

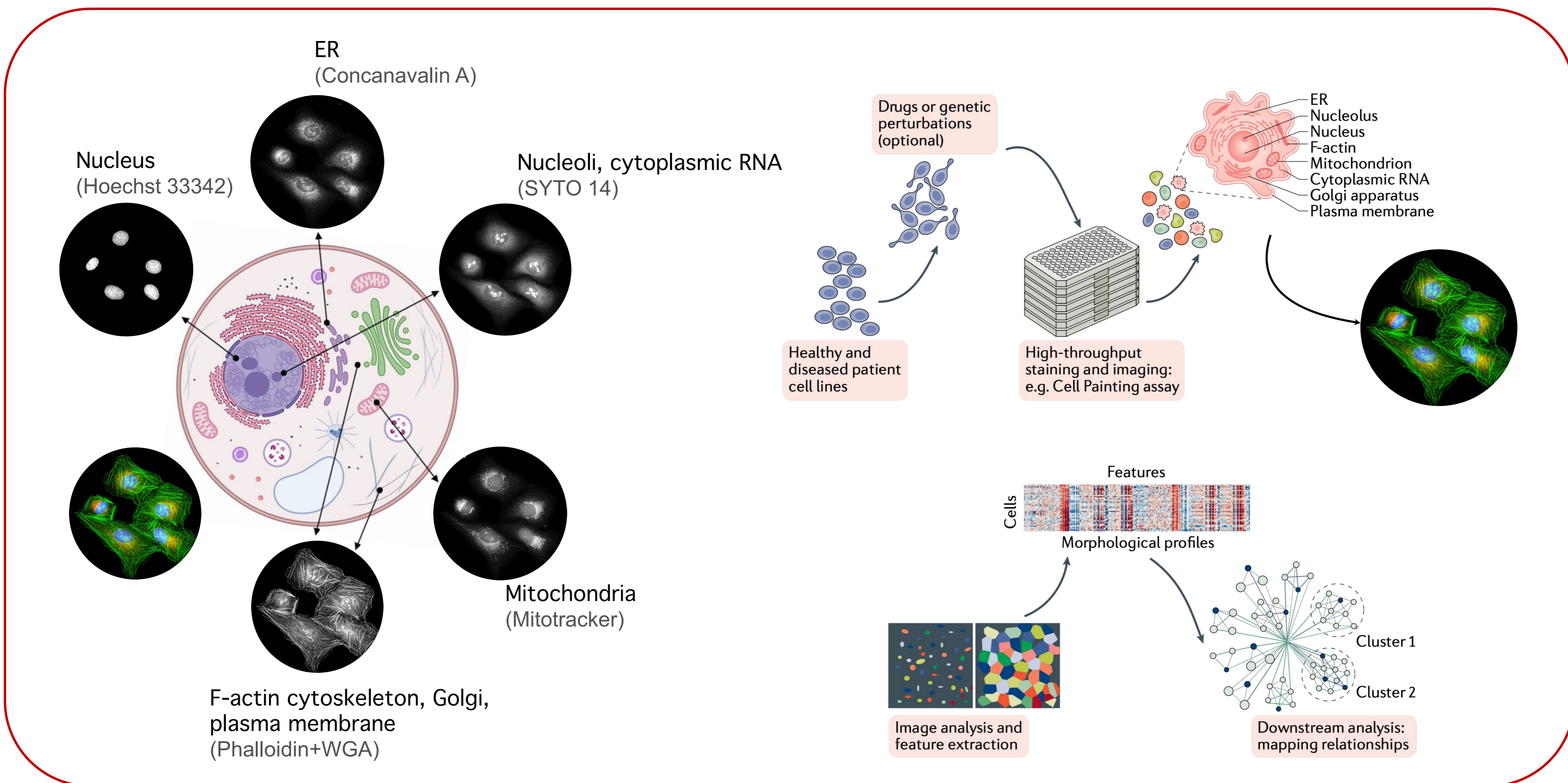


# Morphological profiling as a powerful approach for drug repurposing and disease modelling

