Don’t confuse your portfolios!

**Personal 403B**
- Goals
  - Make profits
  - Plan for retirement
- Diversify investments to reduced risk
- Long-term planning (20+ years)

**Research Funding**
- Goals
  - Avoid insolvency
  - Prevent early retirement
- Diversify grants and take risks
- Short-medium term planning (2-5 years)
First define your career phenotype

- **Research:non-research ratio**
  - 80/20 vs. 50/50 vs. 20/80?
  - Know your priority and your goals

- **Research role(s)**
  - Aim to take lead on projects with goal of being PI/independent
    - OR
  - Usually a collaborator/co-investigator
What are you seeking to fund?

*Different grants for different costs*

- Your salary
- Co-investigators/consultants
- Staff salaries
  - Technicians, coordinators
- Equipment/supplies
- Travel
- Other
Balancing Funding Priorities
What makes up a research “portfolio”?

**Mix up grant types**
- Time-limited funds
- Project-limited funds
- Mix of funders
- Good to have some “discretionary” funds

**Mix up roles on grants**
- PI vs. Co-investigator
- Can’t lead on everything
- Can’t follow on everything
- What is your research phenotype?
Do you know these people?
Get to know NIH project officers and other funding staff (true for non-NIH, too)

• Science/project officers:
  - Your advocates/allies
  - Develop and help investigators
  - Guide to deciding which grants are appropriate
  - Provide feedback and guidance on grants/reviews

• Grants administrators:
  - Separate from scientific staff
  - Have much authority—listen to them, too!
  - Usually know the rules better than the MD/PhDs

• These folks want to help you succeed
Which grants do I apply for?
If wishes came true...
Applying for grants
You don’t get grants you don’t apply for
Grant options ➔ look beyond...

five criminals. one line up. no coincidence

The Usual Suspects
Funding Opportunities
Career Development Grants

Per Dr. L. Crofford
Funding Opportunities

• US Federal Grants
  o NIH
  o PCORI
  o VA
  o Other Federal
    FDA • AHRQ
    NSF • DOD • CDC
NIH Numerology
NIH Numerology and Grant Terminology

- F32
- K08
- K12
- K21
- K23
- K24
- K30
- P30
- P50
- P60
- R01
- R03
- R13

- R21
- T32
- U01
- U54
- UM1

- Grants
- Contracts
- Cooperative agreements
- Networks
- SBIRs
- ISTs
- New investigators
- RFAs/RRPs
- Investigator-initiated
- Industry-sponsored
- Joint venture
- Foundation
**NIH Institutology**
(+ Centers and Offices)

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PCORI’s Purpose
(from Patient Protection and Affordable Care Act)
PCORI helps people make informed health care decisions, and improves health care delivery and outcomes, by producing and promoting high integrity, evidence-based information that comes from research guided by patients, caregivers and the broader health care community.
What is Comparative Clinical Effectiveness Research?

Comparative Clinical Effectiveness Research:

- Asks questions relevant to patients, clinicians, policymakers
- Compares two or more options – for screening, diagnosis, treatment
- Considers the range of relevant outcomes
- Conducted in real world populations and real world settings
- Attends to differences in effectiveness and preferences across patient subgroups
- Often requires randomized trials
What Does Patient-Centeredness Mean?

Patient Centeredness:

• “Answers questions that matter to patients and other clinical decision makers”
• Compares outcomes that matter to patients
• Attends to differences in effectiveness in patient subgroups
• Attends to differences in patient preferences
What Does Patient Engagement Mean?

**Patient Engagement:**

- Patients are *directly* involved in research
- Patients help prioritize and plan research
- Patients review grants and help make strategic decisions for PCORI and investigators
PCORI’S National Priorities for Research

- Assessment of Prevention, Diagnosis, and Treatment Options
- Improving Healthcare Systems
- Communication & Dissemination Research
- Addressing Disparities
- Accelerating PCOR and Methodological Research
About FDA

Funding Opportunities
Department of Defense Research Opportunities

The sites listed below are provided for those individuals interested in the Department of Defense (DoD) research opportunities.

Office of the Director of Research
Overview of DoD Research Programs
  Research History
  DoD Grants Rules
  Opportunities
Links to Service Research Offices

National Security Education Program (NESP)
  Overview of the NESP Program
  Scholarships to U.S. undergraduate students
  Fellowships to U.S. students enrolled in or admitted to graduate degree programs
  Grant awards to U.S. institutions of higher education

DoD Education Gateway
  Education Efforts Sponsored by DoD
    Student Aid/Support
    Faculty & Teacher Programs
    Public Education Programs
    Equipment Donation Programs
    Special Programs
Grants and Funding
Funding Opportunities

• US Federal Grants
  o NIH
  o PCORI
  o VA
  o Other Federal
    ▪ FDA ● AHRQ
    ▪ NSF ● DOD ● CDC

• Private Foundations
  o Disease-specific
  o General research

• Professional societies
  o Specialty-specific
  o Disease-specific
  o Methodology-specific

• State societies

• Biopharmaceutical industry
  o Clinical trials
  o Other

• Device/testing companies

• Home institution
  o Pilots
    ▪ Institutional
    ▪ Offered by PIs from large grants
  o CTSAs

• Private philanthropy
Private Philanthropy
Funding Opportunities

• US Federal Grants
  o NIH
  o PCORI
  o VA
  o Other Federal
    ▪ FDA • AHRQ
    ▪ NSF • DOD • CDC

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• Home institution
  o Pilots
    ▪ Institutional
    ▪ Offered by PIs from large grants
  o CTSAs

• Private philanthropy
Follow the Rules
Be extremely careful to follow funding rules

NO DOUBLE DIPPING
VIOLATORS WILL BE PROSECUTED

DOUBLE DIP AHEAD

THE DOUBLE DIP
Be extremely careful to follow funding rules

• Avoid double-dipping
  o However, *complementary* funding that expands and enhances the work is allowed and good
  o Still OK to *apply* for multiple grants with same project

• Investigate eligibility rules first
  o Exceptions or broad interpretations are not uncommon (non-federal)

• Smaller awards often exclude PI salary and limit indirect costs (F&A)

• Follow all the rules (not just the ones you like)
  o Not sure? ASK someone at funding organization
How do I learn about funding opportunities?
Pay attention!

• Follow NIH announcements

• Read the internal emails about grants

• Seek, search, ask, listen

• Ask yourself: is this one good for me?
Don’t be shy

• Get to know campus leaders of research enterprises and infrastructure
  o Learn about opportunities

• Be known to your funders

• Ask collaborators about their funding
  o 5% here or there can add up
When seeking funding

• Think outside your specialty
  o Vascular inflammation → Cardiology?
  o Renal disease in SLE → Nephrology
  o Epigenetics → Informatics, Genetics, etc.

  ▪ Be creative
  ▪ Recycle
  ▪ Buy a ticket
Remember...

Being a rheumatology researcher is fun, rewarding, and quite possible!
GRANT/FUNDING SUPPORT

Genentech

Bristol-Myers Squibb
Building Your Research Portfolio

Peter A. Merkel, MD, MPH
University of Pennsylvania

John A. Peyman, PhD
National Institute of Allergy and Infectious Disease