UNIVERSITY OF SOUTH ALABAMA

Department of Chemistry Presents Seminar Series Speaker

Hope Hill

University of South Alabama
Mobile, Alabama

Functionalization of Novel PP5 inhibitors

The over expression of protein phosphatase 5 has been correlated to tumor cell reproduction making it a candidate for small molecule drug therapy. Selective and potent inhibition of protein phosphatase 2A (PP2A) has been previously achieved through the development of the molecule fostriecin. The large synthetic overhead of fostriecin has led to exploration of other small molecule inhibitors that could mirror fostriecin's interaction with the active site but in the catalytic domain of PP5. The naturally occurring inhibitor, cantharidin, is functionalized with an epoxy containing eleven chain to optimize binding with the active site of PP5 and to promote selectivity and potency through unique interactions with the amino acid residues. The stereoisomers formed in the diels-alder reaction between the robust dienophile N-phenylmaleimide and furfuryl alcohol are isolated and identified. The biologically active exo confirmation is selectively recrystallized and employed in further synthetic steps with the final product tested for inhibitory action against PP5.

Friday, April 16, 2021, 12:20 pm

Join Zoom Meeting
https://southalabama.zoom.us/j/92614352791

Meeting ID: 926 1435 2791
One tap mobile
+16465588656,,92614352791# US (New York)
+13017158592,,92614352791# US (Washington DC)

Dial by your location

+1 646 558 8656 US (New York)
+1 301 715 8592 US (Washington DC)
+1 312 626 6799 US (Chicago)
+1 669 900 9128 US (San Jose)
+1 253 215 8782 US (Tacoma)
+1 346 248 7799 US (Houston)

Meeting ID: 926 1435 2791
Find your local number: https://southalabama.zoom.us/u/adf3T2rAbt