Career Development Awards 101

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Acknowledgements

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- Dr. Abby Brown
- Dozens of ambitious, productive, and determined early career investigators
- Members of the Newman Society
- The "extreme" mentors of Vanderbilt

Training and Career Timetable

**Stage of Research
Training / Career**

Award Types

GRADUATE/
MEDICAL
STUDENT

⟵ Predoctoral Institutional Training Grant

⟵ Predoctoral Individual Fellowship

POST
DOCTORAL

⟵ Postdoctoral Institutional Training Grant
Postdoctoral Individual Fellowship

⟵ **Institutional Career Development Award**
⟵ **Mentored Career Development Award**

Independent Scientist

EARLY

MIDDLE

Independent Scientist Research Grants

SENIOR

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Purpose of
Career Development Programs:

To provide protected time for individuals to further develop research expertise.

Which Career Development Award?
K Kiosk & K Award Wizard

Overview of Types of NIH K Awards

- PhD scientists: **K01, K22, K25**

- Physician-scientists: **K08, K23**

- PhD or physician-scientists: **K99/R00**

- Institutional K Award: **K12**

- Mid-career: **K24** (mentors)

K12: Institutional Mentored Research Scientist Development Program

- Enhance research career development for individuals, selected by the institution, who are training for careers in specified research areas.

- Provides institutions with the capacity for mentoring junior investigators through a programmatic approach

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Vanderbilt K12 programs
(internal & external funding)

- Building Interdisciplinary Careers in Womens Health (BIRCWH)
- Vanderbilt Clinical & Translational Research Scholars Program (VCTRS)
- Vanderbilt Clinical Oncology Research Career Development Program (VCORCDP)
- Vanderbilt Emergency Medicine Research Training Program (VEMRT)
- Vanderbilt Environmental Health Sciences Scholars (VEHSS)
- Vanderbilt In Vivo Cellular & Molecular Imaging Center (VICMIC)
- Vanderbilt Physician Scientist Development Program

- For More Information on Specific Programs:
  http://www.mc.vanderbilt.edu/root/vumc.php?site=ctsd&doc=32382

Why Apply for a Mentored Career Development Award (CDA)?

A recent NIH study of comparable funded & unfunded K01, K08 & K23 applicants concluded that CDA recipients were more likely to:

- Remain in research
- Publish in scientific or medical journals
- Apply for an NIH research grant
- Receive an R01
- Apply for & receive a research grant renewal

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K01: Mentored Research Scientist Development Award

- For: Those with a research (non-clinical) doctorate

- Provides an intensive, mentored research experience

- Candidates normally must have a doctoral degree and postdoctoral experience

- Not an extension of postdoctoral training

- Varied and limited NIH IC participation
  - Used for re-entry
  - Used for pursuit of new research area

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K08: Mentored Clinical Scientist Development Award

- For: Those with Clinical Doctorate

- Supervised research experience for individuals with health professional degree who are committed to a career in laboratory research

- Phased award period
  - Didactic experience
  - "Hands-on" research experience

- For individuals intending a career in basic or early translational research

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K22: Research Career Award for Transition to Independence

- For Research or Clinical Doctorate
- Assists transition to independence
  - Some Institutes /Centers have phased out this award & use K99/R00 mechanism instead
- May be activated after identifying a suitable position at a research institution
- Might include mentored and independent phases
- May support an NIH intramural and an extramural phase

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K23: Mentored Patient-Oriented Research Development Award

- For: Those with Health Professional Degree
- Supervised research for clinically trained professionals with a commitment to focus on patient-oriented research
  - Patient-oriented research = research in which the investigator directly interacts with human subjects
- Must have completed clinical training, including specialty/sub-specialty, if applicable, prior to award

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K25: Mentored Quantitative Research Development Award

- For: those with Research Doctorate in Quantitative/Engineering Disciplines

- Mentored experiences for scientists from quantitative and engineering backgrounds interested in pursuing health-related research

- Postdocs to senior faculty eligible to apply

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K99/R00:
NIH Pathway to Independence Award

