

RECOVER - Research Grant Review Rubric

Title of Proposal:

Principal Investigator(s):

Date Review Completed:

Summary

This rubric provides a standardized framework for reviewers to evaluate RECOVER Knowledge Gap Grant full proposals. Its purpose is to ensure a fair, consistent, and transparent review process that highlights the scientific merit, feasibility, and impact of each project.

Assess proposals based on three primary factors:

- **Factor 1: Importance of the research** (Significance and Innovation): The relevance and potential of the project to advance veterinary cardiopulmonary resuscitation research, address critical problems, and introduce novel approaches. These two factors taken together define the importance of the project and as such reflect the maximum impact a project could have if perfectly executed.
- **Factor 2: Rigor and Feasibility:** The soundness of the study design, methodology, and the feasibility of successfully completing the proposed work within budget and timeline.
- **Factor 3: Expertise and Resources:** The qualifications of the investigators and the adequacy of the institutional environment and resources to support the project.

Each criterion should be **scored on a scale of 1 to 9**, where **1 represents the highest level of merit** and 9 the lowest. Provide clear, concise comments highlighting the strengths and weaknesses that influenced their scoring decisions.

In addition to criterion scores, assign an **Overall Impact Score** reflecting the likelihood that the project will exert a sustained and meaningful influence on the field in alignment with the RECOVER CPR Initiative goals, specifically addressing important knowledge gaps and impact future guidelines.

Raise any concerns regarding human and animal ethics, budget or proposed timeline, although these items will not be scored (meets standard, YES/NO).

Assign an overall impact score based on the project's potential to address critical knowledge gaps within the RECOVER CPR Initiative and to inform and shape future RECOVER Guidelines. This score should reflect the likelihood that the proposed research will advance veterinary cardiopulmonary resuscitation through innovation, scientific rigor, and relevance. The evaluation should consider the scored and additional review criteria outlined below. A project may be considered impactful if it demonstrates exceptional strength in one or more key areas, even if other aspects are less robust.

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The review criteria consist of 3 distinct factors, each of which is assigned an individual criterion score. These factor scores collectively inform and determine the application's overall impact score.

Factor 1: Significance and Innovation	
Is it worth doing? Does the proposed project have the potential to advance the field of veterinary CPR in a meaningful and impactful way? Does it address a critical problem or unmet need aligned with the RECOVER CPR Initiative's prioritized knowledge gaps? Does it fill important knowledge gaps or apply innovative strategies that could improve scientific understanding or clinical outcomes, or accelerate new knowledge generation?	
Major Score-Drivers Strengths: Weaknesses: 	
Criterion Score (1 = Highest, 9 = Lowest):	

Factor 2: Rigor and Feasibility of the Proposed Approach

Can it be done well? Evaluate the clarity, rigor, and appropriateness of the proposed study design, methodology, and implementation plan. Consider whether the approach is well-justified and logically structured to achieve the proposed objectives. Is there adequate sample size to conclusively answer the research hypothesis? Will study results be free of bias and reproducible? Assess the feasibility of executing the project as described, including the adequacy of the timeline, resources, and personnel. Are potential roadblocks anticipated and solutions proposed?

Major Score-Drivers

Strengths:

Weaknesses:

Criterion Score (1 = Highest, 9 = Lowest):

Factor 3: Expertise and Resources (Investigators and Environment)

Are expertise and resources in place to do it? Evaluate the qualifications, expertise, and track record of the principal investigator(s) and key personnel relevant to the proposed research. Assess whether the project team possesses the necessary skills and experience to successfully execute the study. Consider the adequacy of institutional resources, facilities, and support available to ensure the feasibility and quality of the research. Identify any gaps in expertise or resources that could impact project outcomes.

Major Score-Drivers

Strengths:

Weaknesses:

Criterion Score (1 = Highest, 9 = Lowest):

Additional Review Criteria

As applicable to the proposed project, consider the following additional factors when assessing scientific and technical merit and assigning the overall impact score. These factors will be evaluated qualitatively through designated **Yes/No criteria** and will not receive separate criterion scores. They serve as pass/fail measures; for example, a failure to meet ethical standards may result in the proposal being disqualified regardless of its overall score.

Ethical and Legal Compliance

Assess whether the proposed research ensures strong ethical and legal protections for all animal subjects and any involved humans (e.g., owners, handlers, clinical personnel). This includes:

- *Humane treatment and welfare of animals.*
- *Minimization of pain, distress, and risk.*
- *Proper informed consent from animal owners or human participants, as applicable.*
- *Approval by Institutional Animal Care and Use Committees (IACUC) and Institutional Review Boards (IRB)*
- *Addresses special considerations for vulnerable populations.*
- *Implements adequate safety measures and justifies the invasiveness of any procedures.*

Comments:

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Meets Criteria (Yes/No):

Budget and Period of Support

Assess if the proposed budget is reasonable, justified, and aligns with the project scope and timeline.

