20. Emerging Science Committee Procedures

20.1 CALERIE Emerging Science (Ancillary Studies) Committee Guidelines

An ancillary study involves collection of data from or about CALERIE participants using procedures or measurements that are not included in the original core protocol. All proposals for ancillary studies are reviewed, scored and approved by the Emerging Science Committee and then forwarded to the CALERIE Steering Committee for approval.

20.2 Process for Submitting Proposals

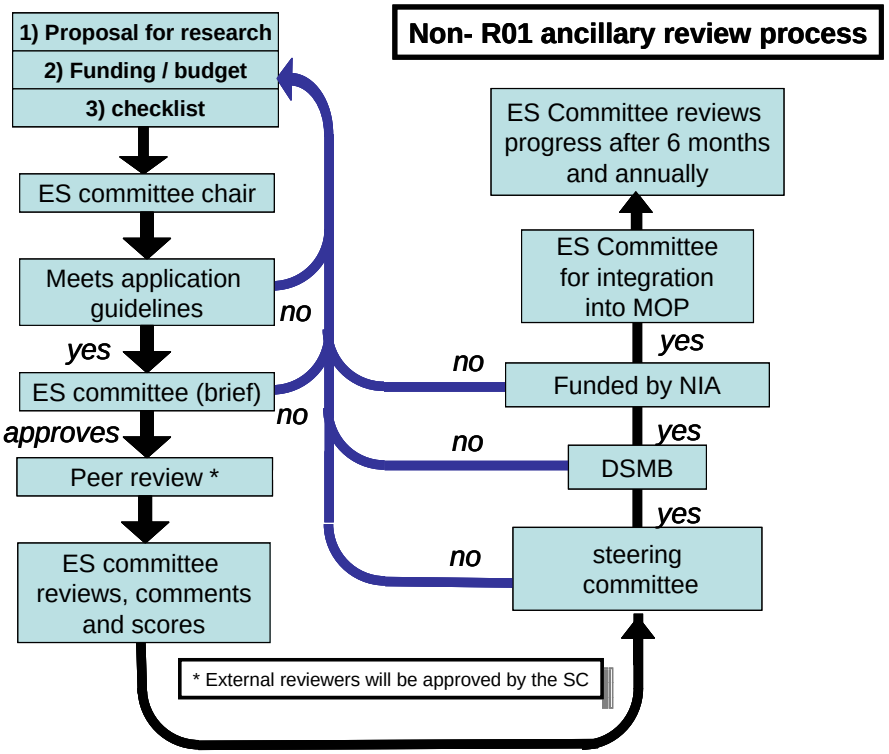
A. Who may submit a proposal?

Investigators are encouraged to conduct ancillary studies with the stipulation that such studies be scientifically sound and have little or no adverse impacts on the main study and participants. Investigators outside of CALERIE are welcome to propose ancillary studies. However, at least one paid CALERIE Principal Investigator (Tufts, Pennington, Wash U. or the DCRI) must sponsor the proposal. Investigators at each of the CALERIE clinical sites where the corresponding data are being collected, and the CALERIE Coordinating Center, should be involved with every ancillary study proposal.

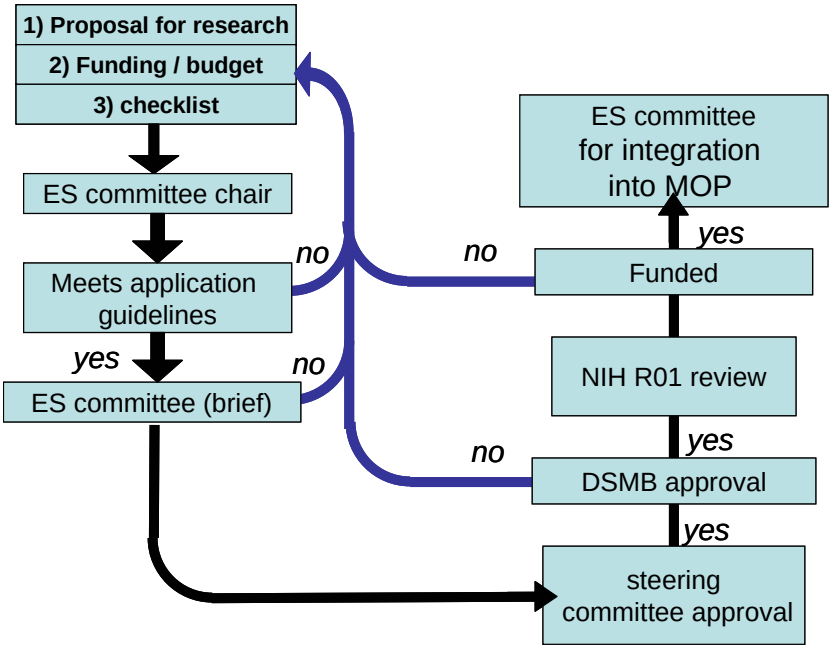
B. Application process and proposal format

