

SUPPLEMENTARY

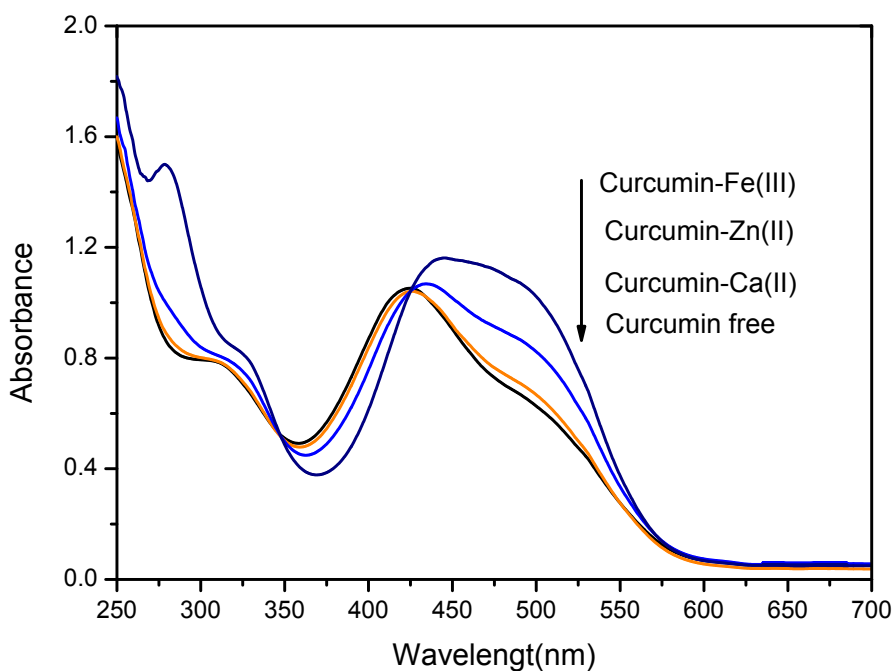


Fig s1. UV-Vis spectra of the free ligand and the complexes in aqueous solutions obtained after syntheses

