Corrigendum: Gene regulation mediated by calcium signals in T lymphocytes

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In the version of the article initially published, many errors and inappropriate manipulations were made in Figures 1, 3 and 5. None of these changes the conclusions drawn, and coauthors J. Giltane, R. Dolmetsch and L.M. Staudt, who were not involved in the preparation of the manuscript, bear no responsibility for these mistakes.

In Figure 1, eight panels were published previously in the *Journal of Immunology* (Feske, S. *et al.* The duration of nuclear residence of NFAT determines the pattern of cytokine expression in human SCID T cells. *J. Immunol.* 165, 297–305 (2000)): the gels in Figure 1a, panel A (Co and Pat) and panel C (Co and Pat) were published before as Figure 2 of that *Journal of Immunology* paper; the immunocytochemistry slides in Figure 1b, panels A, B, C and D, were published before as Figure 3a, b, d and e in that *Journal of Immunology* paper.

In Figure 1a, the gels in panels A–D were modified to remove curved bands and to rearrange lanes without acknowledgement in the figure legend. The original unmodified gels are presented here. For panel A, the original samples were run on two separate gels; for the new panel C, samples are presented in their original order with their original control lanes.

In Figure 1b, panel E, the cells were treated with 0.8 mM Ca^{2+} , not 2.8 mM as stated in the legend. Panel E now shows cells treated with 2.8 mM Ca^{2+} .

In Figure 3c, panel C was incorrect and panel E was a composite in which a cell from outside the field of view was inappropriately cut and pasted into the panel. Panel C now shows the correct image of untreated B cells instead of untreated T cells; panel E now shows an unmodified slide.

In the original Figure 5a,d the gel lanes of the treatment pairs (– and +) were merged inappropriately. Figure 5a,d now shows the lanes separated to indicate they were not originally run side by side. In Figure 5a, a typographical error in gene symbol MAP3K3 has been corrected to MAP3K5. In Figure 5d, lane 6 (+ for P1) previously showed data from an incorrect time point; a gel photo of the correct matching time point (6 h) has been inserted.

The figures and corresponding figure legend corrections are as follows:

Figure 1 Dephosphorylation and nuclear translocation of NFAT in SCID patients' T cells is facilitated by high $[\text{Ca}^{2+}]_{\text{ex}}$. **(a)** Dephosphorylation: T cell lines established from two patients (Pat1, Pat2) and two controls (Co1, Co2) were left unstimulated or stimulated with ionomycin (Iono) in the presence of 0.8 mM (A,C) or 2.8 mM (B,D) CaCl_2 . Where indicated, cells were preincubated with CsA before stimulation. Whole-cell extracts were prepared at the indicated time points and analyzed by immunoblotting. Arrowheads indicate the phosphorylated (P) and dephosphorylated (deP) forms of NFAT1 (A,B) and three phosphorylated splice variants of NFAT2 (C,D). Results are representative of several experiments with T cells from both patients and three independent controls. **(b)** Nuclear translocation: patient and control T cell lines were left unstimulated (A,B) or stimulated with ionomycin in the presence of 0.8 mM (C,D), 2.8 mM (E,F) or 10.8 mM (G,H) extracellular CaCl_2 and NFAT1 localization was assessed by immunocytochemistry.

Figure 3 The calcium entry defect affects SCID patients' B cells and fibroblasts. (c) EBV-transformed B cell lines from patient 2 and a control were left unstimulated or stimulated with ionomycin in the presence of the indicated CaCl₂ concentrations. Numbers in the panels refer to the approximate percentages of cells with cytoplasmic, partially nuclear and fully nuclear NFAT staining, respectively.

Figure 5 T cells deficient in calcium influx fail to repress the expression of certain genes. (a) RNase protection assays confirm down-regulation of five representative calcium-repressed genes. T cell lines from patients (P1, P2) and controls (Co1, Co2) were left unstimulated (–) or stimulated (+) with PMA + ionomycin and cytokine concentrations were assessed by RPA. (d) Lack of induction of the CsA-sensitive NFAT2 splice variant50 in the patients' T cells after prolonged stimulation. To confirm DNA array data showing that NFAT2 is induced in control T cells but not in patient T cells (see Fig. 6), T cells were stimulated with PMA + ionomycin (P+I) and NFAT2 was detected by immunoblotting using 7A6 mAb. Filled and open arrowheads indicate the phosphorylated and unphosphorylated forms of the short inducible NFAT2 isoform, respectively.

Corrigendum: Connecting immunology research to public health: Cuban biotechnology

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In the version of this article initially published, the URL for the 2006 product survey of the Pharmaceutical Manufacturers Association is incorrect. The correct URL should be <http://www.phrma.org/files/Biotech%202006.pdf>.