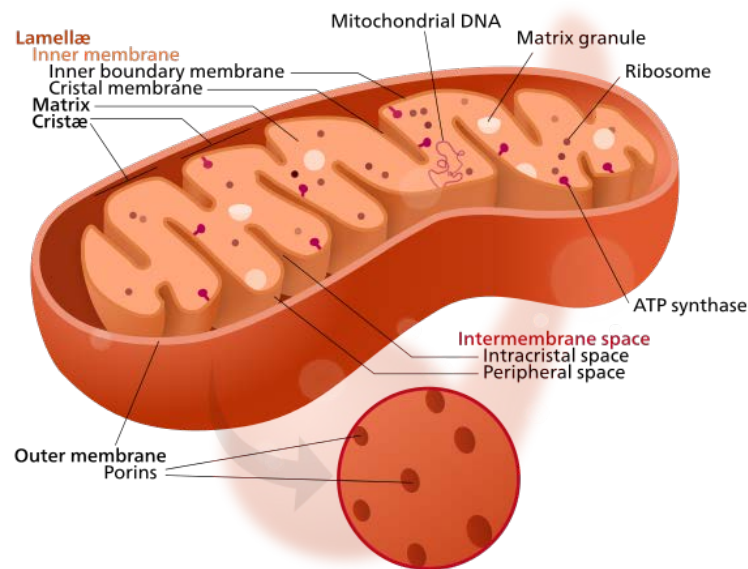


# Nanoparticles can kill cancer cells

Read the full article at [rsc.li/3ad8Mq1](https://rsc.li/3ad8Mq1)

An engineered nanoparticle has been created that can kill aggressive cancer cells by starving them of copper. Breast cancer cells grow so fast that they need a great deal of energy, which is supplied by mitochondria. Mitochondria need copper to function. The copper is delivered to the mitochondria by enzymes.

Stopping copper disrupts energy production and slows growth of cancerous cells. The nanoparticle contains a part that bonds to the copper and a coating to stabilise the particle. Healthy cells need less copper and so are less affected by the nanoparticle. This is the first time scientists have used a copper-depleting particle that does not appear to damage healthy cells. The researchers think this could be the starting point for new, safer and more effective drugs.



Mitochondrion structure

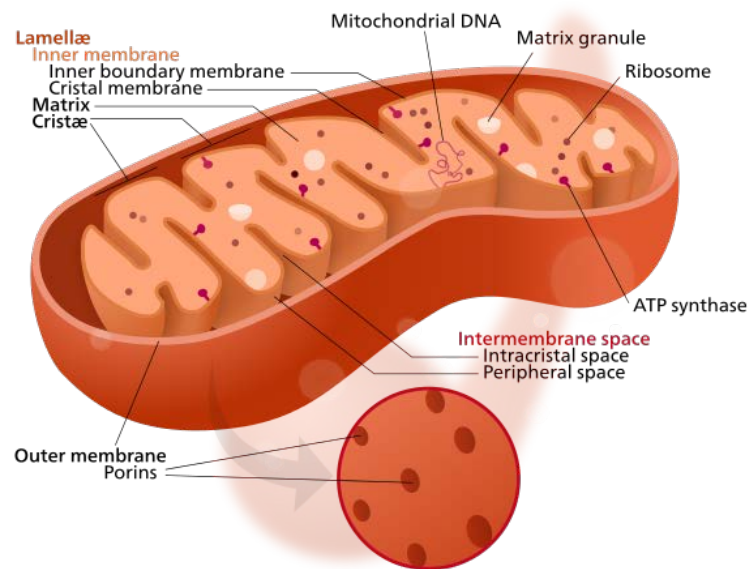
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1. What are (i) enzymes and (ii) nanoparticles?
2. Describe how the nanoparticle can stop the cancer.
3. Suggest a risk of using this nanoparticle in the body.



Mitochondrion structure