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Small mobile stem cells produce strong angiogenic factors leading to tissue remodeling into macro vessels

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Current *in vitro* angiogenesis assays capture only early stages of micro- vessel formation. Human derived small mobile stem (SMS) cells produce matricellular proteins that induce human endothelial cells to form micro and macro vessels. SMS cell derived extracellular matrix is able, in the absence of any other cell type, to effect human primary endothelial cells microscopic differentiation and macroscopic tissue organization. This allows the *in vitro* capturing and monitoring of complex multi-stage, multi-step processes of developing micro vessels into macro-vessels. Notably, the cell differentiation and tissue organization create stable large vessels that become visible to the naked eye. This capability would provide, first-time, ample opportunities for interrogating pro or anti- angiogenesis factors, *in vitro*, at significantly more mature stages of vessel formation.

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