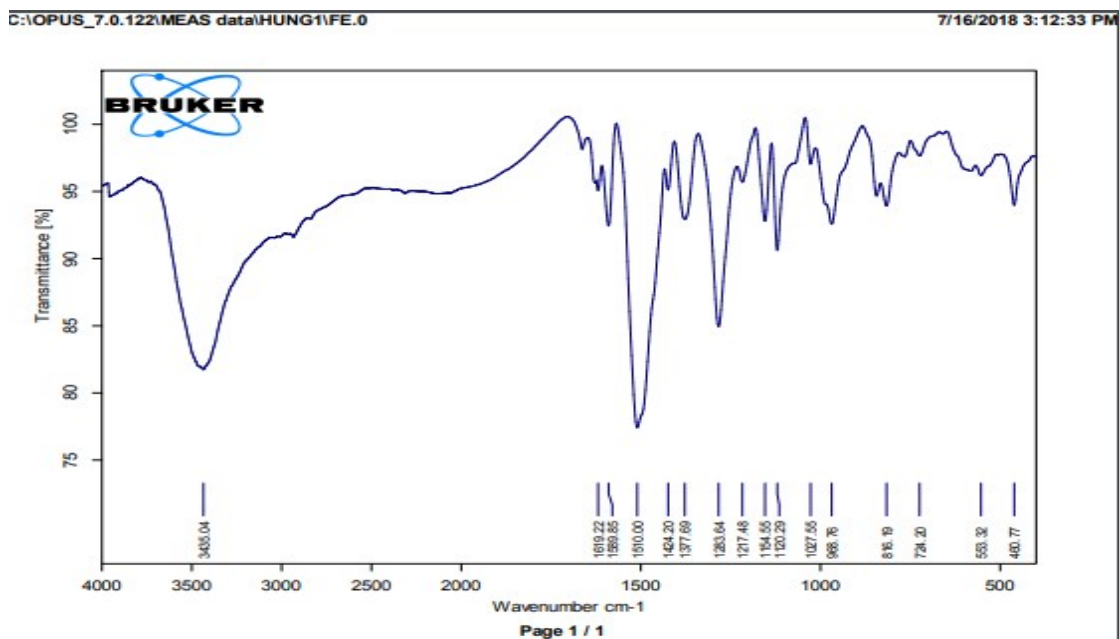
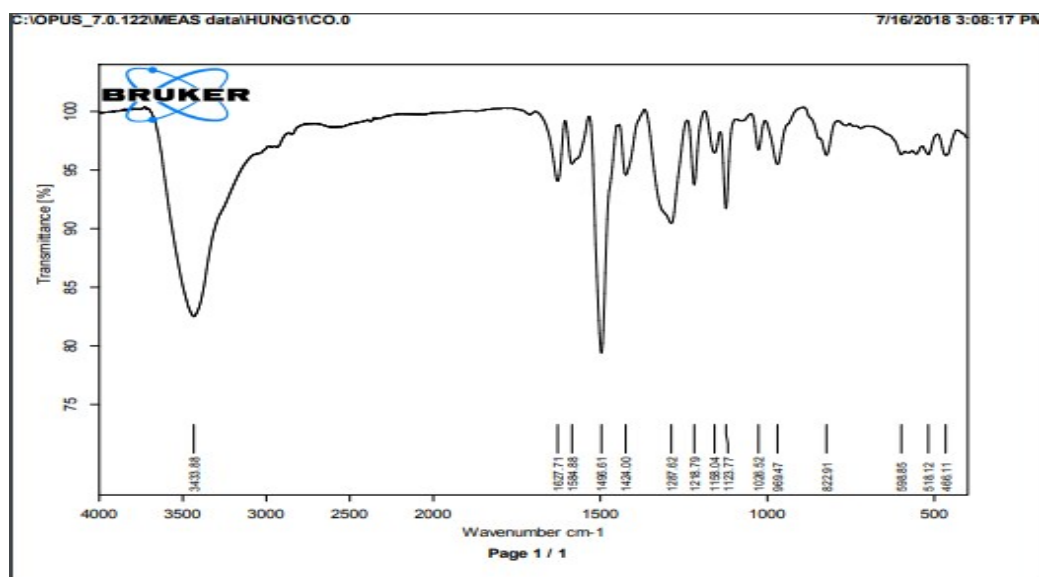
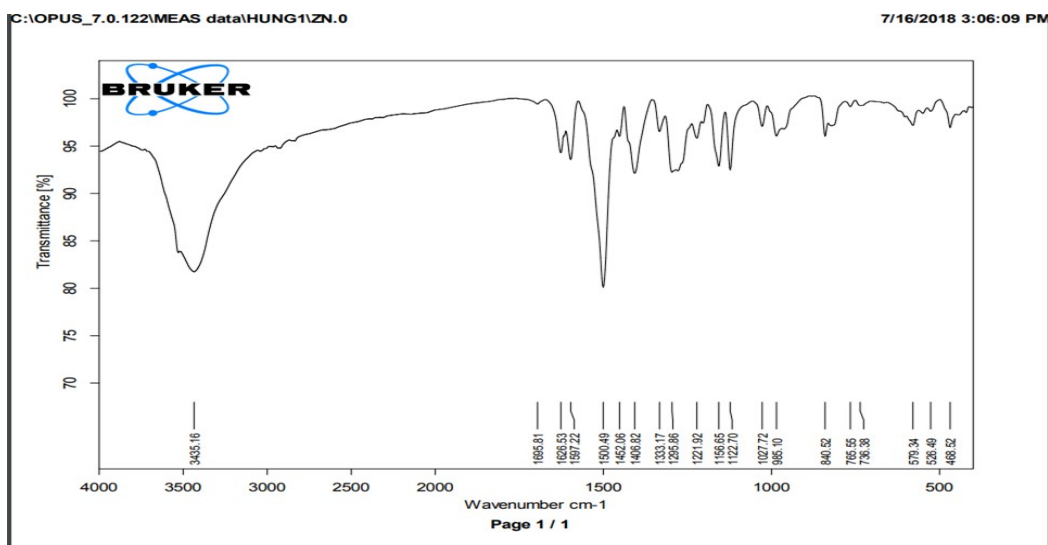


Fig S2. IR spectra of curcumin-Fe(III) (a), curcumin-Zn(II) (b), and curcumin-Ca (II) complex (c)



