# The Grant Application Process

**BE 440 October 15, 2003**

# Writing a Grant Application

- **First off "writing a grant"…**

- **The time from submission to the issuing of a grant award takes almost a year (NIH).**

- **John's and Ram's first application (of my own) took about 6 to 8 weeks to write – it takes slightly more than one to two week (with help) now.**

# Getting a Grant -- Timeline

- Submit application on June 1 (there are three deadlines each year Oct 1, Feb 1)
- Submit supplement in mid-September (a few pages tops, only if you have new data)
- Application reviewed in October
- Executive secretary of Program Director calls (or you call them one week after the review)
- Earliest possible funding = April or May
- So, it takes about a year from when you start writing

# What Happens at Study Section?

- Study Section = Initial Review Group (IRG)
- About 25 members who take four year terms
- Variety of disciplines; gender, race, demographics are selection criteria, in addition to expertise
- <u>Triage</u> – Something to avoid ...
- Review Load:  100-120 per round; Each SS member gets about 10 (but they have all complete applications in front of them)
- Walk through a review: Chair, Executive Secretary; Primary, Secondary, Tertiary Reviewers

# What Happens at Study Section?

- First, scientific merit is considered (each reviewer reads their review)
- There is general discussion led by the Chair
- Then motion to approve or disapprove
- On approved applications, budget is examined next – Enthusiasm is raised by cutting areas
- The Chair asks for an "adjective" and then the group votes a priority score
- The whole process takes 20 minutes (good proposal, no problems) to one hour (extreme)

# Criteria-Based Review

**Significance**

**Approach**

**Innovation**

**Investigator**

**Environment**

*Overall Evaluation and Score, reflect the impact on the field*

# The All-Critical Adjectives

- <u>Outstanding</u>: You will get funded (100 to 150)
- <u>Excellent</u>: You have a shot at getting funded (160-190)
- <u>Good</u>: Try again, with editing; <u>unless you work in a critical area (200-240)</u>
- <u>Average</u>: Try again, but do more preliminary work (250)
- <u>Fair-Poor-Disapproved</u>:  Do not try again (>250)

# Superlatives – Look for Them

# So, That is the Review Process

Now, to the Details of Your Application

# Be Efficient When You Prepare Your Application

- Use one graphics and word processing platform for all your work
- References – less of a problem than years gone by (End Note, Reference Manager)
- Have all group meeting presentations (progress reports?) in one place on a computer
- Get model applications from colleagues
- OSP (MIT Office of Sponsored Programs) requires one week to process application

# Be Efficient When You Prepare Your Application – *AND* ⇨ Show Attention to Detail at Every Step

- Have all of your radioactivity, DEA, biohazard, chemical hygiene, human subjects and animal protocols up to date

- Biosketch, Budget Justifications, Personnel Justifications, Equipment … Take time, not a lot of time, but are very important … Make sure each person is assigned a critical task … To make it hard to cut your budget

- Make sure your effort does not exceed 100%

# For Which Type of Grant Should You Apply?

**There are Many Different Types**

# Types of Grant Application

- **RO1 – Investigator Initiated Research Application**
- **PO1– Program Project**
- **R29 (FIRST) – Three years but beginning investigators have an advantage**
- **T32 – Training Grant**
- **F32 -  Post Doctoral Fellowship**
- **R35 OIG (Heavy Sigh …)**
- **P50 – Center Grant**
- **U54 – Large Glue Grant**

# Most Important Points

- **Never submit a proposal before it is ready to go out (sufficiently matured)**
  - **It is better to take a gap in funding than to be embarrassed by a proposal that is marginal**
- **Have someone else proof read it**
- **Have a third person critically read it**
- **Make sure your hypotheses are up front and that your Specific Aims address them**

# Other Important Points

- **The reviewers look for the gems; they each come to the Study Section with <u>one</u> proposal they want to sell hard**
- **Basic science >> Descriptive science**
- **It is OK to do descriptive science – but present it as the foundation upon which grand basic discoveries will eventually stand**
- **Give the reviewer "words" to sell your grant application (especially if it is descriptive)**
  - **"The classic microscopic studies of Fawcett, which describe the anatomy of the eye during development, provided the basis for the molecular dissection of the steps in eye development by Cepko.  Similarly, my proposed analysis of the developmental features of colonic histology during the development of Crohn's Disease ..."**

# Additional Information

- Most reviewers make up their mind on a proposal in the first ten minutes reading it  - The beginning is the most important part
- Study the members of the Study Section.  Know their work
- Anticipate what questions will come up during review
- Identify pitfalls and address them
- Submit supporting data (1-2 pages) three weeks before review date – But only if you have something real to contribute
- Don't paint your words on the page – break up the text with well made pictures