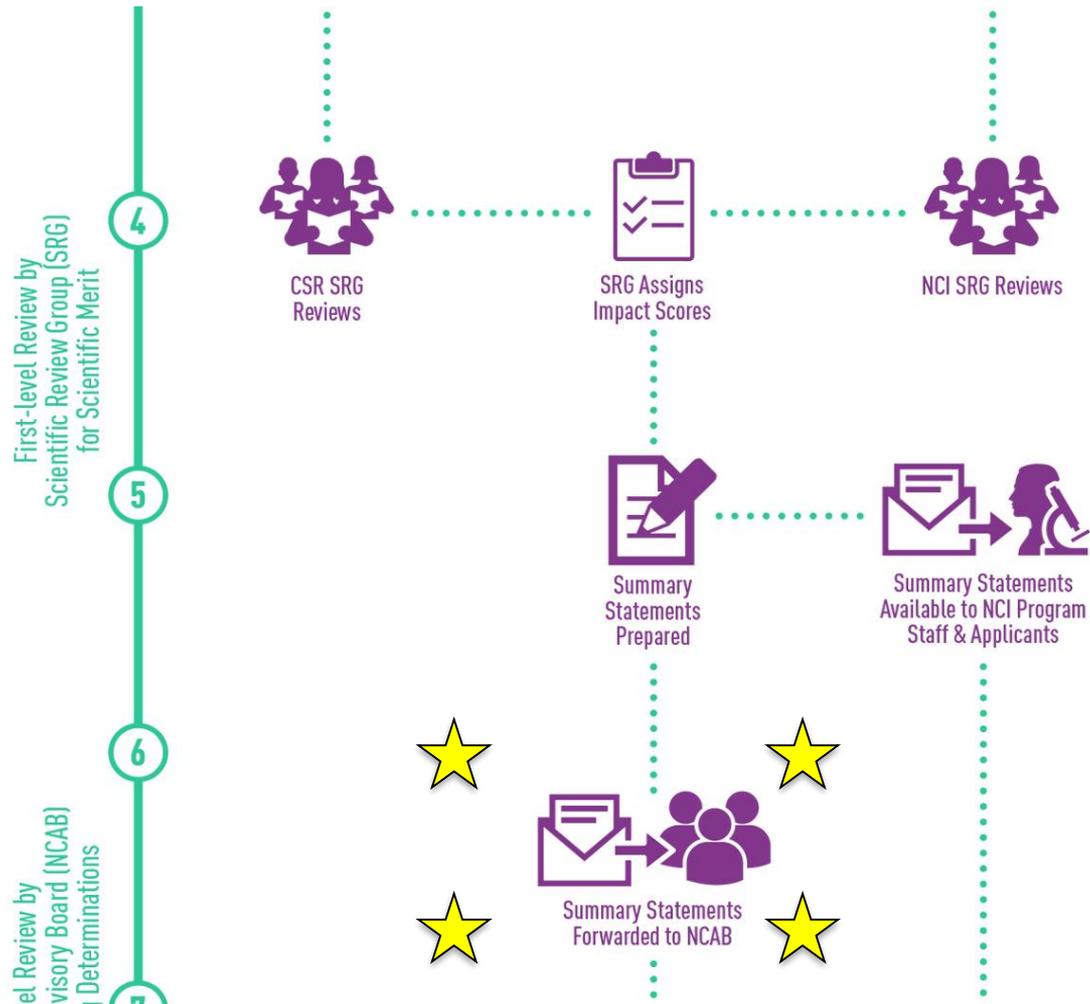


Grant Application Review

Pitfalls to Avoid

Tawnya McKee and Damali Martin

Receipt of Your Summary Statement



Summary Statements

- Generally within four weeks of the peer review committee meeting, the summary statement will be available on the [eRA Commons](#).
- The summary statement becomes the official Institute or Center record of the recommendations made by the peer review committee. Once the summary statement is available, you can contact your program officer (listed on the summary statement) if you have specific questions.

What does the Summary Statement Contain?

