

Additional file 2. Parameters from the 2D model used to compute the total resistance in the extracellular space and through inter-endfeet gaps both on the arterial and venous side.

Parameter	Value
Computational domain of 2D ECS	$L = 3.91 \text{ mm}, H = 2.81 \text{ mm}$
Number of arterioles and venules in 2D domain	$N_a = 125, N_v = 50$
Arteriole and venule radius	$r_a = 15\mu\text{m}, r_v = 20\mu\text{m}$
Endfeet thickness	$T = 1 \mu\text{m}$
Inter-endfeet cleft gaps	$h_a = 24 \text{ nm}, h_v = 31 \text{ nm}$ [52, 53]
Artery/arteriole and vein/venule area	$A = 1.64\text{m}^2$
Total inter-edfeet cleft gap area	$A_{EF} = 0.003A \approx 0.005 \text{ m}^2$ [53]
Inter-edfeet cleft length along entire vessel	$D = 90.67 \text{ m}$
Average number of clefts per vessel	$n_a = 14.14, n_v = 18.85$