BROWN
Division of Biology
and Medicine

NSF Guide

This checklist is meant to be used as a tool and does not replace the detailed requirements for submission information

https://www.nsf.gov/pubs/policydocs/pappg20_1/nsf20_1.pdf

https://www.nsf.gov/pubs/policydocs/grantsgovguide1020.pdf

PI Name: _____

Title: _____
The title of the project must be brief, scientifically or technically valid, and suitable for use in the public press. NSF may edit the title of a project prior to making an award.

Project Dates: _____
The requested start date should allow at least six months for NSF review, processing and decision.

Solicitation: _____

Format Attachments Requirements

- FastLane does not automatically paginate a proposal – each section of the proposal that is uploaded as a file should be individually paginated prior to being uploaded to the electronic system
- Arial, Courier New, or Palatino Linotype at a font size of 10 points or larger; Times New Roman at a font size of 11 points or larger; Computer Modern family of fonts at a font size of 11 points or larger
- A font size of less than 10 points may be used for mathematical formulas or equations, figures, table or diagram captions and when using a symbol font to insert Greek letters or special characters
- Margins, in all directions, must be at least an inch

SINGLE COPY DOCUMENTS
Certain categories of information that are submitted in conjunction with a proposal are for "NSF Use Only." As such, the information is not provided to reviewers for use in the review of the proposal.

☐ **List of Suggested Reviewers or Reviewers Not to Include** (*optional)*
Proposers may include a list of suggested reviewers (including email address and institutional affiliation) who they believe are especially well qualified to review the proposal. Proposers may also designate persons they would prefer not review the proposal, indicating why. These suggestions are optional. The decision whether or not to use the suggestions remains with the Program Officer.

☐ **Collaborators & Other Affiliations Information**
The following information regarding collaborators and other affiliations must be separately provided for each individual identified as senior project personnel (See NSF Proposal and Award Policies and Procedures Guide (PAPPG), Chapter II.C.1.e.) The COA information must be provided through use of the COA template. The template has been developed to be fillable, however, the content and format requirements must not be altered by the user. This template must be saved in .xlsx format and directly uploaded into NSF's electronic systems as a Collaborators and Other Affiliations Single Copy Document.

The COA Template can be found at **https://www.nsf.gov/bfa/dias/policy/coa/ coa_template.xlsx**

SECTIONS OF THE PROPOSAL

Note: Proposal preparation instructions for RAPID, EAGER, Ideas Lab, collaborative, equipment, conference, international travel, center, and major research equipment and facility projects may deviate from the below content requirements. Program solicitations also may deviate from the below content requirements.

☐ **Project Summary** *(1 page limit)*
Each proposal must contain a summary of the proposed project not more than one page in length. The Project Summary consists of an overview, a statement on the intellectual merit of the proposed activity, and a statement on the broader impacts of the proposed activity. Full instructions page II-10

☐ **Project Description** *(15 pages limit)*
The Project Description should provide a clear statement of the work to be undertaken and must include the objectives for the period of the proposed work and expected significance; the relationship of this work to the present state of knowledge in the field, as well as to work in progress by the PI under other support.

The Project Description must contain, as a separate section within the narrative, a section labeled "Broader Impacts".   Also include Results from Prior NSF support for PI and co-PI who have received NSF funding within the last five years. Information on the award is required for each PI and co-PI, regardless of whether the support was directly related to the proposal or not. Results related to Intellectual Merit and Broader Impacts should be described in two, separate distinct headings.
Full instructions pages II-11 - II-13

☐ **References Cited**

Each reference must include the names of all authors, the article and journal title, book title, volume number, page numbers and year of publication. No "et al" must use include all authors. Full instructions page II-13

☐ **Biographical Sketch(es)** *(2 page limit for each biosketch)*

A biographical sketch is required for each individual identified as senior personnel. As of October 5, 2020, NSF requires use of the NSF-Approved Biosketch format that can be found at **nsf.gov/bfa/dias/policy/biosketch.jsp.** Do not submit any personal information in the biographical sketch. This includes items such as: home address; home telephone, fax or cell phone numbers; home e-mail address; drivers' license numbers; marital status; personal hobbies; and the like. The following information must be provided in the order and format specified:

A. *Professional Preparation:* a list of the individual's undergraduate and graduate education and postdoctoral training (including location)
B. *Appointments:* a list, in reverse chronological order, of all the individual's academic/professional appointments beginning with the current appointment
C. *Products:* a list of: (i) up to five products most closely related to the proposed project; and (ii) up to five other significant products, whether or not related to the proposed project
D. *Synergistic Activities:* a list of up to five examples that demonstrate the broader impact of the individual's professional and scholarly activities that focuses on the integration and transfer of knowledge as well as its creation

Full instructions pages II-13 – II-15

☐ **Budget and Budget Justification** *(justification limited to 3 pages)*

Each proposal must contain a budget for each year of support requested. The amounts for each budget line item requested must be documented and justified in the budget justification. For proposals that contain a subaward(s), each subaward must include a separate budget justification of no more than five pages. Full instructions pages II-15 – II-21

Senior Personnel Salaries & Wages Policy
As a general policy, NSF limits the salary compensation requested in the proposal budget for senior personnel to no more than two months of their regular salary in any one year. This limit includes salary compensation received from all NSF-funded grants. If anticipated, any compensation for such personnel in excess of two months must be disclosed in the proposal budget, justified in the budget justification, and must be specifically approved by NSF in the award notice budget.

Under normal rebudgeting authority, and awardee can internally approve an increase or decrease in person months devoted to the project after an award is made, even if doing so results in salary support for senior personnel exceeding the two month salary policy. No prior approval from NSF is necessary as long as that change would not cause the objectives or scope of the project to change. NSF prior approval is necessary if the objectives or scope of the project change.

Voluntary Committed and Uncommitted Cost Sharing
Inclusion of voluntary committed cost sharing is prohibited. While not required by NSF, awardee organizations may, at their own discretion, continue to contribute voluntary uncommitted cost sharing to NSF-sponsored projects. These resources are not auditable by NSF and should not be included in the proposal budget or budget justification. In order for NSF, and its reviewers, to assess the scope of a proposed project, all organizational resources necessary for, and available to, a project must be described in the Facilities, Equipment and Other Resources section of the proposal.
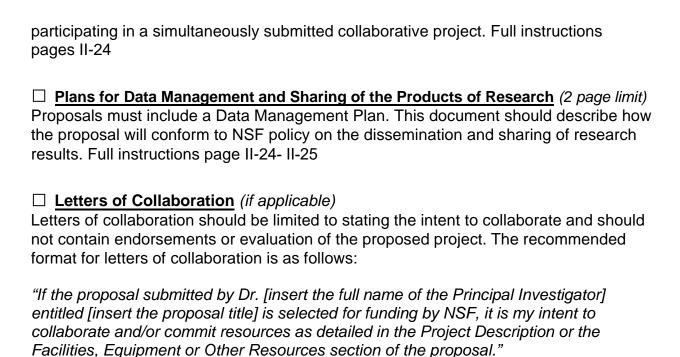
☐ **Current and Pending Support**

The requirement to use an NSF-approved format for preparation of current and pending support will go into effect for new proposals submitted or due on or after October 5, 2020. The approved formats can be found at nsf.gov/bfa/dias/policy/ cps.jsp

This section of the proposal calls for required information on all current and pending support for ongoing projects and proposals, including this project, and any subsequent funding in the case of continuing grants. All current project support from whatever source (e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations, or internal funds allocated toward specific projects) must be listed. The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support. Full instructions pages II-23

☐ **Facilities, Equipment and Other Resources**
Proposers should describe only those resources that are directly applicable. Proposers should include an aggregated description of the internal and external resources (both physical and personnel) that the organization and its collaborators will provide to the project, should it be funded. Full instructions page II-24

☐ **Postdoctoral Researcher Mentoring Plan** *(if applicable, 1 page limit)*
Each proposal that requests funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals. The mentoring plan must describe the mentoring that will be provided to all postdoctoral researchers supported by the project, regardless of whether they reside at the submitting organization, any subrecipient organization, or at any organization

participating in a simultaneously submitted collaborative project. Full instructions pages II-24

☐ **Plans for Data Management and Sharing of the Products of Research** *(2 page limit)*
Proposals must include a Data Management Plan. This document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results. Full instructions page II-24- II-25

☐ **Letters of Collaboration** *(if applicable)*
Letters of collaboration should be limited to stating the intent to collaborate and should not contain endorsements or evaluation of the proposed project. The recommended format for letters of collaboration is as follows:

"If the proposal submitted by Dr. [insert the full name of the Principal Investigator] entitled [insert the proposal title] is selected for funding by NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment or Other Resources section of the proposal."

