

CALIFORNIA PHYSICAL THERAPY FUND, INC.

Research Grant Application Review Form (To be completed by Grant Application Reviewers)

Please review all research grant application according to the criteria listed. Please mark an item with an asterisk (*) if you feel that it should be reviewed by someone else. Please use the comment section at the end of the review form to summarize your findings and recommendations.

I. Research Study Meets PT Fund Guidelines

A. Is the research study related to physical therapy?

Yes (Continue review)

No (Since the research study is not related to physical therapy, completion of the review is not indicated. Reviewer to include notes to applicant regarding the rationale for rejecting the proposal).

B. Does the review verify that the applicant checked the correct statement in describing the research?

Yes

No (check the statement that you believe best describes the research)

Evaluation of clinical effectiveness of therapeutic methods/devices

Assessment of interaction patient characteristics and therapeutic methods

Determination of accuracy, reliability, or validity of measurement methods/devices

Exploration of scientific basis for methods in physical therapy

Designing/demonstrating/testing of therapeutic methods and devices for use in patient care

Designing/demonstrating/testing of instructional methods/materials for improvement of physical therapist or physical therapist assistant educational programs or patient, family and public education

Descriptive research

Application of basic science to clinical intervention or methods

Other (explanation required)

Rating Scale (Section II)

0 = not provided/not acceptable

1 = acceptable

II. Abstract

- | | | |
|-------|-------|--|
| _____ | (0-1) | A. The abstract contains 500 words or less |
| | | B. The abstract includes the following: |
| _____ | (0-1) | 1. Brief background statement |
| _____ | (0-1) | 2. Overall purpose of the study |
| _____ | (0-1) | 3. Number of subjects/groups |
| _____ | (0-1) | 4. Summary of procedures |
| _____ | (0-1) | 5. Statistical tests used |
| _____ | (0-1) | 6. Expected results |
| _____ | (0-1) | 7. Relevance of study and implications for physical therapy practice |
| _____ | (0-1) | C. The abstract is clearly written and in the appropriate form |

_____ of _____ **Total for Abstract section (Section II)****No minimum score required for Abstract section (Section II)****Comments:**

Rating Scale (Section III)

NA = not applicable

0 = no information provided

1 = serious weakness; needs major revision

2 = some questions/problems; revisions needed

3 = minor problems with clarification required (contingent approval)

4 = minor problems; problems will not impact the quality of the study

5 = good, complete

6 = exceptional

III. Introduction**A. Rationale and Background**

- | | | |
|-------|-------|--|
| _____ | (0-6) | 1. Theoretical rationale is logical, appropriate for current research and presented clearly |
| _____ | (0-6) | 2. Background material comprehensive and well organized |
| _____ | (0-6) | 3. Preliminary research in literature supports proposed research study or pilot studies have been carried out by authors in preparation for research study |
| _____ | (0-6) | 4. Relevance to and impact of findings on practice of physical therapy outlined clearly |

B. Objectives or Purpose of Research Study

- | | | |
|-------|-------|--|
| _____ | (0-6) | 1. Overall purpose of the study clearly stated and understandable |
| _____ | (0-6) | 2. Specific objective/aims/hypotheses stated in measurable terms |
| _____ | (0-6) | 3. Objectives/aims/hypotheses/expected results stated in sufficient detail for testing |
| _____ | (0-6) | 4. Achievement of objectives will result in new valid information |

_____ of _____ **Total for Introduction section (Section III)****Minimum score required for Introduction section (Section III) = 34/48 = 70%****(If < 34, do not approve, but continue review)**_____ **Section approved**_____ **Section approved with contingencies**_____ **Section not approved****Comments/Contingencies:**

Rating Scale (Section IV)

NA = not applicable

0 = no information provided

1 = serious weakness; needs major revision

2 = some questions/problems; revisions needed

3 = minor problems with clarification required (contingent approval)

4 = minor problems; problems will not impact the quality of the study

5 = good, complete

6 = exceptional

IV. Methods

A. General

- _____ (0-6) 1. The methods are clearly presented and outlined
- _____ (0-6) 2. The methods are appropriate for the purpose/objectives/aims/hypotheses

B. Specific

1. Research design and data analysis

- _____ (0-6) a. Research design is clearly summarized and appropriate for objectives, number of subjects, time, cost, etc.
- _____ (0-6) b. Dependent variables clearly identified
- _____ (0-6) c. Dependent variables measured objectively
- _____ (0-6) d. Design controls for confounding variables (e.g. control group, subject own control, random selection subjects, random assignment, blinding, subject history, subject maturation, learning)

