

Project Title: Co-inhibition of autophagy and proteasome for treatment of malignant pleural mesothelioma (MPM)

The ubiquitin-proteasome system is a major catabolic pathway for protein degradation. Emerging evidence suggested that targeting this pathway might be a promising approach for the treatment of cancer. As malignant pleural mesothelioma has exhibited in-vitro and in-vivo sensitivity to proteasome inhibition, this opened up opportunities for the use of proteasome inhibitors for the treatment of the disease. To be more specific, the project aimed to delineate the effect of bortezomib (an FDA-approved proteasome inhibitor) on autophagy and its underlying mechanism in malignant pleural mesothelioma cells and also to determine the effect of co-inhibition of proteasome and autophagy on the growth of malignant pleural mesothelioma cells *in vitro* and *in vivo*.