



HALA ALBAHLOUL

Diseases Genes

The association between
diseases and genes

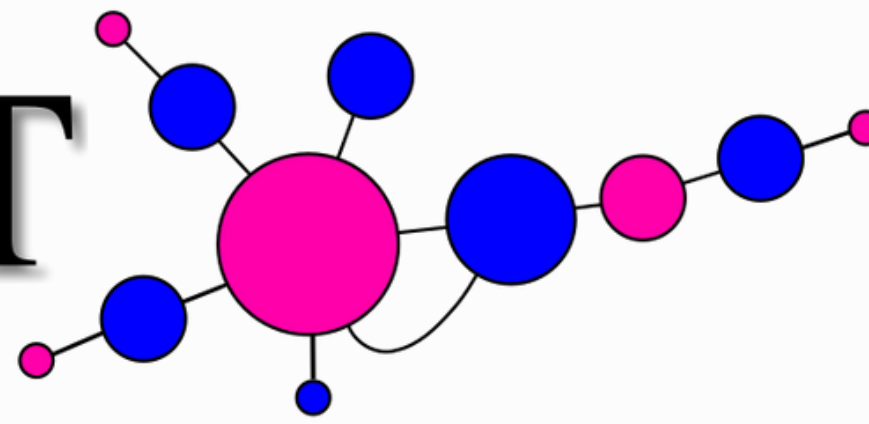


How are
diseases related?

What diseases are
you likely to get?

