Reviewer's report

Title: Pluripotency-associated genes in human nasopharyngeal carcinoma CNE-2 cells are reactivated by a unique epigenetic sub-microenvironment

Version: 1 Date: 18 November 2009

Reviewer: Laszlo Szekely

Reviewer's report:

Minor Essential Revisions
Specific comments:

1. Page 4
“The markers and phenotype of CSCs were similar to that of normal neural stem cells.”

Generalized statement - obviously not true for all CSCs.
Do the authors mean? - “The markers and phenotype of CSCs were similar to that of normal stem cells.”

2. In material and methods the origin of THP-1 should be identified (human acute monocytic leukemia cell line)

3. It is not clear how single cell clones were obtained.

The authors write: "Cells were seeded in a 24-well plate with 1 cell /ml and cultured until there is single clone in one well."
Do the authors mean: … single cell clones were isolated from wells with only a solitary colony…?

4. Page 12
PMA induced THP-1 cells are not bone fide macrophages, these cells are differentiated tumor cells with macrophage phenotype. The term macrophage should only be used for primary macrophages isolated from healthy human donors.

5. The authors use the expression of “coculture” as a synonym for incubation with conditioned medium. E.g. “…the CNE-2-2 cell clone contained 9.8% SP cells
after co-cultured with macrophage,...

This is not correct. Coculture means mixed cell cultures where two or more cell types are present simultaneously in the same cell culture.

6.
“we selected another human neuroblastoma cell line SK-N-CH” – Do the authors mean? .. we selected an other cell line, the human neuroblastoma cell line SK-N-CH”?

7.
“the express of CD133,” – should not it be “the expression of CD133,”?

8.
the authors state that “Propidium iodide-positive dead cells (<15%) were excluded form the analysis.”

However Figure 3 reveals a large amount of apoptotic cells in the control and proportionally less in the “coculture” population”
The authors should consider and discuss the possible anti-apoptotic effect of the differentiated THP-1 conditioned media especially as ARMER was one of the most intensely upregulated gene in the “coculture” sample.

Level of interest: An article whose findings are important to those with closely related research interests

Quality of written English: Needs some language corrections before being published

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