**Formalized model of events of triggers' initiators of intracellular processes**

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**Background:** The usage of systems biology’s tools makes it possible to understand the diversity and complexity of the interaction processes of each link, which is a condition for the existence of a healthy living system. The crucially important fact is the presence of initiators of all processes in the cell.

The aim of this study was to create theoretical postulates for systematizing of events as conditions for initiation of triggers of programmed cell death. Note that the problem of fragmentation of researches in this area caused by the extremely large volumes of data.

**Methods:** Were used a content analysis and collocate analysis also were used the data from the databases STITCH and STRING.

**Results:** Were suggested a formalized model of organization of events that initiate the triggers of programmed cell death with 9 different levels of interactions: quantum; ions; molecular; macromolecular; the genetic basis; supramolecular; structural elements of the cell; macrostructural; intercellular.

Isolation and formalization of these levels is the first stage of the data capacity limitation (the first stage of the modeling).

Further simplification of the analysis strategy is associated with the formation of the clusters of targeted interaction processes (the second stage of the modeling).

**Conclusion:** This approach to formalization of events allows forming the reasonable hypotheses that concern to the triggers of programmed cell death in the cells and provides new tools for developing approaches and methods in systems biology.

Keywords: model, trigger, event, programmed cell death, systematization