Summary Statements

- The SRO prepares the summary statement which contains:
 - Overall resume and summary of review discussion (if discussed);
 - Bulleted critiques by the assigned reviewers;
 - Criterion scores from your assigned reviewers
 - Overall impact score and percentile ranking (if discussed)
 - not all applications receive a percentile ranking);
 - Budget recommendations
 - Human and animal subjects codes
 - Other administrative codes and notes

Front Page

| SUMMARY STATEMENT | | |
|---|-------------------------------|---|
| PROGRAM CONTACT: Tawnya Mckee 240.276.5719 mckeeta@mail.nih.gov | (Privileged Communication) | Release Date: 03/13/2019 Revised Date: |
| Principal Investigators (Listed Alphabetically): | | Application Number: 1 R01 CA298327-01 |
| SCIENTIST, JOSEPHINE A. SCIENTIST, HAROLD B. (Contact) | | |
| Applicant Organization: UNIVERSITY OF ROCKILLE MEDICAL CENTER | | |
| Review Group: CII Cancer Immunopathology and Immunotherapy Study Section | | |
| Meeting Date: 02/25/2019 | RFA/PA: | |
| Council: MAY 2019 | PCC: F0DR | |
| Requested Start: 07/01/2019 | | |
| Project Title: The Role of DICER1 and HPV in Oropharyngeal Cancer | | |
| SRG Action: Impact Score: 34 Percentile: 14 | | |
| Next Steps: Visit https://grants.nih.gov/grants/next_steps.htm | | |
| Human Subjects: 30-Human subjects involved - Certified, no SRG concerns | | |
| Animal Subjects: 30-Vertebrate animals involved - no SRG concerns noted | | |
| Gender: 3A-Only men, scientifically acceptable | | |
| Minority: 1A-Minorities and non-minorities, scientifically acceptable | | |
| Children: 3A-No children included, scientifically acceptable | | |
| Project Year | Direct Costs Requested | Estimated Total Cost |
| 1 | 499,978 | 834,537 |
| 2 | 499,725 | 834,114 |
| 3 | 499,997 | 834,568 |
| 4 | 499,690 | 834,056 |
| 5 | 499,899 | 834,405 |
| TOTAL | 2,499,289 | 4,171,680 |
| ADMINISTRATIVE BUDGET NOTE: The budget shown is the requested budget and has not been adjusted to reflect any recommendations made by reviewers. If an award is planned, the costs will be calculated by Institute grants management staff based on the recommendations outlined below in the COMMITTEE BUDGET RECOMMENDATIONS section. | | |

- Your Name (and co-PI)
- Your Program Director
- The Study section that reviewed the application
- The Impact Score
- The Percentile score (unless its submitted to a RFA)
- Any issues noted by the IRG concerning animals and/or human subjects (must be cleared up prior to funding or resubmission)

Scoring

| Overall Impact or Criterion Strength | Score | Descriptor |
|--------------------------------------|-------|---|
| High | 1 | Exceptional: Exceptionally strong with essentially no weaknesses |
| High | 2 | Outstanding: Extremely strong with negligible weaknesses |
| High | 3 | Excellent: Very strong with only some minor weaknesses |
| Moderate | 4 | Very Good: Strong but with numerous minor weaknesses |
| Moderate | 5 | Good: Strong with at least one moderate weakness |
| Moderate | 6 | Satisfactory: Some strengths but also some moderate weaknesses |
| Low | 7 | Fair: Some strengths but at least one major weakness |
| Low | 8 | Marginal: A few strengths but a few major weaknesses |
| Low | 9 | Poor: Very few strengths but many major weaknesses |

Scoring

- Assigned reviewers (only) enter their official scores for each criterion and an overall impact score on the preliminary vote sheet.
- Other reviewers give an overall impact score - each member marks scores privately assigning a whole number from 1 (best) to 9 (worst).
- At the end of the meeting, the scientific review officer (SRO) collects vote sheets and adds the scores.
- To create a raw overall impact score
 - Scores are averaged and rounded mathematically to one decimal place, e.g., a 1.34 average yields 1.3.
 - That number is multiplied by 10 to yield an overall impact score; in the example above, it would be 13.
- Percentiles are determined by matching an application's overall impact score against a table of relative rankings containing all scores of applications assigned to a study section during the three last review cycles.

