Spatial configuration and composition of charge modulates transport into a mucin hydrogel barrier

Leon D. Li,^{†‡§} Thomas Crouzier,[‡] Aniruddh Sarkar,[§] Laura Dunphy,[‡] Jongyoon Han,^{‡§} and Katharina Ribbeck[‡]*

[†]Harvard-MIT Division of Health Sciences and Technology, Cambridge, Massachusetts; and [‡]Departments of Biological Engineering, [§]Electrical Engineering and Computer Science, Massachusetts Institute of Technology, Cambridge, Massachusetts

Supplementary Information

Supplementary movie 1: Fluorescence microscopy video of peptide transport into the mucin barrier and the mucin-free control channel at 20 mM NaCl ionic strength. The video is taken at 0.1 frames per second (fps) and shown at 5fps.

Supplementary movie 2: Effect of ionic strength on transport of the cationic and anionic peptides into the mucin barrier. The video is taken at 0.1 fps and shown at 5fps.

Supplementary movie 3: Effect of ionic strength on transport of the block and alternate peptides into the mucin barrier. The video is taken at 0.1 fps and shown at 5fps.