NANOTECHNOLOGY IN RELATION TO MEDICINE

BY: JOAQUIN ORDONA | 21140604

*No team roles due to being solo

DEFINITION:

Nanotechnology is a fairly new branch of technology that focuses on the manipulation of matter at a miniscule scale. It includes four types of nanotechnology: carbon-based, metal-based, dendrimers and nanocomposites. This technology is primarily used within the energy, industrial, and medical areas, however is still utilised in a vast amount of other fields. Examples of current nanotechnology include solar panels, sunscreen, Kevlar and nanomedicine.

JUSTIFICATION:

Nanotechnology within medicine or nanomedicine is very beneficial for society. Developed in the 90s, its main purpose is aiding and monitoring the health of an individual. Currently, nanomedicine is being used to manufacture vaccines, aid in drug delivery, develop implants and numerous other things. I chose this topic as I believe that it is and will be relevant in the current and near future. Additionally, I also found the topic interesting as it is a relatively new technology with a lot of future possibilities.

IMPORTANCE:

In the biomedical industry nanomedicine has been vital in developing drugs that can help battle complex diseases such as cancer. In addition the technology is also beneficial to treat diseases that require surgery such as the removal of a tumour and detecting artery blockages. Nanomedicine has saved many lives and has the potential to save, protect and extend the lives of millions more.

OPPORTUNITIES:

Nanomedicine is new so I believe that there will be many future opportunities that will greatly benefit society. One of which is the successful treatment of complex diseases like cancer. Future prospects also see nanotechnology developing easier ways to administer customized drugs based on one's genetic profile, prevent internal blood clotting, and easier diagnosis of internal damage or diseases. These will all help society immensely.