

Am Freitag, den 17. Juli 2009, 10:00 Uhr, spricht

Herr Dr. Paul W. Kriebel

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zum Thema:

VESICULAR TRAFFICKING IS REQUIRED FOR CHEMOATTRACTANT DELIVERY AT THE TRAILING EDGE OF RAPIDLY MIGRATING CELLS

Chemoattractant signaling induces the polarization and directed movement of cells secondary to the activation of multiple effector pathways. In addition, chemotactic signals can be amplified and relayed to proximal cells via the synthesis and secretion of additional chemoattractant. The mechanisms underlying such remarkable features remain ill-defined. We show that the asymmetric distribution of adenylyl cyclase (ACA) at the back of *Dictyostelium* cells, an essential determinant of their ability to migrate in a head-to-tail fashion, requires vesicular trafficking. This trafficking results in a local accumulation of intracellular vesicles and involves intact actin and microtubule networks, and *de novo* protein synthesis. We also show that migrating cells leave behind ACA-containing vesicles and suggest that these are involved in the formation of large head-to-tail arrays of cells. We propose that similar compartmentalization and shedding mechanisms exist in mammalian cells during embryogenesis, wound healing, neuron growth, and metastasis.

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Alle Interessenten sind zu diesem Vortrag herzlich eingeladen.

Graduiertenschule BuildMoNa

Nähere Informationen bei Herrn Professor Dr. Käs, Tel.: 32470.