



*Reimagined*  
**2020**   
NOVEMBER 9-14 



Society for Immunotherapy of Cancer



# K Awards and R01 grants

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Society for Immunotherapy of Cancer

#SITC2020

# K vs. R Awards: Impact and Scores

Overall Impact = Your score (range 10-90, lower is better)

K proposal: Considering the candidate's (and sponsor's) qualifications and previous research experience, evaluate the proposed training experience as it relates to preparation for an independent research career

R proposal: Assess the likelihood for the project to exert a sustained, powerful influence on the research field(s) involved, in consideration of the following five core review criteria, and additional review criteria (as applicable for the project proposed)

*K awards fund the scientist not necessarily the science*

# K Awards: Advantages and Disadvantages

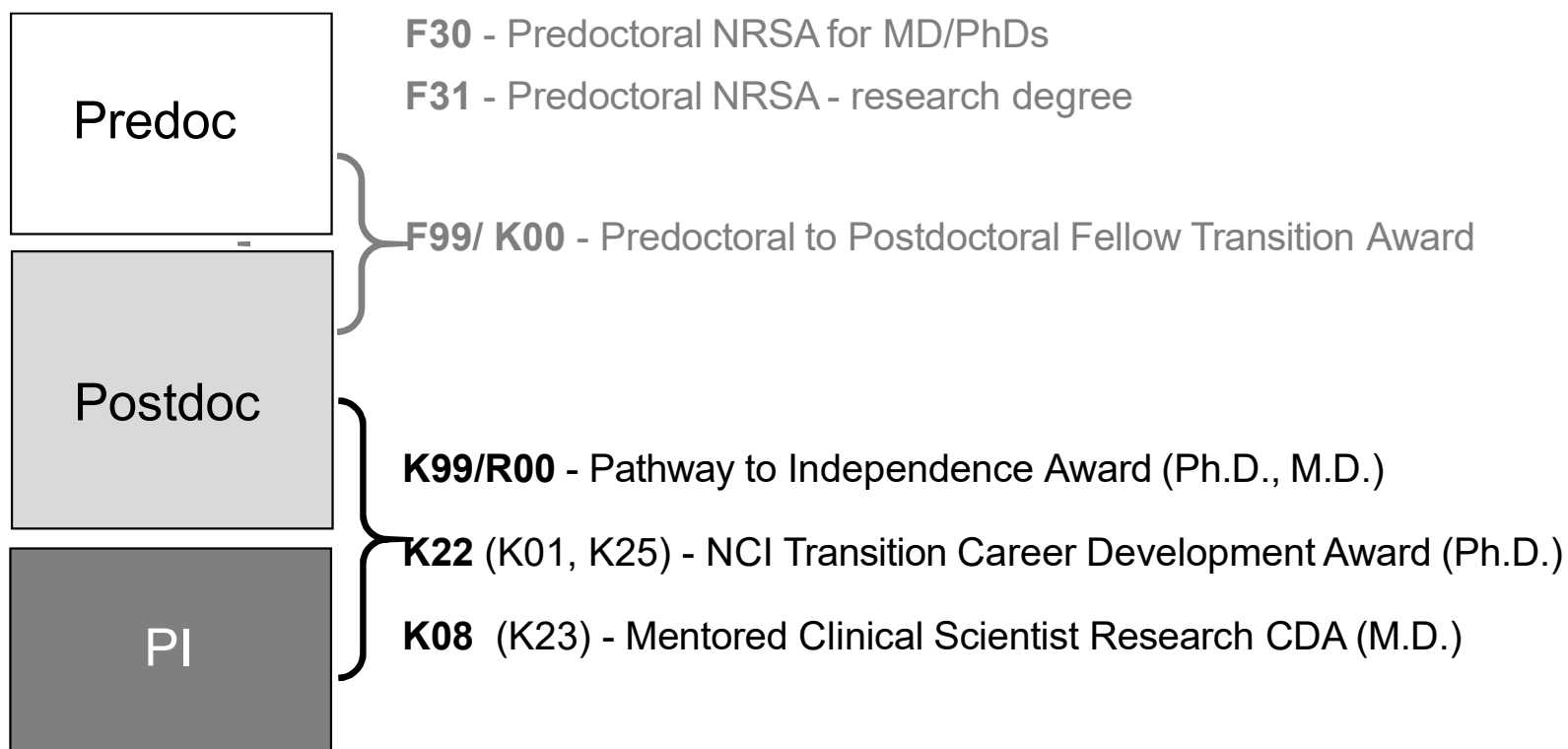
## Potential Advantages

- Competition is limited to peers at similar career stages
- Allows further training and mentoring
- Provides up to 75% protected time to pursue your research and training
- Creates a funding track record
- Allows critical preliminary data supporting independence to be generated

## Potential Disadvantages

- Limited funds to carry out actual research
- Requires institutional support (may be much greater than small indirect costs)
- 75% time requirement may limit other activities
- Requires qualified mentors that may not be readily available

