

## ABSTRACT FOR POSTER PRESENTATION

### CHEMICAL SCIENCES

#### MICROWAVE ASSISTED SYNTHESIS AND ANTICANCER ACTIVITY OF SOME NOVEL PYRAZOLE BASED BENZIMIDAZOLE DERIVATIVES

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Heterocyclic compounds containing triazole, pyrazole, benzimidazole ring have been investigated to possess various biological activities such as antiviral, antifungal, antibacterial, antimicrobial and anticancer activities. Microwave-assisted synthesis offers shorter reaction time, higher yields and eco-friendly as compared with the traditional heating method. The above observations prompted us to synthesize these compounds. A series of novel pyrazole based benzimidazole derivatives were synthesized from the corresponding substituted pyrazole aldehydes by the treatment of *o*-phenylenediamine using various solvents under both conventional and microwave irradiation method. All the synthesized compounds were characterized by IR, <sup>1</sup>H NMR, <sup>13</sup>C NMR and Mass spectral analysis. The *in vitro* anticancer screening of all the analogues was carried out.

**Keywords:** Pyrazole aldehydes, *o*-phenylenediamine, benzimidazole, anticancer activity