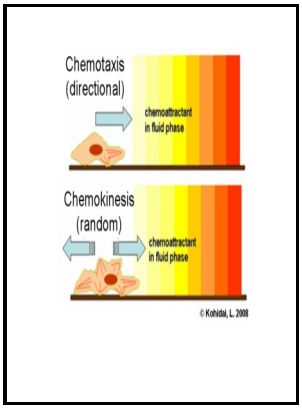
Computer-assisted analyses of cell locomotion and chemotaxis

CRC Press - Depolarization of the cell membrane causes inhibition of cell locomotion and pinocytosis inAcanthamoeba castellanii andAmoeba proteus



Description: -
-
Charlwood (Sussex) -- History.
Chemotaxis.
Cell Movement.
Automatic Data Processing -- methods.
Chemotaxis -- Data processing.
Cells -- Motility -- Data processing.Computer-assisted analyses of cell locomotion and chemotaxis
-Computer-assisted analyses of cell locomotion and chemotaxis
Notes: Includes bibliographies and index.
This edition was published in 1986

Filesize: 56.13 MB

Tags: #Motility #and #chemotaxis #of #Spirochaeta #aurantia: #computer

Shared, unique and redundant functions of three members of the class I myosins (MyoA, MyoB and MyoF) in motility and chemotaxis in Dictyostelium

In the front of the wave, a cell experiences a positive spatial gradient of cAMP concentration increasing in the direction of the aggregation center and an increasing temporal gradient of cAMP concentration increasing with time. Keck Dynamic Image Analysis Facility at The University of Iowa. In a spatial gradient of cAMP, each mutant was fully capable of assessing the direction of the gradient and moving in a directed fashion up it, but presumably because of the increased frequency of lateral pseudopod formation and turning, mutant cells did not stay on track, thus lowering the efficiency of chemotaxis.

Motility and chemotaxis of Spirochaeta aurantia: computer

These results demonstrate that deletion of myoA alone, myoB alone, myoF alone or myoA plus myoB did not block the establishment of cyclic behavior, streaming or aggregation. Sensory adaptation and deadaptation by Bacillus subtilis.

Motility and chemotaxis of Spirochaeta aurantia: computer

Cell behavior was then monitored using simultaneous light microscopy to visualize all cells, and laser scanning confocal microscopy to distinguish mutant cells. After 6 hours, cell images were continuously digitized at low magnification for a subsequent 6- to 9-hour period into a Macintosh computer at a rate of 6 frames per minute. Velocity surges began at roughly the onset of the front of a wave and ended just prior to the peak of the wave.

Shared, unique and redundant functions of three members of the class I myosins (MyoA, MyoB and MyoF) in motility and chemotaxis in Dictyostelium

The amebae moved in a novel chemotaxis chamber designed to provide stable linear attractant gradients in a thin agarose gel. Soll is also Professor

of Dentistry at the University of Iowa. In: Miller PL ed Aspects of cell motility.

Computer

Another mechanism, perhaps requiring one of the two remaining amoeboid class I myosins, MyoC and MyoD, might then account for the response to the later waves of cAMP. Relationship between proton motive force and motility in Spirochaeta aurantia. The cell mixture was then dispersed as a monolayer on a plastic tissue culture surface.

Shared, unique and redundant functions of three members of the class I myosins (MyoA, MyoB and MyoF) in motility and chemotaxis in Dictyostelium

One group of actin-based motor proteins implicated in the regulation of pseudopod formation during basic motile behavior is the family of myosin I proteins Albanesi, 1985; ; ; ; ; ; ;.

Related Books

- Talks with social scientists.
- Proceedings
- Pet show!
- Study of spirituality
- Biology