Comments:

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Meets Criteria (Yes/No):

Organizational Risk

The proposed research poses no undue ethical, legal, reputational, or operational risk to the RECOVER Initiative. Does the study align with RECOVER's mission, values, and public trust?

Comments:

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Meets Criteria (Yes/No):

Data Management and Sharing Plans

Consider the adequacy of plans for data collection, storage, accessibility, and safety.

Comments:

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Meets Criteria (Yes/No):

Collaborations and Partnerships

Review the strength and appropriateness of collaborations that may enhance project outcomes.

Comments:

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Meets Criteria (Yes/No):

Training and Mentoring Plans

For projects involving trainees or early-career investigators, evaluate the quality of mentorship and training components.

Comments:

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Meets Criteria (Yes/No)

Environmental Impact

Consider any potential environmental effects of the project as RECOVER strives to minimize its environmental impact.

Comments:

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Meets Criteria (Yes/No)

Dissemination and Implementation Plans

Review plans for how findings will be communicated and integrated into clinical practice or further research.

Comments:

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Meets Criteria (Yes/No)

Reviewer Scoring Guidance

The table on the next page provides guidance for assigning overall impact scores and individual criterion scores using a streamlined 1–9 scale:

- **Overall Impact Score** reflects the project’s potential to make a sustained and meaningful contribution to its field. The interpretation of “impact” may vary depending on the application’s type and goals.
- Each review criterion (e.g., Significance & Innovation, Rigor & Feasibility, Expertise & Resources) should be evaluated based on its strength within the context of the proposed work.
- The criterion of **Significance and Innovation** (Importance) defines the **maximum Impact score** that can be achieved.
- The scores of the other criteria such as Rigor or Expertise are then used to either maintain or reduce the Importance score to arrive at the final Impact score.
- An application does not need to be strong in all areas to be considered high impact. For example, a project with limited innovation may still be essential to advancing the field.
- A **medium score (4-6)** represents a **solid, moderate-impact application** with identifiable strengths and some limitations.
- Reviewers are encouraged to **use the full 1–9 scale**, thoughtfully considering all levels of impact to provide nuanced evaluations.

Reviewer Scoring Guidance			
Criterion	High (Score = 1-3)	Medium (Score = 4-6)	Low (Score = 7-9)
Overall Impact	<i>The proposal demonstrates exceptional merit across evaluated criteria and shows strong potential to significantly advance the RECOVER Initiative's goals. It clearly aligns with guideline development priorities and offers sustainable, broadly applicable benefits to inform future RECOVER Guidelines.</i>	<i>The proposal adequately addresses relevant criteria and has moderate potential to contribute to the RECOVER Initiative's goals. It shows some alignment with guideline development priorities and may provide useful, though limited, evidence to support future RECOVER Guidelines.</i>	<i>The proposal fails to adequately address key criteria and is unlikely to contribute meaningfully to the RECOVER Initiative's goals. It lacks clear alignment with guideline development priorities and provides insufficient evidence to inform future RECOVER Guidelines.</i>
Significance and Innovation	<i>The project targets a critical knowledge gap within the RECOVER CPR Initiative and demonstrates strong potential to inform and shape future RECOVER Guidelines. It clearly aligns with guideline development priorities and contributes valuable evidence to support higher certainty recommendations.</i>	<i>The project addresses a relevant topic, though scope or innovation may be moderate. Some potential to advance knowledge or practice, but impact on guidelines development or novelty is less clearly established.</i>	<i>The proposal lacks a compelling rationale or addresses problems that are already well-characterized. Limited or no innovation described; unclear how it will move the field forward or impact any future CPR guidelines.</i>
Rigor and Feasibility of the Proposed Approach	<i>Study design is methodologically sound, appropriately powered, and clearly justified. Personnel, timeline, and budget are appropriate and aligned with project objectives. Approach demonstrates attention to detail and scientific rigor.</i>	<i>Project design is mostly reasonable, but may have gaps or lack clarity in timeline, methodology, or feasibility. May require some refinement to ensure successful implementation.</i>	<i>Major concerns exist with project design, feasibility, or alignment between aims and methods. Budget, personnel, or timeline may not be realistic. Scientific rigor is lacking.</i>
Expertise and Resources (Investigators and Environment)	<i>The team possesses the necessary qualifications, expertise, and past experience to execute the proposed project. It has a proven track record of project completion. Institutional environment and available resources are well-matched to project needs. Strong support for project success.</i>	<i>Investigators are reasonably qualified. Some institutional resources or experience may be limited, but overall capacity exists to complete the work.</i>	<i>The investigative team lacks appropriate expertise or support or there are significant gaps in expertise that jeopardize project completion. Institutional resources are insufficient or not well-aligned with the project goals.</i>