

# Description of Additional Supplementary Files

## Supplementary Movie 1

Evolution of a model tissue in a channel using substrate dissipation dynamics with  $p_0 = 3.85$  and  $\zeta = 0.1$ . Simulation runs until  $t = 2 \times 10^5$ . A subset of cells is coloured to enable tracking.

## Supplementary Movie 2

Evolution of a model tissue in a channel using internal dissipation dynamics with  $p_0 = 3.85$  and  $\zeta = 0.1$ . Simulation runs until  $t = 2 \times 10^5$ . A subset of cells is coloured to enable tracking.

## Supplementary Movie 3

Evolution of a model tissue in a channel using internal dissipation dynamics with  $p_0 = 3.85$  and  $\zeta = 0.04$ . Simulation runs until  $t = 2 \times 10^5$ . A subset of cells is coloured to enable tracking.

## Supplementary Movie 4

Evolution of a periodic model tissue in a channel using internal dissipation dynamics. White cells have  $p_0 = 3.85$  and  $\zeta = 0.1$ . Cyan cells have  $p_0 = 1$  and  $\zeta = 0$ . Simulation runs until  $t = 2 \times 10^5$ . A subset of cells is coloured to enable tracking.