

COMPUTER MODELLING OF REGULATION OF OXIDATIVE PHOSPHORYLATION

Summary

Quantitative description of complex biological systems is presented using as an example a dynamic computer model of oxidative phosphorylation in mitochondria. Theoretical studies concerning the regulation of this process in response to varying en-

ergy demand in intact skeletal muscles and heart are discussed. Computer simulations demonstrate that it is possible to predict theoretically, at least to try to, the existence of completely new phenomena in biological systems.