

# High Throughput Screening and High Content Analysis at IGBMC

Our know-how and activities/services :

Cell-based assays

Disease

Cell model

Phenotypic screening

Gene perturbator reagents

Bioactive compounds

Analysis

Hits

Bioinformatics

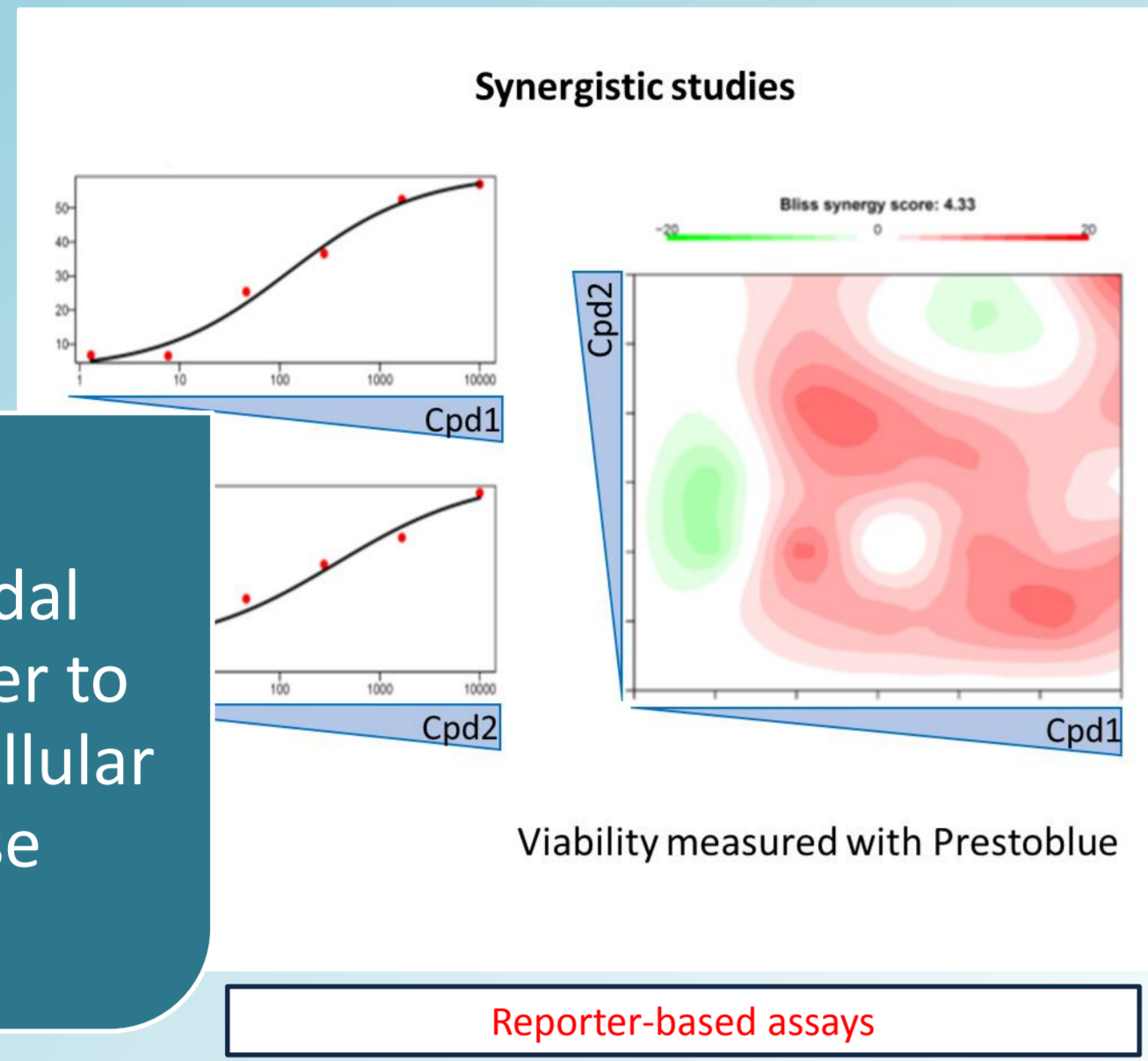
Genes & pathways

Active compounds & druggable cell factors

Drug Discovery pipeline

Functional studies

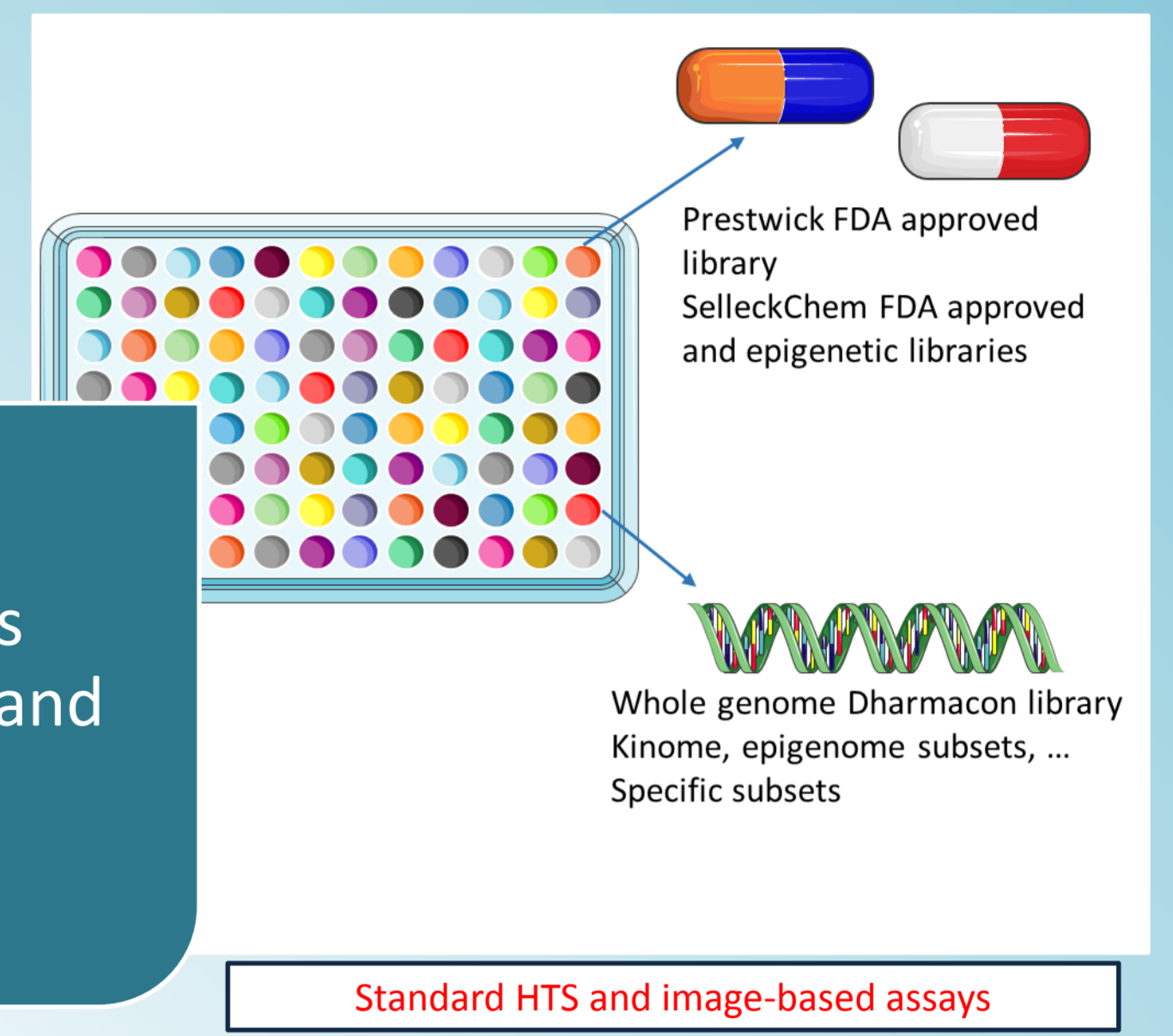
Multimodal plate reader to measure cellular response



