

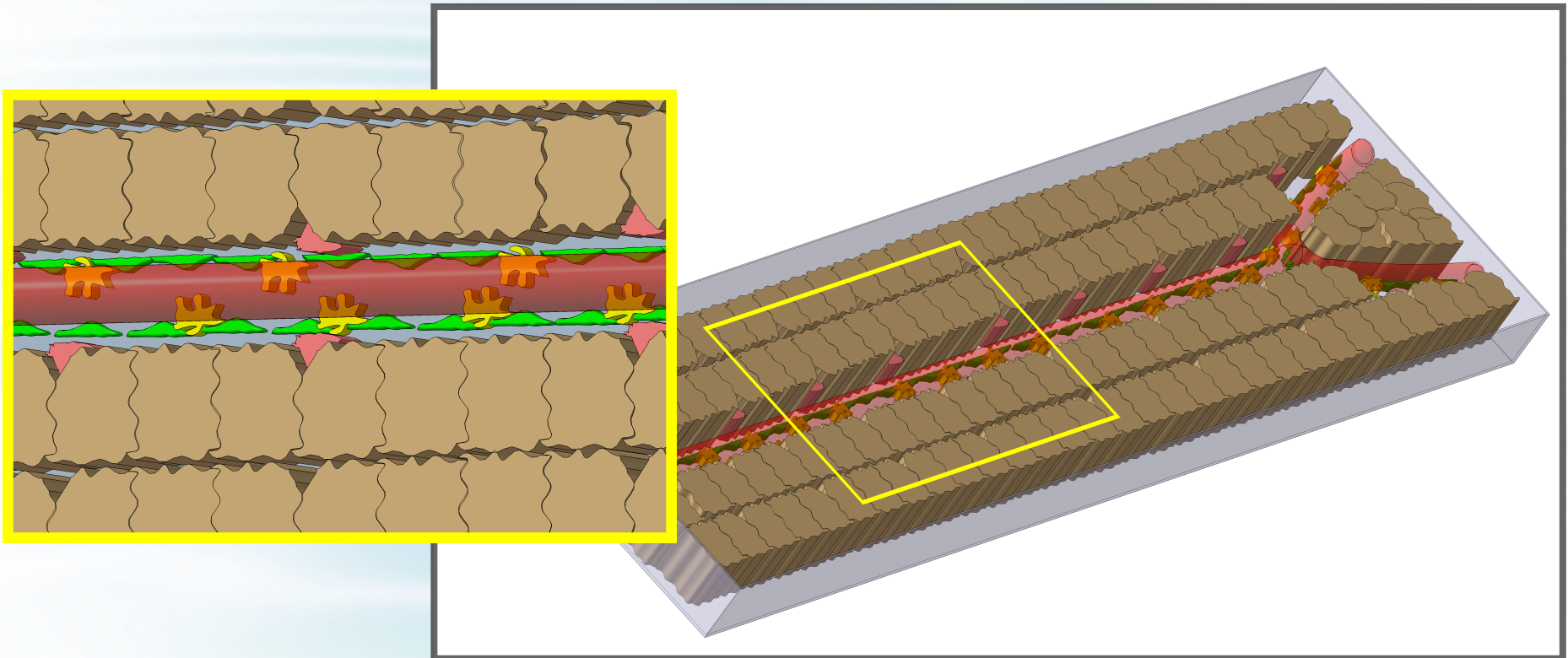
Computational Fluid Dynamics for Optimization in Biomedicine: Solving Numerically the Balance Equations of Multi-phase Systems

