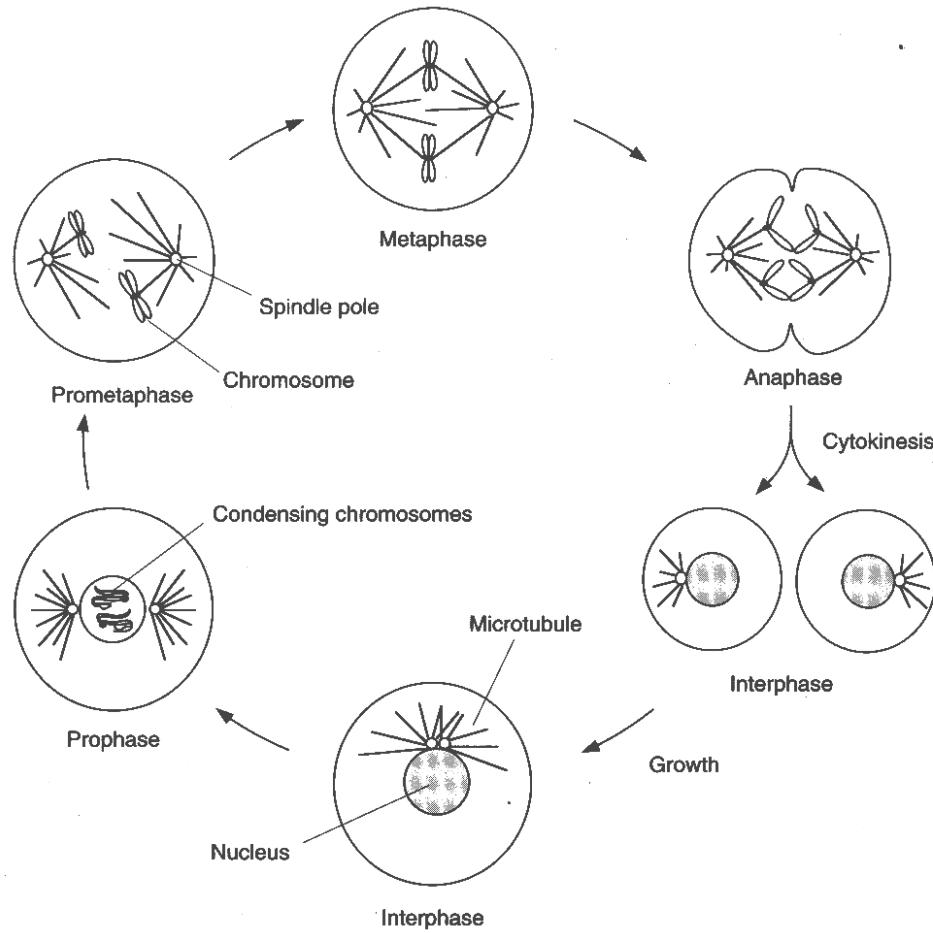


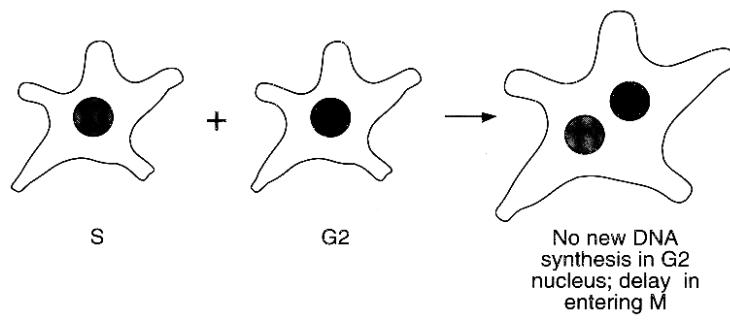
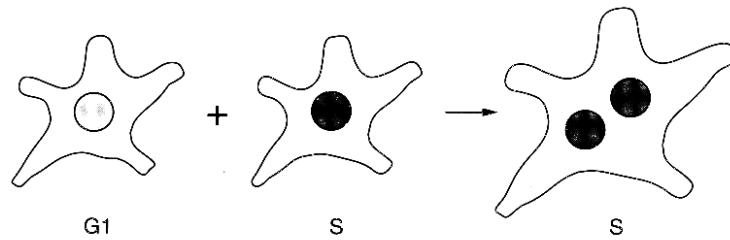
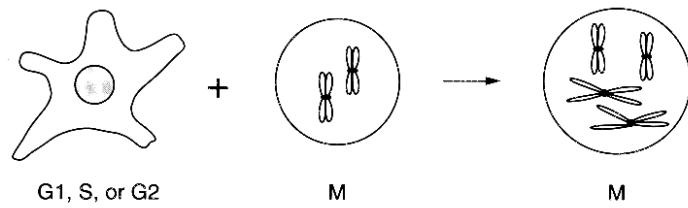


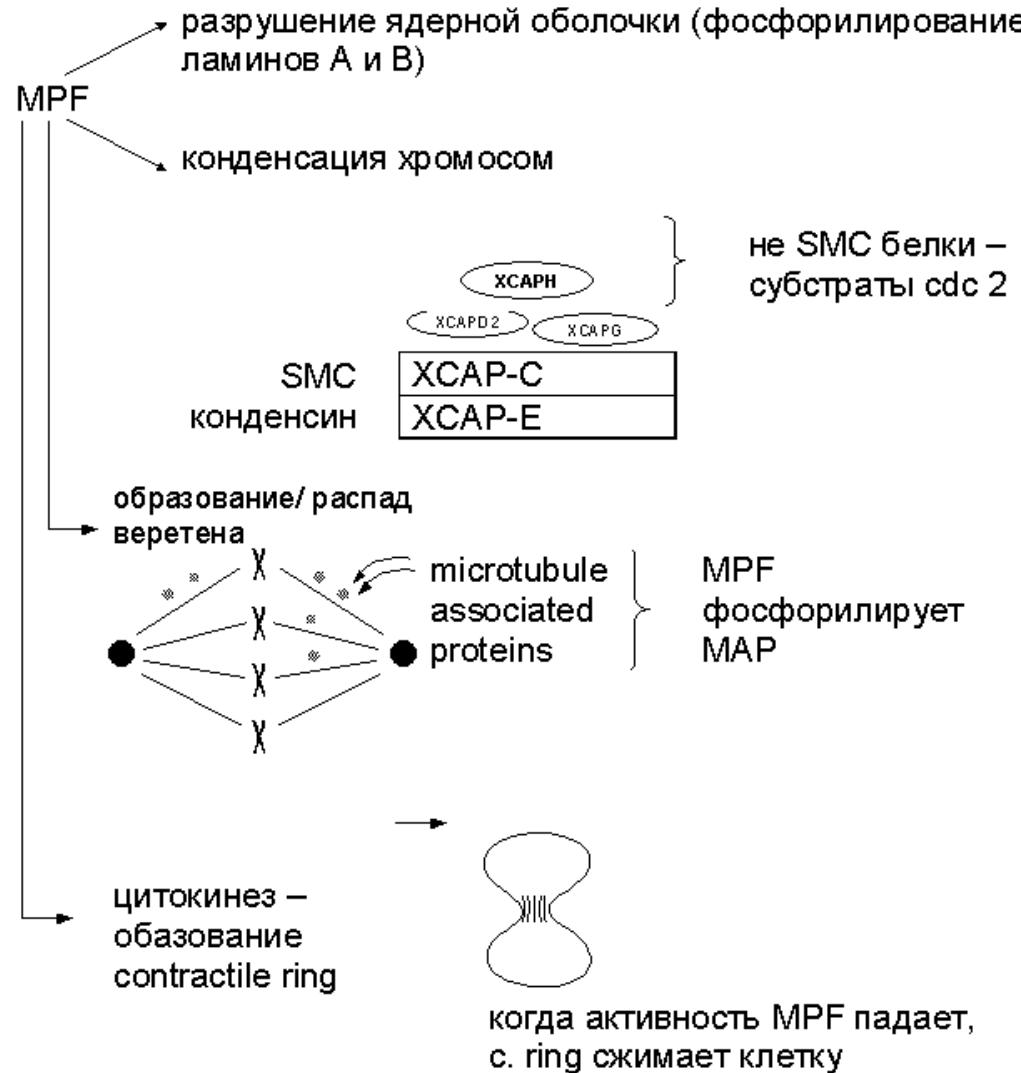
# **Экспериментальное изучение и моделирование клеточного цикла**



