Erratum

In the article “The Ankle-Ink Antigen: an Epitope Sensitive to Calcium Chelation Associated with the Hair-Cell Surface and the Calycal Processes of Photoreceptors,” by Richard Goodyear and Guy Richardson, which appeared on pages 3761–3772 of the May 15, 1999 issue, a printer’s error caused inadvertent artifacts in Figures 1, 7, 9, and 10. The figures and legends are reprinted.

Figure 1. Localization of mAb E40 binding sites in the inner ear and the retina. a, a’, Section of the cochlear duct double-labeled with mAb E40 (a) and phalloidin (a’). Within the cochlear duct, mAb E40 is specific for the apical surface of the hair cells in the basilar papilla. Scale bar, 100 μm. b, b’, High-magnification image of a cryosection from the utricular macula double-labeled with mAb E40 (b) and phalloidin (b’). In sectioned material, mAb E40 staining is predominantly restricted to the base of the hair bundle. c, A whole-mount preparation of the utricular macula labeled with mAb E40. Although the majority of the labeling is restricted to the base of each hair bundle, punctate staining can be seen all the way up the stereocilia. Scale bar: b, b’, c, 10 μm. d, d’, Section of the retina immunolabeled with mAb E40 (d) and the corresponding phase-contrast image (d’). A spot of label is associated with each photoreceptor at a level close to that of the oil droplets in the cones. Arrowheads in d’ indicate oil droplets. Scale bar, 20 μm. BP, Basilar papilla; H, homogene cells; P, photoreceptors; RPE, retinal pigment epithelium; TV, tegmentum vasculosum.
Figure 7. Effects of BAPTA and subtilisin on mAb E40 (a, c, e) and anti-HCA labeling (b, d, f) in extrastriolar regions of utricular maculae. a, b, Control samples incubated in HBHBSS for 60 min. c, d, Samples incubated in 5 mM BAPTA for 60 min. e, f, Samples incubated in 50 μg/ml subtilisin for 20 min. In control maculae (a, b), both mAb E40 (a) and monoclonal anti-HCA antibody (b) label hair bundles strongly. After 1 hr of BAPTA treatment, mAb E40 antigen no longer stains the cell surface (c), whereas the distribution of the hair-cell antigen is unchanged (d), although the hair bundles are splayed. After 20 min exposure to subtilisin, the mAb E40 staining can no longer be detected (e), and only traces of the HCA remain (f). Scale bar, 10 μm.

Figure 9. Temperature dependence of the effects of BAPTA treatment on mAb E40 labeling in extrastriolar regions of the utricular macula. a, b, Maculae stained with mAb E40 after a 20 min incubation in HBHBSS (a) or 5 mM BAPTA (b) at room temperature. c, d, Maculae stained with mAb E40 after a 20 min incubation in HBHBSS (c) or 5 mM BAPTA (d) at 2°C. Although staining is reduced in the tissue treated with BAPTA at 2°C compared with the control tissue, labeling is much stronger than that seen after BAPTA treatment at room temperature (b). e, f, Maculae stained with mAb E40 after a 4 hr incubation in HBHBSS (e) or 5 mM BAPTA (f) at 2°C. The degree of labeling observed after BAPTA treatment for 4 hr at 2°C (f) is similar to that seen after 20 min at 2°C (d). Scale bar, 20 μm.

Figure 10. Recovery of mAb E40 labeling after BAPTA-induced loss. a, Control macula stained with mAb E40 after 20 min incubation in HBHBSS. b, BAPTA-treated (5 mM, 20 min) macula stained with mAb E40. Note that only very weak labeling can be detected. c, Control, HBHBSS-treated macula after 20 hr in vitro stained with mAb E40. d, BAPTA-treated (5 mM, 20 min) macula stained with mAb E40 after 20 hr in vitro. mAb E40 staining has reappeared but not to the same level as in the control (b). Scale bar, 10 μm.