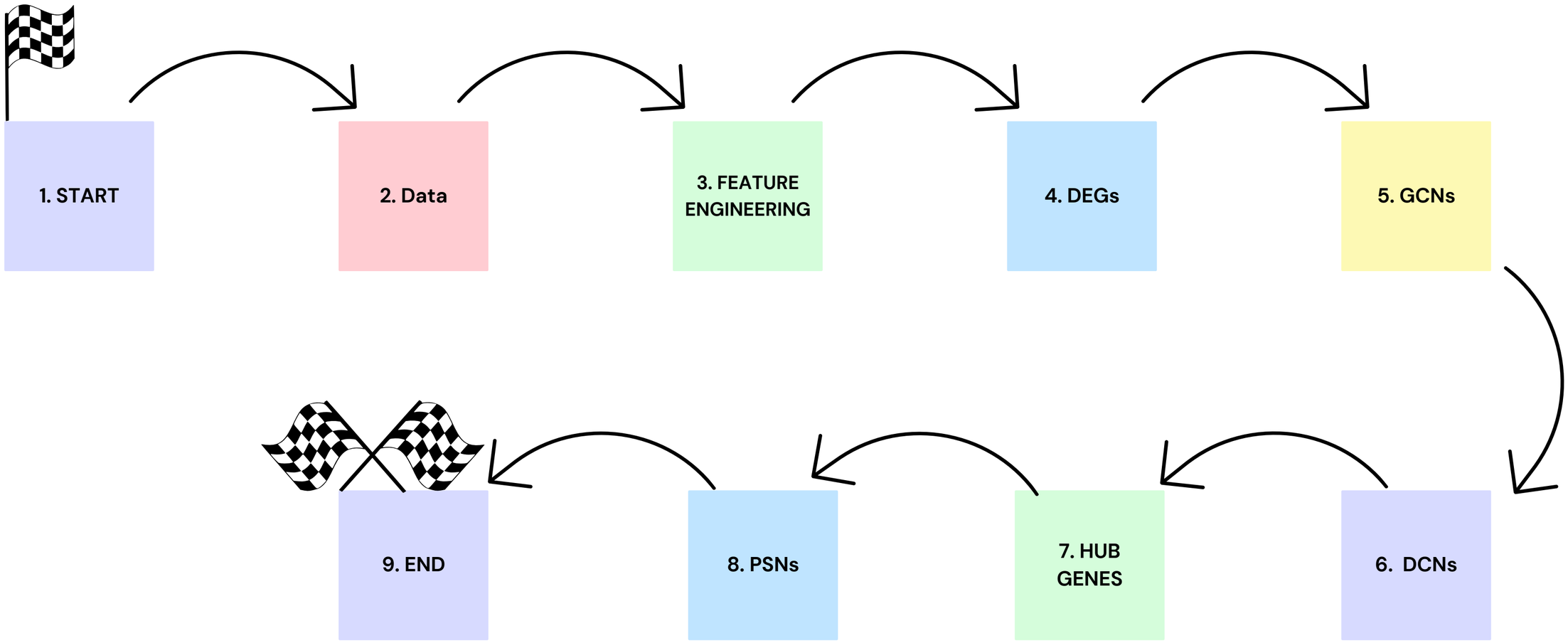
# ANALYSIS OF PRAD HUB GENES

Leonardo Lavagna
Group 14


1. START
2. Data
3. FEATURE ENGINEERING
4. DEGs
5. GCNs
6. DCNs
7. HUB GENES
8. PSNs
9. END

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## Overview

**Prostate Adenocarcinoma** (PRAD) is a **common cancer affecting men** in their late adulthood and it is **often treatable** As a result of early diagnosis, the **mortality rate** of PRAD **fall**, although the **incidence** of PRAD continues to **rise**. It is very important to help develop new therapies and early screening tests.

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## Genomic Data

From the **Cancer Genome Atlas** we retrieved a collection of genomic data of about **575 genes and 500 patients**. For our analysis we handled **two datasets extracted** from TCGA: the **tumor tissue** and the **normal tissue**.