Full instructions pages II-25

COLLABORATIVE PROPOSALS

A collaborative proposal is one in which investigators from two or more organizations wish to collaborate on a unified research project. Collaborative proposals may be submitted to NSF in one of two methods: as a single proposal, in which a single award is being requested (with subawards administered by the lead organization); or by simultaneous submission of proposals from different organizations, with each organization requesting a separate award.

Submission of a collaborative proposal from one organization
The single proposal method allows investigators from two or more organizations who have developed an integrated research project to submit a single, focused proposal. A single investigator bears primary responsibility for the administration of the grant and discussions with NSF, and, at the discretion of the organizations involved, investigators from any of the participating organizations may be designated as co-PIs. Note, however, that if awarded, a single award would be made to the submitting organization, with any collaborators listed as subawards.

Submission of a collaborative proposal from multiple organizations
Simultaneous submission of proposals allows multiple organizations to submit a unified set of certain proposal sections, as well as information unique to each organization. All collaborative proposals arranged as separate submissions from multiple organizations must be submitted via FastLane. For these proposals, the project title must begin with the words "Collaborative Research:" If funded, each organization bears responsibility for

a separate award. Required sections of the proposal differ based on the organization's role.

<u>Lead Organization</u>: cover sheet, project summary, table of contents, project description, references cited, biographical sketch(es), budget and budget justification, current and pending support, facilities, equipment and other resources, data management plan, postdoctoral mentoring plan (if applicable, Collaborators & Other Affiliations Information

<u>Non-Lead Organization</u>: cover sheet, table of contents, biographical sketch(es), budget and budget justification, current and pending support, facilities, equipment and other resources , Collaborators & Other Affiliations Information

NSF Checklist

☐ List of Suggested Reviewers or Reviewers Not to Include *(if applicable)*

☐ Collaborators & Other Affiliations information

☐ Project Summary *(1 page limit)*

☐ Project Description *(15 page limit)*

☐ References Cited

☐ Biographical Sketch(es) *(2 page limit for each biosketch)*

☐ Budget and Budget Justification *(justification limited to 5 pages)*

☐ Current and Pending Support

☐ Facilities, Equipment and Other Resources

☐ Postdoctoral Mentoring Plan *(if applicable, 1 page limit)*

☐ Data Management Plan *(2 page limit)*

☐ Letters of Collaboration *(if applicable)*

Appendix A – Additional Items Required For Subcontractors

☐ Official organization name, DUNS number, address

☐ Administrative contact information for Institution

☐ Contact information from PI

☐ NSF biographical sketch for Subaward PI

☐ Letter of Intent to collaborate/consortium letter from Authorized (OSP) Official

☐ Letter of Support from collaborating Senior/Key Personnel

☐ COI Disclosure from PI (or evidence that their Institution is in compliance)

☐ Information about Facilities/Equipment/Resources to add to Brown application

☐ Budget on R&R Budget Pages and budget justification

☐ Scope of Work (describes the actual work being completed by the Collaborator)

☐ Completed Collaborators and Other Affiliations Information form

Budget Justification Best Practices

A budget justification is a narrative explanation of each of the components of the budget, which "justifies" the cost in terms of the proposed work. The explanations should focus on how each budget item is required to achieve the aims of the project and how the estimated costs in the budget were calculated. The budget justification should:
- Follow funding agency guidelines.
- Explain why each of the requested items is necessary to accomplish the proposed research.
- Be organized in the order of the detailed budget page.
- Make it clear that all budget requests are reasonable and consistent with sponsor and Brown University policies.

The funding agency guidelines may list different categories or criteria allowable in a budget, so the following should be seen as a general template. Below are the main categories of most budgets, with an explanation of that category followed by a sample entry.

