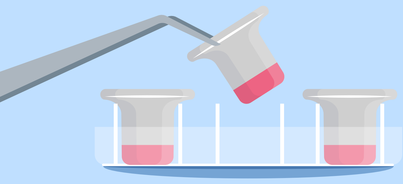
What is CELL MOTILITY?

Cellular motility is when cells move from place to place in response to chemical signals. Many cellular functions rely on that movement, including cell differentiation, wound repair, embryonic development, angiogenesis, and tumor metastasis.

Studying the various steps of cell motility requires the right lab tools.

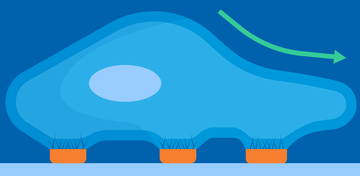


Pre-coated permeable supports such as Corning Matrigel invasion chambers or tumor invasion chambers with Matrigel matrix allows researchers to study cell invasion assays.

Falcon® or Transwell® permeable supports can also be self-coated with Corning® Matrigel® matrix for this application. Matrigel matrix is an extracellular matrix which serves as a reconstituted basement membrane *in vitro*.

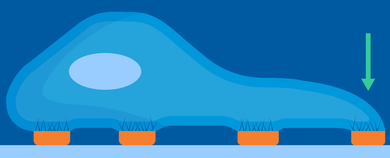
1 Protrusion of Leading Edge:

Actin filaments polymerize toward the cell membrane, triggering the motility process.



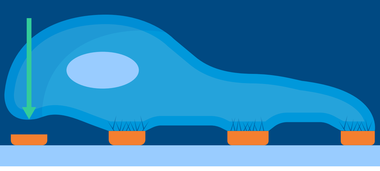
2 Adhesion of Leading Edge:

The protruding edge freshly binds elsewhere to the underlying substrate in the direction of the movement.



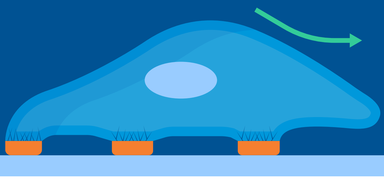
3 Deadhesion of Trailing Edge:

The rear of the membrane detaches from the substrate from the opposite direction of the movement.



4 Movement of Cell Body:

The cell body moves.



As cell motility research continues to expand into new areas, scientists can keep their projects on track with a well-stocked lab that includes Corning 3D cell culture tools, including Corning BioCoat™, Transwell, and Falcon permeable supports, and Corning Matrigel matrix.

Download application notes and protocols to learn more about the latest tools and techniques at:

www.corning.com/3D

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1. Ananthakrishnan R, Ehrlicher A. The Forces Behind Cell Movement. International Journal of Biological Sciences. Published online 2007:303-317. doi:10.7150/ijbs.3.303