

# What the GI tract's use of tissue engineering will look like in the future?

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## Abstract

Tissue engineering and regenerative medicine aim to restore, repair, or regenerate the function of the tissues. Gastrointestinal tissue engineering is a challenging process given the specific phenotype and alignment of each cell type that colonizes the tract. These properties are critical for proper functionality. Regeneration of the neuromuscular apparatus is of critical importance. New materials are emerging. Regeneration can be divided into acellular approaches such as decellularized matrices, synthetic and natural scaffolds as replacements to reconstruct the gut, or cell-based approaches such as tissue specific cells (smooth muscle cells, neural progenitor cells, and epithelial cells), gut derived organoid units, and stem cells (organ buds). New stem cell strategies for in vitro modelling and in vivo therapies are emerging.

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## Biography

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