NAME OF THE THEME: CHEMICAL SCIECNCE

Synthesis and biological evaluation of novel triazole substituted pyrazolyl-methylenehydrazinyl-5-arylidene thiazolidinone derivatives as antibacterial and cytotoxic agents

#Vinay Pogaku, Srinivas Basavoju*

Department of Chemistry, National Institute of Technology Warangal-506 004, Telangana, India

E-mail: basavoju.srinivas@nitw.ac.in

Abstract:

Pyrazole scaffolds are important heterocyclic moieties, and they occupy a major position in medicinal and pesticide chemistry due to their various biological activities such as antibacterial, antiparasitic, antiviral, antineoplastic, antitumor, anti-inflammatory, antimalarial, anticonvulsant, anti-depressant and antituberculosis activity. Pyrazolylthiazoles were reported as cardiovascular drugs and these derivatives also showed antinociceptive activity and phototoxicity. Novel triazole substituted pyrazolyl-methylenehydrazinyl-5-arylidene thiazolidinone derivatives **6a-n** were synthesized and characterized by IR, ^{1}H and ^{13}C nuclear magnetic resonance, mass spectrometry and elemental (CHN) analysis. The in vitro antibacterial and cytotoxic activities were evaluated for these compounds.

Keywords*:* 3-Methyl-1-phenyl-1*H*-pyrazol-5(4*H*)-one, 1*H*-benzo[d][1,2,3]triazole , Pyrazolyl-methylenehydrazinyl-5-arylidene thiazolidinones, Antibacterial, Cytotoxic activity.

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