

Abstract

Based on research in past years, we have synthesized two similar series of compounds with potential antimycobacterial activity. First series based on isoniazid are (*E*)-4-[(2-isonicotinoylhydrazineylidene)methyl]-*N*-phenylbenzamides with great activity (MIC for *Mtb.* of 0.03-0.125 μ M) with few derivatives with moderate activity on nontuberculous mycobacterium *M. kansasii* (MIC of 2-4 μ M). In second series pyridin-4-yl moiety has been exchanged for 3,5-dinitrophenyl, which has shown to be highly effective antimycobacterial scaffold in recent years, therefore derivatives of (*E*)-4-[[2-(3,5-dinitrobenzoyl)hydrazineylidene]methyl]-*N*-phenylbenzamide have been prepared. These molecules have shown moderate activity against drug-susceptible *Mtb.* (MIC of 2-32 μ M), and only 4-chloro derivative has surprisingly high activity against non-tuberculous *M. avium* (MIC of 16-32 μ M). Four molecules from the second series even exhibit some activity against MDR-TB and XDR-TB strains.