Summary Statements—Page 2

Resume and Summary of Discussion

- Written by the SRO of the study section
- Is the official written record of the study section discussion
- Any weakness listed here should be considered something that **MUST** be addressed in the resubmission

Description

- Abstract taken directly from the application

Reviewer Critiques—page 3 and following

PUBLIC HEALTH RELEVANCE: Taken Directly from the Application

CRITIQUE 1
Significance: 3
Investigator(s): 1
Innovation: 4
Approach: 4
Environment: 1

Individual Criteria Score are recorded and set PRIOR to the study section meeting. They are recorded electronically along with the written sections from each reviewer and provided to the other members of the study section several days before the study section convenes.

Written Overall summary of the application by each reviewer (separately). Reviewers may be asked to revise their written critiques if the score do not reflect the strengths and weaknesses or if there are elements that were reflected in the score and discussion, but not in the written critique

1. Significance:
Strengths

Bullet point statements listing strengths

Weaknesses

Bullet point statements listing weaknesses

- This section is completed prior to the meeting by each of the assigned reviewers (3-4/study section)
- Lists individual scores for each of the 5 Criteria
- Provides a written summary of their critique
- Under each Criteria lists bullet points of both strengths and weaknesses for each criteria

Other Notes in the Summary Statement

| | |
|---|--|
| Protections for Human Subjects: | Not Applicable (No Human Subjects) |
| Vertebrate Animals: | YES, all four points addressed |
| Biohazards: | Acceptable |
| Resubmission: | <ul style="list-style-type: none">• The application and her team appear to have responded to the previous reviewer's criticisms in a thorough and careful manner.• Alterations from the original application should be but were not clearly denoted within the Research Plan. |
| Resource Sharing Plans: | Acceptable |
| Authentication of Key Biological and/or Chemical Resources: | Acceptable |
| Budget and Period of Support: | Recommend as Requested |
| THE FOLLOWING SECTIONS WERE PREPARED BY THE SCIENTIFIC REVIEW OFFICER TO SUMMARIZE THE OUTCOME OF DISCUSSIONS OF THE REVIEW COMMITTEE, OR REVIEWERS' WRITTEN CRITIQUES, ON THE FOLLOWING ISSUES: | |
| VERTEBRATE ANIMAL: ACCEPTABLE | |
| COMMITTEE BUDGET RECOMMENDATIONS: The budget was recommended as requested. | |

Evaluation of

- protections of human subjects
- Vertebrate animals
- Biohazards
- Resubmission or renewal comments
- Resource sharing plans
- Authentication of Key Biological and/or Chemical resources
- Budget and Period of Support
- Committee Budget recommendations

Why Do Applications Fail?

They....

- Lack significance
- Lack understandable rationale
- Insufficient demonstration of knowledge base
- Lack of experience & resources
- Diffused/unfocused approach
- Interdependence of aims
- Too ambitious
- Uncertain outcomes / future directions



Successful Resubmissions

Damali Martin, PhD MPH

*Program Director,
Genomic Epidemiology Branch*

Next steps

- Read your summary statement carefully and analytically to gain insight into two questions:
 - Are the application's problems fixable?
 - Was it reviewed by the right study section?
- Contact PD to speak about summary statement:
 - Ask about the probability of funding
 - Get advice on what to do if your application scores above the payline.
 - Get additional insight into the application discussion (if discussed during the review)
- Show the summary statement to colleagues for their interpretation.
- If your application misses the payline and its faults are fixable, start revising as soon as you can

Common Fixable Problems

Problem: Poor writing, formatting, or presentation

Solution: Rewrite; get help with writing, editing, formatting, and presentation.

Problem: Insufficient information, experimental details, or preliminary data

Solution: Assess what's missing; add it to the Research Plan.

Problem: Significance not convincingly stated.

Solution: Beef up that section; show the importance to NCI's mission, your area of science, and public health.

