**Supplemental Table 5.** CPM initialization model parameters

|  |  |  |
| --- | --- | --- |
| **Parameter** | **Value** | **Justification** |
| Simulation lattice size | 321x417x2 | 2 z-layers: Tissue microenvironment layer and migratory cell layer |
| Metropolis Algorithm Temperature | 10 | This is a default, numerically stable temperature for CPM models described in CompuCell3D |
| Neighbor Order | 1 | Interactions spanning 1 pixel distance for Cellular-Potts cell agents was sufficient for agent-based behaviors |