

Summer life science workshop for high school students

September 26, 2014– The CDB's annual one-day summer workshops for high school students were held this year on August 5 and 28. Similar to last year's program, the theme of this year's workshop was "Development and Differentiation," and included a talk and laboratory tour by a CDB scientist and lab experiments.



Group Director Matsuzaki giving a talk (left) and giving a tour of his lab

In the morning session, Fumio Matsuzaki (Group Director, Laboratory for Cell Asymmetry) explained to the students about basic mechanisms through which cells become more specialized. Using the *C. elegans* as a model, he talked about how molecular factors function during cell division, and how different types of cells could be produced through asymmetrical cell division by showing movies and images. Afterwards, the students had the opportunity to visit his laboratory to see actual fly and mouse samples and also see scientists at work in a lab setting.



Students carrying out experiments

In the afternoon, the students learned how to analyze proteins from brain, liver, and muscle tissues using the SDS-PAGE method. They extracted proteins from tissue samples prepared in advance from chicken embryos, separated the proteins using electrophoresis, and made guesses on which proteins were found in each tissue sample based on estimated calculations of molecular weight. They also learned about the advantages of using various model organisms in research. While some struggled with the unfamiliar experimental manipulations and handling the fragile gels, sounds of excitement echoed around the room when the bands appeared on the gels after staining.

This is the eighth year that this summer workshop has been organized.