## **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//

**Proper Citation:** Predictive Networks (RRID:SCR\_006110)

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

**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

**Record Creation Time:** 20220129T080234+0000

**Record Last Update:** 20250516T053814+0000

### **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.