Institute of Cytology and Genetics SB RAS, Novosibirsk, Russia









## Как записать уравнения химической кинетики?



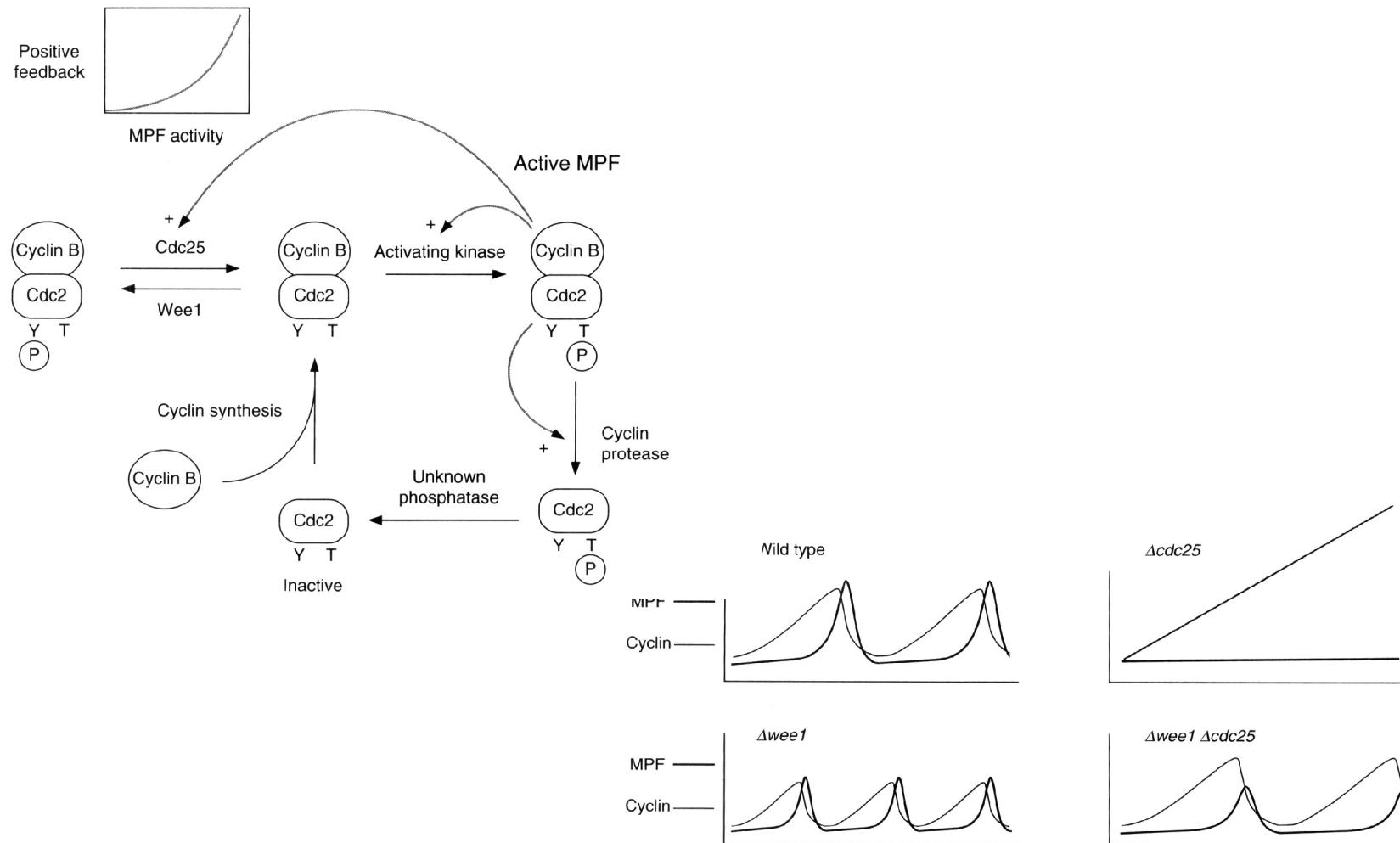
$$dA / dt = -kAB$$

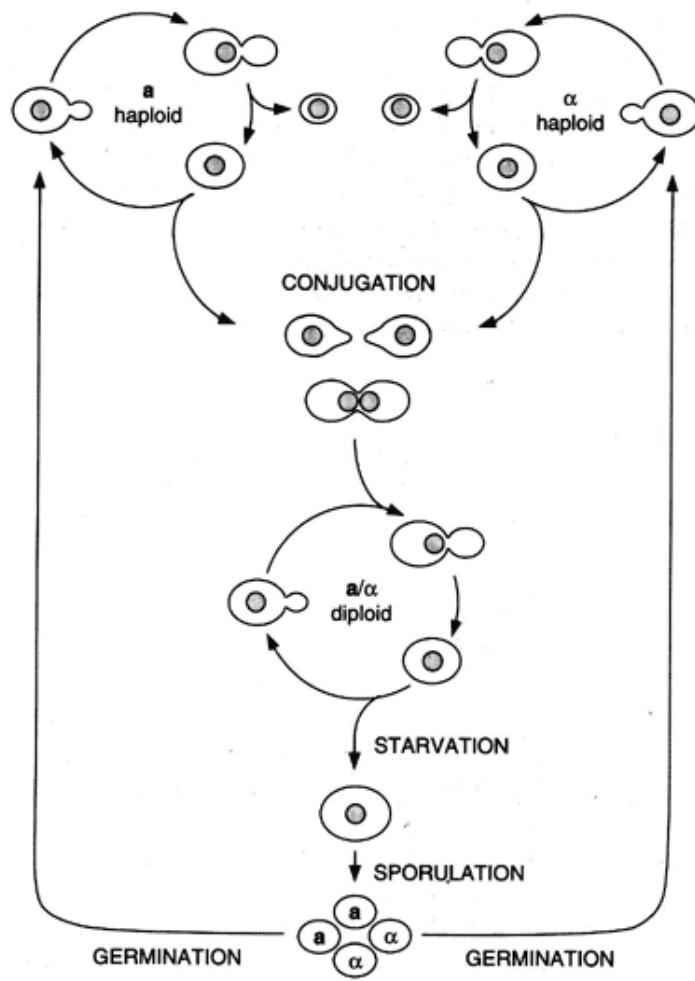
$$dB / dt = -kAB$$

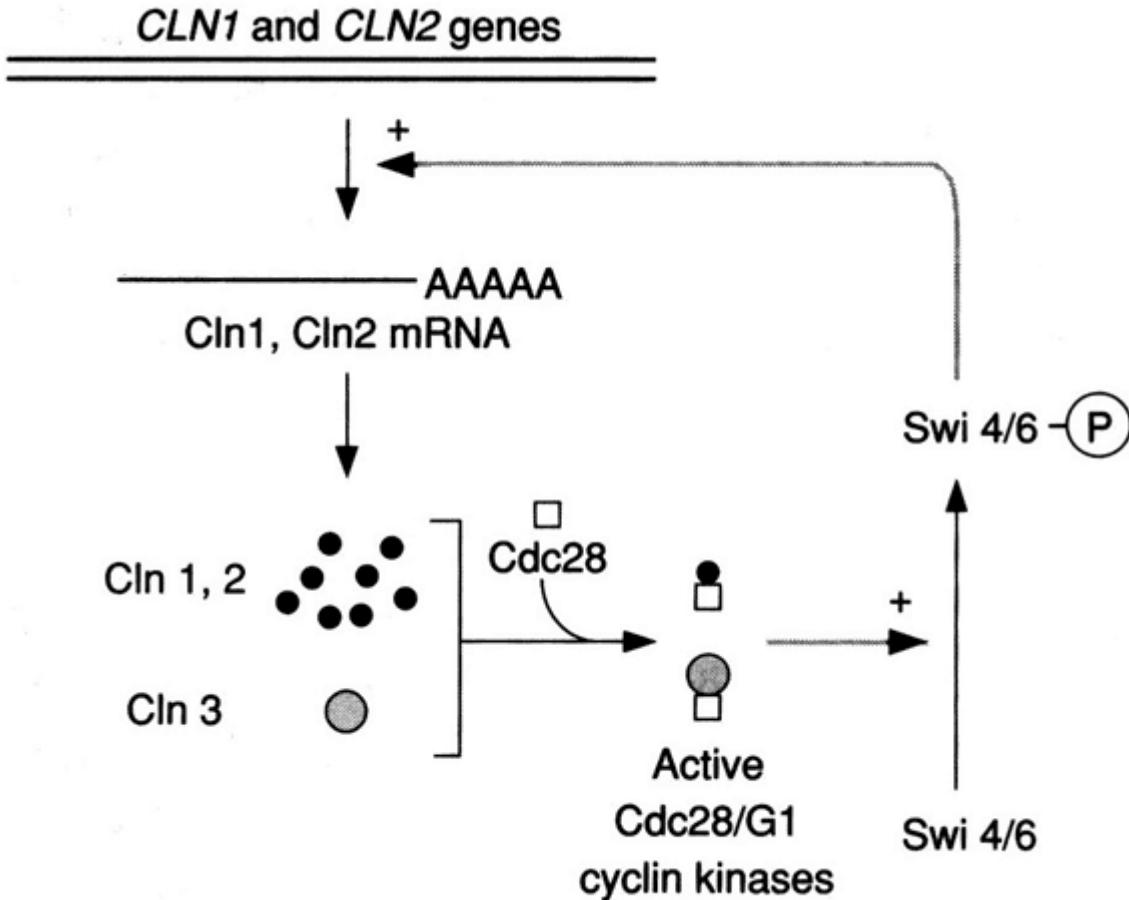
