in basic physiology contribute to the development of diseases and pathologies. Furthermore, students will also understand how the normalization of basic physiological mechanisms can lead to the treatment of pathologies and diseases.

Grading policy:
The students will choose one of the three themes, the cortical network, basal ganglia, or synapses, and submit a report. The lecturers of the course will grade the submitted reports.

Lecture Plan:
The lectures are composed of both the basic and the clinical aspects.

- **Cortical networks**
  - October 25 (Wed) 10:00-11:30: Keiichi Kitajo (basic 1)
  - November 1 (Wed) 10:00-11:30: Hiromasa Takemura (basic 2)

- **Synapse**
  - November 15 (Wed) 10:00-11:30: Masaki Fukata (basic 1)
  - November 28 (Tue) 10:00-11:30: Yumiko Yoshimura (basic 2)
  - November 29 (Wed) 10:00-11:30: Masahisa Katsuno (clinical)

- **Basal Ganglia**
  - December 6 (Wed) 10:00-11:30: Masaki Isoda (basic 1)
  - December 13 (Wed) 10:00-11:30: Takayoshi Shimohata (clinical)

Location: online
Language: English but some of the lectures will be given in Japanese.

Textbooks and references: None

Notes for students of other programs: None

Related URL: https://www.nips.ac.jp/graduate/curriculum.html

Explanatory note on above URL: Please check the latest schedule on the program website mentioned above.

Others: None

Keyword: cortical network, basal ganglia, synapse, pathophysiology