The Output of the First Model (M1)

Each time the simulation model for a certain speed-persistence combination is run, it can output a cell division table, lattice-location table, ancestry tree table, summary table, uniformity Index plot, cell number per division table and a 2D cross section tumor plot.

* The cell division table (ScdDF) is stored in the “cdDF” R object and formatted in a data frame with columns and 2160 rows, where rows refer to the simulation time in hours. Each column refers to a cell. This table shows the division state of each cell at each time point of the simulation. The division state can be NA, 0 or 1. NA is given when the cell is not generated yet or it has already divided. 0 is given when the cell has not divided yet whereas, 1 is given when the cell is ready to divide. At each time point of the simulation, the cell division table is monitored to keep track of the generated cells that did not divide yet and detect cells that are ready to divide.
* The lattice-location table (SmainDF) is stored in the “mainDF” R object and has the same structure as the cell division table This table shows the lattice location (lattice-square) of each cell at each time point of the simulation. The division state can be either NA or a lattice value between 1 and 40,000. NA is given when the cell is not generated yet or it has already divided.
* The ancestry tree table (phylogenicDF) is formatted in a data frame with rows and 20 columns. Rows refer to cells and each column refers to a cell division. This table shows for each cell its ancestors.
* The summary table (simsumDF) is formatted in a data frame with 90 rows indicating the simulation time in days. At each time point of the simulation this table show information of the followings: Steps, Number of cells, Number of cells in RedZone, RedZone cells ratio, MaxCellID, Cumulative Dead Cells, Cumulative Senescent cells, Cumulative time in RedZone, Uniformity Index, Total Number of RedZone Visitors, Cumulative Metastatic cells , Average speed of all cells, Cumulative G1B cells, L5S Immotile Cells (Immotile Cells in the Last 5 Steps) and L5S Dividing Cells (Dividing Cells in the Last 5 Steps)
* Uniformity Index plot.
* Cell number per division (CellNumberPerDivision) table.
* A 2D cross section tumor plot showing the number of cells and their location.