

NINDS Training News

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From the Director of Training and Career Development

We are pleased to bring you the first issue of the NINDS Training and Career Development Office Newsletter. Our goal is to use it to provide NINDS trainees and mentors with useful information, as well as provide a forum for highlighting trainee accomplishments. In addition, we will occasionally run a myth-buster column, where we will address rumors and myths that often begin with the words, "I heard...." Please feel free to relay to us any rumors relating to NIH or funding that you hear, so we can provide everybody with accurate information.



We will also use this newsletter to provide statistical information of interest about funding opportunities (this will generally show you that things are better than you may think), and we'll run some advice columns related to grant writing. All issues of the newsletter will be archived on the NINDS Training and Career Development website, and some columns may be expanded on the website when warranted. Indeed, please visit the NINDS Training website (see page 4 for link), where we've organized lots of useful information related to funding opportunities and grant preparation.

We welcome your ideas for columns, and would be pleased to hear from you about questions or issues that you would like to see addressed. We would also be happy to hear your suggestions about how you would like us to use the newsletter to communicate better with you.

Stephen J. Korn, Ph.D.

The Pathway to Independence (K99/R00) Award

Fiscal year 2007 was the first year for the new Pathway to Independence Award (K99/R00). This award for postdoctoral trainees provides 2 years of support for mentored research and then, if the awardee gets a tenure-track Assistant Professor or equivalent academic position, 3 years of R-level support. This award initiative has been hugely successful in generating outstanding applications from both PhDs and MDs. Each NIH institute made a commitment to fund a certain number of awards, totaling ~170 in FY2007. NINDS committed to making 12 awards in FY2007 but, due to the number of outstanding applications, decided to make 14 awards. This represents an application success rate of approximately 19% (22% of applicants were successful). This brings us to one of our myths. We often hear that people think there's no chance of getting one of these. It's too competitive, there are too many applications, only superstars need apply. As you can see, however, the success rate is

quite reasonable. If you have a good track record (several high quality publications), good ideas about a significant research topic, and you meet the eligibility requirements, you should seriously consider applying. Take the time to put together an outstanding application, and you'll have a very reasonable shot at success. However, even if you don't get the award, the experience of writing this sort of application, and seeing reviewer comments, will help you greatly in your future grant-writing efforts. Of the 14 NINDS K99 awards, one award went to a physician-scientist and one went to an intramural trainee. One of the first four NINDS K99 awardees has already transitioned into a tenure-track position. A list of the FY2007 NINDS awardees, their institutions and projects can be found at http://www.ninds.nih.gov/funding/areas/training_and_career_development/K99_R00_awardees.htm (continued on p.5)

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Funding rates for NINDS Fellowship Applications (with a word about the difference between percentile and percent funded)

We often get questions about success rates for different award mechanisms. The first thing that needs to be said is that this really isn't a relevant issue if you're contemplating an application for a training award. Success rates are good enough that you should apply. Funding rates for different fellowship mechanisms at NINDS range from ~18% to ~25%. This varies for each mechanism each cycle, so past performance does not...you know the rest. Moreover, these numbers do not account for multiple submissions of the same grants (many are funded after revision upon resubmission). Nonetheless, there are some important issues to keep in mind when you think about writing an application.

First, one needs to understand the difference between percentiles and percent funded. When you submit an F31 or F32 application, your application is reviewed in CSR and given a score and a percentile. In FY2007, NINDS funded fellowships with percentiles up to 15 – 18%. But this doesn't mean that only 15 – 18% of fellowships were funded. For a number of reasons, there are more than 18% of the applications in the top 18th percentile. It's complicated. But suffice it to say that NINDS is funding more than 20% of fellowship applications (in FY2007, 22% of F31 applications were in the top 18th percentile). That's a pretty good success rate.

