Going viral: Targeting triple-negative breast cancer by mimicking the Dengue virus

Triple-negative (TN) breast cancer is extremely aggressive and patients have a relatively poor prognosis.

Scavenger receptor (SR-B1)

Viruses like

Dengue exhibit

viable features

for a targeted

response.

Nanoparticle High target specificity Stimulus-responsive shape transition

Lipid

Efficient delivery carriers

Virus-mimicking nanoparticles with phosphorylcholine-based surface ligands could be used for selective targeting therapies if they are recognised as 'food' by receptors on the surface of the cancer cells.

Synthesis of triblock copolymer vesicles



Normal cells

Dengue virus-mimicking nanoparticles enable selective targeting of TN breast cancer cells!







Targeting triple-negative breast cancer cells using Dengue virus-mimicking pH-responsive framboidal triblock copolymer vesicles.

Mable, Canton, Armes et al. (2019)

DOI: 10.1039/C8SC05589K



