Before you begin:

- **READ THE PA/RFA SOLICITATION AND MAKE SURE YOU CHOSE THE RIGHT FUNDING OPPORTUNITY.** In January 2018 NIH changed their Funding Opportunity Announcements (FOA) to be either (a) clinical trial not allowed; (b) clinical trial optional; or (c) clinical trial required. Pay attention to the “Application and Submission Information” section.
- Individual NIH PA/RFAs take precedence over NIH SF424 general guidelines; the NIH SF424 Application Guide takes precedence over this document.
- Proposals MUST be submitted via Grants.Gov on or before 5:00pm Local Time on Deadline Date. If an NIH “standard deadline” date falls on a weekend or Federal holiday, the deadline is extended to the following business day. For RFAs with specific deadline dates the deadline is fixed and does NOT change for any reason.

**Sections of the Application:**

[1] **SF424 R&R (Cover Page)** – self-explanatory, but please note:

   - Box 1. Ensure correct box is checked: “Application” or “change/corrected”
   - Box 4a. Box is completed with the NIH grant number if a Resubmission or Renewal, e.g., format: CA123456
   - Box 6. TIN/EIN = 1042103594A1
   - Box 8. Type of application: ensure correct box is check.
   - Box 10. Ensure solicitation information is completed.
   - Box 11. Title: limit 200 characters including spaces.
     - Note, “revision” application should have the same title as the currently funded grant.
   - Box 12. Ensure start dates are correct.
   - Box 13. MIT Congressional District = MA-007
   - Box 16. The program is NOT covered by E.O. 12372
   - Box 17. Should be AGREE
   - Box 21. Cover letter is attached here.

   **Cover letter** – usually optional and used for NIH internal purposes. May be required if direct cost budget exceeds $500,000 in any one year, application includes a video or large scale genomic data or if PI is submitting under [Continuous Submission](#) guidelines.

   Note: No longer used to request application assignment or review, that information is conveyed by the optional [PHS Assignment Request Form](#). Ensure version 2 is used.

[2] **Project/Performance Site Information(s)**

   - List MIT plus any other sites where science will be performed.
   - If the application has subcontracts, each site should be listed.
   - Need to use a 9 digit zip code for all US sites; if site outside USA use 00-000.

[3] **R&R Other Project Information**

      - a. If YES and EXEMPT: the exemption number must be included.
b. If YES and IRB review is necessary: ensure all necessary attachments are included on the study record attachment ‘PHS Human Subjects and Clinical Trials Information’ (see more information below).

2. Animal Assurance No. D16-00078

Note: For NEW applications, the IACUC review should always be ‘pending’. If applicant answers “NO” to “PENDING” then an approval date must be entered. If not, the package will error.

3. Proprietary information – see SF424 Guide for instructions. If ‘YES’ text must be marked.
4. Environmental Impact – yes or no
5. Research at a historical place – yes or no
6. International Collaboration – if YES a foreign justification should be include in field 12. (see SF424 guidance). The compliance tab in KC may also need to be marked for International activity.
7. Project Summary /Abstract – 30 lines max; summary of the proposed activity
8. Narrative - short 2-3 sentences for lay audience explaining “relevance to Public health”
9. Bibliography and References – NIH has relaxed their guidance for references, please see SF424 guidance if unsure of format.
10. Facilities/Resources – Identify the facilities available to the program to demonstrate capability of research site to complete the proposal, include all performance sites.
11. Equipment – list equipment available to the program to demonstrate capability of research site, include all performance sites
12. Other Attachments - If required by PA/RFP solicitation

[4] Research & Related Senior/Key Persons
- Those with PD/PI role MUST provide eRA Commons User ID in the “Credential” box (for other roles this is not mandatory).
- Ensure the * sections are completed (address, e-mail, phone number and use a 9 digit zip code).
- List OSCs and Consultants after other Senior/Key persons
- Biosketches required for ALL persons listed in this Senior/Key Person Profile page.

Note: 5 pages max. for each bio and includes (see NIH guides for required format and content):

A. Personal Statement – Brief description of experience and qualifications for the role in project
B. Positions and Honors- chronological list of previous positions, concluding with current position.
C. Contributions to Science – describe up to 5 of their most significant contributions to science. Up to four papers accepted for publication or research products that are relevant to the contribution may be cited. Optional: provide a URL to a full list of published work. This URL must be to a Federal Government website (a .gov suffix)
D. Research Support – list ongoing then completed support relevant to the proposal. (Completed within the last three years).

Unless the PA/RFA requires, do not provide “Current & Pending Support” at proposal time

- Section is self explanatory.

[6] PHS 398 Research Plan
Research Plan Attachments:
1. Introduction – ONLY for application type = resubmission or revision. 1 page limit.
2. Specific Aims – 1 page limit.
3. Research Strategy – Limited to 12 pages for an R01; 6 pages for an R21
   a. Significance
b. Innovation
c. Approach

Note: new proposals should include preliminary studies; Renewal/Revisions should include progress report.

