



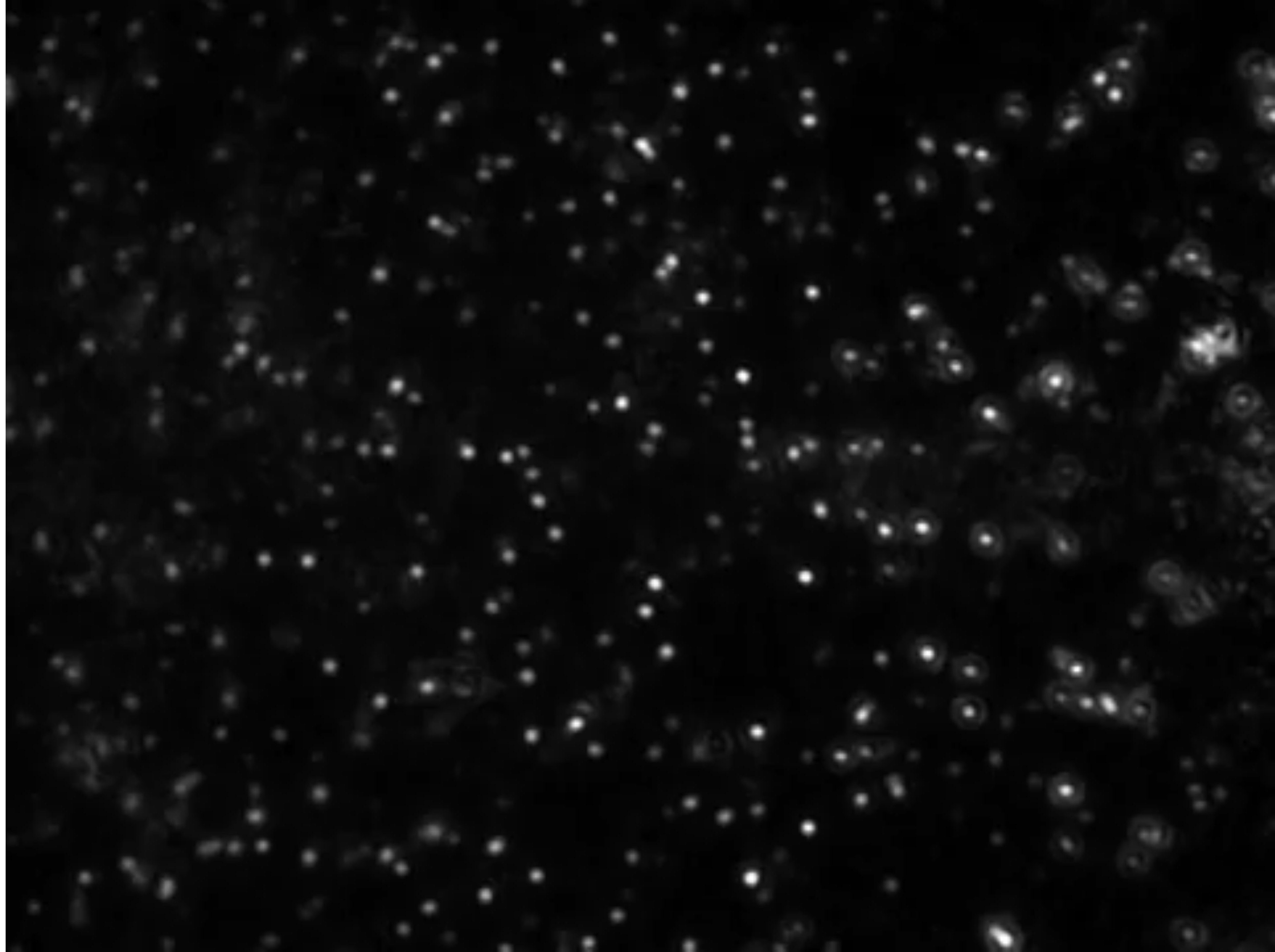
Podstawy fizyki transportu w układach biologicznych

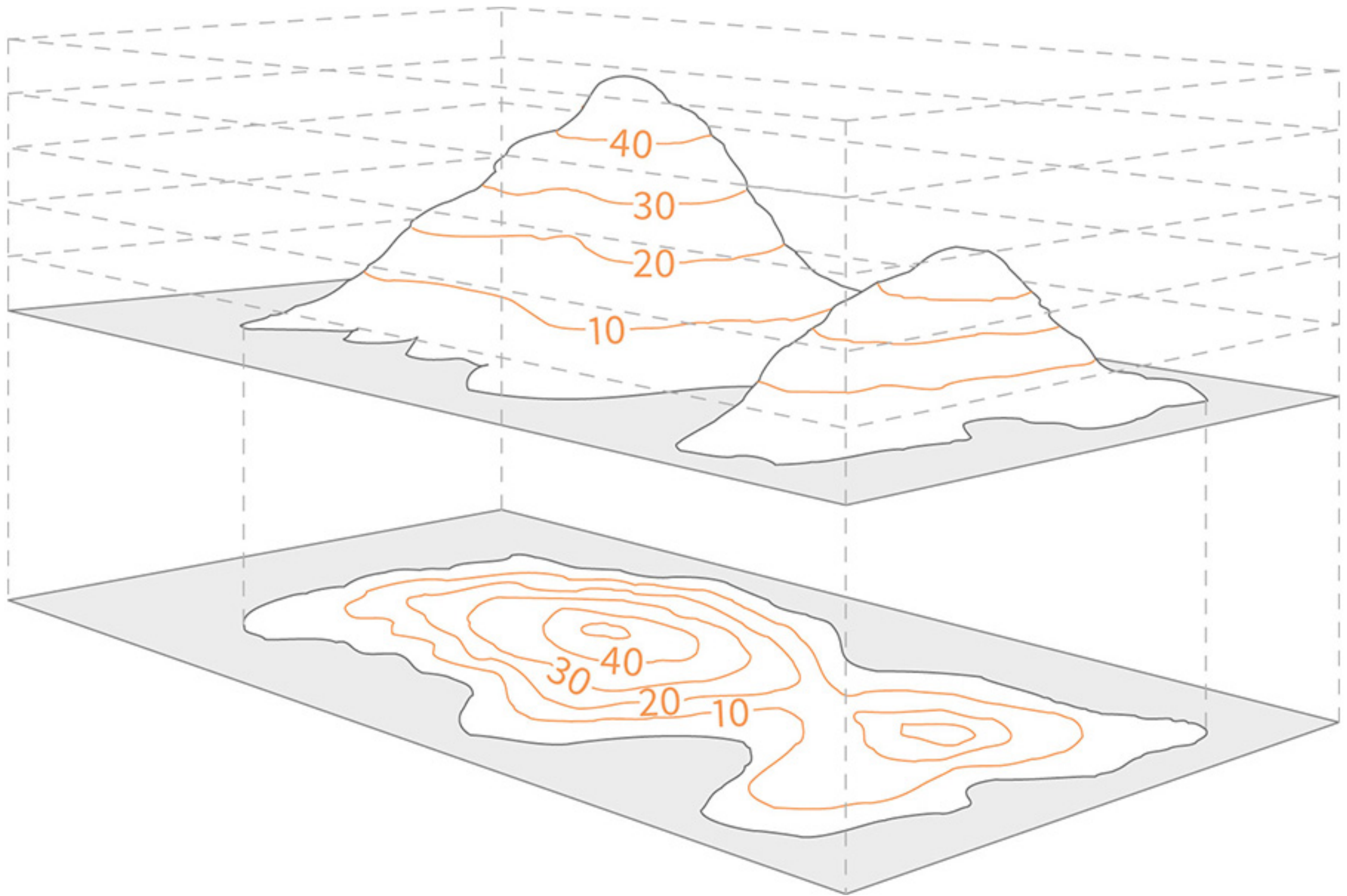
2023/2024

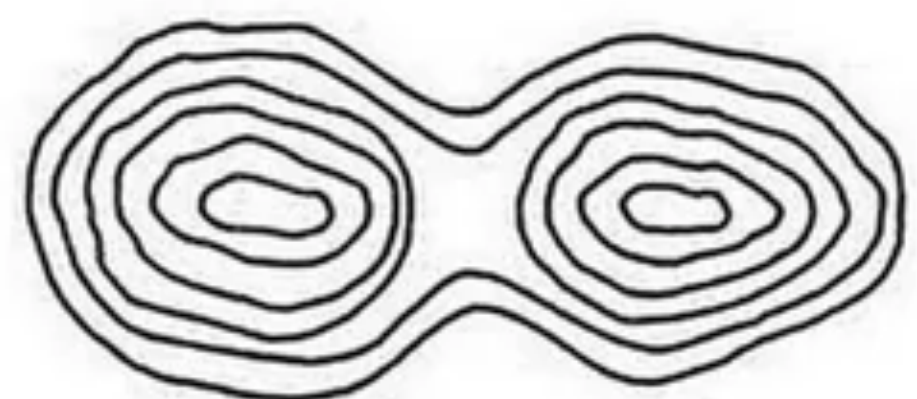
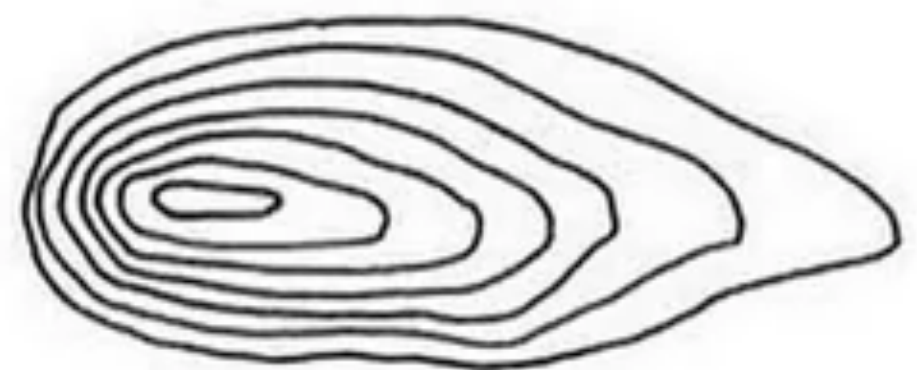
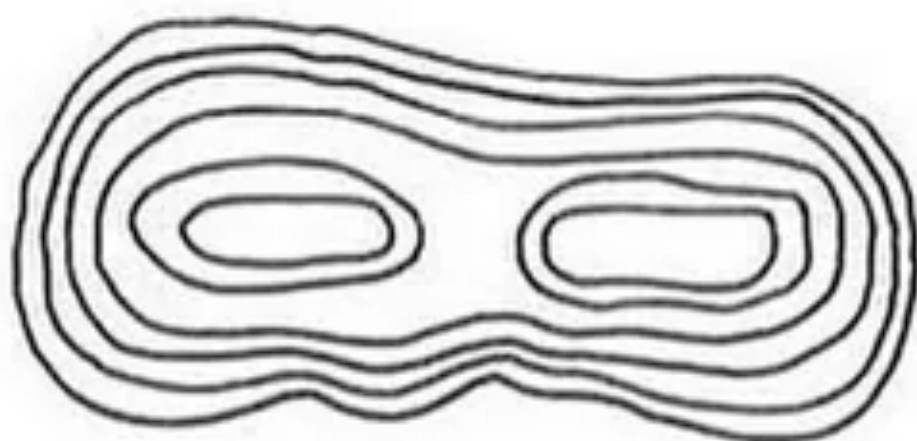
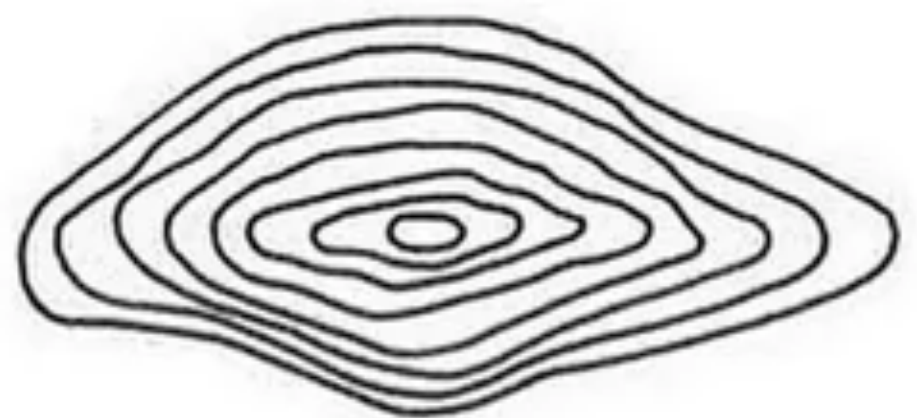
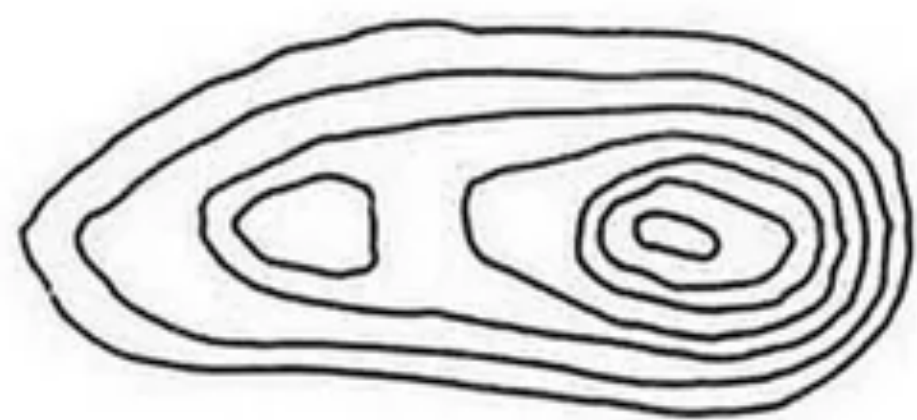
Wykład 3 & 4