- For Health Professional or Research Doctorates with Research Experience at the Postdoctoral Level
  - **K99:** Mentored research experience for up to 2 years
  - **R00:** Transition to research independence as junior faculty for up to 3 years
- Applicants: no more than 5 years of postdoctoral research training at the time of initial application or resubmission
- Non-U.S. citizens may apply, but institution must be domestic
- Transition to R00 phase requires offer and acceptance of tenure-track, full-time assistant professor position (or equivalent)

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Research Career Development Awards
total funding & average size
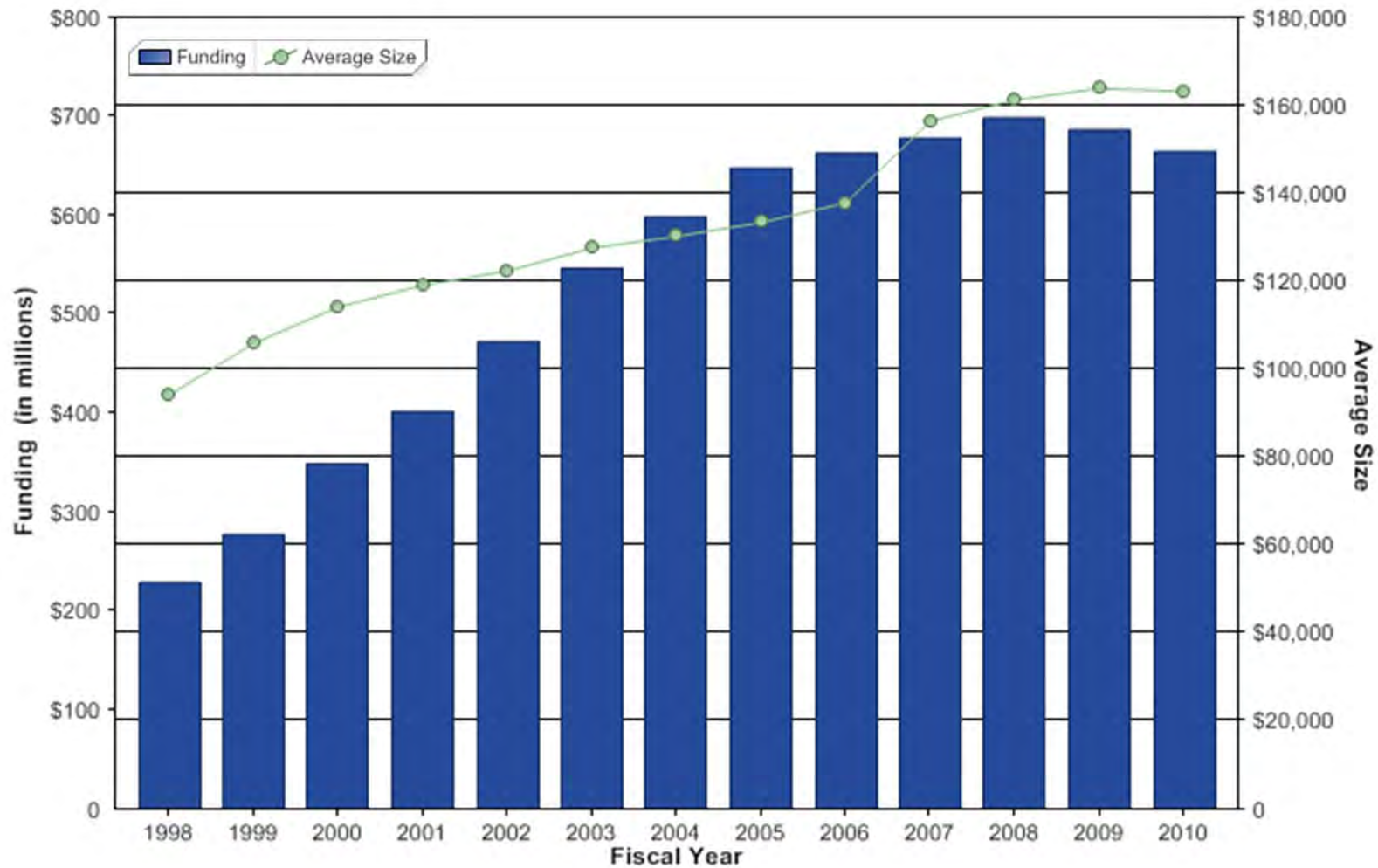
Research Career Development Awards
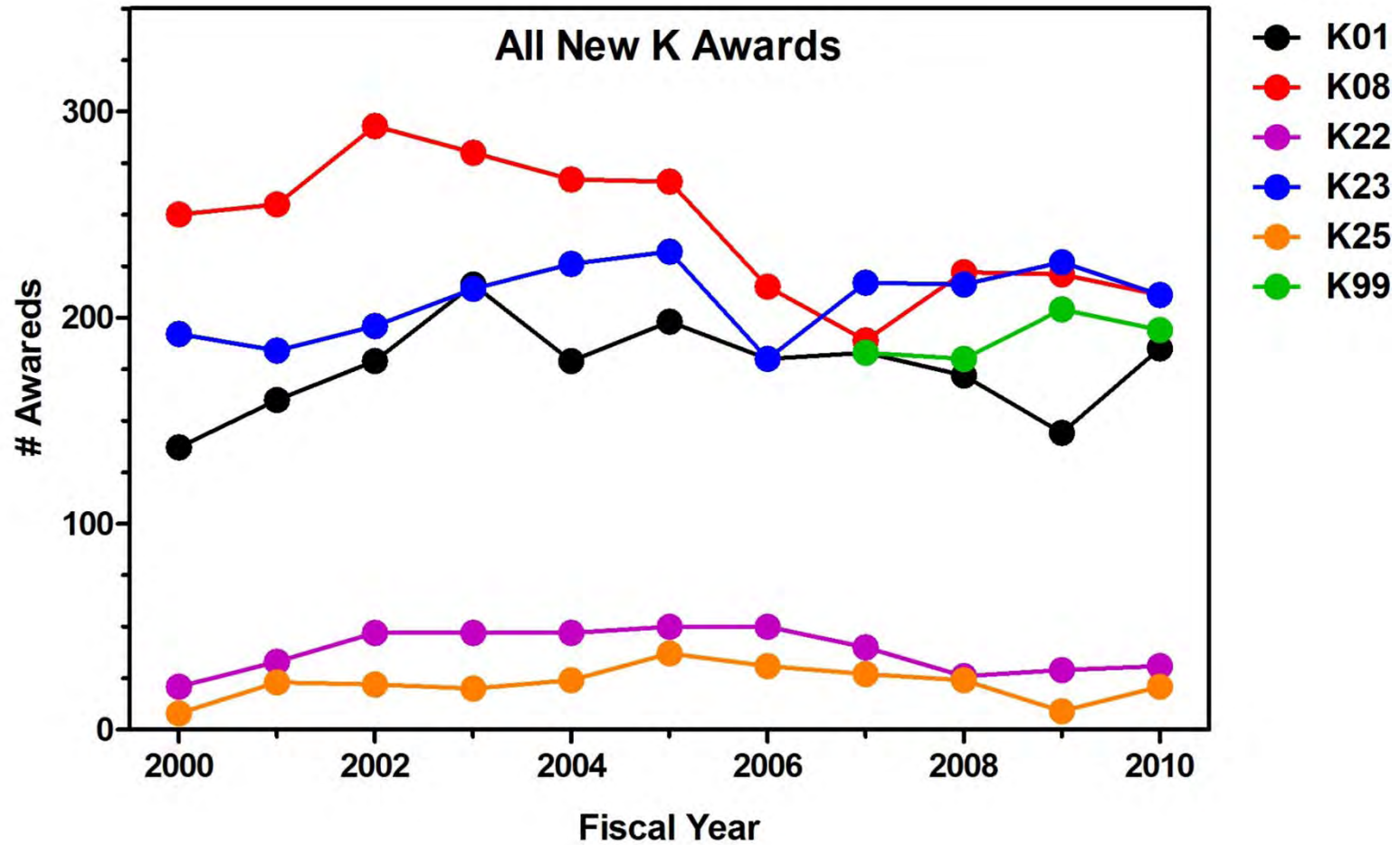
Mentored K Awards:
Scored Review criteria

