Phosphorylcholine-modified biomedical materials

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The syntheses of the "bio-inspired" polymers with phospholipid-like structures have been developed as an important field in improving the biocompatibilities of the biomedical materials [1].In our previous work, different strategies were used to synthesize novel structure of phosphorylcholine-modified biomedical materials, including poly- ε -caprolactone [2, 3], chitosan [4], PEO-PPO-PEO tri-block polymer [5], EVOH micro-porous membranes [6] and gelatin. It was proved that the phosphorylcholine modification could improve the surface anti non-specific protein adsorption properties as well as the blood compatibilities. Furthermore, the interactions among the phosphorylcholine agents [7], were supposed to introduce special properties to the materials, especially in the gel states.

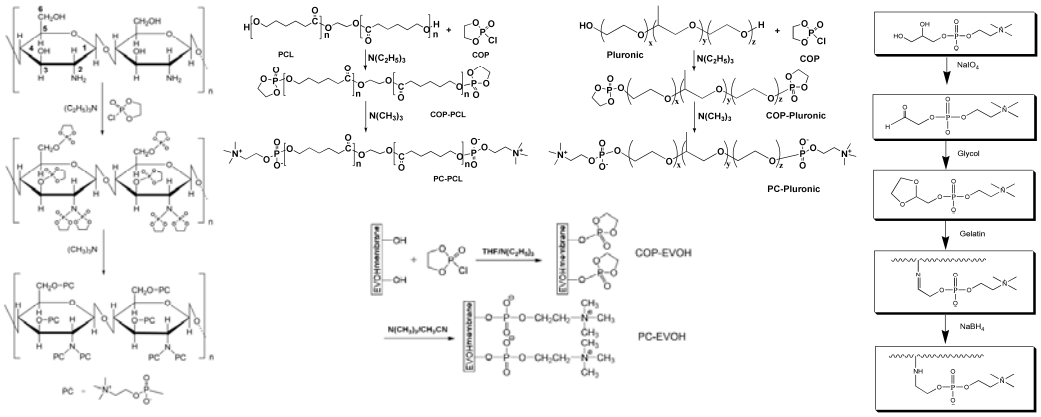

Figure1 Phosphorylcholine modification of different biomedical materials

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[4] S. Meng, Z. G. Liu, W. Zhong, et al., Carbohydrate Polymers **70**, 82 (2007).

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