$$dC / dt = kAB$$



# Модель клеточного осциллятора

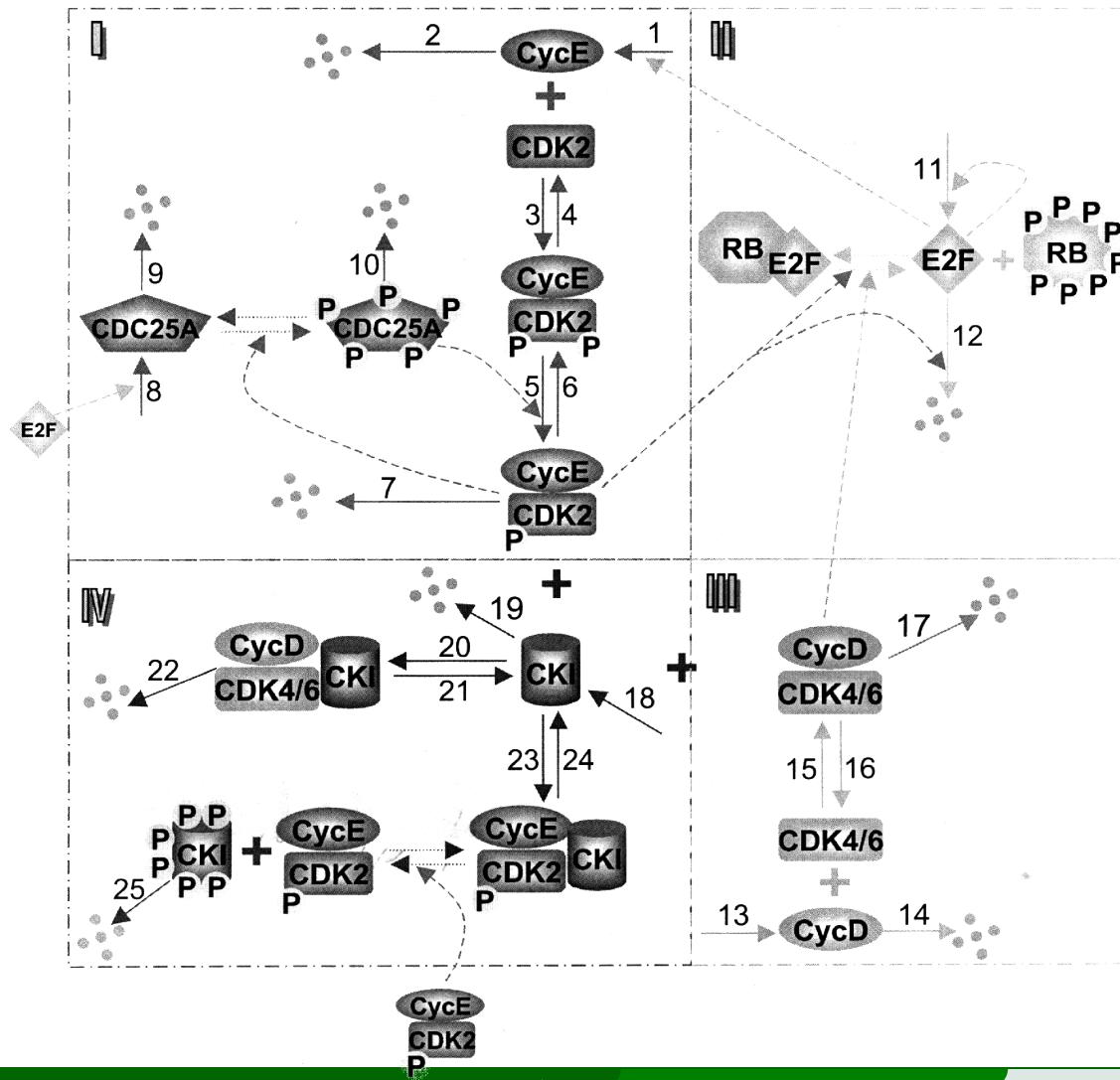


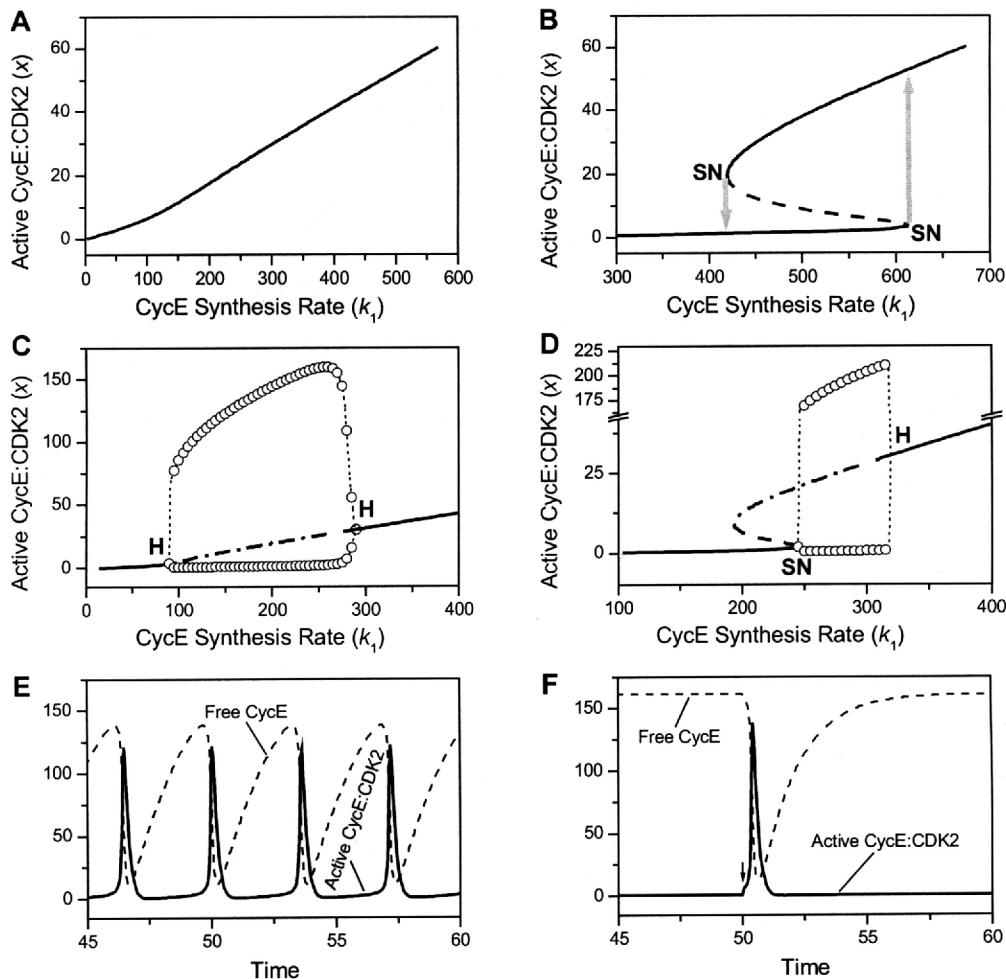