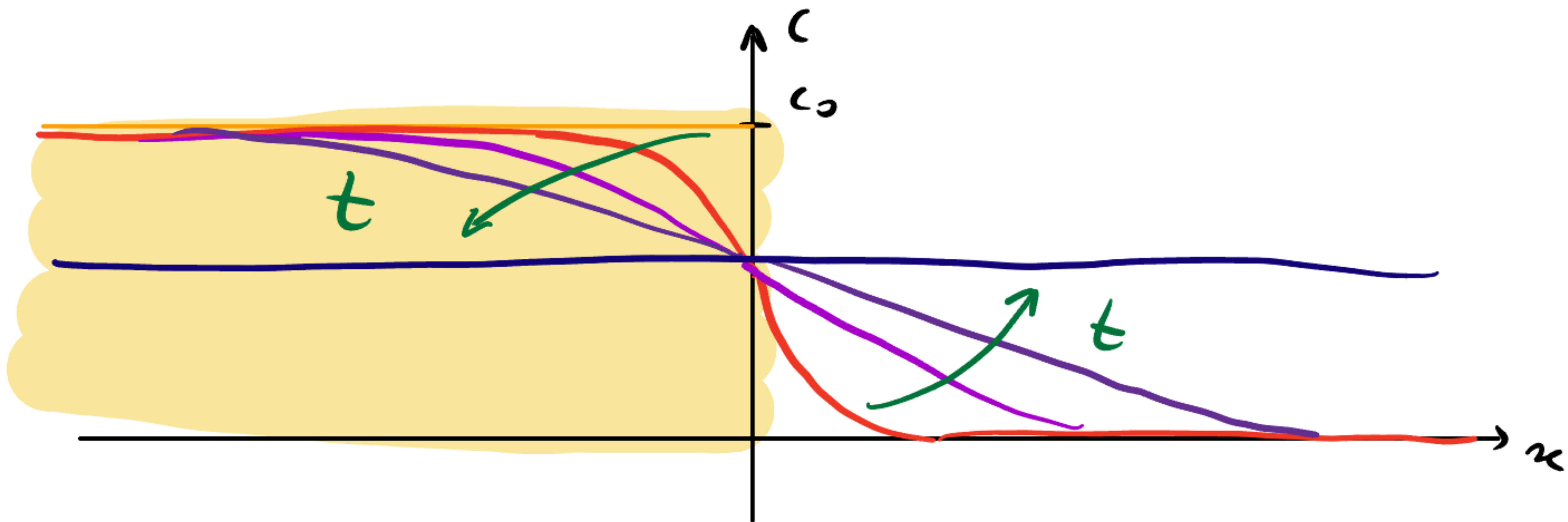
Maciej Lisicki, Wydział Fizyki UW





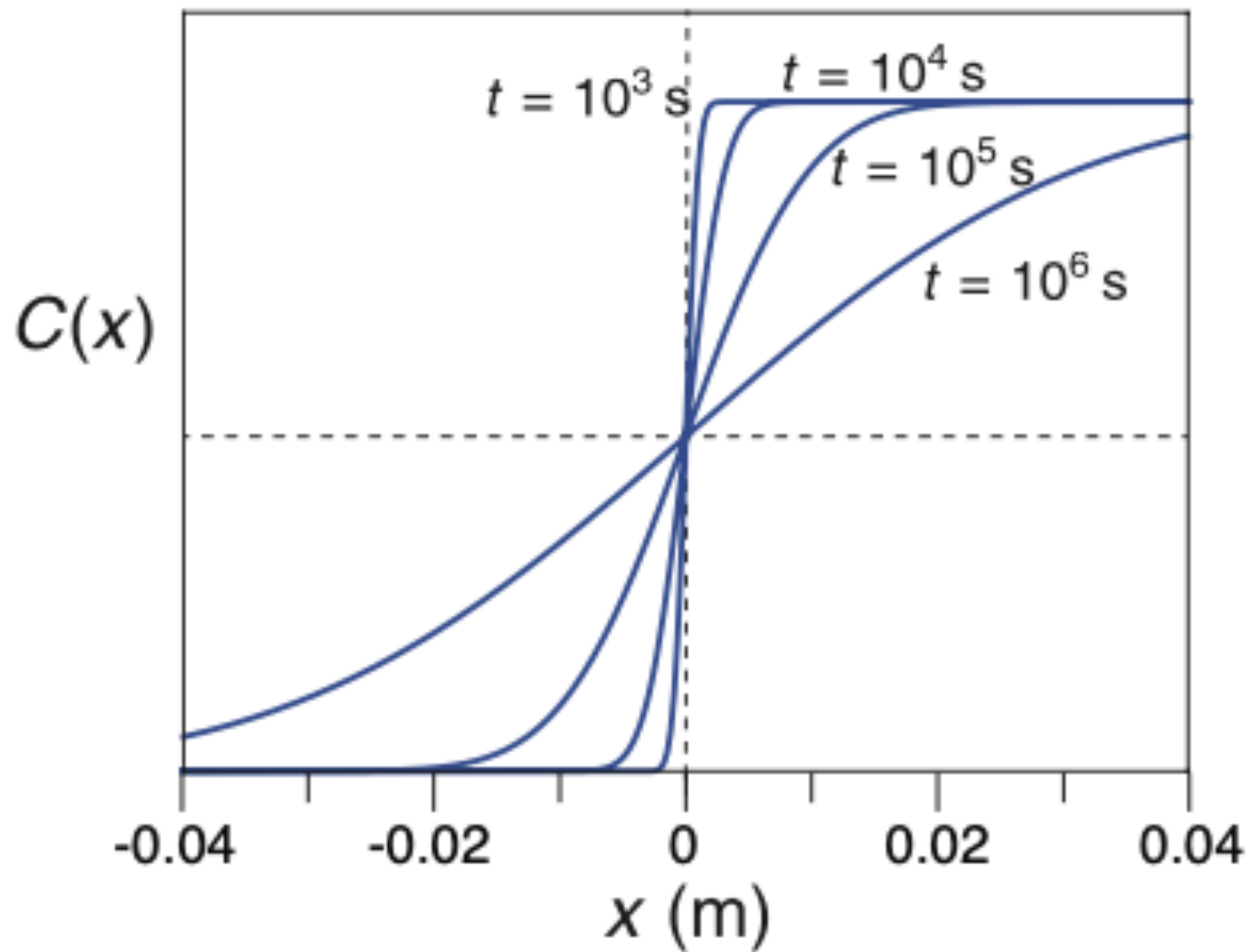
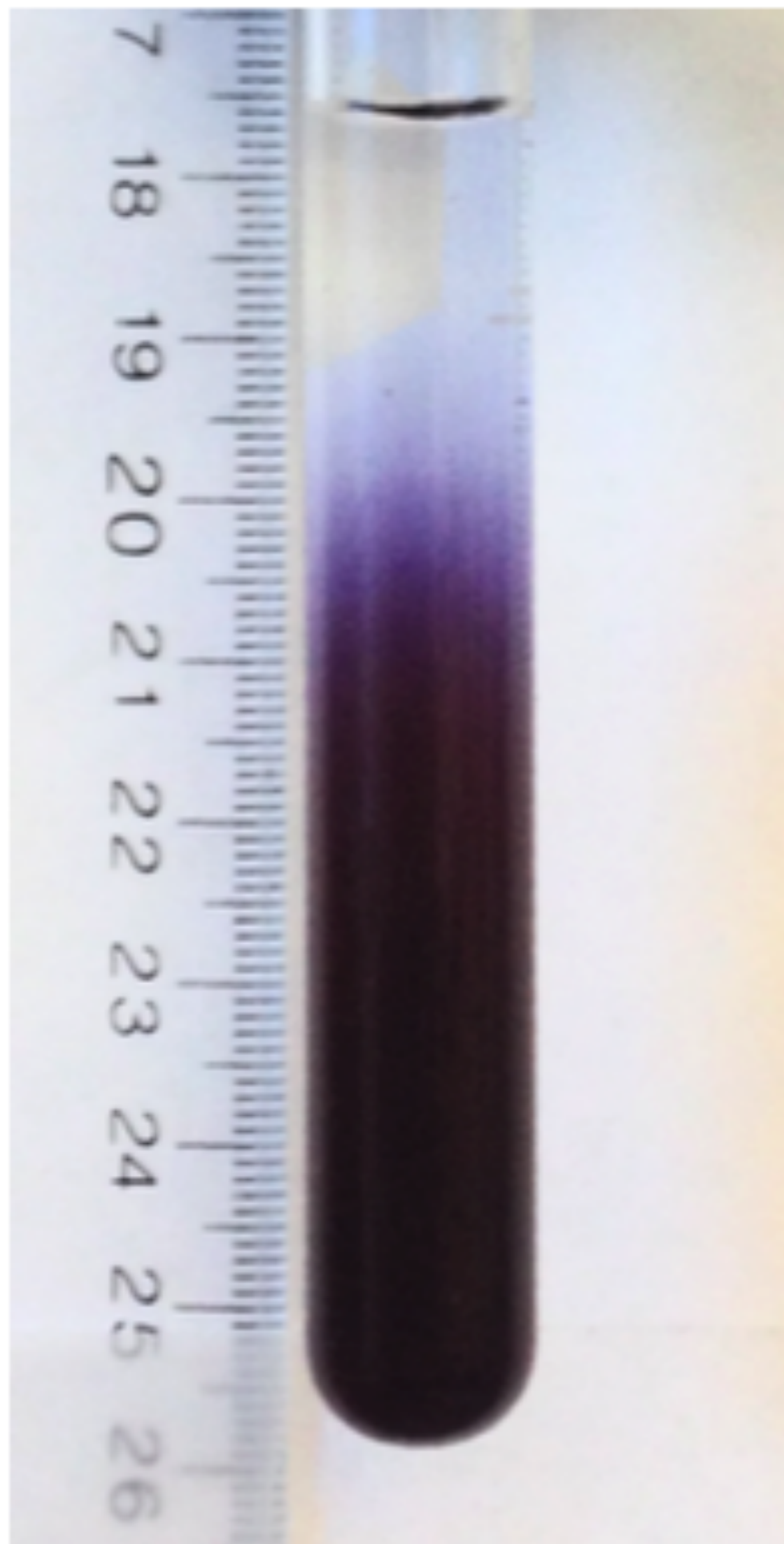


