

# Statement Examples - Representation of Genomic Relationships

The BEL Framework adds `transcribedTo` and `translatedTo` relationships to the network in Phase III of compilation. These relationships are specified in resource documents.

Gene, RNA, and protein abundances are linked by the `transcribedTo` and `translatedTo` relationships:

```
geneAbundance(EG:1) transcribedTo rnaAbundance(EG:1)
rnaAbundance(EG:1) translatedTo proteinAbundance(EG:1)
```

short form:

```
g(EG:1) :> r(EG:1)
r(EG:1) >> p(EG:1)
```

These statements express that the gene alpha-1-B glycoprotein (A1BG), identified by Entrez Gene ID 1, transcribes to RNA, and this RNA translates to protein.

In some cases, genes do not encode proteins, and the protein abundance term is not valid:

```
g(EG:8847) transcribedTo r(EG:8847)
```

In contrast to A1BG, the gene deleted in lymphocytic leukemia 2 (DLEU2), identified by Entrez Gene ID 8847, transcribes to RNA but does not translate to protein.