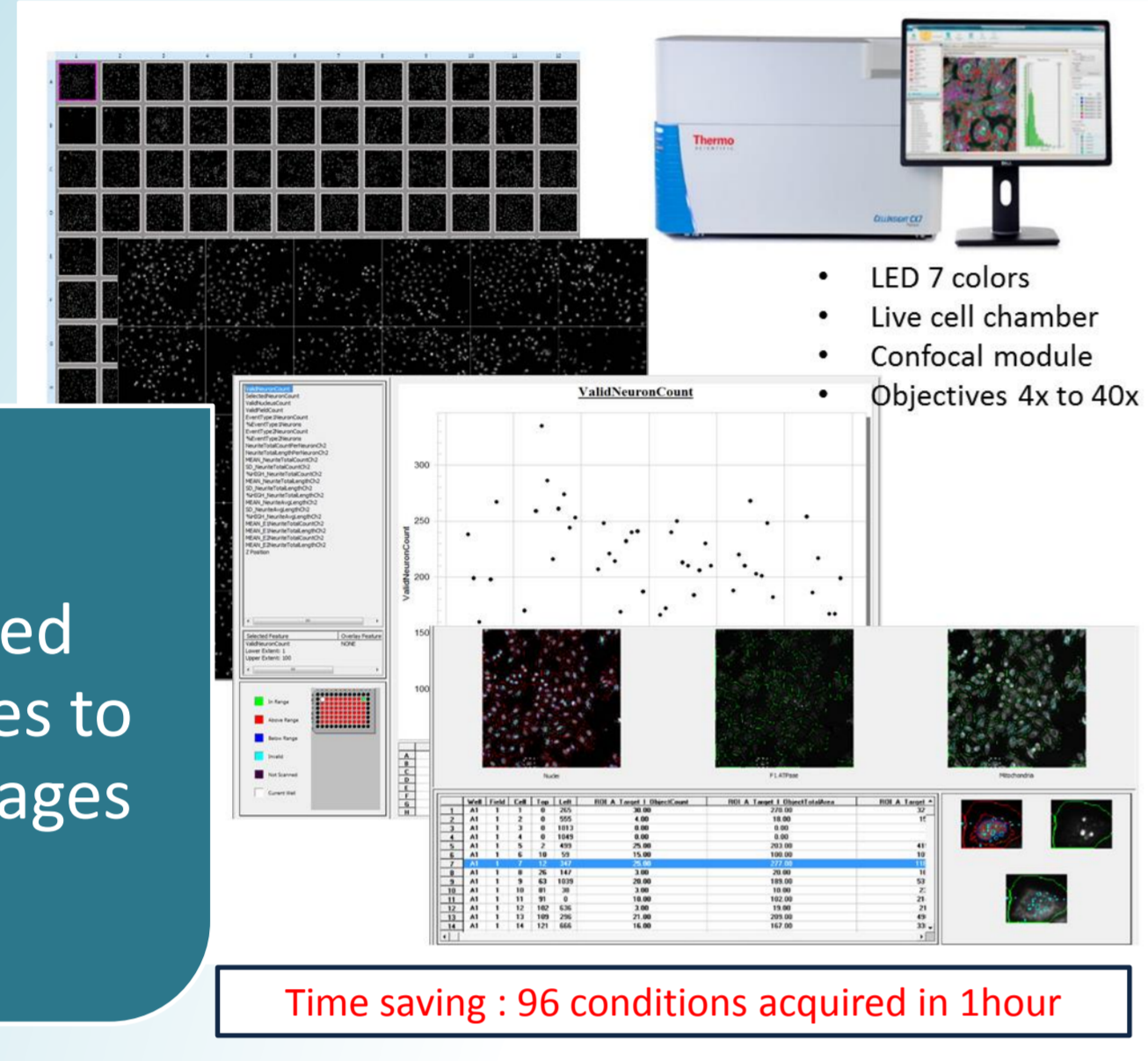
Automated liquid handling platform to treat plates



Libraries (chemical and siRNA)



