F30/F31/F32 Review

Reviewer # 1

Applicant: Jane Doe

OVERALL IMPACT

Reviewers will provide an overall impact score to reflect their assessment of the likelihood that the fellowship will enhance the candidate's potential for, and commitment to, a productive independent scientific research career in a health-related field, in consideration of the following scored and additional review criteria. An application does not need to be strong in all categories to be judged likely to have a major impact.

Overall Impact/Merit   2
Write a paragraph summarizing the factors that informed your Overall Impact score.
This application is more than the sum of its parts. An outstanding applicant- creative, productive, outside-the box thinker- brings her biophysics background to regenerative medicine in animal models. The proposed research is a bold endeavor, leveraging the applicant's background to adapt new technologies to answer a central question. It is an outstanding training environment. The mentoring team and collaborators bring most of the necessary expertise to train the applicant and help her experiments succeed. At the end of the training period, she should be well prepared to be an independent investigator.   The weaknesses are minor- an excess of enthusiasm makes the proposal overambitious. The mentor is early-career and does not yet have an extensive training record.There is no specific plan for bioinformatics training.

SCORED REVIEW CRITERIA

Reviewers will consider each of the five review criteria below in the determination of the candidate's qualifications, scientific and technical merit of the proposed research, candidate's training potential, institutional environment and commitment to training, and give a separate score for each.

1. Fellowship Applicant   2
Strengths

- Strong applicant with outstanding publications from PhD studies, including five first author publications in Cell.
- The postdoctoral project focus on an area of research different from the thesis theme.
- In the first year of her postdoc, the applicant has established an new experimental system with compelling preliminary data; these attest to her problem-solving abilities, skills at the bench and productivity.
- Letters speak of strong creativity, ability to synthesize and think 'outside the box'.

Weaknesses

- Career goals are not clearly stated.

2. Sponsors, Collaborators, and Consultants   4

Strengths

- Mentor is 4th year Assistant professor with expertise in proposed area of research
- Applicant has assembled an excellent and experienced team of consultants and collaborators with complementary expertise that can train and guide the applicant in the diverse aspects of the project.

Weaknesses

- The mentor has a sparse training record and there is not a more experienced co-sponsor.

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3. Research Training Plan   3

Strengths

- Well-written proposal addressing a highly significant question with three complementary and independent specific aims.
- The background provides strong rationale for the hypothesis, and ample preliminary data establishes feasibility of the first two aims.
- The first two aims are solid tests for two aspects of the hypothesis, using state-of-the art technologies. The experiments are well thought-out and properly controlled. The first aim is directly aligned with the expertise of the mentor. The second aim represents a new direction for the mentor, but the strong collaborators provide the expertise necessary to guide this work.
- The third aim is more exploratory, opening the possibility for new discoveries that the applicant might use to advance her career as an independent investigator.

Weaknesses

- The third aim has a large element of bioinformatics. Neither the applicant, the mentor nor the collaborators have relevant expertise. Moreover, there is a lack of detail describing the methods, analysis, expected outcomes and alternatives. While the underlying rationale and approach seems sound, there is considerable concern that this aim will be problematic.
- Overall, the proposed experiments are rather ambitious for a three year training period.

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4. Training Potential   3

Strengths

- Strong training potential based on the productivity of the postdoc candidate, the expertise of the advisor and the collaborators.
- The mentor's training plan is thorough, addressing the applicants experimental, communication skills and general career building skills.
- The applicant's training plan maps a clear trajectory across the three years of the fellowship, with lots of specifics- to develop bench skills, scientific thinking, national and international exposure/networking, mentoring and administrative skills that she will need as a successful independent investigator.

Weaknesses

- there is nothing in the training plan to address the need for bioinformatics training.

- Neither the mentor nor applicant state which aspects of this project the applicant will be able to take with her to establish herself as an independent investigator.

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5. Institutional Environment & Commitment to Training   1

Strengths
- The University of Everything has an outstanding intellectual and scientific environment for training independent investigators.
- It has terrific core facilities and shared resources to support …..
- It has invested in specific post-doc programs and workshops for postdocs career development.

Weaknesses
- none

ADDITIONAL REVIEW CRITERIA

As applicable for the project proposed, reviewers will consider the following additional items in the determination of scientific and technical merit, but will not give separate scores for these items.

- ☐ A response for Protections for Human Subjects, Vertebrate Animals, and Biohazards **is required from reviewers for all applications**.
- ☐ A response for Inclusion Plans is required from reviewers for applications proposing Human Subjects Research, except those designated Exemption 4.

Protections for Human Subjects

Comments (Required Unless Not Applicable):
-

Data and Safety Monitoring Plan (Applicable for Clinical Trials Only):

Comments (Required Unless Not Applicable):
- ○

Inclusion Plans **Applicable Only for Human Subjects research and not IRB Exemption #4.**

- Sex/Gender:
- Race/Ethnicity:
- For NIH-Defined Phase III trials, Plans for valid design and analysis:
- Inclusion/Exclusion Based on Age:

Comments (Required Unless Not Applicable):
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Vertebrate Animals
Is the proposed research involving vertebrate animals scientifically appropriate, including the justifications for animal usage and protections for research animals described in the Vertebrate Animal section (and method of euthanasia described in the Cover Page Supplement or PHS Fellowship Supplemental Form, if applicable)? Comments (Required Unless Not Applicable):   •

Biohazards
Comments (Required Unless Not Applicable):   •

Resubmission
Comments (if applicable):   •

ADDITIONAL REVIEW CONSIDERATIONS

As applicable for the project proposed, reviewers will address each of the following items, but will not give scores for these items and should not consider them in providing an overall impact score.

Training in the Responsible Conduct of Research

Comments on Format (Required):
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Comments on Subject Matter (Required):
    •
Comments on Faculty Participation (Required):
    •
Comments on Duration (Required):
    •
Comments on Frequency (Required):
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Applications from Foreign Organizations

Comments (Required Unless Not Applicable):

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Select Agents

Comments (Required Unless Not Applicable):

-

Resource Sharing Plans

Comments (Required):

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Budget and Period of Support

Recommended budget modifications or possible overlap identified:

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