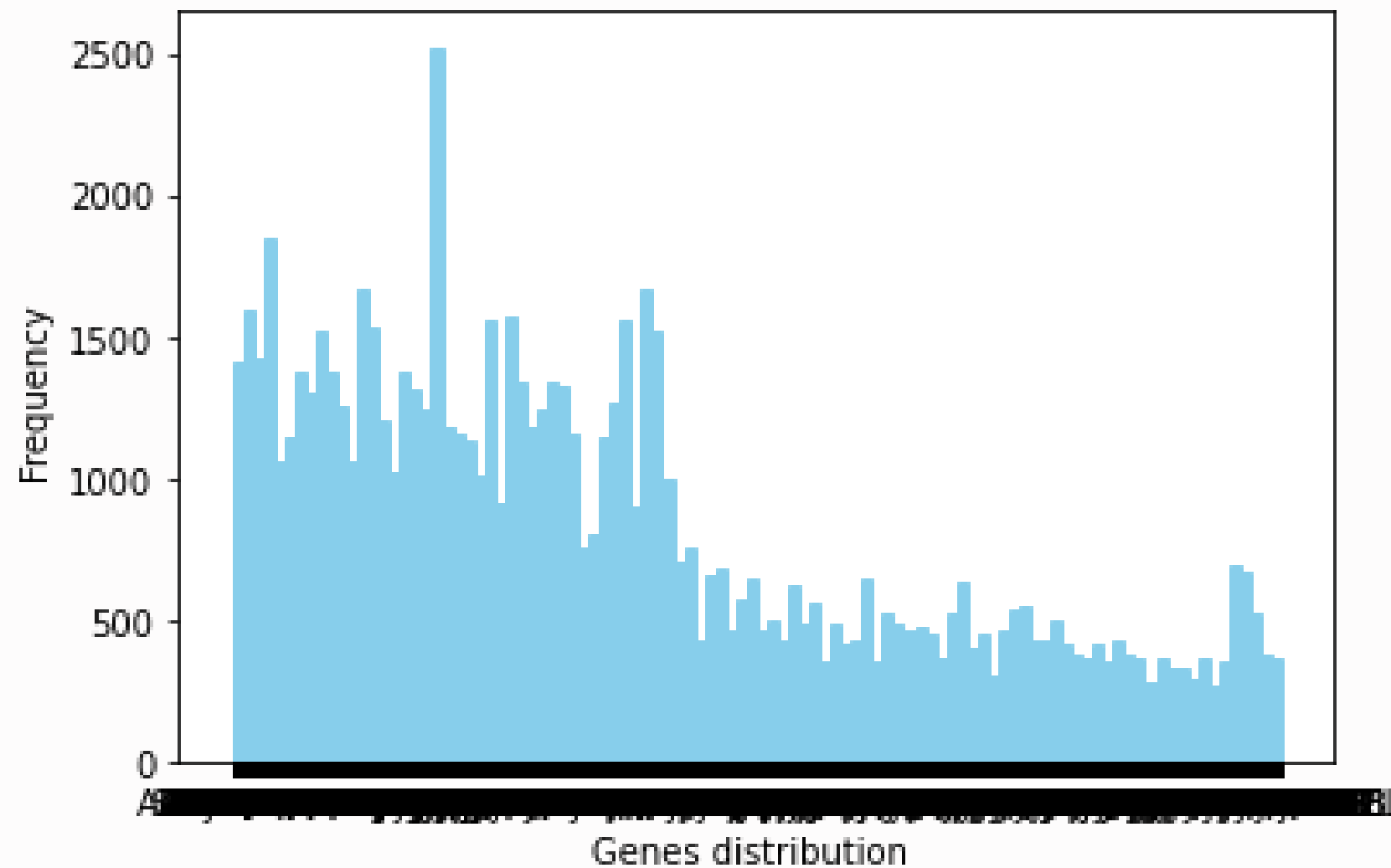
Based on Genes in common

DisGeNET



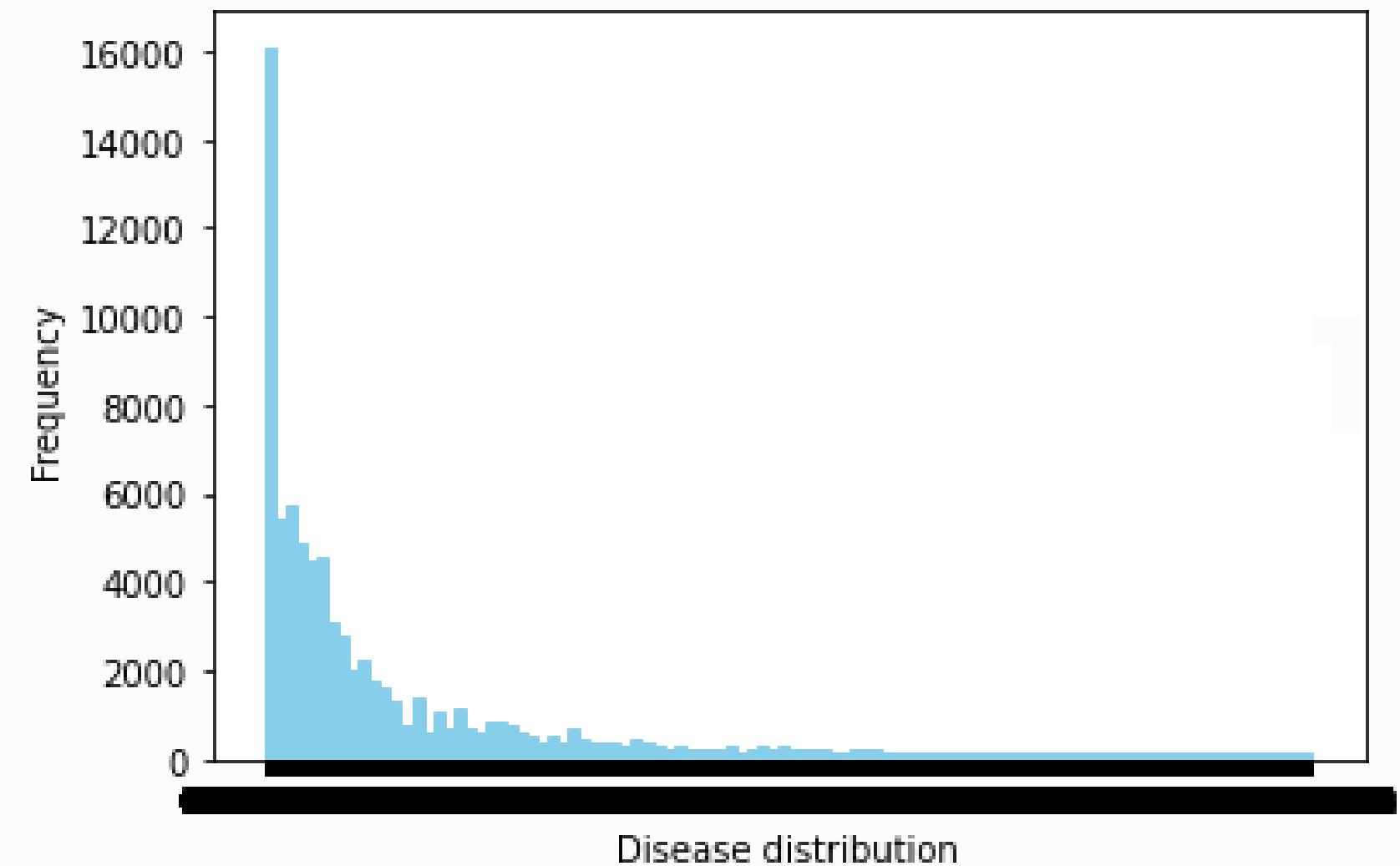