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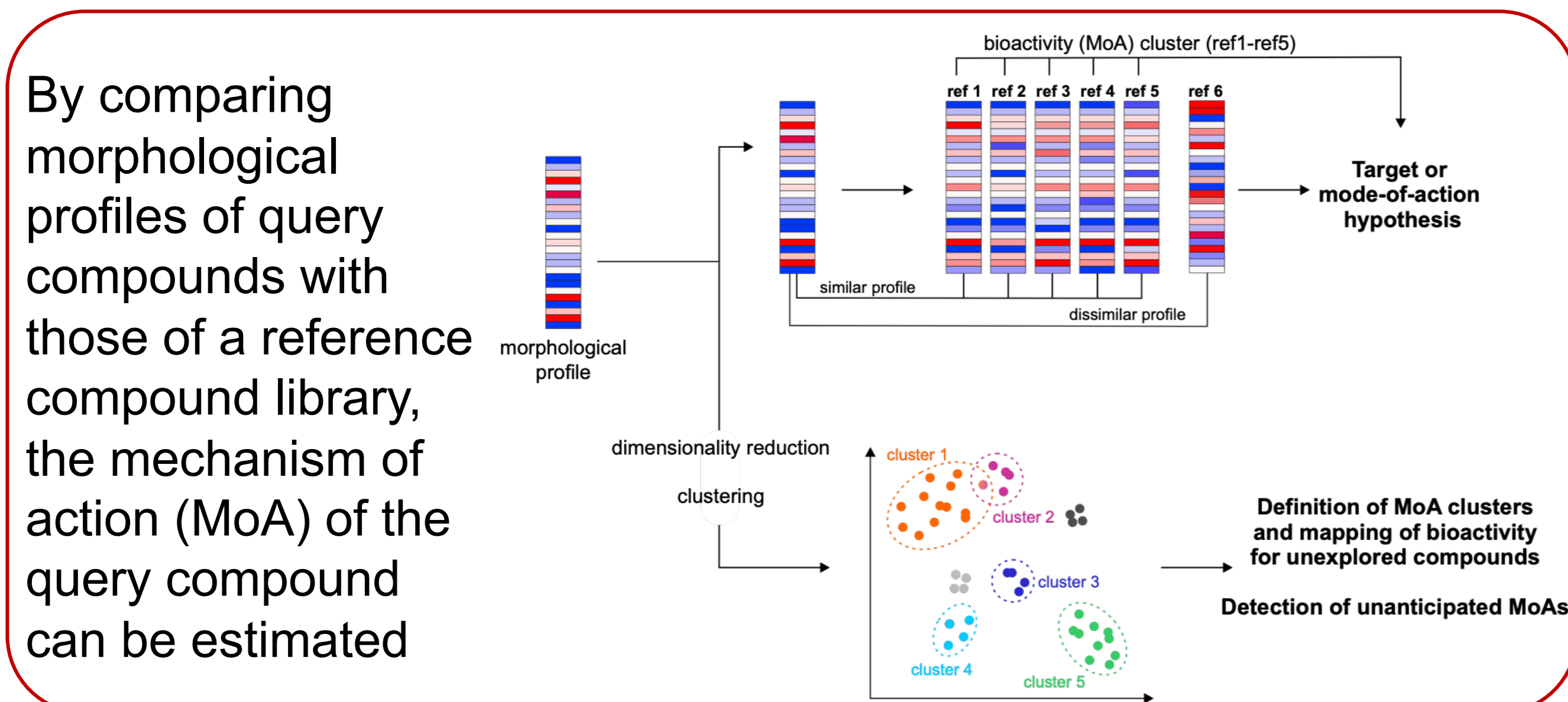
## Untargeted morphological profiling



