

Correction

CELL BIOLOGY

Correction for “Highly efficient delivery of functional cargoes by the synergistic effect of GAG binding motifs and cell-penetrating peptides,” by James E. Dixon, Gizem Osman, Gavin E. Morris, Hareklea Markides, Michael Rotherham, Zahia Bayoussef, Alicia J. El Haj, Chris Denning, and Kevin M. Shakesheff, which appeared in issue 3, January 19, 2016, of *Proc Natl Acad Sci USA* (113:E291–E299; first published January 5, 2016; 10.1073/pnas.1518634113).

The authors wish to note the following: “The corresponding authors were recently made aware of errors in Figs. 2 and 3 that required investigation. The journal editor was informed immediately and the University of Nottingham conducted an investigation into the cause(s) of the errors, their implications for the validity of the conclusions of the paper, and whether appropriate corrections could be submitted. This investigation was overseen by a member of the University Executive Board and was independent of the authors. The investigation concluded that the errors were caused by accidental mistakes in the preparation of the figures. The author who prepared the figures selected incorrect images from the data archive. By investigating the original data archives, it was concluded that (1) the correct images were available at the time of figure preparation; (2) the correct images were similar in key features of scientific relevance to the experiments; and (3) the correct images were archived with original filenames that stated the experimental conditions and sample types when cross-referenced to laboratory book records. The investigation concluded that corrected figures should be submitted to the journal for peer review.”

The corrected figures have been evaluated by the editor and reviewers and approved for publication. The corrected Figs. 2 and 3, along with their corresponding legends, appear below.