# Research Career Development Awards



**\*K01, K08, K22** – NCI Career Development Awards to Promote Diversity

# The Pathway to Independence Award (K99/R00) PA-19-129/ PA-19-130

- Objective: To help outstanding postdoctoral researchers complete needed, mentored career development and transition in a timely manner to independent, tenure-track or equivalent faculty positions.
- Eligibility:
  - U.S. citizens and **non-U.S. citizens** (@domestic institutions)
  - Less than **4 years** of postdoctoral research training
  - MDs: Time spent in clinical training is not counted towards K99/R00 eligibility
  - Cannot have held an independent faculty or tenure-track position
- Research: all areas of cancer research

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# The Pathway to Independence Award (K99/R00)

- **Mentored Phase (K99) (1 - 2 years):**

- Supports postdoctoral research training & career development Salary: up to \$100,000/year; Research Support: \$30,000/year



- **Tenure-track Assistant Professor Position (or Equivalent)**

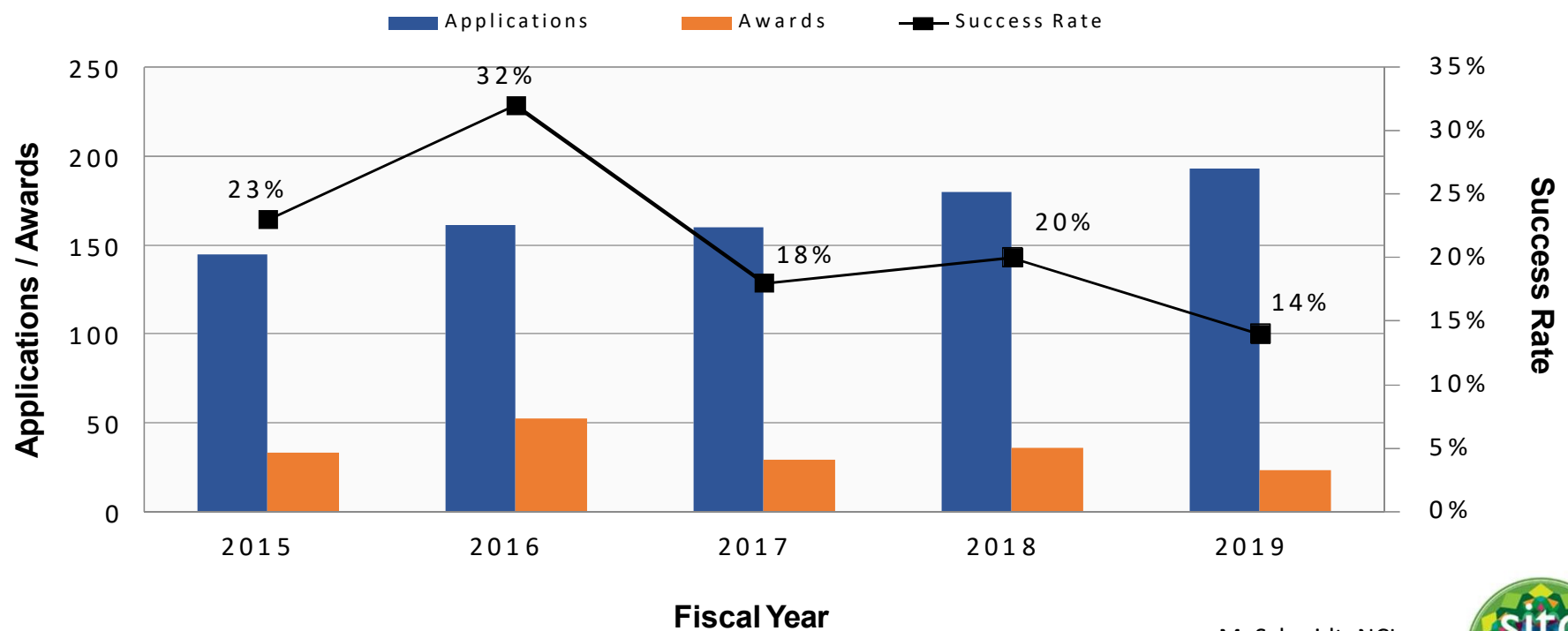


- **Independent Scientist Phase (R00) (up to 3 years):**

- Supports independent research project. Allowable Costs: Salary, fringe benefits, research support: \$249K/ year (total cost)

