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The Double Face of Smooth Muscle Cells in Vascular Biology—Friends or Foes, Damage or Regeneration?

Guest Editor:

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Deadline for manuscript submissions:

closed (31 December 2024)

Message from the Guest Editor

Smooth muscle cells (SMCs) ensure the basic physiological functions of blood vessels, namely contraction, relaxation, and thus regulation of blood flow and pressure. Expert articles describing mechanistic, functional, biochemical, cellular, molecular, or genetic aspects of the role of SMCs in blood vessel wall damage or regeneration are highly welcome. Relevant topics include but are not limited to:

Role of SMCs in vascular diseases; Phenotypic switching; Contractile phenotype and its achieving/maintaining; Synthetic phenotype and its potential reversal; Role of extracellular matrix and scaffolds; Role of cytokines, chemokines, growth factors, and hormones; Role of oxidative damage and inflammation; Vascular replacements and vascular tissue engineering; Differentiation of SMCs from stem cells; Genetic and RNA modifications of stem cells and SMCs; In vitro SMC-based models of the vascular wall or vascular diseases; Differences in SMC behavior related to gender, age, species, and localization in the vascular bed, etc.



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Special Issue



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