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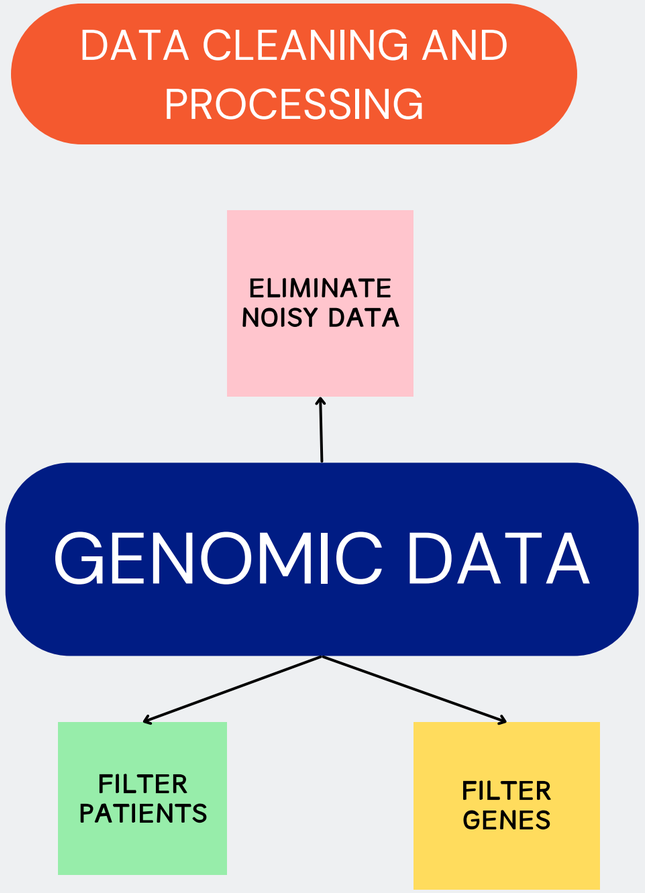

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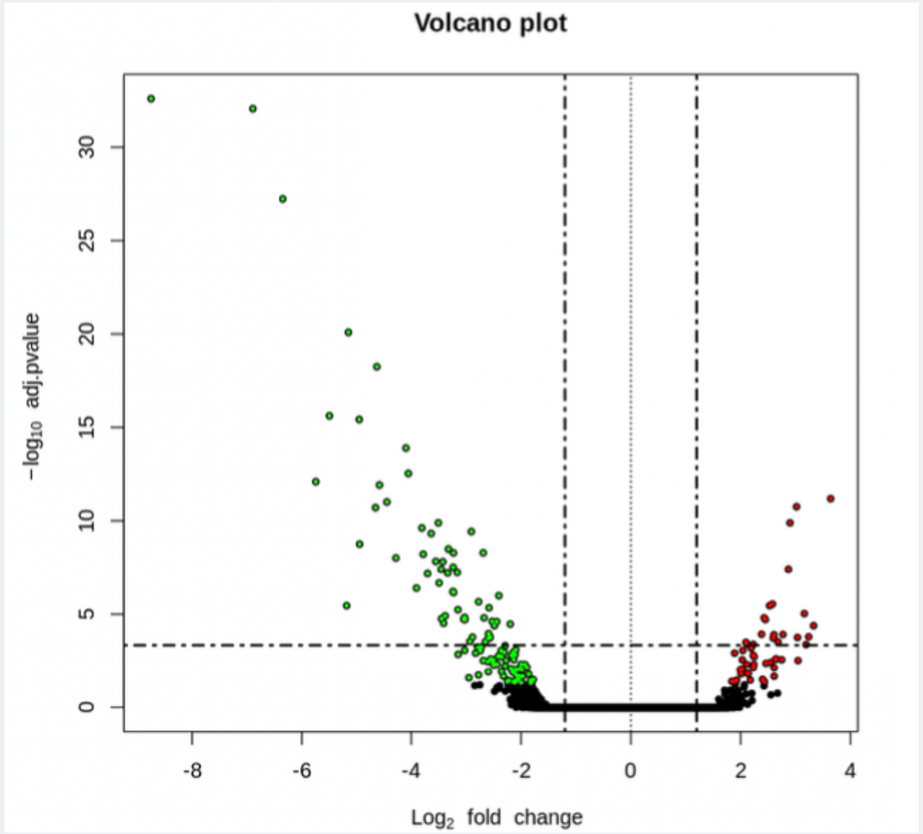
## DEGs WITH DIFFERENT KINDS OF THRESHOLDS



