
SUPPORTING INFORMATION

Multiscale Mechano-biological Finite Element Modelling of Oncoplastic Breast Surgery – Numerical Study Towards Surgical Planning and Cosmetic Outcome Prediction

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Wound Healing and Angiogenesis Model Parameters

List of all the parameters used in the biochemical finite element breast model, and references to the published papers are also provided.

Parameter	Value	Source
D_η	$5.962 \times 10^{-6} \text{ cm}^2 \text{ d}^{-1}$	[1]
η_0	$9. \times 10^8 \text{ cell cm}^{-3}$	[2]
k_ζ	$2.16 \times 10^8 \text{ cm}^3 \text{ cell}^{-1} \text{ d}^{-1}$	Adapted from [1]
k	0.24 d^{-1}	[1]
D_ς	$50.976 \times 10^{-3} \text{ cm}^2 \text{ d}^{-1}$	[1]
ς_0	$10^{-8} \text{ g cm}^{-3}$	Adapted from [3]
ℓ_η	$1.33 \times 10^{-16} \text{ g cell}^{-1} \text{ d}^{-1}$	[1]
ℓ	1.20 d^{-1}	[1]
$\bar{\varsigma}$	$4. \times 10^{-7} \text{ g cm}^{-3}$	[1]
h_0	10. –	[1]
$h_1; h_2$	9.47 –; 0.53 –	Adapted from [1]
ν_0	70. cm^{-1}	[4]
β	$2.857 \times 10^{-3} \text{ cm d}^{-1}$	Adapted from [1]
D_ξ	$4.32 \times 10^{-3} \text{ cm}^2 \text{ d}^{-1}$	[3]
λ_ν	$1.143 \times 10^{-2} \text{ cm d}^{-1}$	Adapted from [5]
λ	0.8 d^{-1}	Adapted from [5]
D_μ	$8.64 \times 10^{-2} \text{ cm}^2 \text{ d}^{-1}$	[3]
μ_0	$10^{-8} \text{ g cm}^{-3}$	[6]
ϕ_ξ	$10^{-8} \text{ g cm}^{-3} \text{ d}^{-1}$	Adapted from [3]
ϕ	0.95 d^{-1}	Adapted from [3]
$\hat{\xi}$	0.5 –	[7]
$\bar{\xi}$	0.8 –	Estimated

References

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