

CGA/19/18 - Maturation and specification of human embryonic derived endothelial cells by co-culture with human cardiomyocytes

Regeneration of damaged organs in the body requires an effective new blood supply to be generated. The blood supply comprises different size vessels, and the smaller ones (called capillaries) are essential to supply nutrients and oxygen to the level of individual cells. The cells that make the capillaries (vascular endothelium/support cells) are different between organs in the body (e.g. the heart, liver, brain). We use human embryonic stem cells to generate such cells in a dish, but need to supply them with the organ-specific environment to nurture the development of organ specific vasculature, and this is our goal.