2. Subjects

- _____ (0-6) a. Selection and recruitment process described and reasonable
- _____ (0-6) b. Inclusionary and exclusionary criteria provided and appropriate
- _____ (0-6) c. Discussion of the potential for the research study to find statistically significant differences (e.g. sample size, effect size, are the instruments and statistical analyses sensitive enough to measure change, power)
- _____ (0-6) d. Number of subjects reasonable
- _____ (0-6) e. Method for handling dropouts outlined
- _____ (0-6) f. Assignment to treatment/control groups indicated

Section IV continued on the following page

Methods (continued)

- | | | |
|-------|-------|--|
| _____ | (0-6) | 3. Instruments and Measurements |
| _____ | (0-6) | a. Clearly described and/or included |
| _____ | (0-6) | b. Reliability information provided |
| _____ | (0-6) | c. Evidence of validity provided |
| _____ | (0-6) | d. Dependent variable is clearly related to the instruments and measures |
| | | 4. Procedures |
| _____ | (0-6) | a. Informed consent processes described |
| _____ | (0-6) | b. Procedures clarified adequately so experiment could be repeated |
| _____ | (0-6) | c. Procedures follow logical sequence |
| _____ | (0-6) | d. Procedures are appropriate for objectives/aims |
| _____ | (0-6) | e. Procedures are appropriate for hypotheses to be tested |
| | | 5. Project Period |
| _____ | (0-6) | a. Project period clearly outlined and reasonable |

_____ of _____ **Total for Methods section (Section IV)**

Minimum score required for Methods section (Section IV) = 92/132 = 70%

(If < 92, do not approve, but continue review)

- | | |
|-------|--|
| _____ | Section approved |
| _____ | Section approved with contingencies |
| _____ | Section not approved |

Comments/Contingencies:

Rating Scales (Section V)

For 0-2 rated items:

0 = none

1 = partial

2 = full

For 0-6 rated items:

NA = not applicable

0 = no information provided

1 = serious weakness; needs major revision

2 = some questions/problems; revisions needed

3 = minor problems with clarification required (contingent approval)

4 = minor problems; problems will not impact the quality of the study

5 = good, complete

6 = exceptional

V. Statistical Analysis

A. Experimental research (clinical or basic)

- | | | |
|-------|-------|---|
| _____ | (0-2) | 1. Dependent variables adequately described |
| _____ | (0-2) | 2. Statistical tests adequately described |
| _____ | (0-2) | 3. Decision rule for accepting/rejecting hypotheses provided (Type I error).
Experimentwise error addressed (or multiple testing) |
| _____ | (0-2) | 4. Statistical tests are based on the type of dependent variables (ratio, ordinal, nominal), number of subjects, and the expected distribution of the dependent variables |
| _____ | (0-2) | 5. Power analysis completed |
| _____ | (0-6) | 6. Planned statistical analysis is appropriate to adequately test hypotheses |

OR

B. Descriptive, educational, evaluative, or administrative research

- | | | |
|-------|-------|---|
| _____ | (0-2) | 1. Evaluation format clearly presented |
| _____ | (0-2) | 2. Evaluation directly related to objectives |
| _____ | (0-2) | 3. Statistical tests adequately described |
| _____ | (0-2) | 4. Evaluation instruments included to provide clarity |
| _____ | (0-2) | 5. Evaluation instruments have confirmed reliability and validity |
| _____ | (0-6) | 6. Statistical methods for analyzing results are appropriate |

Section V continued on the following page

_____ of _____ Total for Statistical Analysis section (Section V)

Minimum score required for Statistical Analysis section (Section V) = $11/16 = 70\%$

(If < 11, do not approve, but continue review)

_____ Section approved

_____ Section approved with contingencies

(For example, if line 6 < 3, then proposed statistical methodology may adversely impact the study and should be corrected)

_____ Section not approved

Comments/Contingencies:

Rating Scale (Section VI)

0 = no information provided

1 = serious weakness; needs major revision

2 = minor problems with clarification required (contingent approval)

3 = minor problems; problems will not impact the quality of the study

4 = good, complete

VI. References

_____ (0-4) 1. Reference list comprehensive/appropriate and in acceptable format

_____ of _____ Total for References section (Section VI)

No minimum score required for References section (Section VI)

