



What New Investigators Need to Know about the NIH

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Who We Are

- **Nancy Buchheimer, B.S.**, is Research Programs Manager in the Department of Neurology
- She covers all pre- and post-award needs for 26 investigators in her department
- She has worked successfully with federal sponsors (including DoD), international sponsors, philanthropic sponsors, and pharmaceutical industry sponsors

How We Got Here

- Nancy has 31 years of experience as an imaging technologist and lab director
- She has helped design and execute imaging studies in nonhuman primates, rodents, and humans and facilitated grant proposals
- She is expert in designing budgets and navigating online submission processes
- She is also a veteran IRB member

Who We Are

- **Karen Potvin Klein, M.A., E.L.S., GPC** is Associate Director for Research Development and Services in the Office of Research
- She is board-certified in medical editing and as a Grants Professional
- She edits proposals and manuscripts free of charge for the Wake Forest School of Medicine research community
- She helps craft proposals from the start and offers “grantsmanship” advice

How We Got Here

- Karen has over 30 years of experience in medical editing, including 3 different medical journals and a consumer health magazine
- She has worked at Wake Forest since 1991, when she saw her first grant application
- Was an editor/writer for 3 departments before moving to the Office of Research in 2004
- She serves on study sections for PCORI, Komen for the Cure, and the Avon Foundation

Why We're Here Today

- We have worked closely together on a variety of applications for 7 years
- Young investigators have been a focus, especially K-type applications
- We use our complementary expertise to craft a proactive strategy
- Today we'll share case studies and tips that may be of value to you
- Concepts useful for many types of proposals

Strategies for Success

- The current challenging funding environment is a challenge to our daily work. For each proposal, we ask ourselves:
- How can we steer new investigators toward the funding strategies most likely to work for them?
- How can we help new PIs adjust their expectations, plan their time appropriately, and navigate “the system”?
- These guidelines will underlie today’s talk

Our Two-Stage Model

- Departmental: Nancy is well acquainted with her faculty; she is known as a trusted research resource (reinforced by highly supportive chair)
- New faculty quickly learn she is the go-to person for multiple research-related questions
- Motivates them to seek her out when needed
- Her help is required for certain tasks (e.g. routing or uploading applications)

Our Two-Stage Model

- Institutional: I see “bigger picture” of proposals across WFSCM – tips from others’ experiences vital for new investigators
- PI’s not required to seek my help. I allow them to find their own path
- I can link PIs to other resources
- For new investigators, my work is concrete evidence that Wake Forest knows they need help and provides it free of charge. Morale booster!

Our Methods

- Get involved early: We have lunch with Neurology faculty recruits when they visit. We describe how we support new investigators
- Learn: We attend recruits' job talks to: learn about their work, assess feasibility of plans and their readiness, and show our interest
- Follow-through: Nancy can touch base informally, decide when to involve Karen in plans for a specific proposal
- Communicate: With faculty and each other!

WFSM Department of Neurology

- Of 26 MD investigators, 43% are “young” or “new”; some writing their very first proposals
- 1 K23, former K18, former K02 among other new-investigator type awards
- 42 industry-supported studies: Neurology brings in 25% of all dollars for clinical trials across the entire institution
- Department chair has an R01 and 10 clinical trials ongoing; she is a role model who encourages research

Case Study #1: Department Chair

- Dr. B. was an established neurologist but an NIH “New Investigator” when she arrived at WFSM
- Dr. B.’s immediate motivation in hiring me: resubmit her complex R01 and get it funded
- We brought in Karen, who met with Co-I’s and learned about unique aspects of the project
- Karen designed a “mini-study section” of grant-savvy WFSM faculty to advise on responses to reviewers’ critiques

Case Study #1: Department Chair

- Dr. B., Nancy, & Karen then worked together to complete the resubmission
- Nancy suggested Dr. B. contact her Program Officer to establish rapport
- R01 score was on the edge; PO became the advocate who made the award happen
- PO eventually facilitated 2 administrative supplements to the original award
- Dr. B. now regards Karen as part of the Neurology team for proposals

Case Study #2: Steady Achiever

- Dr. C.
- Society Young Investigator award allowed time for M.S. degree, pilot data, publications
- Strong mentors, continued into K application
- K23 awarded (2nd try)
- K now in year 4, focus is on the R01
- Karen wrote a letter of support in his K proposal
- She serves on Dr. C's mentor committee, which meets twice/year

Case Study #2: Steady Achiever

- I facilitated both of Dr. C.'s K23 submissions
- I have access to eRA Commons eSNAP to assist in yearly Progress Reporting
- I provide monthly expenditure summaries for post award budget tracking
- I supervise the clinical studies coordinator for his K award and his other research projects
- Update his Other Support document and assists in effort reporting
- Will start regular meetings to plan R01 submission

Case Study #2: Concerns re Future

- Dr. C. unclear on direction of the R01
- Protected time more difficult to achieve
- Can he transition away from mentor; lead teams; work with new collaborators?
- Our role: We can help with proposal development and post-award matters
- Otherwise, success largely depends on Dr. C.