- **Candidate**
  - **Career development plan**
  - **Plans to evaluate progress**
- **Mentor**
  - **Letters of Reference and Mentor(s) statements**
- **Research plan**
- **Environment & Institutional Commitment to the Candidate**

Items in red will be discussed in depth this afternoon

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Mentored K Awards:
# Additional Review criteria

- Additional Review Criteria
  - **Training in the Responsible Conduct of Research**
  - Protection for Human Subjects
  - Inclusion of Women, Minorities, and Children
  - Vertebrate Animals
  - Biohazards
  - Resubmission, Renewal, Revision factors

- Additional Review Considerations
  - Select Agents Research
  - Resource Sharing Plans
 - Budget & Period of Support

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Page Limits

Section of Application	Page Limits *
Introduction to Resubmission or Revision Application (when applicable)	1
Specific Aims	1
First three items of Candidate Information (Candidate's Background, Career Goals and Objectives, and Career Development/Training Activities During Award Period **and Research Strategy**	12 pages (for all sections combined)
Training in the Responsible Conduct of Research	1
Mentoring Plan	6
Statements by Mentor, Co-Mentors, Consultants, Contributors	6
Description of Institutional Environment	1
Institutional Commitment to Candidate's Research Career Development	1
Biographical Sketch	4

*(if different from FOA, FOA supersedes)

