LC R&D Proposal Guidelines

January 12, 2005

This year's LC R&D proposals will be submitted to both the NSF and DOE for joint review and funding. Below are guidelines for preparing the proposals, CV's and other supporting material. These guidelines, which may seem more cumbersome than you're used to, will ensure that the proposals meet the regulations of both agencies. The proposals should be sent to George Gollin (pdf *and* postscript format) for assembly into the Big Document, and both the proposals and supporting material should be sent to Jim Brau (detector) (pdf format) or Gerry Dugan (accelerator) (pdf *and* latex format) for submission to the agencies. The deadline for the proposals is **January 21, 2005**. The deadline for the supporting material is **February 4, 2005.**

Proposal Preparation

General Guidelines

Your proposal should be between 6 and 10 (detector) or 15 (accelerator) pages. The page limit will be rigorously enforced for the accelerator proposals; modest extensions may be granted for detector proposals with prior approval from Jim Brau. The font must be at least 10 point, there can be no more than 15 characters per inch on average, no more than 6 lines per inch, and margins must be at least 1 inch on all sides.

Your proposal should include:

1. Report on progress of past R&D. This is requested even if this effort was not supported by this program in the past. (See section on "Results of Prior Support" below.)
2. Proposal for future R&D; durations of up to 3 years are possible. Budget requests for all years must be included.
3. Discussion on how this project fits into an integrated linear collider detector concept, ideally one of the active efforts (specify).

If yours is a detector proposal, please identify explicitly the sub-system topic your proposal relates to.

In addition to communicating the scientific merit of your project, your proposal must describe its **broader impact**. The NSF takes this very seriously in reviewing proposals, and since the NSF and DOE are reviewing the proposals jointly, neglecting it could damage your chances for receiving funding. Specifically, the NSF proposal guidelines state that you should address one or more of the following: how the project will integrate research and education by advancing discovery and understanding while at the same time promoting teaching, training, and learning; ways in which the proposed activity will broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.); how the project will enhance the infrastructure for research and/or education, such as facilities, instrumentation, networks, and partnerships; how the results of the project will be disseminated broadly to enhance scientific and technological

understanding; and potential benefits of the proposed activity to society at large. Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF Website. If your project could benefit future HEP experiments other than the linear collider, this too should be mentioned.

Results of Prior Support
Describe the progress to date on the proposed R&D project, even if it has not received prior funding.

In addition, describe the results of the grant that you received in the last 5 years that was most closely related to your LC research. This section should include (a) the award number, amount and period covered; (b) the title of the project; (c) a summary of the results of the covered research, including any contributions to the development of human resources in science and engineering; (d) publications resulting from the award; (e) a brief description of available data, samples, physical collections and other related research products not described elsewhere; and (f) if the proposal is for renewed support, a description of the relation of the completed work to the proposed work.

Facilities, Equipment and Other Resources
Include a section that describes the organizational resources available to support your research. This includes lab space, electronics technical support, machine shops, computing facilities and so on.

Budget and Budget Justification.
Itemize your budget as shown in the proposal template. Also provide a written justification for the items in the budget.

Personnel support may be requested. However, it should be kept in mind that the continuations in subsequent years **may not be funded or may be funded at a reduced level. A multi-year award for LCDRD does not guarantee continued support. The purpose of the multi-year proposal is to convey the idea to the reviewers of what is planned for the out-years. If a multi-year grant is awarded, the agencies may specify out-year planning numbers to create an envelope for the multi-year period. However, circumstances may change from year to year, and consequently, they are not committed to those out-year planning numbers.**

Supporting Material

In addition to the proposal itself, you will need to provide a biographical sketch (limited to two pages each) and a "Current and Pending Support" form for all senior personnel. Senior personnel are people who "will be responsible for the scientific or technical direction of the project" plus all participating faculty members.

Biographical Sketch

(a) Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

Undergraduate institution(s)	Major	Degree & Year
Graduate institution(s)	Major	Degree & Year
Postdoctoral institution(s)	Area	Inclusive Dates (years)

(b) Appointments

A list, in reverse chronological order, of all the individual's academic/professional appointments beginning with the current appointment.

(c) Publications

A list of: (i) Up to five publications most closely related to the proposed project; and (ii) up to five other significant publications, whether or not related to the proposed project. Each publication identified must include the names of all authors in the sequence that they appear in the publication, the article and journal title, book title, volume numbers and year of publication. If the document is available electronically the Website address should also be identified.

For unpublished manuscripts, list only those submitted or accepted for publication (along with most likely date of publication.) Patents, copyrights and software systems developed may be substituted for publications. Only the list of 10 will be used in the proposal review.

(d) Synergistic activities

A list of up to five examples that demonstrate the broader impact of the individual's professional and scholarly activities that focus on the integration and transfer of knowledge as well as its creation. Examples could include among others: innovations in teaching and training (eg development of curricular materials and pedagogical methods); contributions to the science of learning; development and/or refinement of research tools; computation methodologies and algorithms for problem solving; development of databases to support research and education; broadening the participation of groups underrepresented in science, mathematics, engineering and technology; service to the scientific and engineering community outside the individual's immediate organization.

(e) Collaborators and Other Affiliations

Collaborators and co-Editors. A list of all persons in alphabetical order (including their current organizational affiliations) who are currently, or who have been collaborators or co-authors with the individual on a book, article, report, abstract or paper during the 48 months preceding the submission of the proposal. Also, include thos individuals who are currently or have been co-editors of a journal, compendium or conference proceedings during the 24 months preceding the submission of the proposal. If there are no

collaborators or co-editors to report, this should be so indicated. (Note: if you're working on a large collaboration, you may simply name the collaboration (eg "CDF") rather than listing each individual.)

Graduate and Postdoctoral Advisors. A list of the names of the individual's own graduate advisor(s) and principal postdoctoral sponsor(s), and their current organizational affiliations.

Thesis Advisor and Postgraduate-Scholar Sponsor. A list of all persons (including their organizational affiliations) with whom the individual has had an association as thesis advisor, or with whom the individual has had an association within the last five years as a postgraduate-scholar sponsor. The total number of graduate students advised and postdoctoral scholars sponsored also must be identified.

Current and Pending Support Form (Form 1239)

This form should include all sources of funding, whether a government agencies or private institution, and whether or not you receive a salary for the supported work.