9411

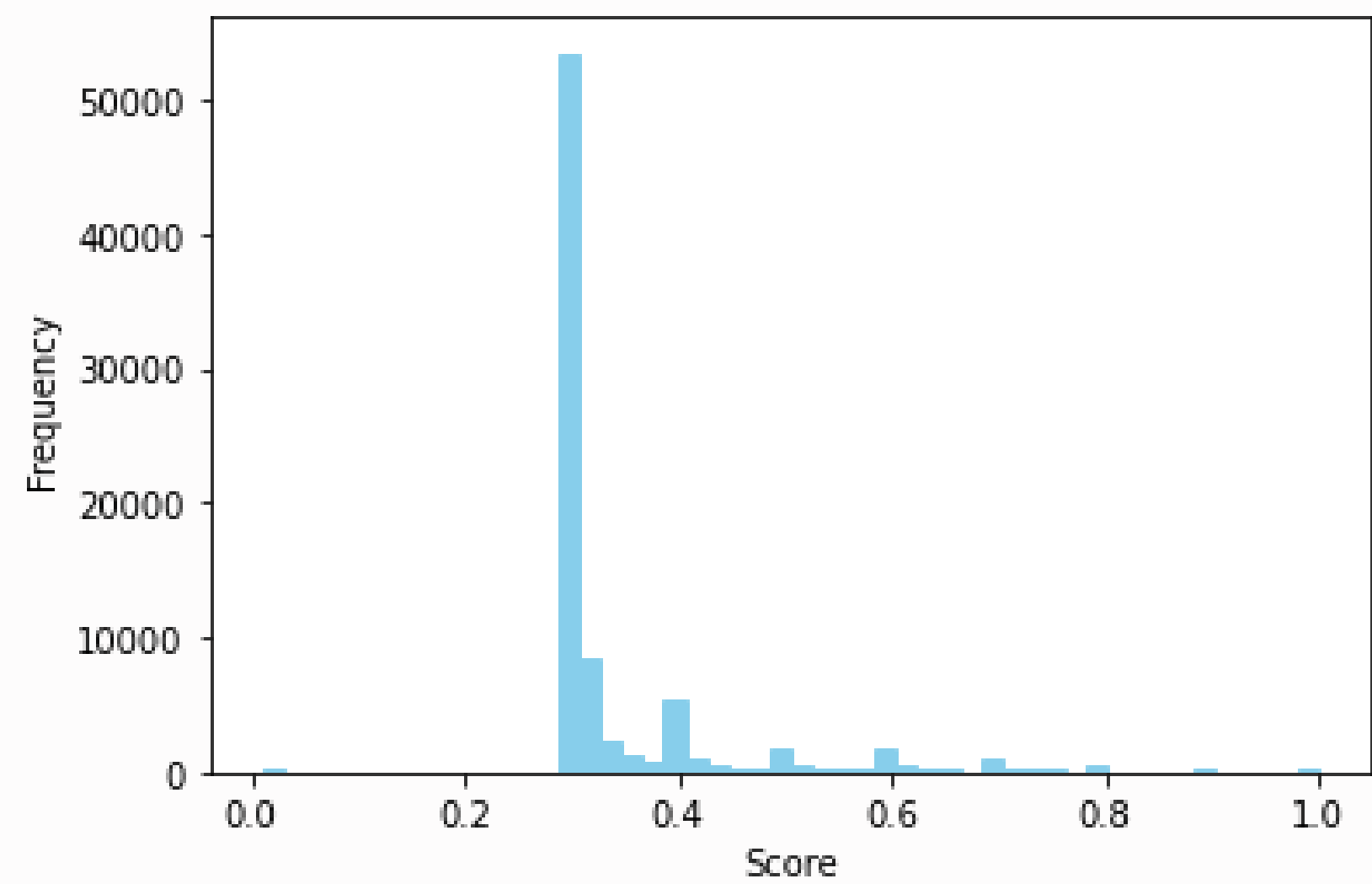
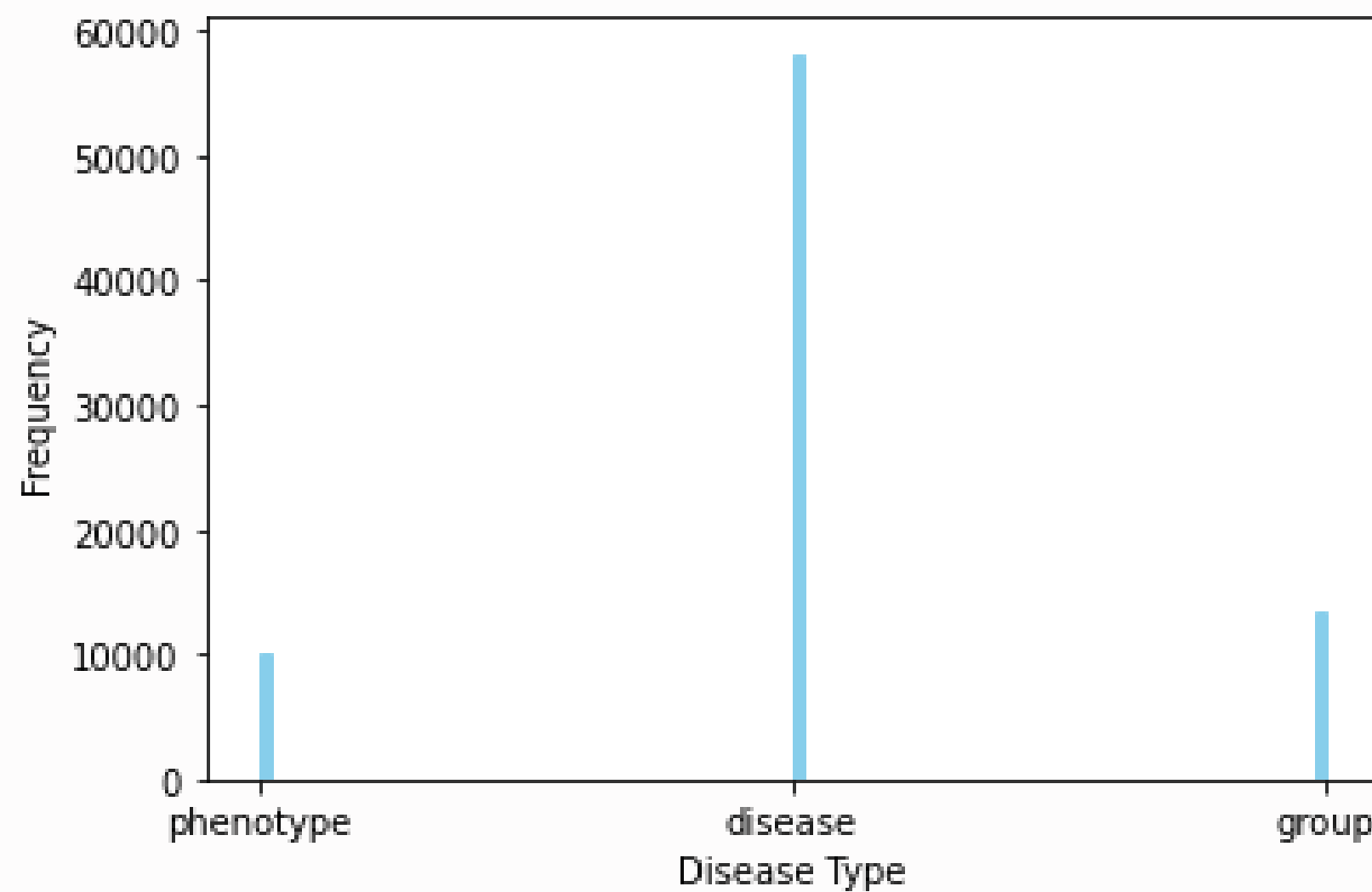
