**Abstract**

A new class of pyrazolo[4,3-c]quinoline (**5a-i**, **7a-b**) and pyrano[3,2-c]quinoline (**9a-i**) derivatives were designed and synthesized in moderate to good yields by microwave conditions. To enhance the yield of pyrano[3,2-c]quinoline derivatives, multicomponent one-pot synthesis has been developed. The synthesized compounds were identified by spectral and elemental analyses. Compounds **9a** and **9i** showed good antibacterial activity against Gram-positive and Gram-negative bacterial strains. All of the new compounds exhibited weak to moderate antioxidant activity, compound **9d** exerted significant antioxidant power. The cytotoxicity of these compounds were also evaluated against MCF-7 (breast) and A549 (Lung) cancer cell lines. Most of the compounds displayed moderate to good cytotoxic activity against these cell lines. Compound **9i** was found to be significantly active in this assay and also induced cell death by apoptosis. Molecular docking studies were carried out using EGFR inhibitor in order to determine the molecular interactions.