## Mis-paste: it's the new typo

A high-profile study is corrected because images were duplicated by an 'inadvertent error'.

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Scientists: when checking your research papers for errors before publication, be sure to check the images too. Everyone knows to watch for misprints and errors in typed data, but the same trap (a 'mis-paste'?) can befall figures, leading to embarrassing duplications.

A correction for one such mis-paste appeared in the journal *Cell Research* this week, after an eagle-eyed blogger spotted identical images in a high-profile study (L. Zhang *et al. Cell Res.* http://dx.doi.org/10.1038/cr.2011.158; 2011) that got plenty of media attention when it was published online almost two months ago.

The research, from a team led by Chen-Yu Zhang, a biochemist at Nanjing University in China, suggested that microRNAs from common plants (such as rice) could be found circulating in the blood of humans that ate the plants — and could even act to affect protein expression in mammals. If correct, this would be a new way for our diet to affect our body's biochemistry. Outlets such as *New Scientist* and *The Scientist* covered the study; as did the *Discover* blog, where one commenter pointed out that some Russian bloggers had spotted apparent duplications of images in the research.

As Zhang quickly confirmed, two different experiments in the paper had identical images for their western blot controls (a routine check on the presence of the structural protein α-tubulin, to make sure that the western blot is accurately representing what has happened to other proteins of interest). The controls in an experiment looking at the proteins expressed by cultured liver cells were identical to those in another, quite different, experiment which examined protein extracts from mice fed on varying diets.

Any suggestion of duplicate figures unavoidably brings to mind numerous examples of retractions for image manipulation (of which the blog Retraction Watch has more than 40 examples). But the rapid correction, issued on 8 November, notes that the error was "inadvertently introduced during the assembly of figure panels for this paper", and adds the correct images for the mouse experiment.

That's hardly the only inadvertent mis-paste we've seen recently in correction notices. Take this 26 October 2011 correction to a 2009 *Nature* paper, which notes that "Several lanes of the ChIP analyses in this Letter were inadvertently duplicated or erroneously created during figure assembly".

In summary: the images are just as important as the text. Be careful what you cut and paste.

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