Comments/Contingencies:

Rating Scale (Section VII)

NA = not applicable

0 = no information provided

1 = serious weakness; needs major revision

2 = some questions/problems; revisions needed

3 = minor problems with clarification required (contingent approval)

4 = minor problems; problems will not impact the quality of the study

5 = good, complete

6 = exceptional

VII. Budget

- | | | |
|-------|-------|--|
| _____ | (0-6) | 1. Budget page is accurately and completely itemized |
| _____ | (0-6) | 2. Requested funds in each category are clearly defined and reasonable |
| _____ | (0-6) | 3. Includes only necessary items related to objectives |
| _____ | (0-6) | 4. Total budget information provided in addition to requested funds (including in kind support, means for completing research considering items that are not funded) |
| _____ | (0-6) | 5. Budget requested appears to be critical and core to the ability to carry out the project |

_____ of _____ **Total for Budget section**

No minimum score required for Budget section (Section VII)

Contingencies or revisions requested by reviewer:

Comments regarding items that may not be fundable or not recommended for funding:

VIII. Principal Investigator Has Previous Research Experience

_____	Yes
_____	No
	If no, is the investigator collaborating with an experienced investigator?
_____	Yes, letter from experienced investigator is <i>enclosed</i>
_____	No
	If no, do not approve, but continue review

No minimum score required for Research Experience section (Section VIII)

Note: If the principal investigator is new to research, a qualified mentor/investigator is required.

Approval may be made contingent upon receipt of a letter of support and guidance from the mentor.

Comments:

Rating Scale (Section IX)

1 = serious weakness

2 = minor problems; problems will not impact the quality of the study

3 = good, complete

4 = exceptional

IX. Mechanics and Flow

_____ (0-4)

1. Format is appropriate; technical terms are adequately defined

_____ (0-4)

2. Grammar, syntax and spelling are adequate; overall flow is logical

_____ of _____ **Total for Mechanics and Flow section (Section IX)****No minimum score required for Mechanics and Flow section (Section IX)****Comments:****X. Potential Contribution to Physical Therapy Practice**

Mark on the lines your assessment of the study's potential contribution to the field. Convert your linear assessment to a numerical score.

0 _____ 5 _____ 10

Support physical therapy body of knowledge

0 _____ 5 _____ 10

Relevance to physical therapy practice

0 _____ 5 _____ 10

Publishable Study

_____ of _____ **Total for Potential Contribution section (Section X)****No minimum score required for Potential Contribution section (Section X)****Comments:**

XI. Human Subjects

- _____ A. Are human subjects to be included?
_____ Yes
_____ No
- _____ B. Is IRB committee approval *enclosed*?
_____ Yes
_____ No
- _____ C. Is IRB committee approval *pending*?
_____ Yes
_____ No

XII. Animal Subjects

- _____ A. Are animal subjects to be included?
_____ Yes
_____ No
- _____ B. Is IRB committee approval *enclosed*?
_____ Yes
_____ No
- _____ C. Is IRB committee approval *pending*?
_____ Yes
_____ No

No minimum score required for Subjects sections (Sections XI and XII)

Note that final approval is contingent upon IRB approval.

Comments:

XIII. Multiple-Site Studies

A. Is this a study involving multiple research sites/facilities?

_____ No (no further question in this section)

_____ Yes (list the research sites and complete section B below)

1. _____

2. _____

3. _____

4. _____

5. _____

B. Have all of the research sites/facilities approved the proposal?

_____ Yes (IRB approval from each participating site is attached)

_____ No (approved with contingencies)

No minimum score required for Multiple Site section (Section XIII)

Note that final approval is contingent upon IRB approval.

Comments/Contingencies:

Transfer scores to the table below. Check off approval levels.

Section	Score	Maximum Possible	Approved	Approved with Contingencies	Not Approved
I	NA	NA		NA	
II			NA	NA	NA
III					
IV					
V					
VI					
VII					
VIII	NA	NA		NA	
IX			NA	NA	NA
X			NA	NA	NA
XI	NA	NA			
XII	NA	NA			
XIII	NA	NA			
Total					
Percent (Score/Maximum possible) <i>minimum for approval is 70%</i>					

Confidential comments to fellow PT Fund reviewers and the PT Fund Board (not forwarded to the applicant):

Comments for the Applicant

Strengths of Proposal

Weaknesses of Proposal/Questions

Contingencies if Approved

Recommendations for Further Review

Signature

Date