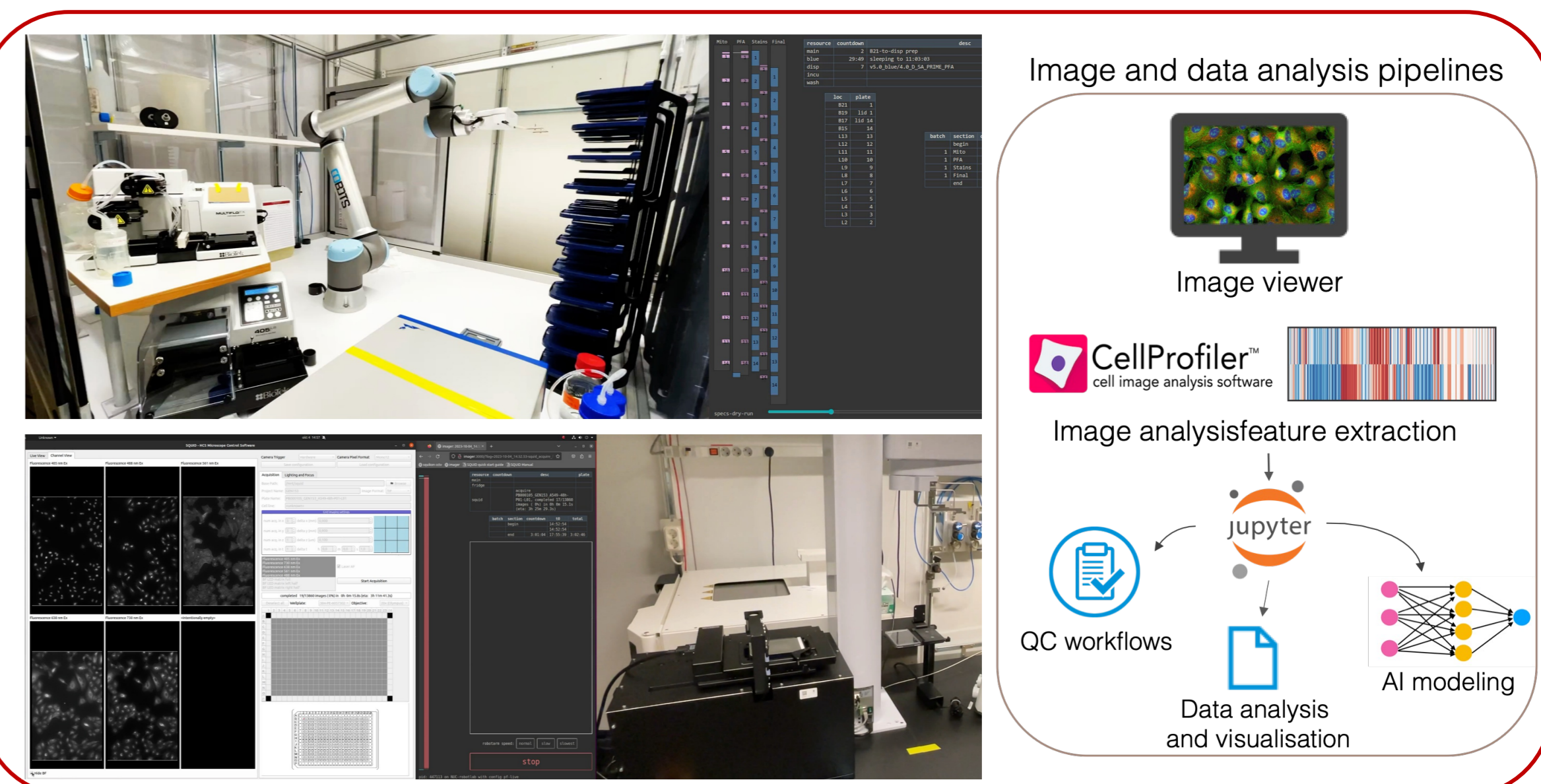
## Cell Painting

The technique includes a cocktail of fluorescent reagents to stain 8 different organelles (nucleus, nucleoli, cytoplasmic RNA, f-actin cytoskeleton, Golgi, ER, mitochondria and plasma membrane). High content imaging and image analysis are used to extract cellular features, which are then used for morphological profiling