Automated microscopes to acquire images



Microplate washer to manage assay



CRISPR-Cas9 technology

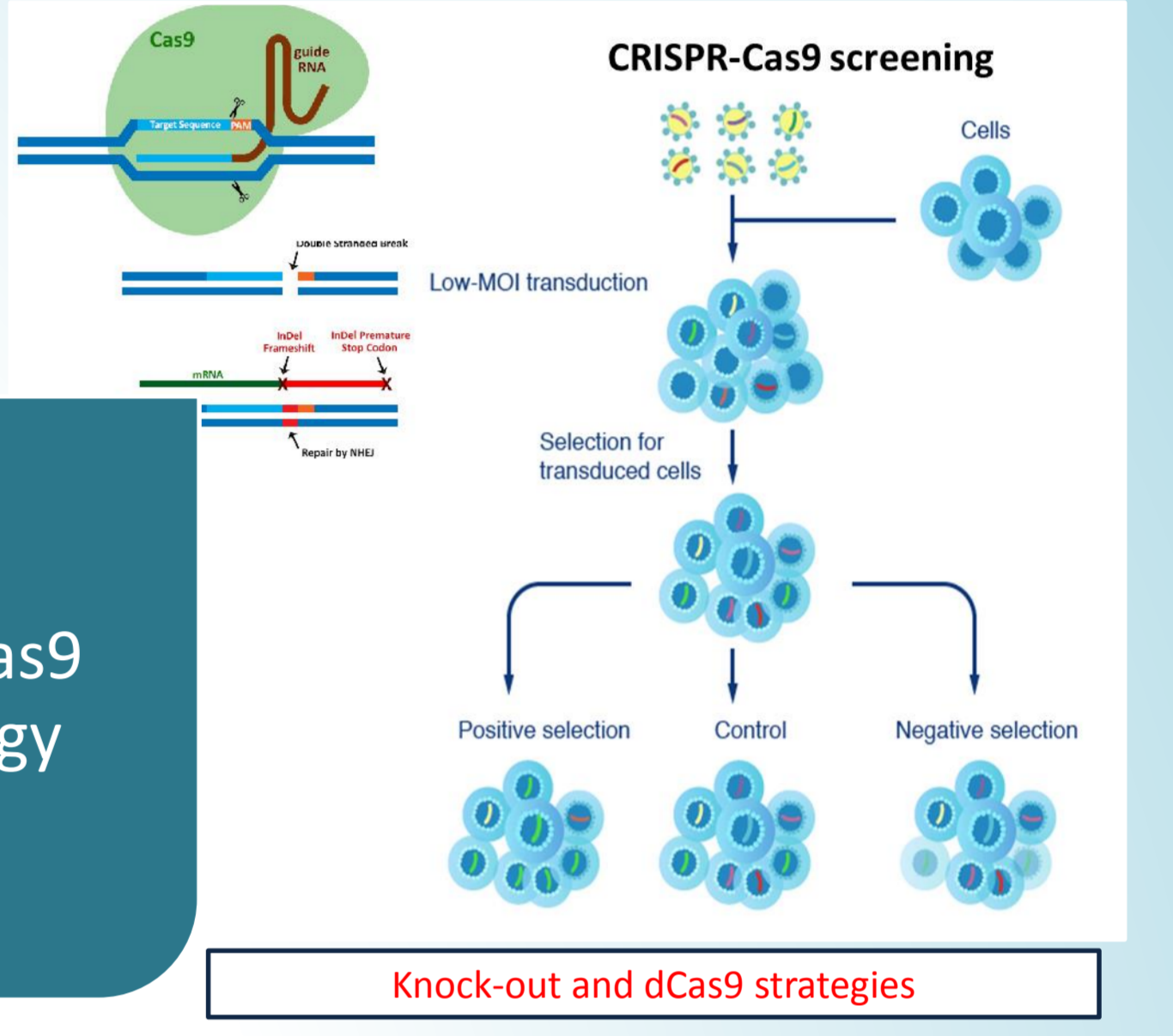
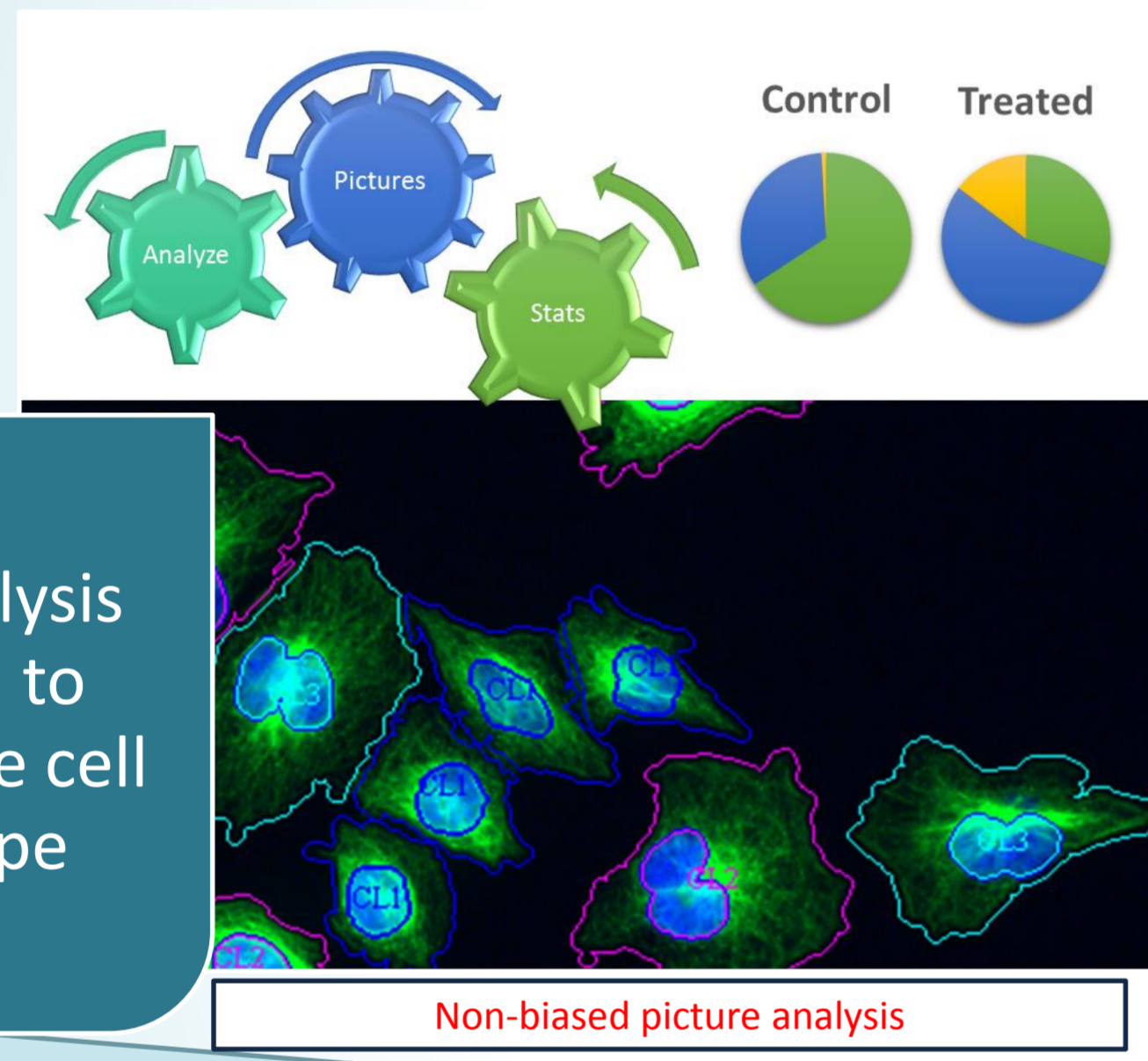
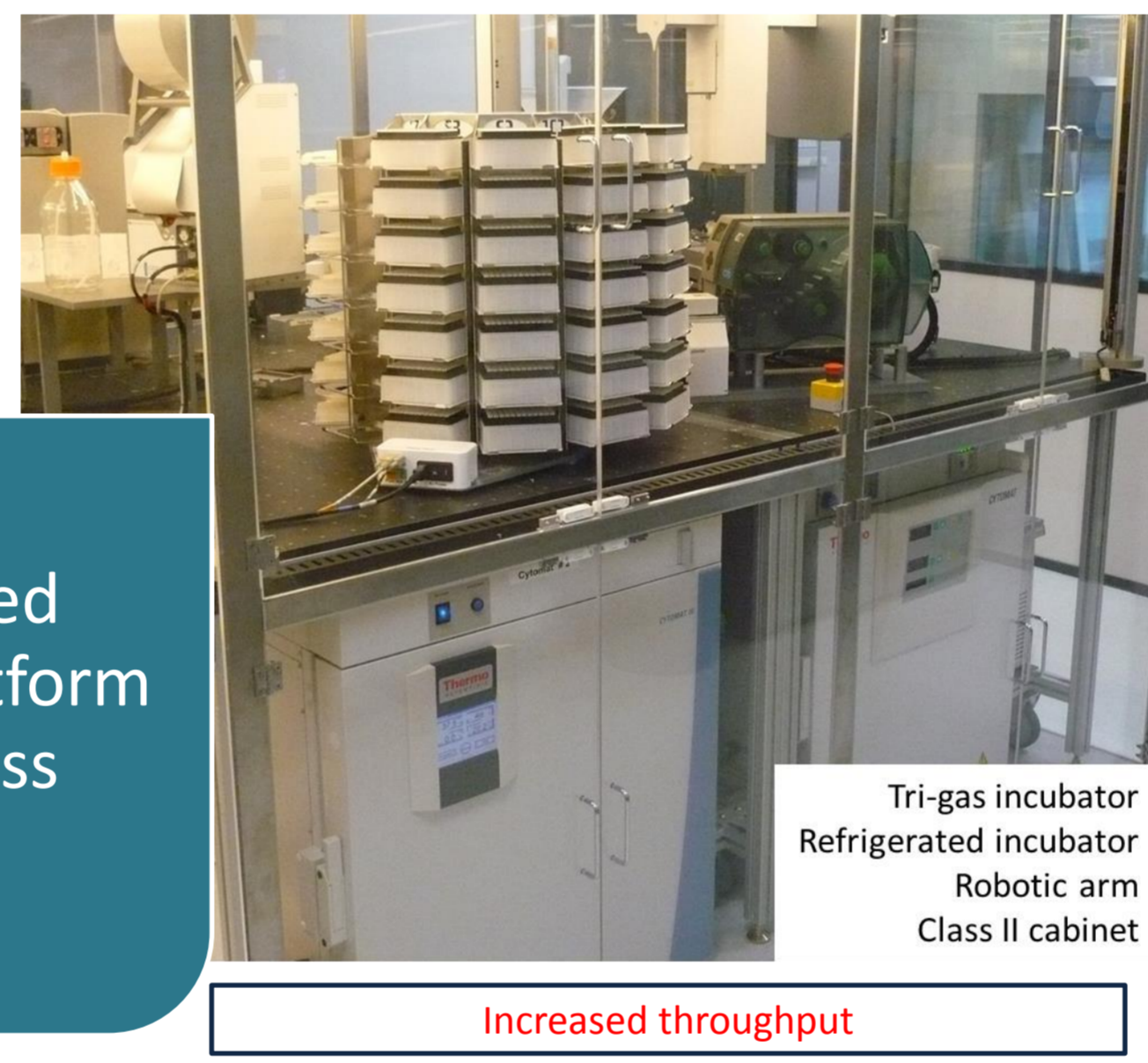


