



MOSgen™ PLATFORM 3D BIOLOGY BUILT FOR HTS

# 3D biology with a 2D workflow.

MOSgen is the first benchtop platform built for high-throughput 3D biology. It generates uniform, permeable cell-matrix microdroplets at industrial scale, ready for any standard assay.

SCALE. — STANDARDIZED. — SIMPLE.



MOSgen™ BENCHTOP INSTRUMENT

SCALE

**70k** MOS / lane

≈ 1,750 wells at 40 MOS/well. In 15 minutes, up to 4 lanes in parallel.

STANDARDIZED

**< 3** % CV diameter

Image-driven PID size control. **Uniform from droplet 1 to 70,000.**

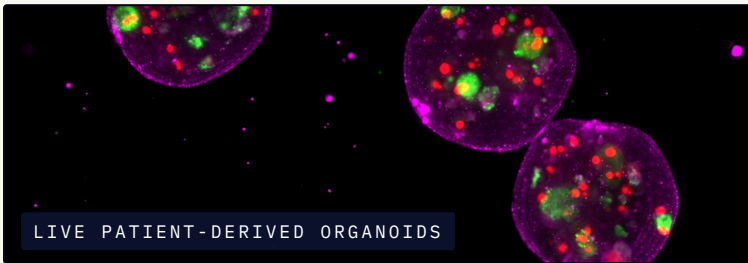
SIMPLE

**Drop-in** workflow

Pipettable like a liquid. Drops into 96/384/1536 plates and **your existing pipelines.**

## What are MOS®?

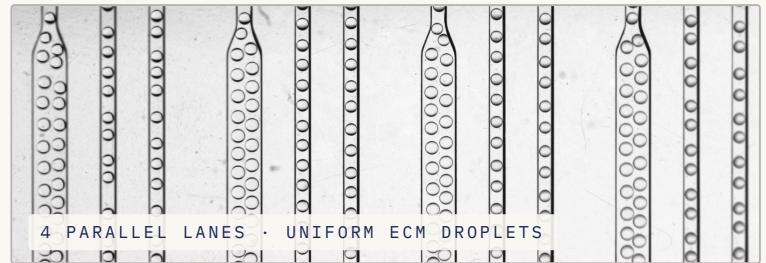
Each MOS is a **7 nL, ~240 µm ECM-integrated microdroplet**. Permeable to stains, antibodies, and T-cells, with a high surface-to-volume ratio that prevents necrotic cores. Generate **rapid 3D cultures** of iPSC/stem-cell-derived organoids, clonal lines, patient organoids, or primary tissue. **Starting densities from 1 to 400 cells per MOS.**



LIVE PATIENT-DERIVED ORGANIDS

## What is MOSgen™?

The **automated benchtop engine** that produces MOS at **industrial scale**. Image-driven PID control holds **< 3% CV** across 4 parallel lanes, with single-use consumables and zero dead volume. Supporting virtually **any cell type** and **various matrix types** across a large range of sample input volumes. **Under \$1 per well** at 40 MOS/well (1.9¢ per MOS).



4 PARALLEL LANES • UNIFORM ECM DROPLETS

### Test any modality.

Small molecules, **ADCs, TCEs, TILs**, and other advanced therapeutics. Run co-culture studies with exogenous or even **endogenous native T cells**.

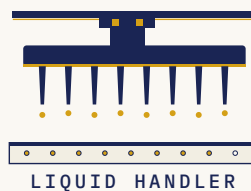
### Now in Early Access.

**Paid evaluation units** placing now with HTS cores, pharma R&D, and translational research programs. Benchtop instrument + single-use consumable kits.

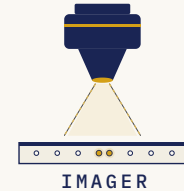
DROP-IN WORKFLOW

## Plug into the instruments you already own.

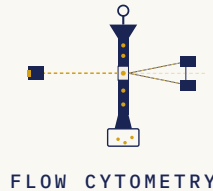
MOS handle like a liquid. Standard pipettes, multi-channel heads, and liquid handlers dispense MOS into any plate format. Downstream: high-content imaging, flow cytometry, plate readers, and sequencers — **no new instrumentation required.**