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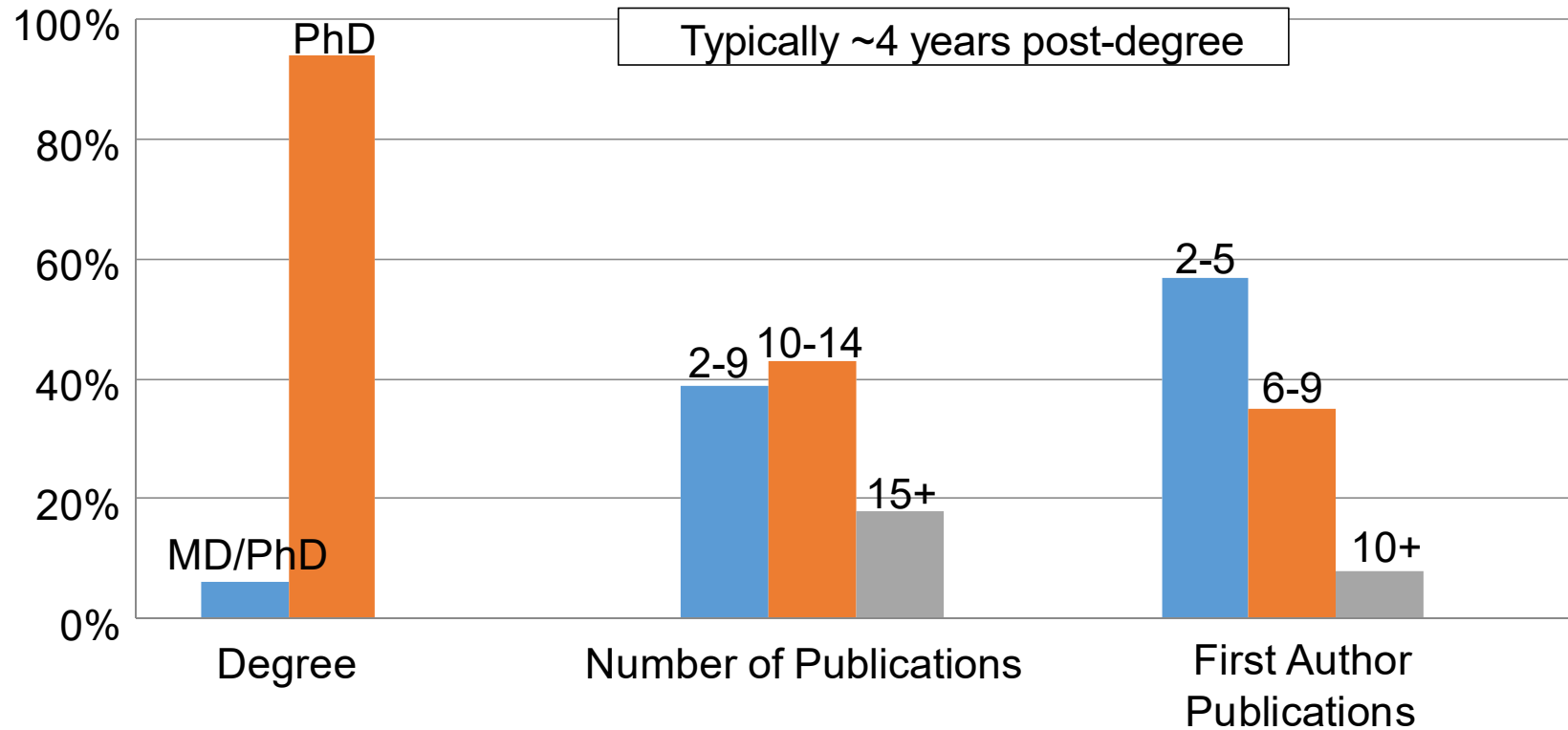
# K99: Applications, Awards and Success Rates



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# Parent K99 Awardee Profiles



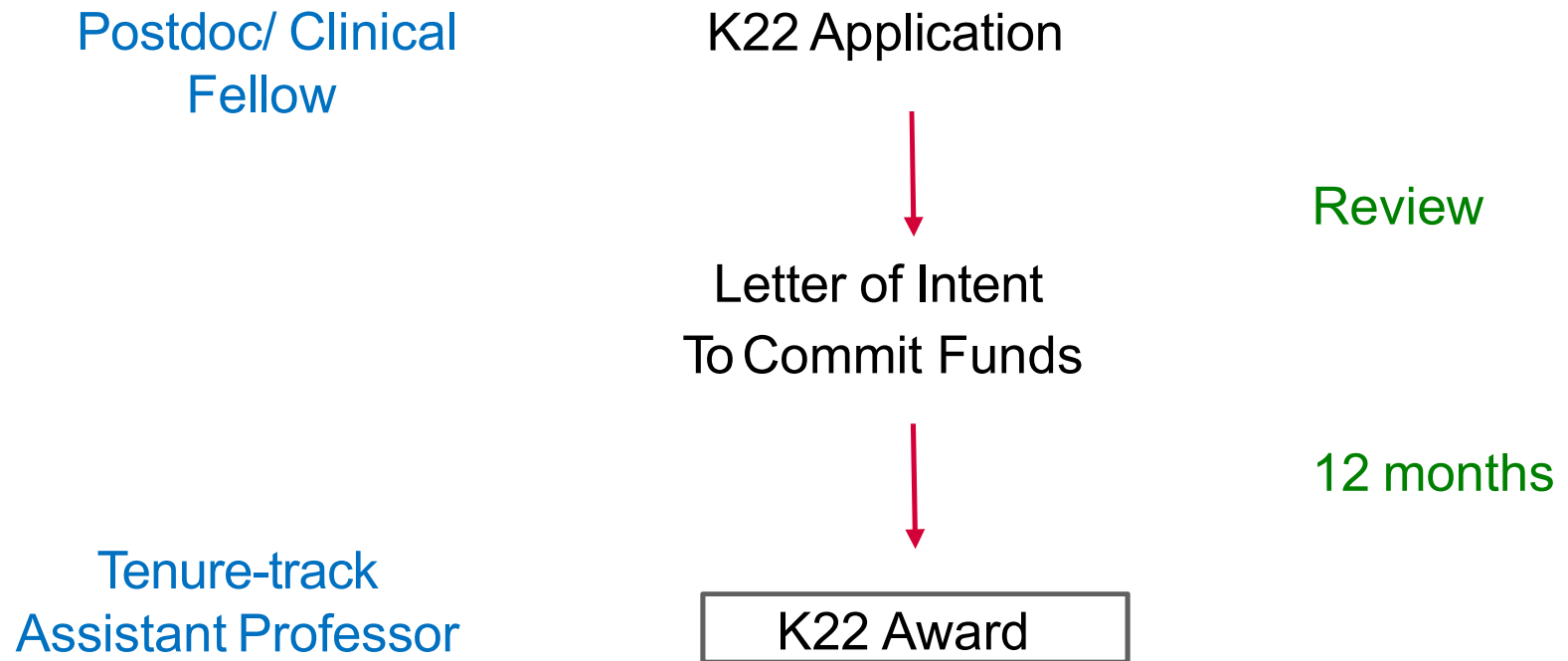
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# The NCI Transition Career Development Award (K22) PAR-18-467