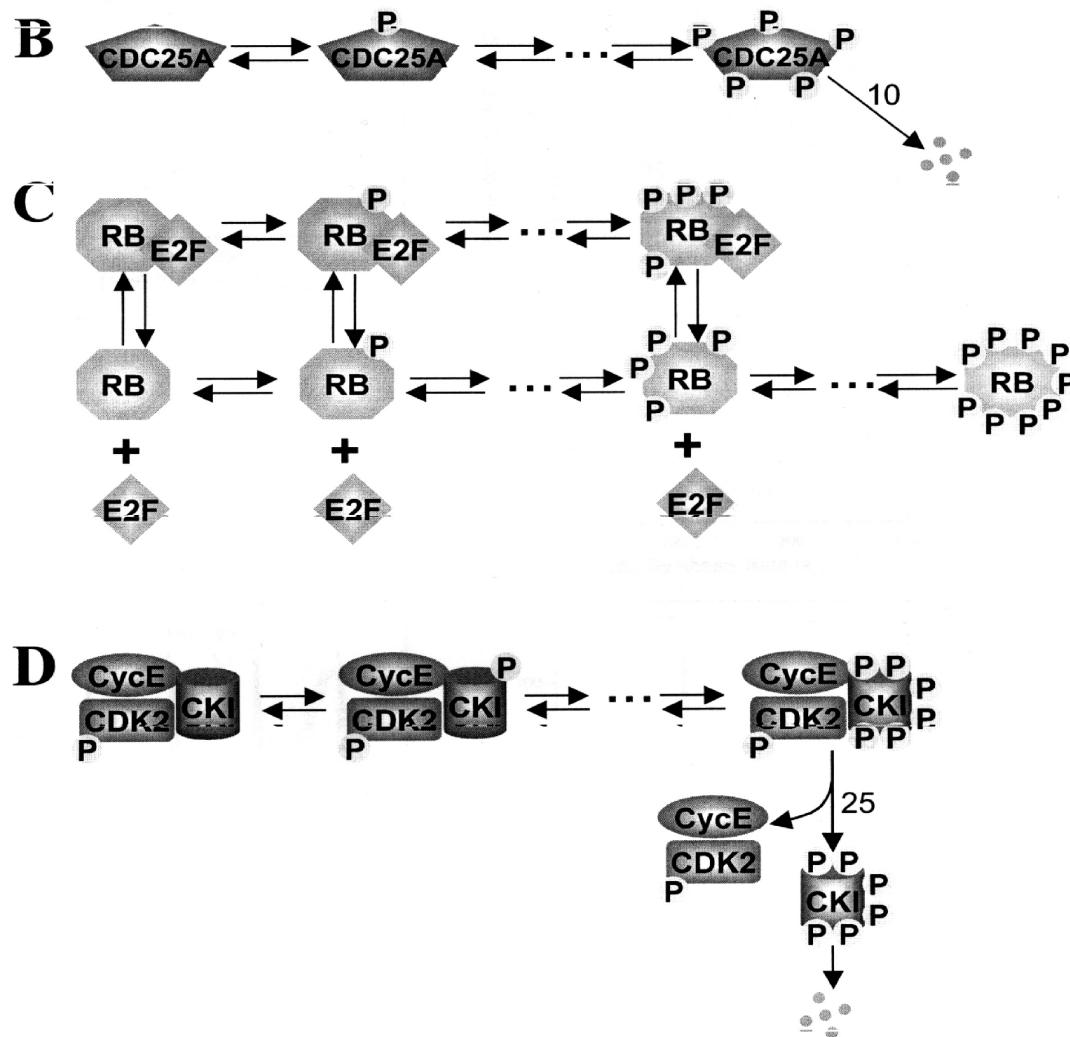


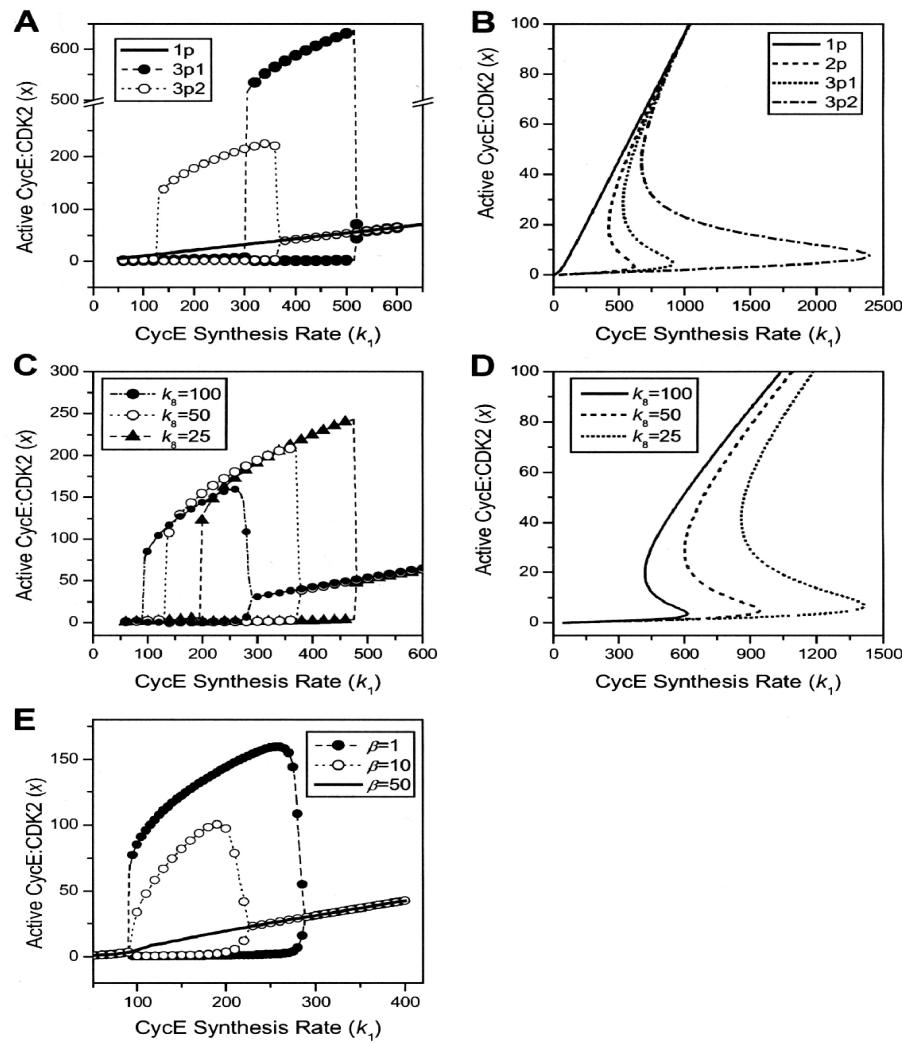


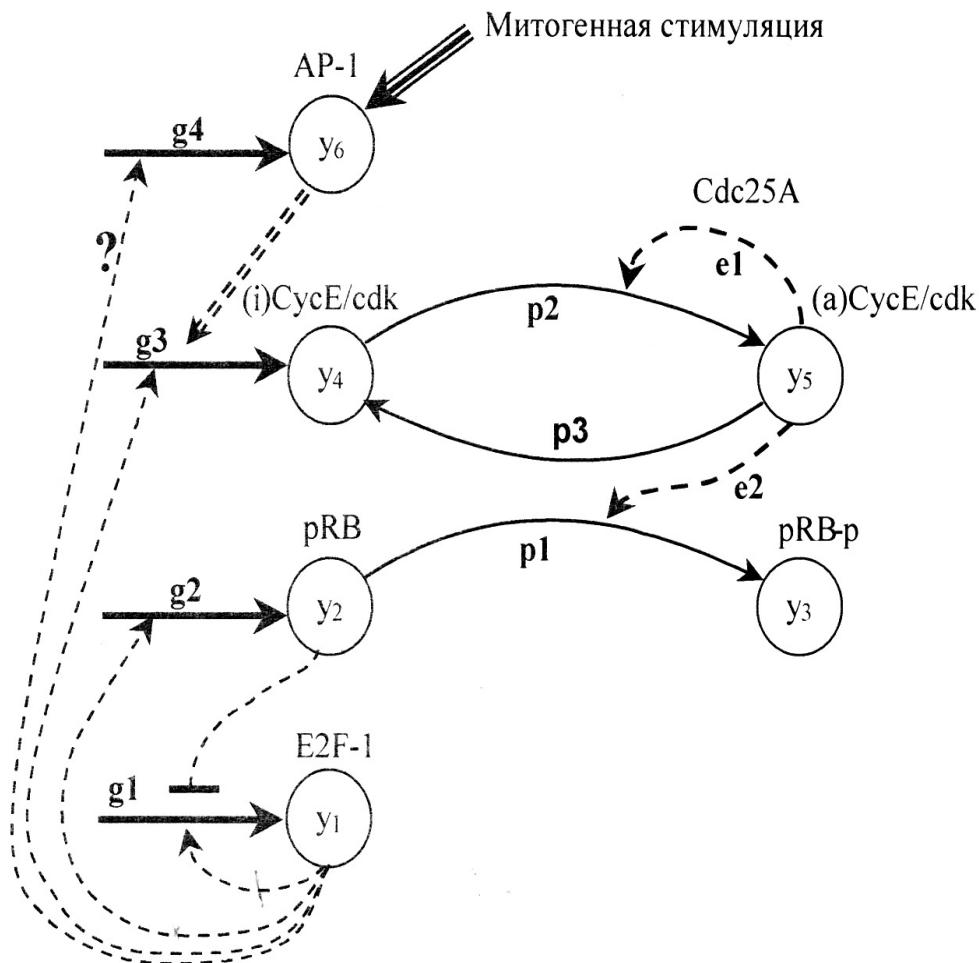
