SYNTHSIS AND BIOLOGICAL EVALUATION OF NOVEL 5-BROMO INDOLE-2-CARBOXAMIDE DERIVATIVES

By

Amneh Mahmoud Abu Al-Inin

Supervisor

Prof. Tariq Musbah Al-Qirim

Co-Supervisor

Dr. Suhair Hikmat Jasim

ABSTRACT

Hyperlipidemia is a common disorder of lipid metabolism and major risk factor for cardiovascular disease. In this work, we prepared new 5-bromo-*1H*-indole-2-carboxamide derivatives (**3, 5** and **7**) followed by full characterization and investigate their hypolipidemic activity *in vivo* using rats as an animal model. Only compounds **3** and **7** were biologically evaluated *in vivo* using Triton WR-1339 induced hyperlipidemic rats for their hypolipidemic activity.

Compound **7** showed 50% suppression for triglycerides compared to Triton WR-1339. Contrarily, compound **3** exhibited moderate activity. This finding suggests that the 5-bromo substituent is not significant for binding interaction and it encourages us to design of new scaffold targeting hyperlipidemia with better biological activity.