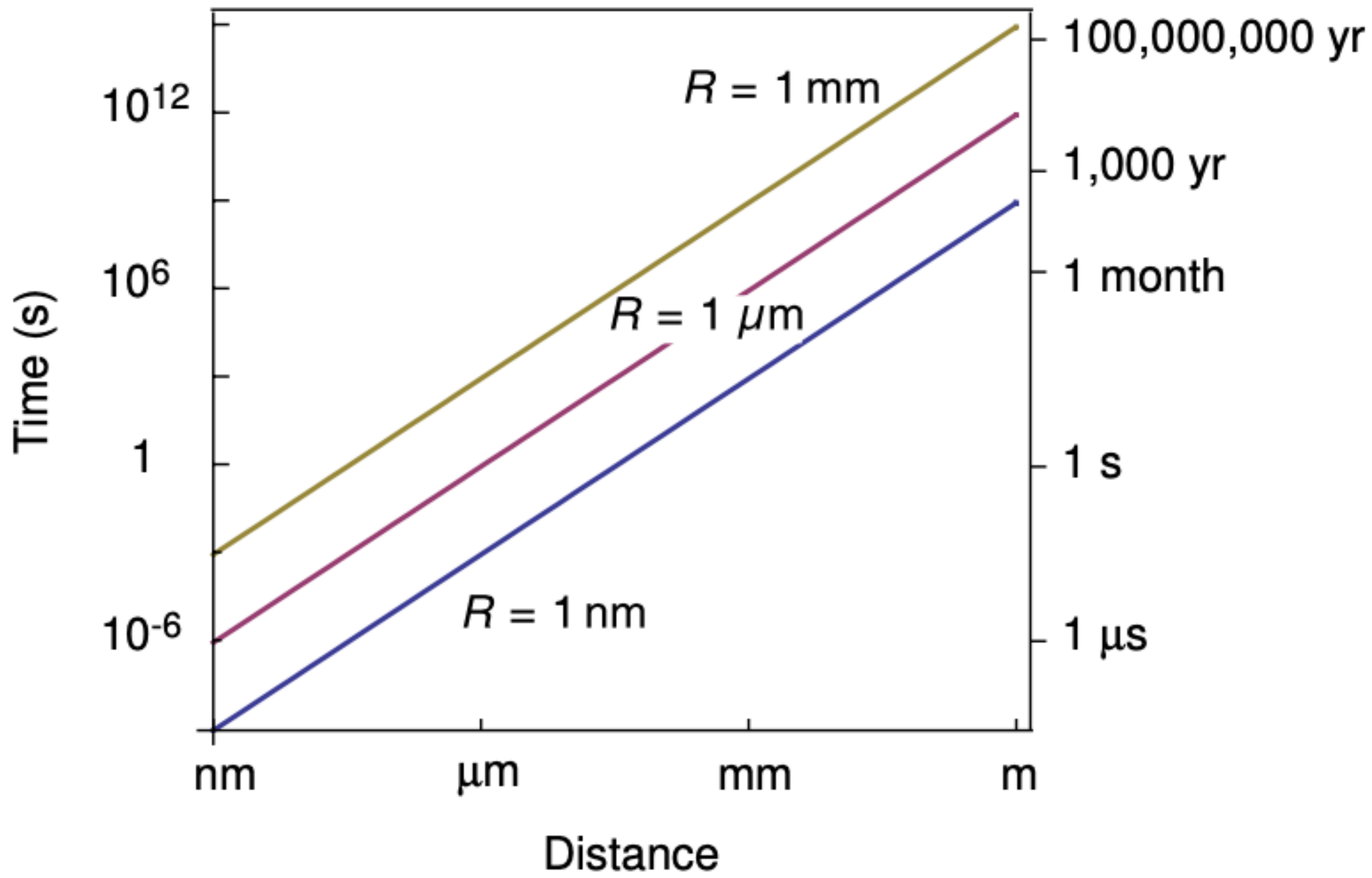


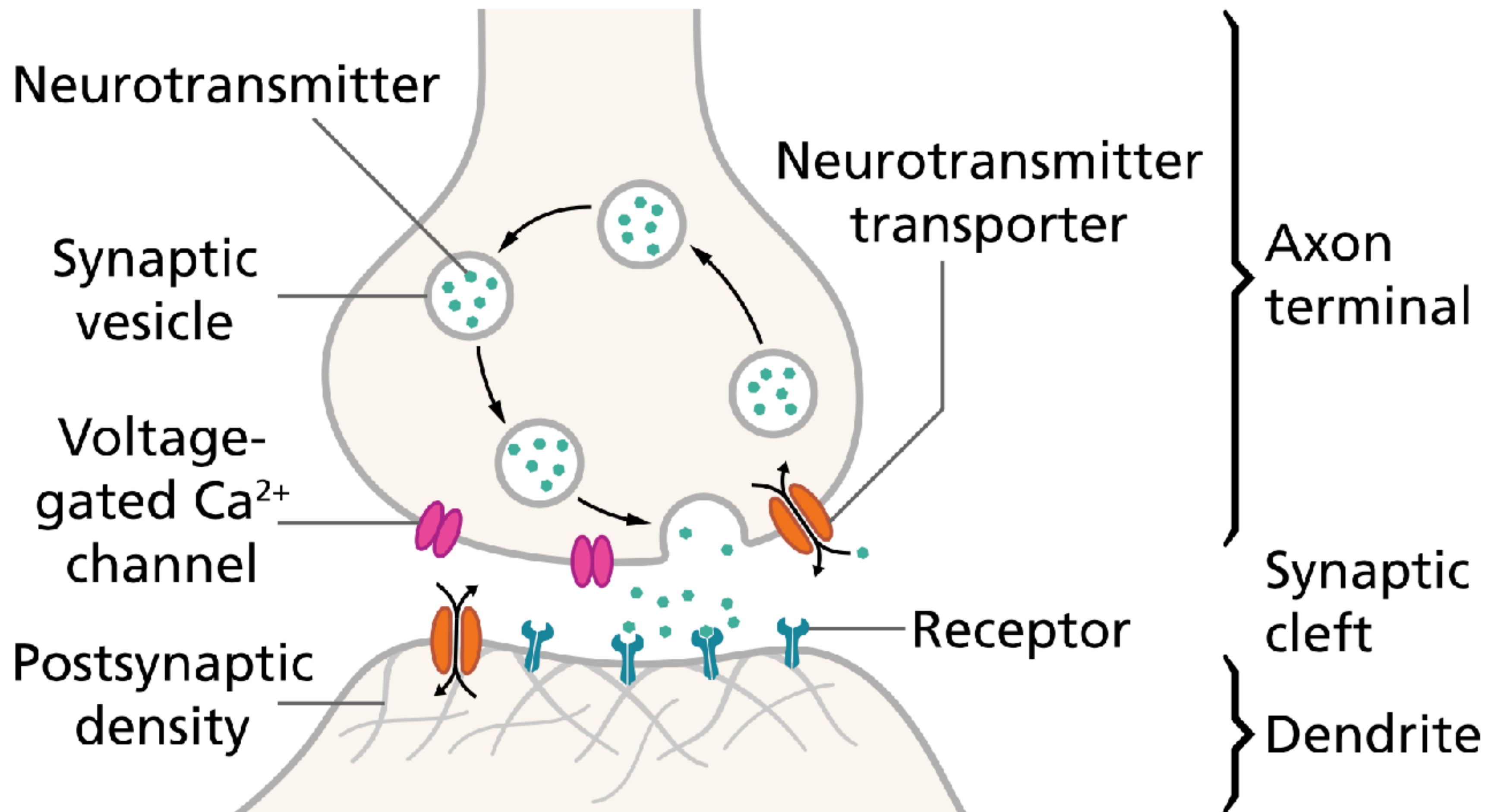


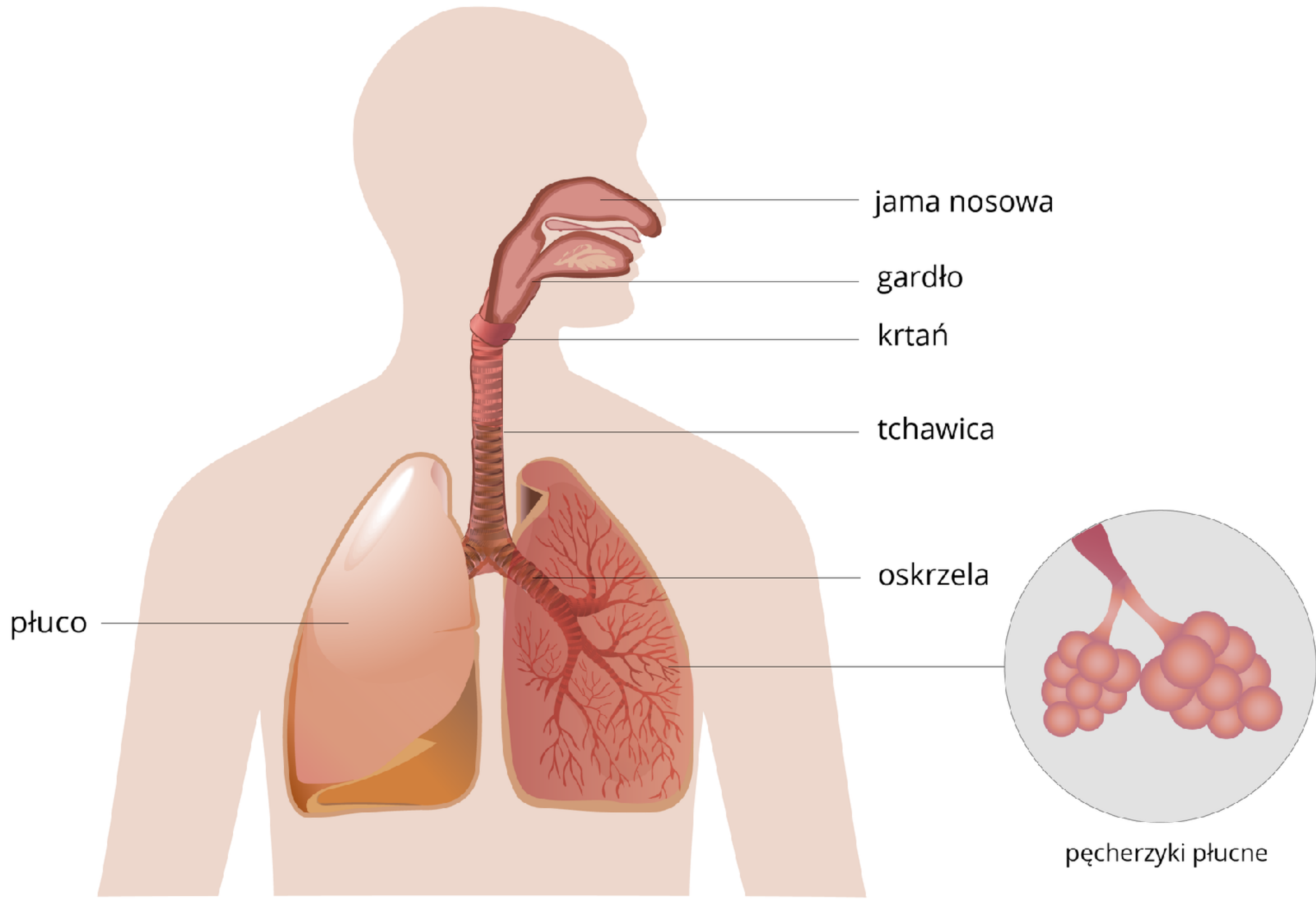


