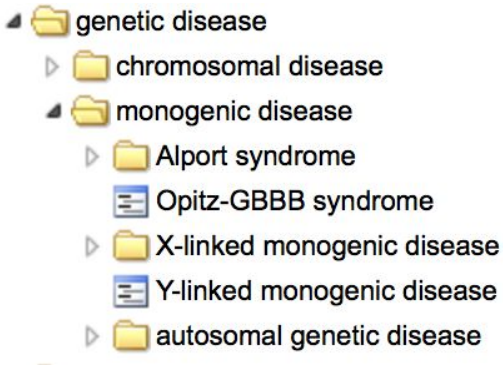
**Logical Axioms for Inheritance in the DO**

Import ontologies:
GENO [at EBI OLS] for inheritance
SO -- for structural variants (e.g. genetic disease, monogenic disease)

The EQ statements have already been added to the DO.

| | **EQ statements** |
|---|---|
| genetic disease | disease and ('disease has basis in' some structural_variant) |
| monogenic | disease and 'disease has basis in' some gene |
| autosomal genetic disease | **disease and ('has material basis in' some 'autosomal inheritance')** |
| autosomal dominant disease | disease and ('has material basis in' some 'autosomal dominant inheritance') |
| autosomal recessive disease | disease and ('has material basis in' some 'autosomal recessive inheritance') |
| X-linked monogenic disease | **disease and** ('has material basis in' **some 'X-linked inheritance')** |
| X-linked recessive disease | disease and ('has material basis in' some 'X-linked recessive inheritance') |
| X-linked dominant disease | disease and ('has material basis in' some 'X-linked dominant inheritance') |

The SubClass Of Statements are added to DO terms, when the asserted parent is outside of
The genetic disease branch:




The SubClass of Statements include:

The EQ statements have already been added to the DO.

| | **SubClass Of statements** |
|---|---|
| genetic disease | 'disease has basis in' some structural_variant |
| monogenic | 'disease has basis in' some gene |
| autosomal genetic disease | **'has material basis in' some 'autosomal inheritance'** |
| autosomal dominant disease | 'has material basis in' some 'autosomal dominant inheritance' |
| autosomal recessive disease | 'has material basis in' some 'autosomal recessive inheritance' |
| X-linked monogenic disease | 'has material basis in' **some 'X-linked inheritance'** |
| X-linked recessive disease | 'has material basis in' some 'X-linked recessive inheritance' |
| X-linked dominant disease | 'has material basis in' some 'X-linked dominant inheritance' |