

Nanotechnology-based medicine

Nanotechnology is widely anticipated as one of the key technologies of the 21st century. As an enabling technology, it does and will increasingly impact other technologies but also products including innovative diagnostic tools and medicines. Novartis is aware that, as for any technology, benefits and risks of nanotechnology have to be evaluated and shares consumers' and patients' interest in its safe application.

Novartis Position

Novartis continuously evaluates new scientific developments and innovative technologies, as well as their potential application to the development of novel medicinal products. We anticipate that nanotechnology, which spans many areas, will play an important role in the development of future medicinal treatments, diagnostic products and biomedical support technologies. Novartis currently evaluates potential practical applications of nanotechnology, especially in the area of nano-medicine. In accordance with our general drug development process, both the safety and efficacy of all nano-scale drug delivery systems are and will continue to be rigorously investigated and evaluated by in-depth study. These investigations will be followed by well-controlled clinical studies. The safety of patients, work-place safety and protection of the environment will continue to be of paramount importance to Novartis.

In general, Novartis prefers - and is at present only engaged in - the development of biodegradable nano-scale drug delivery systems; these systems are degraded within the human body and/or within the environment to safe, well-characterized metabolites.

We apply the precautionary principle for the development of new products and technologies according to Novartis Health, Safety and Environment guidelines and our Corporate Citizenship Policy. As preliminary risk assessments indicate a potential negative impact of certain non-biodegradable nano-materials, e.g. carbon nanotubes, on consumer, occupation and environmental health, we currently do not consider engagements in such areas.