All proposed ancillary studies must be submitted to the Emerging Science Committee in time for circulation to appropriate committees and scientific peer-reviewers and subsequent Emerging Science committee review prior to submission to a funding agency. Studies submitted for review less than 8 weeks prior to a funding application deadline may not receive approval.

Outline/flowchart for the review process:



Pre - R01 review process



Proposals for ancillary studies to CALERIE will undergo a two-step application process. An investigator who wishes to conduct an ancillary study will submit a proposal to the chair of the Emerging Science Committee. The chair will enter the proposal into the Emerging Science database and track the process through the Emerging Science Committee.

The packet should contain:

1) A completed checklist (see Appendix A)
2) The proposal
3) Budget / proposed funding source
4) Supporting information as necessary (publications, letters of support from consultants, etc.)

The proposal should include the following elements:

- Hypotheses to be tested (if hypothesis-based study) or descriptive information to be gathered (e.g., for array studies) and rationale for the importance of the hypothesis or information in regard to CALERIE goals.
- Methods, including pilot data (if needed) on feasibility and reliability of the test in humans or human specimens
- Materials and equipment needed
- Requirements (if any) for performance in “real-time”, e.g., imaging studies or assays on fresh tissue
- Participant time and travel burden, if any
- Type and amount of stored archived samples needed (be precise)
- Sample shipping and handing requirements
- Selection of study time points at which outcome will be measured
- Number of participants from which samples are needed and rationale for this selection
- Number of sites from which samples are to be used and rationale for this number

- Analytic plan
- Personnel, including qualifications and time commitment
- Time line
- Budget (by CALERIE budget year)

Please also include:
- An Abstract (250 words or less)
- Detailed description of how the DCC will support this proposal (data entry, database management, data extracts, statistical analysis, etc.)

If the application is complete, the chair will send the proposal to the committee for review as outlined, below.

20.3 Process for Approving Proposals

A. Review process

The Emerging Science Committee will identify ad-hoc reviewers to achieve expertise in a given scientific area. The reviewers will not come from the sites (Tufts, PBRC, Wash U., or the DCRI) to avoid conflict of interest and will be approved by the Steering Committee. In a similar vein, reviewers will be asked to identify potential conflict of interest and recuse themselves.

Each proposal will receive 3 completed reviews.

The reviewers will consider the following features in determining scores / approval:

Significance - Does the study address an important problem? If the aims are achieved, how will scientific knowledge be advanced?

Approach - Are the conceptual or clinical framework, design, method, and analyses adequately developed, well integrated, well reasoned, and appropriate for the aims and hypotheses?

Innovation - Scientific basis for the hypotheses. Is the project original and innovative? Does the project develop or employ novel concepts, approaches, methodologies, tools or technologies for the area?

Investigators - Are the investigators appropriately trained and well suited to carry out the work proposed? Is the work proposed appropriate to the experience level of the investigator(s)?

Environment - Does the scientific environment in which the work will be done contribute to the probability of success?

Reviewers will be requested to use the EMERGING SCIENCE / ANCILLARY PROJECT APPLICATION EVALUATION form (Appendix B).

The Emerging Science Committee will provide specific written feedback to the ancillary investigator in the form of summary that includes the reviewers' comments and suggestions.

The committee can request revisions and resubmission of the proposal before the final vote.

The Emerging Science Committee will discuss the proposal and the scores of the reviewers. After discussion the members of the Emerging Science committee will reach consensus and / or bring the proposal to a vote. The recommendations and a vote of the Emerging Science committee, along with the reviewers' comments and scores, will be forwarded to the Steering Committee.

A vote of the CALERIE Steering Committee members will approve or reject ancillary study proposals.

The proposal will then be forwarded to the DSMB for final review / approval.