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The Good News: Success Rates are _Higher_ for K Awards than R01 Awards!
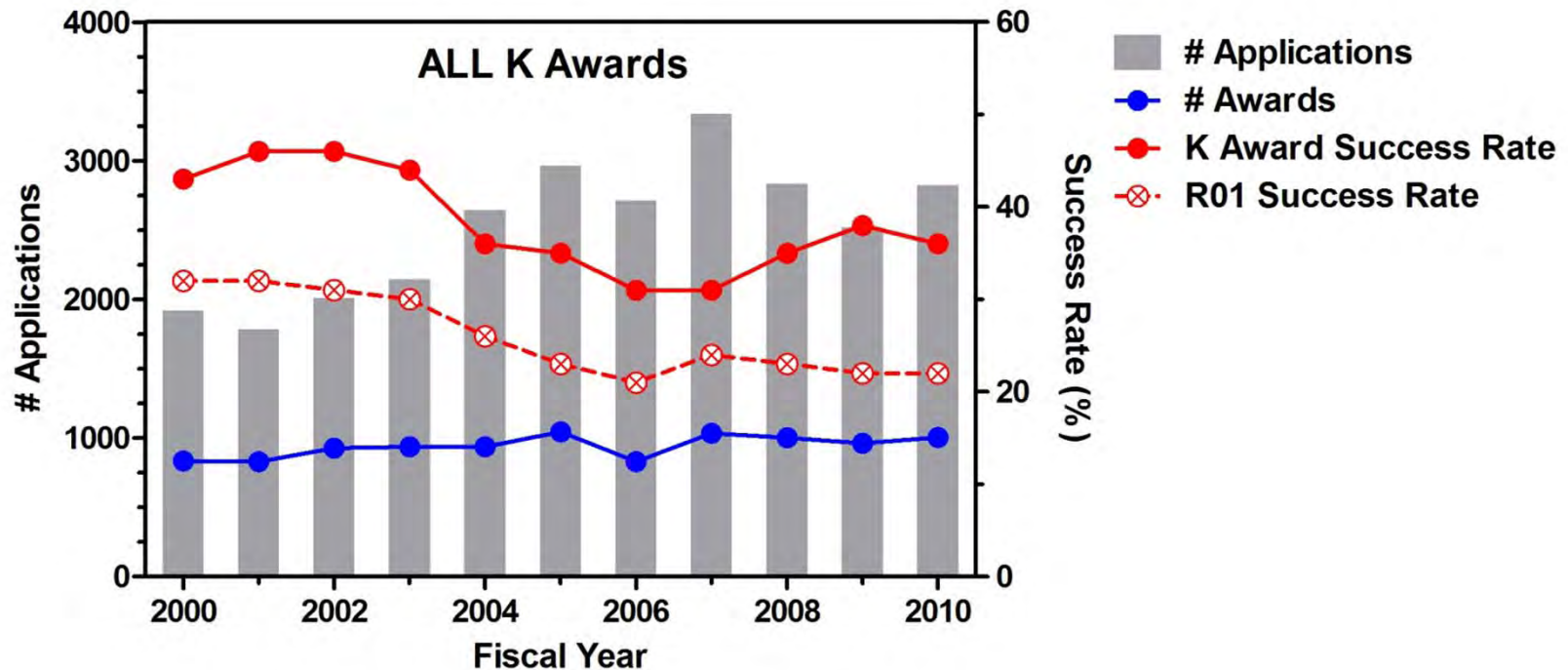
Success Rates for Individual K awards
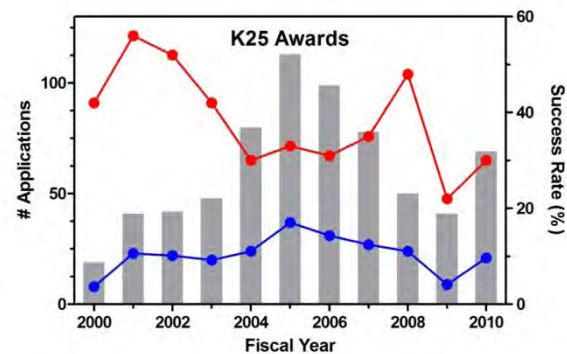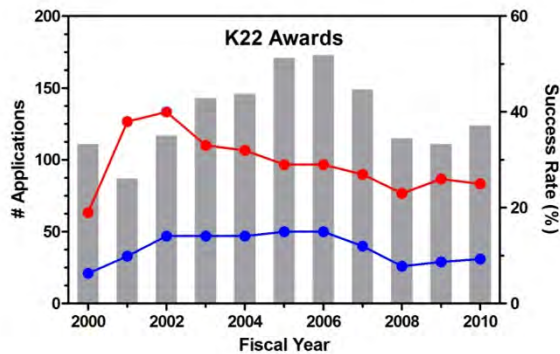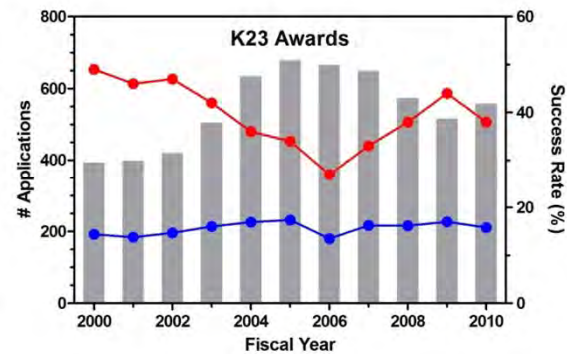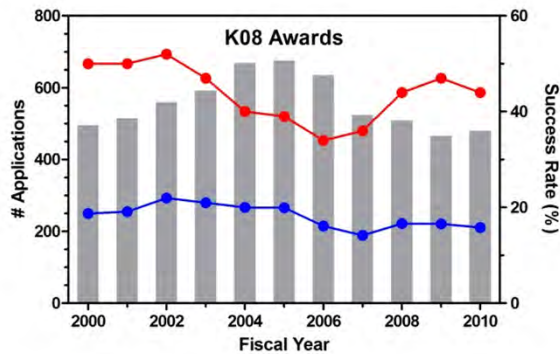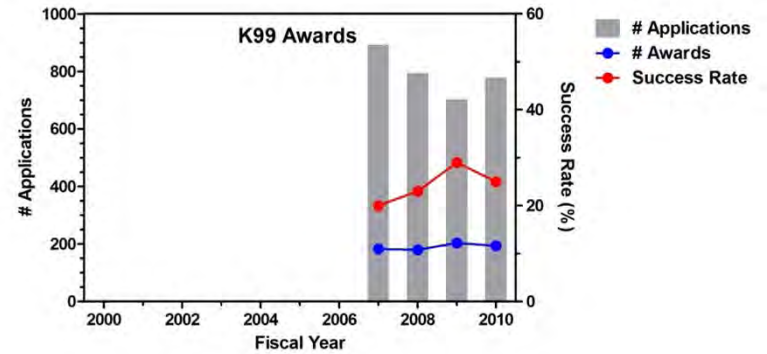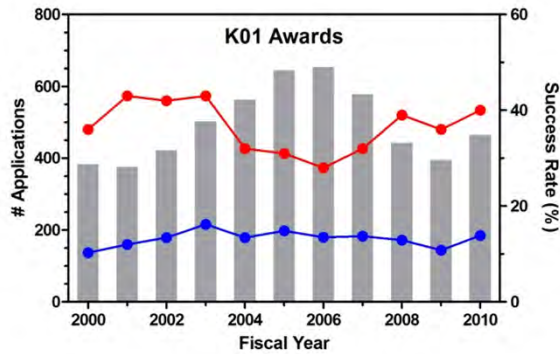
Eligibility—Who can Apply?

