



SINGLE CELL INJECTION

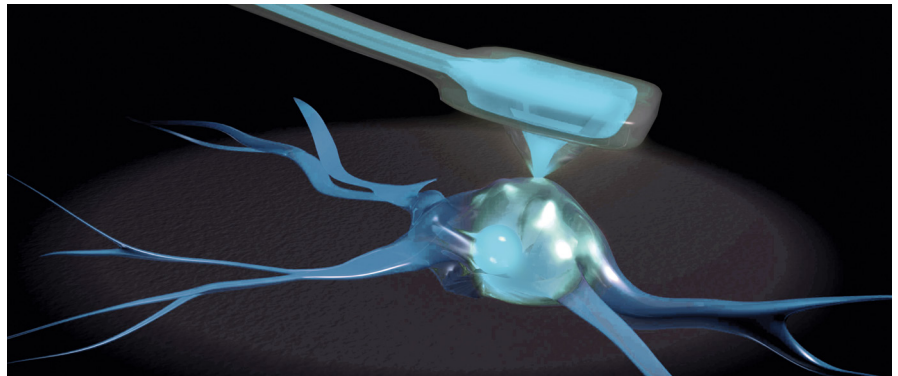
With the world's smallest syringe, even single cell injection is easy. Change a single cell within a culture and study the cascade effect on its surroundings. In life sciences, biology and medicine, FluidFM injection is a strong addition to your experimental portfolio.

FluidFM® GIVES YOU THE EDGE.

Single cell injection with FluidFM is reliable and fast. The inherent force feedback protects both your cells and the FluidFM probes during the injection. Thus injections are successful and cells survive the operation unharmed. A single probe can inject hundreds of cells per day in an automated process. Simply click on a cell and watch the injection under the microscope. This provides high throughput and makes injection both easy and repeatable.

THE PROCEDURE IN BRIEF.

The user selects a cell by clicking it, based on fluorescent, morphological, or mechanical markers. While monitoring the force, the FluidFM probe approaches the cell and penetrates



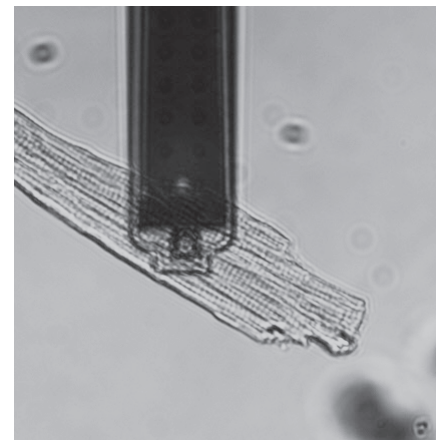
PRECISE, RELIABLE, FAST.

Gently penetrate the cell membrane and inject fL volumes. *Courtesy of Behr P.*

its membrane. The substance of choice is then injected via a short pressure pulse, and the FluidFM probe retracts again.

SELECTED PUBLICATIONS

- 2013. O. Guillaume-Gentil, E. Potthoff, D. Ossola, P. Dörig, T. Zambelli & J. A. Vorholt. [Force-controlled fluidic injection into single cell nuclei](#). *Small*, 9(11), 1904–1907. doi:10.1002/smll.201202276
- 2009. 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](#). *Nano Letters*, 9(6), 2501–2507. doi:10.1021/nl901384x



HARD TO INJECT.

A beating cardiomyocyte is injected via FluidFM. *Courtesy of Ossola D., ETH Zurich*

fL
VOLUMES

100%
INJECTION SUCCESS

100%
VIABLE CELLS

POINT & CLICK
SIMPLE OPERATION

CONTACT US.

We offer complete support for our customers and distributors. Please visit the Cytosurge Help Center in order to access the [FluidFM® user community](#). www.fluidfm.com

CYTOSURGE®

CYTOSURGE AG, SÄGEREISTRASSE 25, 8152 GLATTBRUGG, SWITZERLAND
PHONE +41 44 533 14 50, FAX +41 44 533 14 59, WWW.CYTOSURGE.COM