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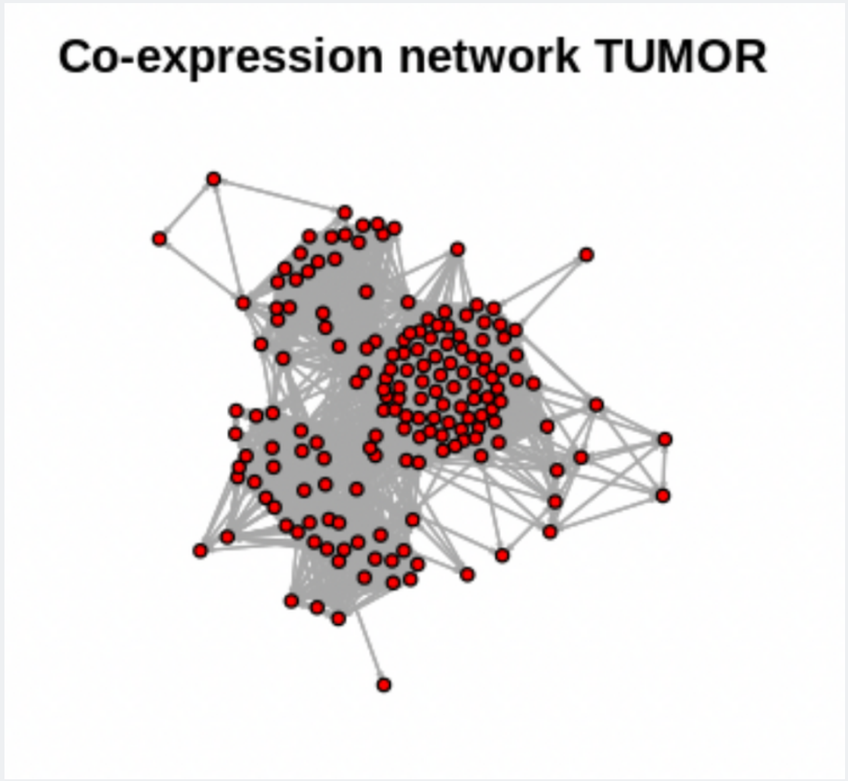
## GCNs: TUMOR vs NORMAL



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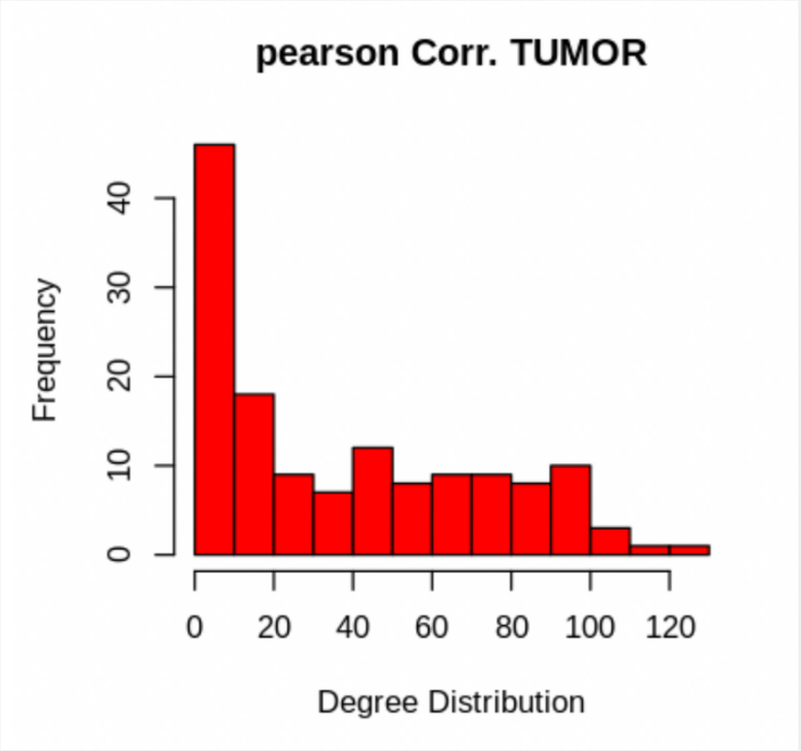

