

Resource Summary Report

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Predictive Networks

RRID:SCR_006110

Type: Tool

Proper Citation

Predictive Networks (RRID:SCR_006110)

Resource Information

URL: <https://compbio.dfci.harvard.edu/predictivenetworks/>

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Description: A flexible, open-source, web-based application and data services framework that enables the integration, navigation, visualization and analysis of gene interaction networks. The primary goal of PN is to allow biomedical researchers to evaluate experimentally derived gene lists in the context of large-scale gene interaction networks. The PN analytical pipeline involves two key steps. The first is the collection of a comprehensive set of known gene interactions derived from a variety of publicly available sources. The second is to use these "known" interactions together with gene expression data to infer robust gene networks. The regression-based network inference algorithm creates a graph of gene interactions in which cycles may be present (but no self-loops). Based on information-theoretic techniques, a causal gene interaction network is inferred from both prior knowledge (interactions extracted from biomedical literature and structured biological databases) and gene expression data. A prediction model is fitted for each gene, given its parents, enabling assessment of the predictive ability of the network model.

Abbreviations: PN

Resource Type: analysis service resource, data analysis service, data or information resource, database, production service resource, service resource, software resource, source code

Defining Citation: [PMID:22096235](#)

Keywords: gene interaction network, gene, interaction, gene expression, graph, visualization, gene interaction, gene network, predictive network analysis, model, bio.tools

Funding: NLM 1R01LM010129

Availability: Apache License, v2

Resource Name: Predictive Networks

Resource ID: SCR_006110

Alternate IDs: nlx_151582, biotools:predictivenetworks

Alternate URLs: <https://bio.tools/predictivenetworks>

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Ratings and Alerts

No rating or validation information has been found for Predictive Networks.

No alerts have been found for Predictive Networks.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We have not found any literature mentions for this resource.