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MEDICINAL APPLICATIONS OF NANOTECHNOLOGY

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ABSTRACT:

Nanoparticles of different composition can be used as well for bone repair, helping to restore normal bone structure following fracture. Nanobots injected in to a vein can be used as valuable diagnostic device, a kind of nano endoscopy, providing a medical team with important data about patients' condition. With further development it may be possible to use nanobots on cellular level to provide patients with advanced gene therapy, where abnormal genes can be swapped with normal ones. Nanotechnology can be utilized in drug delivery systems to ensure particular drugs are released at appropriate times to eliminate human errors, nano science and nanotechnologies have a huge potential to bring benefits in areas as diverse as drug development, water decontamination, information and communication technologies, and the production of stronger, lighter materials. Human health-care nanotechnology research can definitely result in immense health benefits. The genesis of nanotechnology can be traced to the promise of revolutionary advances across medicine, communications, genomics, and robotics. A complete list of the potential applications of nanotechnology is too vast and diverse to discuss in detail, in this book chapter we discuss some important uses of nanotechnology in the development of new and effective medical treatments.

KEYWORDS: Nanotechnology, Nanobots, Biological, Treatment, Human health, Development

INTRODUCTION:

Nanotechnology as defined by size is naturally very broad, including fields of science as diverse as surface science, organic chemistry, molecular biology, semiconductor physics, microfabrication, etc. The associated research and applications are equally diverse, ranging from extensions of conventional device physics to completely new approaches based upon