

## PROPOSITIONS ACCOMPANYING THE DISSERTATION

# Glioma Neovascularization

# THE PLOT THICKENS

1. Glioblastoma, though non-metastatic, is not an isolated brain disease but a systemic pathology targetable with additional systemic treatments. - this thesis
2. Glioblastoma circulating angiogenic cells (CACs) are both quantitatively and qualitatively distinct from reactive CACs, displaying a phenotype compatible with improved tumor chemoattraction and homing capacity as well as a more potent pro-angiogenic effect. - this thesis
3. CACs are preprogrammed in the 'blood microenvironment', which is shaped by target tissue factor secretion. Additionally, CACs may recirculate between bone marrow, blood and peripheral tissues. 'Programming' of CACs may take place in any of these compartments. - this thesis
4. A CEC is a CAC: Circulating endothelial cells (CECs) are not a mere reflection of blood vessel damage. Viable CECs transcribe high levels of pro-angiogenic factors and likely give rise to outgrowth endothelial cells. CECs are potent stimulators of neovascularization. - this thesis
5. Periostin plays an indispensable role in the induction of glioblastoma angiogenesis and glioblastoma cells induce pericytes to increase periostin production. Glioblastoma pericytes may be derived from a subset of circulating CD34<sup>+</sup> mesenchymal progenitor cells. - this thesis
6.  $n=5, \theta=35$   
 $F$   
 $F=ZF[-F][+F]$   
 $Z=F[+Z][-Z]$
7. Why is "why" generated at an exponential rate and "thus" at a linear rate with an infinitesimally small slope?
8. Curiosity kills both cats and existential angst.
9. "If the human brain were so simple that we could understand it, we would be so simple that we couldn't." - Emerson Pugh
10. "Het lot van den mensch is verdriet te hebben, wanneer hij z'n doel niet bereikt en wanneer hij z'n doel bereikt heeft." ("The fate of men is to be sad whenever he doesn't reach his goal and whenever he has reached his goal.") – Nescio, *Dichtertje*
11. "So long, and thanks for all the FISH!" - adapted from Douglas Adams, *The Hitch Hiker's Guide to the Galaxy*