Nanofilters

Examples:

Argonide Nanomaterials, an Orlando based manufacturer of nanoparticles and nanofiltration products, makes a filter that is capable of filtering the smallest of particles. The performance is due to it's nano size alumina fiber, which attracts and retains sub-micron and nanosize particles. This disposable filter retains 99.9999+% of viruses at water flow rates several hundred times greater than virus-rated ultra porous membranes. It is useful for sterilization of biological, pharmaceutical and medical serums, protein separation, collector/concentrator for biological warfare detectors, and several other applications.

Impact: In the future, for one application, sterilizing drinking water, this product may have an impact on so-called Third World peoples, who only have access to dubious sources of water.

For more current applications, see Reality is the concept that governs the new nanobusiness world
These are just a few of the many ways in which nanotechnology is working itself into our everyday lives. At present, there are no nanobots, no molecular-scale machines, and no assemblers - these are still in the basic research stages, and may not be seen for decades (although many would argue that a concerted effort would bring them to fruition in just a few years).