The College of Natural Sciences promotes mathematical and scientific literacy not only for those majoring in scientific disciplines but for the entire student body of the University. The College is home to a number of top researchers in the biological sciences. Research projects undertaken range from the speciation of sharks to the search for substances effective against cancer or AIDS. Many of the projects explore the unique biota of the Hawaiian islands.

A number of exciting projects are underway in the physical sciences. Perhaps the most well-publicized of these is DUMAND. In this project, researchers are constructing a large undersea array of sensors off the coast of the Island of Hawai‘i. These sensors will be used to detect neutrinos that have passed through the earth and collided with subatomic particles present in the ocean. By tracking the resultant Cherenkov radiation, the trajectories of the neutrinos can be determined. From these trajectories the researchers hope to map the astronomical entities which produced the neutrinos.

A more traditional way of viewing the stars is through telescopic eyes. The mountaintops of the Hawaiian islands provide ideal sites for the placement of telescopes. Several international telescopes have been built on the top of Mauna Kea on the Big Island and Haleakala on Maui. These facilities enable University of Hawai‘i faculty and other international astronomers to explore the vast reaches of the universe.

**Faculty Achievements**

- **Professor John Madey**, Physics and Astronomy, invented the free electron laser.
- **Professor Wesley Peterson**, Information and Computer Science, received the Japan International Prize, that country's equivalent to a Nobel Prize, for his fundamental work in reliable data transmission.
- **Professor Paul J. Scheuer**, Chemistry, is internationally recognized as the “father of marine natural product chemistry.” A compound he extracted from blue-green algae holds promise as a superior anti-tumor drug.
- **Professor Maqsudul Alam**, Microbiology, led a UH team that identified the likely precursor protein to oxygen-carrying molecules common to eukaryots (plants and animals), bacteria and the third major life form, archaean microorganisms that survive under Earth’s most severe conditions.

**Funding Highlights**

$16.7 million per year in extramural funding.

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