SYNTHESIS AND CYTOTOXIC EVALUATIONOF NOVEL FUSED INDAZOLE DERIVATIVES

Name : OULEMDA Bassou

Affiliation: Sultan Moulay Slimane University Faculty of Science and Technology B.P: 523Béni - Mellal Morocco Béni Mellal Morocco

Abstract:

Our Laboratory has been interested for several years in the synthesis of new series molecules of indazole for therapeutic purpose. Since its creation by Professor El **Mostapha RAKIB** in the year 2005, the team's main theme is the synthesis of anticancer molecules. Previous studies developed in our laboratory have shown that compounds with an N- (7-indazolyl) -arylsulfonamide structure have promising anti-cancer activities in terms of both cytotoxicity and cell cycle perturbation, and in order to contribute to the chemistry of indazole We decided to continue our studies towards the synthesis of a new class of family with structure 6-nitroindazle, 5,6-dinitroindazole and 3, 5,6-trinitroindazle. In order to access these molecules, an effective synthesis has therefore been developed, based essentially on nitration, reduction of alkylation, halogenation and Mannich condensation. This methodology allowed us to vary the alkyl substituents of pyrazole nitrogen, the position of the nitro unit on the indazole ring. The synthesis of this family of indazole derivatives has enriched the structure-activity relationship studies, and allowed us to obtain a new class of anti-cancer very promising. we carried out the cytotoxic evaluation of some molecules of indazole on five types of tumor cells **BSR, Hep, P815**, **A2780** and **A549**.

It's been almost a year since I obtained my doctorate degree with seven publications and nine communications.