# Модель перехода G1-S

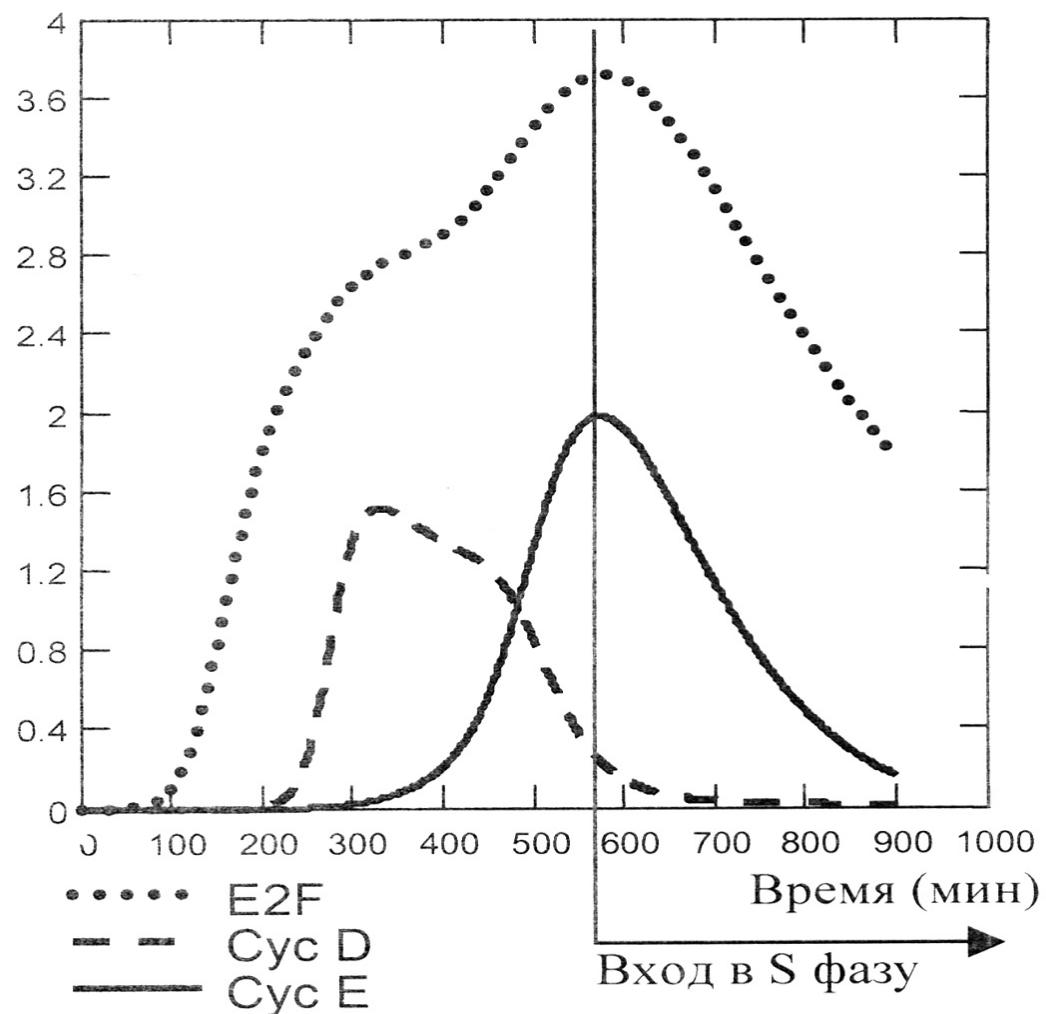


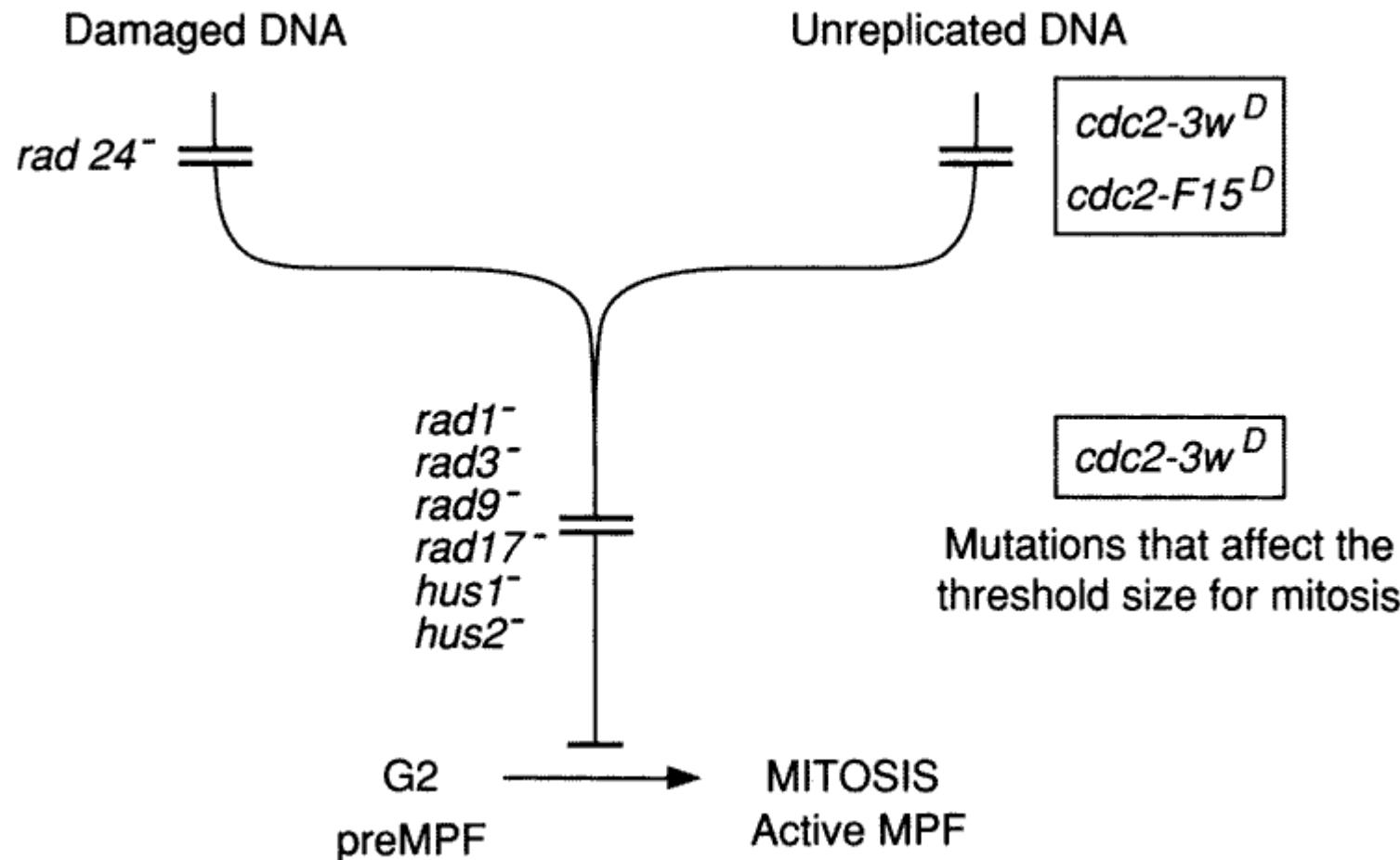


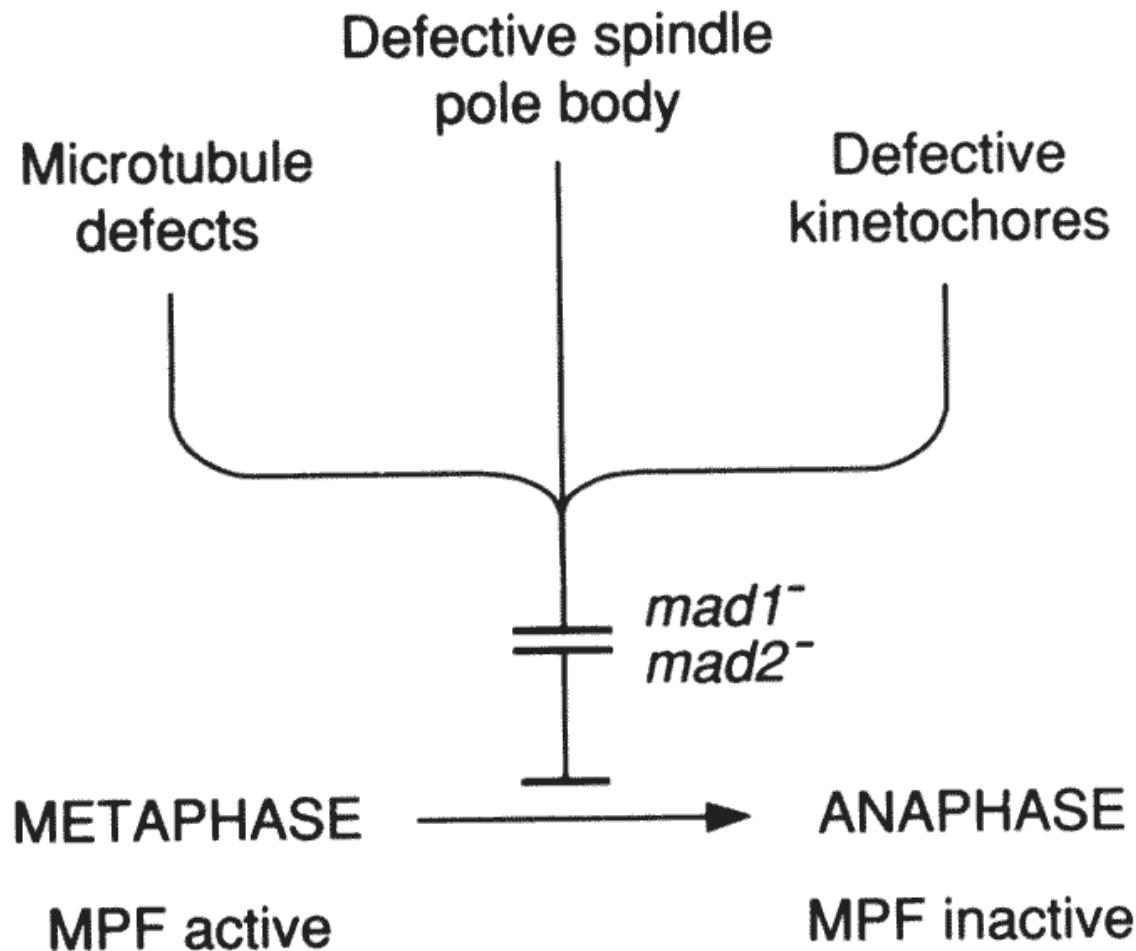


