

SAME-CELL. CAUSAL. PREDICTIVE.

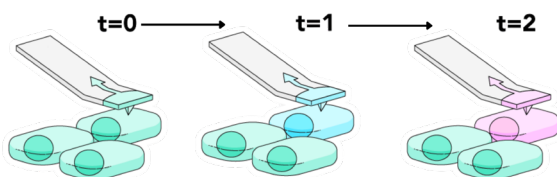
Same-Cell Molecular Profiling for Causal Insights

Biology has long relied on snapshots: measuring different cells at different moments, then inferring causation from correlation. FluidFM® technology keeps cells viable through measurement, perturbation, or precise gene editing, so cause and effect can be followed in the same living cell. **This is Same-Cell Biology.**

Live-cell sequencing (Live-seq) draws a minute cytoplasmic biopsy for RNA sequencing while the cell survives, letting researchers return to that same cell later and uncover causal insight by linking molecular state to what happens next.

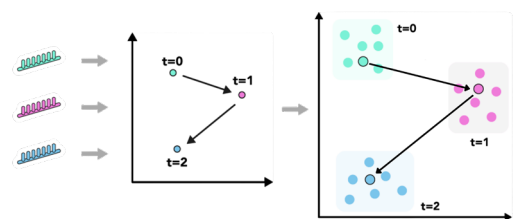
Traditional sequencing ends in cell lysis and a terminal readout. **Live-seq turns that frozen moment into a movie: revealing how, and why, the same living cell changes over time.**

Temporal Profiling, True Causality



Track same-cell gene expression changes across hours or days and link interventions directly to same cellular response.

Mechanistic Resolution, Relevant Disease Insights



Understand pathways, not just end-points, and discover targets that matter in real disease contexts.

From Single-Cell to Same-Cell, generating deeper biological evidence to strengthen decisions in target validation, biomarker discovery, and therapeutic development.

Key publications



NEW: Fluidic force microscopy, Zambelli et al. Nature Reviews Methods Primers (2026)



Live-seq enables temporal transcriptomic recording of single cells, Chen et al. Nature (2022)



Tunable Single-Cell Extraction for Molecular Analysis, Guillaume-Gentil et al. Cell (2016)

Seamless Integration of Cytosurge Hardware and Lexogen Chemistry

1. Select & Biopsy (FluidFM® OMNIUM)



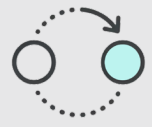
2. Library preparation (Lexogen LUTHOR HD)



3. Monitor & Perturb



4. Re-sample

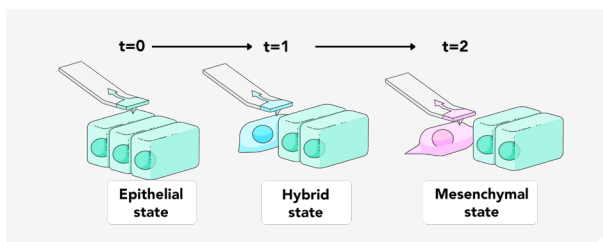


1. Collect a cytoplasmic biopsy (sub-picogram RNA) with cell viability of 85-95%.
2. Prepare sequencing libraries from minute biopsies using the proprietary THOR amplification, reliably detecting thousands of genes from sub-picogram inputs.
3. Track your cell's morphology, migration, or division, or treat it with a drug, stimulus, or co-culture - all while the cell continues to grow in the incubator.
4. Biopsy the same cell hours or days later to capture its transcriptomic response over time.

Endless Use Cases

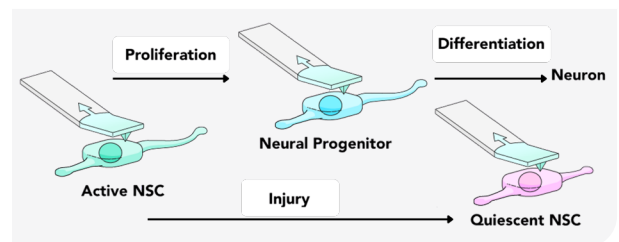
Track Epithelial-to-Mesenchymal Transition (EMT) while it happens

Gain causal insights into gene expression patterns that initiate cancer metastasis.



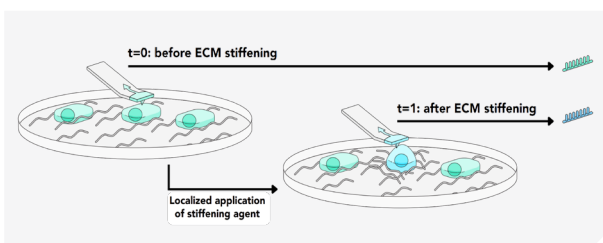
Track decision points for neural fate commitment

Establish causal molecular signatures in neural progenitor cells that drive neural fate.



Identify pre-existing resistance signatures imprinted by the microenvironment

Achieve causal insights of drug response before the drug is even applied.



Ready to see what happens next in the same cell?

Two ways to get there: in your own lab with FluidFM® OMNIUM, or as a managed service to reveal causal insights.

Contact us at info@cytosurge.com
www.cytosurge.com

"Live-seq enables us to gather data that would be impossible to obtain otherwise, providing insights that can then guide more high-throughput approaches."

- Dr. Leanne de Koning, Project Manager of the Single Cell Initiative, Institut Curie, France

Live-seq in Practice.
Webinar Replay &
Slides: "Cellular Time
Travel: Determine Today's
Transcriptome, Study
Tomorrow's Response."

