UTokyo Amgen Scholars Program 2025
Host Laboratory and Research Topic

Name of Faculty Member (Title)	Keisuke Goda (Professor)
Name of Graduate School/ Faculty/ Institute	Graduate School of Science
Research Topic & Description	At Goda Lab, our primary mission is to develop "serendipity-enabling technologies" that align with Louis Pasteur's famous quote, "Chance (serendipity) favors the prepared mind." Our focus is on developing innovative tools for molecular imaging and spectroscopy by integrating photonics, nanotechnology, microfluidics, and data science. By utilizing these tools, we aim to discover unknown phenomena, elucidate mechanisms, and explore new applications in science, industry, and medicine. We employ theoretical, experimental, and computational techniques to tackle critical problems. Additionally, we are committed to cultivating the next generation of global leaders who will shape the world in the 21st century. We foster an international and interdisciplinary research environment that values flat human relationships, and we actively seek out talented individuals from any university or company, regardless of their field of study.

Academic Requirements & Expectations

1) Field(s) of Study
1. We encourage applications from candidates majoring in fields related to, but not limited to, physics, chemistry, biology, data science, materials science, electrical engineering, mechanical engineering, chemical engineering, bioengineering, or a closely related field.   2. Given the interdisciplinary nature of our work, individuals from various scientific and engineering disciplines who possess a strong interest and background in the areas we focus on are welcome to apply.

2) Knowledge/ Skill/ Proficiency
1. Applicants must possess foundational knowledge in molecular imaging, spectroscopy, photonics, nanotechnology, microfluidics, and/or data science, as our lab extensively works on integrating these domains to develop innovative tools.   2. Demonstrated skills in theoretical, experimental, and computational techniques are highly beneficial.   3. Ability to work in an international and interdisciplinary research environment with a cooperative mindset is crucial.   4. Applicants should be ready to engage actively in discovering unknown phenomena, elucidating mechanisms, and exploring new applications in science, industry, and medicine.

3) Academic Background and Research Experience
1. Applicants should have a strong academic record with coursework or research experience that aligns with the areas of molecular imaging, spectroscopy, photonics, nanotechnology, microfluidics, and data science.   2. Experience in working on projects or research that involves theoretical, experimental, and computational techniques to solve critical problems is highly desirable.   3. Participation in projects that demonstrate the ability to discover, elucidate, and explore in science, industry, and medicine is an added advantage.

Lab Website & Relevant Information	http://www.goda.chem.s.u-tokyo.ac.jp/
Campus / Location	Hongo / Yayoi
Area of Research	Biochemistry Bioinformatics Chemical and Biomolecular Engineering