Contribution ID: **295** Type: **Oral Presentation**

Differentiation in biological porous media: a role for diffusiophoresis and surface instabilities

Thursday, 2 June 2022 11:35 (15 minutes)

Biology is often explained in terms of biochemical pathways. In order for these pathways to work out, substantial logistics are needed to bring molecules to find their counterparts. Diffusion is typically the magic word that comes to rescue the transport mechanisms needed. Diffusion, however, results in homogenizing the medium, while differentiation is repeatedly the observed fact. This lecture will explore the potential of diffusio-phoresis and surface instability to elicit intelligent transport of cells and molecules in biology. Experiments as well as simulations will be presented.

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3. J.M. Huyghe, On the physics underlying longitudinal capillary recruitment. In "Molecular, Cellular and Tissue Engineering of the Vascular System", ed. By B.Fu, N. Wright, Springer Verlag, Berlin (2018).
4. J.M. Huyghe, O Shardt, J O'Malley (2018) Mechanism inducing longitudinal capillary recruitment, Advances in Experimental Medicine and Biology 1097: 191
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References

Time Block Preference

Time Block B (14:00-17:00 CET)

Participation

In person

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