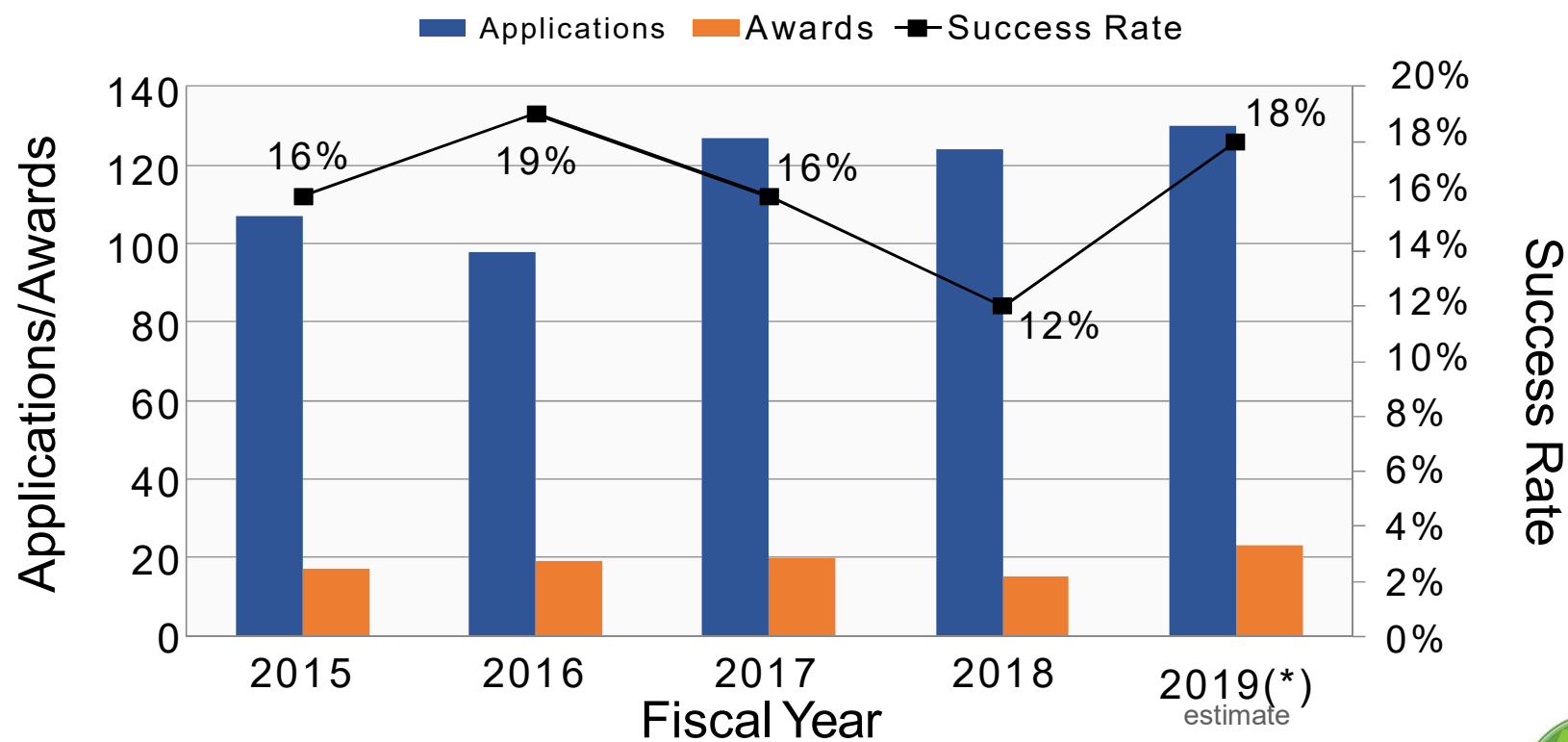
- Objective: facilitates the transition of investigators in mentored, non- independent cancer research positions to independent faculty cancer research positions. The K22 provides protected time for the initial 3 years of the first independent tenure-track faculty position.
- Eligibility:
  - U.S. citizens and Permanent Residents (@domestic institutions)
  - **2-8 years** of postdoctoral research training
  - Cannot have held an independent faculty or tenure-track position
- Research: all areas of cancer research