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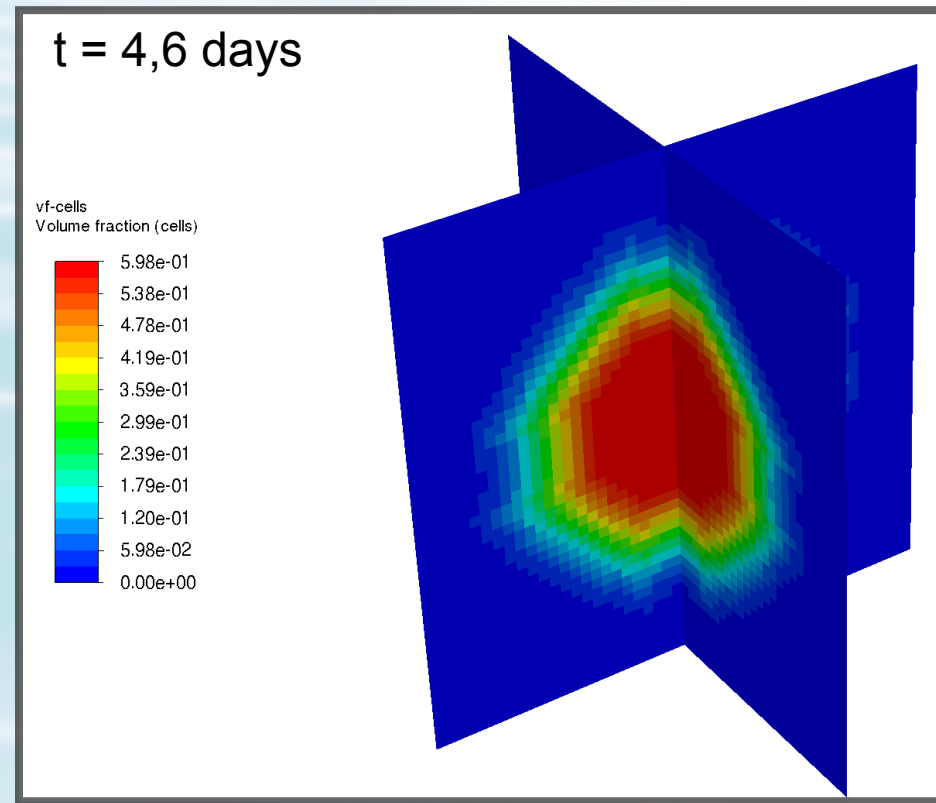
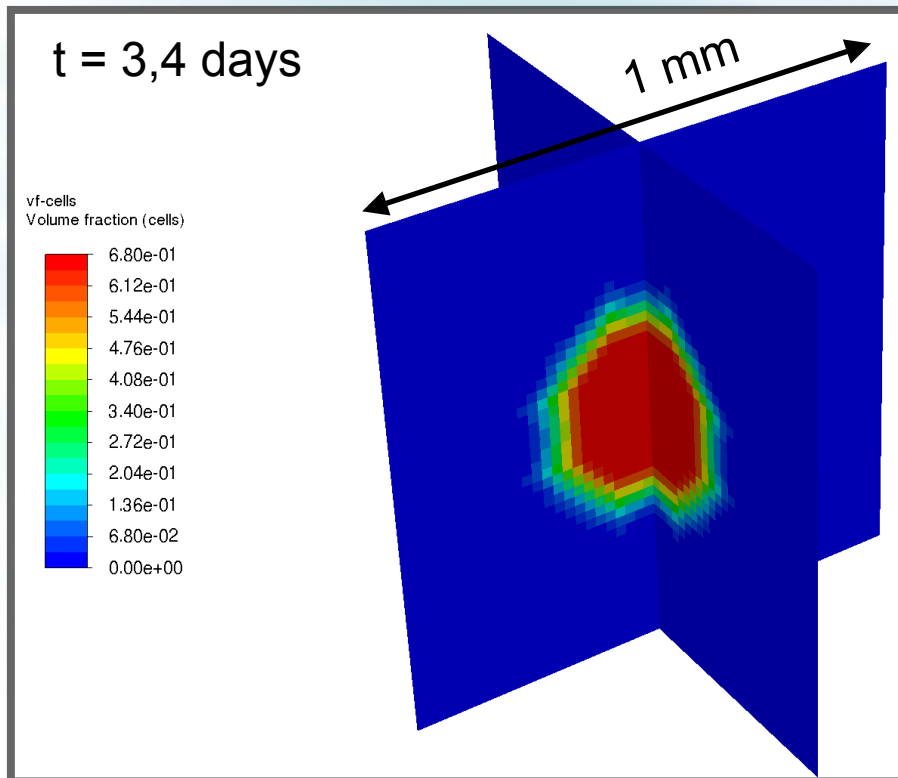
Liver-on-a-Chip

