A basis for a visual language for describing, archiving and analyzing functional models of complex biological systems

ABSTRACT
BioD can be utilized as an extensible, multidisciplinary language with the help of computer and internet technology to store functional systems knowledge and further support qualitative and quantitative functional analysis.

INTRODUCTION
A base for visualizing and describing complex biological systems

I. Visualizing a complex biological system

A. The visual system of a biological system includes visual information, such as colour, shape, texture, shape information, and so on.

B. The visual system of a biological system is composed of a series of visual elements, such as colour, shape, texture, shape information, and so on, that are represented in such a way as to represent the visual information.

C. The visual system of a biological system includes:

(a) a visual system of a biological system;

(b) a visual system of a biological system;

(c) a visual system of a biological system;

(d) a visual system of a biological system Various disciplines have developed standard graphical representations of complex systems to communicate, archive and analyze knowledge. Although electronic circuit diagrams and architectural plans are widely used, there is no standardized way to describe functional systems in biology. Specifically, we propose that a standardized visual biological description language would provide more easily understandable and less ambiguous communication, as well computationally, it could also serve as underlying ground maps for distributed searchable archives of functional knowledge and as the simulating and analyzing "the computer-aided design" (CAD) language of biological systems.

CONCLUSION
Remarkable conclusions Our proposal suggests the need for a comprehensive biological descriptive language, comparable to other fields' schematic diagramming languages and resembling those found in other areas, as part of the evolution of functional bioinformatics. We have developed supplementary prototype language (BioD) to test its feasibility and evaluate the use of object-oriented programming techniques in Internet communications to establish computational capabilities with underlying abstract conceptual frameworks that can support archived extended web-linked model networks and model analysis using hybrid qualitative reasoning and quantitative simulations; we propose that this approach.