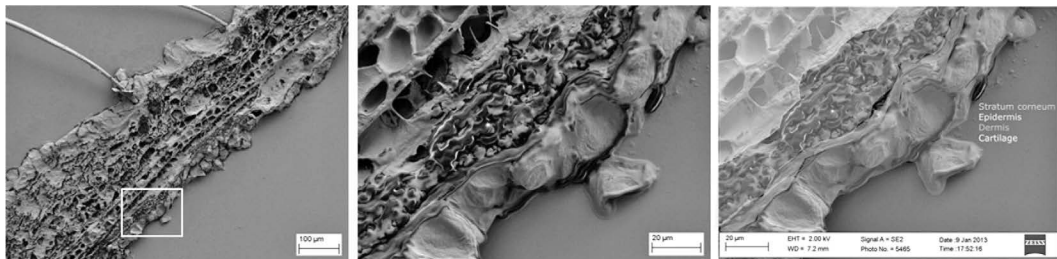


**FIGURE 56.11** Images of skin samples treated with PMNP cream or suspension obtained with transmission and scanning electron microscopy. Selected micrographs show (a) SEM image of transversal skin section treated with PMNP solution for 24 hours, SC = stratum corneum, K = keratinocytes, BM = basal membrane, C = collagen. (b) High magnification of (a), PMNP are detected on the surface of the keratinocytes (white arrows). TEM images of PMNP nanoparticles (black arrows) inside the corneocytes of the skin treated with cream (c and d) or suspension (e and f). PMNP nanoparticles in proximity of the basal membrane, D = desmosomes. (g–i) Photomicrographs of PMNP nanoparticles (black arrows) intercalated between the collagen fibers of the dermis (g), SEM image (h), and (i) TEM images. (Reprinted with permission from Colombo et al. 2015.)



**FIGURE 56.12** Scanning electron micrographs of a mouse ear cross-section as analyzed by TOF-SIMS. The area imaged (middle) is indicated by the yellow box in the left panel. Histological features of the cross-section are outlined in the left panel, including the stratum corneum (blue), epidermis (yellow), dermis (green), and cartilage (white). (Reprinted with permission from Siovall et al. 2014.)