

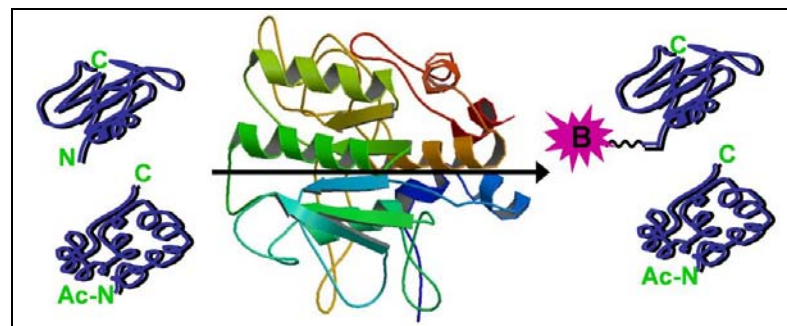
**What can cutting-edge biotech research tell us about treatments for Alzheimer's disease, cancer, Parkinson's disease, and spinal cord injury?**

Vice Provost for Research Lawrence Coleman invites you to learn more, as graduate students funded by the Systemwide Biotechnology Research and Education Program (BREP) share their discoveries.

**'Remodeler' enzymes & programmed cell death**

Emily Crawford is a graduate student in the Chemistry and Chemical Biology Program at UCSF.

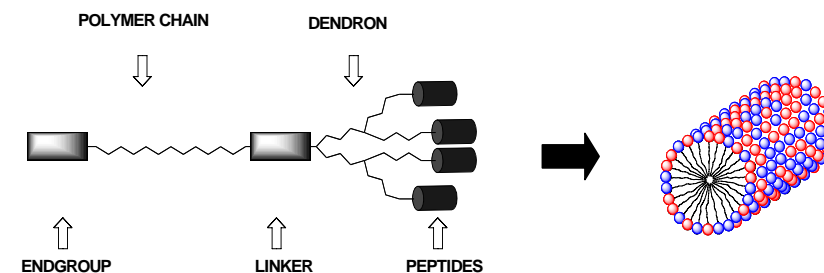
With Dr. Jim Wells, Emily is developing a new technology for understanding the role of *caspases* – enzymes that deconstruct the cell during programmed cell death, or *apoptosis*. In the future, this research may lead to new drug therapies for neurodegenerative diseases such as Alzheimer's (with abnormally high rates of apoptosis), and to treatments for diseases such as cancer which are characterized by abnormally low rates of apoptosis.



**New frontiers in nerve tissue engineering**

Jennifer Cash is a graduate student in Chemistry at UC Davis.

In Dr. Timothy Patten's polymer chemistry laboratory, Jennifer is developing a new approach to tissue engineering. This research will potentially lead to therapies for treating nervous system diseases and conditions that require tissue regeneration, such as Parkinson's disease or spinal cord injuries.



**Toward a brain-controlled prosthesis**

Lavi Secundo is a graduate student in Neuroscience at UC Berkeley.

Lavi's research aims to create a brain-controlled prosthesis capable of reproducing the wide range of motor and sensory functions carried out by the human upper limb. Such a device would improve the quality of life for large numbers of neurological patients by allowing them to perform voluntary motor actions using only their thoughts.