Notes / special situations:

- An ancillary study that proposes to use data already being collected by an existing ancillary study requires the approval of the PI of the existing ancillary study.
- The Emerging Science Committee must also review (brief and expedited, typically handled by the Committee Chair) and approve the final funding application (for R01s or other externally funded proposals). The final proposal should be in the hands of the Steering Committee at least 2 weeks prior to the submission deadline to allow time for review. The purpose of this review is to ensure that no major changes to the scope / subject burden have occurred after Emerging Science review and approval.
- The investigator proposing an ancillary project will be responsible for notifying the Emerging Science Committee of any significant differences in the study protocol between the originally approved proposal and the completed funding application. Failure to do so may result in withdrawal of Steering Committee approval of a proposed ancillary study.
- A letter will be provided by the Coordinating Center on the behalf of the CALERIE Steering Committee to the ancillary study investigator upon approval of the completed funding application.

B. Confidentiality of individually identifiable data

Confidentiality of individually identifiable data about CALERIE participants must be assured. As a general rule, no personally identifying data from the CALERIE participants will be provided to ancillary studies' staff. In rare circumstances, the CALERIE Steering Committee will consider requests for exceptions. There are no assurances that ancillary studies will be able to contact study participants after CALERIE ends.

C. Priorities

Priority will be given to proposals that are scientifically important. In general, proposals that augment or complement the main scientific aims of CALERIE will be favored over those that take advantage of CALERIE for more tangential purposes. Ancillary proposals utilizing scarce/non-renewable CALERIE resources, such as biospecimen samples will be considered and approved by the CALERIE Emerging Science Committee and recommendations made to the Steering Committee on a case-by-case basis.

D. IRB approval

All ancillary studies must eventually be approved by the appropriate institutional review boards before they are performed, but IRB approval is not required to submit a proposal to the CALERIE Steering committee.

E. Funding

Proposals for funding ancillary studies must be approved by the Emerging Science / Ancillary Committee and the Steering Committee before they are submitted to the funding agencies. Proposals for funding must include coverage of all the costs, including administration, coordinating center costs, data management, clinic staff time, equipment and supplies. An ancillary investigator may not enter into any verbal or written agreement or contract with industry or private individuals that will provide funding for anything related to CALERIE without prior review and written approval from the CALERIE Steering Committee.

F. Changes after approval

The ancillary investigator is responsible for updating the Emerging Science / Ancillary Committee on the status of ancillary studies. If changes in the design of the protocol or in the potential impact of the protocol on the main study occur after Steering Committee approval, then the investigators must submit a revised protocol to the Emerging Science / Ancillary Committee for review. The Emerging Science / Ancillary Committee will monitor the development of the ancillary studies, receipt of funding, initiation dates, and ancillary study progress. A written progress report on ancillary studies will be made periodically to the Emerging Science / Ancillary Committee and possibly to the Data and Safety Monitoring Board for CALERIE. Ancillary studies supported by the National Institutes of Health (NIH) may submit their annual progress reports to the Emerging Science / Ancillary Committee at the deadlines required by the funding Institute. The Steering Committee may, by majority vote, terminate an ancillary study if it judges that a study has become too burdensome or its scientific value has diminished.

G. Data

The data generated by any ancillary study disregarding the source of funding (CALERIE funds or R01) will be transferred to the CC quarterly and will be included in the CALERIE common database. For these data, the CC will follow their standard data management procedures as for all other CALERIE Phase 2 data. The PI of an ancillary study is required for working with the CC on determining costs associated with the data management and need to include these costs in their study budget. For some studies involving batched samples assay, the PI may request a deviation from this requirement from the ESC and Steering Committee. The Steering Committee's decision on whether to grant a deviation is binding.

The PI of the ancillary study will direct analysis of ancillary study data and will retain all rights to the publication and/or distribution of the data until relinquished by the PI. The PI of an ancillary study is required to include a data sharing plan in their application and indicate when data will be available to other researchers. The PI may request a deviation from his original data sharing plan from the ESC and Steering Committee if for extraordinary reasons the data is still in the process of being analyzed or other mitigating circumstances arise. The Steering Committee's decision is binding.

H. Data analysis, publications and presentations

All the publications, presentations and abstracts from an ancillary study must be reviewed and approved by the CALERIE Publications and Steering Committees prior to submission or presentation. Publication of ancillary study data will be subject to the procedures and conditions of the CALERIE Publication Policy, unless there is a separate publications agreement between the CALERIE SC and the ancillary study PI. If there a separate written publications agreement between the ancillary study PI and the CALERIE Steering Committee, then provisions of this written agreement shall take precedence.

