Electronic Supplementary Material (ESI) for Nanoscale

How do functionalized carbon nanotubes land on, bind to and pierce through model and plasma membranes

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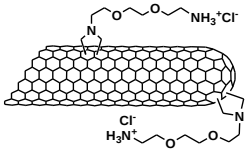
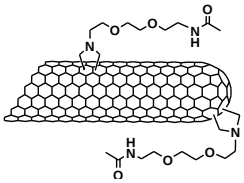
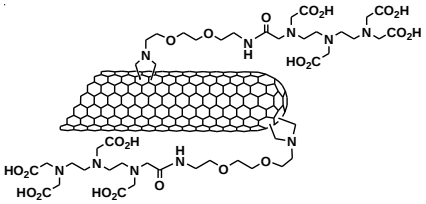
ELECTRONIC SUPPORTING INFORMATION

Table S1. Physico-chemical characteristics of the carbon nanotubes used in this study.

Type of CNT	Structure	Length (µm)[a]	Diameter (nm)[a]	Degree of functionalization (mmol/g)[b]
SWCNT **1** or MWCNT **1**		0.3-1 or 0.5-2	1 or 20-30	0.53 or 0.65
SWCNT **2**		0.3-1	1	0.7[c]
SWCNT **3**		0.3-1	1	0.7[c]

[a] Corresponding to the values furnished by the companies. [b] Measured by quantitative Kaiser test. [c] These degrees of functionalization (corresponding to that of the starting SWCNT **1**) are slightly higher as we used a second batch of ammonium SWCNT **1**. Acetylation of the ammonium groups was complete, while the conversion yield of the reaction with DTPA was 76%.

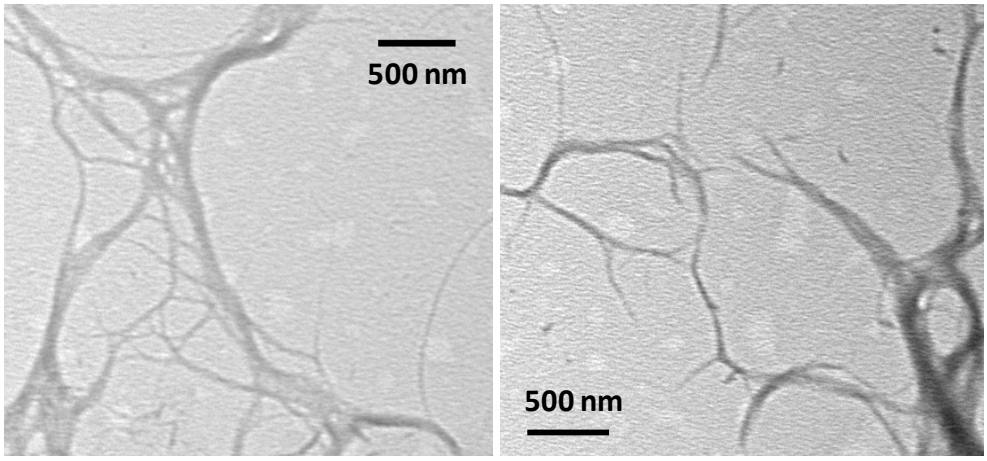


Figure S1. TEM images of SWCNT-NH_3^+. Single-walled CNTs have always the tendency to re-bundle when deposited in the TEM grid during solvent evaporation. It is not possible in this case to evidence the presence of isolated tubes.

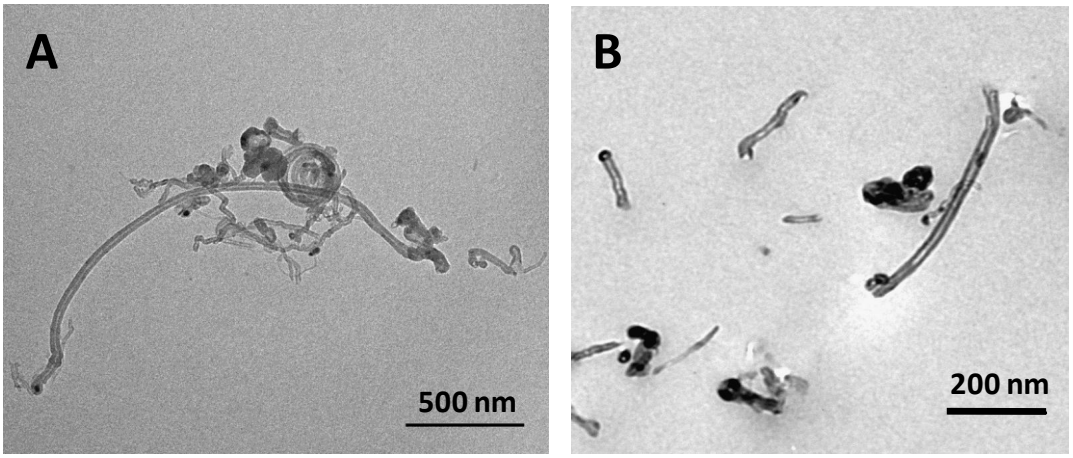


Figure S2. TEM images of MWCNT-NH_3^+. Multi-walled CNTs are clearly present as individualized entities. A) These nanotubes were dispersed in 5% dextrose and deposited on the TEM grid and dried before observation. B) These nanotubes were prepared as described in the Experimental Section, under transmission electron microscopy studies, by the same method applied to prepare the cell cultures for TEM imaging.