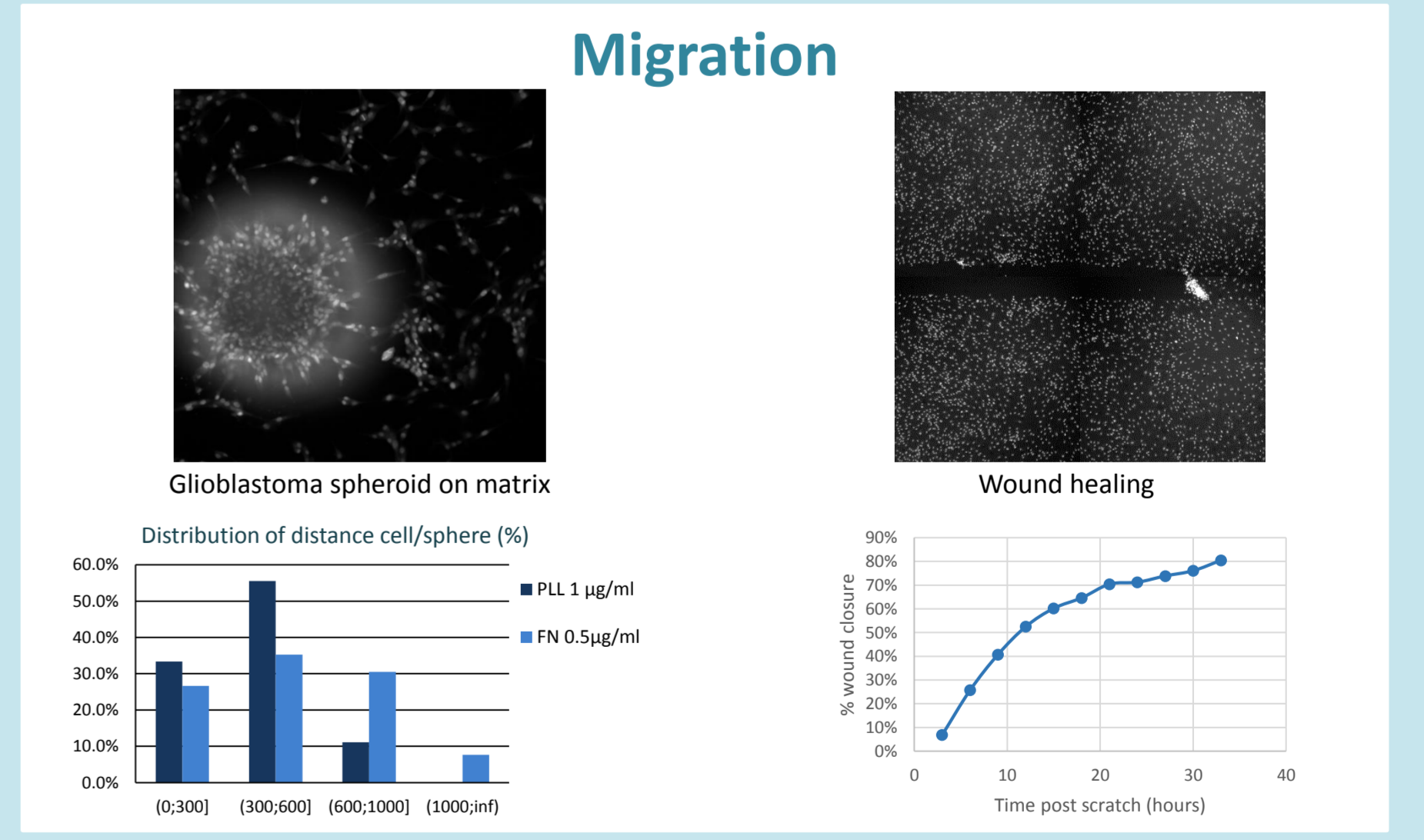
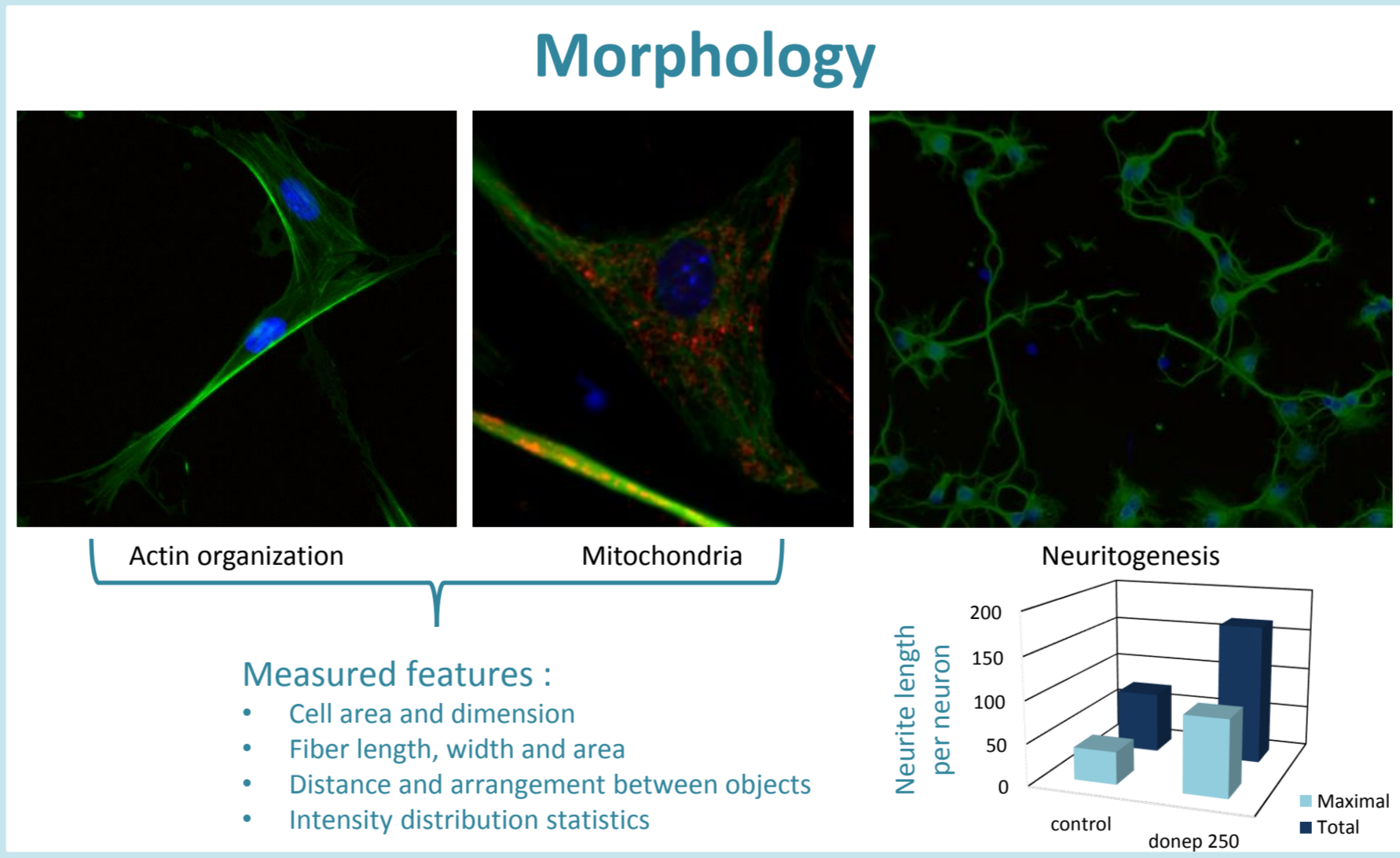
