RIKEN Center for Developmental Biology (CDB)

2-2-3 Minatojima minamimachi, Chuo-ku, Kobe 650-0047, Japan

Another successful year for CDB Summer School

Aug 12, 2013 – The RIKEN CDB once again held its annual summer school program for high school students, welcoming two groups of students for one-day courses on August 6 and 8. This year's program featured laboratory visits, lectures, and simple experiments in the CDB's training lab. Cell differentiation was a major theme for the course, conducted in cooperation with the Laboratory of Lung Development (Mitsuru Morimoto, Team Leader).

In the morning, Morimoto explained how the cells of the body take on specialized roles, introducing some of his own research into how the cells of the mouse respiratory differentiate in response to environmental cues. He next showed his student visitors the movement of ciliated cells from the lung under a microscope.



In the afternoon, the laboratory work involved the use of a form of electrophoresis SDS-PAGE to isolate proteins from brain, liver, and bone tissue from early chick embryos. This technique separates proteins by their mobility in response to an electric charge in solution, which provides information about properties such as their charge, weight, and length. While awaiting the results of their electrophoresis experiments, the students also took the opportunity to microscopically observe cells from various developing tissues, including neurons with axonal projections, multinucleate muscle cells, and beating cardiomyocytes.