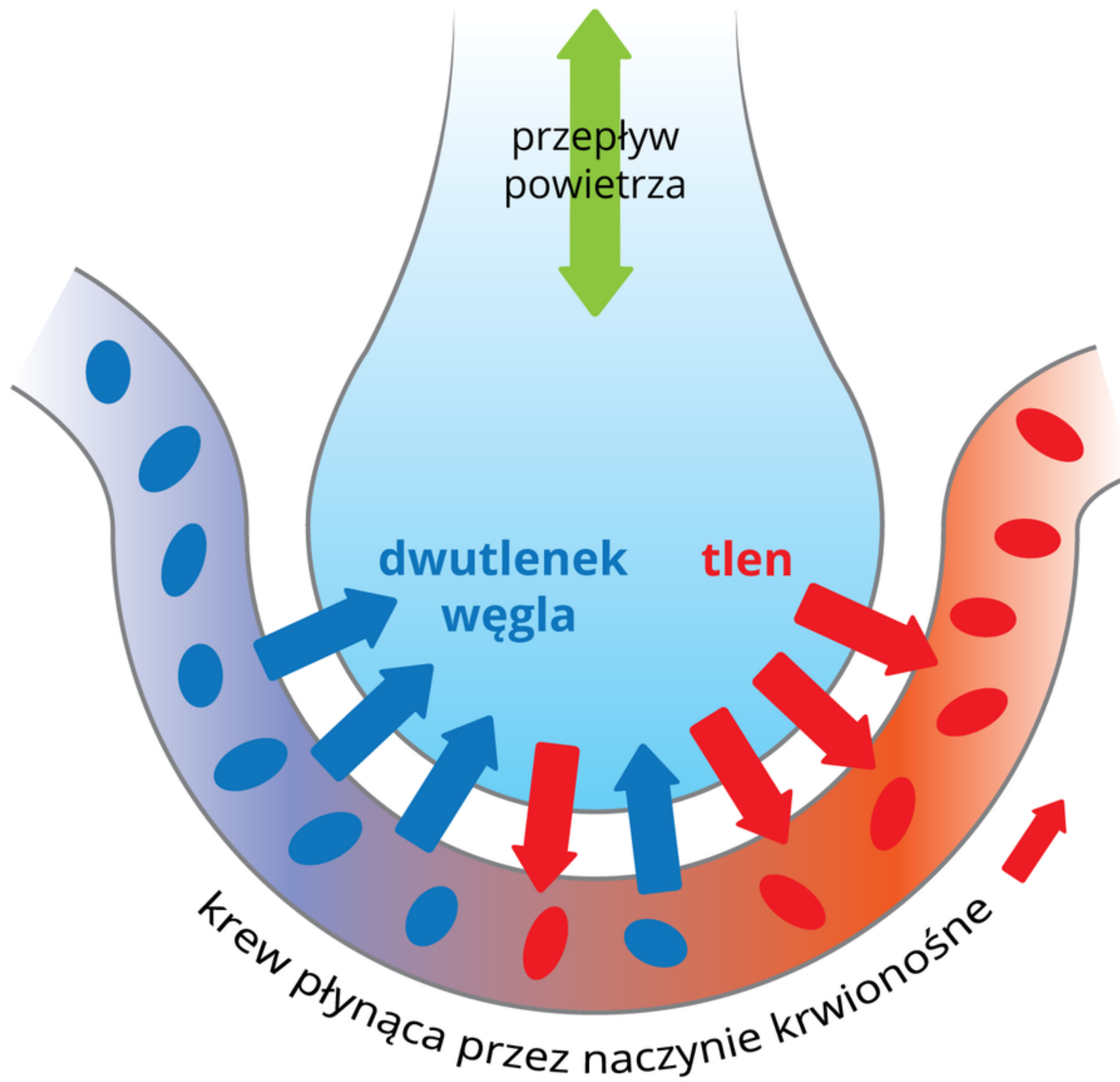
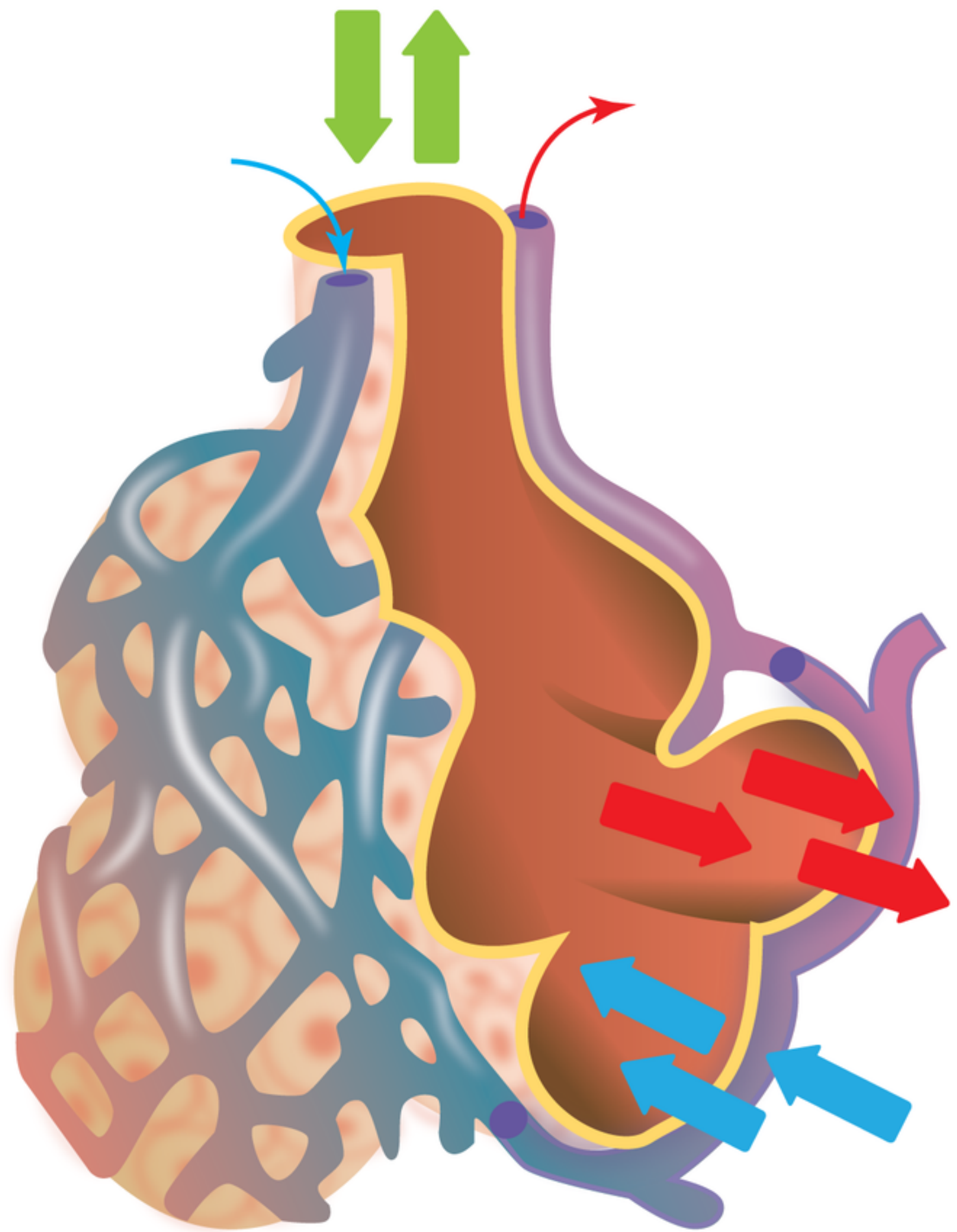
$$D = 3 \times 10^{-10} \text{ m}^2/\text{s}$$