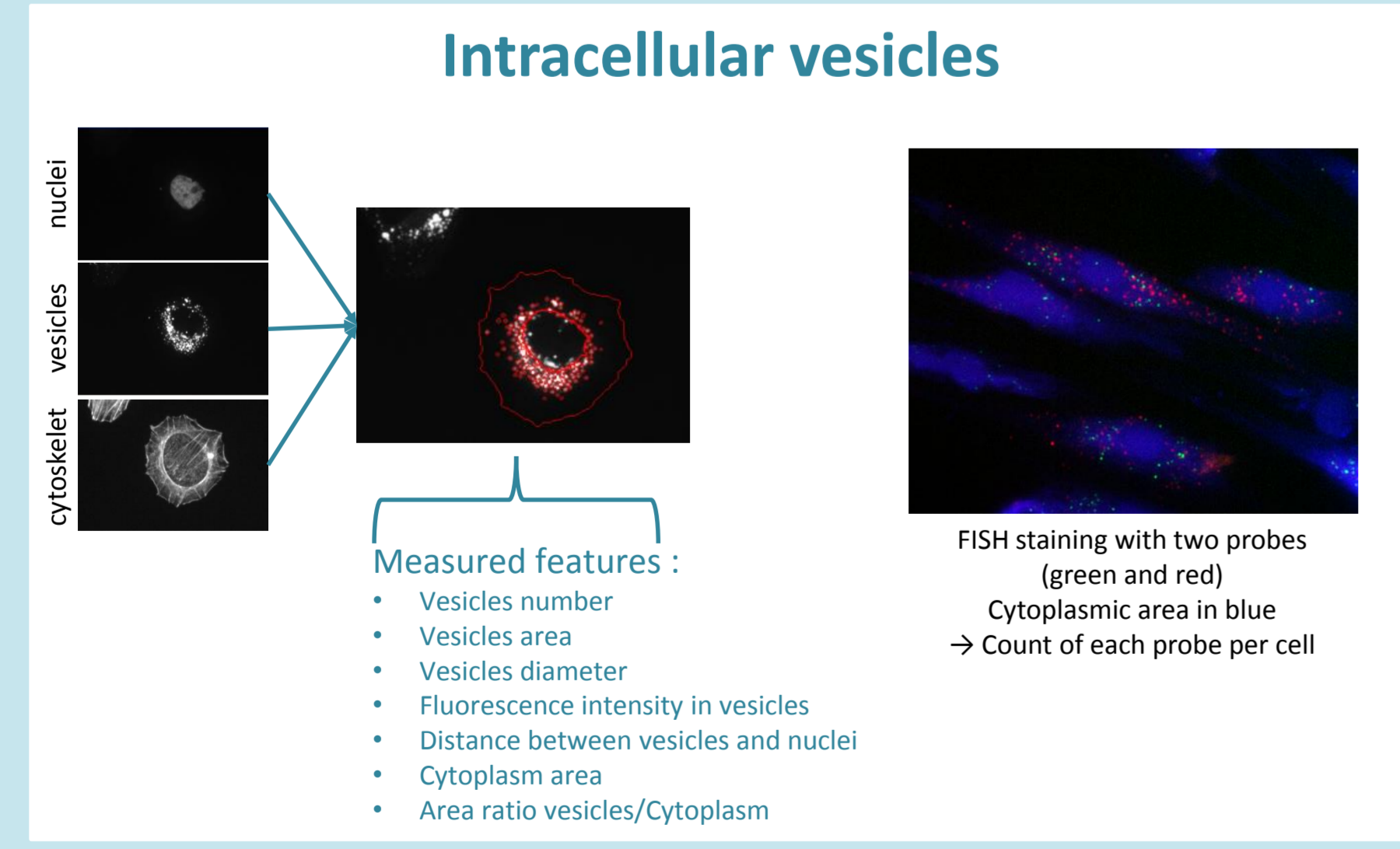
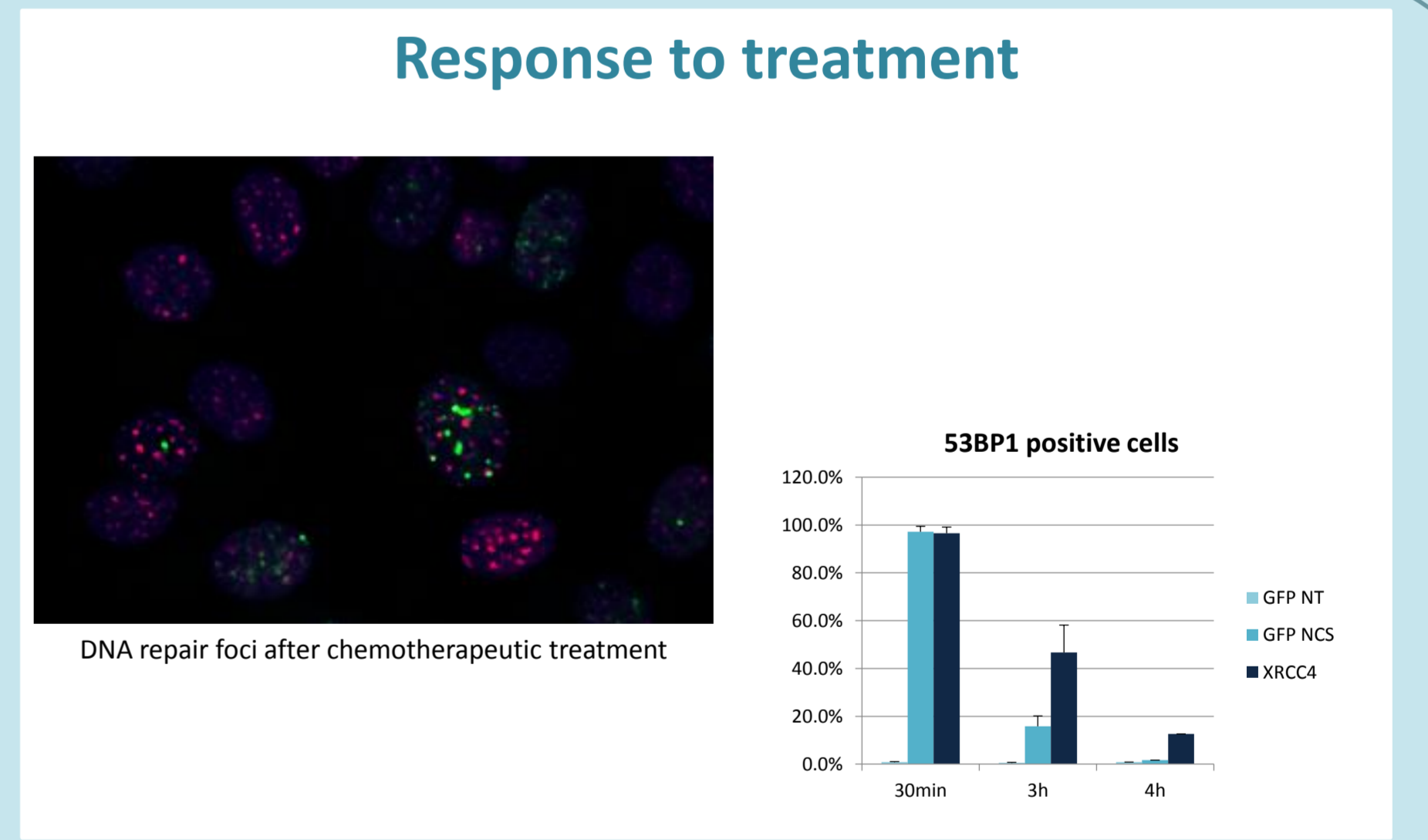
