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PROCEEDINGS

Catheters with Bioactive Coatings

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ABSTRACT

Catheters are among the most frequently used medical tools in modern therapies. Several diseases are treated by catheters (e.g. hydrocephalus) in cardiovascular, urological, gastrointestinal neurovascular, and ophthalmic diseases. Approximately 150 million intravascular catheters are implanted annually in the United States alone. However, although very efficient, following their insertion, catheters are subjected to numerous complications, including resistance to flow, blockage, and mechanical malfunctions, and being subjected to host-immune response and microbial infection. To overcome these complications, we proposed to develop the next generation of catheters with improved functionality and liquid flowability. We assume that polymeric coating with a proper surface chemistry, can respond catheter main challenges, thus boosting treatments' success.

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