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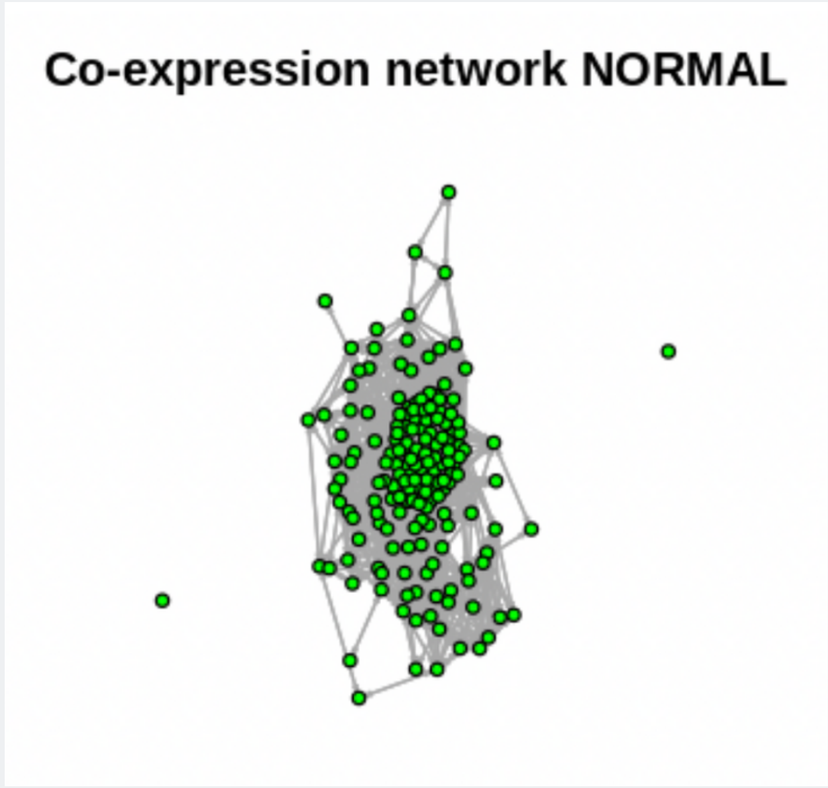