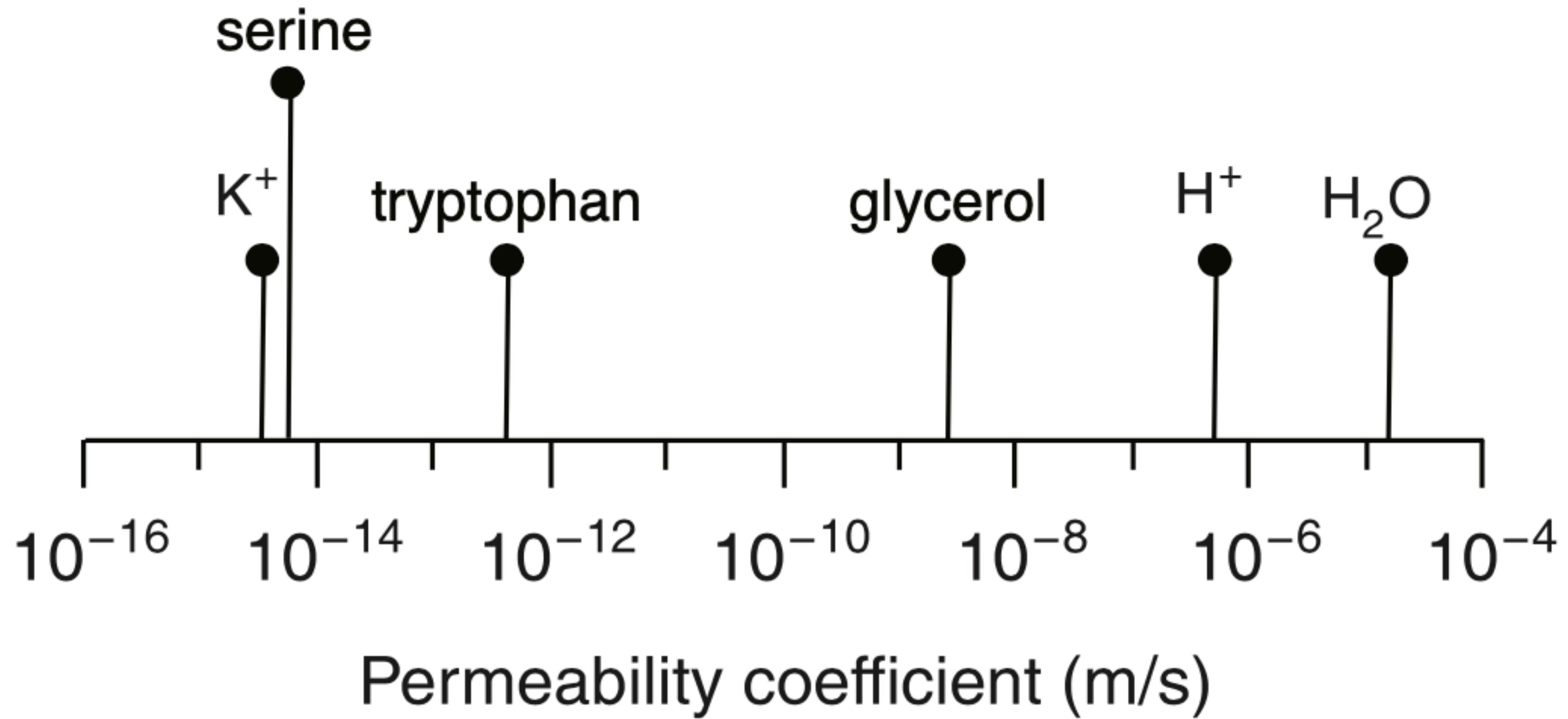




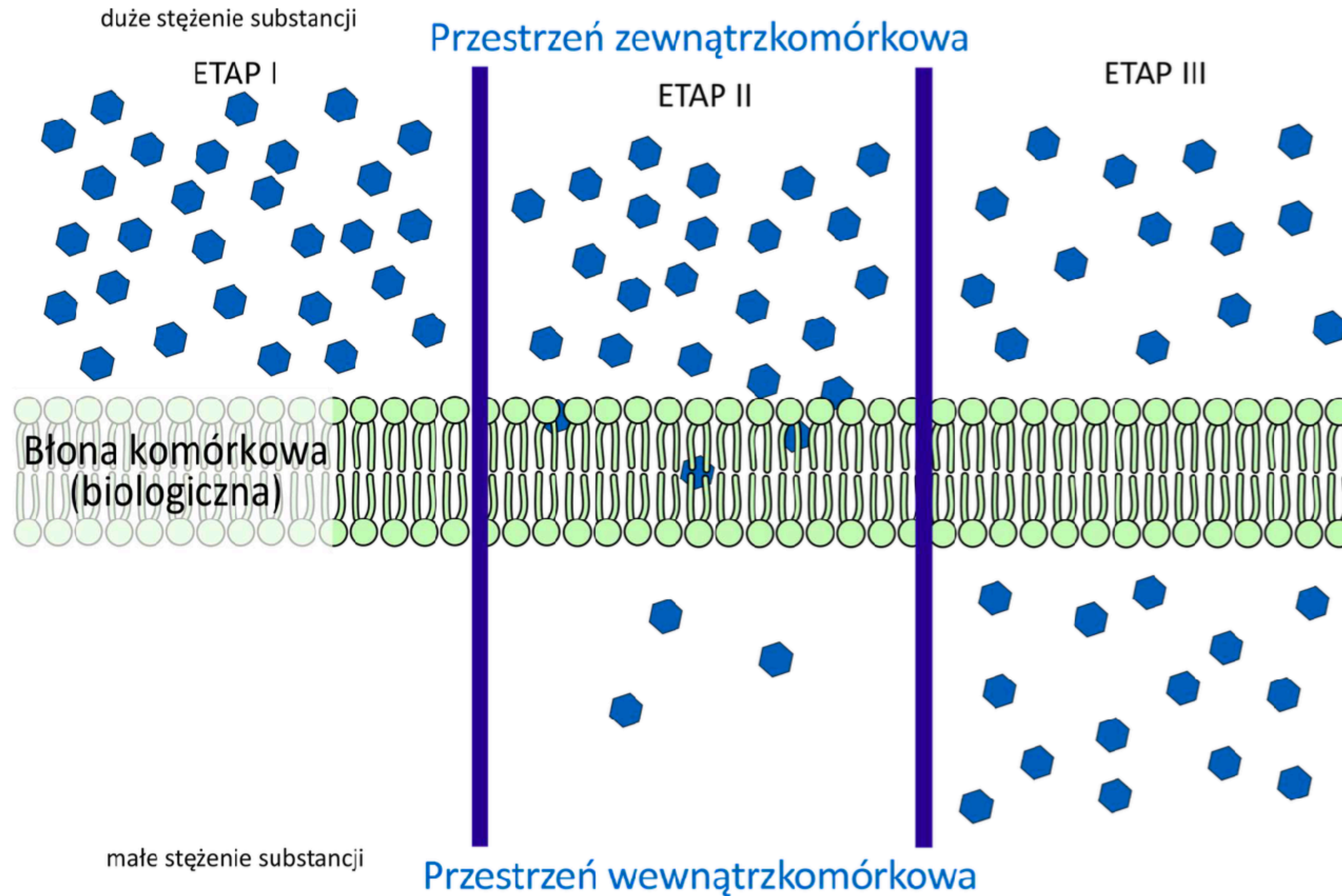




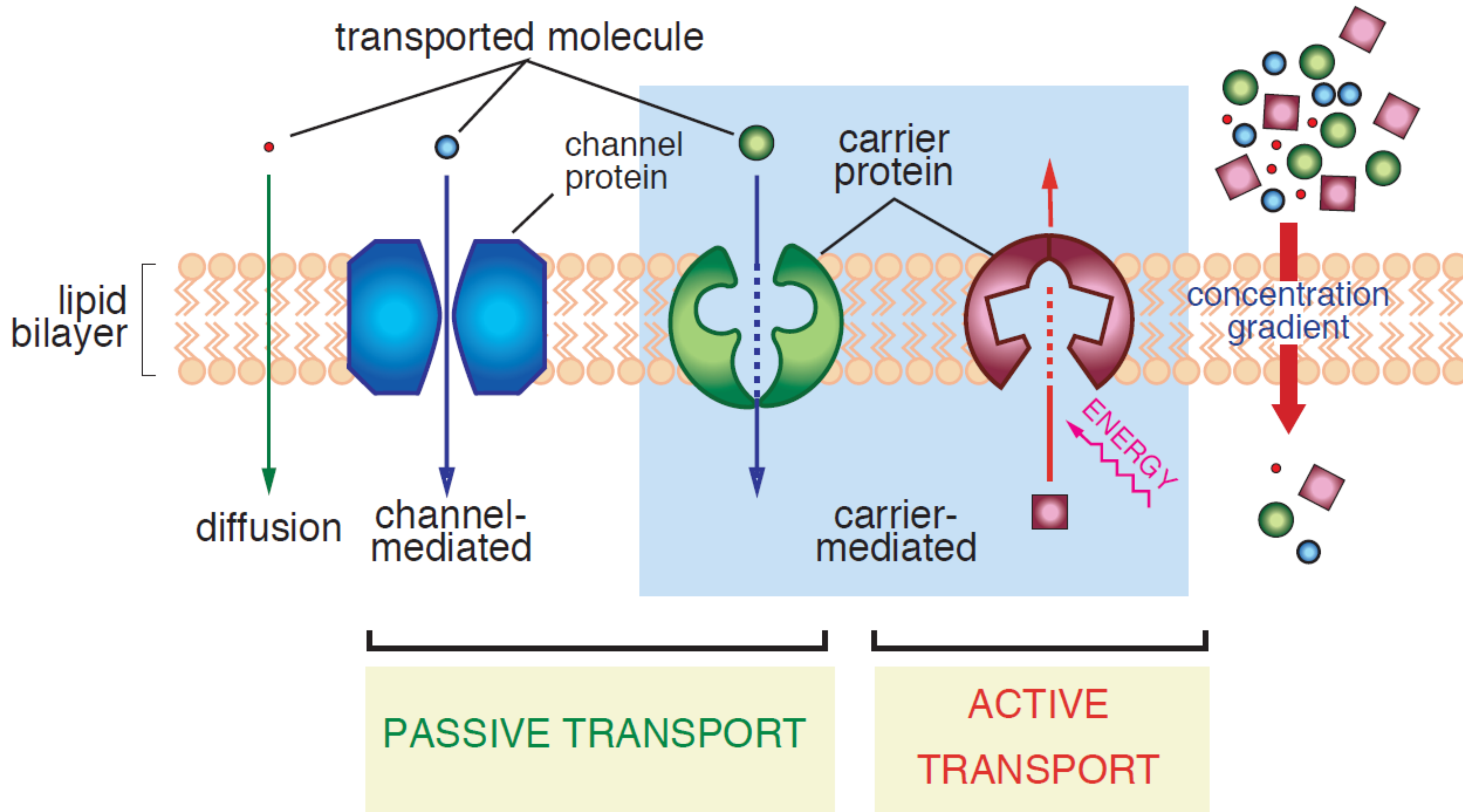
Przepuszczalność błon komórkowych



