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A state of the “heart”: application of bioengineered materials for cardiac surgery

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Abstract

Introduction. Cardiovascular diseases have become the leading mortality cause, requiring a novel technologies and techniques for the treatment. Cardiovascular biomaterials play a vital role as the potentially eligible alternative modality for an operation, covering the gap between facilities and patients in need of medical devices and procedures.

Purpose. The aim of this essay is to explore and analyze the currently used biomaterials for cardiac surgery as tools to repair or replace the damaged tissues. This study seeks to obtain data which will help to address research gaps and to stimuli the manufacturing process.

Description of the state of knowledge. We conduct the systematic literature review, based on the information found in PubMed, Research Gate and Google Scholar databases using the eligible parameters. Obtained data in form of descriptive information were analyzed.