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## Pharmacokinetics: Nanoparticles Acting on Human Cell

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### ABSTRACT

The most nanoparticles containing anticancer drugs have limited their effectiveness. This review is divided into two sections such as desired factors and ADME of NPs. Nanoparticles (NPs) are small particles that range in size from 10 to 100 nm. The application of nanoparticles as novel drug delivery system (NDDS) has provided opportunities to tackle the current challenges facing conventional drug delivery system such as poor pharmacokinetics, lack of tumor cells, multidrug resistance, and toxicity. Nanoparticles mainly classified in six types. Its Mechanism of action is depending on their size, shape, cell targeting and particle charge. Nanomedicine seeks to manufacture drugs and other biologically relevant molecules that are packaged into nano-scale system for improved delivery. This includes known drugs, proteins, enzymes, and antibodies that have limited efficacy based on delivery, circulating half-lives, or toxicity profiles. The use of physiologically based pharmacokinetic (PBPK) articles may serve as powerful tools to meet these needs. PBPK articles have been successfully applied for the study of the absorption, distribution, metabolism, and excretion (ADME) of small molecules, such as drugs, and nanoparticles.

### Keywords:

Nanoparticles (NPs), Novel Drug Delivery System (NDDS), Nanomedicine, PBPK, ADME, etc.

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