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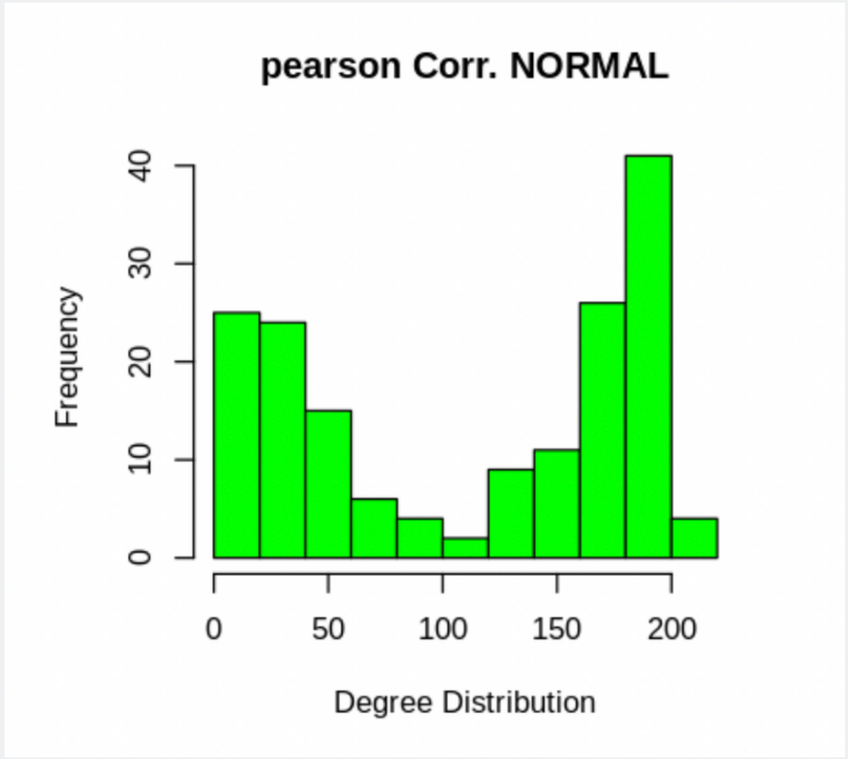

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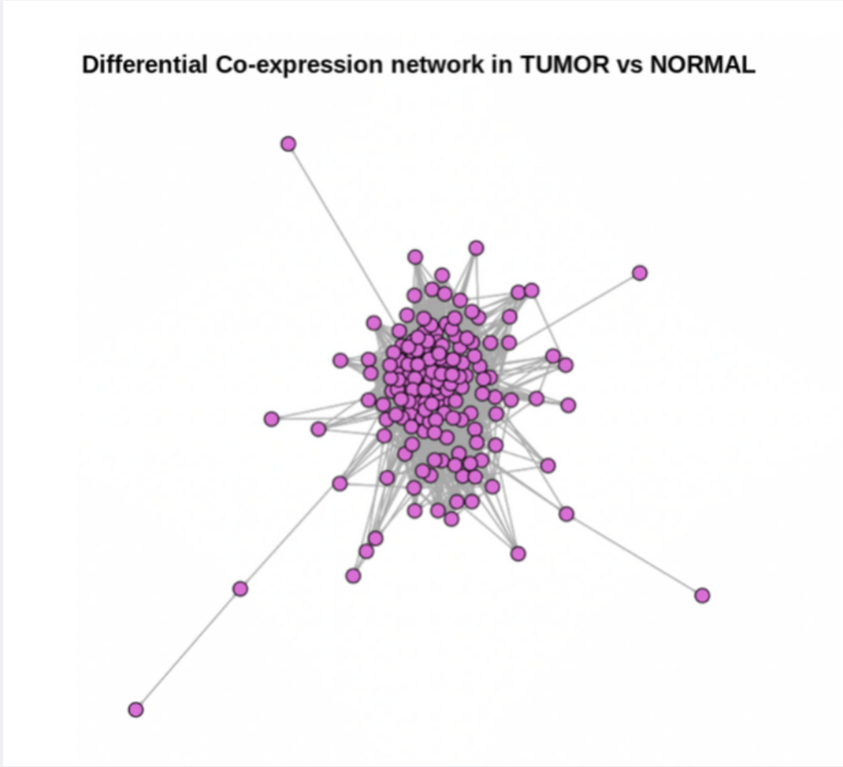

