

## QSB Workshop Discussion Notes

### *Opportunities & Unmet Needs*

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- Industry – reduce number of leads; more efficient funneling
- Relational databases for disparate data (for academia)
  - public domain
  - NCBI
  - done by NIH?
  - Collaborate with NSF?
- Fundamentals: structure – function; hybrid models
- Data/knowledge-base mining tools
- New ways for looking at genomic information
- Correlation vs. principles
- NCI [integration of scales] collaboration; emergent properties – narrower than “biocomplexity”
- Model systems
  - E. coli. (context of metabolism; protein – structure predictions)
  - Human tissue (specific cell types)
    - Subsets (signaling ---)
- In silico biology?
  - a whole vs. sub-systems
- Need “pre-models” of differentiation
- Long-term impact (risky?)
  - systems – focus
  - one input – multi output
- Data conventions
- Computer readable/searchable literature
- Hybrid – lumped vs. mechanistic
- Multiscale: length and time