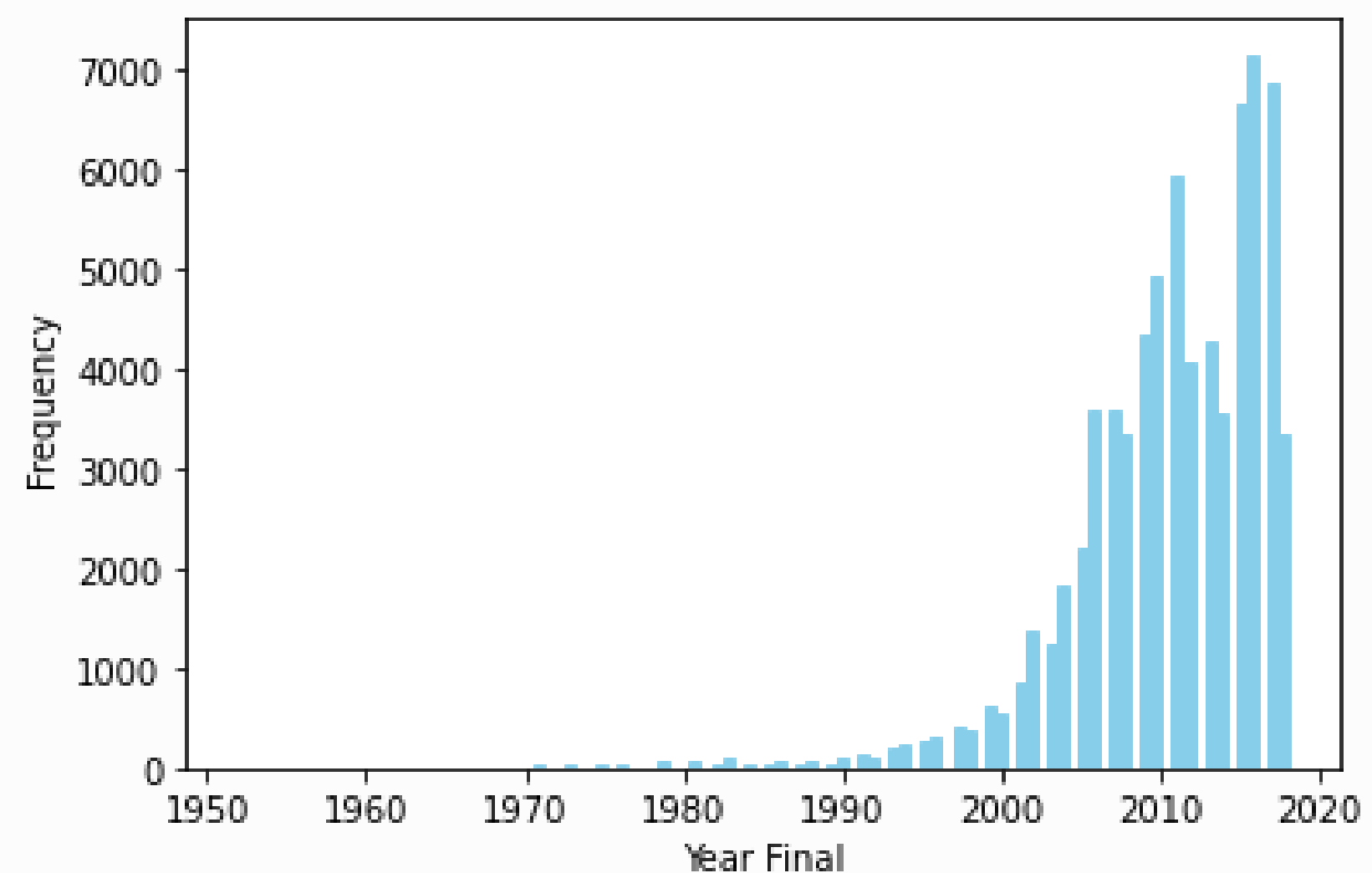
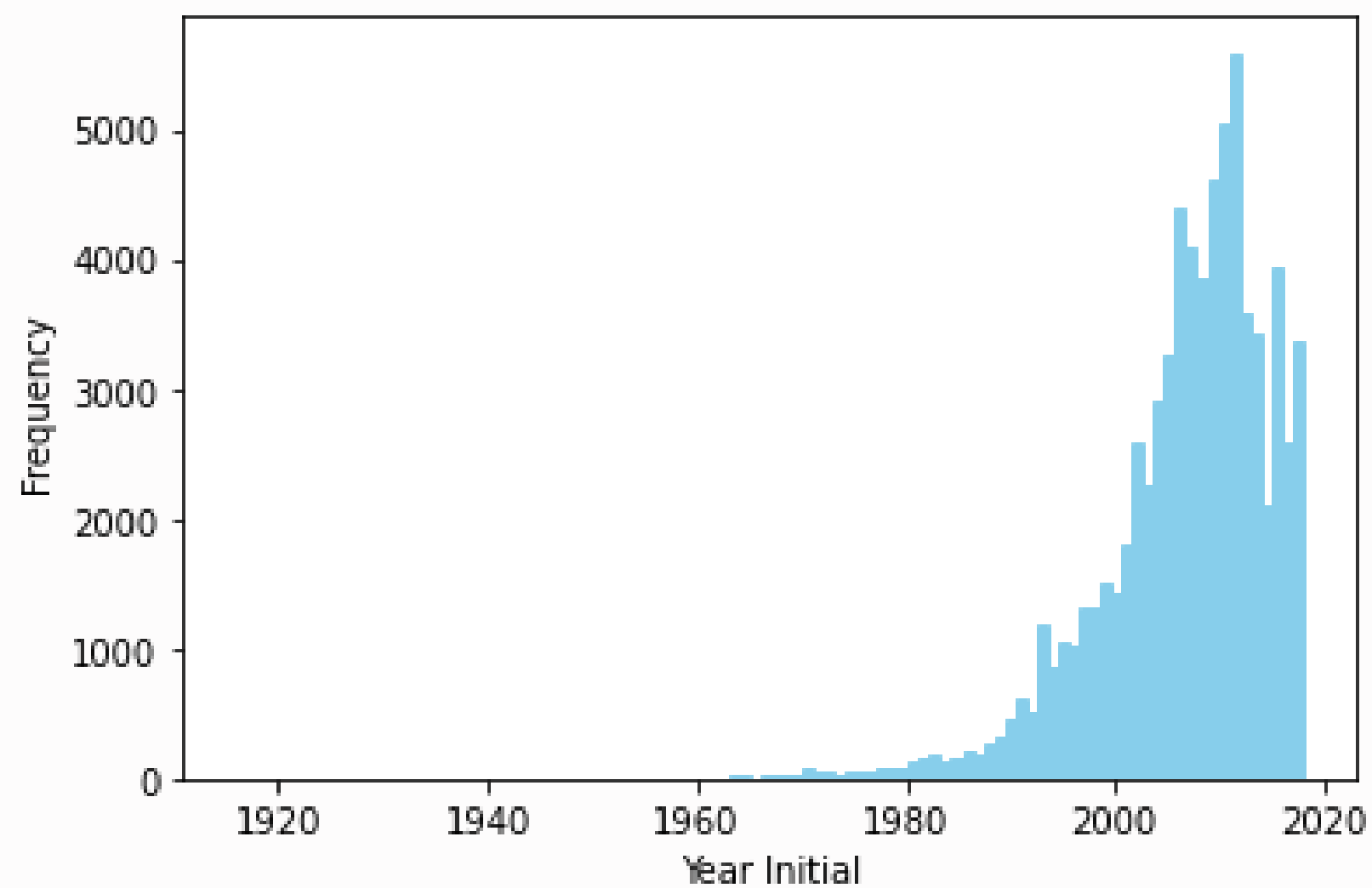
Genes



