**Describe Nanotechnology**

Nanotechnology is a broad field that includes physics, chemistry, biology, materials science, and engineering which is devoted to manipulation, and application of materials and devices at the nanoscale level, which is typically defined as being between 1 and 100 nanometers in size and involves the understanding and controlling of nanometer-scale design. At this scale, the properties and behavior of materials can differ significantly from those at larger scales, due to phenomena such as quantum effects, surface area effects, and the dominance of surface forces over volume forces. It can increase the surface area of a material. This allows more atoms to interact with other materials. An increased surface area is one of the chief reasons nanometer-scale materials can be stronger, more durable, and more conductive than their larger-scale (called bulk) counterparts.

Nanotechnology has the power to transform a wide range of sectors and professions, including medical, electronics, energy, and environmental studies. However, there are a lot of concerns that have been expressed regarding the potential risks and consequences of nanotechnology on human health and the environment. There is a lot of continuing research and debate in this area to ensure the safety and responsibility of nanotechnology development in our environment, such as "Nanotechnology in Agriculture and Food Science" (Axelos & Grumezescu, 2017) it explores the usage of nanotechnology in agriculture and food science, including the development of nanosensors for food safety and the use of nanoparticles for crop protection.