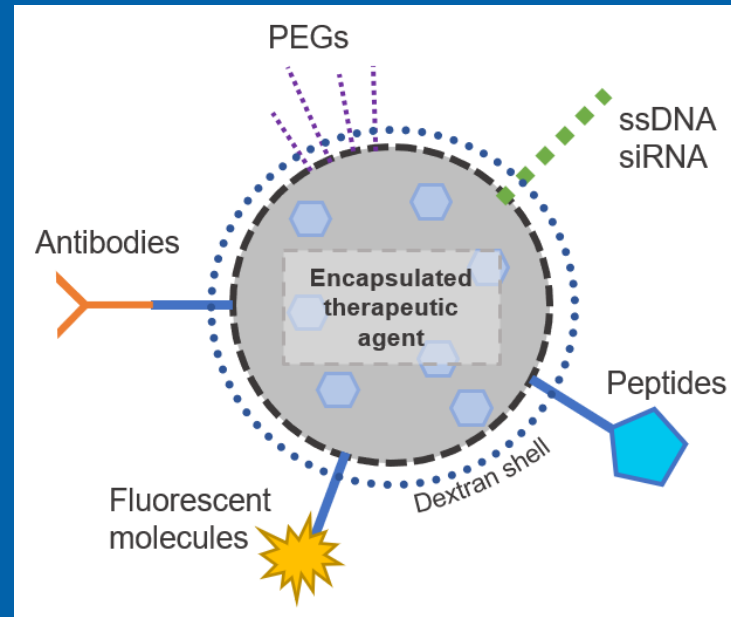
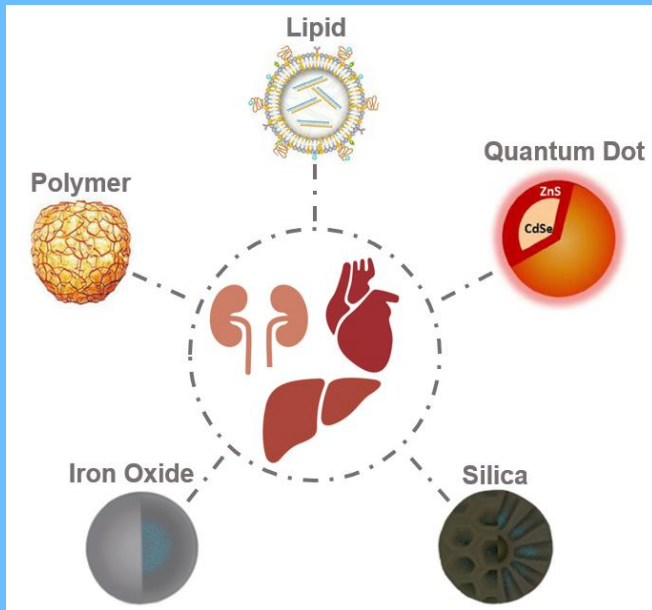


# Nanotechnology Applications in Transplantation Medicine

Nanoparticles can be generated from a variety of materials and range from 1nm - 100nm in at least one dimension.

They are utilized in drug or genetic material delivery, diagnostic imaging, and bio-sensing.



Nanoparticles can be used to deliver immunosuppressants at lower dosages with improved accuracy for either graft or recipient therapy.



Nanoparticle therapeutics can be delivered to donor grafts via machine perfusion.

Ischemic reperfusion injury can be dampened using nanoparticles, improving graft function.



Genetic material (e.g. siRNA) delivery can mitigate cellular damage from ischemia time.

Nanoparticles can also be used to image and track graft distribution, viability, and immune response.



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**Transplantation**

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