

Jayaraman, N., 2011, "Dendritic architecture. A clever route to monodispersed macromolecules", *Resonance*, 1246 – 1252 (Illustration in the journal cover picture).

The dendrimer based drug delivery possibilities are likely to reach the first ever direct application of dendrimers. Some of the advantages associated with the dendritic macromolecule are the high drug-loading capacities, abilities to optimize the dendritic components to meet the needs of physiological requirements and flexibilities to incorporate specific targeting devices advantages associated with the dendritic macromolecule. Drugs can be attached directly to the dendrimers. Alternatively, the drugs can be encapsulated into the dendritic structure, which can then be released at the required cellular site for pharmacological action by an applied stimulus. Another possibility is the degradation of dendrimer structure into smaller fragments by an enzyme or light or chemical action, so as to release the drug molecules. All these possibilities are being pursued aggressively to bring up medicines based on the dendrimer technology.