As you have noticed, our article published on *Front. Pharmacol* (2011) 2:15 has been retracted. This is because incorrect data were presented in Figure 5 of this article due to an inadvertent mistake I have made while configuring this figure.

The experiment of Figure 5 was done to test the effect of baicalin (BA), at concentrations of 0, 2, 10, and 50 μM, on mitochondrial membrane potential (Δψm) in both immature and mature dendritic cells (DCs). The Δψm in BA-treated DCs was assayed by flow cytometry after staining with JC-1 fluorescent dye. In healthy cells with high Δψm, JC-1 can selectively enter into mitochondria and accumulate in the mitochondrial matrix to form red fluorescent J-aggregates. Conversely, in unhealthy cells with low Δψm, JC-1 does not accumulate in the mitochondrial matrix and exist as a green fluorescent monomer. Therefore, the percentage of cells that emit only green fluorescence indicates the loss of Δψm.

The flow cytometry results presented in the Figure 5 of the published manuscript showed that exposure of DCs to increasing doses of BA (0-50 μM) resulted in dose-dependent increase in the proportion of green fluorescence-positive cells (indicating loss of Δψm) in both immature DCs and mature DCs, and BA exposure resulted in a higher increase in the proportion of green fluorescence-positive cells in immature DCs than in mature DCs. About 4 months ago, it was brought to our attention by readers that the flow cytometry results presented in the first two panels of Figure 5, with the condition of 0 μM BA in immature and mature DC, are highly similar.

After checking the raw data based on which Figure 5 was generated, we realized that the result presented in the 0 μM BA mature DC panel is incorrect. In order to correct this error, we had submitted a corrigendum to the journal, in which the explanation why the error occurred was given and the correct flow cytometry result for the condition of 0 μM BA in mature DC was presented. The corrected value of green fluorescence-positive cell percentage for this condition is 9.18, which is very close to the erroneous one (10.94) in the original Figure 5 of the published manuscript. This reflects that the proportions of unhealthy cells with low Δψm in both immature and mature DCs kept in low and similar levels (about 10%) when untreated with BA.

Based on this, we argued that the inclusion of the correct data for the condition of 0 μM BA in mature DCs did not substantially alter the results of original Figure 5, because it did not alter the trend showed by original Figure 5 indicating that exposure of DCs to increasing doses of BA resulted in dose-dependent increase in the proportion of green fluorescence-positive cells in both immature DCs and mature DCs, and higher proportion of green fluorescence-positive cells were detected in BA-treated immature DCs. Together with the corrigendum, all of the raw data from three independent experiments were also provided in the submission.

However, following the peer-review of our corrigendum, additional technological issue was raised regarding the method used the experiment of Figure 5. One of the reviewers considered that in flow cytometry assays of Δψm with JC-1 staining, using compensation controls to adjust the detection settings is necessary, because inappropriate fluorescence compensation may lead to incorrect statistic value of percentage of green fluorescence-positive cells in JC-1 assay.

Since we did not use any compensation control in our experiments, the reviewer think the measurements without compensation controls cannot be considered as reliable. We have argued that JC-1 has been widely used as a reliable probe for detection of Δψm in a variety of cell types, and many published studies actually did not use compensation control in the JC-1-staining assays. In addition, even though we did not use compensation control for setting fluorescence compensation, we had empirically adjusted the measurement settings, under which the green fluorescence-positive cell population and the dual positive cell population were well separate from each other in the dot plots of green fluorescence (FL1) versus red fluorescence (FL2) for most samples tested, so that the computation of the percentage of the green fluorescence-positive cells could be correctly performed.

But the editors stand on the side of the reviewer. They believe that objective errors in the methods, applications, or interpretations were identified here and refused to publish the corrigendum. Since we cannot entirely exclude the possibility that incorrect data may be produced from the JC-1-staining assays without compensation controls, we agreed to retract out article.

Right now we cannot decided whether to republish yet because we need at first to re-perform the assays under more carefully controlled experimental conditions, such as using a “positive control”-treated sample as a compensation control for setting fluorescence compensation.