



### Keywords

再生医療  
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運動器再生  
神経再生

## 再生医療や立体組織培養のための 高分子足場材料

*Polymeric scaffolds for regenerative medicine and 3D culturing*

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### Summary

Natural healing is important to maintain individuals of multicellular organisms. If the degree of damage is large, it becomes difficult to repair individuals only with natural healing, and active intervention, such as artificial organ and organ transplantation, is required.

Currently, because these existing medical technologies have many problems, regenerative medicine draws much attention as a next-generation medical treatment. Regenerative medicine is a medical treatment that enhances the native self-healing ability to restore the damaged tissue. In regenerative medicine, "cells" are sources, "scaffolds" supports cell survival and migration, and "signal" exerts cell function. In order to maximize the self-healing ability, polymeric scaffolds that appropriately control the behavior and function of the cell are indispensable. In this paper, we introduce the current status and the cutting edge of regenerative medicine using polymeric scaffolds, including skin, cardiac muscle, bone, cartilage, nerve tissue.

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