Common Fixable Problems

Problem: Research not shown to be feasible by the proposed staff.

Solution: Recruit collaborators and consultants with the required expertise onto your project.

Problem: Insufficient discussion of obstacles and alternative approaches.

Solution: Describe what you'll do if you get negative results or an approach doesn't pan out. Include decision trees.

Hard to fix Problems

These are either not fixable or nearly impossible to correct:

- Low-impact research topic
 - If reviewers found deal-breaking flaws such as an unexciting topic, no amount of revising will help.
- Philosophical issues, e.g., the reviewers do not think the work is important
- Hypothesis is not sound or not supported by the data.
- Work has already been done
- Methods proposed were not suitable for testing the hypothesis

If you encounter such problems, it's best to start over with a new topic.

Other things to keep in mind

Remember the Importance of **Significance** and **Impact**

- Take heed if you score poorly on the Significance/Impact review criterion
- High scores mean that the reviewers aren't excited about your research.
- Even if your application had fixable problems in the approach, continuing the same line of research—whether through a resubmission or new application—won't help you get funded if your idea lacks significance or will not have a high public health impact.

Other things to keep in mind

- You may feel that some of the criticism from the reviewers is off the mark.
- Reviewers may misinterpret, overlook, misread, or simply have a different viewpoint.
- Your reviewers can only review what you wrote, not what you thought you wrote
- Did they seem to be the right reviewers? That is, have the necessary expertise?
- If you feel expertise is missing from the review section, you can request that PD or SRO find a reviewer with that expertise
- Can also look for a new review section
 - comes with risk of reviewers identifying new problems not identified in previous review section

Elements of a Successful Response: Revision & Resubmission

- Accept that the critiques were given in a spirit of helping you
- Find a way to express the emotion, that **does not** show up in your resubmission
- Thank reviewers in the resubmission Introduction page
- Use that extra page to clearly and succinctly respond to the 2 or 3 most important criticisms
- If you disagree with a major critique, be polite and acknowledge the critique but explain why you disagree with their conclusions---you still must find a way to respond, you can't just ignore it
- The remaining responses will be the changes made in the body of the application
- Highlight changes in the simplest form--Vertical line in the margin of new or revised sections or use bold or underline to mark changes

Another Way to Increase Your Chances of Success

- Serve on a Study Section
 - Volunteer
 - <https://public.csr.nih.gov/ForReviewers/BecomeAReviewer/HowToApply>
 - Early Career Program
 - <https://public.csr.nih.gov/ForReviewers/BecomeAReviewer/ECR/BecomeanEarlyCareerReviewer>
 - Talk to your PD---SROs ask us for potential reviewers

You will learn more about the process: how to write a great application, and how grants are viewed and reviewed by being on a study section than anything else you can do.



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Things to keep in mind for competing renewals

- Scientific priority of the proposed research
- Fills a significant research gap or need
- Significantly add to and/or expand existing funded research
- Investigate questions addressing rare cancers
- Focus on underserved and/or understudied populations
- Have a 'NCI-level' competitive budget

Competing renewals

- Please consider the following for making the decision to submit a competing renewal:
- Completion of previous study aims
- New discoveries or new infrastructure created
- Impact on the field – what do we know now from your research (in the previous grant) that we did not know before
- Other metrics for progress – publications, training, career track for early stage investigators (esp. minority investigators)

Competing renewals success rates

| Fiscal Year | Number of Applications Reviewed | Number of Applications Awarded | Success Rate |
|-------------|---------------------------------|--------------------------------|--------------|
| 2009 | 824 | 279 | 33.9% |
| 2010 | 775 | 261 | 33.7% |
| 2011 | 568 | 154 | 27.1% |
| 2012 | 510 | 150 | 29.4% |
| 2013 | 502 | 135 | 26.9% |
| 2014 | 496 | 124 | 25.0% |
| 2015 | 512 | 124 | 24.2% |
| 2016 | 423 | 107 | 25.3% |
| 2017 | 371 | 89 | 24.0% |
| 2018 | 332 | 84 | 25.3% |