

**Nanomedical Device and Systems Design: Challenges, Possibilities, Visions**

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## **Progress and Potential of Nanomedicine to Address Infectious Diseases of Poverty**

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### **Abstract**

Nanotechnology is a multidisciplinary field that encompasses the design, manipulation, characterization, production, and application of structures, devices, and systems at the nanometer scale range (~1–500 nm), which present unique and/or superior physicochemical properties. This diminutive scale represents the domain of atoms, molecules, and macromolecules. Nanomedicine is the application of nanotechnology to the medical sciences for imaging, diagnosis, drug delivery (e.g., via nanocarriers), and therapeutics that are utilized in the treatment and prevention of diseases.