

## **Systems biology of cell behavior**

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### **Abstract**

Systems Biology approaches to drug discovery largely focus on the increasing understanding of intracellular and cellular circuits, by computational representation of a molecular system followed by parameter validation against experimental data. This chapter outlines a universal approach to systems biology that allows the linking of intracellular molecular machinery and cellular activity. This procedure is achieved by applying mathematical modeling to molecular modules of a cell in the light of systems biology techniques. © 2010 Springer Science+Business Media, LLC.

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### **Keywords**

Cell activity, Cell behavior, Mathematical, Modeling, Paramecium, Systems biology