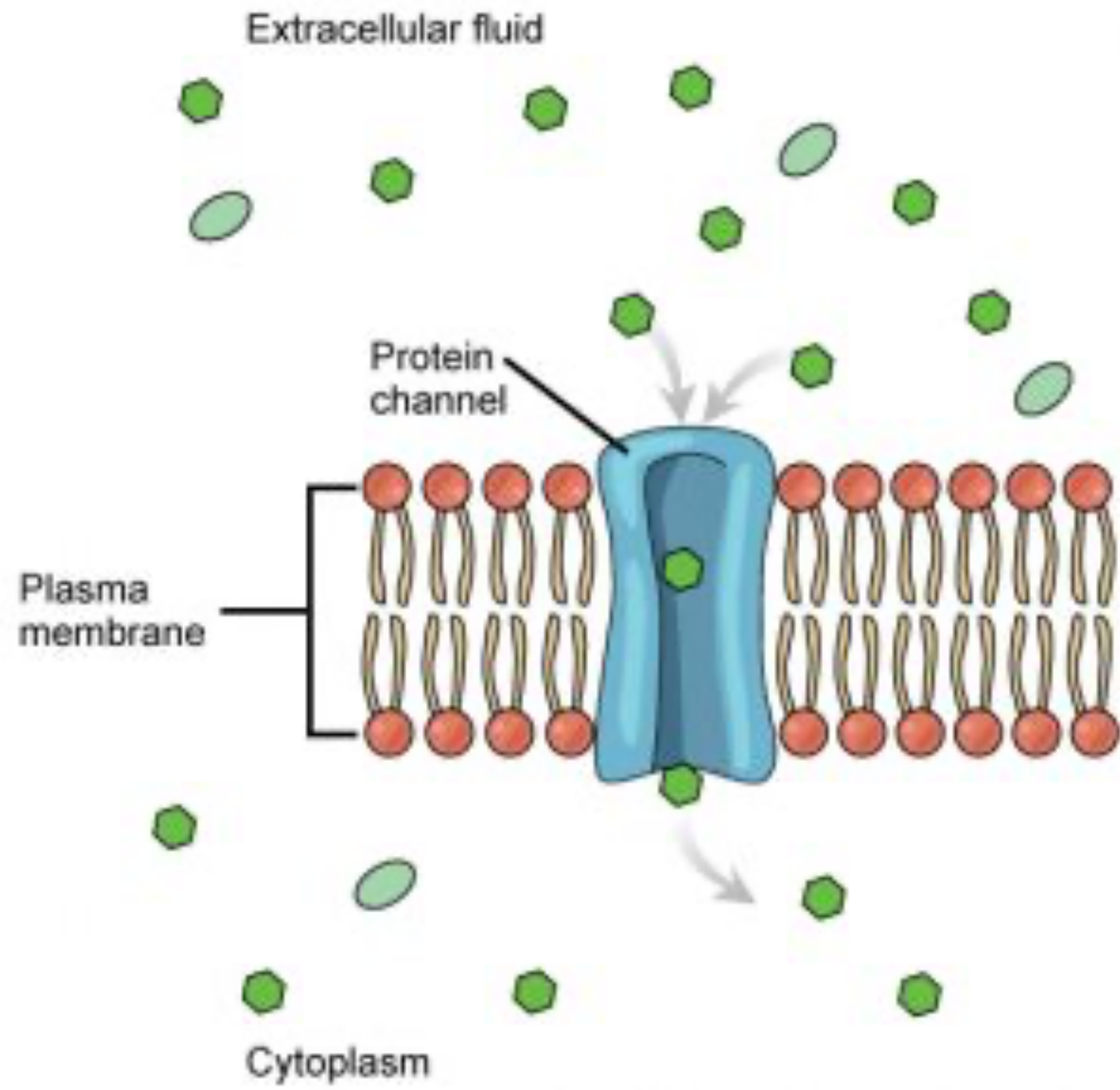
Dyfuzja przez błonę komórkową



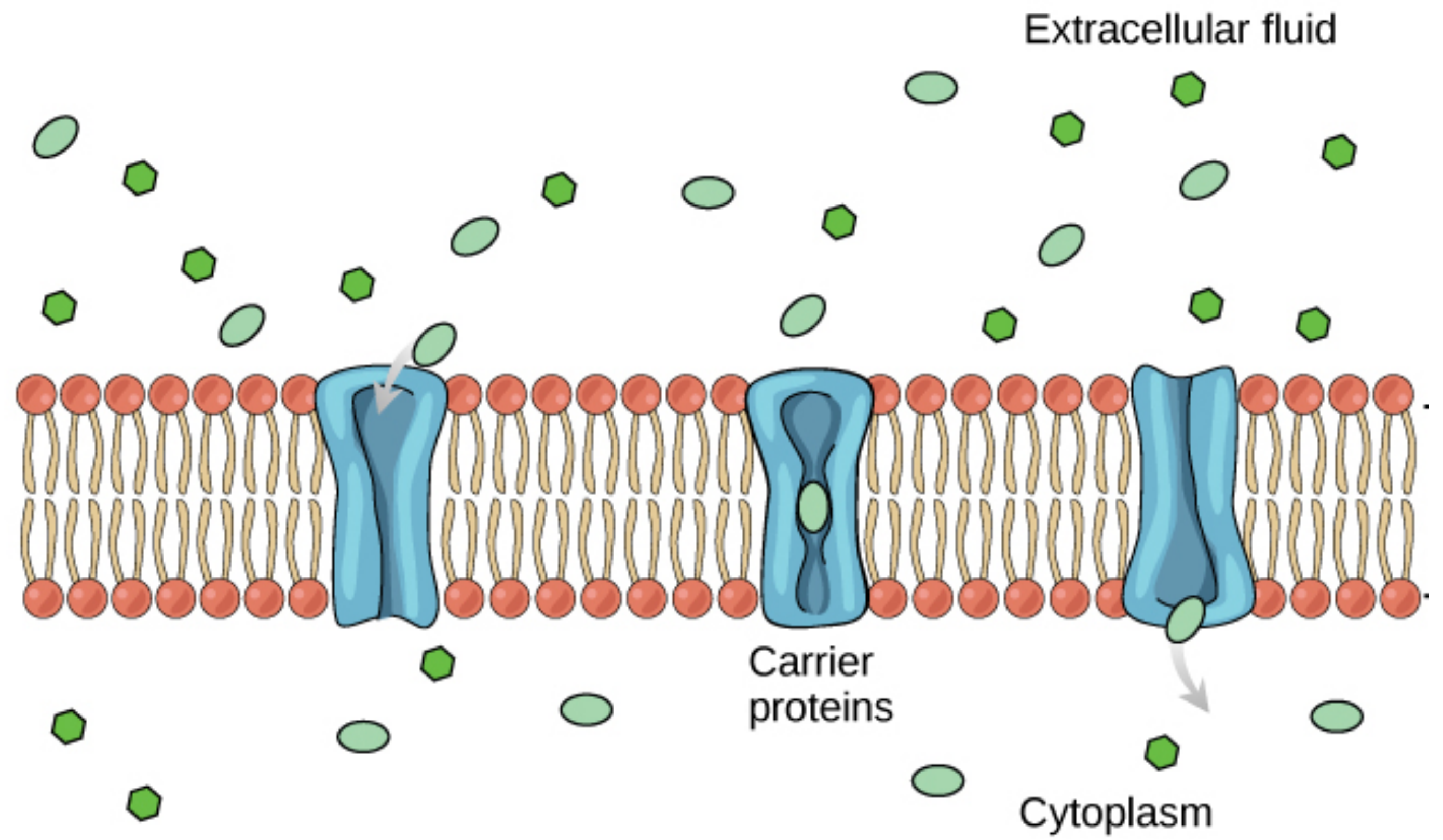
Mechanizmy transportu przez błony biologiczne