SENIOR PERSONNEL
This category includes anyone who is a PI, Co-PI or Project Director. List the name, title, amount of time to be spent on the project (in calendar, academic and/or summer months) and what s/he will accomplish. *Note: Committing effort to a project without also charging the salary for that effort to the project budget is considered cost sharing. Brown University provides only the minimum amount of cost sharing necessary to meet sponsors' requirements and discourages voluntary committed cost sharing. The full Cost Sharing on Sponsored Projects policy can be accessed [here](#).*

Example:

John Smith, Ph.D., Principal Investigator (2 academic months and 1 summer month). Dr. Smith is a Professor of Biology at Brown University. Dr. Smith will be responsible for the overall coordination and supervision of all aspects of the study. This includes hiring, training, and supervising staff/students; recruiting study participants; coordinating treatment and assessment components; scheduling and staff assignments; and data management. In addition, he will conduct the orientation sessions, assist with statistical analyses, and be responsible for reporting the study's findings.

Jane Doe, Ph.D., Co-Investigator (2 calendar months). Dr. Doe is an Associate Professor of Psychiatry and Human Behavior (Research) at Brown University. Dr. Doe will be responsible for the collection and analyses of the fecal materials. She will also assist in manuscript preparation.

OTHER PERSONNEL
Common personnel types budgeted include Postdoctoral Associates, Graduate Student Research Assistants, Undergraduate Research Assistants and Research Technicians. When known, list the name, title, amount of time to be spent on the project (in calendar, academic and/or summer months) and what s/he will accomplish.

Example:

Michael Johnson, Ph.D., Post Doctoral Associate (12 calendar months). Dr. Johnson will coordinate the day-to-day management of the study, assist in assessments, be responsible for

data entry of all treatment-related data (i.e., scheduling and conducting weights, attendance, self-monitoring), and serve as an interventionist.

<u>TBN Project Coordinator</u> (6 Calendar Months).This individual will assist with recruitment, assessments, and serve as an interventionist. Additionally this person will aid with preliminary data analyses and manuscript preparation.

<u>TBN Research Assistant</u> (12 Calendar Months).This individual will assist with recruitment, ordering supplies and intervention materials, assessments, collection of dietary data, daily management of study data, and scoring and data entry of assessments.

OTHER SIGNIFICANT CONTRIBUTORS
Other significant contributors (OSC) are individuals who have committed to contribute to the scientific development or execution of the project, but are not committing any specified measurable effort (i.e., person months) to the project. If no salary is being requested, do not quantify the amount of time and effort that will be spent as this would constitute an effort commitment and therefore be considered cost sharing.

CONSULTANTS
Provide the consultants name, institution and an explanation of the area of expertise the consultant will provide to the project. If a consulting fee is to be paid, explain how it was calculated (i.e., $X/day x # of days). The rate may be calculated on an hourly or daily basis, or may be based on completion of a task or milestone. Obtain a letter from each consultant indicating his/her willingness to act as a consultant to the project.

FRINGE BENEFITS
Fringe benefits can change yearly, and should be confirmed before submitting your budget. Current Brown University fringe benefit rates can be accessed here.

EQUIPMENT
Equipment is defined as a single item that has a useful life of more than one year and a unit cost of at least $5,000. However, if an item consists of parts that are only functional when assembled, that is considered one item. Specify the type of equipment, and if known, the model and vendor name. Explain how this equipment will be used in the project and why it is necessary to purchase equipment dedicated to this project rather than use shared resources. If possible, provide a vendor quote. If a quote is not available, indicate how the amount budgeted was determined (i.e., website price list, prices from University purchasing contracts, etc.). Equipment is excluded from Facilities and Administrative Cost Base.

Example:

Funds are requested to purchase three Biologs ($7,150 each). These are ambulatory physiological data recorders with multiple channels that will be used to record mothers' heart rate (RSA), activity level, and electrodermal activity (e.g., skin conductance). Recorded data is compactly stored on a removable memory card. When recording is complete, the card is inserted into a card reader which is connected to a PC through a serial port. Three Biologs are needed because there are several periods when assessment points overlap (e.g., parental interviews, 6 months laboratory visits, 6 months home visits), and dedicated equipment for each type of visit will ease scheduling demands.

