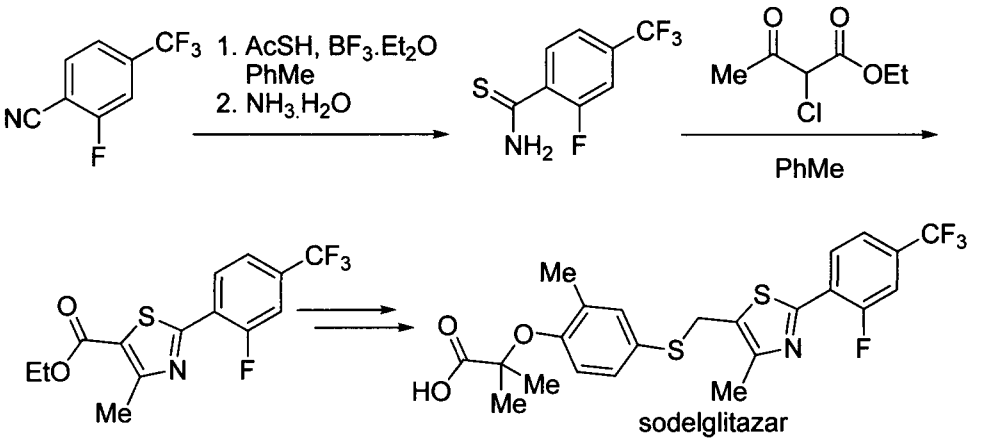
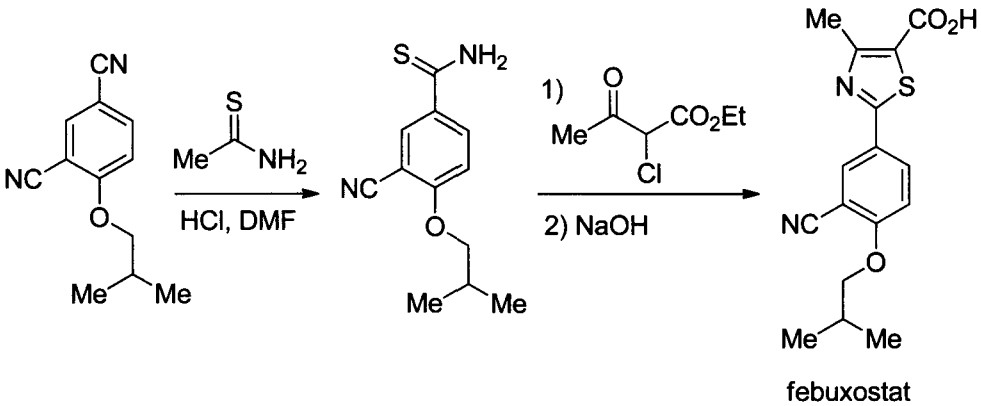
thioamide in greater than 95% conversion. The Hantzsch reaction of the crude thioamide with the chloroketo ester yielded the desired thiazole with which the structure of sodelglitazar could be put together.[76]



Febuxostat (Uloric), a novel xanthine oxidase inhibitor was approved by the FDA in 2009. It works through the noncompetitive blockage of xantine oxidase thereby reducing the amount of uric acid. It has been used in the treatment of hyperuricemia in gout. The synthesis of febuxostat requires the preparation of the thioamide intermediate for the Hantzsch cyclization with chloro ketoester. The thioamide intermediate is prepared from the dicyano building block prepared in two steps from *p*-nitrobenzonitrile. The less-hindered cyano group undergoes reaction with thioacetamide, forming the corresponding thioamide as the substrate for the thiazole synthesis.[77]



An impressive application of the Hantzsch on process scale is the kilogram-scale synthesis of ravucanozole, a novel thiazole containing antifungal development candidate at Bristol-Myers Squibb. Ravucanozole