University of Groningen

Analysis of Cell Movement by Simultaneous Quantification of Local Membrane Displacement and Fluorescent Intensities Using Quimp2

Bosgraaf, Leonard; van Haastert, Peter J. M.; Bretschneider, Till

Published in:
Cell Motility and the Cytoskeleton

DOI:
[10.1002/cm.20338](https://doi.org/10.1002/cm.20338)

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2009

[Link to publication in University of Groningen/UMCG research database](#)

Citation for published version (APA):

Bosgraaf, L., van Haastert, P. J. M., & Bretschneider, T. (2009). Analysis of Cell Movement by Simultaneous Quantification of Local Membrane Displacement and Fluorescent Intensities Using Quimp2. *Cell Motility and the Cytoskeleton*, 66(3), 156-165. <https://doi.org/10.1002/cm.20338>

Copyright

Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

Take-down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

SUPPLEMENTAL FILES

Table 1. Data files produced by Quimp2

Movie S1. Starved wild type *Dictyostelium* cells expressing red fluorescent myosin II and a green fluorescent F-actin label (the actin binding domain of LimE) were subjected to a global cAMP stimulation at time point 0. Images were taken at 4 s interval by confocal fluorescent microscopy. Images were analyzed with the Quimp2 package to quantify the rate of local extension and retraction.

Supplemental Table 1. Data files produced by Quimp2

<i>Dat file</i>	<i>Content of file</i>
.dat	x- and y coordinates of all nodes for each frame
.dat_TN	x- and y coordinates and tracking numbers of all nodes for each frame
.dat1	tracking parameters
.dat2	fluorescence values, coordinates and tracking numbers of all nodes for each frame; file used by macro
.dat3	perimeter length, enclosed cell area, mean fluorescent intensities averaged per frame; file used by macro
.dat4	data averaged over time (in use in Quimp1 but not in Quimp2).
.dat5	Node data; similar to dat2, but includes more, such as area loss/gain, belongs to pseudopod (ID number)
.dat6	data averaged per frame; similar to dat3, but includes gained area, lost area, speed of retracting nodes, mean intensity of extending/retracting pseudopodia etc
.dat7	fluorescence values, averaged over 10 section of the cell perimeter from rear to front.