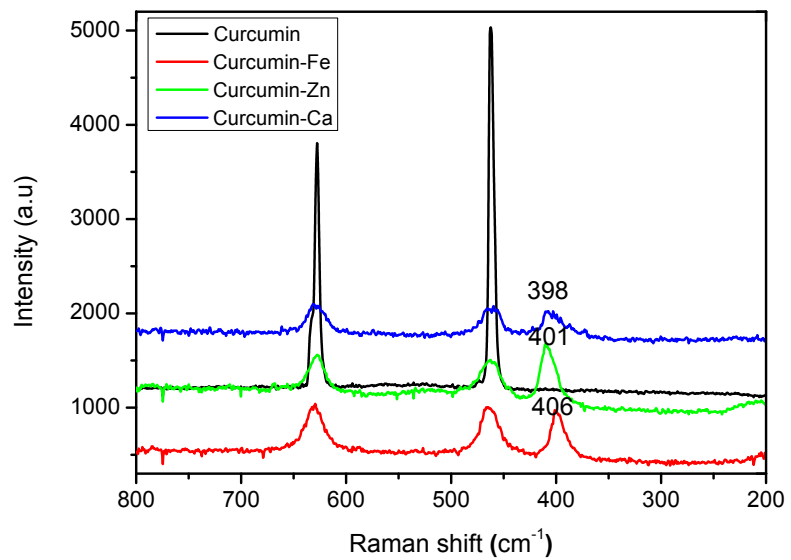


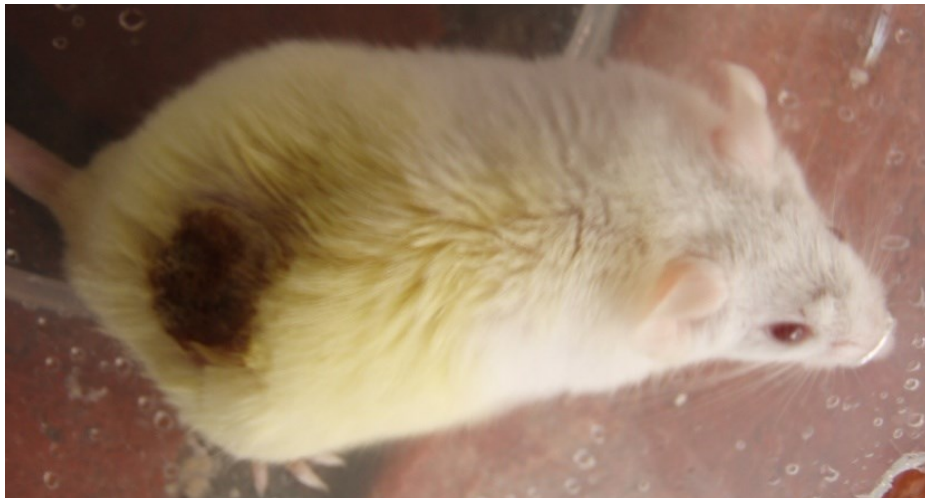
Fig s3. Raman spectra of curcumin and its complexes

