

## Statement of Work

The proposed research involves the large scale synthesis of the calpain inhibitor AK295, additional calpain inhibitors for testing, and the development of HPLC/MS assays for AK295 in tissue samples. Dr. Powers will be responsible for the synthesis of peptidyl  $\alpha$ -ketoamide inhibitors and other needed materials, including HPLC/MS internal standards. Dr. Fernandez will be responsible for developing LC-mass spectrometric assays for AK295 and other ketoamide inhibitors, and for assaying biological samples containing AK295. Dr. Fernandez will also perform analyses on tissue samples for AK295 and study the metabolic pathways for the drug.