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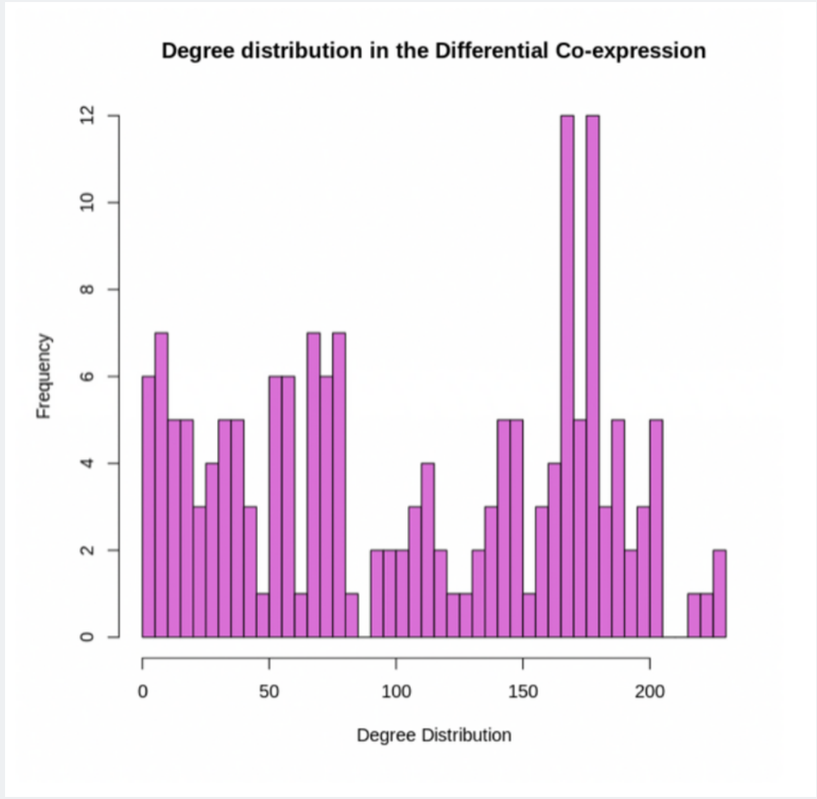

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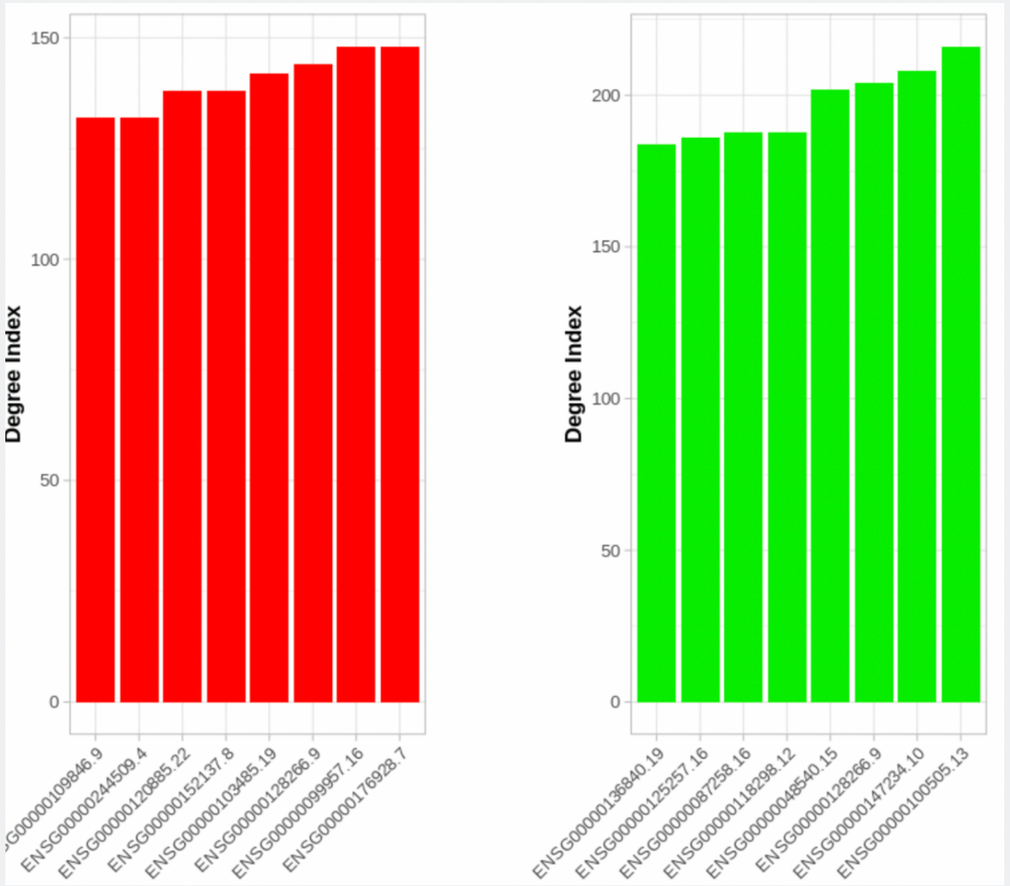
## HUBS



