THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
MEETING AS A COMMITTEE OF THE WHOLE

June 10, 2005

The Regents of the University of California met on the above date in Castle Air Facilities, 4225 N. Hospital Road, Atwater, Merced campus

Present: Regents Johnson, Novack, and Ruiz

In attendance: Regents-designate Juline, Rominger, and Rosenthal, Faculty Representative Blumenthal, Secretary Trivette, General Counsel Holst, Associate Secretary Shaw, Senior Vice President Darling, and Chancellor Tomlinson-Keasey

The meeting convened at 8:40 a.m. with Regent Johnson presiding.

1. **PUBLIC COMMENT**

There were no members of the public wishing to address the Committee.

2. **UC MERCED RESEARCH DISCUSSIONS**

Chancellor Tomlinson-Keasey welcomed the Regents to the Merced campus. She noted that the campus will open its doors to the first 1,000 students in September. Chancellor Tomlinson-Keasey provided an introduction to the founding faculty of the campus who are already engaged in research there. She remarked that the faculty who have been recruited have exceeded her highest expectations. The Chancellor noted that the Sierra Nevada Institute is the campus' first institute and is a natural for the Central Valley in its focus on ecological and environmental issues. Faculty from several academic divisions, including Engineering and Natural Sciences, are already engaged in research through the Institute and the World Cultures Institute.

Chancellor Tomlinson-Keasey introduced members of the faculty who presented information on their research

Engineering and Solar Energy Future

Professor Roland Winston, Professor in the Schools of Engineering and Natural Sciences, explained that Merced is a perfect environment for solar energy research. Recruited from the University of Chicago, Professor Winston is a renowned expert in solar power and the inventor of stationary solar energy concentrators. He is establishing partnerships with companies in the area and in Silicon Valley to convert solar energy to electricity. His goal is to make UC Merced a place where top scientists in the field of solar energy will come to study.

Sensors, Sensor Networks, and Environmental Systems

Tom Harmon, Associate Professor in the School of Engineering and Chair of the Environmental Systems Group, also noted that the outdoor environment at Merced was conducive to his research in monitoring transport processes in soils, sediments, and groundwater. He is currently focusing on the use of sensors from satellites to make observations about the environment, such as snow pack over a wide area. Wireless sensor networks are changing the way the world and its environments are observed. Professor Harmon introduced several doctoral and post-doctoral students he is working with on projects like the Collaborative Large-Scale Engineering Analysis Network for Engineering Research (CLEANER) Project, which will be a network of sensors installed throughout the San Joaquin River basin and beyond to gain a better understanding of the temperature, chemical makeup, flow rates, and other characteristics of the water.

Stem Cells and Cancer

Professor Maria Pallavicini, Dean of the School of Natural Sciences, described her research in breast cancer and stem cells. The emphasis of work in her laboratory at Merced is to understand the genetic and molecular changes that determine stem cell behavior in health and disease, particularly cancer. Understanding molecular changes that occur during stem cell differentiation and proliferation can help define molecular differences between different types of cancer that respond to therapy and those that are less responsive.

Use of Nanotechnology in Solar Energy

The study of optical and electronic properties of semiconductor nanoparticles is the focus of Professor David Kelley's research in the School of Natural Sciences. Certain nanoparticles hold considerable promise as the active media in photovoltaics and solar energy conservation.

Optical Sensing Using Molecular Vibrations

Professor Anne Kelley of the School of Natural Sciences, described the research being conducted in her laboratory involving several optical techniques, particularly the inelastic laser light scattering technique known as resonance Raman spectroscopy to study the molecular details of how materials interact with light.

Regent Novack asked if UC Merced has received any research grant funds yet. Chancellor Tomlinson-Keasey responded that already the campus has over $16 million in federal grants and contracts largely because many senior-level faculty who already had grants associated with their research have been recruited to the campus.

3. **TOUR OF UC MERCED CAMPUS**

Tour of Kolligian Library

University Librarian Bruce Miller provided a tour of the soon-to-be-completed Kolligian Library. As one of the first buildings to be completed on the campus, the library will house offices and classrooms until other buildings are completed.

Student Life Program and Student Housing

Valery Ohler, Director of Residence and Student Life, conducted a tour of the Valley Terraces Residence Halls, the first student housing and dining complex which will be ready for students to move into in September.

Central Plant and Sustainability Technologies

Vice Chancellor for Administration Lindsay Desrouchers and Director of Facilities Tom Atkins led the Regents on a tour of the Central Plant, which houses the campus' power and infrastructure operations, as well as a telecommunications building and a large water storage tank. The Central Plant is a key component in the campus' plan to meet or exceed University mandates for sustainable development and energy efficiency in all new buildings.

The Regents returned to the Castle Air Facilities for lunch with members of the faculty and graduate students.

The Committee adjourned at 2:30 p.m.

Attest:

Secretary