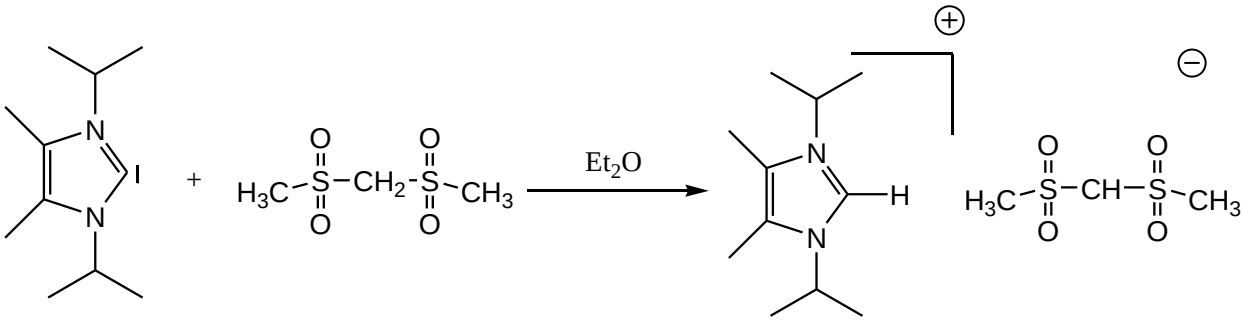
Title: synthesis of new structures of imidazolium salts on the rout to possible drugs

Name: Prof. Eyad Mallah
Faculty of Pharmacy**,** University of Petra, Amman- Jordan

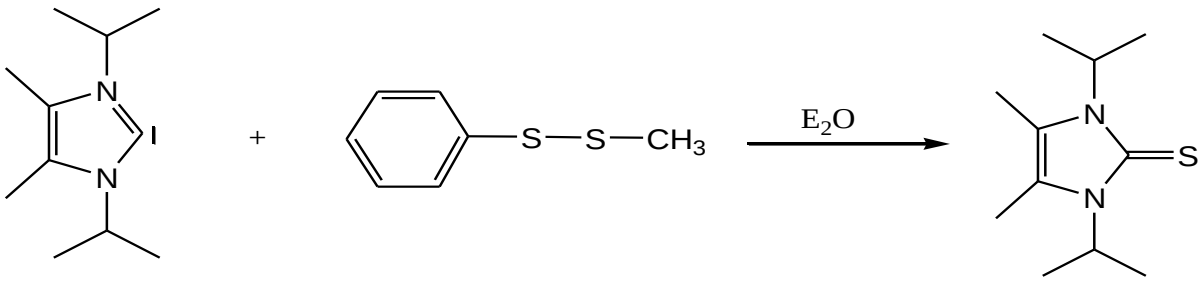
As result of the strongly basic character of heterocyclic carbenes **1**, they react with *Broenstedt* acids and have consequently been used as selective deprotonation reagents. The 2H-imidazolium salts formed by this method are accessible by other routes, alkylation of 2H-imidazoles, cyclization reactions or from the thiones and nitric acid, and may be used as precursors in the synthesis of **1** through deprotonation.

So our current research efforts also continue to focus on design and synthesis of new structures of imidazolium salts. Therefore, Owing the strongly basic character of heterocyclic carbenes reacted with methyl phenyl disulfide to give the corresponding adduct **2** which afford a new synthetic route for 2,3-dihydro-imidazole-2-thione. While the reaction of **1** with bis-methane sulfone was carried out at RT to give the salt **4**.

The above mentioned reactions are outlined in scheme 1, the results confirmed by NMR, mass spectroscopy, elemental analysis and single crystal X-ray diffraction.



1 **3** **4**



1 **2**