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Design, synthesis and biological evaluation of piperazinyl-β-carbolinederivatives as anti-leishmanial agents

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Design, synthesis and biological evaluation of (1-phenyl-9*H*-pyrido[3,4-*b*]indol-3-yl)(4-phenylpiperazin-1-yl)methanone derivatives as anti-leishmanial agents

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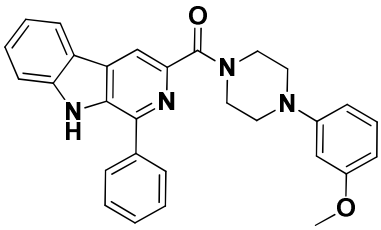
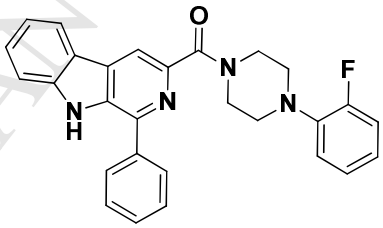
Graphical Abstract



Compound **7e**, activity against *L. infantum*
EC_{50} = 2.89 ± 0.34 μM (Promastigoes)
= 2.80 ± 0.13 μM (Axenic amastigotes)



Compound **7k**, activity against *L. donovani*
EC_{50} = 3.47 ± 0.17 μM (Promastigoes)
= 2.80 ± 0.10 μM (Axenic amastigotes)
= 4.00 ± 0.60 μM (Intracellular amastigotes)