

FROM SINGLE CELL INJECTION  
TO MATERIAL SCIENCES.

# SELECTED FluidFM® PUBLICATIONS

## MAIN PUBLICATION

- A. Meister, M. Gabi, P. Behr, P. Studer, J. Vörös, P. Niedermann, J. Bitterli, J. Polesel-Maris, M. Liley, H. Heinzelmann & T. Zambelli.  
FluidFM: Combining atomic force microscopy and nanofluidics in a universal liquid delivery system for single cell applications and beyond. (2009) Nano Letters, 9(6), 2501–2507. doi:10.1021/nl901384x

7+

Ø IMPACT FACTOR

19+

TOPICS

6+

FIELDS

11+

APPLICATIONS

## 2015

- L. Hirt, R.R. Gräter, T. Berthelot, R. Cornut, J. Vörös & T. Zambelli.  
Local surface modification via confined electrochemical deposition with FluidFM. RSC Adv., 5(103), 84517–84522. doi:10.1039/C5RA07239E
- J. Geerlings, E. Sarajlic, E.J.W. Berenschot, R.G.P. Sanders, M.H. Siekman, L. Abelmann & N.R. Tas.  
Electric field controlled nanoscale contactless deposition using a nanofluidic scanning probe. Applied Physics Letters, 107(12), 123109. doi:10.1063/1.4931354
- D. Ossola, M.-Y. Amarouch, P. Behr, J. Vörös, H. Abriel & T. Zambelli.  
Force-controlled patch clamp of beating cardiac cells. (2015) Nano letters, 15(3), 1743–50. doi:10.1021/nl504438z
- E. Potthoff, D. Ossola, T. Zambelli & J.A. Vorholt.  
Bacterial adhesion force quantification by fluidic force microscopy. (2015) Nanoscale, 7(9), 4070–4079. doi:10.1039/c4nr06495j
- B. R. Simona, L. Hirt, L. Demkó, T. Zambelli, J. Vörös, M. Ehrbar & V. Milleret.  
Density gradients at hydrogel interfaces for enhanced cell penetration. (2015) Biomater. Sci. doi:10.1039/C4BM00416G
- R. R. Gräter, B. Dielacher, L. Hirt, J. Vörös & T. Zambelli.  
Patterning gold nanoparticles in liquid environment with high ionic strength for local fabrication of up to 100 µm long metallic interconnections. (2015) Nanotechnology, 26(17), 175301. doi:10.1088/0957-4484/26/17/175301

## 2014

- O. Guillaume-Gentil, E. Potthoff, D. Ossola, C. M. Franz, T. Zambelli & J.A. Vorholt.  
Force-controlled manipulation of single cells: From AFM to FluidFM. (2014) Trends in Biotechnology. Elsevier Ltd. doi:10.1016/j.tibtech.2014.04.008
- H. Dermutz, R.R. Gräter, A.M. Truong, L. Demkó, J. Vörös & T. Zambelli.  
Local polymer replacement for neuron patterning and in situ neurite guidance. (2014) Langmuir : the ACS journal of surfaces and colloids, 30(23), 7037–46. doi:10.1021/la5012692
- E. Potthoff, D. Franco, V. D'Alessandro, C. Starck, V. Falk, T. Zambelli, J.A. Vorholt, D. Poulidakos & A. Ferrari.  
Toward a rational design of surface textures promoting endothelialization. (2014) Nano Letters, 14(2), 1069–1079. doi:10.1021/nl4047398

- O. Guillaume-Gentil, T. Zambelli & J. A. Vorholt.  
Isolation of single mammalian cells from adherent cultures by fluidic force microscopy. (2014) Lab on a chip, 14 (2), 402–14. doi:10.1039/c3lc51174j
- J. Geerlings, E. Sarajlic, J. W. Berenschot, R. G. P. Sanders, L. Abelmann & N. R. Tas.  
Electrospray deposition from AFM probes with nanoscale apertures. (2014) In MEMS 2014 (pp. 100–103). San Francisco: IEEE. Retrieved from [http://ieeexplore.ieee.org/xpls/abs\\_all.jsp?arnumber=6765583](http://ieeexplore.ieee.org/xpls/abs_all.jsp?arnumber=6765583)

