#### Image-based Profiling Handbook

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### Preface

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# Part I Configuration

## Configure environment

- 1.1 Set up a virtual machine
- 1.2 Define variables
- 1.3 Create directories

## Part II Images to measurements

## Configure tools to process images

- 2.1 Download software
- 2.2 Setup Distributed CellProfiler

## Setup pipelines and images

- 3.1 Get CellProfiler pipelines
- 3.2 Specify pipeline set
- 3.3 Prepare images
- 3.4 Create list of plates
- 3.5 Create LoadData CSVs

## Setup jobs

- 4.1 Illumination correction
- 4.2 Quality control
- 4.3 Analysis

## Run jobs

- 5.1 Illumination correction
- 5.1.1 Single node
- 5.1.2 DCP
- 5.2 Quality control
- 5.2.1 Process QC results into a database for CPA
- 5.3 Analysis
- 5.3.1 Single node
- 5.3.2 DCP

## Part III Measurements to profiles

## Configure tools to create profiles

6.1 Download software

## Create profiles

- 7.1 Create database backend
- 7.2 Annotate
- 7.3 Normalize
- 7.4 Selection variables
- 7.5 Aggregate perturbations
- 7.6 Audit
- 7.7 Convert to other formats
- 7.8 Upload data
- 7.8.1 Sync to S3
- 7.8.2 Sync from S3 to another machine

## Appendix A

## Appendix A

#### A.1 Directory structure