- **Degree:** Doctoral Degree (generally)
  - Some (**K08, K23**) require clinical degree

- **Citizenship:** US Citizen, Non-Citizen National, Permanent Resident (except *K99/R00*)

- **Previous Funding:** Previous NIH PD/PI are Ineligible
  - PD/PI on R01 or subproject PD/PI on a P01 is **NOT** OK

Read the Eligibility Section of the Funding Opportunity Announcements (FOAs) carefully!

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Common Features

- **<u>Duration:</u>** 3-5 years
  - Extensions in time – award terms remain in effect; e.g. minimum effort requirement must be maintained during the extension period

- **<u>Mentor:</u>** Entry level awards require a mentor, multiple mentors are OK

- **<u>Independent Support:</u>** Mentored Ks encouraged to apply for independent support during K award

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Common Features: Appointment & Effort

- **<u>Appointment:</u>**
  - For K eligibility purposes, individual must have a <u>full-time</u> appointment at applicant organization (*organization defines "full-time"*)
  - Any minimum effort requirement must be covered by that appointment

- **<u>Level of Effort:</u>**
  - Mentored awards require full-time effort (defined as at least 9 person months (i.e.75%) on research and the rest on other career development related activities)

- ***At the time of application and initial award, all candidates must meet the full-time appointment requirement as well as the minimum 75% effort requirement.***

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Common Features: Costs

Some costs vary widely across NIH ICs. Review specific Program Announcements carefully.

- **<u>Salary/fringe benefits</u>:**
  - Salaries capped between $75,000 and legislatively mandated cap (currently $199,700)
  - Fringe benefits are over & above any salary cap
  - Salary supplementation is OK, but must not require extra duties that would interfere with K activities

- **<u>Research/development costs</u>:**
  - Generally $25,000 to $50,000
  - Commonly used for: supplies, equipment, technical personnel, travel to research meetings or training, tuition/fees, computational services

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Common Features: Costs (cont.)

- **Ancillary Personnel Support**:

  Generally **not** allowed

  - salary for administrative/secretarial support, support for mentors

- **F&A Costs**: 8% Rate

  Base = Modified Total Direct Costs

Take Home:

## Ks fund the scientist and not the science

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Common Features: Changes

- **<u>Change of Institution or Mentor</u>:**

  – **Requires prior approval in writing of the NIH awarding component; contact NIH staff ASAP!**

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Application Procedures

- K awards are electronically submitted using application package found with Funding Opportunity Announcement (FOA)

- Submission Dates:
  - **New:** February 12, June 12, October 12
  - **Renewal, Resubmission, Revision:** March 12, July 12, November 12

- Institute / Center use of Career Awards is variable

  Read the FOA carefully; call the NIH awarding component with any questions

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Funding of Individual K Awards Varies by Institute / Center

