

UTokyo Amgen Scholars Program 2022 Host Laboratories & Project Topics

Name of Faculty Member (Title)	NAKAGAWA Keiichi (Lecturer)
Name of Graduate School / Faculty/ Institute	Graduate School of Engineering
Research Topic & Research Description	<p>1) Ultrafast imaging: we will visualize the acoustic interaction with biological cells (pico- to nano-second timescales) to understand the therapeutic effects on the body in noninvasive acoustic wave therapy.</p> <p>2) Biophotonics: we will develop a new method to produce acoustic waves inside the body to manipulate the photons' behavior for optical biotechnologies.</p> <p>3) Biophysics: we will demonstrate sonogenetics --to control the activity of the cells, like optogenetics- with genetically engineered sono-sensitive cells based on our photoacoustic technology.</p>
Special academic conditions required for research	1) Prerequisite knowledge and/or specific skill and its proficiency
	None
	2) Required study field(s)
Special academic conditions required for research	None
	3) Academic background or research project experience to be considered at selection
Lab Website	<p>Group website: http://www.bmpe.t.u-tokyo.ac.jp/en/index.html</p> <p>Personal website: https://sites.google.com/site/keinakagawa6</p>
Campus	Hongo
Academic Research Areas	<p>Bioengineering</p> <p>Biotechnology</p> <p>Neuroscience</p>
Lab Videos	Visit the Lab Websites to access the movies