

# The chick embryo choriollantoic membrane in the study of tumor angiogenesis

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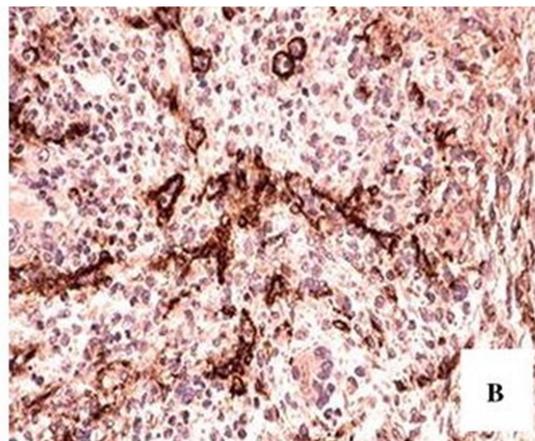
## SUMMARY :

The chick embryo chorioallantoic membrane (CAM) is an extraembryonic membrane which serves as a gas exchange surface and its function is supported by a dense capillary network. Because of its extensive vascularization and easy accessibility, the CAM has been broadly used to study the morpho-functional aspects of the angiogenesis process *in vivo* and to investigate the efficacy and mechanisms of action of pro-angiogenic and anti-angiogenic natural and synthetic molecules. The CAM is a favored system for the study of tumor angiogenesis and metastasis, because at this stage the chick immunocompetence system is not fully developed and the conditions for rejection have not been established. Tumors remain avascular for 72 hr, after which they are penetrated by new blood vessels and begin a phase of rapid growth. The rate of growth during this vascular phase is greater for implants on days 5-6, and decreases for later days of implantation. Other studies using the tumor cells/CAM model have focused on the invasion of the chorionic epithelium and the blood vessels by tumor cells. The cells invade the epithelium and the mesenchymal connective tissue below, where they are found in the form of a dense bed of blood vessels, which is a target for intravasation.

## ILLUSTRATION :



Example of tumor xenograft on the CAM



Immunohistological analysis showing blood vessels  
(From Ribatti et al. Br J. Cancer)