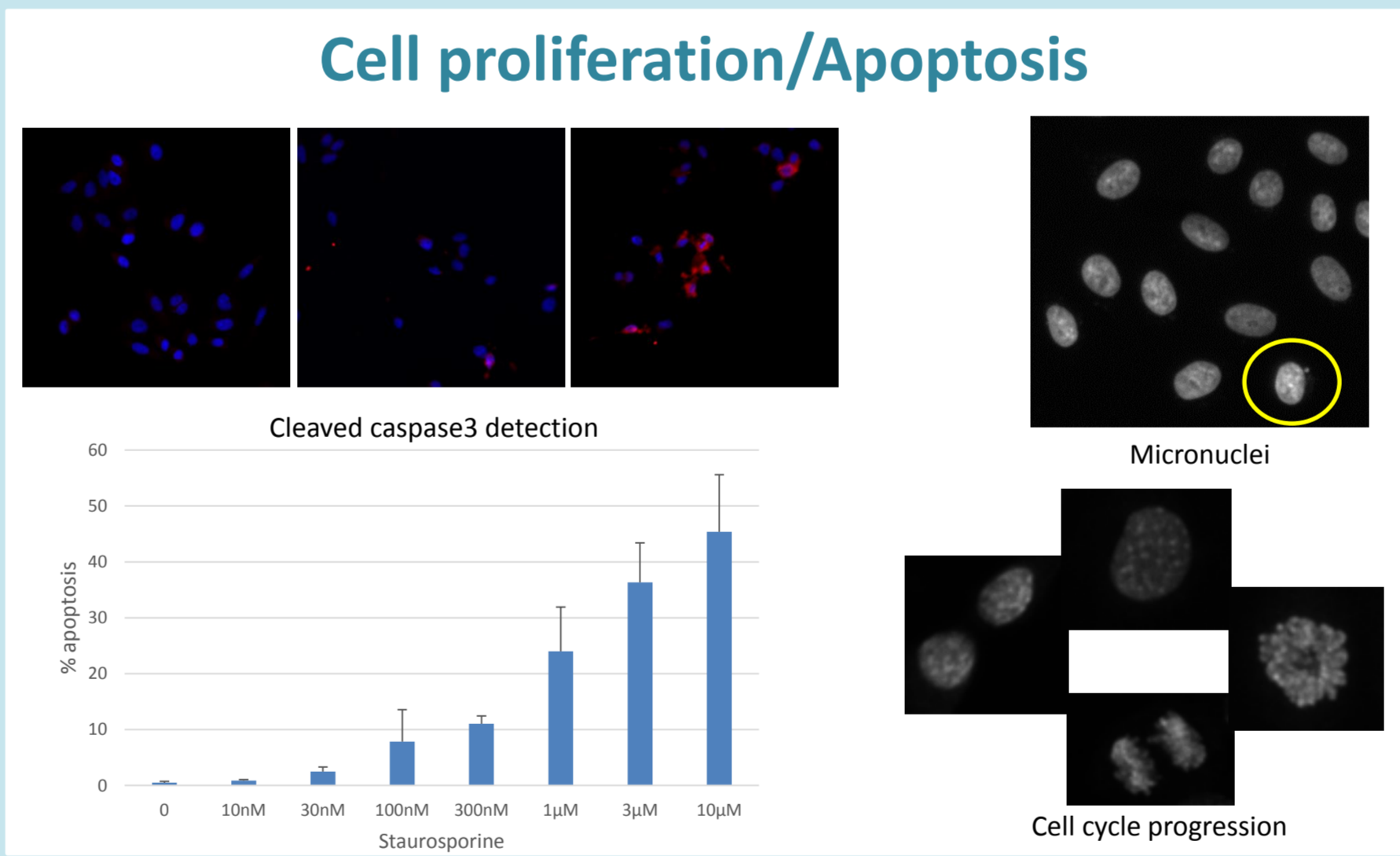
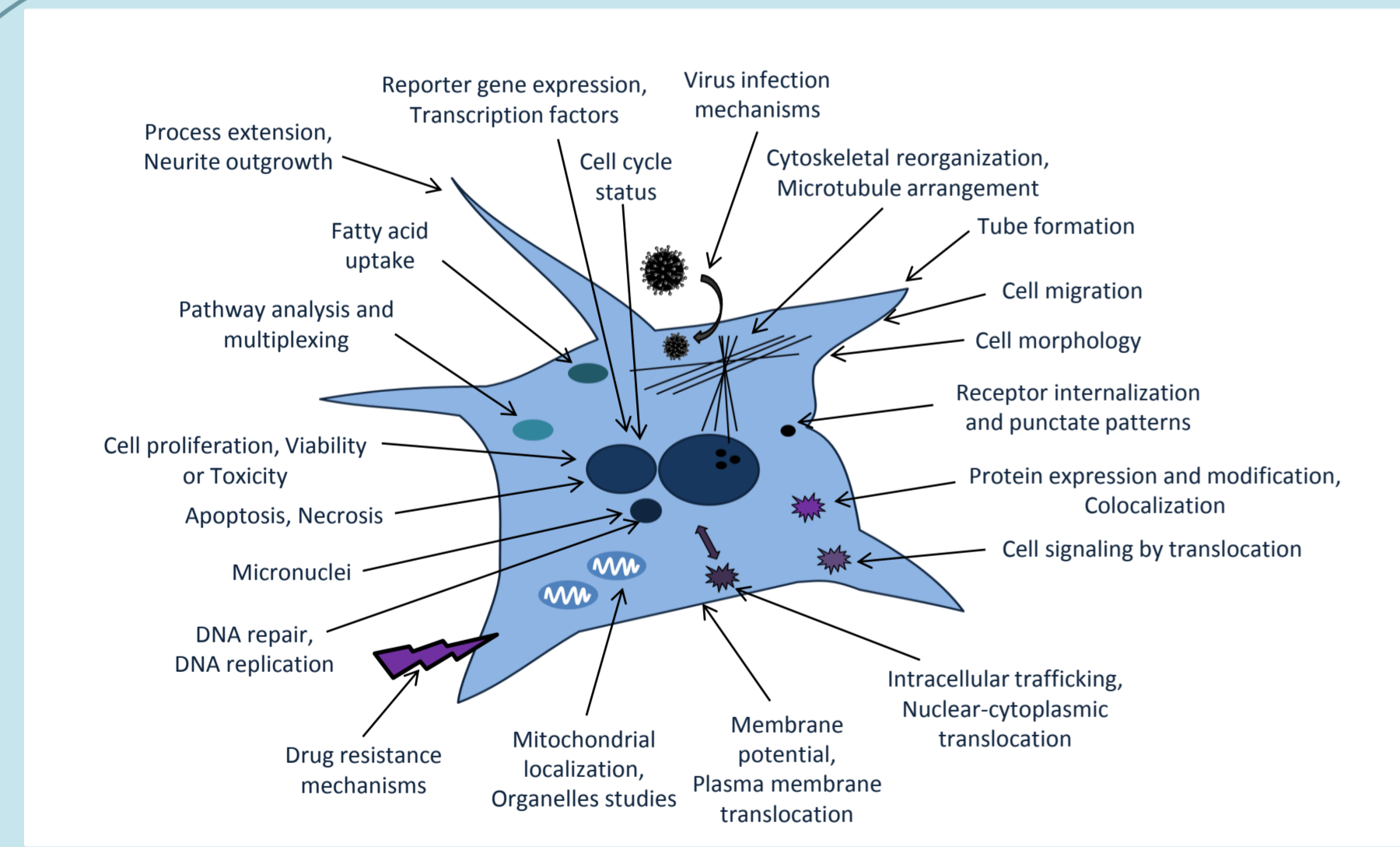
