# COMPOUNDS FOR ENZYME INHIBITION

## ABSTRACT

Peptide-based compounds including heteroatom-containing, three-membered rings efficiently and selectively inhibit specific activities of N-terminal nucleophile (Ntn) hydrolases. The activities of those Ntn having multiple activities can be differentially inhibited by the compounds described. For example, the chymotrypsinlike activity of the 20S proteasome may be selectively inhibited with the inventive compounds. The peptide-based compounds include an epoxide or aziridine, and functionalization at the N-terminus. Among other therapeutic utilities, the peptide-based compounds are expected to display anti-inflammatory properties and inhibition of cell proliferation.