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# The NCI Transition Career Development Award (K22)

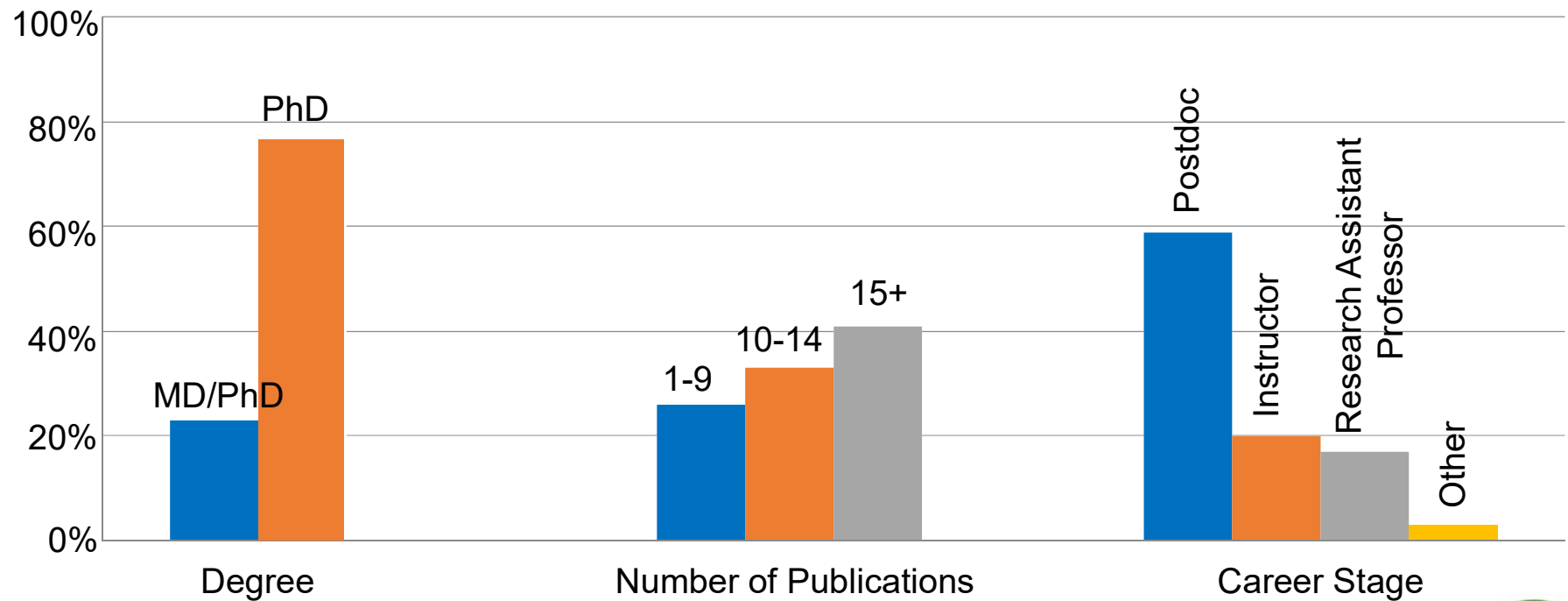


## K22: Applications, Awards and Success Rates



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# K22 Awardee Profiles



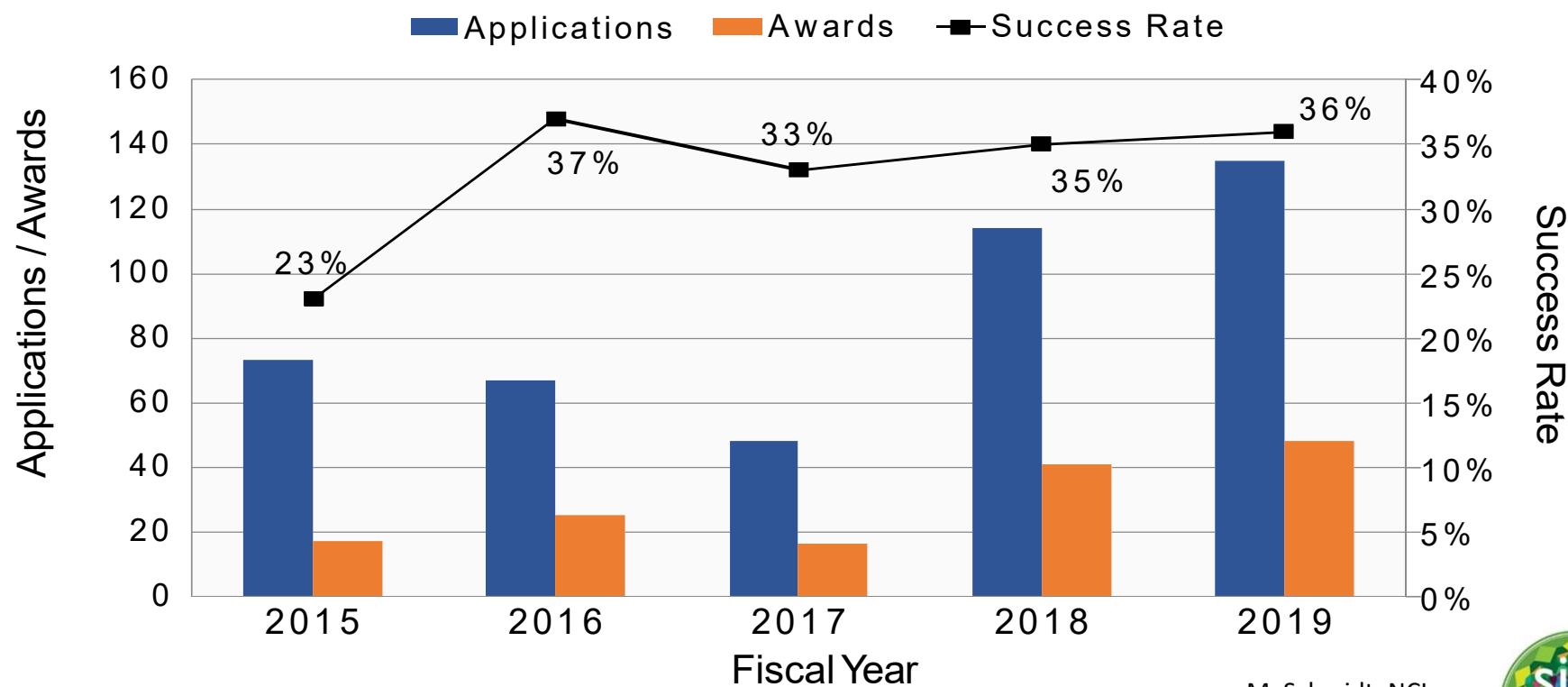
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# Mentored Clinical Scientist Research CDA (K08) PA-19-116/ PA-19-117

- Objective: Provides support and “protected time” to non-tenured clinician scientists at the early career stage for an intensive, mentored