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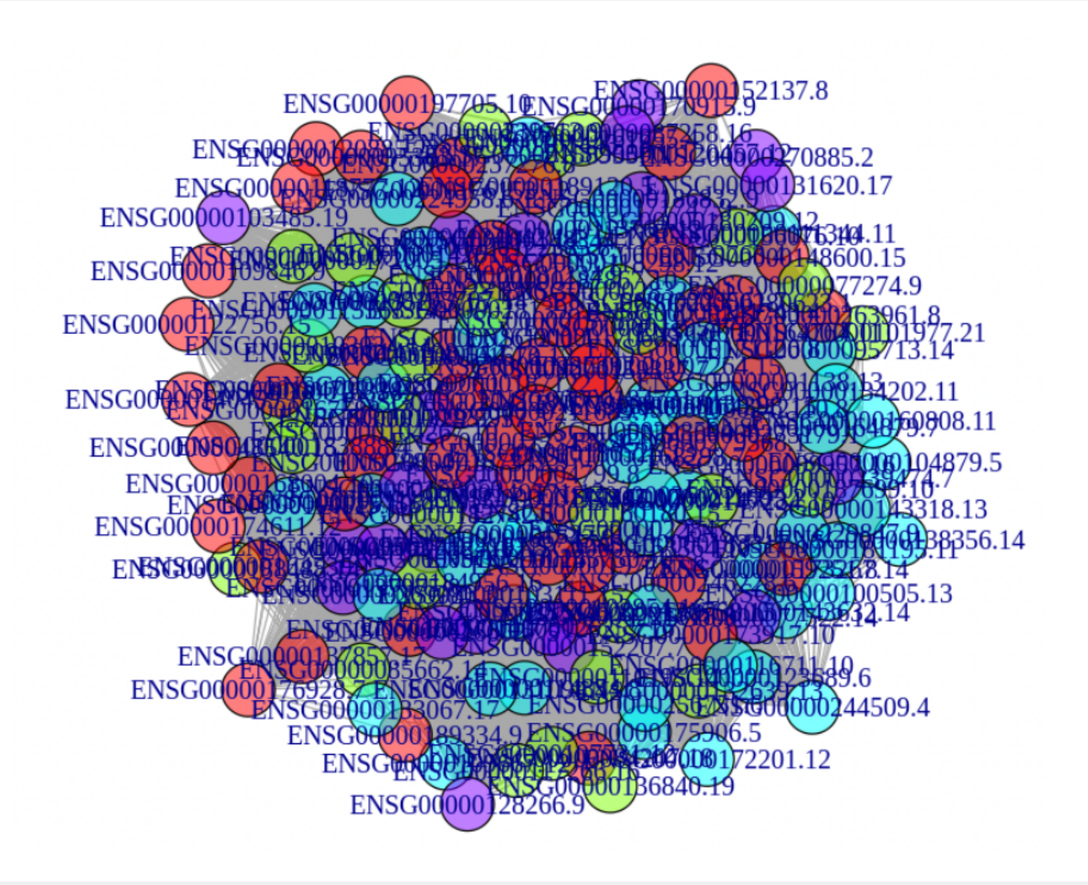

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## CONCLUSION

We identified **two hubs of genes** that have also been **found in the specialized literature**. Those are **ENSG00000120885.22** and **ENSG00000152137.8**. We used also **different similarity measures and correlations**. In every case those hub genes were present.