

## 12. Microfluidics

### 1 Unit, Magdalini Panagiotakopoulos, October 14, 2025

- What is microfluidics?
- Why microfluidics?
- Basics of fluid mechanics
- Special phenomena associated with the micro-scale
- Microfluidics and lab-on-a-chip devices

#### Discussion Paper:

Alonso-Roman R, Mosig AS, Figge MT, Papenfort K, Eggeling C, Schacher FH, Hube B, Gresnigt MS. Organ-on-chip models for infectious disease research. *Nat Microbiol.* 2024 Apr;9(4):891-904. doi: 10.1038/s41564-024-01645-6. Epub 2024 Mar 25. PMID: 38528150.