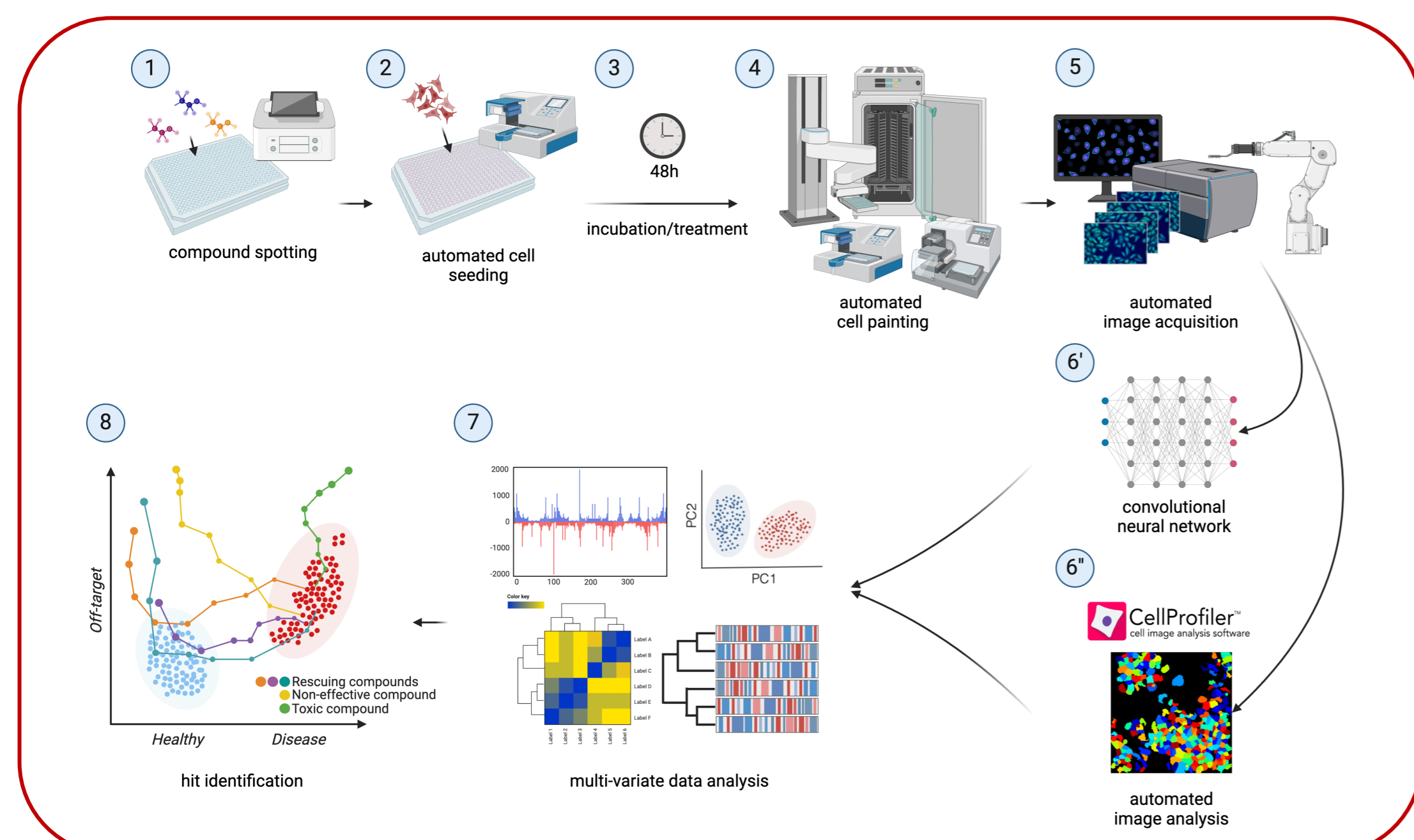
## MoA identification



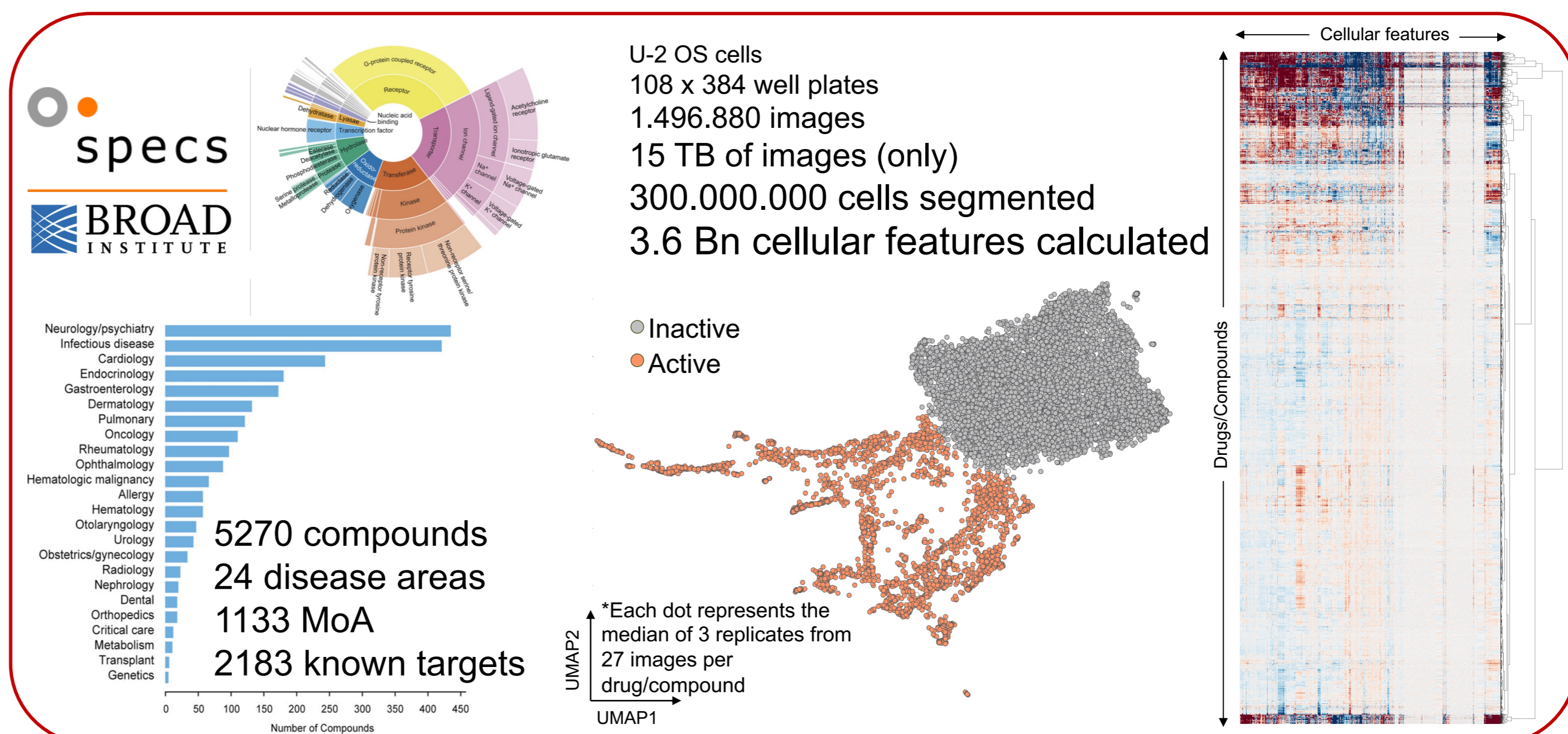
## Infrastructure



## Automated cell painting



## Morphological profiling of 5270 reference drugs



### References:

- Bray MA et al. Nat Prot. 2016
- Caicedo J et al. Nat Methods 2017
- Chandrasekaran NS et al. Nat Rev 2020
- Corsello SM et al. Nat Med 2017
- Rietdijk J et al. BMC Biol 2021
- Rietdijk J et al. STOTEN 2022

### Contact