Given this reasonably good success rate, you need to keep your eye on what's important. Sure, you want to be funded. But the experience of writing an application is valuable well beyond the potential for funding. Having to explain the significance of your work in a compelling way to a reviewer really makes you think hard about the significance (or lack thereof) of your work. When you write down experiments that you plan to do to test your hypothesis, you will quite often come to realize that those experiments don't actually test your hypothesis. Grant writing is a wonderful thing (as long as there's a reasonable chance of getting funded when you write a good one!). Your work will be better, your thinking will be more profound, and your writing will definitely improve. Moreover, it is often the case that you are so close to your subject that you don't recognize where your writing is unclear. Confusion you create in the reviewers' minds will indicate to you that your writing needs to be improved, and will provide concrete guidance for how you need to change it. For all these reasons, it would benefit all postdocs to write and submit F32 applications. And predocs, if you can generate some preliminary data, and have some good ideas, it's a great exercise for you too. In FY2007 alone, NINDS awarded 147 new fellowships, approximately 2/3 of which went to predoctoral fellows.

New Investigators and R01s

These last couple of years have been difficult for independent investigators. In FY2006, the NINDS payline for R01s was 12%. In FY2007, the NINDS payline dropped to 9%. There is no doubt that if you've been in a lab, you've heard about, or clearly sensed, the anxiety of established investigators over these paylines. Although we hope that the funding situation will improve somewhat, it will probably remain difficult for established investigators in the near future*. But it's important to know that the funding situation in FY2007 was really

pretty good for new investigators. Some important initiatives were undertaken in FY2006 and FY2007 to help new investigators (those who have not had an R01 or equivalent type of grant) get R01 funding. Initially, most institutes, including NINDS, established a different, higher payline for new investigators than for established investigators. Then in FY2007, Dr. Elias Zerhouni, the Director of NIH, announced a commitment to new investigators to fund the same number of R01s as the average of the previous 5 years. For NINDS,

this amounted to 128 new investigator R01s, which resulted in the potential for new investigator grants being funded if they fell within the 25th percentile. We don't yet know what FY2008 will have in store in this regard, but we anticipate that FY2008 will once again bring beneficial policies for new investigator R01s.

** In the absence of a final budget, the NINDS payline for FY2008 is currently set at 10%. This could potentially increase once a final federal budget is passed.*

Myth Buster: Dispelling myths about grants

Myth: You are unlikely to be funded if your application is initially “unscored”

For most funding mechanisms, reviewers are asked to “unscore” (or triage) a grant if it is considered to be in the lower 50% of grants being evaluated. This process came about for a very practical reason. There were so many grants to discuss at study section, it was deemed better to spend more time discussing applications that had a chance of being funded than spending time discussing grants that, regardless of the length of discussion, had no chance of being funded. In order for an application to be unscored, all reviewers in the study section must agree. Otherwise, an application is discussed. Grants can be unscored for many

reasons. It may be an outstanding application with a “fatal flaw” that is easily fixed. It may be a very promising application with a fairly large number of issues to be addressed before it can be seriously considered. And of course, in rare cases, the application is actually considered to be “bad” for some reason. Except in these rare cases, having a grant unscored is not necessarily a value judgment about either the ability of the applicant or the quality of the proposed research. Only 50% of the applications can be ranked in the top 50%. So, in reality, one can look at an unscored application as just being in the lower 50% of a lot of outstanding applications; many excellent scientists and projects receive a score of “UN” on an initial application.

To the point: When initially unscored, can an application eventually be funded? The answer is yes, and it happens quite frequently.

We have analyzed this quantitatively for NINDS K awards for the seven year period including fiscal years 2000 to 2006. Of those unscored on the first submission, 38% of applications that went through the resubmission process were funded. Of those K applications that were unscored in the first submission and were revised and resubmitted twice, 82% were funded. Although the numbers will vary considerably for different grant mechanisms, plenty of initially unscored applications are eventually funded for all mechanisms.

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Some Career Development (K) Award Statistics

Career Development Awards at NINDS are a bit different from most other mechanisms. These awards are targeted to specific populations of researchers, generally early in their careers. You can find a description of all K awards that NINDS supports on the NINDS Training website. K awards at NINDS are reviewed in an NINDS study section, not at the Center for Scientific Review (CSR). From questions I get, it is clear that many potential applicants are concerned about their chances of receiving an award. What I like to tell people, which is still true in the K mechanism world, is that if you write an excellent proposal (in the eyes of the reviewers, of course), your chances of being funded are extremely high. This may not be true forever, but it is true as of this writing. This is different from the R01 world of established investigators, where many excellent R01s cannot be funded because there are just too many good ones relative to the available dollars. The data below will shed light not only on success rates but will also serve to dispel some rumors about the review of K awards.