Fig S4a. Some of mice in the treatment

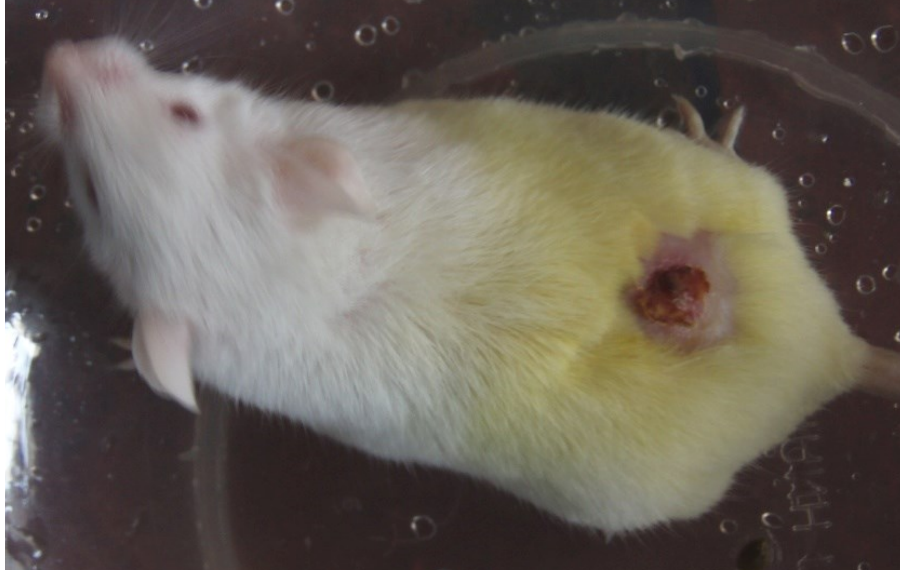




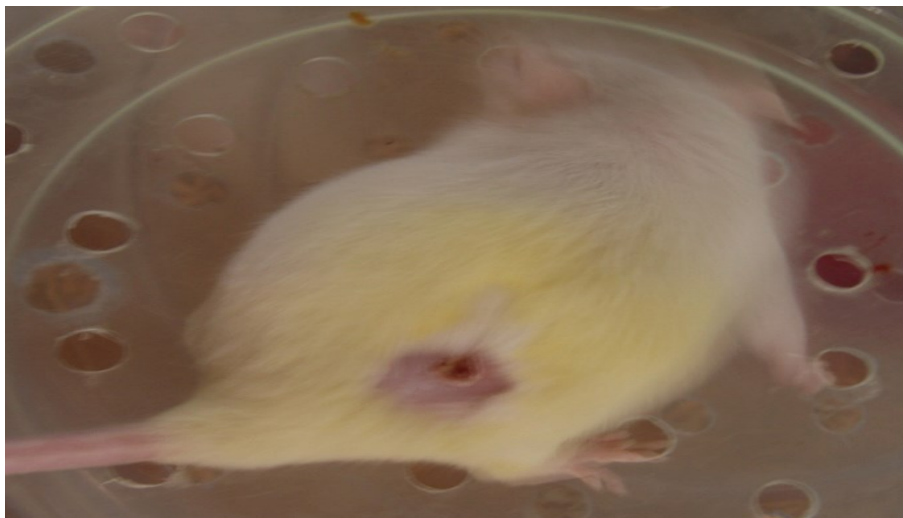
**Fig S4b.** The burn on the back of rat



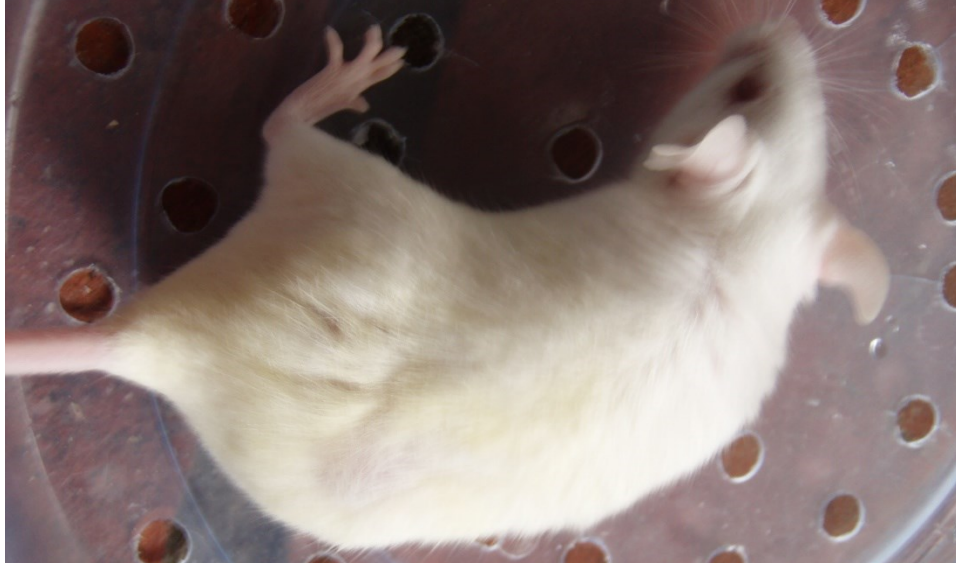
**Fig S4c.** The burn after 3 day was treated by curcumin



