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## Synthesis, and *in vitro* antiplatelet aggregation screening of novel fluorinated diethyl-2-(benzylthio)-2, 3-dihydro-1H-imidazole-4, 5-dicarboxylate derivatives

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The imidazole moiety is an important constituent of many biological molecules and hence has been the focus of many synthetic molecules in the quest for pharmaceutically active compounds. The imidazole-2-thiones are a subgroup of these molecules that contain a thioamide group and as such have an ambidentate anion, either on nitrogen or sulphur after proton abstraction, which makes them reactive toward electrophilic agents. To synthesize a small library of fluorinated derivatives of imidazole-2-thiones and to screen the synthesized compounds *in vitro* for antiplatelet aggregation activity to identify lead compounds which could either be used or developed further into antithrombotic drugs and to compare the activity of fluorinated and non-fluorinated derivatives. Seven fluorinated derivatives of diethyl-2-(benzylthio)-2, 3-dihydro-1H-imidazole-4, 5-dicarboxylate as well as a nitro and chloroderivative were prepared and the synthesized compounds exhibited concentration dependent anti-platelet aggregation activity on both the thrombin and ADP induced platelet aggregation. The 4-nitro and 4-fluoro compounds exhibited the highest activity from the compounds tested.

### Biography

Mehbubl K Momin has completed his Masters from University of Pune, India and PhD from University of KwaZulu-Natal, South Africa and doing his postdoctoral studies in the same University. He has published number of good papers in reputed journals. His area of research interest is synthetic medicinal chemistry, computational studies and docking studies.

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