From FY2003 to FY2006, between 28% and 35% of all individual K award applications were funded. Between 17% and 28% of first submissions were funded, 35% - 54% of first resubmissions (A1) were funded, and 33% - 89% of second resubmissions were funded (in 3 of 4 years, values ranged from 73% to 89%; the 33% value in FY2003 value is based on statistics of very small numbers). Of those applications funded in a particular review cycle, 38% to 64% of applications were first submission applications. These data, which represent how reviewers were treating the group of grants under review, clearly show that reviewers are not making applicants “wait in line” or resubmit in point of principle. Rather, one can expect that an excellent application will be funded on the first submission. The numbers improve when looking at the success of individual applicants. In FY2005, 44% of K award applicants were funded. Of those applications that were eventually successful, 58% were funded on the first submission. These data demonstrate that many applicants submit a fundable application on the first submission. In this same year, 46% of applicants who were not funded on the first submission never submitted an amended application, and thus, gave themselves no chance of funding (this is unfortunate, as ~50% of applications are funded on amended submissions). These data demonstrate that the success rate for K awards is quite good, and in response to the question, “What is the chance of my being funded on the first submission?,” the answer is, if you submit a high quality application, your chances are very good. In the next issue of the newsletter, we’ll discuss what makes for a “high quality” Career Development application.

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Calling all clinician-scientists

The majority of NINDS Career Development (K) awards go to clinician-scientists, and are designed to provide clinicians with the protected time necessary to develop their own independent research program and successfully compete for research funding. We at NINDS recognize that this is a challenging road, and are constantly working to facilitate the ability of clinicians to develop a successful research career while maintaining their clinical activities.

We invite all clinician-scientists, those with K awards, those beginning to think about a research career (M.D./Ph.D. students, Residents, Fellows), and those with established research laboratories, to let us know your concerns, questions, or other issues related to career development. We will respond in the newsletter to issues that we feel are of general interest (anonymously, of course), and respond to all others individually. Although many of your questions may have simple answers, undoubtedly many of the issues raised will help generate a dialogue that can lead to solutions.

Please send your thoughts to me at korns@ninds.nih.gov. As always, I would be happy to speak with you by phone if this is easier.

Please tell us about your work and experiences

We would like to highlight the work and ideas of NINDS trainees on both our website and in the newsletter. If you'd like to see your work "in lights," please send us a brief description, together with a figure containing interesting data, cartoon or explanatory picture, and if you're willing, a picture of yourself. And very importantly, we would also like to have any trainee who is interested send us a testimonial on any of the following:

- The value of the career development or fellowship program to your career
- What you gained from writing and/or receiving an award (other than money!)
- Your thoughts and experiences with mentors, writing successful applications, responding to summary statements
- Whatever else you think would be of value to others

We have already collected this type of information from a number of past and current trainees, and are looking for more. We cannot promise that we'll publish everything, but we'd like to hear from you. This is not only a good way to publicize your work, but we hope it can serve as a platform for NINDS trainees to learn about what other trainees are doing (potentially facilitating networking), and also to provide both you and us with advice from the trenches.

New Training and Career Development website

This past year, we completely redesigned the NINDS Training and Career Development website. We've tried to make it very easy to navigate. It has sections for accessing information for different grant mechanisms, a chart of NINDS Program Directors and their interests, and a set of links that lead to all kinds of useful information related to grant writing and funding. The newest page we've developed with the NINDS Office of Communications contains a listing of private organizations that provide funding opportunities for research related to the NINDS mission. We are continuing to add features, and would be happy to hear your suggestions for other resources you'd like to see on the website. Please send correspondence to NINDSTrainingOffice@ninds.nih.gov.