research career development in basic, translational, and/or patient-oriented cancer-focused research.
- Eligibility:
  - U.S. citizens and Permanent Residents
  - NCI requires the candidate to have an **active clinical license** to practice in the United States
  - 75% effort required for all specialties, including urologic surgeons
  - NCI: salary base up to \$189,600 + fringe benefits and \$50,000 in research support

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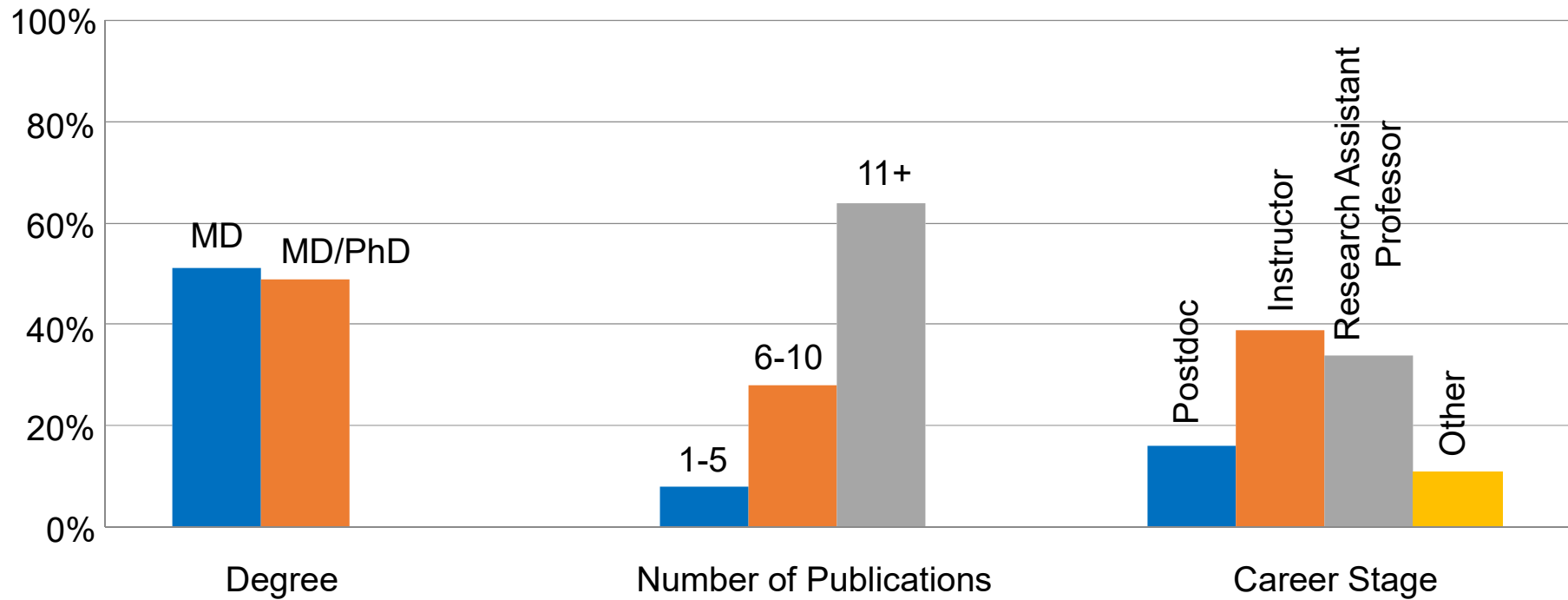
## K08: Applications, Awards and Success Rates



