

生物力学——胚胎血管系统发育研究新视野

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摘要 胚胎血管系统发育是一个复杂的过程, 其进程受多种刺激和抑制信号的调控, 这些信号必须协调作用, 以确保血管发育的每个阶段得以正常进行。血管发育过程在一定程度上是由基因控制的, 而且其研究也在很广的范围展开。但是近年研究发现, 生物力学作用是胚胎血管发育的必要因素, 胚胎血管发育过程中涉及到不同的细胞生物力学机制。文章主要就生物力学因素在血管系统发育过程中所起的作用及最新相关研究进展作一概述。

关键词: [生物力学](#) [血管发育](#) [细胞分化](#) [细胞迁移](#) [动静脉分化](#) [模式建成](#)

Abstract: Embryonic vascular system development is a complex process, whose progress is regulated by a variety of the stimulation and inhibition signals, and these signals must play synergistic effect so as to ensure that each stage of vascular development can proceed normally. The vascular development is controlled by the gene to a certain extent, and has received extensive attention. Recent studies have revealed the biomechanical role is necessary to embryonic vascular development, in which different mechanism of cell biomechanics is involved. In this review, we summarize the latest research progress on the role of biomechanical factors during embryonic vascular system development.

Keywords: [biomechanics](#), [vascular development](#), [cell differentiation](#), [cell migration](#), [arterial-venous differentiation](#), [modeling](#)

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