

Retraction: Dose dependency of *Disp1* and genetic interaction between *Disp1* and other hedgehog signaling components in the mouse

Hua Tian, Toyooki Tenzen and Andrew P. McMahon *Development* **131**, 4021-4033.

A re-examination within our laboratory of two papers published by our group in *Development* (Tian et al., 2004; Tian et al., 2005) has revealed a duplication of Dr Tian's data in these papers. On review, we have found that the documentation underpinning a number of conclusions in Tian et al., 2004 is inadequate. As a consequence, we regret that we must retract Tian et al., 2004.

The principal conclusions in Tian et al., 2005 are supported by appropriate documentation. Nevertheless, to confirm the conclusions drawn from Dr Tian's primary data on the tissue requirement for Dispatched in facial development, we will repeat the experiments documented in Figure 2 of Tian et al., 2005, and will report our findings to the journal once these experiments have been concluded. We do not expect this re-analysis to change the conclusions drawn in this paper.

We apologize to the editors and readership of *Development*.

Andrew McMahon, Hua Tian* and Toyo Tenzen

Department of Molecular and Cellular Biology, Harvard University, 16 Divinity Avenue, Cambridge, MA 02138, USA

*Present address: 2548 Post Street, San Francisco, CA 94115, USA

References

Tian, H., Tenzen, T. and McMahon, A. P. (2004). Dose dependency of *Disp1* and genetic interaction between *Disp1* and other hedgehog signaling components in the mouse. *Development* **131**, 4021-4033.

Tian, H., Jeong, J., Harfe, B. D., Tabin, C. J. and McMahon, A. P. (2005). Mouse *Disp1* is required in sonic hedgehog-expressing cells for paracrine activity of the cholesterol-modified ligand. *Development* **132**, 133-142.