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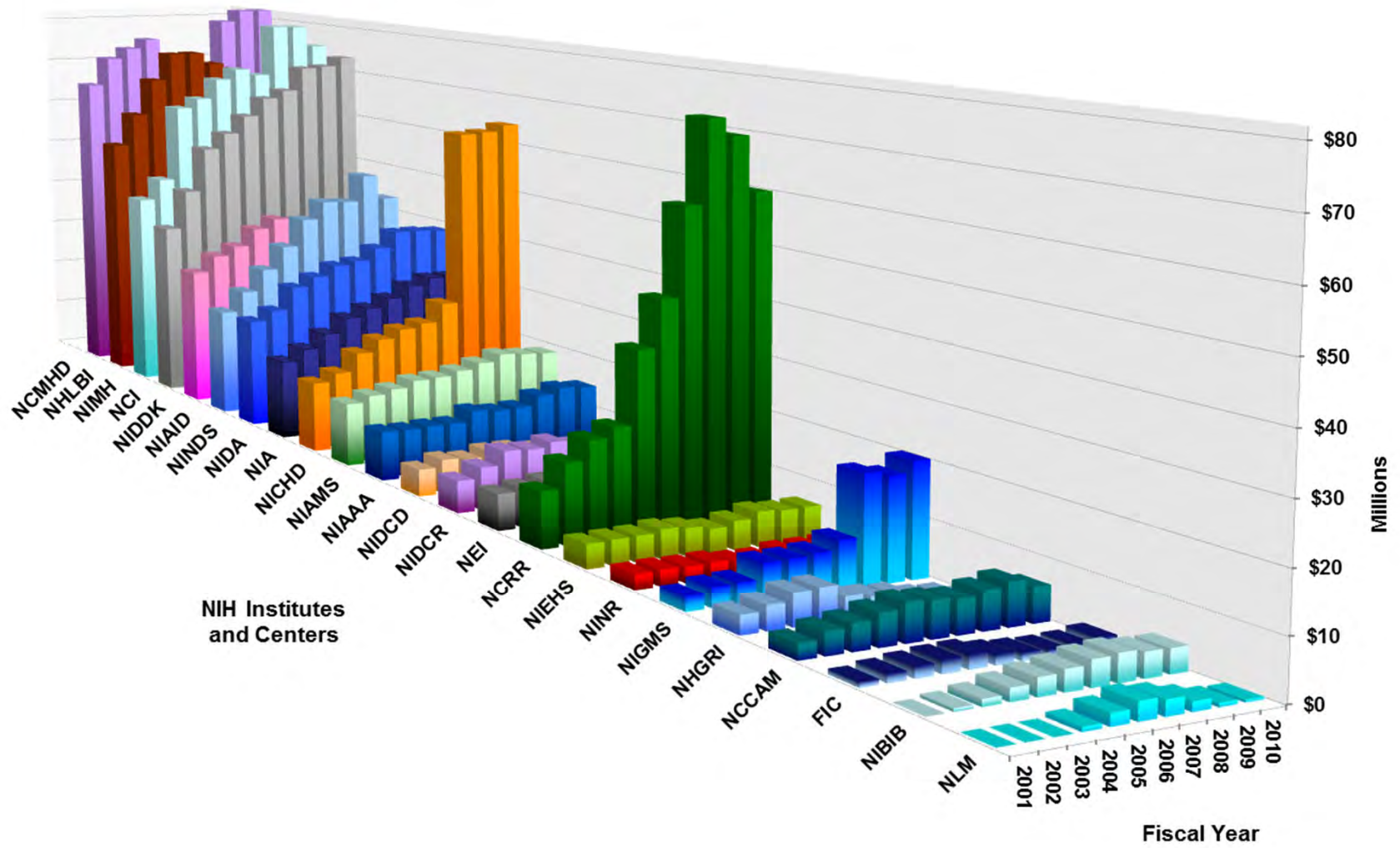
K Award Success Rates Vary by Institute & Center
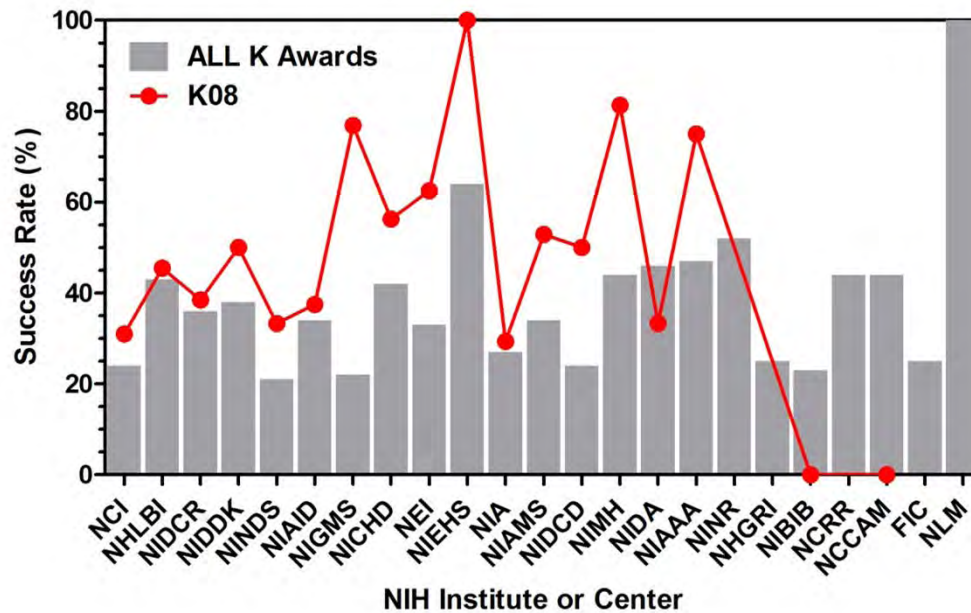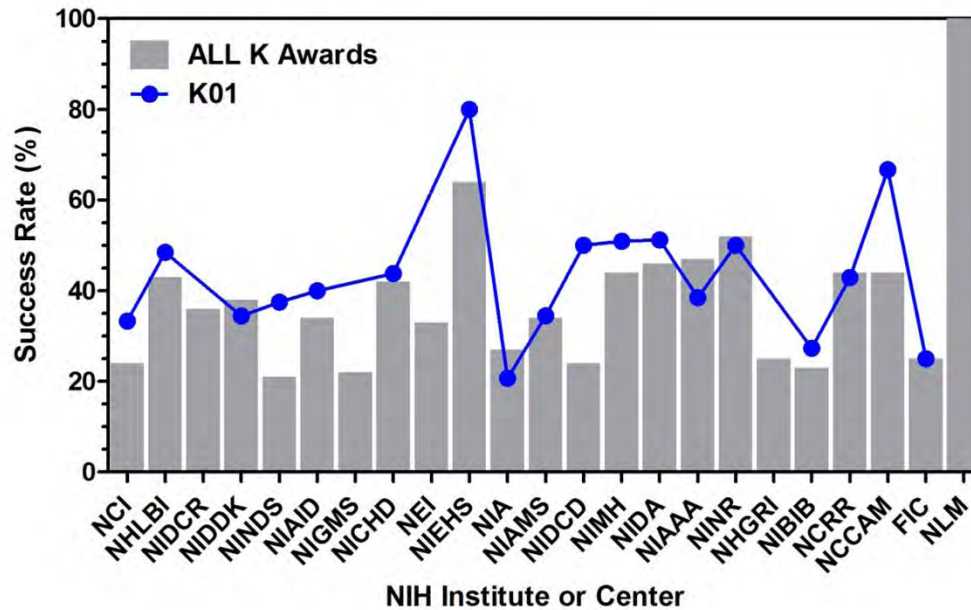
Application Procedures

