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# Medical applications of amphiphilic comb type graft copolymer containing inorganic nanoparticles

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## Abstract

Amphiphilic block copolymers are important synthetic biomedical materials with amphiphilicity, controlled biodegradability, and biocompatibility. They have great potential application in the fields of nanotechnology, tissue engineering, pharmaceutics, and medicinal chemistry. Recently, nanoparticles embeeded amphiphilic block copolymers are introduced to the field of biomedical engineering. It was reported that these polymers have different structural characteristics and an attenuated antimicrobial effect. This review focuses on structural differences of PCL-PEG copolymers, PP-PEG copolymers, PCL-PEG micro/nanoparticles, PCL-PEG hydrogels, and discuss their characteristics in different organ systems in-vivo.

## Biography

Derya Burcu Hazer has completed his M.D at the age of 24 years from Hacettepe University, in Ankara and residency in medical specialty on neurosurgery in Hacettepe University School of Medicine, Department of Neurosurgery in 2009. She is working as Assist. Prof. in Mugla Sitki Kocman University, Faculty of Medicine, Department of Neurosurgery. She has published several papers on medical applications of microbial PHAs in several journals.