Topological data analysis distinguishes parameter regimes in the Anderson-Chaplain model of angiogenesis

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Parameter	Dimensional value
L length of domain	2 mm
D_n endothelial cell diffusion	$10^{-10} \mathrm{cm}^2/s$
χ_0 chemotactic response	$2600 \mathrm{cm}^2/(M \times s)$
ρ_0 haptotactic response	$2600 \mathrm{cm}^2/(M \times s)$
f_0 fibronectin concentration	10^{-10} M
D_c TAF diffusion	$2.9 \times 10^{-7} \mathrm{cm}^2/s$
ω Production of fibronectin	$1.35 \times 10^{-16} \mathrm{M/s}$
μ uptake of fibronectin	$1 \times 10^{-5} \mathrm{M/s}$
λ Uptake of TAF	$2.7 \times 10^{-6} \mathrm{M/s}$

S1 Table. Anderson-Chaplain model parameters. List of mechanistic parameters for the Chaplain Anderson ABM from [1].

References

1. Anderson ARA, Chaplain MAJ. Continuous and Discrete Mathematical Models of Tumor-induced Angiogenesis. Bulletin of Mathematical Biology. 1998;60(5):857–899. doi:10.1006/bulm.1998.0042.