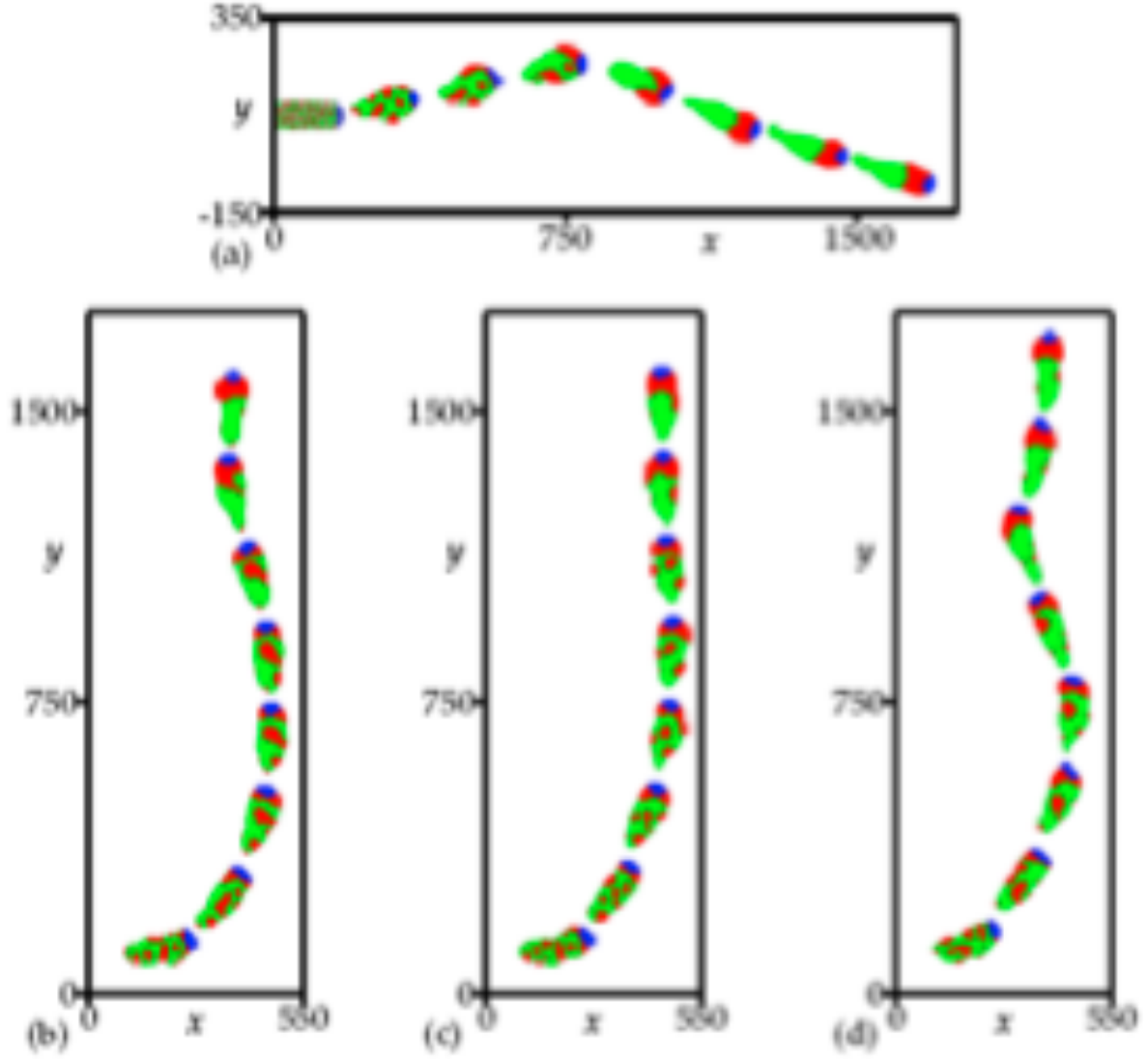
IN·NOMINE·PATRIS

Radboud University Nijmegen

$$\left.\begin{aligned} \frac{\partial c}{\partial t} &= D_c \Delta c - f(c) - r, \\ \frac{\partial r}{\partial t} &= \varepsilon(c)(kc - r), \end{aligned}\right\} \quad \text{inside the amoebae}$$

$$\left.\begin{aligned} \frac{\partial c}{\partial t} &= D_c \Delta c - \delta_c (c - c_0), \end{aligned}\right\} \quad \text{outside the amoebae}$$


