According to Abeer (2012), research has found it hard to provide a better health system to support the human race and suffered as a result when it reached its peak. Medical applications were designed to aide in improving health that could be used in virtual environments for training or interactive teaching. In addition, it would revolutionize the way students learn by way of touch, smell, hear physiological functions or medical procedures through the eyes of a physician.

With the expansion of nanotechnology, it is considered that extremely small surgical utensils can be used to assist a surgeon in performing microsurgeries anywhere on the body that are difficult to reach at their exact location if the task were to be performed by a surgeon handling a surgical instrument making it near to impossible in carrying out the procedure. However, with the use of a nano surgical utensil, this can be managed through a computer which is an optimal outcome. In addition, to minimize any errors that may be caused by the use of a nano sized surgical utensil, nanocameras can contribute significantly with visual enhancement during the procedure.

In a chromosome replacement therapy procedure, a medical nanorobot has the ability to carry out an in-vivo cytosurgery at a cellular level. The clinician would manage the nanorobot for an excision of the currents chromosomes withheld in a specific unhealthy cell and replace it with new chromosomes. Nanodevices are expected to make significant changes in the future with the combination of diagnostics and therapeutics called theranostics in medicine.

A crucial part of applications for nanomedicine is the biomaterials such as orthopedic implants used for tissue engineered products. For example, if a hip replacement can be performed at nanolevel then it would be possible to create a replica of the human bones mechanical properties to reduce the stress of bone density.

Abeer, S. (2012). Future Medicine: Nanomedicine. *Jimsa, 25*(3). 187–192. <http://www.imsaonline.com/june-sep-2012/17.pdf>