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# K08 Awardee Profiles



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# Application sections and page limits

▪ Candidate's Background	}	▪ 12 pages
▪ Career Goals and Objectives		
▪ Plan for Career Development		
▪ Research Strategy		
▪ Plans and Statements of Mentor and Co-mentor(s)		▪ 6 pages
▪ Letters of Support		▪ 6 pages
▪ Environment & Institutional Commitment		▪ 1 & 1 page
▪ Biosketch		▪ 5 pages

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# Review criteria

## *Career Development Grants (K Awards)*

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- Overall Impact

### Review Criteria

- Candidate
- Career development plan
  - Career goals and objectives
  - Career development activities
- Research Plan (see ➔)
- Mentor(s), consultants, collaborators
- Environment & Institutional commitment
- *Focus is on training potential*

## *Investigator Initiated Grants (R-series)*

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- Overall Impact

### Review Criteria

- Significance
- Approach
- Innovation
- Investigator
- Environment
- *Focus on specific research*

- Scores from 1 (good) to 9 (bad)
- One final score given for *Overall Impact*

# Candidate's Background

- Explain key career choices (e.g., to pursue specific training or undertake particular research projects)
- Provide evidence of long-standing commitment to research by citing past research
- Highlight productivity (publications and recent data)
- Describe any formal research training (e.g., KL2, MPH)
- Explain any gaps in training
- *TIPS*
  - Begin by stating your long-term research career goals
  - Try to build a convincing story that your past endeavors have been consistent with your current goals
  - If not, explain why your goals have changed

# Career Goals and Objectives

- Describe your long-term research and career goals
- Identify the few remaining deficits in your training that prevent you from achieving your goals to be an independent researcher
- Be specific about your deficiencies (e.g., qualitative research methods, biostatistics, bioinformatics)
- Highlight studies in the research plan that will require additional training and/or experience and describe how they will serve as a platform to exercise your new skills
- These “deficits” in your training/experience should be the focus of your training plan
- Describe how you plan will differentiate you from your mentor and lead to research independence

# Career Development Activities

- List the specific training areas you will pursue to gain the new skills needed to overcome your “deficits” and achieve career goals
- Explain why additional training and mentored research experience in these areas is critical to achieving your short-term and long-term career development goals.
- Provide details how you will gain this training (specific courses, individualized tutorials, or practical experience gained from conducting the research in the proposal)

# Mentors, Co-Mentors, and Collaborators

- The primary mentor should be a senior investigator with a track-record of NIH funding at your institution
  - Better if history as an actual PI (R01, P01, U01, SPORE - not early stage K, co-investigator)
  - Even better if currently funded
- The primary mentor's letter should include
  - Qualifications in the research area proposed by the candidate
  - Previous experience (success) guiding trainees to independence
  - The nature and extent of the supervision that will occur during the award period
    - How progress will be monitored (committee meetings)
    - List of specific milestones during the K award
  - Resources available to support your training and research
- Co-mentors complement the primary mentor's strengths (justify)
- Each mentor needs play a specific role in your training



# Institutional Environment

- Letter from department chair
  - Write a draft with your division head/program leader
- Describe the research facilities and educational opportunities at your institution that are related to the career development training and research plans
  - Include relevance of each component to your career development plan
- Evaluation criteria
  - Need evidence of commitment to the scientific development of the candidate and assurances that the institution expects the candidate to be “*an integral part of its research program.*”
  - Applicant institution’s commitment to protect at least 75% of the candidate’s effort for proposed career development activities

# Research Plan for a K award

- The research plan is a training vehicle
  - Well integrated with your career development training plan
- The research plan is a means to achieve independence
  - The research plan should be viewed as a precursor for a subsequent R01
- Mentored K awards provide limited funding
  - Appropriate and feasible research plan since the budget available in a mentored K award is limited

