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Design, synthesis, characterization and biological evaluation, of novel *N*-substituted 1,2,3,4-tetrahydropyrimidines-5-carboxamide derivatives

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Pyrimidine and its derivatives play a significant role in bioactive heterocyclic compounds especially for antibacterial and as well as antifungal activities. By keeping these as central facts, some newly designed pyrimidine derivatives of 5-[*N*-(substitutedphenyl)]-carboxamido-1,2,3,6-tetrahydro-1,4-dimethyl-2-oxo-6-(*m*-phenoxyphenyl)-pyrimidines **4a-j** have been synthesized by the condensation of *m*-phenoxybenzaldehyade, *N*-(4-substitutedphenyl)-oxobutanamides and *N*-methyl urea in presence of catalytic amount of acid. The structure of these synthesized novel compounds have been confirmed by methods like IR, NMR and mass spectroscopy, and screened for their antibacterial activities.

Keywords: *m*-Phenoxybenzaldehyde, Biginelli reaction, Pyrimicines, Spectral studies, Antibacterial activity