

The present disclosure relates to dipeptidase inhibitors, and more particularly, to novel methods of using phosphonate derivatives, hydroxyphosphinyl derivatives, and phosphoramidate derivatives to inhibit N-Acetylated  $\alpha$ -Linked Acidic Dipeptidase (NAALADase) enzyme activity, and to treat prostate diseases, especially using the compounds of the present invention for the inhibition of the growth of prostate cancer cells.