

## SUPPORTING INFORMATION

### A Validated Multiscale In-silico Model for Mechano-sensitive Tumour Angiogenesis and Growth

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#### Fluid mechanics model parameters

List of model parameters associated with the *Fluid Solver Module* (see Fig 3). Cells marked with an asterisk denote shared values for both tissue types.

Parameter	Description	Host	Tumour	Source
[mm-Hg]	Inlet: prescribed pressure	25.	*	[1]
[mm-Hg]	Outlet: prescribed pressure	10.	*	[1]
$\mu_B$ [mm-Hg s]	blood viscosity	$3.e-5$	*	[2]
$S_{vsc}$ [ $cm^{-1}$ ]	vascular density	70.	200.	[3–5]
$K_{int-\{T H\}}$ [ $cm^2(mm-Hg\ s)^{-1}$ ]	hydraulic conductivity of the interstitium	$8.51e-9$	$2.5e-7$	[6–8]
$\gamma_P$ [-]	blood vessel wall pores fraction	$1.296e-5$	$1.008e-2$	from [9] and adapted [10,11]
$\sigma_o$ [-]	average osmotic reflection coefficient	0.91	$8.7e-5$	[11–13]
$\pi_{vsc}$ [mm-Hg]	plasma osmotic pressure	20.	19.3	[11, 14]
$\pi_{int}$ [mm-Hg]	interstitial fluid osmotic pressure	10.	17.3	[10, 11]

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