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Synthesis of 2-substituted pyrazolines as potential antimalarial and antimicrobial agents

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A novel series of 2-substituted pyrazolines were synthesized and evaluated for *in vitro* antimalarial efficacy against chloroquine sensitive (MRC-2) as well as chloroquine resistant (RKL9) strains of *Plasmodium falciparum*. Compounds were confirmed by elemental analyses, IR, 1H NMR and 13C NMR spectral data. Compounds 5o (IC50=0.032 μM for MRC-2 and IC50=0.209 μM for RKL-9) displayed better antiplasmodial activity than chloroquine. The antibacterial and antifungal evaluations were also conducted, compounds 5d and 5k exhibited better antibacterial activity against *S. aureus, B. subtilis, E. coli* and *P. aeruginosa* than ciprofloxacin. Antifungal activity of compound 5n against A. niger (MIC-3.36 μg/ml) and C. albicans (MIC-6.9 μg/ml) was found to be better than the standard drug fluconazole.

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