UTokyo Amgen Scholars Program 2027
Host Laboratory and Research Topic

Name of Faculty Member	MOI MENG LING, Professor
Name of Graduate School / Institute	Graduate School of Medicine
Research Topic & Description	Protective vs. pathogenic immunity to mosquito-borne viruses: translating viral immunology into next-generation vaccines Dengue, Zika and Japanese encephalitis viruses remain major public-health threats in Asia. Our laboratory asks a central question: why do some antiviral immune responses protect, while others can contribute to enhanced infection or disease—and how can this knowledge guide safer vaccines? The Amgen Scholar will join an active project in viral immunology/vaccinology and address a defined research question. Depending on the project and background, work may include molecular virology, cell-based assays, antibody neutralization/ADE assays, T-cell immunology, sequencing/immune-repertoire analysis, or experimental/clinical data analysis. Students are involved in the full research cycle—from hypothesis and experimental design to data interpretation and presentation. Each project is scoped to achieve meaningful results within the eight-week program.
Academic Requirements & Expectations	**1) Field(s) of Study** Microbiology / Virology / Immunology / Molecular Biology / Molecular Medicine / Vaccinology Students with a background or strong interest in bioinformatics/data science are also welcome. **2) Knowledge/ Skill/ Proficiency** • Basic understanding of molecular and cell biology; coursework in microbiology, virology or immunology is desirable but not essential. • Strong curiosity about infectious diseases and willingness to understand the biological question behind the experiments. • Ability to communicate in English, discuss data, and work constructively in an international team. • Careful record-keeping, reliability and attention to experimental detail. • Basic quantitative/data-analysis experience (e.g., Excel, R or Python) is an advantage but not required. **3) Academic Background and Research Experience** Undergraduate students in biology, microbiology, immunology, biotechnology, molecular biology, medicine, bioengineering, bioinformatics or related fields are welcome. Prior wet-lab research is helpful but not required; experience with pipetting, cell culture, ELISA/PCR, microscopy or data analysis is advantageous. Students must be comfortable working in a BSL-2 laboratory and following biosafety procedures. We particularly welcome highly motivated students who are proactive, ask questions, and can commit fully to an intensive eight-week research project.
Website & Relevant Information	https://www.development.m.u-tokyo.ac.jp/en/ International, English-speaking laboratory; scholars join ongoing projects with close mentoring. All previous Amgen Scholars in our laboratory actively participated in research, and most are co-authors on papers from our laboratory where their contributions met authorship criteria. We especially welcome students interested in continuing in research and pursuing MSc/PhD. Selected publications involving previous AMGEN Scholars (Da Costa et al., Trop Med Health, 2026; Sano et al., Trop Med Health, 2025; Haga et al., Pathogens, 2023)
Campus / Location	Hongo / Yayoi
Area of Research	Immunology Virology Epidemiology