AAUC Breakfast
UC Day
March 6, 2001
Senior Vice President Bruce B. Darling

Last October the world welcomed three University of California faculty into the family of Nobel Laureates:

- Professor Daniel McFadden of UC Berkeley was awarded the Nobel Prize in Economics;
- Professor Alan Heeger of UC Santa Barbara received the Nobel Prize in Chemistry; and
- Professor Herbert Kroemer, also of UC Santa Barbara, was honored with the Nobel Prize in Physics.

Their selection was an extraordinary statement about the vitality of their research and the distinctive contributions they have made to advances in human knowledge.

As Regent Kohn said earlier, 43 Nobel Prizes have been awarded to UC faculty and researchers since 1939; remarkably, 11 of these Nobels have been awarded in just the past five years.

Professor Heeger and Kroemer join Walter Kohn – who received the Nobel Prize in Chemistry in 1998 – to give UC Santa Barbara three Nobels in the past three years. Chancellor Yang, we're looking forward to next year!

I am very pleased that Professor Kroemer is with us this morning. His research has advanced the fields of solid state physics and materials science and it has improved the lives of millions of people around the world.

Dr. Kroemer received the Nobel Prize in Physics for pioneering the development of high speed transistors and semiconductor lasers – which laid the foundation for modern information and communications technology. His research made possible compact disc players, cellular telephones, modern computers and light emitting diodes, which provide brighter, lower cost, highly durable lighting for street lights and other uses.

He is a long time member of the UC faculty. He joined Santa Barbara's electrical engineering and materials departments in 1976 to expand the campuses' small semiconductor research program. But instead of pursuing mainstream silicon-based technology, he focused on the emerging area of compound semiconductors.

Professor Kroemer saw an opportunity for UCSB to become one of the world's leaders in this field. And he helped to bring this about by working on problems that were one or two generations ahead of mainstream technology.

In the mid 1950s he was the first to point out that great performance advantages could be gained in various semi-conductor devices.

In 1963, he proposed a concept that became the central idea in semiconductor lasers, without which that field would not exist.

Since arriving at Santa Barbara, Professor Kroemer has been a pioneer in identifying great opportunities for future devices through the use of new materials.

His current research involves high performance electronic devices, materials research, and new advances in solid state physics.

Please join me in welcoming UC Santa Barbara Professor and Nobel Laureate Herbert Kroemer.