# Special Issue

# Intervertebral Disc Regeneration II

### Message from the Guest Editor

Degeneration of the intervertebral discs (IVD) of the spinal column represents a major challenge for successful biological and tissue-engineered treatments. Alternatives to the surgical “gold standard”, which is discectomy followed by spinal fusion, are urgently warranted. This Special Issue calls for recent advances in approaching regeneration of the IVD using a combination of biomaterials with or without cells. Some of our focus will be on the search for ideal cell sources for cell therapy and bioactive compounds or manipulation (e.g., growth factors, peptides, gene therapy). Due to the nature of the IVD, it is important to distinguish between repair of the outer ring, i.e., the annulus fibrosus, and of the center, i.e., the nucleus pulposus. These two different tissue types require each a different strategy and likely require composite materials for a combined repair. Clinical translation of cell therapy seems challenging as a reliable cell source is essential, and the fate and effects of transplanted cells are often difficult to track. The Special Issue calls for recent advances in the field of regeneration for the IVD of the spinal column.

### Guest Editor

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## Editor-in-Chief

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