**Fig S4d.** The burn after 6 day was treated by curcumin



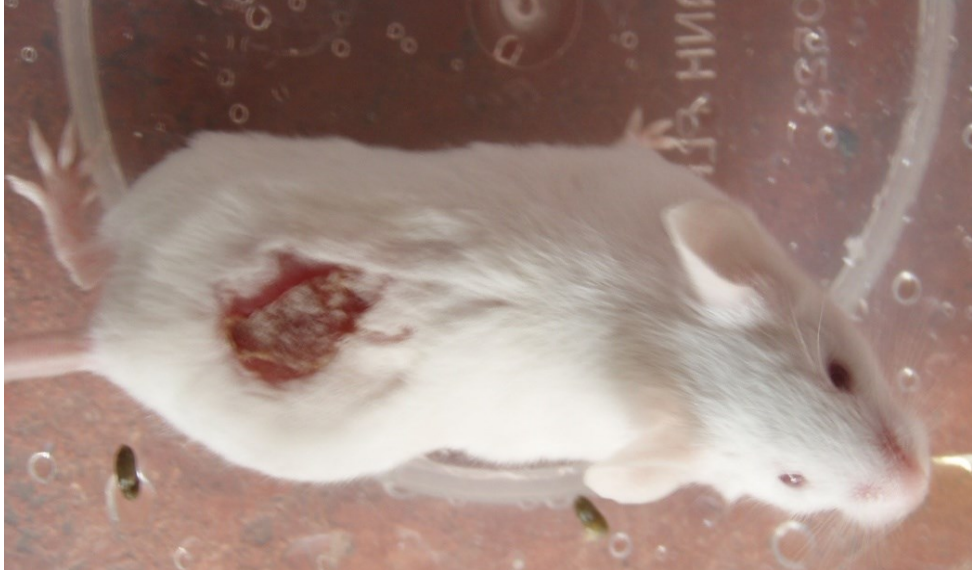
**Fig S4e.** The burn after 12 day was treated by curcumin



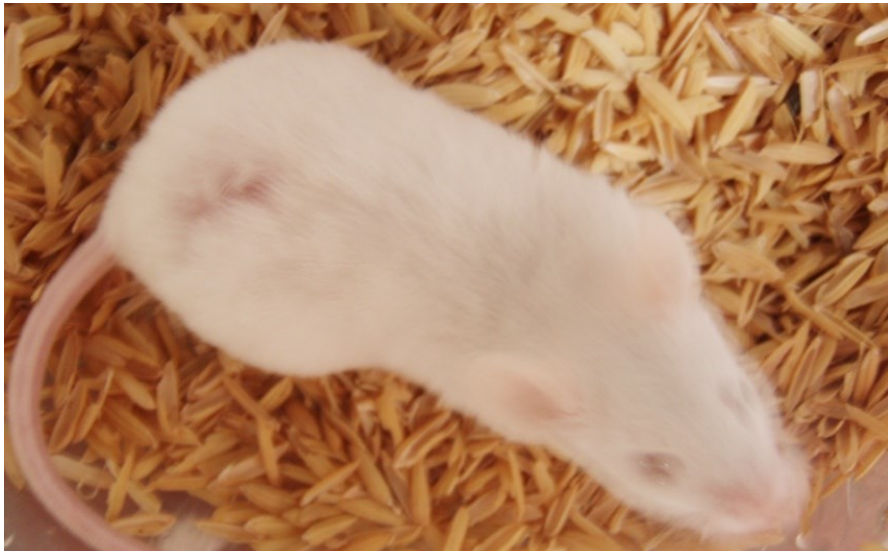
**Fig S4f.** The burn after 18 day was treated by curcumin



