

科目ナンバリング	U-LAS70 10002 SE50						
授業科目名 <英訳>	ILAS Seminar-E2 :It's a Bug's Life - bacteria and viruses (微生物の世界へようこそ) ILAS Seminar-E2 :It's a Bug's Life - bacteria and viruses				担当者所属職名・氏名	医学研究科 准教授 KIM, Minsoo	
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	2024・前期	受講定員 (1回生定員)	12 (12) 人	配当学年	主として1回生	対象学生	全学向
曜時限	金5	教室	共北3C			使用言語	英語
キーワード	Virus / Bacteria / Infection / Immunity / Vaccine						

### [授業の概要・目的]

The human body has over 10 trillion cells, but it has 10 times that number of microbial cells living in and on our body. These microbes are therefore an important part of our body. Some commensal bacteria are beneficial to our health whereas new viruses and bacteria that continue to emerge and reemerge may result in unpredictable life-threatening epidemics. To overcome such infectious diseases, we need a better understanding of the molecular mechanisms of host-microbe interactions so as to develop new concepts for antibiotics or vaccines.

This course focuses on the basics of microbiology, immunology, and environmental microbes. Particular emphasis is placed on understanding viruses, bacteria, the interaction between microorganisms and host cells, and the identification of microorganisms in our environment. During the course, students will actively participate in discussions and in the exchange of ideas.

### [到達目標]

To identify and understand the major microbes that impact our lives.

To understand the infection phenomenon.

To enhance your critical thinking skills and effectively discuss scientific topics.

### [授業計画と内容]

1. Introducing the invisible world
2. What is a microbe?
3. The basics of bacteria
4. Microbiota and human health
5. Soil bacteria and the environment
6. Identification of bacteria (field work 1)
7. Identification of bacteria (field work 2)
8. Diversity of viruses
9. Viruses and Cancer
10. Zoonotic viruses
11. Viruses in our environment
12. Recognition of microbes
13. Battle against microbes
14. Life with or without microbes
15. Student presentation
16. Feedback

**[履修要件]**

特になし

**[成績評価の方法・観点]**

Evaluation will be based on class attendance and participation (60%), and final presentation (40%).

**[教科書]**

授業中に指示する

**[参考書等]**

(参考書)

授業中に紹介する

**[授業外学修(予習・復習)等]**

To achieve the course goals students review the course handouts.

**[その他(オフィスアワー等)]**

Please feel free to come to my office at any time.

Please take out the accident insurance of Personal Accident Insurance for Students Pursuing Ed. & Rsch. as needed.