Methods in Clinical Research: Research Funding and Career Development

Michael B. Amey
Associate Dean
Office of Research Administration

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Research Funding and Career Development

• Sources of Medical School Revenue
• Primary Research Sponsors
• Kinds of Support
• Primary Initial NIH Grant Types
• Where to find NIH Information
• Success Rates
• Institutional Resources
• Usual Sequence

• Sources of Medical School Revenue
Research Funding and Career Development

- Primary Research Sponsors
FY 2012 NIH Grant Awards  
(Do not include ARRA or Contracts)  

Medical School Rank

<table>
<thead>
<tr>
<th>RANK</th>
<th>SCHOOL</th>
<th>$ (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>UCSF</td>
<td>445</td>
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<tr>
<td>2</td>
<td>Johns Hopkins</td>
<td>436</td>
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<tr>
<td>3</td>
<td>Penn</td>
<td>381</td>
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<td>4</td>
<td>Washington Univ</td>
<td>360</td>
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<td>5</td>
<td>Yale</td>
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<tr>
<td>6</td>
<td>Pittsburgh</td>
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<tr>
<td>7</td>
<td>Univ of Washington</td>
<td>310</td>
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<tr>
<td>8</td>
<td>Univ of Michigan</td>
<td>309</td>
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<tr>
<td>9</td>
<td>UCSD</td>
<td>305</td>
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<tr>
<td>10</td>
<td>Duke</td>
<td>285</td>
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</tbody>
</table>

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### Primary Sponsor Types

#### Federal (72%)
- NIH provides the majority of the federal support
- NSF is less than 1%
- PHS and other Federal are each about 2%

#### Other (20%)
- Disease Specific (small grants and fellowships)
- Foundations (usually targeted)
- State and Local Government (service and demonstration)
- Subcontracts from peer institutions

#### Commercial (8%)
- Evaluation of Products
- Development of JHU inventions
- Some collaborative research
Research Funding and Career Development

• Kinds of Support

• Gifts
  – No benefit to donor
  – Can restrict purpose
  – No specified project

“My advice is to learn all the tricks you can while you’re young.”
Kinds of Support

• Grants (assistance for a specified project)
  – Fellowships
  – Training Grants
  – Career Development Awards
  – Research Projects
  – Program Project and Center Grants

Kinds of Support

• Cooperative Agreements (federal assistance with program control)
  – NIH Multi-Center Clinical Trials

• Contracts (acquisition of materials or services)
  – Defines a deliverable material or service
  – Federal are usually cost-reimbursement
  – Commercial clinical trials usually fee based

Research Funding and Career Development

• Primary Initial NIH Grant Types
Primary Initial NIH Grant Types

- F 32 Post-doctoral Fellowship
- Career Development Awards
  - K (01-02) Mentored/Independent Research Scientist Award
  - K 08 Mentored Clinician Scientist Development Award
  - K 23/24 Mentored/Mid-Career Patient Oriented Research Career Development Award

Primary Initial NIH Grant Types

- Research Project
  - R 01 Research Project Grant – usually Investigator Initiated
  - R 21 Exploratory & Development Awards

Research Funding and Career Development

- Success Rates
NIH Award Rates
Initial Grant Mechanisms
FY 2012

Kirschstein-NRSA post-doctoral fellowships (F32s)
Comparing applications, awards, and success rates
Research Funding and Career Development

• Institutional Resources

Institutional Resources

• Clinician Scientist Award
• Institute for Clinical and Translational Research (ICTR)
• Fund for Medical Research

Institutional Resources

• Clinician Scientist Program
  – To protect research time of promising young clinical faculty
  – Application – draft, submitted or already awarded proposal to a peer review sponsor, Ltrs from Dept. Director & 2 others and interview (due Nov and April 1st)
  – Reviewed by a senior faculty committee representing basic and clinical disciplines
Institutional Resources

• Clinician Scientist Program
  – Instructor or Assistant Professor who is an active physician clinician with excellent potential for external awards (is/has completed research training)
  – Provides up to $80/yr for a max of 2 yrs to support unfunded research effort up to 75% (max when holding an award >$50K is a CSA of $40K)

Institutional Resources

• ICTR - CTSA
  – Provides patient care costs for investigator initiated clinical research approved by each centers peer review committee
  – Pilot feasibility grants
  – Career development training
  – Navigation, design and statistical support
  – Clinical Research Network, etc.

Institutional Resources

• Fund for Medical Discovery
  – Pilot or matching support for new interdisciplinary/interdepartmental research initiatives that will lead to new extramural support
  – Requires departmental matching of 25%
  – Proposals are due Sep, Jan and May 15th
Research Funding and Career Development

• Usual Sequence

Usual Sequence

• Clinician Scientist

  – Mentored Clinician Scientist (K-08) or Patient Oriented Research Development Award (K 23)

  – Clinician Scientist Award

  – Research Project Grant (R 01, R 21)
Research Admin Systems

- **COEUS** – Proposal development, review and submission
- **MyLearning** – Compliance Courses (HS, Animal Use, COI, Effort, Resp. Conduct, HIPAA, etc.)
- **Research Environment Systems** – web based protocol review (IRB, ISCRO), eDisclose for outside interests and MyRAP (My Research Agreement Place). IACUC is to be added in 2014.
- **CRMS** (Clinical Research Management System) – Required Registry of studies and subjects with optional schema, data forms, financial, etc. Linked to IRB and EPIC
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