

Natural polymers - Current outcomes

Vishnu Datta M. and D. V. Gowda
JSS University, India

Nature provides an unbelievable amount of polymeric materials that exhibit an ample range of functional applications. These polymers must have properties that fulfil the most diverse functions and purposes. The present day science started learning from the nature to obtain the polymers that can mimic the superior properties of the natural macromolecules. Natural polymers provide an impressive example on how nearly all of the properties displayed by biological material and systems are almost exclusively determined by the physical - chemical properties of the monomers and the sequence in which they are arranged. These are the polymers that result from raw materials that are found in nature. Natural polymers are of great interest for the scientists for their biomedical applications, especially those which are used in drug delivery systems macro molecular pro-drugs and therapeutic systems. Most of these are predominantly biocompatible and bio degradable and therefore have an advantage of being readily hydrolyzed into removable and non-toxic products, which can be subsequently eliminated by various metabolic pathways. Polymers from natural sources are particularly used as bio materials and regenerative medicine given their similarity to the extra cellular matrix and other polymers in the human body we are beginning to understand how nature puts there molecules together and haven't figured out how to do it completely there is a difficulty in make of the very large molecules efficiently. Many natural sources are being exploited recently gums like guar, xanthan, Gatti, kondagogu, cashew gum, etc. On the other hand, there has been a revolution in the use of the natural polymers without any rationality which indeed require the impact of regulation and for the safety alarm.

Biography

Vishnu Datta M is pursuing his Masters in Pharmaceutics at JSS College of Pharmacy, JSS University, Mysore had completed his Bachelors in Pharmacy from Manipal Institute of Pharmaceutical Sciences, (MCOPS) Manipal University, Manipal. He has number of International and National Publications to his credit and holds various posts as Advisory Panel Member and Peer reviewer for several reputed National and International Journals. His research interests are in Biodegradable polymers, Targeted Drug Delivery, Regulatory affairs, Hydrogels, Biomaterials & Nano Particulates systems for poorly soluble drugs