

## **Innovative polymers for medical devices**

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Contemporary medical device industry relies heavily on polymers. Advances in manufacturing technologies have contributed immensely in creating novel designed polymers with versatile attributes. Designed materials that are thermo-sensitive, heat-resistant, sound-sensitive, UV- protective, biodegradable, bio-absorbable, bio-compatible and bio-tunable are some of the recent innovations in the field of polymers. Medical device industry particularly is benefitted by new developments in polymer technologies. Safety, sterility and affordability has enhanced their use in therapeutically assistive devices. Bio-compatible polymers with tailor-made properties have opened new avenues in the field of drug delivery, tissue engineering and regenerative medicine. Here we describe some of the desirable attributes for the same.

### **Biography**

Ranjna Dutta Received her doctorate from the Central Drug Research Institute (CDRI), Lucknow, India (1994). She remained associated with various Institutes of International repute including Northwestern University, Illinois, USA; she has one of the co-founder directors of ExCel matrix biological devices. A company established with the vision of developing innovative technologies especially in the area of Tissue Engineering and Regenerative Medicine. She has Published Dates in International journals with over 755 citations. Also Published Dates a book and a special issue on 3D cell culture. A recipient of "Prolog to Discovery" award (2001), and also shared the "DST-Lockheed Martin Innovation Gold medal" (2009) and Fellow of Leaders in Innovation" (2015) from Royal Academy of Engineers, UK as partner. Her present interest lies in developing substrates for TE, RM, drug targeting and delivery.

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