Getting funded

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Funding sources

• National Science Foundation
• National Institutes of Health
• Department of Defense
• Department of Energy
• Industry
NSF

• Personal grants
  – True proposal
  – What you plan to do
  – Peer reviewed, usually by mail

• Group grants (eg MRSEC)
  – Panel reviewed
  – Lots of overhead for non-science stuff
NIH

- Much larger than NSF (~5x)
- Much larger grants
- Not idea based, but hypothesis
- Panel reviewed
DoD

- Large amounts of funding
- Often at discretion of program directors
- Requires person contacts
DoE

- Often support for large facilities
- Most high-energy physics
  - Often block grants
- Some basic science
- Now some center grants
  - Totally science based (unlike NSF)
Industry

- Demands person contact in company
- Usually does not require a proposal
- Requires lots of ‘hand-holding’
- Can be very rewarding scientifically
What is required

• Must be able to listen
• Must do something that adds value to company
What to work on

• Must do things that help the company
• Can still do excellent science
• Find out what the company is doing, what is important
• What is the science behind the application
• Focus on the science that solves problem for the company
• Show how it solves the problem
What not to do

- Don’t just do what you normally do
- Don’t try to do what you want
- Don’t solve your problems
- Don’t put yourself above the company scientists
What to do

• Do listen to the needs of the company
• Do solve problems important for company
• Do look for innovative solutions
  – But don’t presume you know more than them
• Do make suggestions, but only that will help the company
• Do make sure to fully understand company needs