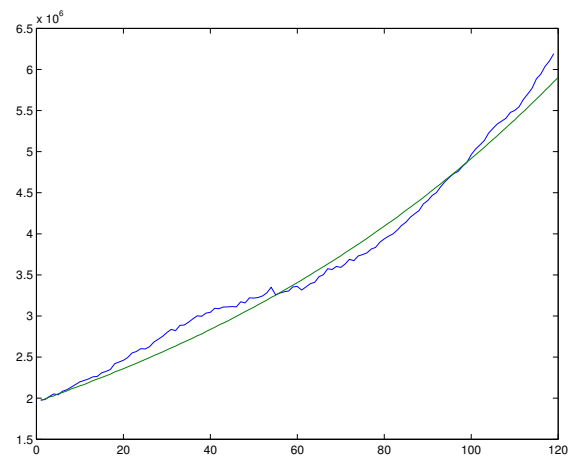# Error

No proliferation	3.47×10^6
With proliferation	1.82×10^6

Total Mass

(calculated by adding up all the density values per pixel)
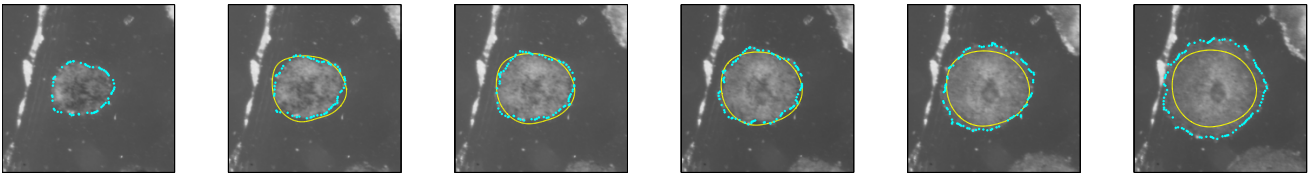Blue: experimental data;   Green: simulation; x-axis: frame #
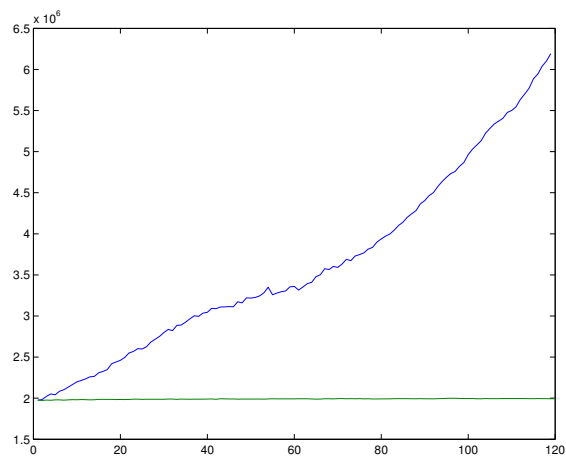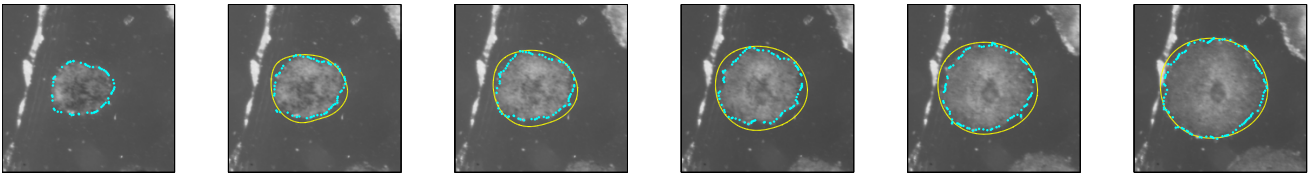

(a) No proliferation (mass conservation)

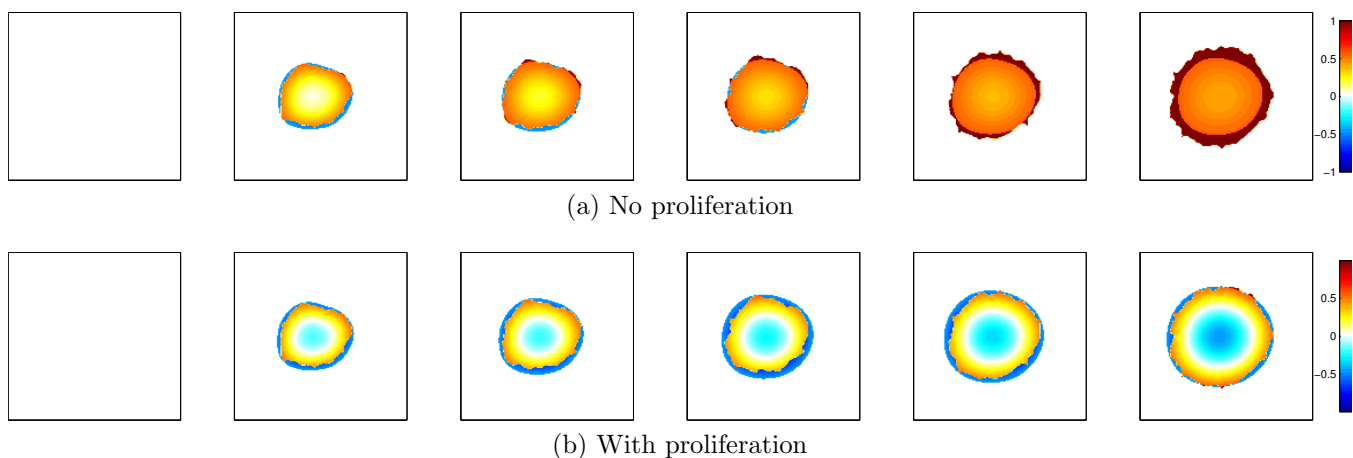(b) With proliferation

Boundaries

(a) No proliferation

(b) With proliferation

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Densities

(a) No proliferation

(b) With proliferation

Note

Equation used for proliferation was $\frac{d\rho}{dt} = \frac{k}{b}\Delta\rho + \alpha\rho$ where $\alpha = 0.11$.

I also tested having proliferation only occur where the cell colony was originally seeded, but this does not appear to give a better estimate ($\alpha = 0.16$) – Error: 2.38×10^6

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