

ПОПРАВКА

DOI: 10.7868/S0475145014220017

Уважаемые читатели, сообщаем Вам, что в аннотации статьи Гордеевой О.Ф. и соавт., опубликованной в № 6, 2011 были допущены опечатки, ниже приводится верный вариант текста:

Expression Patterns of Germ Line Specific Genes in Mouse and Human Pluripotent Stem Cells are Associated with Regulation of Ground and Primed State of Pluripotency

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Received June 20, 2011; in final form June 24, 2011

Abstract—One of the main criteria of pluripotency is ability of cell lines to differentiate into the germ line. Pluripotent stem cell lines in ground state of pluripotency differ from the lines in primed state by their ability to give rise to the mature gametes. To understand molecular mechanisms involved in regulation of different states of pluripotency we investigated the expression patterns of germ line specific genes in different type pluripotent stem cells and mouse and human embryonic teratocarcinoma cells. We found that pluripotent stem cells in vitro, in blastocyst and gonocytes at stage E13.5 had similar expression patterns in contrast to the epiblast cells at stage E6.5. Quantitative real time PCR analysis showed that *Vasa/Ddx4* expression in mouse and human embryonic stem cells was significantly lower than in blastocyst and gonocytes. Moreover, *Vasa/Ddx4* and *E_ras* expression was significantly higher in mouse embryonic stem cells than in human embryonic stem cells. Our analysis of germ line specific gene expression in differentiating mouse embryonic stem and embryonic germ cells as well as in mouse embryonic teratocarcinoma cells maintained under conditions promoting cell reprogramming from primed to ground state of pluripotency (2i + LIF) revealed that only pluripotent stem cells are able to regulate the expression level of *Oct4* and *Vasa/Ddx4* and restore initial ground state, while in embryonic teratocarcinoma cells the expression level of these genes remained unchanged. We suggest that expression patterns of germ lines specific genes, in particular of *Vasa/Ddx4*, can underlie the regulation of ground and primed states of pluripotency.

Keywords: pluripotent cells, embryonic stem cells, teratocarcinoma, germ cell line, blastocyst, ground state, *Vasa*, *Oct4*, *Eras*