350
y
-150
0
750
x
1500
(a)
1500
y
750
0
0
x
550
(b)
1500
y
750
0
0
x
550
(c)
1500
y
750
0
0
x
550
(d)

$$\Delta H' = \Delta H - \mu\left(c_{\mathbf{automaton}} - c_{\mathbf{neighbour}}\right),$$

$$H_\sigma = \sum \frac{J_{\text{cell,cell}}}{2} + \sum J_{\text{cell,medium}} + \lambda(v - V)^2,$$

Mathematical model of Dictyostelium

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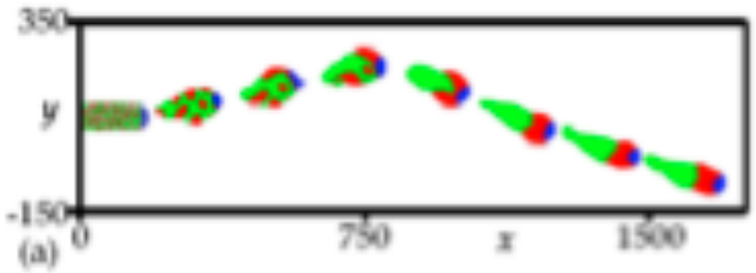

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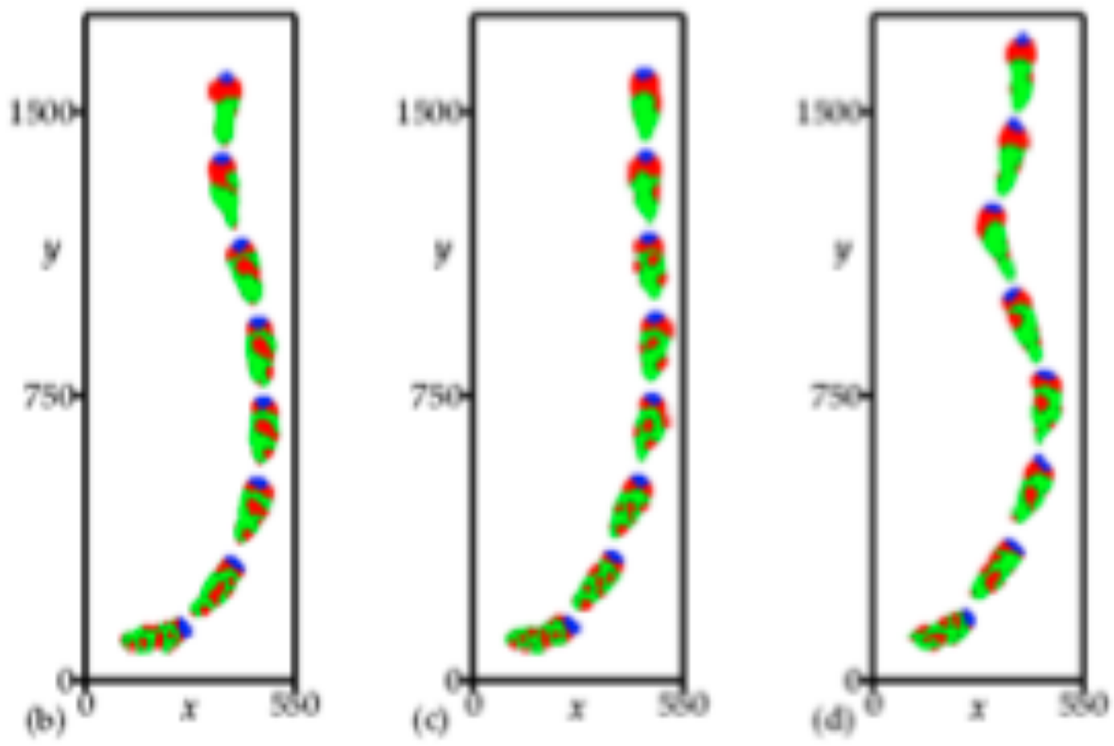
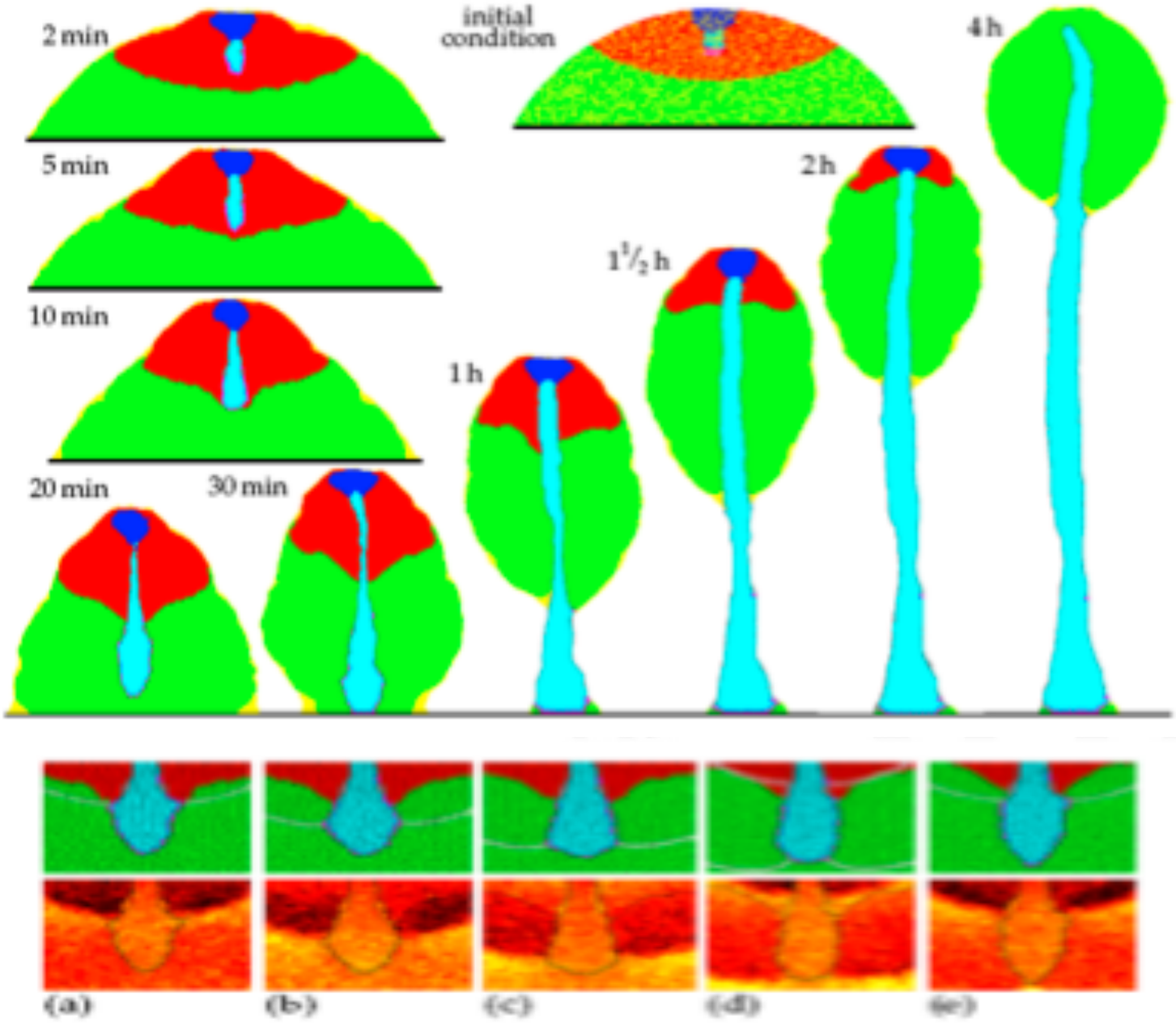


Mathematical model of Dictyostelium



Mathematical model of Dictyostelium