

## Nano cellulose based Biomaterials and Bio Polymers for Tissue Engineering and Nano biomedicine as a Tool of Nano-biotechnology



Hossain ABMS and Musamma MU

Imam Abdulrahman bin Faisal University, Saudi Arabia

### Abstract

Nano cellulose based biomaterials and biopolymers keep a superlative role in medical, biomedical, pharmaceutical and tissue engineering. Potential applications of Nano cellulose in the fields of wound healing, bone-cartilage regeneration, dental application and different human diseases including cancer. In addition, it is promising to use in Nano coating for medicine (capsules and drugs), scaffolds for engineering of blood vessels, neural tissue, liver, adipose tissue, repairing connective tissue, congenital heart defects, Nano biomedicine, constructing contact lenses and protective barriers because of naturally organic and biodegradable.

This study was carried out to investigate Nano cellulose based Nano biomaterials and Nano biopolymers from ligno-cellulose derived plant biomass coming after bioprocess technology. From the results, it was observed that organic based Nano-biomaterials was better than synthetic based materials for wound healing, bone-cartilage regeneration and dental application depending upon its different properties identified by ASTM (American standard for testing and materials) standard. Therefore, it can be concluded that organic (Nano cellulose) based biodegradable Nano-biomaterials may be used as biomedical and medical components in the field of tissue engineering.

### Biography

Hossain ABMS has completed his PhD at the age of 34 years from Ehime University, Japan. He is the Associate professor of Imam Abdulrahman bin Faisal University, KSA. He has 185 publications that have been cited 1969 times, and his publication H-index is 22 and has been serving as an editorial board member of reputed Journals.



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