

Supplemental figures for case (i)

This SI shows results from simulations where parameters for drug with a molecular weight of 10^5 g/mol are used. To be precise, the permeabilities $\lambda_{s,N}$, $\lambda_{s,T}$ and diffusion constant D_s as well as the cell exchange rates k_{ij} are scaled by a factor of $\sqrt{540/10^5} \approx 0.07$.

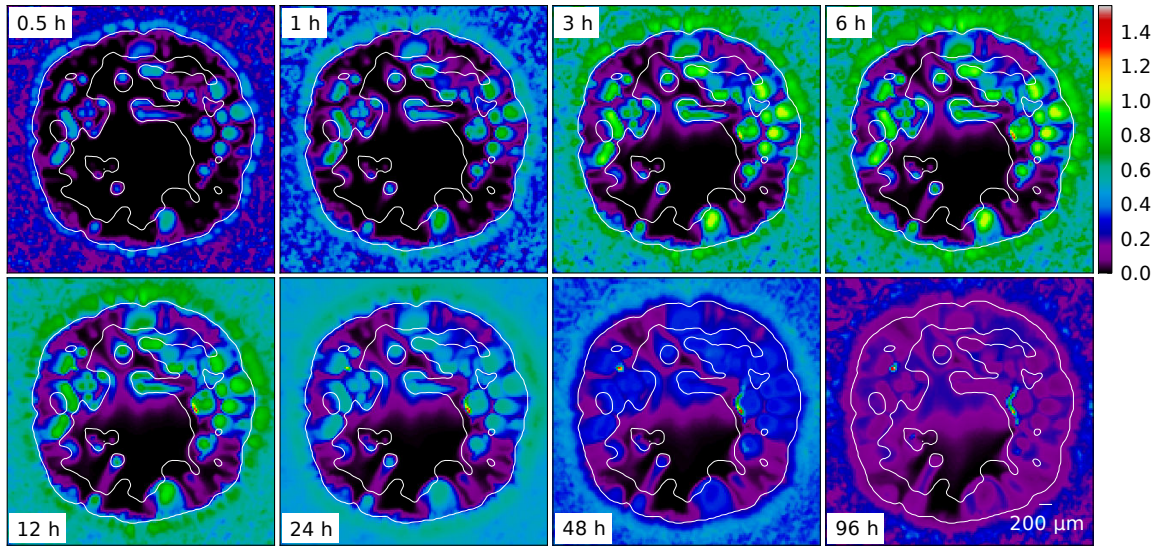


Figure 1: Drug distribution s in a series of snapshots. Corresponds to Figure 7 in the paper.

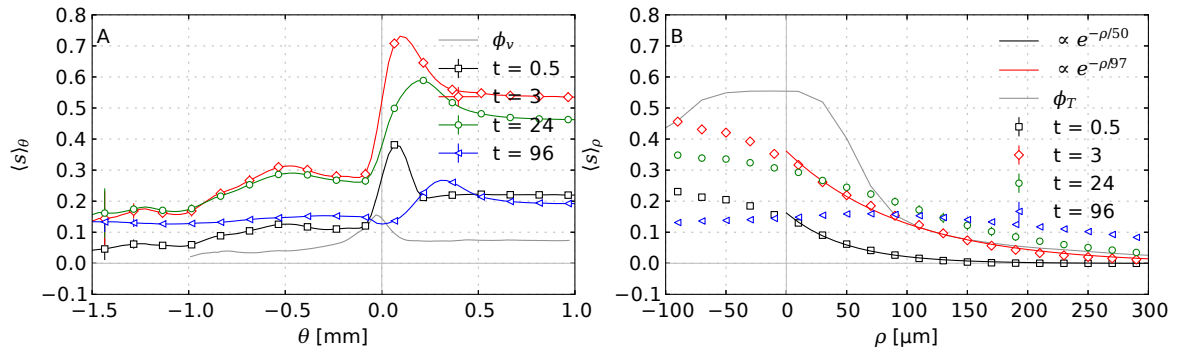


Figure 2: **Drug concentration profiles at different times.** (A) plotted vs. θ , and (B) vs. distance from vessels ρ . Corresponds to Figure 8 in the paper.

