

README for In vitro Data

“Cell-autonomous timing drives the vertebrate segmentation clock’s wave pattern” (Rohde & Bercowsky-Rama et al., 2024 eLife)

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Here we provide our timelapse movies of dissociated zebrafish cells in culture.

The movies (nd2 files) are organized into folders by experiment number. Multiple cell types or treatments were imaged during a given experiment, side-by-side in separate wells. Metadata is included in the nd2 files. Intervals were 10 min, single plane for each cell in three channels BF, YFP and mKate.

wsc452_xy057.nd2
↑ ↑
experiment position

Individual cells are identified by a unique experiment number and an xy position.

We have provided movies of all cells captured as part of our project. A description of the cell type and treatments used in all movies is in the xlsx file **All_movies_cell_type.xlsx**.

We have also included an excel file named **List_of_Cell_Positions_Analyzed.xlsx** that identifies cells used for further analysis after applying criteria (see Figure 1 – supplement figure 2; Figure 2 - supplement figure 1). This xlsx file (List_of_Cell_Positions_Analyzed.xlsx) lists movies by **experiment number**, **cell type** and **position number**.

Keep in mind that timelapses that were disrupted during oscillatory dynamics, or cells that appeared damaged, were not considered for analysis. Additionally, please note that not all cell divisions resolved as two daughter cells, thus cells with two obvious nuclei were categorized as cells that divided and were excluded from further analysis as was the case for cells that divided into two.

The **List_of_Cell_Positions_Analyzed.xlsx** corresponds to the intensity data provided in Github that links to our annotated python analysis notebooks:

https://github.com/EPFL-TOP/WSC_NotebooksPaper