

## **Inhibition of melanin transfer from melanocyte to keratinocyte by decoy-melanosomes**

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To inhibit melanin transfer from melanocytes to keratinocytes, we attempted to use nanoparticles that mimic melanosomes. We found that negatively charged polystyrene particles are up-taken by melanocytes. To investigate the effects of particles on melanin transfer, we constructed 3D-coculture system of melanocytes and keratinocytes. However, no significant effects of particles on melanin transfer. Further improvements such as higher uptake of particles and surface modification by melanosomal proteins are required.