Training and Career Development website:

http://www.ninds.nih.gov/funding/areas/training_and_career_development/index.htm

Or just go to: <http://www.ninds.nih.gov/>, then click on "Training" in the menu bar at the top.



Contact NINDS BEFORE you write your application

All NIH institutes have a mission. At NINDS, the mission is to reduce the burden of neurological disease. You can get a good idea of the diseases covered by NINDS by looking either at the NINDS Disorder Index (http://www.ninds.nih.gov/disorders/disorder_index.htm) or the description of NINDS Program Director portfolios (http://www.ninds.nih.gov/funding/pd_interests.pdf). An institute will only support your research if it falls within its mission. Consequently, even if you obtain a superior score from study section on your application, if it doesn't fall within the mission of the Institute, or if it is of very low priority to the programmatic concerns of the Institute, it may not be funded. Therefore, if you are at all unsure, and especially if you are contemplating an F31 application, it is very important for you to contact the appropriate person in the Institute to determine whether your research falls within the Institute's mission. For a training application, you can contact either the Training Office or a Program Director that you identify as appropriate for your research.

Meet with the Director of the Training and Career Development

You can meet with Stephen Korn, Director of Training and Career Development, as well as Rebecca Desrocher, Training Office Program Analyst, and many NINDS (and other Institute) Program Directors, at The Society for Neuroscience from Friday, November 2 to Tuesday, November 6 in San Diego, CA. If you are attending the SfN meeting, you may want to consider attending the NINDS-sponsored Skills workshop (http://www.sfn.org/am2007/index.cfm?pagename=app_eventsWorkshops&session_id=205) that meets on Friday, November 2 through Saturday morning November 3, where Dr. Korn and many NIH Program Directors will be participating. There is a fee for the Friday session, but the Saturday session is open to all at no cost. This is an outstanding opportunity for pre- and post-docs to learn about NIH and NSF funding mechanisms, grant-writing, postdoc-hunting, job hunting, etc. You can find many NINDS staff members at the NINDS booth in the exhibit hall throughout the meeting.

Meetings he will attend in 2008 include:

- American Academy of Neurology Annual Meeting (April 2008, Chicago)
- Association of Neuroscience Departments and Programs (May 2008, Washington DC)
- American Neurological Association Meeting (September 2008, Salt Lake City)
- Society for Neuroscience (November 2008, Washington DC)

Dr. Korn will also visit institutions to talk about NIH training programs and grant writing, as well as to learn about training that goes on at the institution. Potential audiences include pre-docs and postdocs thinking about fellowships and K99s, clinician-scientists thinking about K awards, K awardees looking to transition to independence and faculty interested in what's going on in training and/or who wish to discuss institutional training programs. Please contact Dr. Korn if you are interested.

The Pathway to Independence Award (continued from page 1)

NINDS, and most institutes at NIH, will continue their commitment to this award. An extensive amount of information on this award, including eligibility information, can be found at http://grants.nih.gov/grants/new_investigators/pathway_independence.htm. If you have additional questions after looking at this information, please feel free to contact us in the Training Office.

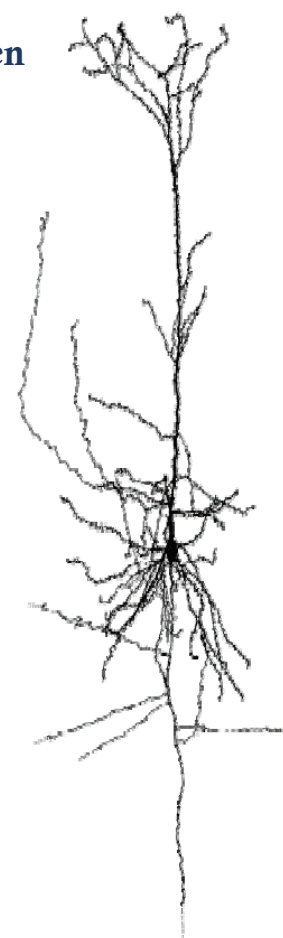


Image in cover banner courtesy of Dr. Paul Thompson, University of California, Los Angeles.



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