

# InvivoSciences<sup>®</sup>, Inc.

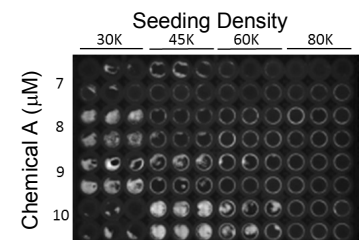
*Discovery with a Human Touch*

## ACTRO™ for Screening Stem Cell Differentiation Conditions

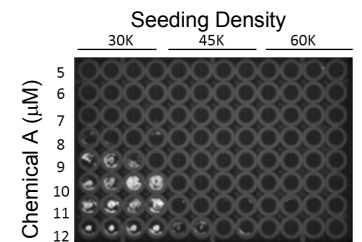
### Overview

Genes and environmental stimuli, including small molecules, can regulate the potential of pluripotent cell to differentiate into a specific cell type. Cell seeding densities, however, can also influence the differentiation. ACTRO's **Screening Mode** enables rapid screening of various culture conditions for iPSC differentiation by varying **1) iPSC densities, 2) genes, compounds, or compound concentrations, and 3) stimulation timings** using human iPSCs growing in 96-well plates.

iPSC line #12



iPSC line #23

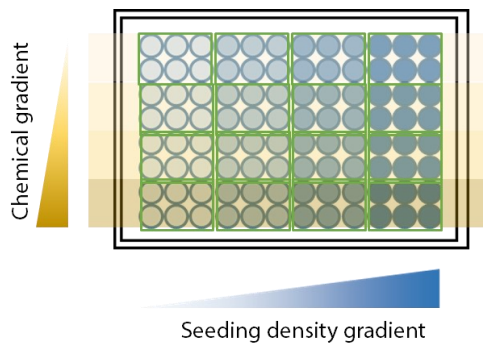


### Cardiac Differentiation

(white: differentiated myocytes of calcium transients)



ACTRO™



Preprogrammed or Customizable  
Screening Parameters

### Benefits

- Improve reproducibility of differentiation and yield of target cells
- Identify a novel differentiation condition by screening
- Automated feeding of cells in 96-well plates for long-term differentiation processes
- Screen permutations of 3-dimensional parameters (times, densities, pathway activities)
- Identify repeatable differentiation phenotype using different iPSC lines derived from different patients
  - ⇒ No more straggling to reproduce the perfect differentiation condition
  - ⇒ Screen conditions and repeat it for mass productions
- A customizable program for screening conditions and parameters

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