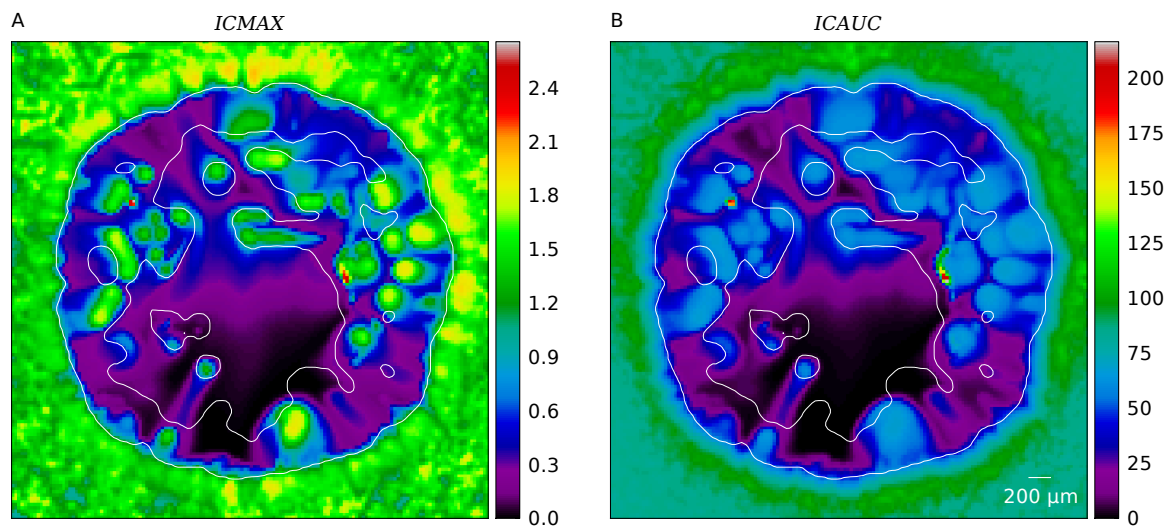


Figure 3: **Spatial distribution of drug exposure metrics.** (A) maximum concentration ICMAX and (B) the AUC ICAUC, taken from a slice through the origin of the system. Corresponds to Figure 9 in the paper.

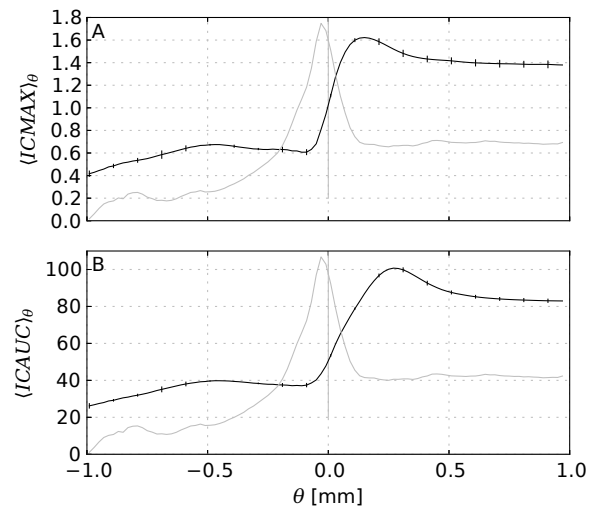


Figure 4: **Drug exposure metrics profiles.** Maximal concentration $ICMAX$ (A) and area under curve $ICAUC$ (B) plotted vs. θ . Corresponds to Figure 10 in the paper.

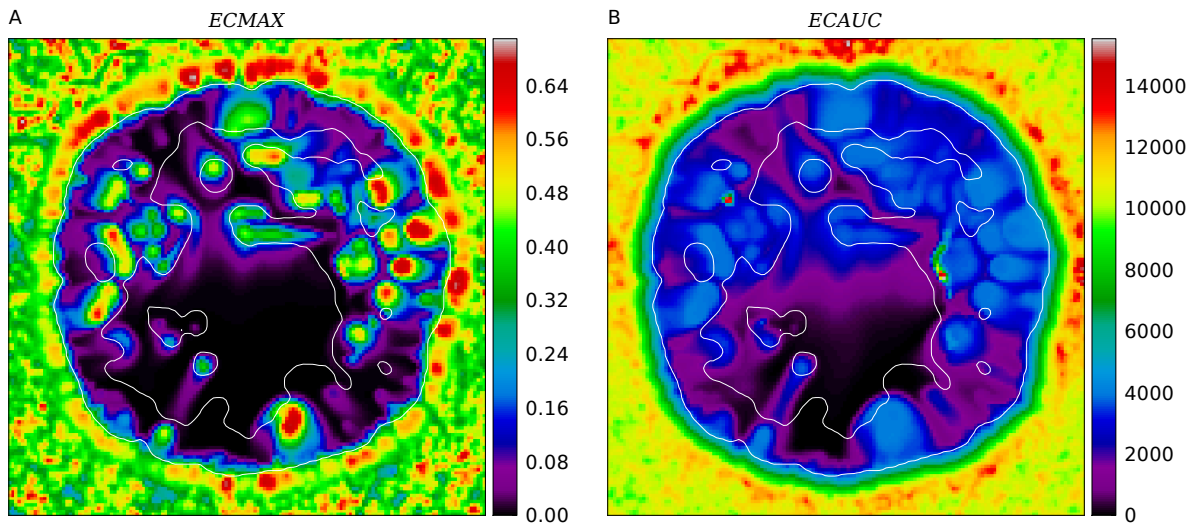


Figure 5: Maximal concentration (A) and area under curve (B) for the concentration in the interstitial compartment.

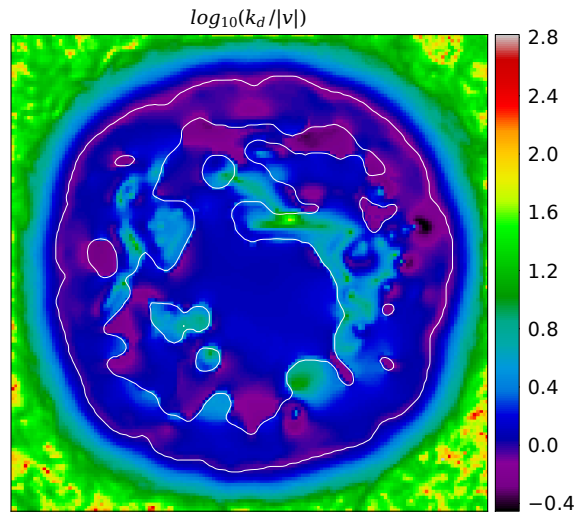


Figure 6: **Logarithmic plot of the length scale L_{dc} .** It is defined by $L_{dc} = k_d/|v|$ following the requirement that the Peclet number equals one, i.e. $1 = Pe = L_{dc}|v|/k_d$. The data is scaled logarithmically.