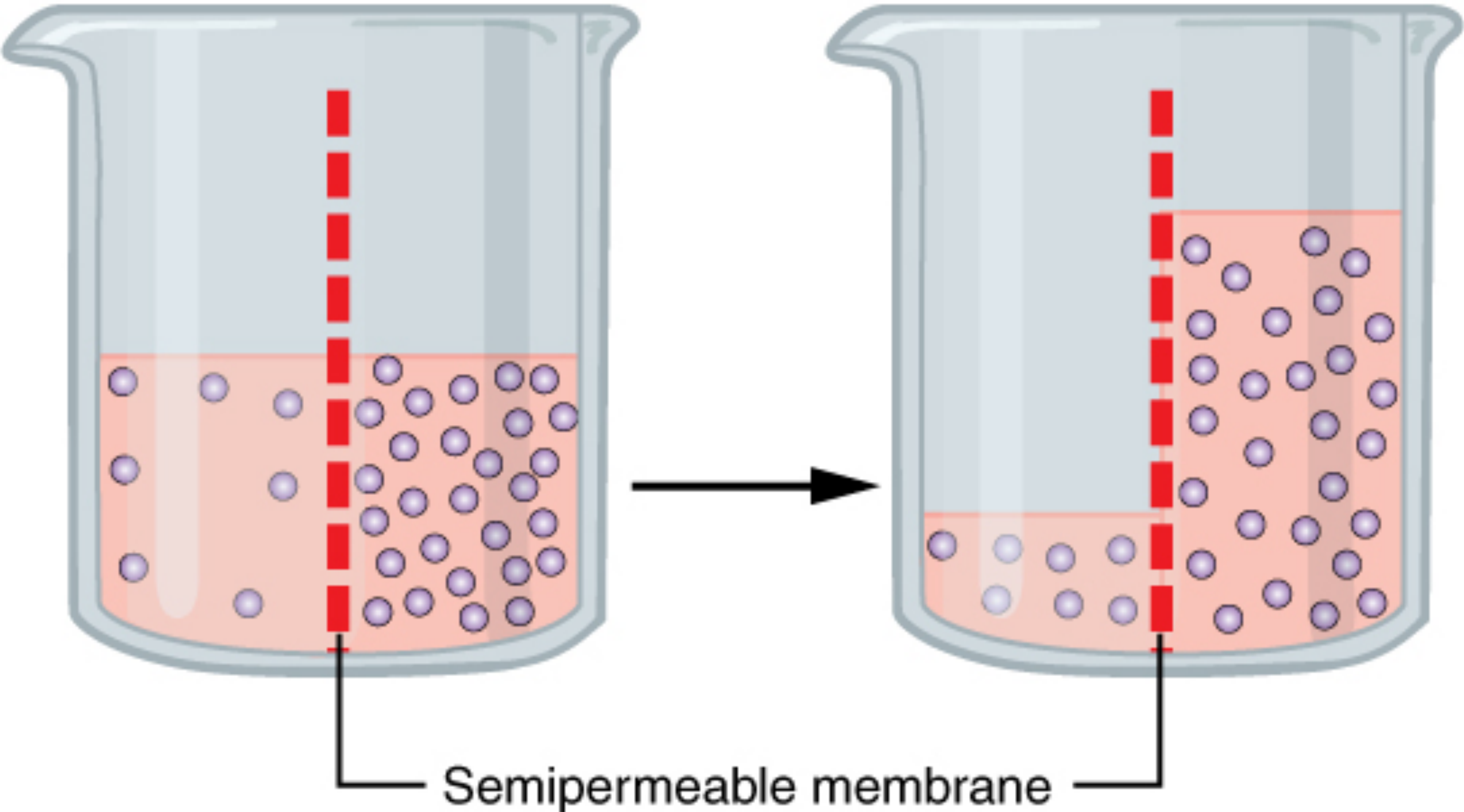
Kanał jonowy



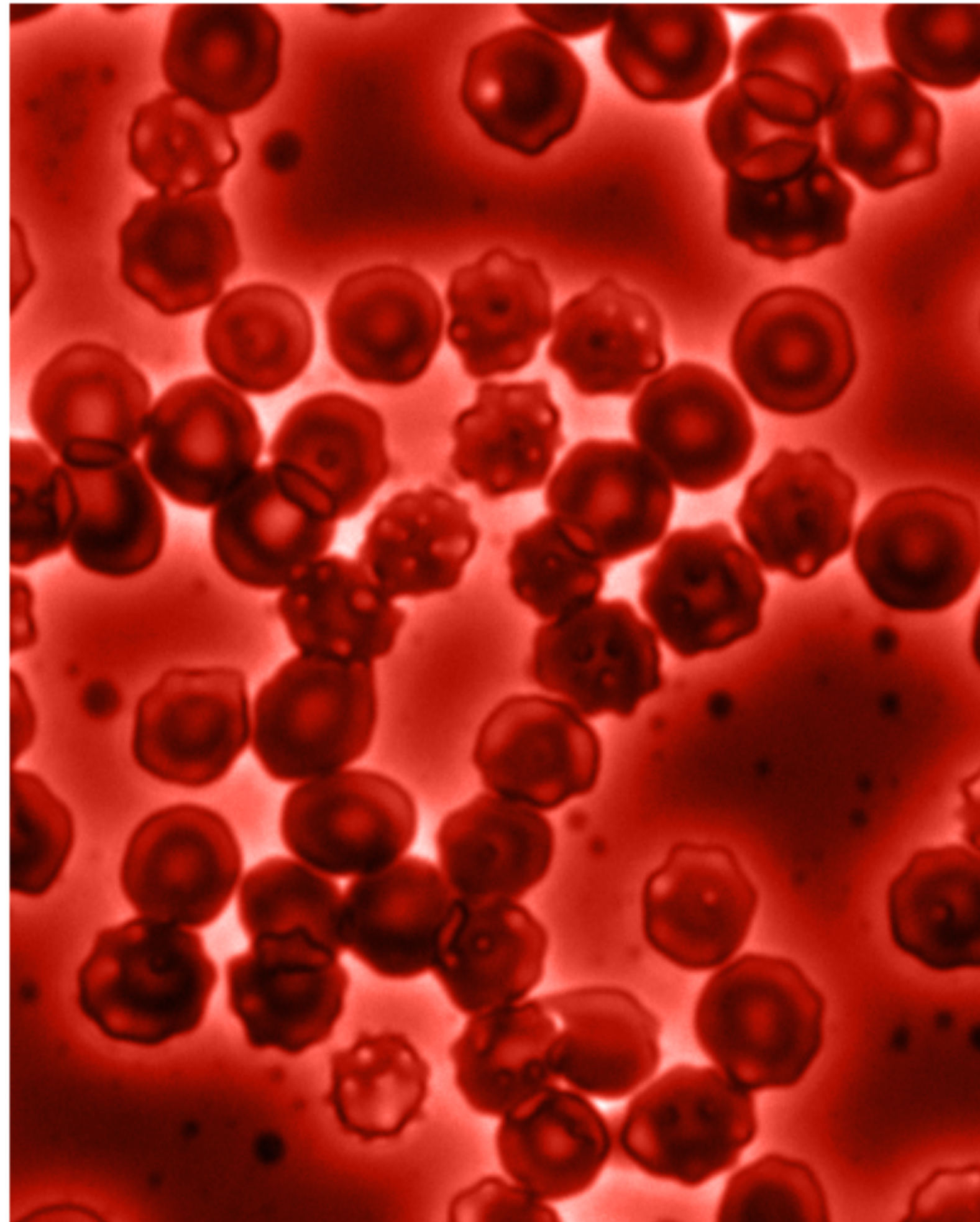
Przenośnik białkowy



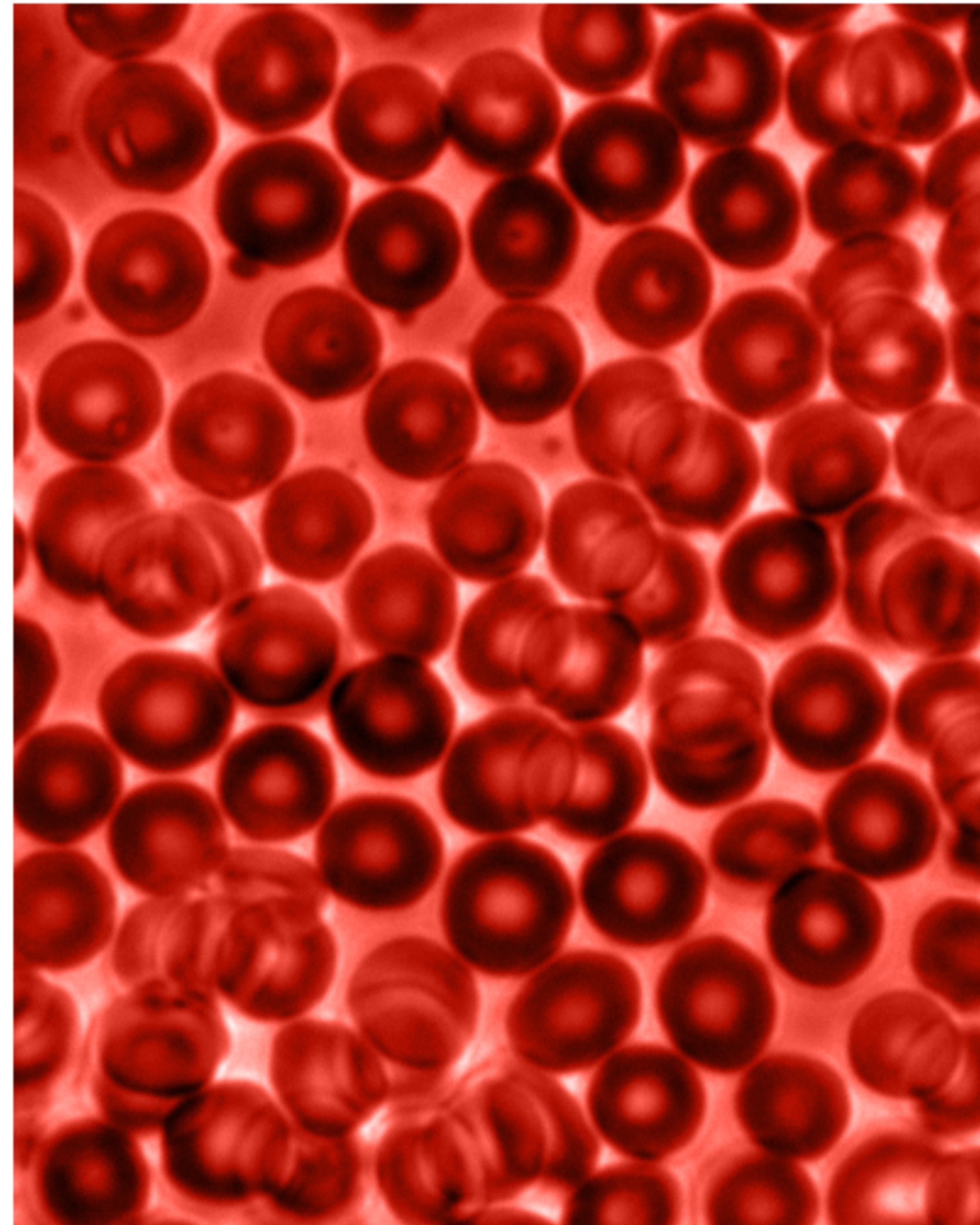
Osmoza



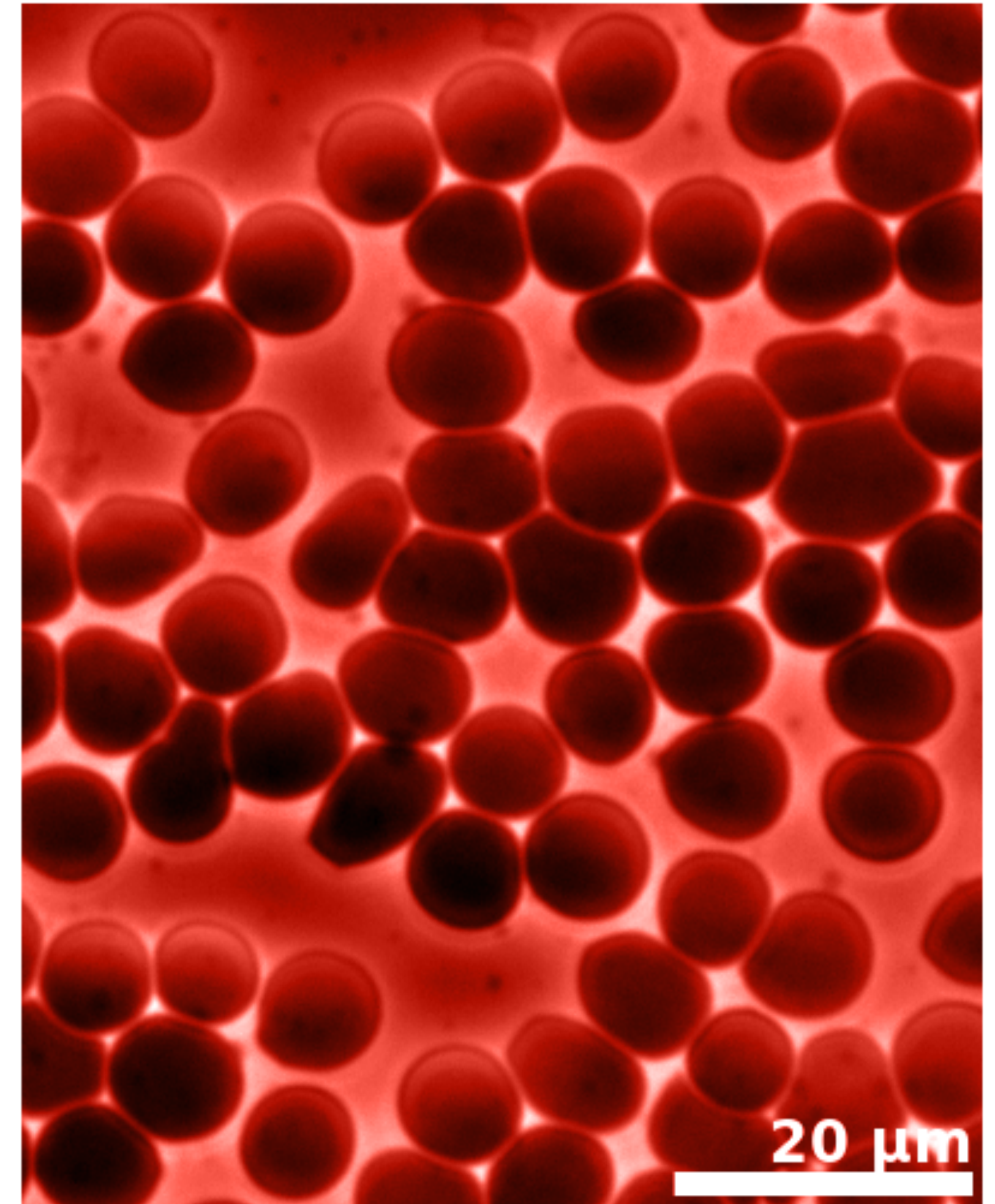
Zawiesina erytrocytów



Roztwór hipertoniczny

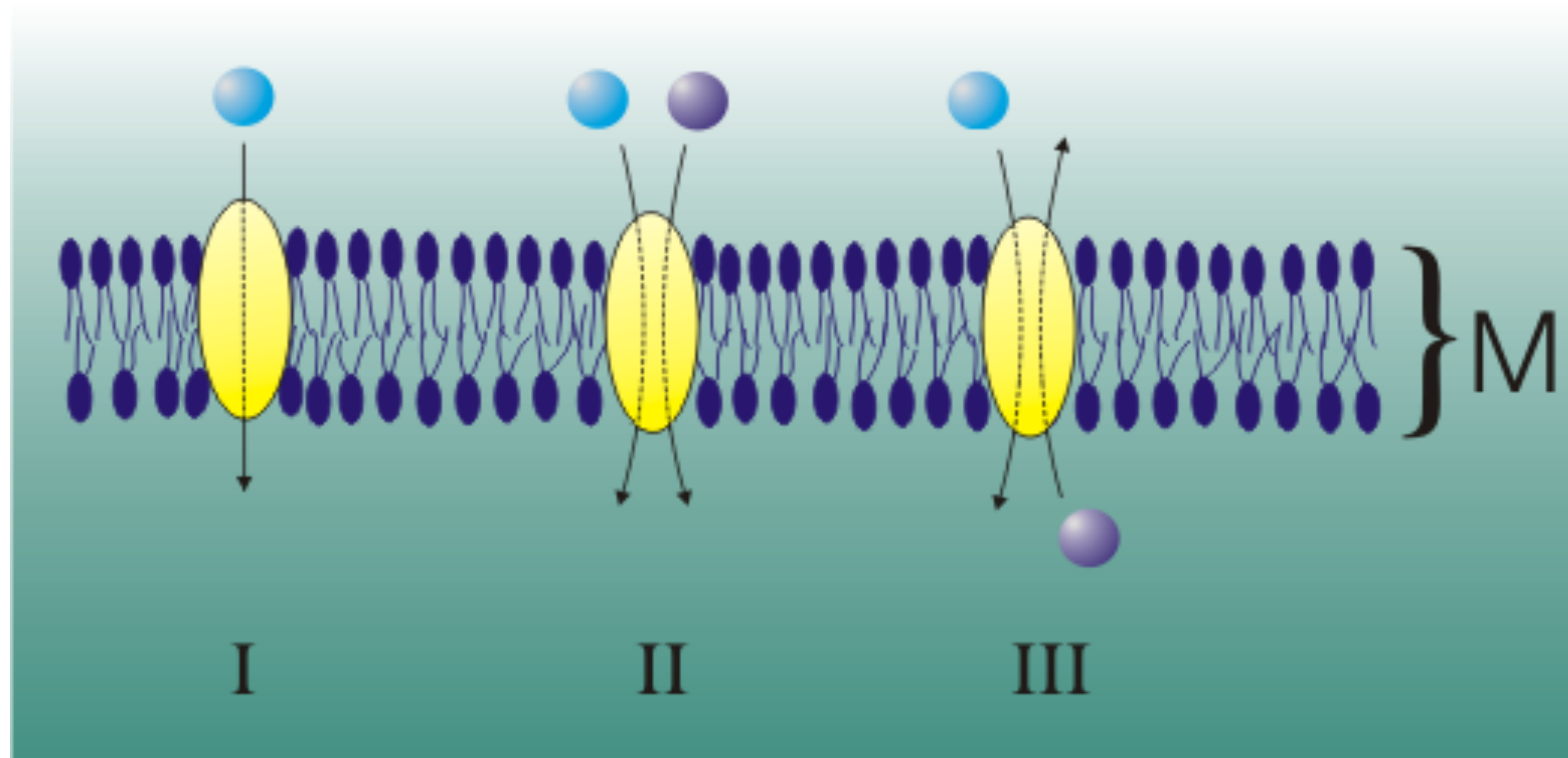


