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