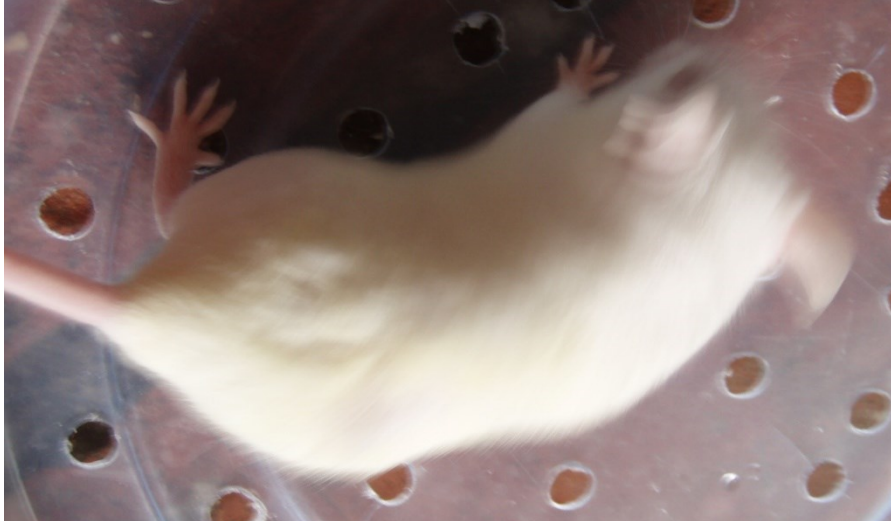
**Fig S5a.** The burn after 3 day was treated by curcumin-Ca(II)



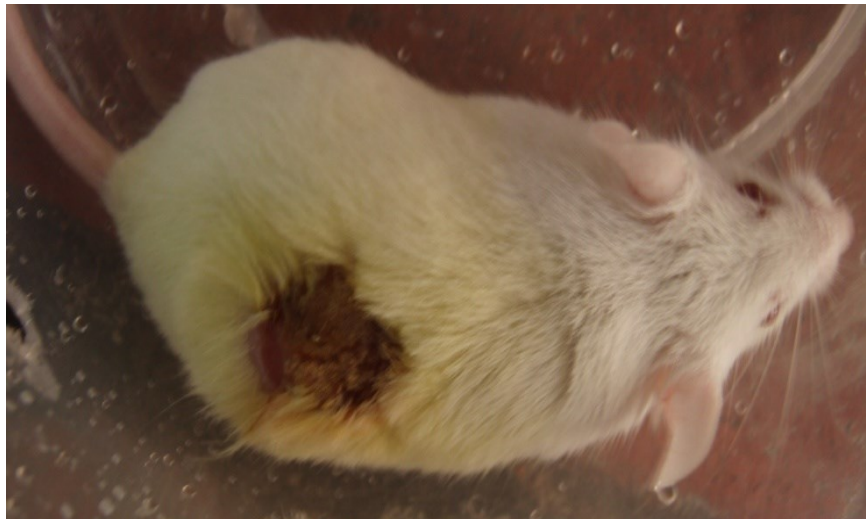
**Fig S5b.** The burn after 6 day was treated by curcumin-Ca(II)



