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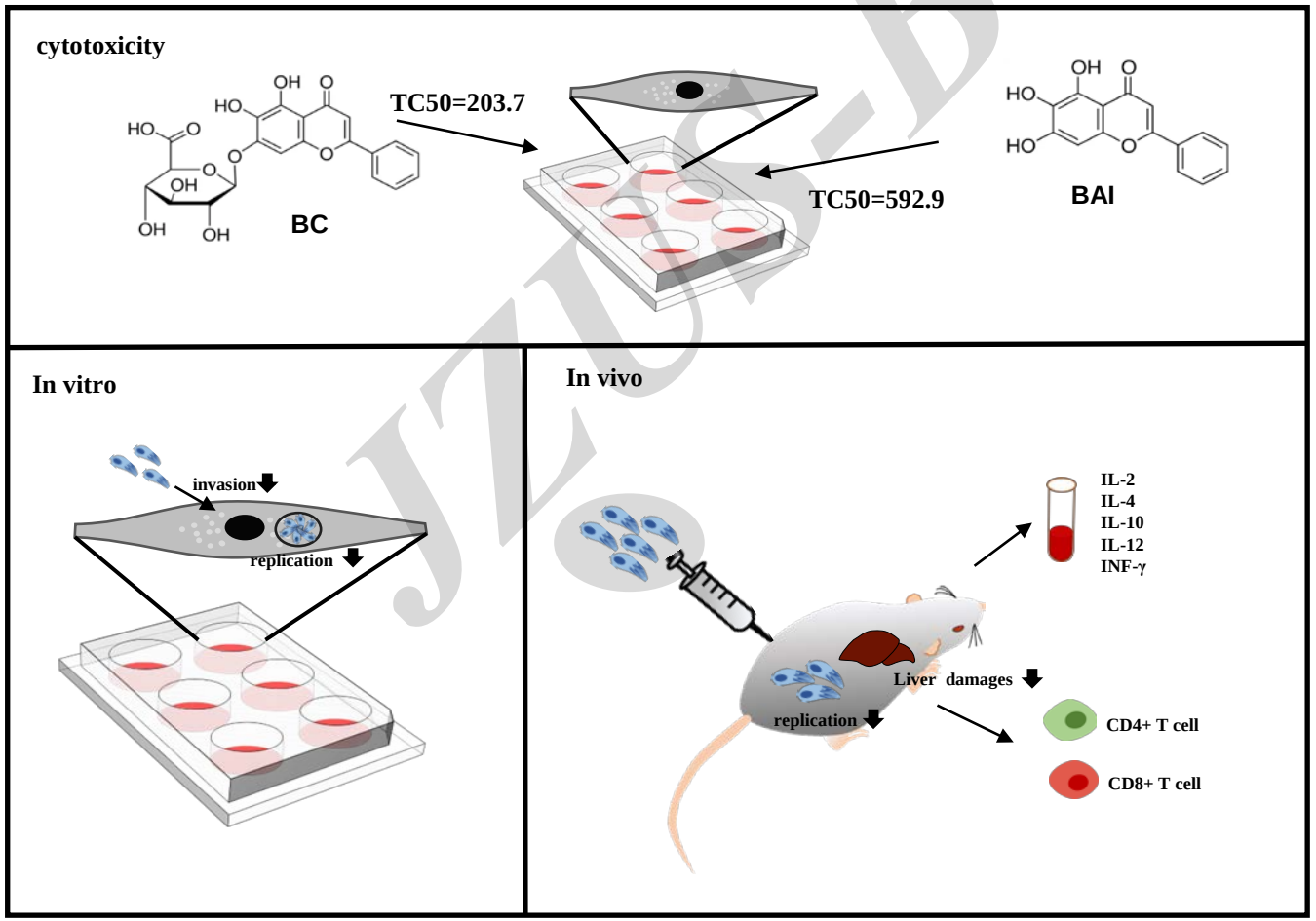
Therapeutic effect of baicalein as an antiparasitic agent against *Toxoplasma gondii in vitro* and *in vivo*

Key words: *Toxoplasma gondii*; Baicalein (BAI); Antiparasitic; Immunity regulation

Research Summary

In this paper, the anti-*toxoplasma* effect of baicalin was studied, and its anti-*toxoplasma* effect in vivo and in vitro was evaluated:



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Innovation points

- **Cytotoxicity** **detection of BAI and BC, evaluation of semi-inhibitory concentration of BAI on *Toxoplasma gondii***

- **Summary** **of the the effect of BAI on *Toxoplasma gondii* was tested *in vitro* and *in vivo***

- **Emphasis** **on the effect of BAI on immune response of mice infected with *Toxoplasma gondii***

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Innovation points

A series of experiments were conducted to evaluate the anti-*toxoplasma* effect of BAI *in vivo* and *in vitro*

Fig. 1 | A series of experiments were conducted to evaluate the anti-*toxoplasma* effect of BAI in *vivo* and in *vitro.*

Fig. 2 | Effects of BAI and BC on *Toxoplasma gondii* (*T. gondii*) proliferation evaluated in HFF cells.

Fig. 3 | Plaque assay carried out for evaluation the proliferation of RH tachyzoites.

Fig. 4 | Effect of BAI on *T. gondii* evaluated by invasion assay.

Fig. 5 | Effect of BAI on *T. gondii* evaluated by intracellular proliferation assay.

Fig. 6 | Therapeutic effect of BAI evaluated on *T. gondii* infected mice.

Fig. 7 | Pathology of liver sections analyzed by hematoxylin-eosin staining (HE).

Fig. 8 | Flow cytometry analysis for serum cytokines (IL-2, IL-4, IL-10, IL-12 and IFN-γ).

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