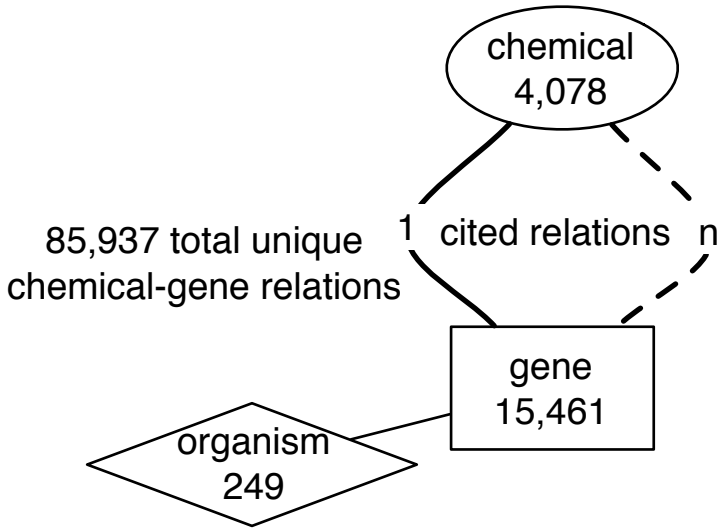
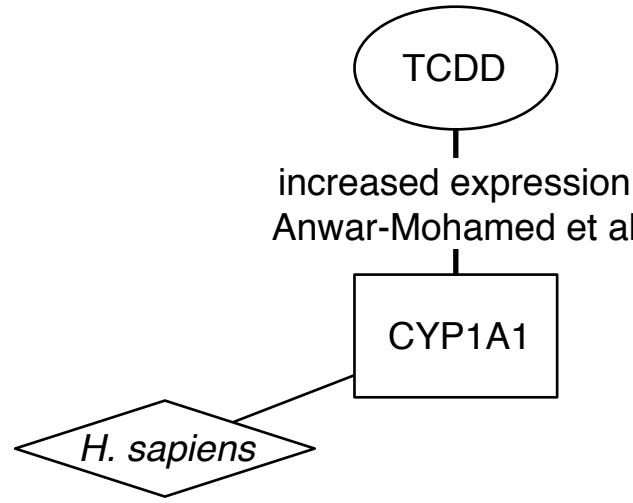
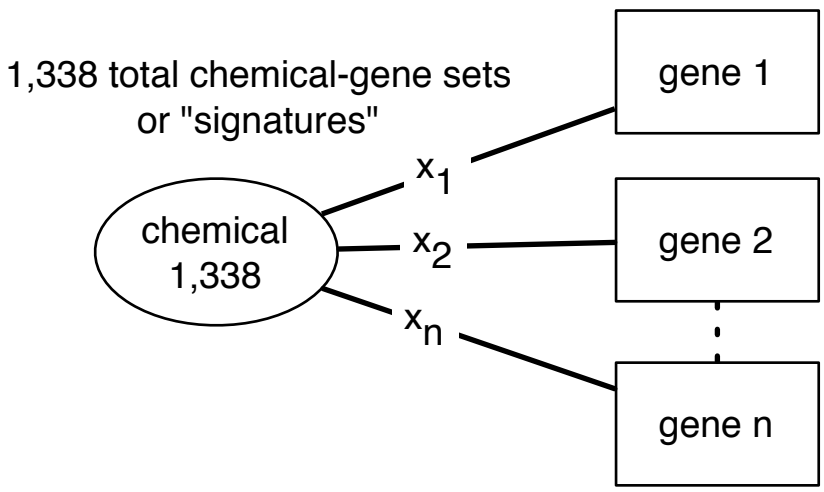
A



