Development of Mural Cells: From In Vivo Understanding to In Vitro Recapitulation.

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Public Summary:
Mural cells are indispensable for the development and maintenance of healthy mature vasculature, valuable for vascular therapies and as developmental models. However, their functional plasticity, developmental diversity, and multitude of differentiation pathways complicate in vitro generation. Fortunately, there is a vast pool of untapped knowledge from in vivo studies that can guide in vitro engineering. This review highlights the in vivo genesis of mural cells from progenitor populations to recruitment pathways to maturation and identity with an emphasis on how this knowledge is applicable to in vitro models of stem cell differentiation.

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