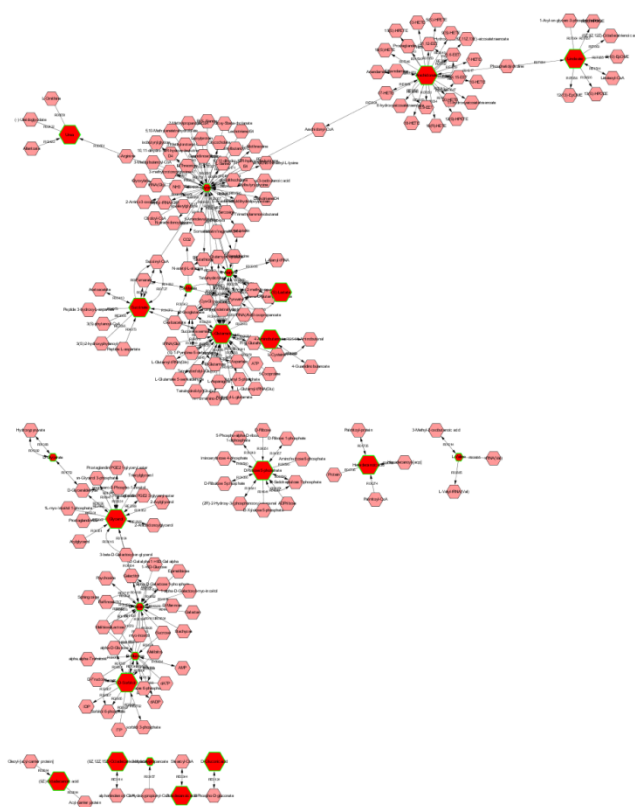
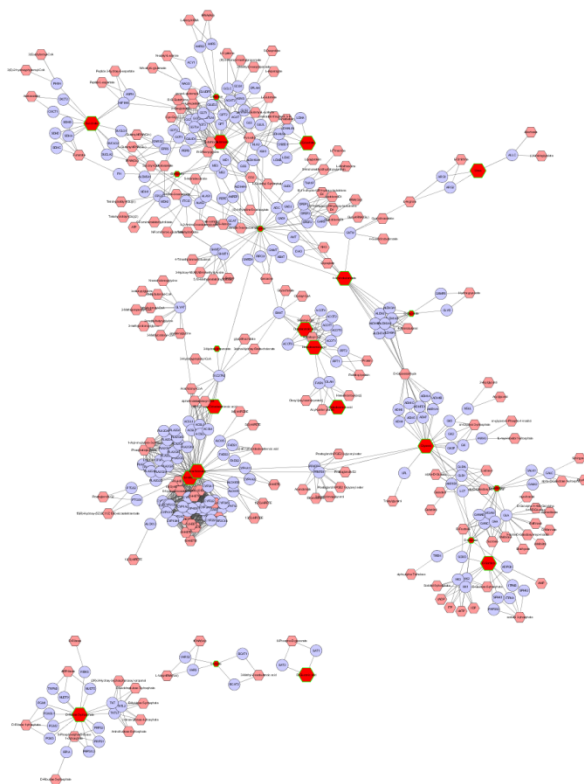


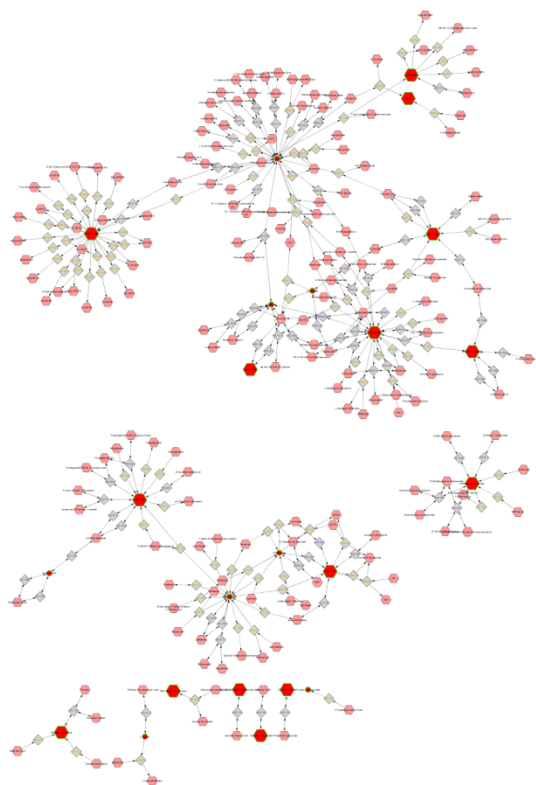
Supplemental figures

A



B



C**D**

Supplemental figure 1. Metscape has 4 types of network graphs. Compounds are shown as pink hexagons, genes as blue circles, enzymes as green squares, and reactions as grey squares with purple or orange label text to represent reversible and non reversible reactions respectively. Compounds that were used as query are shown in bright red. Selected nodes are highlighted in yellow. A. Compound (C) network graph B. Gene-compound (GC) network graph. C. Compound-reaction (CR) network graph. D. Compound-reaction-enzyme-gene (CREG) network graph.

A

[illegible]

Metabolic map showing the TCA cycle and its precursors. The cycle intermediates are highlighted in red: Succinyl-CoA, Succinate, Fumarate, Malate, and Oxaloacetate. The map includes the following components and reactions:

- Succinyl-CoA** (red hexagon) is converted to **Succinate** (red hexagon) by **Succinyl-CoA lyase** (EC 2.3.1.27, green diamond).
- Succinate** (red hexagon) is converted to **Fumarate** (red hexagon) by **Succinate dehydrogenase (ubiquinone)** (EC 1.3.5.1, green rectangle).
- Fumarate** (red hexagon) is converted to **Malate** (red hexagon) by **Fumarate hydratase** (EC 4.2.1.24, green rectangle).
- Malate** (red hexagon) is converted to **Oxaloacetate** (red hexagon) by **Malate dehydrogenase** (EC 1.1.1.40, green diamond).
- Oxaloacetate** (red hexagon) combines with **Acetyl-CoA** (red hexagon) to form **Succinyl-CoA** (red hexagon) via **Citrate synthase** (EC 2.3.3.7, green diamond).
- Succinyl-CoA** (red hexagon) is also formed from **Succinate-CoA ligase (GDP-forming)** (EC 6.4.1.3, green rectangle) and **Succinate-CoA ligase (ADP-forming)** (EC 6.4.1.2, green rectangle).
- Succinate-CoA ligase (GDP-forming)** (EC 6.4.1.3, green rectangle) is formed from **SUCLG1** (blue circle) and **SUCLG2** (blue circle).
- Succinate-CoA ligase (ADP-forming)** (EC 6.4.1.2, green rectangle) is formed from **SUCLA2** (blue circle).
- Succinate dehydrogenase (ubiquinone)** (EC 1.3.5.1, green rectangle) is formed from **SDHB** (blue circle), **SDHD** (blue circle), **SDHC** (blue circle), and **SDHA** (blue circle).
- Fumarate hydratase** (EC 4.2.1.24, green rectangle) is formed from **FH** (blue circle).
- Malate dehydrogenase** (EC 1.1.1.40, green diamond) is formed from **MDH1** (blue circle) and **MDH2** (blue circle).