Block Copolymer Drug Delivery

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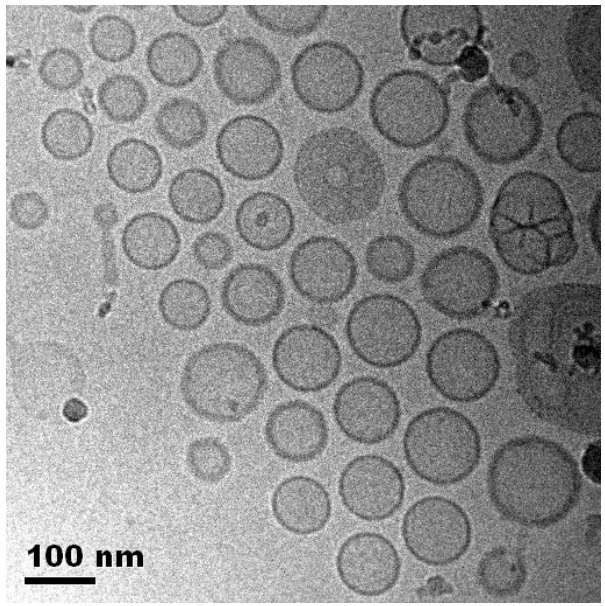
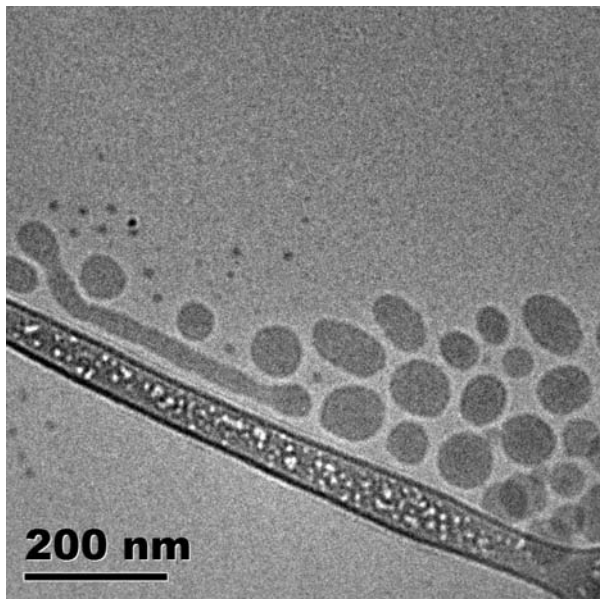
- Introducing biofunctionality to block copolymers that self assemble into polymeric vesicles in solution in order to enhance the cell binding affinity of the overall system
  - These polymeric vesicles have applications in targeted drug delivery



Self assembled vesicles composed of 50% poly(butadiene)-b-poly(ethylene oxide) [PB-EO] 50% peptide-PB-EO imaged by cryo-TEM

- Drug Delivery Potential
  - Drugs, like ant-cancer therapy agents, DNA could one day be delivered to patients, encapsulated within these polymeric vesicles
  - Biodegradable polymer vesicles degrade within the target cells to release their encapsulate



Poly(γ-methyl-ε-caprolactone)-b-poly(ethylene oxide) self assembled biodegradable vesicles, wormlike micelles and spherical micelles imaged by cryo-TEM