

Diagrammatic Notation and Computational Structure of Gene Networks

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ABSTRACT

We present a formal notation for gene networks building upon and extending earlier work by Kohn [1]. The notation makes it possible to describe all the interactions in a cell in a single diagram, with only a few representations of each molecule. The notation is compact, introducing several ideas borrowed from computational mathematics into biology. It is modular, in the sense that complex interactions composed of many subparts may be annotated with the same symbols as the simplest interactions composed of individual molecules or genes.

REFERENCES

- [1] K. W. Kohn. Molecular interaction map of the mammalian cell cycle control and dna repair systems. *Molecular Biology of the Cell*, 10:2703–2734, August 1999.