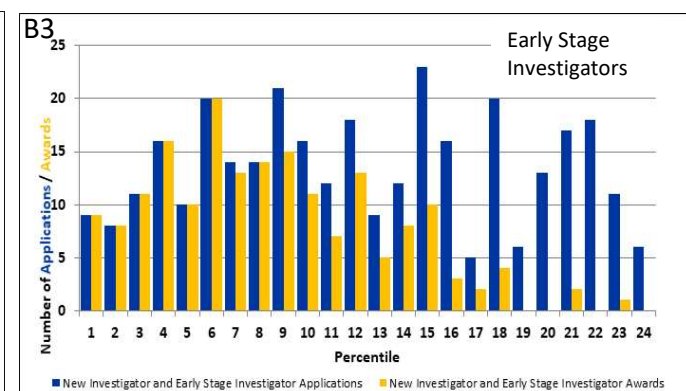
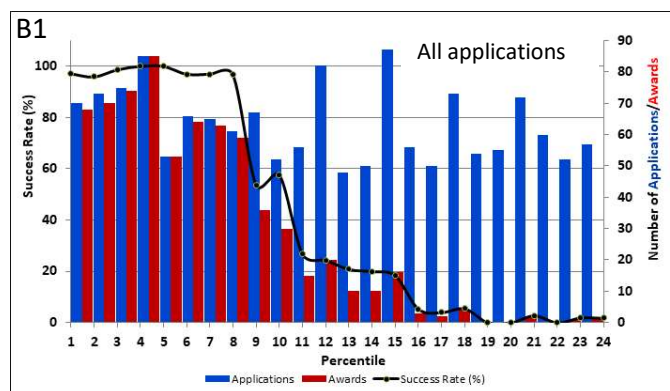
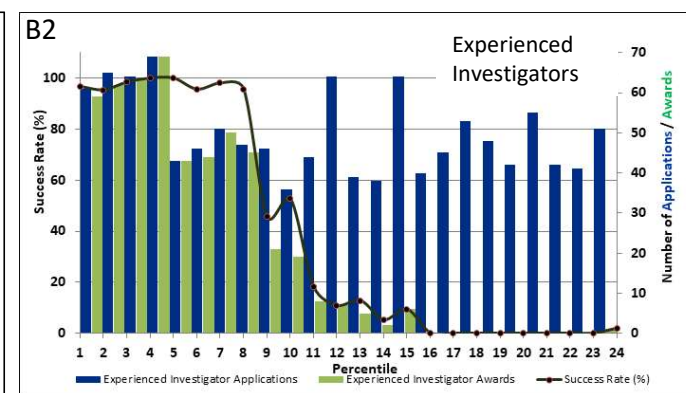
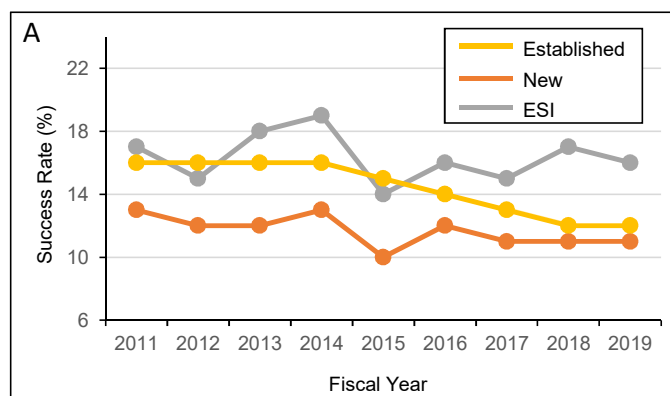
# K vs. R: New Investigator R01s

- New Investigator: Not previously a PI on any PHS-supported award
  - Except small R-series (R03, R15, R21) and all K awards
- Early Stage Investigators (ESI): New investigators who are also:
  - Within 10 years of completing terminal research degree
  - Within 10 years of completing medical residency (or equivalent)
  - Extensions: injury, birth
- Breaks for ESIs
  - ESI R01s reviewed as a separate group at the beginning of the meeting
  - Reviewers reminded to place more emphasis on training and research potential and less on preliminary data and track record
  - Expedited review for revision (if within 5-10% of payline) – earlier summary statement, resubmit in 4-6 weeks (saves 4 months)
  - First competitive renewal - payline may be higher
- Applies to R01 applications (and DP2)
- *TIP*
  - *Apply for a R01 as soon as you can, especially if considering a R21*

# Success Rates – New vs. Established Investigators

## Early stage investigator R01s

- Gaps between new and established investigators have narrowed (A)
- Most awards to experienced investigators go to those in the top percentiles (B2), whereas funded proposal for ESIs are much more spread out (B3)
- Don't fall into the R21 trap. Success rates for early investigators (FY2019)
  - ESI R01 = 16%
  - R21 (no ESI) = 9%



# Take Home Points

- Develop a realistic plan and strategy
  - Apply for the appropriate awards (check with specific Institute)
  - Give yourself plenty of time - It will take longer than you think it will
- Build the best team of mentors and collaborators
- Seek the assistance of experienced grant writers, reviewers, and NIH staff
- Nail your Specific Aims
- Publishing is tremendously helpful
- Seriously consider writing a R01 if you have the (published) data
- Remember the big picture – Why you love science and want to become an independent investigator
- Good luck!