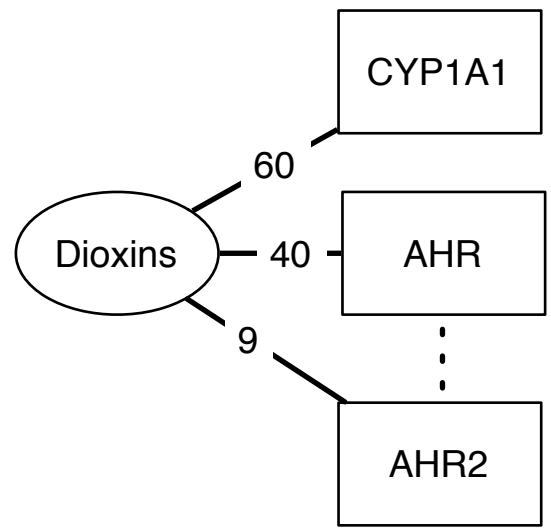


Example: "Chemical TCDD leads to higher expression of CYP1A1 mRNA in *H. sapiens* (Anwar-Mohamed et al)"

B

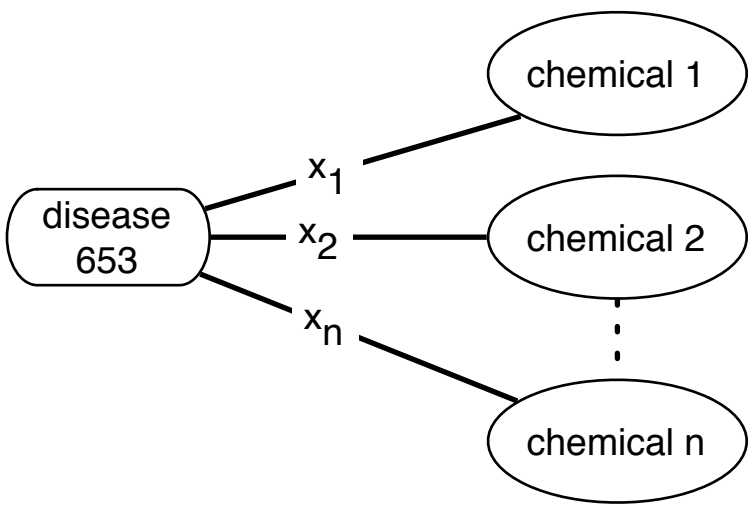


x_i denote number of references for a chemical-gene relation

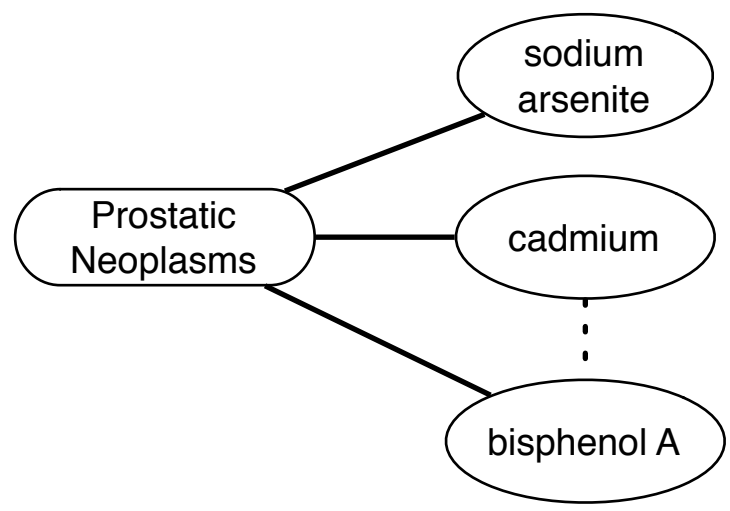


Example: Gene set for the Dioxins chemical, with 60, 40, and 9 references of CYP1A1, AHR and AHR2 interactions

C



x_i denote number of references for a disease-chemical relation



Example: Chemical set for the "Prostatic Neoplasms" disease (MeSH: D011471), with references of associating the disease to sodium arsenite, cadmium, and bisphenol A