Polymeric biomaterials made from natural compounds

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The use of natural compounds may improve the biocompatibility and bioacceptance of materials intended for biomedical and pharmaceutical applications. We have used bile acids, natural amphiphilic compounds in our body, in the preparation of new polymers including hydrogels, dental resins, thermosensitive polymers and degradable elastomers with shape-memory properties. Oligomeric molecular pockets have also been made and are shown to be invertible depending on the polarity of the media.