GDP INDIVIDUAL REPORT

How Technology Companies Make Money

Shakib-Bin Hamid

Abstract

Gene regulatory [1] is used to perform hybrid modelling of GRN.

Background

In any given cell, thousands of genes are expressed and work in concert to ensure the cell's function, fitness, and survival. Each gene, in turn, must be expressed at the proper time and in the proper amounts to ensure the appropriate functional outcome. The regulation and expression of some genes are highly robust; their expression is controlled by invariable expression programs. For instance, developmental gene expression is extremely similar in a given cell type from one individual to another.

GINsim allows the user to specify a GRN on Graphical User Interface (GUI) according to the asynchronous multivalued logical functions of René Thomas, and to simulate and/or analyse its qualitative dynamical behaviour. ReneThomas discrete modeling of gene regulatory network (GRN).

Implementation

Figure 1 elucidates the layered architecture, upon which our implimentation is based. We use existing coed of SMBioNet and HyTech for parameter estimation and hybrid modeling of GRN respectively.

Conclusion

Biological regulatory networks of any biological problem are very important to study and analyse. GenNet facilitates the user to completely simulate and analyse both qualitative and quantitative behaviours of GRNs.

References

1. D. Winterman and J. Kelly, "Online shopping: The pensioner who pioneered a home shopping revolution." http://www.bbc.co.uk/news/magazine-24091393, Sep 2013. [Online: accessed 14-December-2016].

Correspondence: sh3g12@soton.ac.uk