Together, these data show that the large family of activating homeodomain transcription factors, such as Pit-1, exert their functions through a balance between the N-CoR co-repressor complexes and the CBP co-activator complexes. Pit-1 activity is regulated by distinct signal-transduction pathways, through mechanisms that do not appear to involve modification of Pit-1 itself, but at least in part through regulation of the recruited co-activator complex. A surprising consequence of these events is that a single transcription factor, Pit-1, actually uses the HAT functions of different proteins, and requires the function of different domains of CBP when activated in response to cAMP or growth-factors (Fig. 5d). These results have implications for the mechanism of integration of signalling events that control complex patterns of gene expression by many classes of transcription factors. □

Methods

Protein–protein interaction assays. All the GST–fusion proteins were expressed and purified as described previously[4,15]. *In vitro* protein–protein interaction assay, immunoprecipitation, GST pull-down and DNA-dependent protein–protein interaction (ABCD) assays were done as described[4,6,18].

Nuclear microinjection, staining and fluorescence microscopy. Microinjection analysis was done as described previously using affinity-purified IgGs[6,15,26,28].

Transient transfection. HeLa and 293 cells were maintained in DMEM supplemented with 10% fetal bovine serum. Calcium precipitation mediated transient transfection was done according to standard protocol.

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Supplementary information is available on *Nature's* World-Wide Web site (http://www.nature.com) or as paper copy from the London editorial office of Nature.

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errata

Evidence for the shikimate pathway in apicomplexan parasites

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The correct designation of symbols in Figs 1b, d and 3a is as follows. In Fig. 1b, open squares: PABA alone; filled squares: sulphadiazine and PABA; open circles: glyphosate and PABA; filled circles: pyrimethamine and PABA. Figure 1d shows *in vivo* activity against *T. gondii* of glyphosate ($100\ mg\ kg^{-1}\ day^{-1}$) and pyrimethamine ($12.5\ mg\ kg^{-1}\ day^{-1}$), alone or in combination. Open squares, with 50% survival at 30 days: combination of glyphosate and pyrimethamine; filled circles: pyrimethamine alone; open circles: glyphosate alone. Open squares, with 0% survival at 9 days: untreated controls. In Fig. 3a, diamonds: PABA alone; squares: folic acid alone; upright triangles: glyphosate and PABA; inverted triangles: glyphosate and folic acid. □

Phase-mapping of periodically domain-inverted $LiNbO_3$ with coherent X-rays

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The labels for Fig. 2b and c should be interchanged. □