10370

Diseases





Process

How data is
selected?

Score > 0.5
Recent years
Early years



Hypergeomitrec
Filter

Filter the low
probabilitis



Work with
Gephi

Filter and draw

A Lucrative Industry

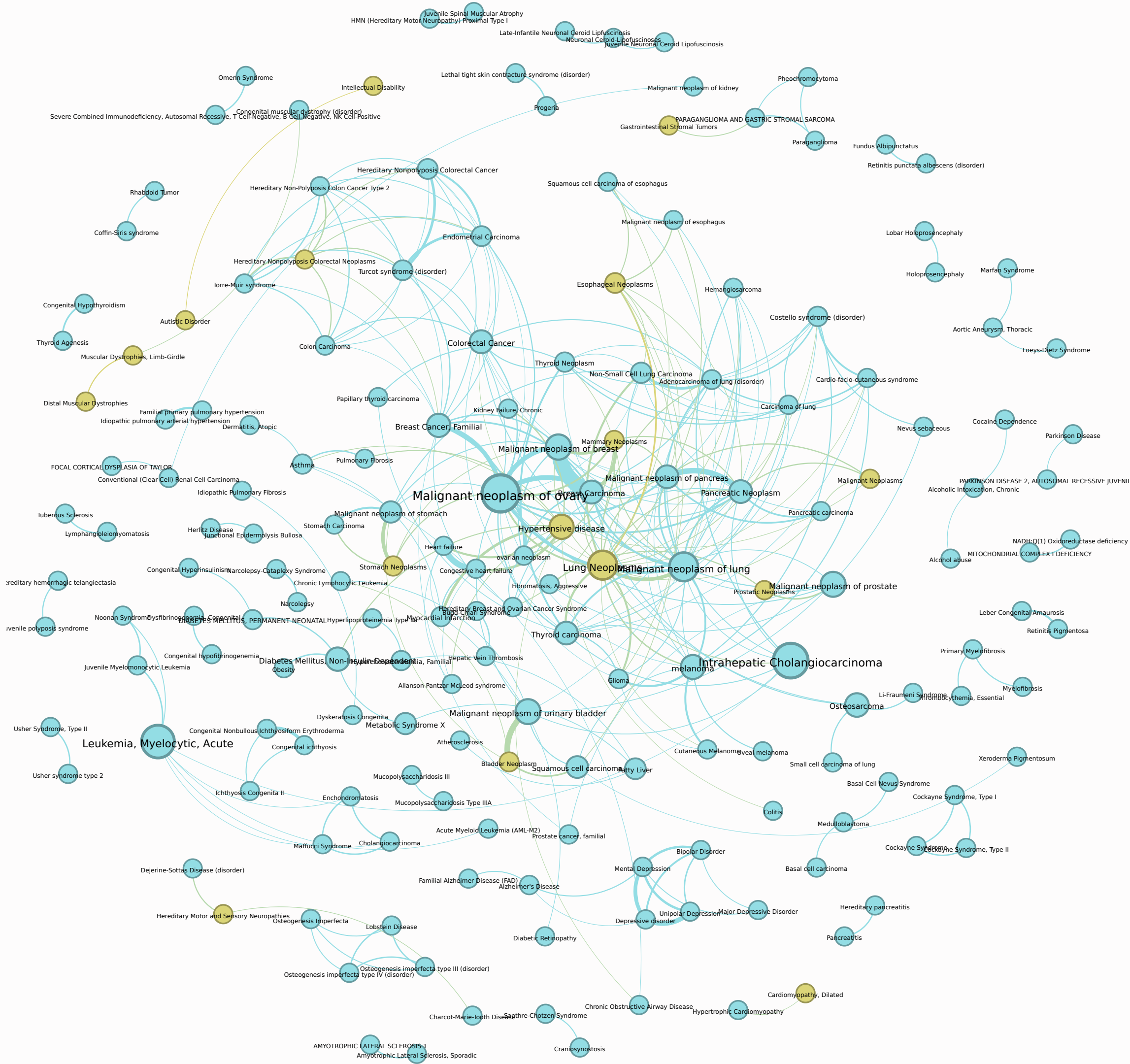