- Mathematical model of a liver-on-a-chip to optimize shear stresses and oxygen supply



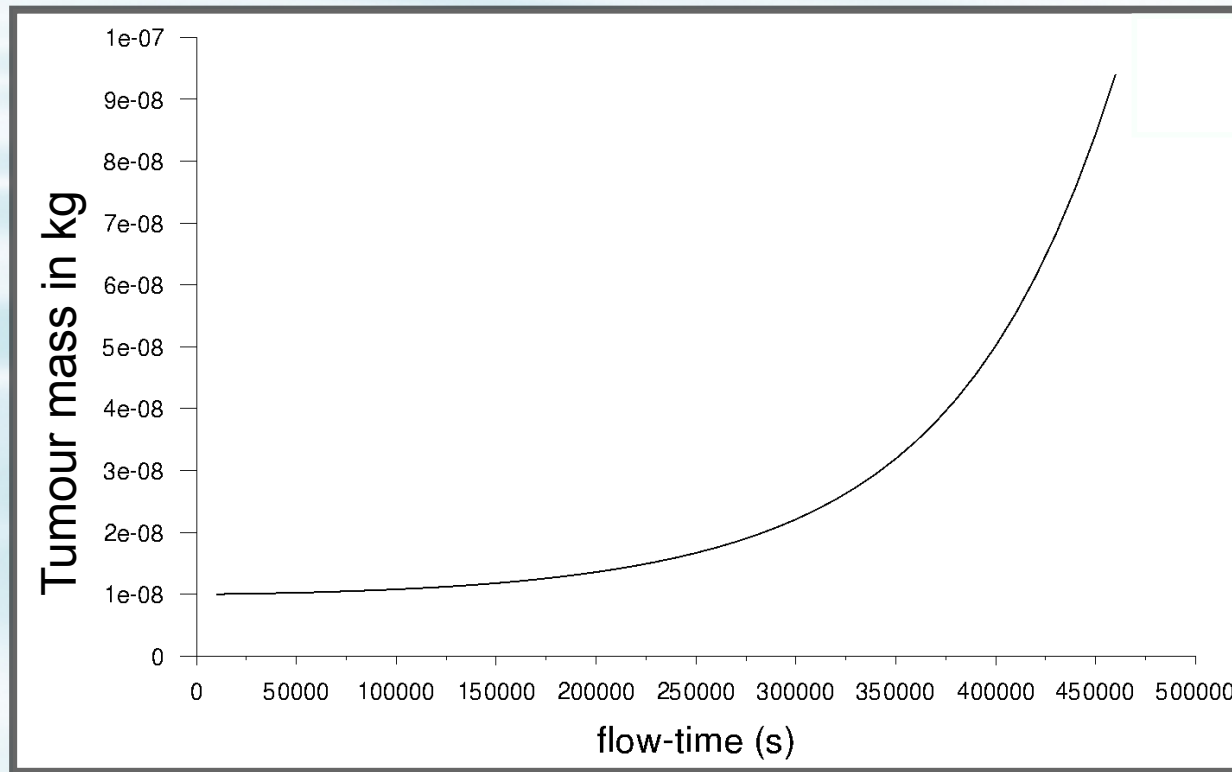
Multi-phase model of tumour growth - 1

- The figures show the volume fraction of tumour cells in the total volume at each point



Multi-phase model of tumour growth - 2

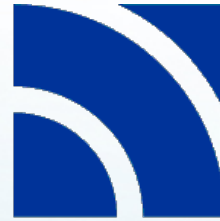
- The figure shows the total tumour mass in the model as a function of time



Next steps: Increasing the complexity of the model by adding phases and species

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