

## Supplementary Figure S3

### Ghadiri et al., “A multiscale agent-based framework integrated with a constraint-based metabolic network model of cancer for simulating avascular tumor growth”

**Figure S3: Results of sensitivity analysis.** The variability of the results for the number of different cells during simulation period is illustrated when the standard deviation of the Gaussian noise is (A) 0.01, (B) 0.02, (C) 0.05 or (D) 0.1, respectively. For each case, the results of 30 simulations are averaged. The cells are in proliferative (green), starved (pink) and necrotic (red) states. The black line corresponds to the total number of non-necrotic cells. In each diagram, the solid lines represent the average result of the simulations and the upper and lower dashed lines represent the average plus and minus standard deviation of variations, respectively.

