## **Supporting Information**

## Supporting Figures

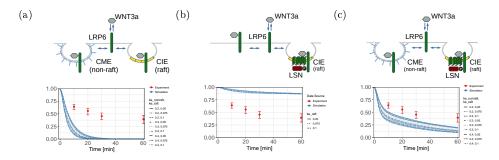


Figure S1: Simulation results of additional model configurations of models M2 and M3. (a) Simulation results of model configurations with concurrent CME and CIE of the compartment-based model (M2) as shown in Figure 2. (b) and (c) show simulation results of model configurations with only CIE (b) and concurrent CME and CIE (c) of the coupled compartmental WNT model (M3) as shown in Figure 2.

## Supporting Tables

$\mathbf{Time} \; [\mathbf{min}]$	mean	max - mean	mean - min
0	1	0	0
10	0.6408	0.047	0.0563
20	0.5563	0.054	0.0774
30	0.4554	0.061	0.0728
60	0.3944	0.0774	0.0869

Table S1: Measured experimental data of fraction of surface LRP6 over time, as shown in Figs. 3, 4, 5 (without Fig. 5c). The data has been taken from Fig. 1c in Yamamoto et al. (2006) by using the pixel coordinates of the mean and s.e.

$\mathbf{Time}$ $[\mathbf{min}]$	mean	max - mean	mean - min
0	1	0	0
15	0.5744	0.03	0.03
30	0.3869	0.07	0.07
60	0.3125	0.05	0.05

Table S2: Measured experimental data of fraction of surface LRP6 over time in Dkk1 experiment as shown in Fig. 5c. The data has been taken from Fig. 3c in Sakane et al. (2010) by using the pixel coordinates of the mean and s.e.m.