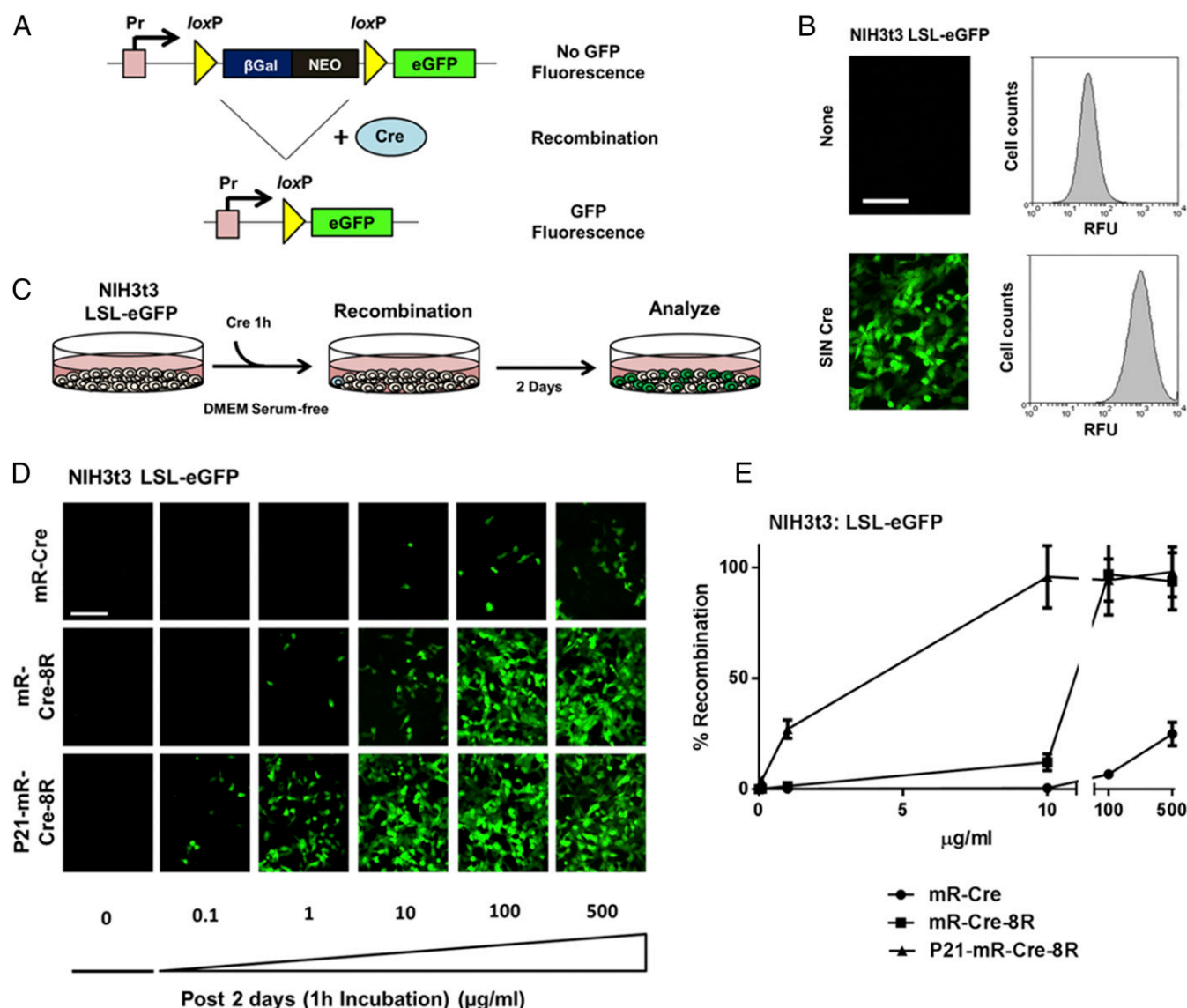


Fig. 2. GET of Cre recombinase. (A) Schematic of the construct created to mark Cre activity in cells. Cre-mediated excision of a transcriptional STOP region flanked by loxP sites induces the constitutive expression of eGFP. Pr, promoter; βGal, β-galactosidase; Neo, Neomycin phosphotransferase. The NIH3t3 LSL-eGFP cell line was created by transfection and selection of NIH3t3 cells. (B) eGFP expression in untreated NIH3t3 LSP-eGFP cells or those transduced with SIN Cre lentivirus. (Left) Fluorescence microscopy. (Right) Flow cytometry histogram of eGFP expression. (Scale bar, 50 μm.) (C) Scheme of testing transduction of Cre activity in NIH3t3 LSL-eGFP cells. Cells were transduced with Cre proteins for 1 h and washed and cultured for 2 d before analyses. (D and E) P21-mR-Cre-8R is efficiently transduced and recombines DNA. (D) Fluorescence microscopy images Cre-transduced NIH3t3 LSL-eGFP with the variety of dosages. (Scale bar, 50 μm.) (E) Flow cytometry analyses of NIH3t3 LSL-eGFP cells transduced for 1 h with mR-Cre, mR-Cre-8R, and P21-mR-Cre-8R at a variety of dosages (0, 1, 10, 100, and 500 μg/ml), washed and cultured for 2 d. Graph shows percentage recombination (i.e., percentage of eGFP positive from total cell population). Error bars indicate SD. $n = 6$.

