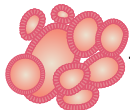


**a**

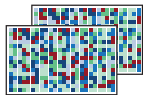
## Experimental platform

Patient derived cancer organoids



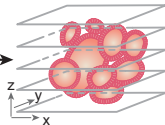
+ Sequencing  
+ Expression

High-throughput drug perturbation



Libraries with 464 and  
63 compounds à 5 conc.

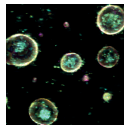
Confocal imaging



3 channel-imaging  
(DNA, actin, permeability)

## Image analysis

Maximum contrast projection



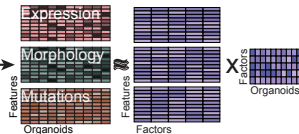
Processing of 6 Mio images,  
single organoid resolution

Segmentation



## Data integration

Multi-omics factor analysis  
(MOFA)



Decomposition of multi-view data,  
biological interpretation