DNA 'cages' may aid in drug delivery

New research out of McGill University shows that nanoscale "cages" made from strands of DNA can encapsulate small-molecule drugs and release them in response to a specific stimulus. The research, published online Sept. 1 in Nature Chemistry, marks a step toward the use of biological nanostructures to deliver drugs to diseased cells in patients. The findings could also open up new possibilities for designing DNA-based nanomaterials.

"This research is important for drug delivery, but also for fundamental structural biology and nanotechnology," says McGill Chemistry professor Hanadi Sleiman, who led the research team. In their experiments, the McGill researchers first created DNA cubes using short DNA strands, and modified them with lipid-like molecules. The lipids can act like sticky patches that come together and engage in a "handshake" inside the DNA cube, creating a core that can hold cargo such as drug molecules.

Read the full, original story here: DNA 'cages' may aid drug delivery