## 2013

- O. Guillaume-Gentil, E. Potthoff, D. Ossola, P. Dörig, T. Zambelli & J. A. Vorholt.  
Force-controlled fluidic injection into single cell nuclei. (2013) Small, 9 (11), 1904–1907. doi:10.1002/smll.201202276
- P. Schön, J. Geerlings, N. Tas & E. Sarajlic.  
AFM Cantilever with in Situ Renewable Mercury Microelectrode. (2013) Analytical chemistry, 85 (19), 8937–42. doi:10.1021/ac400521p
- P. Stiefel, T. Zambelli & J. A. Vorholt.  
Isolation of optically targeted single bacteria by application of fluidic force microscopy to aerobic anoxygenic phototrophs from the phyllosphere. (2013) Applied and Environmental Microbiology, 79 (16), 4895–4905. doi:10.1128/AEM.01087-13
- P. Dörig, D. Ossola, A. M. Truong, M. Graf, F. Stauffer, J. Vörös & T. Zambelli.  
Exchangeable colloidal AFM probes for the quantification of irreversible and long-term interactions. (2013) Biophysical Journal, 105 (2), 463–472. doi:10.1016/j.bpj.2013.06.002
- R. R. Grüter, J. Vörös & T. Zambelli.  
FluidFM as a lithography tool in liquid: spatially controlled deposition of fluorescent nanoparticles. (2013) Nanoscale, 5 (3), 1097–104. doi:10.1039/c2nr33214k

## 2012

- E. Potthoff, O. Guillaume-Gentil, D. Ossola, J. Polesel-Maris, S. LeibundGut-Landmann, T. Zambelli & J. A. Vorholt.  
Rapid and Serial Quantification of Adhesion Forces of Yeast and Mammalian Cells. (2012) PLoS ONE, 7 (12), e52712. doi:10.1371/journal.pone.0052712
- P. Stiefel, F. I. Schmidt, P. Dörig, P. Behr, T. Zambelli, J. A. Vorholt & J. Mercer.  
Cooperative vaccinia infection demonstrated at the single-cell level using FluidFM. (2012) Nano Letters, 12 (8), 4219–4227. doi:10.1021/nl3018109

## 2010

- P. Dörig, P. Stiefel, P. Behr, E. Sarajlic, D. Bijl, M. Gabi, J. Vörös, J. A. Vorholt & T. Zambelli.  
Force-controlled spatial manipulation of viable mammalian cells and micro-organisms by means of FluidFM technology. (2010) Applied Physics Letters, 97 (2), 023701 1–3. doi:10.1063/1.3462979

## 2009

- A. Meister, J. Polesel-Maris, P. Niedermann, J. Przybylska, P. Studer, M. Gabi, P. Behr, T. Zambelli, M. Liley, J. Vörös & H. Heinzelmann.  
Nanoscale dispensing in liquid environment of streptavidin on a biotin-functionalized surface using hollow atomic force microscopy probes. (2009) Microelectronic Engineering, 86 (4-6), 1481–1484. doi:10.1016/j.mee.2008.10.025
- A. Meister, M. Gabi, P. Behr, P. Studer, J. Vörös, P. Niedermann, J. Bitterli, J. Polesel-Maris, M. Liley, H. Heinzelmann & T. Zambelli.  
FluidFM: Combining atomic force microscopy and nanofluidics in a universal liquid delivery system for single cell applications and beyond. (2009) Nano Letters, 9 (6), 2501–2507. doi:10.1021/nl901384x

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CYTOSURGE AG, SÄGEREISTRASSE 25, 8152 GLATTBRUGG, SWITZERLAND  
PHONE +41 44 533 14 50, FAX +41 44 533 14 59, [WWW.CYTOSURGE.COM](http://WWW.CYTOSURGE.COM)

