Reviewer's report

**Title:** TTFields alone and in combination with chemotherapeutic agents effectively reduce the viability of MDR cell sub-lines that over-express ABC transporters

**Version:** 1  **Date:** 1 February 2010

**Reviewer:** Liwu Fu

**Reviewer's report:**

The authors presented TTFields could inhibit cell growth in both sensitive and MDR cells. Importantly, TTFields also strongly enhanced the cytotoxicity of chemotherapeutic agents such as doxorubicin and paclitaxel in sensitive cells and MDR cells. Furthermore, TTFields had no effect on the intracellular accumulation of doxorubicin in both MDR cells. The data is novel. And this is a novel strategy for overcoming MDR.

**Comments**

1. Could TTFields be used to overcome MDR in vivo?
2. "uptake of doxorubicin" differences from "intracellular accumulation of doxorubicin". In this research, the authors examined the intracellular accumulation of doxorubicin in absence or presence of TTFields.
3. What is the mechanisms of inhibiting cell growth by TTFields?
4. Could TTFields downregulate the expression of ABC transporters?
5. In table 1, please include the IC50 values of sensitive and resistance cells.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.

**Declaration of competing interests:**

I declare that I have no competing interests.