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## ACCEPTED MANUSCRIPT

# Ferrocenyl and organic novobiocin derivatives: Synthesis and their in vitro biological activity

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#### **Abstract**

A focused series of novobiocin derivatives containing a ferrocene unit together with their corresponding organic novobiocin analogues have been synthesized in modest to good yields. These compounds were screened for biological activity against a chloroquine-sensitive strain of *Plasmodium falciparum* (3D7) and human breast cancer cell line (HCC38). With the exception of compounds  $\mathbf{5c}$  and  $\mathbf{5d}$ , the general trend observed is that incorporation of the ferrocene moiety into novobiocin scaffold resulted in compounds  $\mathbf{6a} - \mathbf{d}/\mathbf{6f}$  showing enhanced activity compared to organic analogues  $\mathbf{5a} - \mathbf{b}$  and  $\mathbf{5e} - \mathbf{f}$ .

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