**Fig S5c.** The burn after 9 day was treated by curcumin-Ca(II)

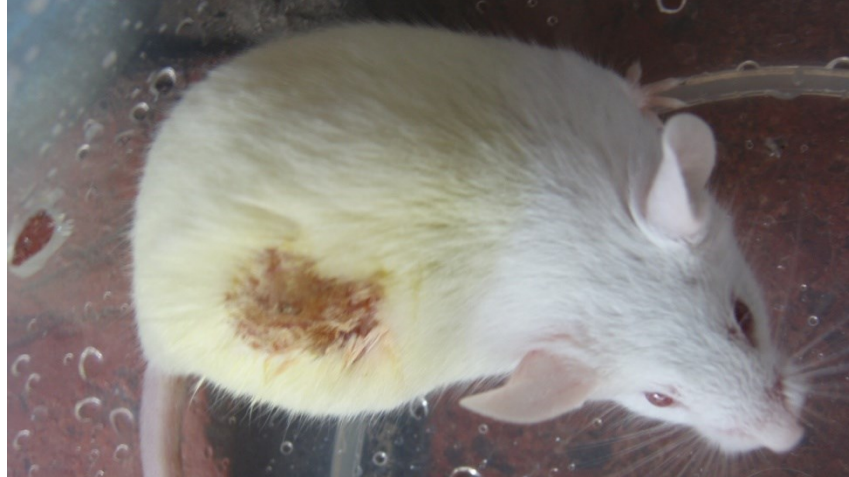


**Fig S5d.** The burn after 12 day was treated by curcumin-Ca(II)

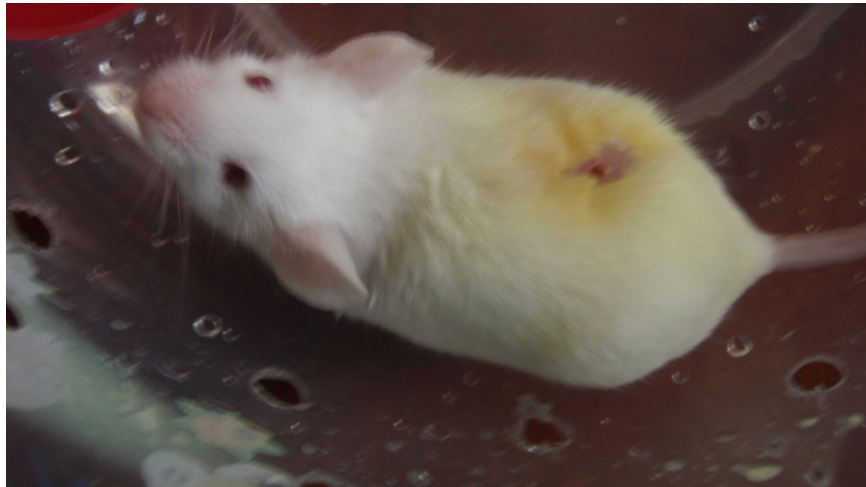


**Fig S6a.** The burn after 3 day was treated by curcumin-Zn(II)

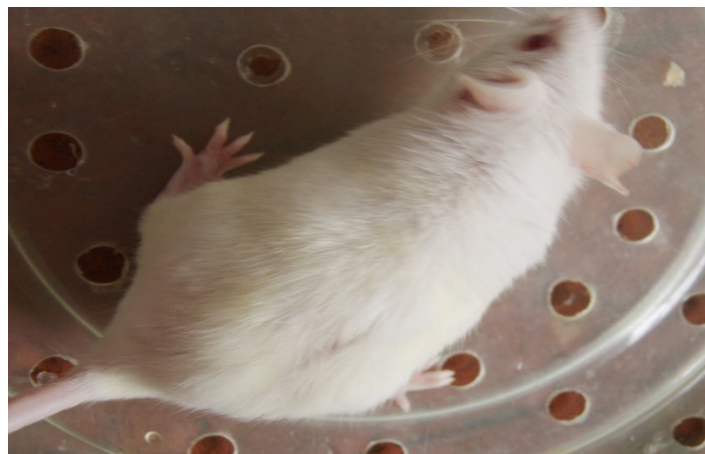




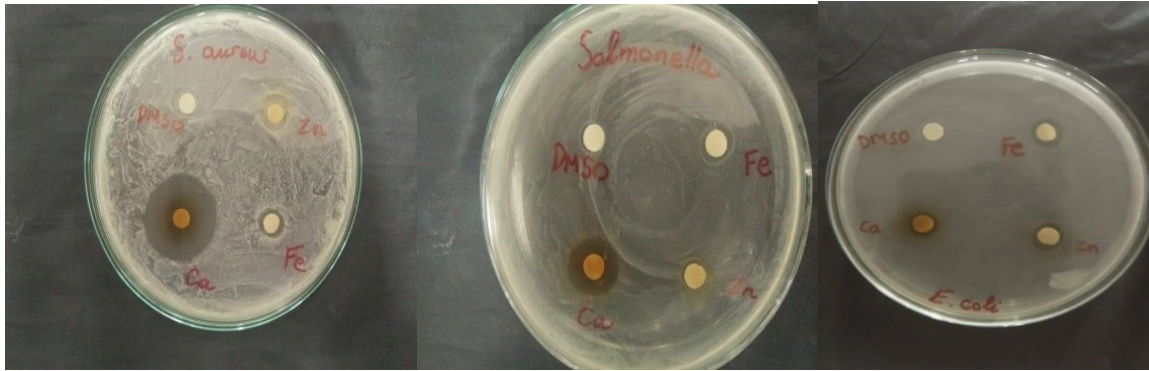
**Fig S6b. The burn after 9 day was treated by curcumin-Zn(II)**



**Fig S6c. The burn after 15 day was treated by curcumin-Zn(II)**



**Fig S6c. The burn after 18 day was treated by curcumin-Zn(II)**



**Fig S7:** Antimicrobial activity of curcumin complexes against *Salmonella*, *S.aureus*, and *E.coli*