

Supplementary Materials: Improved In Vitro Model for Intranasal Mucosal Drug Delivery: Primary Olfactory and Respiratory Epithelial Cells Compared with the Permanent Nasal Cell Line RPMI 2650

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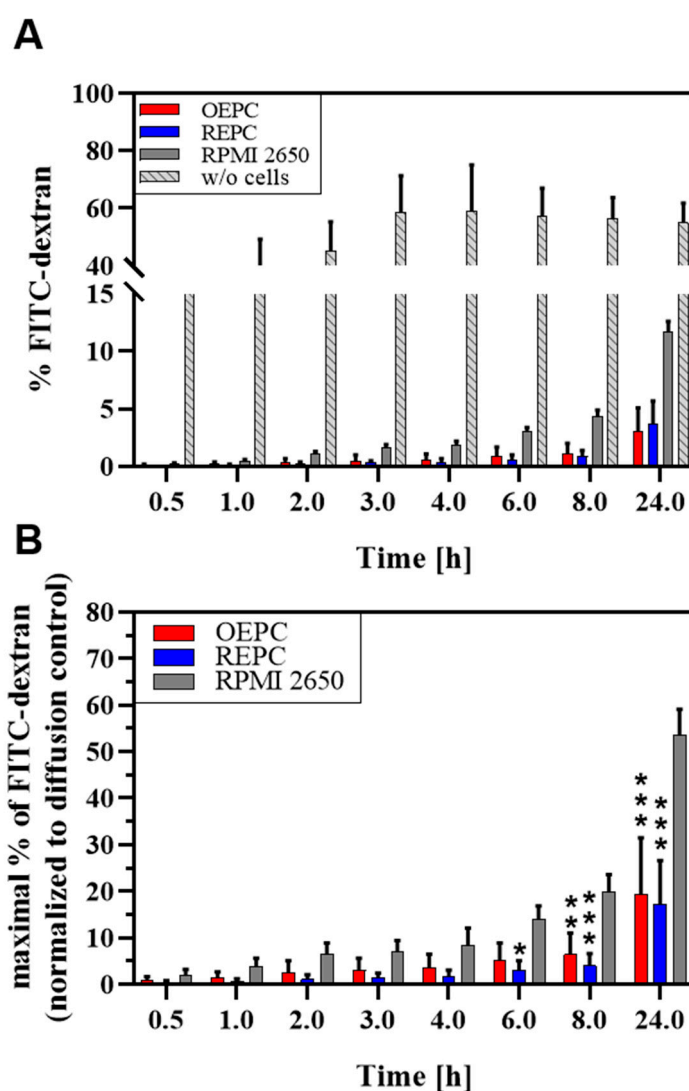
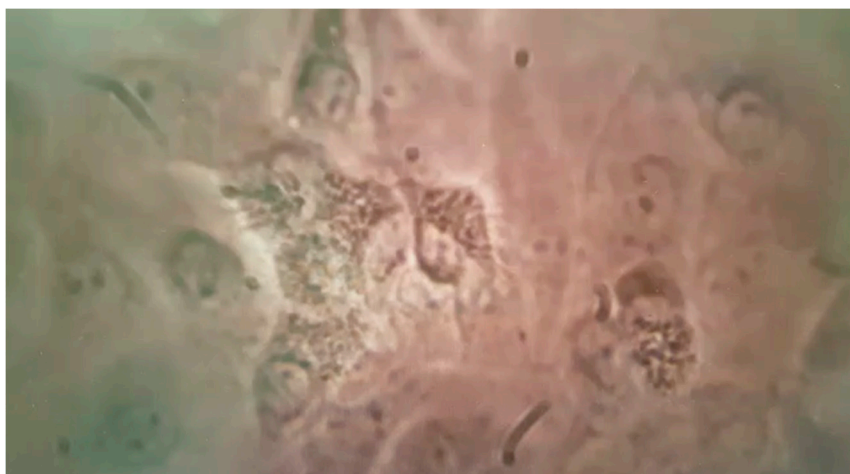


Figure S1. Permeation data referenced to control without cells (diffusion control) vs. referencing to total FITC-dextran. **(A)** Original and normalized FITC-dextran flux data. Raw data of FITC-dextran flux through OEPC (red), REPC (blue), and RPMI 2650 (grey) plotted against the time on the left y-axis and the permeation through the membrane of the transwell without cell layer (dashed bars). **(B)** As demonstrated in **(A)**, an equilibration is obtained after roughly 3 h in the control insert without cells. Since this limits the maximal flux of molecules that are able to cross the cellular barrier, the normalized data are displayed here. 100% denominate the equilibrium amount of FITC-dextran that diffused to the abluminal compartment in the diffusion control (w/o cells).



Video S1. Cilia motion in primary cell cultures of nasal olfactory epithelial cells. Ciliated cells show a beating frequency of roughly 5 Hz under submerged conditions.