Electronic Submission involves the following business processes

- Research Strategy:
  - Uses format like Research grants to align with review crtieria (Significance, Innovation, Approach)
  - Page limit for Research Strategy + Candidate's Information = 12 pages

- Budget: Now required with application

- Candidate's Biosketch: Includes "Research Support" section and Personal Statement; same as other biosketch used by investigators

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Application Procedures (cont)

- Reference Ltrs:
  - Submitted directly through the eRA Commons; not as part of the Grants.gov application.
  - Are matched with application at NIH.
  - Must include correct FOA # to match.
  - Referees need not be registered in the Commons to submit a reference letter
  - Candidate use Commons to monitor receipt only (Can't view actual reference letters)
- See Special Career Instructions in Application Guide (Section I.7)
- See Notice OD-09-029:
  http://grants.nih.gov/grants/guide/notice-files/NOT-OD-09-029.html

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Some Examples of Non-NIH Career Development Awards

- VA Career Development Award

- Dermatology Foundation Career Development Award

- NASPGHAN-CDHNF Fellow to Faculty Transition Award

- Robert Wood Johnson Faculty Development Award

- Foundation for Anesthesia Education and Research Mentored Research Grant

- Doris Duke Clinical Scientist Development Award

- American Epilepsy Society Early Career Physician Scientist Award

- American Diabetes Association Young Investigator Award

Ask your mentor, peers, professional societies

Conversation Points

- How will you fund the science?

- When is it OK to double up?

- Why do you say "K Awards are a two edged sword"?

- What does my mentor mean by saying I don't want all five years?

- What counts as "my" career development?

- How do I access the funded grants library?