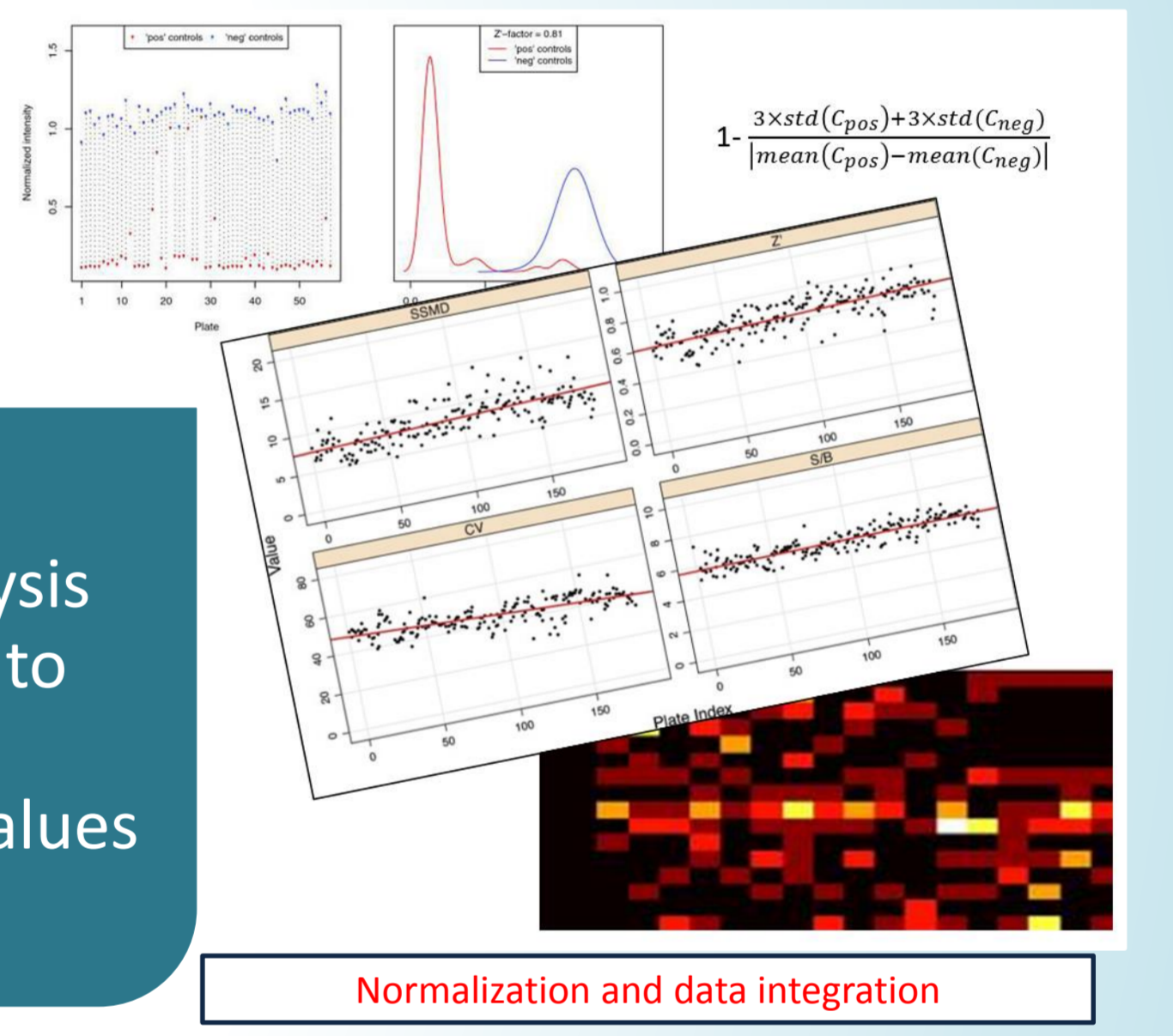
Image analysis software to characterize cell phenotype