Case Study #3: “Slam Dunk”... Not

- Dr. H.
- Pros: Specialized but sexy research topic
- Sought out our assistance
- Proactive regarding mentor selection and working with them to design career plan and research project
- Cons: Little writing experience
- Main mentor at previous institution
- No critical mass of “good fit” mentors at WFSM

Case Study #3: “Slam Dunk”... Not

- First K23 application got positive reviews but grant was not discussed
- Pros: Proactive regarding Program Officer discussion
- Involved mentors in redesigning the proposal
- Cons: Main mentor at WFBSM left; substitute had very different focus although lots of mentoring experience; Dr. H’s publication track record did not improve

Case Study #3: “Slam Dunk”... Not

- Second K23 application got positive reviews but was not funded (the impact score improved)
- Reviewers recognized mentor issues as well as lack of publications
- Both are substantive issues hampering future funding success
- We can help facilitate more publications, but we cannot create more mentors

Case Study #3: Lessons Learned

- Dr. H. has applied for 2 society-sponsored proposals (one not funded so far). He is a much better grant writer after working with mentors (and us)
- He has not given up on research idea, but has recognized environment's limitations
- He is now mentoring a junior colleague to help her shape her research ideas
- He is more comfortable with asking for help, from us and from others

Case Study #4: A Star Is Born

- Dr. M. recruited to Neurology in 2006
- More senior than Drs. C and H, but inexperienced in research
- Pros: He forged new intramural and extramural collaborations in stem cell research
- Tremendous energy, natural team leader
- Cons: Applied for **19** grants unsuccessfully
- No credibility in area he wanted to pursue
- Hadn't been done by others at WFSM either

Case Study #4: A Star Is Born

- Solution: Finally applied for K18 career transition award and that worked!
- Major funding followed from an international agency
- New concerns emerged: critical mass of collaborators was external; facilities had limitations (dog breeding colony costs not covered by grant)
- As Dr. M. became internationally known, he was courted to relocate elsewhere
- He joined another institution in 2012

Common Challenges for Case Studies

- Career development essential, but requires support from many parts of the institution
- All had limited start-up funds to support gathering pilot data (Dr. C.'s pilot grant addressed this need, but the others did not)
- All are clinicians; protected time for research is jeopardized until and unless funding is found
- Timing is everything: right place, right time, right co-Is, right reviewers

Common Challenges for Case Studies

- These common challenges mean that we see common needs among our less experienced investigators in Neurology
- Today we will focus on 7 particular areas we return to repeatedly
- These areas are both strategic and concrete; will be important regardless of topic (or even sponsor)

Common Gaps in New Investigators' Skill Sets: Our Tips

- The basics of grant writing: We alert them to intramural workshops, other WFSM resources
- What is the low-hanging fruit: We inform them about relevant deadlines for intramural pilot grants or extramural young investigator mechanisms
- Work delegation: We explain who does what (our roles and others in WFSM research infrastructure) to achieve best use of PI's time

Our Tips, continued

- How to interpret an RFA: Subtle clues re fit, budget limitations, review criteria, how many awards will be issued
- Focus and “hooks”: How not to over-promise, how to slip in key novelties and/or thematic emphases
- Do the homework: Importance of researching study sections and contacting the Program Officer for recommendations
- Network: Talk with senior grant-savvy colleagues (whether mentors or not)

K Writers Summer Workshop

- “K Writers Workshop” summer course co-taught by myself and faculty; facilitated by WFU TSI
- 10 sessions from April-Sept; free of charge
- Competitive enrollment; limited to 12 participants
- Each session focuses on a key section of the K Mentored Scientist awards (all types)
- Each session has a product (draft of relevant grant section) shared with other attendees
- Faculty provide feedback on product from their class session

K Writers Summer Workshop

- Karen reads every section and provides extensive strategic/editorial feedback on each one
- Attendees learn:
 - How to pitch ideas to their peers in small groups
 - How to give and receive constructive criticism
 - How to incorporate feedback
 - How to hone their writing and ideas
 - Whether their idea is “ready for prime time” (and if not, how to make it so)

Strategic Benefits of Our Guidance

- We are “mentor extenders”: critically important in a mid-size institution with limited numbers of very busy mentors
- New PIs benefit from our years of experience with all kinds of proposals
- We provide “value added” with budget support, grantsmanship advice, substantive editing, formal and one-on-one teaching

Strategic Benefits of Our Guidance

- Institutional support of our work: ROI cannot focus only on grant \$ awarded
- As the case studies show, much can be learned and applied to future proposals. *It is not failure, it is learning how to do it better the next time.*
- Applicants mature professionally through this process; it focuses their career priorities
- We may help in recruitment/retention of investigators

Our Challenges

- Our jobs have multiple components. Nancy has other tasks in Neurology; I have to assist other investigators with proposals or manuscripts
- Deadlines, deadlines, deadlines!
- These are not 9 to 5 jobs: burnout is possible
- Institutional pressures on faculty to succeed = very stressed colleagues
- Helping investigators succeed, then they leave

Summary

- Our two-stage model for grant proposal support is especially helpful for new PIs submitting NIH proposals in the current funding environment
- Our complementary skills are a cost-effective, value-added package for grant applicants
- We have a collective 60+ years of experience – invaluable source of guidance for new PIs or PIs facing new challenges
- We learn new skills and better approaches from each other on every project

Comments and Questions?

- We welcome your feedback!

- You can reach us at:

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- Check out the Research Support Core (Karen and colleagues) at

<http://intranet.wakehealth.edu/Departments/Office-of-Research/Research-Support-Core.htm>