科目ナンバリング	U-LAS70 10002 SE50						
授業科目名<英訳>	ILAS Seminar-E2 :Disorders of the Nervous System（神経系障害） ILAS Seminar-E2 :Disorders of the Nervous System			担当者所属職名・氏名	医学研究科　講師　RAUDZUS, Fabian		
群	少人数群	単位数	2単位	週コマ数	1コマ	授業形態	ゼミナール（対面授業科目）
開講年度・開講期	2026・後期	受講定員(1回生定員)	25 (15) 人	配当学年	主として1回生	対象学生	全学向
曜時限	水4	教室	1共24			使用言語	英語
キーワード	Brain (脳) / Parkinson disease (パーキンソン病) / Alzheimer disease (アルツハイマー病) / Spinal cord injuries (脊髄損傷)						

[授業の概要・目的]

Get ready for an exciting journey into the world of "Disorders of the Nervous System"! This seminar uncovers the mysteries behind various diseases caused by factors like neurodegeneration, genetics, environmental influences, and injuries. These conditions present significant challenges for individuals, their families, and society at large. While many of these disorders currently lack a cure, exploring their underlying mechanisms is key to finding groundbreaking solutions.

Throughout the seminar, we'll explore the details of the peripheral and central nervous systems, unraveling the interesting organization of the human brain. We'll investigate both the genetic and environmental triggers behind these disorders. As we progress, we'll focus on neurodegenerative conditions like Alzheimer's, Parkinson's, and Huntington's diseases, and later, we'll look into peripheral nervous system disorders, including those affecting vision and hearing.

Be prepared for an interactive experience! Your learning adventure will involve dynamic student presentations followed by lively group discussions. Once we've examined the background and causes of each disorder, you'll have the exciting opportunity to dive into selected literature, gaining valuable insights into current treatments and future possibilities. This seminar promises to be an enriching exploration of the fascinating world of neuroscience and its potential to transform lives!

[到達目標]

During this seminar, you will gain insights into common conditions and stay updated with the latest research. Through hands-on study of primary sources, you will uncover cutting-edge treatments and methodologies. By the end of the course, you will possess a robust skill set, allowing you to critically evaluate, discuss, and comprehend nervous system disorders and their various treatment options. This knowledge will empower you to navigate this field with confidence and expertise!

[授業計画と内容]

Tentative Schedule:

1. Getting to Know Our Nervous Systems: Peripheral and Central Nervous Systems Unraveled
2. Inside the Brain: How It Works and Why It Matters
3. Genes and Nervous System Problems: Understanding Genetic Causes of Brain Disorders
4. Environment and Our Nervous System: How Outside Factors Affect Our Health
5. Parkinson's: Why Movements Slow Down and Muscles Get Stiff
6. Understanding Alzheimer's: How It Affects Memory and Thinking
7. Huntington's Disease: A Brain Condition That Starts Early and Gets Worse
8. Proteins and Brain Health: Exploring Prion and Creutzfeldt-Jakob Diseases
9. When the Brain-Body Link Breaks: Exploring Spinal Cord Injuries
10. Nerve Troubles: Learning About Charcot-Marie-Tooth Disease

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ILAS Seminar-E2 :Disorders of the Nervous System（神経系障害）(2)

11. Epilepsy: What Happens When the Brain Gets Too Active
12. Eye Troubles: Understanding Glaucoma and Other Visual Problems
13. Hearing Loss Stories: Brown-Vialetto-Van Laer Syndrome and Sensorineural Hearing Loss
14. The Latest in Nervous System Research: Where We Are and What's Next
15. Feedback

Changes regarding content and order might occur.

[履修要件]

This course is open to all students, although a basic understanding of biology is suggested. Additionally, attending the seminar "Physiological Neuroscience" beforehand is recommended to get introduced to the basic principles of neuroscience.

[成績評価の方法・観点]

Attendance and active participation: 20%
Midterm assignment: 40%
Presentation: 40%

[教科書]

使用しない

[参考書等]

（参考書）
Mark F. Bear, Barry W. Connors, Michael A. Paradiso 『Neuroscience: Exploring the Brain』（Jones & Bartlett Learning, April 8, 2020）ISBN:9781284211283（Enhanced 4th Edition (English Edition)）

[授業外学修（予習・復習）等]

To make the most of each seminar, it's important to be prepared. This involves reviewing the previous session, working through any questions, and doing some independent study on the upcoming subject. Expect to spend around 60-90 minutes getting ready.

[その他（オフィスアワー等）]

For a deeper understanding of neuroscience, it's advised to attend the "Physiological Neuroscience" seminar. This will provide additional insights into the basic principles of our nervous system.

If you have further questions, feel free to write me an email.

[主要授業科目（学部・学科名）]