To produce Figure 1, the MATLAB file Figure\_1.m needs to run. This code simulates the linear relationship between the number density of the terminally differentiated cells (CTDC) and expression of the Notch ligand, DLL by the epidermal stem cells.

To produce Figure 3A-E, the MATLAB file run\_Figure3\_rhs.m needs to run while the MATLAB file Figure3\_rhs.m is saved in the same folder as the file run\_Figure3\_rhs.m. This code simulates the Limit cycle oscillation in the Notch, Wnt, and nuclear YAP/TAZ activities in the transit amplifying cells (TACs), and Wnt activity in the epidermal stem cells (SCs), which interact with TACs through the Delta-Notch interaction.

To produce Figure 4, the MATLAB file Figure\_4.m needs to run. This code simulates and compares the dynamics of Notch, Wnt, and nuclear YAP/TAZ activities in the transit amplifying cells (TACs), and Wnt activity in the epidermal stem cells (SCs), using a deterministic ODE model and partially stochastic trajectories (Euler-Maruyama method).

To produce Figure 6A-D, the MATLAB file run\_Figure6\_rhs.m needs to run while the MATLAB file Figure6\_rhs.m is saved in the same folder as the file run\_Figure6\_rhs.m. This code simulates a few cycles of oscillations in the Notch, Wnt, and nuclear YAP/TAZ activities in the transit amplifying cells (TACs), causing cell cycle progression and terminal differentiation of TACs.