

## Nano Biology Opens a Promising Way to Shrink Cancer

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### ABSTRACT

Biotechnology is the use of living system and organisms to develop or to make useful products for human purpose. Nanotechnology is the natural amalgamation of all fields of science and technology in understanding and manipulating matter on an ever-smaller scale. Typically in developing markets such as nanotechnology, the first application in biotechnology are in diagnosis where scientist use nanotechnology to build arrays to help diagnose multiple disease. Using nanotechnology for "In vivo" uses such as implanting particles in biological tissue to deliver medicine, destroy tumours and stimulate immune responses. Most common is cancer, it is a class of diseases characterised by out-of-control cell growth to form lumps or masses of tissue called tumour. Nanoparticles that deliver two or more drugs simultaneously can significantly shrink cancer and also reduce its spread. A Nano cell is formed by encapsulating a Nano core with a first agent inside a lipid vesicle containing a second agent. The Nano cell is delivered to patients suffering from diseases such as cancer inflammatory diseases (Asthma), autoimmune diseases (rheumatoid arthritis). In treating cancer, a traditional antineoplastic agent is contained in the outer lipid vesicle of the Nano cell, and an antiangiogenic agent is loaded into the Nano core. This arrangement allows the antineoplastic agent to be released first and delivered to the tumour before the tumour's blood supply is cut off by the antiangiogenic agent. The aim of the present study is to outline of the Nano cell in different areas such as diagnosis of multiple disease, drug delivery and stimulates immune responses.