I. Introduction to Research Administration at the UW
   Jessica Bertram

II. Training & Career Development Awards
   Nisha Bansal

III. NIH Structure & Behind the Scenes at Study Section
   Tom Hawn
Outline

1. NIH Structure & Facts

2. Behind the Scenes at a Study Section
1. NIH Structure & Funding
Responses to Yellow Fever

1879 • Yellow fever destroyed the Mississippi Valley
• A $30,000 bid (RFA) from the US Army for Universities
• 1st peer-reviewed applications for research.

1887 • Marine Hospital Service established, NIH roots started
• Director Joseph Kinyoun

1930 • NIH officially named

Adapted from slide From Toni Scarpa, head NIH CSR
The Fundamental Tenets for NIH (1946)

1. The only possible source for adequate support of our medical research is the taxing power of the federal government.

2. The federal government and politicians must assure complete freedom for individual scientists in developing and conducting their research work.

3. Reviews should be conducted by outside experts essentially without compensation.

4. Program management and review functions should be separated.

Surgeon General Thomas Parran, Jr.

Slide From Toni Scarpa, head NIH CSR
Department of Health and Human Services

Total Budget = $1145 Billion in 2017

$1,145 Billion in Outlays

- Discretionary Programs: 8%
- Children’s Entitlement Programs: 3%
- TANF: 1%
- Other Mandatory Programs: 2%
- Medicaid: 34%
- Medicare: 52%

NIH: 54%

HRSA: 11%

CDC: 8%

FDA: 3%

Other: 24%
FY 2018 NIH Budget -- $37.0 Billion

2003: $27.1 billion
2004: $28.0 (+3.1%)
2005: $28.6 (+2.2%)
2006: $28.6 (-0.2%)
2007: $29.2 (+2.1%)
2008: $29.2 (0%)
2009: $30.4 (+4.1%)
2010: $30.8 (+1.4%)
2011: $30.7 (-0.3%)
2012: $30.6 (-0.3%)
2013: $29.2 (-4.5%, sequestration)
2014: $30.1
2015: $30.3
2016: $32.3
2017: $34.1
2018: $37.0 billion
2019: $39.1 billion requested
Not as Rosy with Inflation Adjustment
Funding Rate: applicants, any award in the year
Success Rate: A0+A1 applications combined
Award Rates: A0+A1 applications separated

*Excludes awards made with American Recovery and Reinvestment Act (ARRA) funds, and ARRA-solicited applications.
## Top NIH Funded Institutions 2017

**The Good News: UW Has Flourished**

<table>
<thead>
<tr>
<th>ORGANIZATION</th>
<th>CITY</th>
<th>STATE</th>
<th>COUNTRY</th>
<th>AWARDS</th>
<th>FUNDING</th>
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T & F Grants

Awards

- Pre-Bac Institutional Training Grant (T34)
- Predoctoral Institutional Training Grant (T32)
- Predoctoral Individual NRSA (F31)
- Predoctoral Individual MD/PhD NRSA (F30)
- Postdoctoral Institutional Training Grant (T32)
- Postdoctoral Individual NRSA (F32)
- Mentored Research Scientist Development Award (K01)
- Mentored Clinical Scientist Development Award (K08)
- Mentored Patient-Oriented RCDA (K23)
- Mentored Quantitative RCDA (K25)
- Mentored Career Transition (K22, PhD Eligible)
- NIH Pathway to Independence (PI) Award (K99/R00)
- Midcareer Investigator Award in Patient-Oriented Research (K24)

**Institutional Awards: T32**
- Institution, not the individual, applies for the award
- Not available at all schools, departments, divisions

**Individual Awards: F32**
- Mentored
- Independent—can interact with other NIH Awards
- Depending on the award, all doctorates or restricted to clinical doctorates
- NIH support varies by Institute

TOTAL YEARS of F and T NIH Grant Support = 3 YEARS
F32 NRSA Success Rates

UW Experience: Division of Pulm Crit Care
2006-16
21/38 funded (55%)

Kirschstein-NRSA post-doctoral fellowships (F32s)
Competing applications, awards, and success rates
Good News: High Success Rates for Career Awards

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<td>K08</td>
<td>40%</td>
<td>39%</td>
<td>34%</td>
<td>36%</td>
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<td>47%</td>
<td>44%</td>
<td>40%</td>
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<tr>
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<td>34%</td>
<td>27%</td>
<td>33%</td>
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<td>44%</td>
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<tr>
<td>K99</td>
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<td>20%</td>
<td>23%</td>
<td>29%</td>
<td>25%</td>
<td>22%</td>
<td>25%</td>
<td>22%</td>
<td>23.4</td>
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Scenario—Does it matter where I get reviewed?

You worked on viruses that cause lung cancer and are ready to apply for a K08 or K23 grant. Which K grant and institute do you apply to?

1. NCI
2. NIAID
3. NHLBI
4. NIDA

- Depends on their priorities, funding rates, & where your mentor is known
- Doesn’t match topic
Be Careful News: Heterogeneity in Success Rates

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<tr>
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<td>38</td>
<td>44.9</td>
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<tr>
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<tr>
<td>K23</td>
<td>13.0</td>
<td>13.6</td>
<td>16.1</td>
<td>14.3</td>
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Remember:
K grants: Choose your institute (reviewed within Institute)
R grants: Choose Study Section (reviewed at CSR)

Be aware of differences in institutional support for CDAs
How do you perceive the world?
Part II: NIH Study Sections

Outline
1. Pre
2. During
3. Post

1946
The First NIH Study Section

An NIH Study Section Today
Study Sections

- Organized into IRGs (Integrative Review Groups)

- Headed by an SRO (Scientific Review Officer)

- 12-25 members, essentially all from academia
  - About ½ are ad hoc reviewers

- 60-100+ applications per meeting
  - ~10 per member
  - 3 reviewers per applications

- Information from CSR web site:
  - Study section scope
  - Roster of reviewers
  - Policies
  - Schedules

- Study sections are advisory - they do not fund applications.
Scenario—Who to Ask at NIH

You are ready to apply for a grant and have many questions. Where do you get information? What do you apply for?

1. Study Section Chairperson
2. Grants Management Specialist
3. NIH Scientific Review Officer (SRO)
4. NIH Program Officer (PO)
Dual Review System for Grant Applications

First Level of Review = CSR
Scientific Review Group (SRG)

Except Ks Reviewed within Institute rather than CSR

Second Level of Review
NIH Institute/Center Council

NIH owns review process

- The Scientific Review Officer, a federal employee, nominates the review panel, assigns applications and is responsible for the meeting

Study section owns the science review

Ownership of application:
- CSR from receipt to posting of Critiques
- Institute/Center after Critique posting