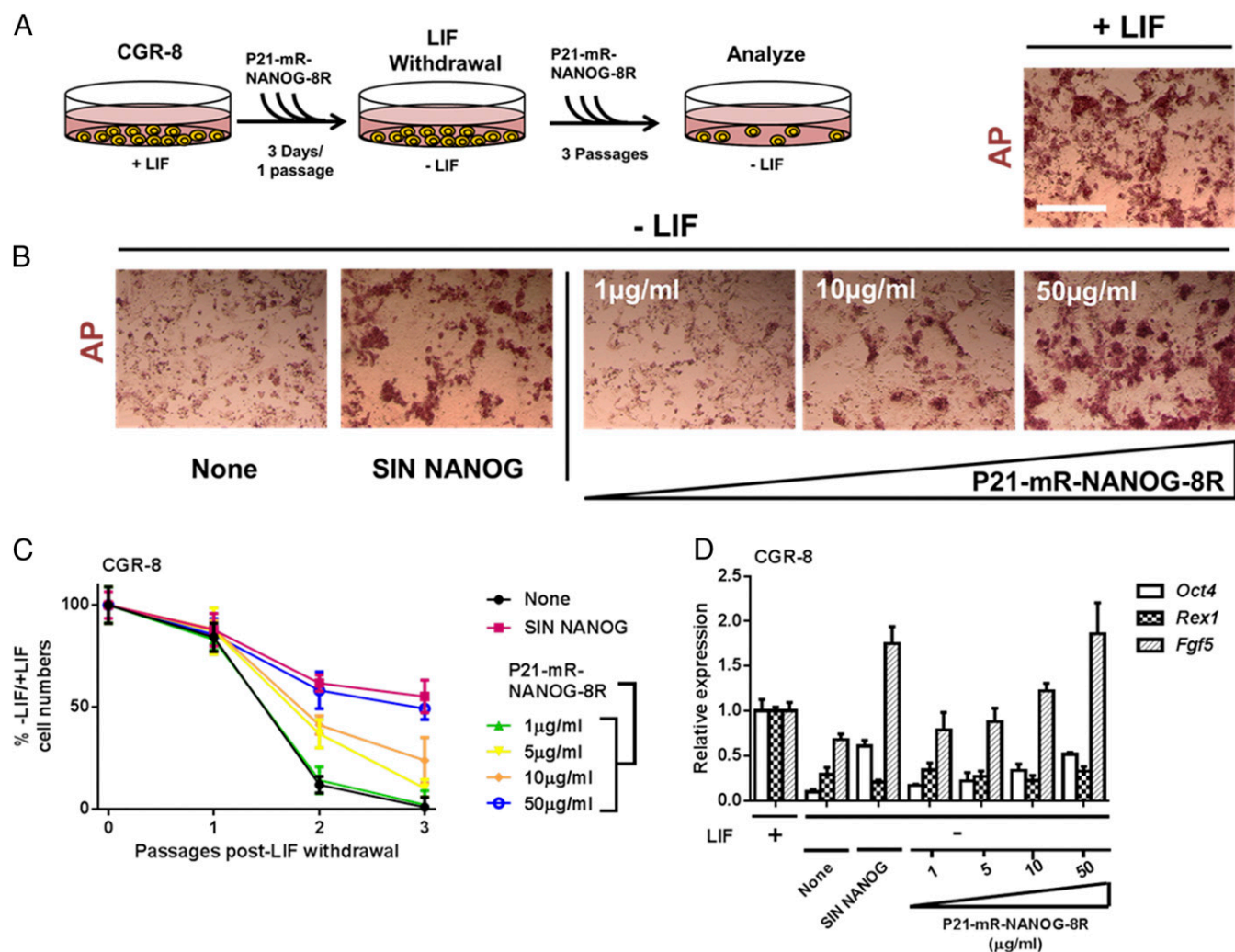


Fig. 3. GET of NANOG promotes the self-renewal of mouse embryonic stem cells. (A) Scheme of testing activity of transduced NANOG in CGR-8 cells. Cells were transduced with P21-mR-NANOG-8R proteins (0, 1, 10, and 50 µg/mL) for 3 consecutive days (1 passage, 1:3 split), passaged 1:3, and plated into growth media with P21-mR-NANOG-8R but lacking LIF (-LIF). Cells were fed daily with -LIF media containing P21-mR-NANOG-8R and passaged 1:3 every 3 d for 2 passages (a total of 3 passages -LIF). (B) P21-mR-NANOG-8R rescues self-renewal of mESCs lacking LIF dose-dependently. AP staining of CGR-8 cells treated with P21-mR-NANOG-8R proteins and LIF withdrawal. AP activity and colony morphology is retained in CGR-8 cells cultured in LIF or without LIF but supplemented with SIN NANOG (to overexpress NANOG) or transduced with P21-mR-NANOG-8R. (Scale bar, 100 µm.) (C) P21-mR-NANOG-8R maintains the proliferation of mESCs lacking LIF dose-dependently. Percentage of the number of CGR-8 cells cultured without LIF versus those with LIF (percentage -LIF/+LIF) at passaging. In LIF-deficient CGR-8 cultures, proliferation is promoted when supplemented with SIN NANOG (to overexpress NANOG) or transduced with P21-mR-NANOG-8R. Error bars indicate SD. (D) NANOG-dependent rescue in LIF-deficient cultures generates a more epiblast-like gene expression profile. Relative gene expression analyses of LIF-deficient CGR-8 cultures using quantitative PCR. Cultures supplemented with SIN NANOG (to overexpress NANOG) or transduced with P21-mR-NANOG-8R have increased *Fgf5* expression, reduced *Rex1* expression, and retain *Oct4* expression. Error bars indicate SE. $n = 6$.

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