Explanation of Supplementary Videos

Sup. Video 1:

Constant flow microinjection with manual injection capillary movement in all three axes. A high injection volume is observed at time point 00:15, while moderate examples are shown at 00:20 and 00:30. Upon contact between cell and capillary, minute capillary displacement was occasionally induced by slight tapping on the table supporting the microscope. This can assist in cell penetration and highly depends on the capillary opening, created by deliberate breakage at the beginning of an experiment.

Sup. Video 2:

Cell viability in experiments with longer duration, up to 44 h. Times indicated are relative to the moment of injection; the time format used is h:min. Identical settings to the 12-hour experiments were used, including recording differential interference contrast (DIC), three confocal channels, and three wide-field fluorescence channels at 20-min intervals. One cell was co-injected with GS-eGFP and AF647-labeled dextran (dexAF647) as an injection marker. At three time points, the microscope stage was moved to prevent the cell from moving outside the recorded perimeter. The left-side channel represents dexAF647 wide-field fluorescence, whereas the right-side channel represents DIC overlay.