Nanotechnology is the study of matter at an incredibly small scale, generally between one and 100 nanometers. The nanoscale is so tiny that a sheet of paper is about 100,000 nanometers thick. Nanotechnology could bring about the next wave of innovation in science and engineering—the possibilities are endless.

The NANO Timeline

**A BIG history of the very SMALL**

- 1875: "Damascus" saber blades contain carbon nanotubes and cementite nanowires.
- 1959: Michael Faraday discovers colloidal "ruby" gold, demonstrating that nanostructured gold under certain lighting conditions produces different colored solutions.
- 1974: Tokyo Science University Professor Norio Taniguchi coins the term "nanotechnology."
- 1990s: Early nanotechnology companies begin to operate.
- 2000: Scientists receive the 1996 Nobel Prize in Chemistry for their discovery of the buckyball, a soccerball-shaped carbon molecule approximately a nanometer in diameter.
- 2005: The National Nanotechnology Initiative launches to coordinate federal R&D efforts and promote commercialization of nanotechnology applications.
- 2012: Richard Feynman of the California Institute of Technology gives what is considered to be the first lecture on technology and engineering at the atomic scale, "There's Plenty of Room at the Bottom."
- 2015: The U.S. government recognizes the strategic importance of nanotechnology and plans to spend nearly $2 billion in research.

The global market for nanotechnology products will be $1 trillion, of which $800 billion will be in the U.S.*