**3D model codes**

*Main functions:*

* **Prep\_Dynamics3DFollicle.m –** generates the initial state for 3D simulations of a domain with 100x100 HFs. Adjust the RActTot\_1 and RInhTot\_1 values to obtain either a uniform domain or a field of connected *ventral* and *dorsal* domains.
* **Prep\_Dynamics3DFollicle\_BackOnly.m** – generates the initial state for 3D simulations of a domain with 60x100 HFs.
* **Dynamics3DFollicle\_eLife.m** – simulations of ventral-dorsal HF interactions on a 100x100 HF domain. See Figure 2F and Appendix 2-Figures 7, 28-30.
* **Dynamics3DFollicle\_BackOnly\_eLife.m** – simulations of dorsal HFs on a uniform 60x100 domain. See Appendix 2-Figures 12, 13B and 15.
* **DynamicsEarHF\_eLife.m** – simulations of the hyper-refractory ear domain on a uniform 100x100 domain. See Appendix 2-Figure 16.
* **Dynamics3DFollicle\_Cut\_Connect\_eLife.m** – simulations on a 100x100 domain with a “cut-off” region, where molecules are allowed to diffuse but no HF growth is permitted. See Appendix 2-Figure 18.
* **Dynamics3DFollicle\_Cut\_NoConnect\_eLife.m** –simulations on a 100x100 domain with a “cut-off” region, where no molecules are allowed to diffuse and there is no HF growth. See Figure 7A.
* **Dynamics3DFollicle\_Hole\_NoConnect\_eLife.m** – simulations on a 100x100 domain with two cut-off regions and a gap in between. No HF growth occurs in the cut-off regions and no molecules are allowed to diffuse into these regions. See Figure 7B.
* **DynamicsEarHF\_WaveBreaker.m –** simulations on a 100x100 domain, with a small region having high inhibitor level designed to simulate hyper-refractory ear skin. See Appendix 2-Figure 17.

*Sub-functions*: **De3DFollicleLength.m**

**Single HF model codes**

*Main function*:

* **DynamicsSingleFollicle.m –** simulations of single HF dynamics. See Figure 1B, 1C and Appendix 2-Figures 5, 6, 8, 9, 10, 19-26.

*Sub-functions*: **ConcDiff.m, DeFollicleLength.m, DeSingleFollicle.m.**

**FHN model codes**

HF wave dynamics were simulated using the FitzHugh-Nagumo model. Codes are originally from Murray *et. al.* (2012), with modifications as illustrated in Appendix 2-Section 9. Also see Appendix 2-Figures 31-36.