

SUPPLEMENTARY INFORMATION

Use of Graph Database for the Integration of Heterogeneous Biological Data

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Supplementary Fig. 1

Neo4j Cypher query

```
MATCH (drug)-[r:Drug_Gene_Interaction {role:'increases^expression'}]->
(gene:Gene {GeneSymbol:'BRCA1'})-[r1]->(disease)
WHERE disease.DiseaseName =~ '.*[Cc](ancer|ANCER).*'
RETURN drug, r, gene, r1, disease
```

Supplementary Figure 1. Cypher query to retrieve the relationships among genes, drugs, and diseases that increased the expression of the BRCA1 gene.