Reviewer's report

Title: Expression of inwardly rectifying potassium channels (GIRKs) and beta-adrenergic regulation of breast cancer cell lines.

Version: 1 Date: 29 October 2004

Reviewer: Naseema Hoosein

Reviewer's report:

- General: Inwardly rectifying potassium channels may play an important role in cancer progression (recent review: Conti M. Targeting K+ channels for cancer therapy. J. Exptl. Therapeut. & Oncol. 4: 161-166, 2004). This study of the expression and regulation of GIRK channels in cancer cell lines is therefore of interest.

- Major Compulsory Revisions: NONE

- Minor Essential Revisions: 1) page 2, line 6 from bottom ".......while treatment for 30 minutes daily had no effect." It is unclear in the abstract, for how many days the 30 min daily treatment was done.

2) page 9, start of last paragraph would read better if changed to " To determine if GIRK channels are ....."

- Discretionary Revisions: 1) page 13, in the conclusions it is stated that beta-adrenergic agonists and antagonists have short term effects on potassium flux. The effect of beta-adrenergic agonists (eg. formoterol) on potassium flux was examined and discussed. However, the effect of beta-adrenergic antagonists (eg. propranolol) on potassium flux, if any, is unclear.

What next?: Accept after discretionary revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No

Declaration of competing interests:

None