Integrated robotic platform to process screen



Data analysis software to extract statistical values



## The Team

**L Brino**, Scientific and Technical manager  
**A Maglott-Roth**, R&D engineer  
**A Weiss**, Screening engineer  
**E Boeuf**, Assistant engineer

## Contact us

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Cell-based screening IGBMC



## Publications

- ❖ Transcription and mRNA export machineries SAGA and TREX-2 maintain monoubiquitinated H2B balance required for DNA repair. (J Cell Biol, 2018) *Evangelista FM et al.*
- ❖ Genes and pathways regulated by androgens in human neural cells, potential candidates for the male excess in autism spectrum disorder. (Biol Psy, 2018) *Quartier A et al.*
- ❖ A molecular roadmap for the emergence of early-embryonic-like cells in culture. (Nat Genet, 2018) *Rodriguez-Terrones D et al.*
- ❖ Temporal and spatial uncoupling of DNA double strand break repair pathways within mammalian heterochromatin. (Mol Cell, 2016) *Tsouroula K et al.*
- ❖ Ubiquitin Receptor Protein UBASH3B drives AuroraB recruitment to mitotic microtubules. (Dev Cell, 2016) *Krupina K et al.*
- ❖ A targeted functional RNAi screen uncovers Glypican 5 as an entry factor for hepatitis B and D viruses. (Hepatology, 2015) *Verrier ER et al.*
- ❖ A high-throughput chemical screen with FDA approved drugs reveals that the antihypertensive drug Spironolactone impairs cancer cell survival by inhibiting homology directed repair. (Nuc Acid Res, 2014) *Shahar OD et al.*
- ❖ A small molecule screen identifies an inhibitor of DNA repair inducing the degradation of TFIH and the chemosensitization of tumor cells to platinum (Chem Biol, 2014) *Alekseev S et al.*
- ❖ HRas signal transduction promotes hepatitis C virus cell entry by triggering assembly of the host tetraspanin receptor complex (Cell Host Microbe, 2013) *Zona L et al.*