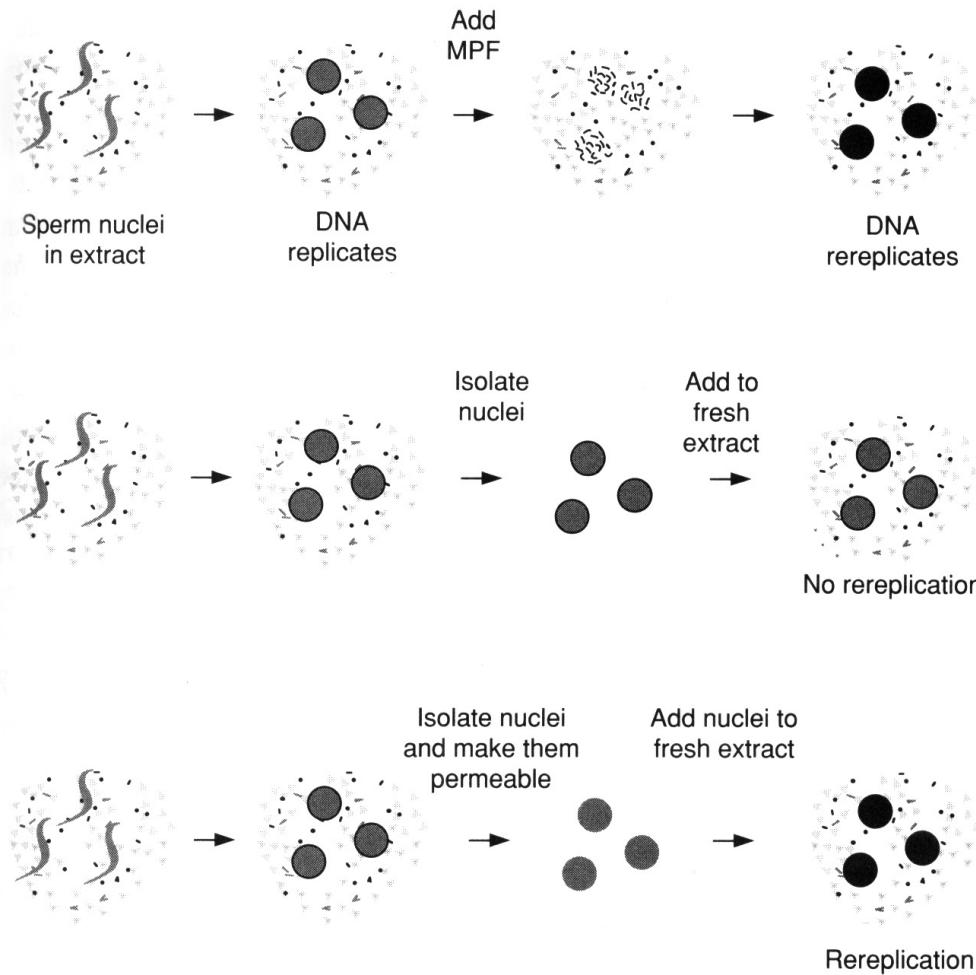


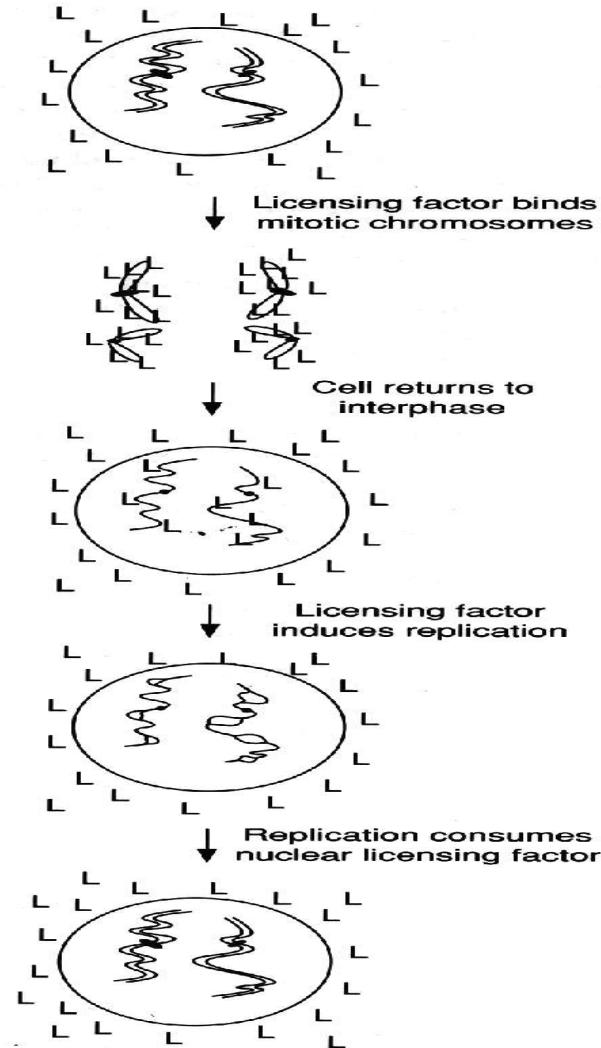


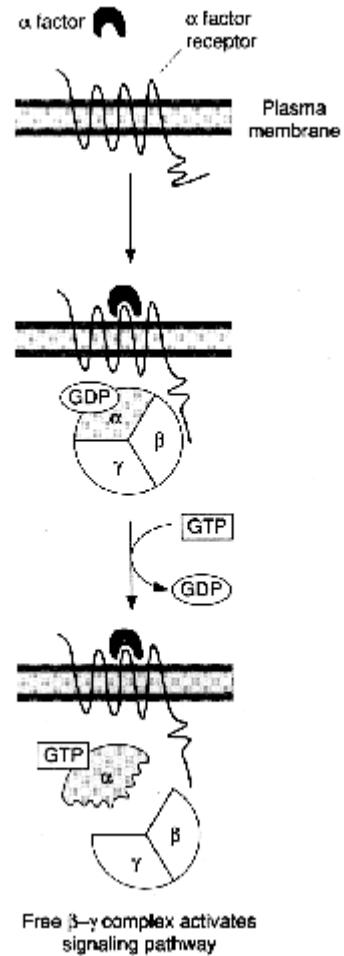


