NINDS policy on project overlap and fellowship (F30, F31 and F32) applications

Applying for a fellowship represents an outstanding training opportunity for trainees. It requires them to think creatively about a project that they deem important, write a coherent, articulate set of specific aims, formulate tight, specific hypotheses, propose experiments that will actually test those hypotheses, understand how they are going to analyze the data both practically and without bias, and think profoundly about the significance of their project. Moreover, the 6 page limit requires clear, simple writing that will enable reviewers to grasp both the logic and specifics of the candidate's plans.

In addition to the enormous benefits derived from putting together a research proposal, fellowships present an excellent opportunity for a trainee to work with, and learn from, a mentor. This is the trainee's fellowship. It absolutely should be written by the trainee. However, it would be highly unusual for a trainee to be able to devise an outstanding project, understand the nuances of the experimental issues that are likely to arise and write a crisp, clear application without a great deal of help from an individual with experience (the mentor). So whereas the trainee should be the intellectual driving force behind the project and write the application, it undoubtedly will involve close collaboration with the mentor, who will engage in many conversations about the ideas, experimental and analytical approaches and global significance of the project, and who should be reading, commenting and suggesting editorial changes to the application itself.

Conversely, there is no training value at all in a trainee taking the specific aims and/or hypotheses and/or experimental approach to a specific question that is already in existence in the mentor's grant(s) and transporting it to their own fellowship application. First, there is no intellectual contribution needed by the trainee to merely parrot a mentor's ideas. Second, it is ethically dubious to present the mentor's already proposed research as the trainee's own, unless, of course, the fellowship application explicitly states that the proposed research is fundamentally identical to that already proposed in the mentor's grant(s). Additionally, the mentor has already received funding in the research grant to do the work. For the trainee to submit a grant application to do the same work is, in effect, asking for money twice to do the same project. This is not allowed by NIH.

Finally, NINDS strongly believes that all trainees should have intellectual input into their projects, even when funded from an R01 or other research grant(s). NINDS believes it is absolutely inappropriate for trainees to be viewed first and foremost as labor to conduct the aims of the mentor's grant. To the extent that trainees funded by the parent research grant are responsible for working on the aims of the grant, it is still expected that there be a robust intellectual training component, not just training for the technical performance of a set of experiments. In contrast to R01-funding of a trainee, however, the project in a fellowship application is defined as the trainee's project, for which the trainee is PI. A fellowship should never be considered as simply an additional funding source that would allow additional individuals to contribute to the specific work proposed in the mentor's grants.

NINDS Policy

1. **NINDS will not support fellowship applications, regardless of score obtained in the peer review system, if the specific aims, questions being asked or approach to answering a specific question are fundamentally identical to those already proposed in the mentor's grants.** Although a "cut-and-paste" is the most egregious possible example, this policy extends to the ideas and approaches. The goal of science is to learn new information and

move fields forward in understanding. It does not benefit the trainee, science or the taxpayer (who is funding the work/fellowship) for the trainee to propose, in a separate funding application, experiments designed to learn the exact same thing as will be learned by completion of the aims in the mentor's grants. Note that different statements of significance do not, by themselves, separate projects. Proposing an "identical" set of experiments to answer a single proposed question does not take on new meaning simply because the statement of significance is changed (e.g. understanding the fundamentals of brain development vs addressing a developmental disorder). **In short, a fellowship project should reflect a novel experimental question devised via an intellectual collaboration between trainee and mentor.**

2. **NINDS will look carefully at "me-too" studies.** As an example, a mentor may have proposed a set of experiments in one cell system and the trainee then proposes to do the same experiments in another cell system. Even though it could be considered a "different" project, there is no obvious intellectual input on the part of the trainee in this project – it is merely repeating a set of experiments in a different system. Of course, experiments such as these could be remarkably important. However, to consider it as a novel proposal, it is critical that the applicant cite the experimental information from the first system and explain the significance of doing the same experiments in this second system (i.e. explain to reviewers what important information will be learned from repeating these experiments in a different system). Simply repeating a set of experiments vs repeating experiments in a different system based on the potential for important insight gained have dramatically different implications for training potential, the generation of scientific knowledge and benefits to the taxpayer.

The most common question.

The fellowship award provides virtually no research funding. How is it possible to propose a completely different (i.e. "novel") project, for which there is no research funding? Certainly, it is expected that a fellowship application will be highly related to the research funded in the mentor's grant(s). **But highly related does not imply identity**. Research "grants" are just that…"grants." They are not contracts. Investigators are not required to use all of the money in a grant to do precisely the experiments proposed in the grant application, and no others. They are expected to use the grant money to conduct experiments that are within the scope of the proposed research project. As all investigators know, as information is gained, science moves and experimental plans change. Moreover, overall scientific projects/questions are much larger than the set of specific aims proposed in a single grant. Indeed, it is inconceivable that an important research project funded by a grant doesn't encompass an enormous number of interesting questions and potential approaches. There are undoubtedly large numbers of scientific questions that are within the scope of the proposed research project but which are not specifically proposed in the grant. Thus, it is perfectly reasonable to expect that a trainee will propose a project that falls within the scope of a funded research grant, for which it is legitimate to use funds from that grant, and which will benefit the mentor's research program, but which is not "identical" to what is proposed in the mentor's research grant.