Appendix B – Budget Justification Best Practices

TRAVEL
When possible, list "who, what, when, where and why." Organize travel costs separately for domestic vs. international travel. Explain how the costs were estimated (i.e., $X roundtrip airfare + $Y lodging for # of nights, + $Z per diem for # of days). Airfare must be coach class and, if paid by a federal grant, booked on a US carrier whenever possible.

Example:

Domestic Travel - $Amount Support is requested for Dr. PI and Dr. Co-PI to attend the American Society for Cell Biology Association conference in year 3 to share results. This estimate is based on $500 airfare per person, $185 hotel per night per person for four nights, and standard per diem rates used by Brown University.

Foreign Travel - $Amount support is requested for Dr. PI to travel to Costa Rica to collect data from La Selva Biological Station. This estimate is based on $1,500 airfare, $110 hotel per night for 20 nights, and standard per diem rates used by Brown University.

PARTICIPANT/TRAINEE SUPPORT COSTS
Participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with meetings, conferences, symposia or training projects.
NSF REU costs are budgeted in this category.
Unless stated in the FOA this section should be left blank for NIH research grant applications.

OTHER DIRECT COSTS
Other direct costs can only be charged to a grant if they can be readily and specifically identified with that particular project and comply with the funding agency's program guidelines. Costs that are essential to the project's research and which will be used solely for the project may be budgeted with proper justification. Always explain why purchases are essential to the project's aims and dedicated only to research on this project, and explain how the costs were calculated. Though different grant mechanisms allow or disallow various other direct costs, typical allowable other direct costs include the following:

- Materials and supplies – An estimated supply budget of ~12K-15K/year for each FTE *may be* reasonable. This amount will vary depending on the nature of the research proposed. Animal intensive studies and studies involving human subjects tend to be more costly.
- Publication costs
- Animal purchase and care costs
- Equipment maintenance expenses
- Fees-for-service, such as commercial lab tests
- Graduate Research Assistant Tuition and Fee

Costs that are normally considered facility & administrative (indirect) costs include: office supplies, personal computers, books and subscriptions, memberships, local phones and cell phones, postage and FedEx, parking, printing and photocopying. However, if any of these costs are essential to the project's research, are allocable and will be used solely for the project, then they may be budgeted when listed in the budget with proper justification

Appendix B – Budget Justification Best Practices

Examples:

Materials and Supplies – Laboratory supplies including chemicals, glassware and disposables are required for processing the samples collected. Total cost for supplies each year is estimated at $1,500.

Publications – We request funds to cover the costs associated with publication charges. We anticipate publishing 2 papers per year, at an average cost of $1,000 each. This expense will be $2,000 per year.

SUBRECIPIENT (CONSORTIUM) COSTS
A subaward or subcontract (sometimes called a consortium agreement) is required when a third party (the subrecipient) will be responsible for execution of a portion of the project work. When the Brown University budget includes funding for subrecipient(s), the Brown budget justification should state the name(s) of the subrecipient organization(s) and include a brief justification for subcontracting to each entity by explaining the project goals involved in their work. The specific items in the subrecipient budget(s) should not be explained here. The budget and budget justification from each subrecipient should be included in the proposal, separately from Brown's budget and justification.

Example:

MIT will carry out the IPB test and ProtoExist2 ASIC design and is expected to need $35,000 each year. Please see MIT budget and justification for details.
UCSD will design and build the Gondola pointing system, starting in year two and is expected to need $20,000 per year. Please see UCSD budget and justification for details.

FACILITIES AND ADMINISTRATIVE COSTS
The budget justification should include a statement about the F&A cost rate (also referred to as indirect costs or overhead) that has been applied to the budget. For proposals to federal agencies, state that the F&A costs included in the budget are based on Brown University's negotiated F&A cost rate agreement, and provide the effective date of the agreement. For corporate or non-profit organizations, it is likely that the sponsor will specify the indirect cost rate that is allowed.

Appendix B – Budget Justification Best Practices

<u>Budget Justification Checklist</u>

☐ Does the budget justification follow the same order as the budget?

☐ Does the budget justification give additional details to explain the costs included in the budget?

☐ Does the budget justification include only items allowable, reasonable & allocable?

☐ Is the budget justification easy to read (short paragraphs, headings for different budget categories, etc.)?

☐ Is the budget justification concise? (No more than 5 pages for NSF)

☐ Do the numbers in the budget justification match those in the budget?