Questions for dinner discussion

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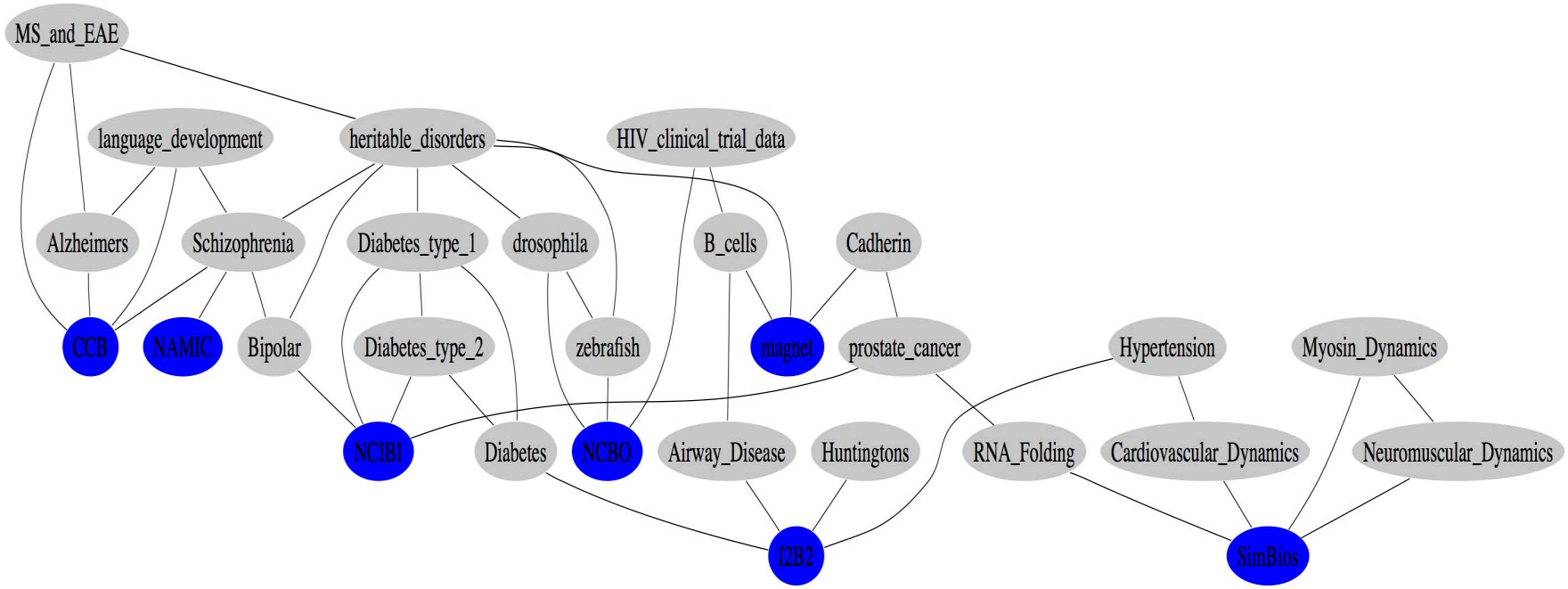
How well mapped are the NCBC's to the Big Problems and Opportunities in Computational Biology? Let's look at the DBPs first (with Cytoscape!)



What other scientific activities and programmatic initiatives are needed?

Biology: Stem Cells and Developmental Biology, Multi-scaler studies linking the phenotypes more explicitly at the Organ, Organismal and Population levels.

Biomedical: CS and IS R&D to enable translational studies linking the scientific research and medical records. I2b2 is doing some of this as, are some of the Clinical Sciences Translation Award (CTSA) NIH Roadmap. We need more.

Programmatic Initiatives: The NCBC program needs to help lead the way to productively engage engineers and computer scientists in the Roadmap initiatives like the NCBC program. The Collaborative R01 and R21 programs could be built upon.

What should the engineers and computer scientists who attend CSB get excited about and think about working on, in order to deliver and collaborate with the NCBCs?

- Deep Data Integration and Federation with Provenance
  - The Future is Data, Data, Data and Integration for understanding.
- Real systems engineers are needed and welcomed. Biological education and training is desirable, but can be learned if the systems background is really strong.

Discuss NIH special arrangement (competition) where moneys have been set aside for individuals for or collaboration work in this area

- Collaboration is a commitment and takes time and preliminary data. Make personal connections with NCBC researchers and visit the centers. This is the only way we know to be successful. Existing collaborations are now allowed and this will really help.