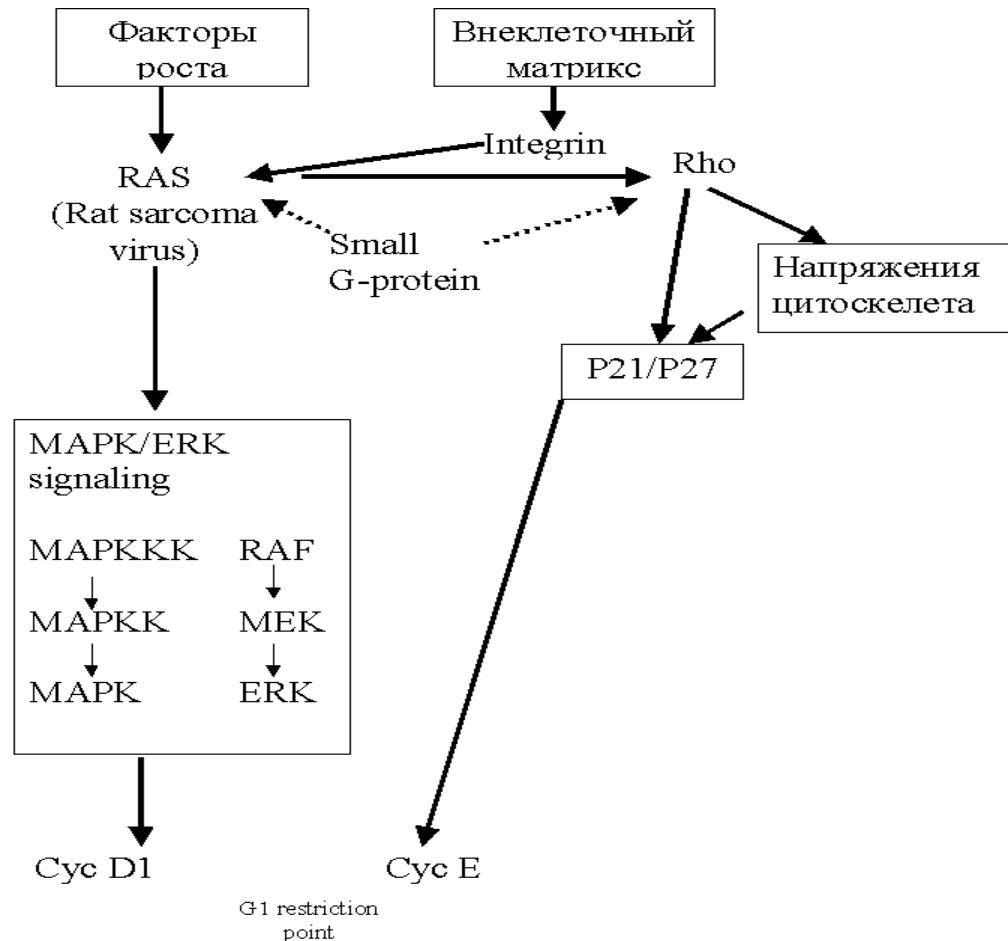












MAPK = mitogen activated protein kinase  
ERK = extracellular signal regulated kinase