

## **Phindr3D Organoid Contour Segmentation App Manual**

- When using the test data set (<https://zenodo.org/record/4384912>) or the full data set from the paper (<https://journals.plos.org/ploscompbiol/article?id=10.1371/journal.pcbi.1008630>):
  - Copy organoid images to specific folder (e.g. \\...\Phindr3DCSApp\RawData\)
- Extract metadata using Phindr3D' metadata extractor (see manual for the main program)

### **When Running from Matlab:**

- Open Matlab and navigate to the above destination
  - 1) Type organoidSegmentation in command prompt and hit run
  - 2) Select Metadata File
  - 3) Select Channels
  - 4) Select Segmentation Channels [Nucleus Channel]
- See Phindr3D\_UserManual.PDF for details.

\*\*\*\*\* TO CHANGE PARAMETERS \*\*\*\*\*

- Open "organoidSegmentation.m" in Matlab editor
- You can change values of different parameters listed under "Segmentation Parameters" section.
- Save the file and run it as given in 1) above

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### **When running the compiled program:**

- Run the executable to install the program. You will be asked to install the Matlab runtime if it is unavailable on the computer.
- Afterwards, follow instructions from step 2) on.
- Parameters cannot be changed.