Roztwór izotoniczny



Roztwór hipotoniczny

Modele aktywnych receptorów błonowych



Uniport

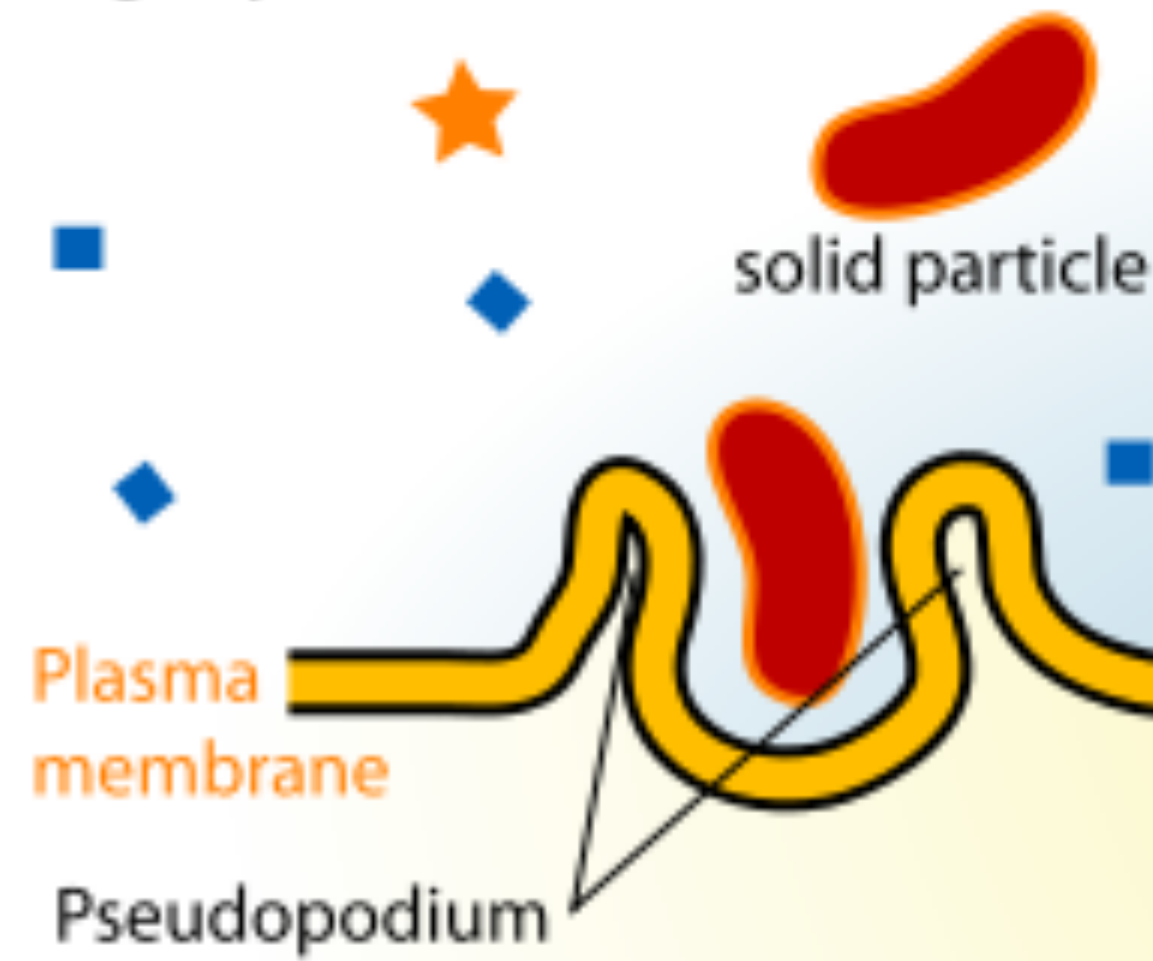
Symport

Antyport

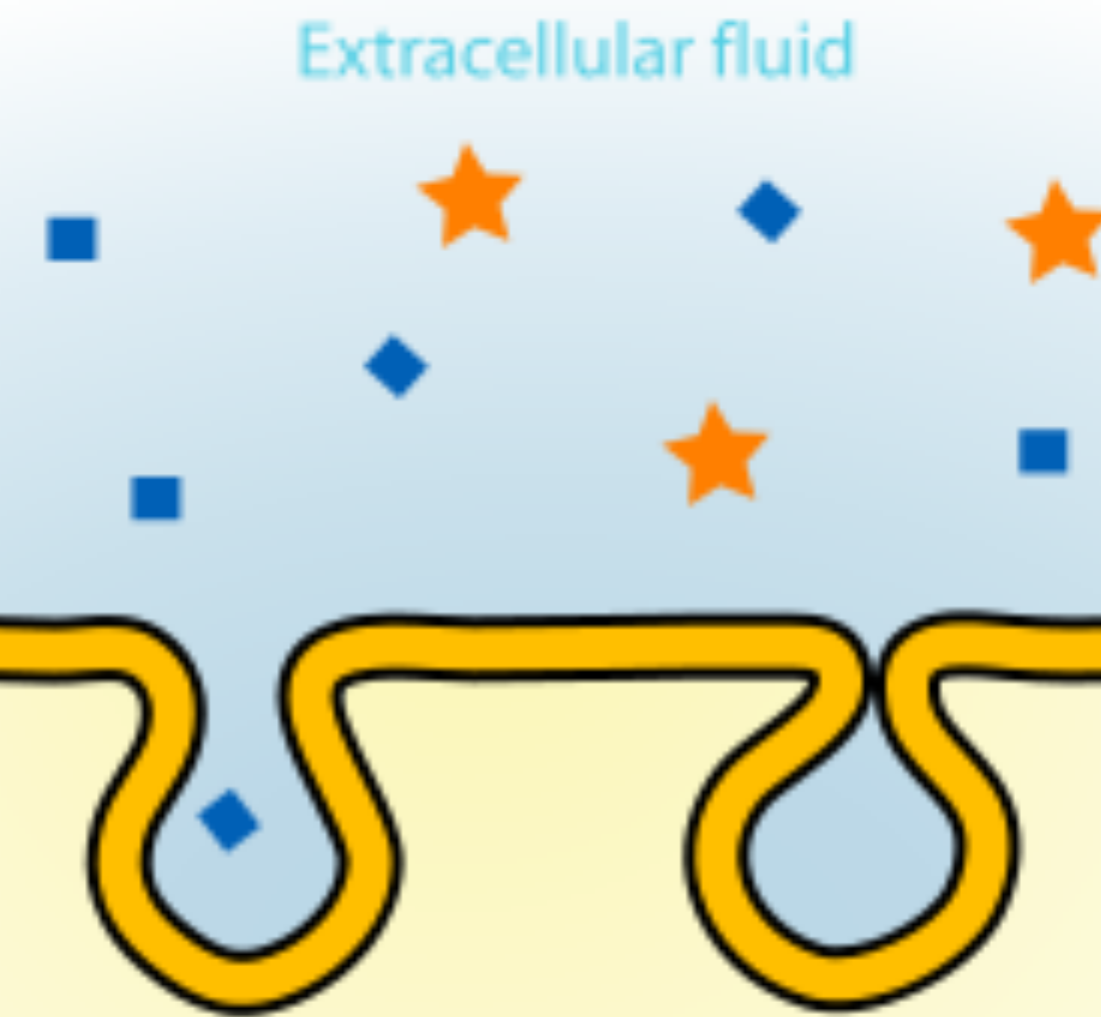
Endocytosis

Endocytosis

Phagocytosis



Pinocytosis



Receptor-mediated endocytosis