APPENDIX A

ACE / Ancillary Checklist ACE tracking

Fax to 225.763.0274
OR
scan to Adobe pdf and send to Erin Wimberly at wimbere@pbrc.edu

PI:_____

Sponsoring PI:

Hollozy / Roberts / Ravussin / none **(circle one or more)**
PI host institution: _____

Proposed sites for data collection:
Hollozy / Roberts / Ravussin / none **(circle one or more)**

Date of submission: ___ / ___ / _____ month / day / year

Type of protocol (check one or both):

- ☐ Requires specialized procedures / sample collection prior to initiation i.e. in "real-time"
- ☐ Requires samples from the CALERIE archives

Do you anticipate funding from NIA (set-aside)?
Y N **(circle one)**

Are you willing to submit full RO1?
Y N **(circle one)**

It is helpful for potential ancillary applicants to be able to view proposals under review. To facilitate this process, we intend to post proposals on the public portion of the CALERIE web site. Do you give permission to post your proposal on the public portion of the CALERIE web site?
Y N **(circle one)**

Area of investigation (please insert 3-5 keywords) _____

_____

The following items are required by the CALERIE protocol. Please check carefully your submission to be certain that you have included these components:

- ☐ Hypotheses to be tested (if hypothesis-based study) or descriptive information to be gathered (e.g., for array studies) and rationale for the importance of the hypothesis or information in regard to CALERIE goals.
- ☐ Methods, including pilot data (if needed) on feasibility and reliability of the test in humans or human specimens
- ☐ Materials and equipment needed
- ☐ Requirements (if any) for performance in "real-time", e.g., imaging studies or assays on fresh tissue
- ☐ Participant time and travel burden, if any
- ☐ Type and amount of stored archived samples needed (be precise)
- ☐ Sample shipping and handing requirements
- ☐ Selection of study time points at which outcome will be measured
- ☐ Number of participants from which samples are needed and rationale for this selection
- ☐ Number of sites from which samples are to be used and rationale for this number
- ☐ Analytic plan
- ☐ Personnel, including qualifications and time commitment
- ☐ Time line
- ☐ Budget (by CALERIE budget year)

Please also include:

- ☐ An Abstract (250 words or less)
- ☐ Detailed description of how the DCC will support this proposal (data entry, database management, data extracts, statistical analysis, etc.)

Signature:_____

Date: ___ / ___ / _____ month / day / year

Appendix B

Emerging Science [Ancillary] Committee
PROJECT APPLICATION EVALUATION
***Legible, handwritten critiques are acceptable* if they can be reliably transcribed for transmission to the applicant**

Project Author:	
Project Name:	

CRITIQUE

1. Significance –

2. Approach

Strengths

Weaknesses

3. Innovation

4. Investigators
5. Environment
Overall Evaluation
Do any of the weaknesses constitute a “fatal flaw”, e.g., the problem is so severe that is renders the data uninterruptible or substantially diminishes the likelihood of a successful outcome? Yes ☐ No ☐ If “Yes”, which number(s)?
On the whole, do the strengths outweigh the weaknesses? Yes ☐ No ☐

Please provide a numerical rating for the following criteria (5=lowest; 1=highest).	High	*Circle one*			Low
Significance - Does the study address an important problem? If the aims are achieved, how will scientific knowledge be advanced?	1	2	3	4	5
Approach - Are the conceptual or clinical framework, design, method, and analyses adequately developed, well integrated, well reasoned, and appropriate for the aims and hypotheses?	1	2	3	4	5
Innovation - Scientific basis for the hypotheses. Is the project original and innovative? Does the project develop or employ novel concepts, approaches, methodologies, tools or technologies for the area?	1	2	3	4	5
Investigators - Are the investigators appropriately trained and well suited to carry out the work proposed? Is the work proposed appropriate to the experience level of the investigator(s)?	1	2	3	4	5
Environment - Does the scientific environment in which the work will be done contribute to the probability of success?	1	2	3	4	5

Overall score (not necessarily the average of the 5 areas)	

Additional Comments:

Reviewer
Signature:_____

1) Fax to: **Erin Wimberly**
225.763.0274

OR

2) Scan to Adobe pdf and **email to: wimbere@pbrc.edu**

OR

3) Complete in WORD and **email to: wimbere@pbrc.edu**