LIQUID HANDLER



IMAGER

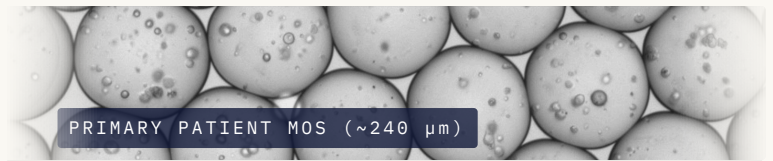


FLOW CYTOMETRY



COMPATIBLE WITH SOLID AND LIQUID SAMPLES

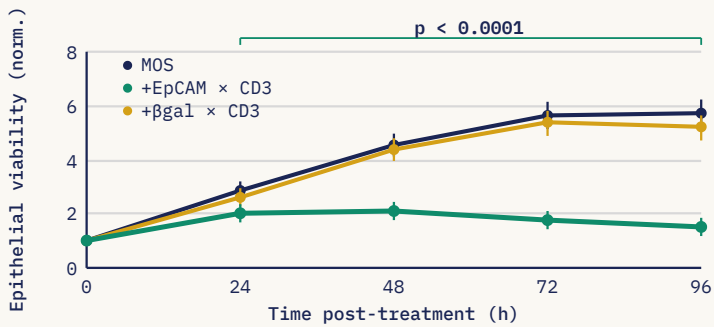
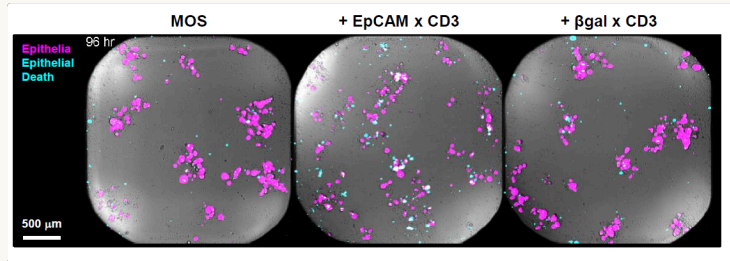
# Demonstrated across treatment modalities.



**CASE A · T-CELL ENGAGERS**

## Selective BiTE-mediated tumor killing in NSCLC.

Longitudinal imaging quantifies T-cell mediated killing in a **primary patient sample** treated with an **EpCAM x CD3 bispecific** vs. non-targeting  $\beta$ gal x CD3 control. Well-level images from a **384-well plate, 40 MOS per well**, with epithelial growth (magenta) and epithelial death (cyan) tracked for 96 hr.



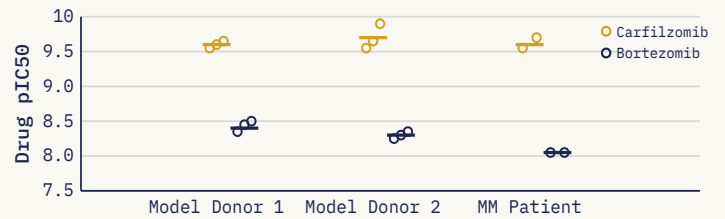
Patient's own T cells respond on-target in NSCLC MOS – tumor biology and functional immune compartment preserved.

**CASE B · SMALL MOLECULES**

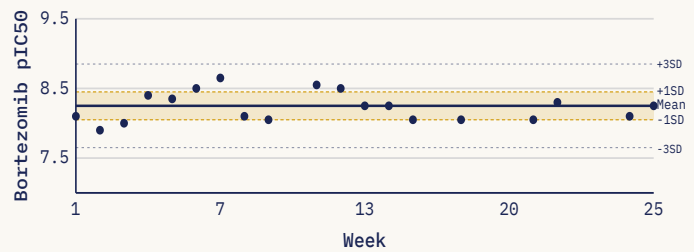
## Validated MM assay, reliable over months.

Replicate end-to-end runs across two MM models and a patient sample reproduce IC50s within **MSR < 2.5**. A **25-week** Bortezomib stability study holds **MSR = 4.3** – same answer every run, same answer every month.

**VALIDATED ASSAY · MSR < 2.5**



**25-WEEK STABILITY · MSR = 4.3**



Pharma-grade reproducibility – consistent IC50 every replicate, same takeaway across 25 weeks. HTS-ready assay reliability.

## Applications

Where MOSgen-enabled 3D biology delivers immediate value.

**HTS & drug screening at scale**

Primary and secondary screens in 96/384/1536 plates.

**Immuno-oncology**

BiTEs, ADCs, TILs, advanced therapeutics, and co-cultures.

**Functional assays**

Readouts at single MOS-level resolution, providing replicate power per well.

**Translational research**

Predict *ex vivo* drug responses that map to patient outcomes.

## Access to 3D biology is easier than ever

MOSgen enables assay-ready 3D biology in minutes – simple, flexible, reproducible, at scale.

**Step 01**  
**Bring any sample.**  
Patient, iPSC, organoid, spheroid, clonal line, primary tissue, PDXO.

**Step 02**  
**Push-button MOSgen.**  
280k MOS in 15 minutes. < 3% CV across 4 lanes.

**Step 03**  
**Drop into your assay.**  
Your modalities, your labware, your reagents, your choice.

**Step 04**  
**Your usual readouts.**  
Imaging, flow, viability – at single-MOS resolution.