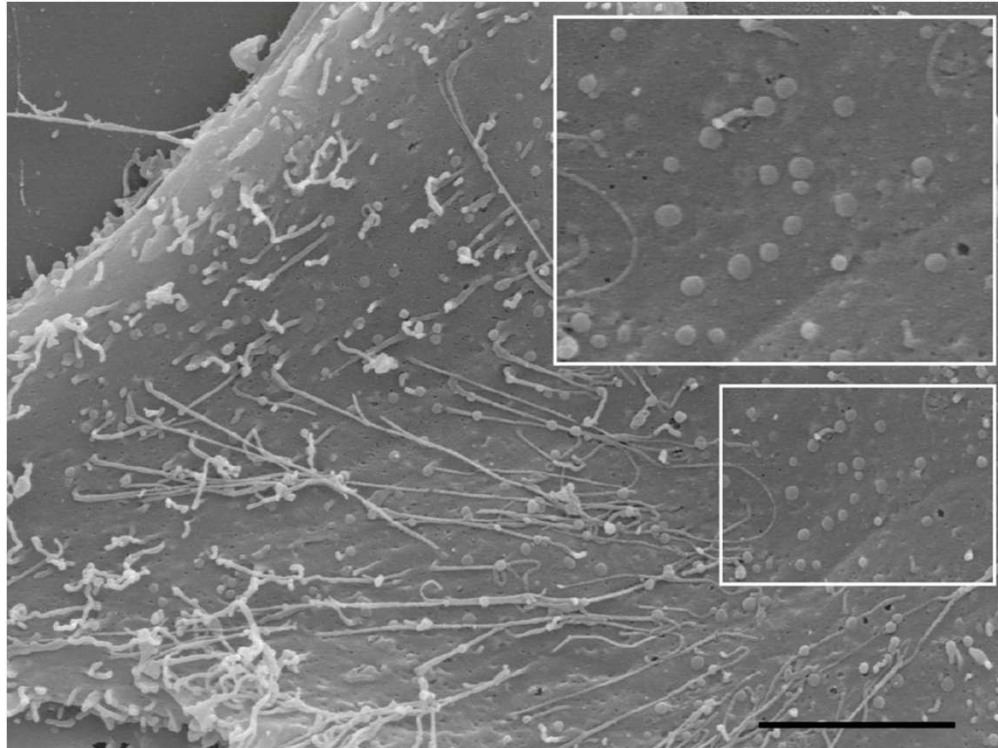


Stem Cell exosomes

Presented by: Tommaso Leonardi <tl344@cam.ac.uk>



UK Regenerative
Medicine Platform



Cossetti, Iraci et al. *Mol Cell* 2014 Sep 16 [Epub ahead of print]

What is it?

Exosomes are small (100nm) membrane vesicles released by most cell types and present in the majority of biological fluids. They contain RNAs, proteins and lipids and are involved in cell-to-cell signalling

Strengths

Naturally occurring, produced by most cell types, readily up-taken by recipient cells, specific cellular machinery controls cargo selection

Weaknesses

Secretion and uptake mechanisms not fully understood, determinants of target cell specificity still not known

Potential Applications

Targeted delivery of proteins, RNAs and potentially small molecules