

Accepted Manuscript

Chick stem cells: current progress and future prospects

Sittipon Intarapat, Claudio D. Stern

PII: S1873-5061(13)00131-1
DOI: doi: [10.1016/j.scr.2013.09.005](https://doi.org/10.1016/j.scr.2013.09.005)
Reference: SCR 350

To appear in: *Stem Cell Research*

Received date: 7 February 2013
Revised date: 6 September 2013
Accepted date: 13 September 2013



Please cite this article as: Intarapat, Sittipon, Stern, Claudio D., Chick stem cells: current progress and future prospects, *Stem Cell Research* (2013), doi: [10.1016/j.scr.2013.09.005](https://doi.org/10.1016/j.scr.2013.09.005)

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Chick stem cells: current progress and future prospects

Sittipon Intarapat^{1,2} · Claudio D. Stern^{1*}

1. Department of Cell and Developmental Biology and UCL Centre for Stem Cells and Regenerative Medicine, University College London, Gower Street, London WC1E 6BT, UK

2. Present address: Department of Anatomy, Faculty of Science, Mahidol University, Bangkok 10400. Thailand

* Correspondence: c.stern@ucl.ac.uk

Abstract Chick embryonic stem cells (cESCs) can be derived from cells obtained from stage X embryos (blastoderm stage); these have the ability to contribute to all somatic lineages in chimaeras, but not to the germ line. However, lines of stem cells that are able to contribute to the germ line can be established from chick primordial germ cells (cPGCs) and embryonic germ cells (cEGCs). This review provides information on avian stem cells, emphasizing different sources of cells and current methods for derivation and culture of pluripotent cells from chick embryos. We also review technologies for isolation and derivation of chicken germ cells and the production of transgenic birds.

Keywords Chick, Chicken, Embryo, Germ cells, Pluripotency, Stem cells

Download English Version:

<https://daneshyari.com/en/article/10891266>

Download Persian Version:

<https://daneshyari.com/article/10891266>

[Daneshyari.com](https://daneshyari.com)