

CTE Lab Researchers Host Lab Tours during Admit Day

by Murray Grissom and Bradley Hansen; ed. Johnny Du

On April 4th, 2009, the Cartilage Tissue Engineering Lab once again participated in UCSD's annual Admit Day, an event intended to inspire prospective college school students to attend UCSD, introduce them to campus facilities, and provide information for intended degree programs. The CTE Lab hosted tours to help present the different fields of research and possible research opportunities at UCSD.

Waves of high school students and parents came to the lab throughout the day. Their interest in the lab's research was evident in their curious faces and thoughtful questions. Representing the CTE Lab were graduate students Brad Hansen, Bill McCarty and Jennifer Hwang, along with undergraduate students Murray Grissom, Matthew Cai and Reni Biswas. Each researcher gave a separate presentation as groups of visitors flowed into the lab.

The tour began in the hallway outside the lab, where Brad gave an overview of the goals, main research areas, and past projects of the lab. He highlighted the interdisciplinary requirements of using bioreactors and mechanical stimuli to create mechanically and biochemically viable tissue engineered cartilage constructs.



Bradley Hansen (*right*) presenting an overview of the CTE lab to visitors during Admit Day

Inside the lab, Bill demonstrated last year's undergraduate senior design project, a whole-joint bioreactor. He detailed the motivation for the project and the demands on the senior undergraduates to create a novel device as part of

their curriculum.

In the harvest room, Murray gave a presentation on the anatomy of a calf knee. He demonstrated the tissues of knee joint and briefly described how the bovine knees have been utilized in the lab, such as friction testing and for use in the continuous passive motion device.



Murray Grissom (*middle*) giving an anatomy demonstration of a knee joint

Matthew gave a presentation of a variety of imaging techniques used in the lab. For demonstration, he showed an image of full thickness cartilage fluorescently stained for live and dead cells.



Matthew Cai showing images of fluorescently-stained cartilage.

Reni and Jennifer then gave an overview of the mechanics room. They described the functions and purpose of the machines. They also explained how an understanding of the mechanics of cartilage can help answer questions regarding joint pathologies and serve as design targets for cartilage constructs.



Reni Biswas (*right*) giving a tour of the mechanics room to a high school student

In addition to the tour, the researchers were helpful in providing first-hand insight on UCSD's academic and social life. Most prospective students who came for the tours were admitted to the Department of Bioengineering and had many questions about the degree programs offered. Being undergraduates, Murray, Matthew and Reni were especially helpful in answering more specific questions about course curriculum and campus life.

The participation of CTE Lab researchers in Admit Day lab tours was beneficial for prospective students by providing insight from current students to better understand the research and education opportunities available at UCSD.

For more information on the CTE Lab and UCSD, please visit <http://cte.ucsd.edu> and <http://www.ucsd.edu>.