Diseases **Network**

Edges: 311

Years > 2014

Wieght

Degree



Edges: 311

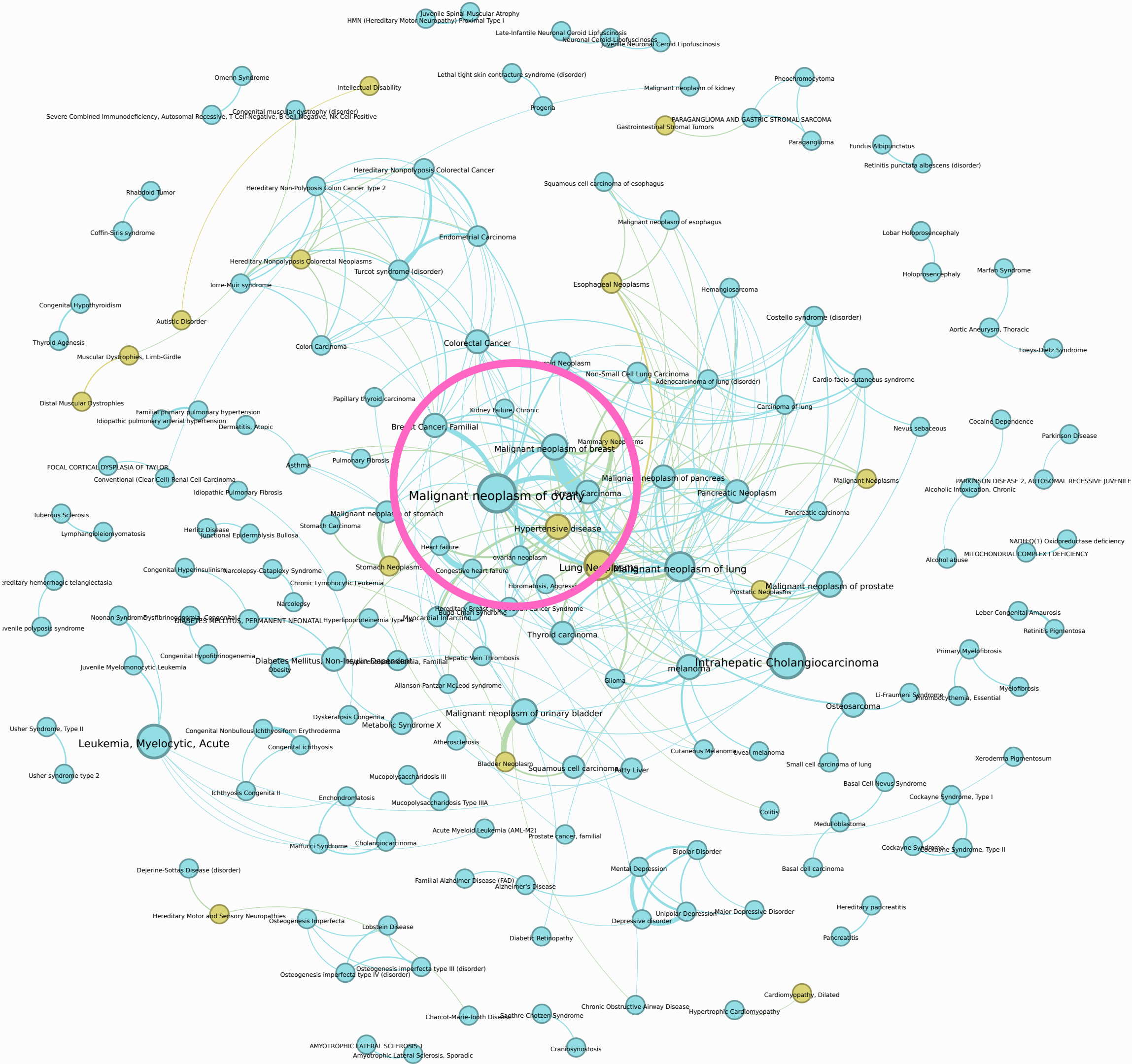
Filter:

Years > 2014

Score > 0.5

Wiegth

Degree



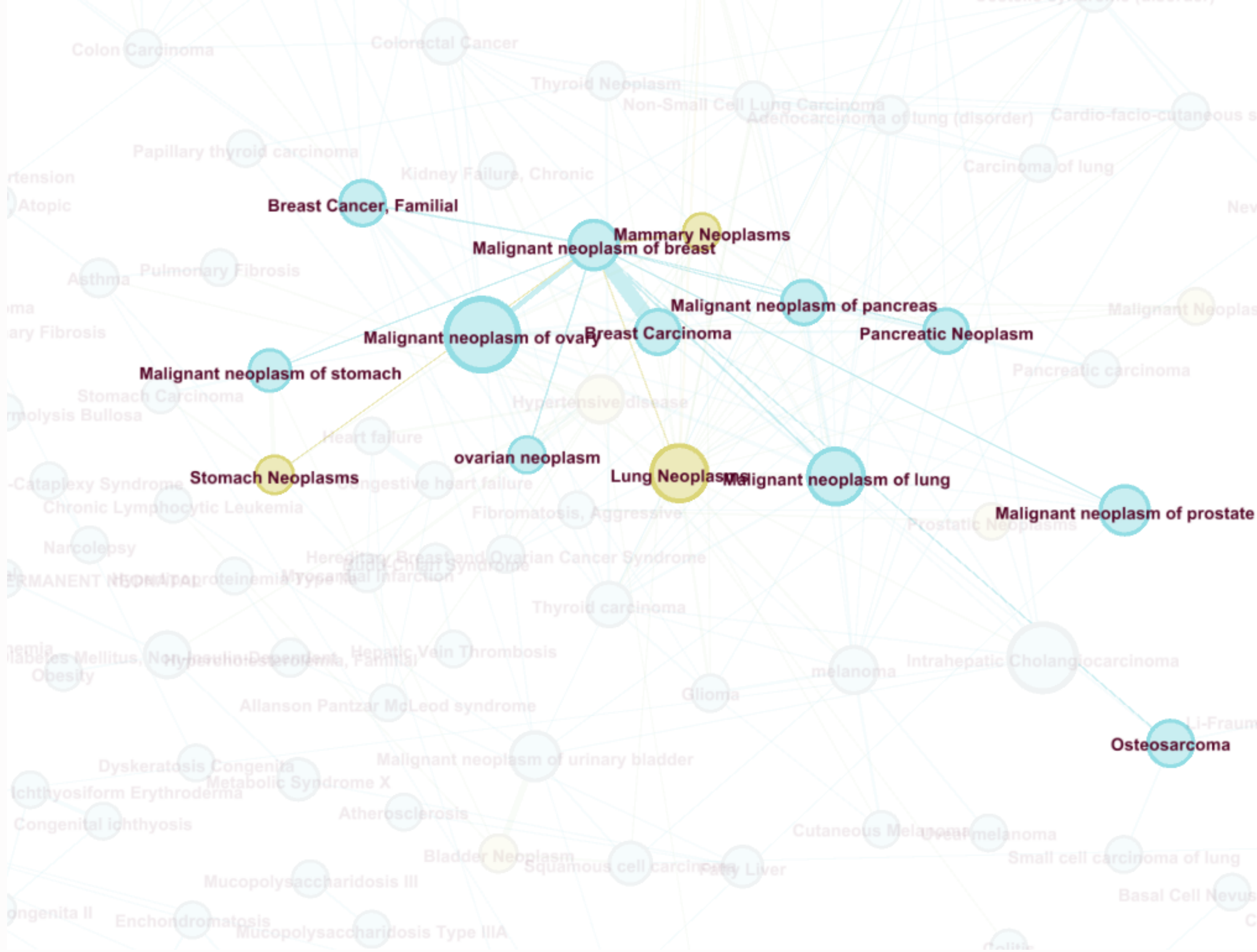
Malignant neoplasm of breast:

1983-2018

1025 Gene

2008-2018 26 Gene

1998-2008 16 Gene



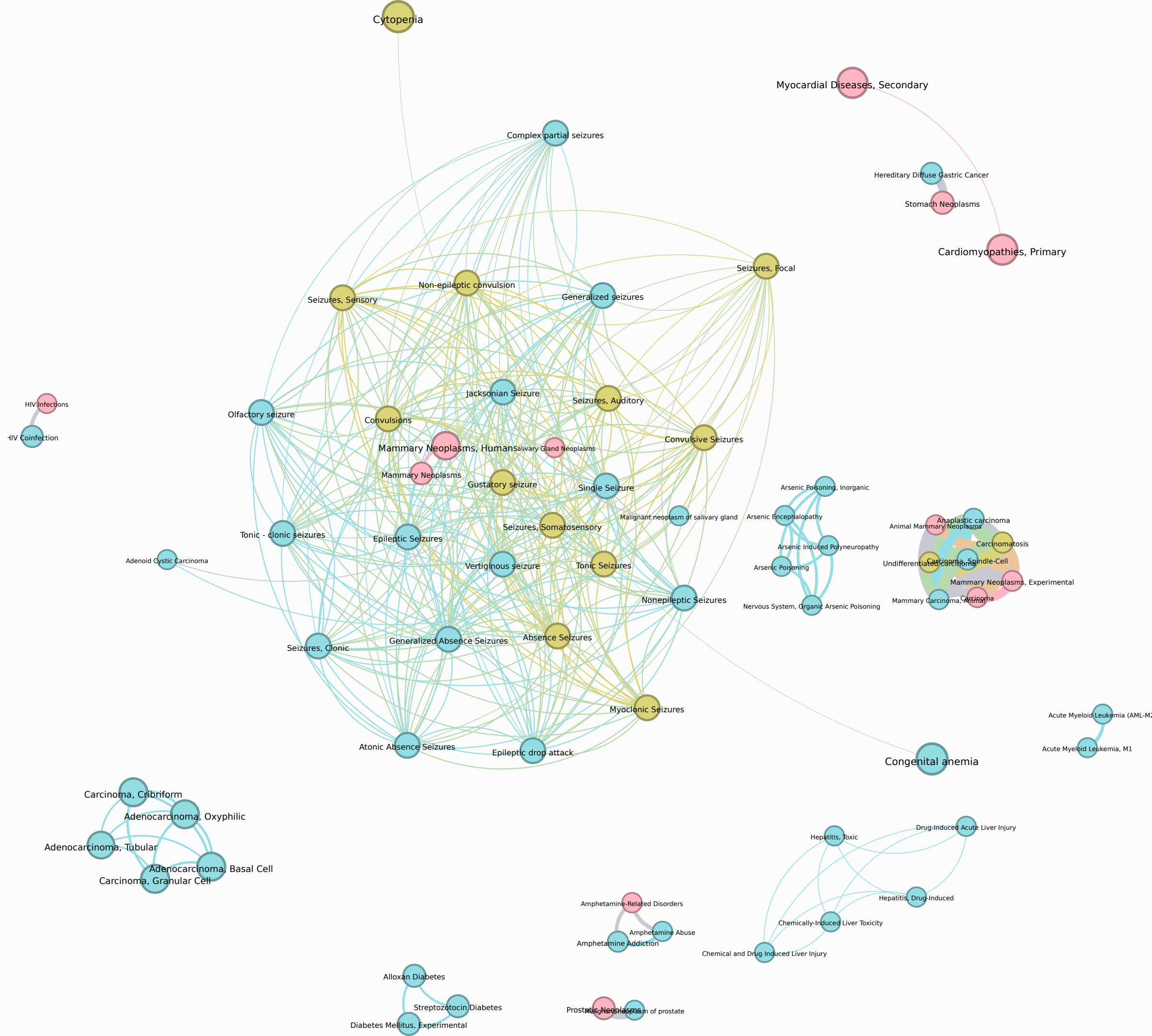
Edges: 311

Node Color: Degree

Years: 1998-2008

Edge Weight

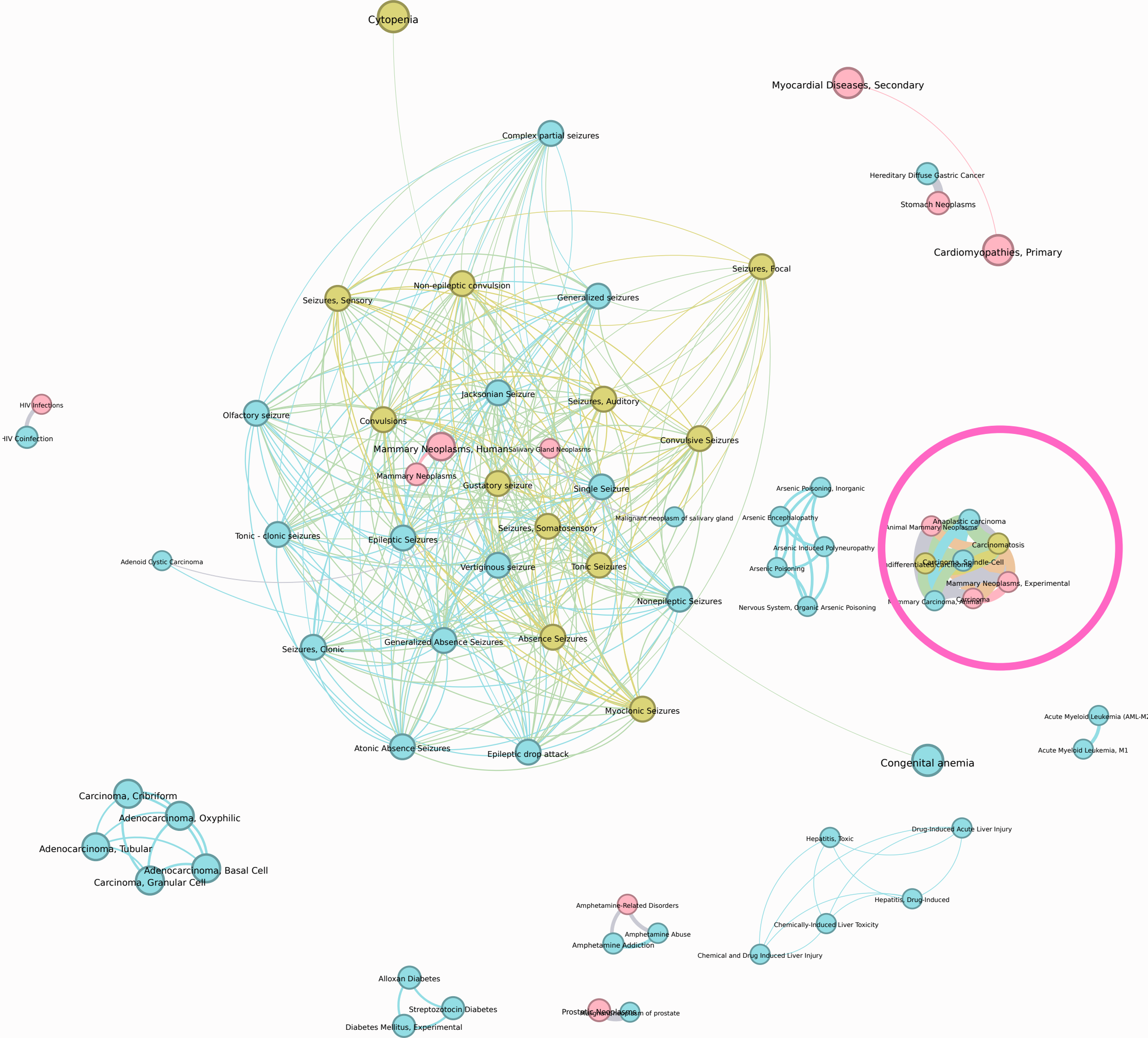
Node Degree



Nodes: 79
Edges: 311

Node Size: betweenness centrality
Node Color: Degree

Filter:
Years: 1998–2008
Score > 0.5
Edge Weight
Node Degree



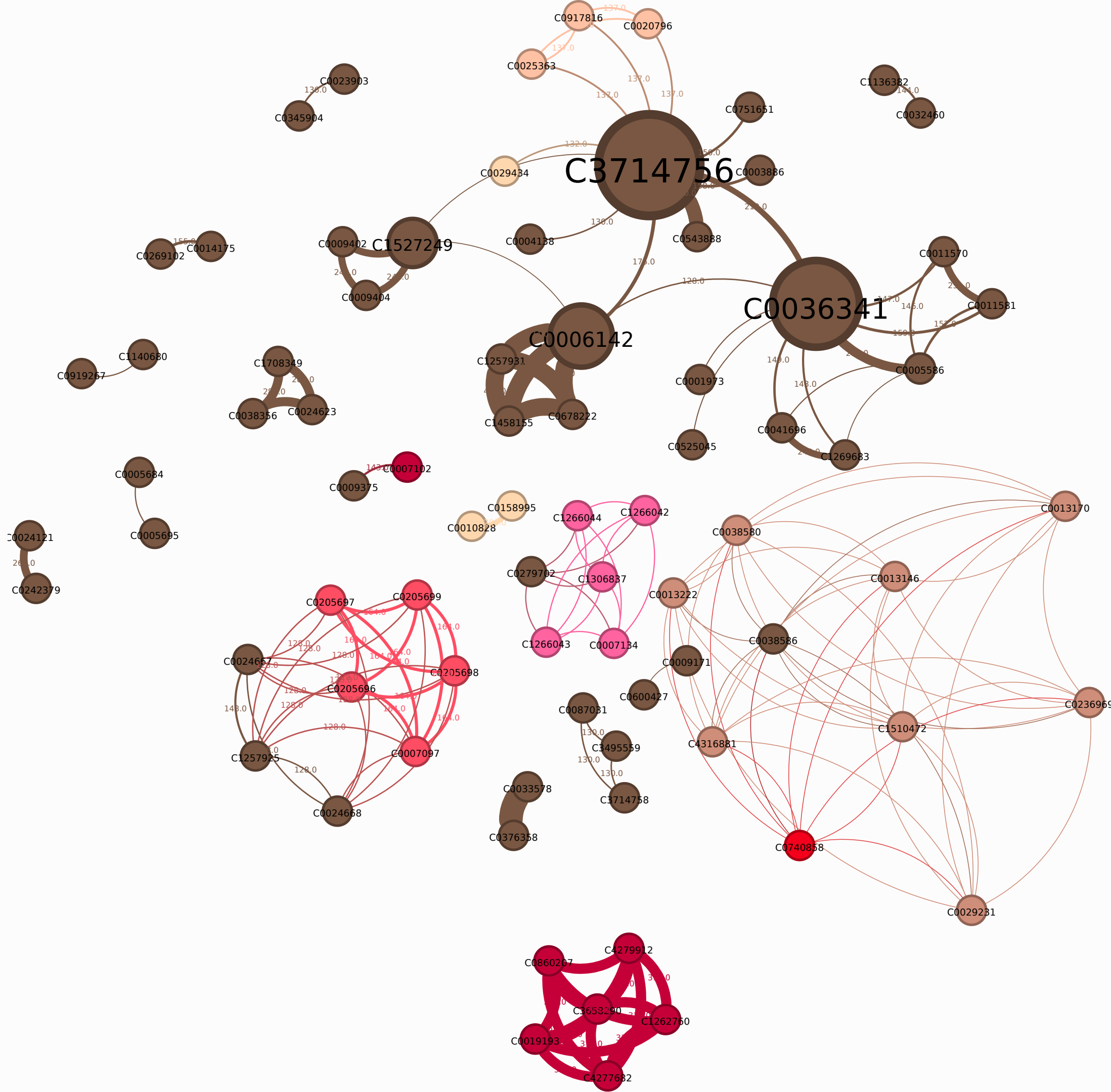
Filter:

Edge Wieght

Node Degree

Node Size: betweenness centrality

Node Color: Degree



Github Repository

<https://github.com/halaalbahloul/DisgenetDataAnalysis>

Thank you for your attension!

How is the score for a gene-disease pair, or variant-disease pair computed?

The DisGeNET score for GDAs takes into account the number and type of sources (level of curation, organisms), and the number of publications supporting the association, while the score for the VDAs takes into account sources, and number of papers. The scores range from 0 to 1.