

## SUPPORTING INFORMATION

### In-silico Dynamic Analysis of Cytotoxic Drug Administration to Solid Tumours: Effect of Binding Affinity and Vessel Permeability

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#### Fluid mechanics model parameters

List of model parameters associated with the *Fluid Solver Module* (see Fig 1). Cells marked with an asterisk denote shared values for both tissue types, while “VSC” denotes blood vessel and “LMP” denotes the lymphatic vessel.

Parameter	Description	Host	Tumour	Source
[mm-Hg]	VSC Inlet: prescribed pressure	25.	*	[1]
[mm-Hg]	VSC Outlet: prescribed pressure	10.	*	[1]
$\mu_B$ [mm-Hg s]	blood viscosity	$3.e-5$	*	[2]
$\mu_P$ [mm-Hg s]	blood plasma viscosity	$1.125e-5$	*	[3]
$\mu_I$ [mm-Hg s]	interstitial fluid viscosity	$2.625e-5$	*	[3]
$S_{vsc}$ [cm <sup>-1</sup> ]	VSC density	70.	200.	[4–6]
$K_{int-\{T H\}}$ [cm <sup>2</sup> (mm-Hg s) <sup>-1</sup> ]	hydraulic conductivity of the interstitium	$8.51e-9$	$2.5e-7$	[7–9]
$K_{lmp} S_{lmp}$ [(mm-Hg s) <sup>-1</sup> ]	specific hydraulic permeability at LMP wall	$1.333e-5$	$1.333e-9$	this work
$\sigma_o$ [-]	average osmotic reflection coefficient at VSC wall	0.91	$8.7e-5$	[10–12]
$\pi_{vsc}$ [mm-Hg]	plasma osmotic pressure at VSC wall	20.	19.3	[12, 13]
$\pi_{int}$ [mm-Hg]	interstitial fluid osmotic pressure	10.	17.3	[12, 14]
$p_{int}$ [mm-Hg]	average IFP: initial value	0.1	*	[15]

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