Guest Lecture: How to Increase Plant Biomass?

Prof. Taku Demura, a Japan renowned scientist, has worked extensively with xylem formation using the various approach at his lab (Laboratory of Plant Metabolic Regulation, Nara Institute of Science and Technology, NAIST, Japan). His scientific work is in order to increase the plant biomass.

The Professor came to the Department of Biology (14/07) to give a guest lecture. In this lecture, he starts with the introduction of NAIST and its academic activities, as well as the research. He also mentioned about how to apply as a student of NAIST.

After the NAIST introduction, he talks about the stems and root xylem unique characteristic. It was mentioned that there is a finding of the difference in helical structure between stems and root xylem. The finding made Prof. Demura to conduct more intensively research about xylem formation. His research leads to a new finding of the importances of VND6 and VND7 genes that associated with cell wall formation.

In the lecture that attended by dozens of students and lecturer, he also explained that he already using multi-omic approach to understand molecular mechanism that leads to woody mass production. In the future, that basic mechanism will help us to produce more plant biomass, especially cell wall, that will be utilized such as bio ethanol or wood industry.