Reviewer’s report

Title: Rapamycin delays growth of Wnt-1 tumors in spite of suppression of host immunity

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Reviewer: Takashi Kasukabe

Reviewer’s report:

Rapamycin potently inhibits mTOR signaling, resulting in cytostatic or cytotoxic effects on several cancer cells including breast cancer cells. It also is an immunosuppressive agent. Svirshchevskaya et al. examined the effect of rapamycin on the immune system and growth of MMTV-driven Wnt-1 mammary tumors. They found that rapamycin could delay the growth of the Wnt-1 tumors when it induced severe immunosuppression. They also reported that adoptive T cell therapy did not induce the anti-cancer effect. This is a well-written paper containing interesting results. This paper will contribute to our understanding of the roles of rapamycin in its anticancer effects in vivo. A few minor revisions are listed below.

Detailed comments:

Page 12 line 8: Authors described Similar results were obtained using subcutaneous (s.c) implantation of tumor cells (10^5 cells/mouse) and 30 days of treatment with rapamycin (n=8/group, Fig. 1C) However, there is no data showing the differences in tumor growth rates between control and rapamycin treated mice using s.c. implantation of tumor cells. Add the results in Fig. 1.

Page 19 line 14: The reference cited is inadequate. The cited reference (no. 48) did not mention that addition of IGF-I rescued MCF-7 cells from antiproliferative effects induced by rapamycin. Replace a proper reference.

Page 8 line 16: Is it correct 10-0.01 mM?

What next?: Accept after minor essential revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.

Declaration of competing interests:
'I declare that I have no competing interests'