4. Progress Report Publication List - for renewal submissions only

*With FORMS-E Human subject information is longer attached in this section. See below for details.*

Other Research Plan Sections

5. Vertebrate Animals if “YES” - this section should address the following:
   - Description of Procedures. Provide a concise description of the proposed procedures to be used that involve vertebrate animals in the work outlined in the “Research Strategy” section. Identify the species, strains, ages, sex, and total numbers of animals by species, to be used in the proposed work. If dogs or cats are proposed provide the source of the animals.
   - Justifications: Provide justification that the species are appropriate for the proposed research. Explain why the research goals cannot be accomplished using an alternative model (e.g. computational, human, invertebrate, in vitro).
   - Minimization of Pain and Distress: Describe the interventions including analgesia, anesthesia, sedation, palliative care and humane endpoints to minimize discomfort, distress, pain, and injury.
     For additional information, see [http://grants.nih.gov/grants/olaw/VASchecklist.pdf](http://grants.nih.gov/grants/olaw/VASchecklist.pdf)

6. Select Agents : See SF424 for instructions; complete if project uses hazardous biological agents or toxins.

7. Multiple PI Plan: A rationale for choosing a multiple PD/PI approach should be described. The governance and organizational structure of the leadership team and the research project should be described, including communication plans, process for making decisions on scientific direction, and procedures for resolving conflicts.

8. Consortium/Contractual Arrangements :
   a. For MIT internal procedures, a letter of intent, etc. should be included in KC.
   b. For the NIH proposal, this section should describe arrangement with the subawardees.

9. Letters of Support - except for MIT persons being charged to the budget include one for each person named in Senior/Key Persons to affirm their participation. If a consultant letter is included, ensure it states the rate and hours expected to dedicate to project.

10. Resource Sharing Plan - Data Sharing required for proposals greater than $500,000 TDC per year and some PA/RFAs. Model Organisms Plan required wherever they might be developed.

11. Authentication of Key Biological and/or Chemical Resources: Attach if applicable to the proposed science

12. Appendix – it is UNUSUAL if anything is attached in this section. Only if instructed in FOA.

[7] Budget
Two options exist:

1. PHS 398 Modular Budget – when requesting $250,000 Direct Cost or less /year
2. R&R Categorical Budget – when requesting $250,001 or more Direct Cost/year

**PHS 398 Modular Budget:**
Funds are requested in $25,000 increments (or modules) up to $250,000 direct cost/year.

Could have up to three attachments for the budget justification:

1. Personnel Justification *(mandatory)*— list all personnel including name, person months devoted to project and role.
2. Consortium Justification – state dollars of subaward rounded to nearest thousand for each year, state domestic or foreign entity, list personnel including name, effort and role.
3. Additional Narrative Justification – usually only to explain different numbers of modules per year. Can be used to explain anything unusual in the budget.

Note: NIH clarified that R21 applications do not need an additional narrative section: The Additional Narrative Justification is not needed in applications to FOAs with direct cost limits that do not spread evenly across budget periods (e.g., R21 FOAs that allow $275,000 in direct costs over two years).

R&R Categorical Budget:
Detailed Budget module used for budgets of greater than $250,000 TDC per year.

- Personnel should include their role and effort. In order to be considered key personnel, effort must be on the budget form + justification. (Other significant contributors do not have effort and therefore are not included in the budget section).
- The salaries of administrative and clerical personnel should normally be treated as F&A costs. Inclusion of such costs may be appropriate only if all of the following conditions are met:
  1. Administrative or clerical services are integral to a project or activity;
  2. Individuals involved can be specifically identified with the project or activity;
  3. Such costs are explicitly included in the budget or have prior written approval of the Federal awarding agency; and
  4. The costs are not also recovered as indirect costs.

Requests for direct charging or Secretarial/Clerical Personnel (i.e., administrative and clerical staff) must be appropriately justified in the Budget Justification.

- All budget categories should be justified.
- If there is a consortium agreement, the subaward budget needs to be completed and uploaded (See R&R 424 instruction for additional details).

Notes:
- If personnel have effort without salary, that is cost sharing.
- Be aware of the NIH salary cap in effect. For a categorical budget, can request salary in excess of the cap and NIH will reduce at award time. [https://grants.nih.gov/grants/policy/salcap_summary.htm](https://grants.nih.gov/grants/policy/salcap_summary.htm)
- In general, modular budgets are used only for R01, R03, R15, R21, and R34 applications.
- Unless the PA/RFA requests – do NOT use Budget Section E – Participant/Trainee Support Costs.
- Foreign subawardee F&A is limited to 8%
- Graduate Students: the total compensation that will currently be funded for graduate students is $47,484 (stipend + tuition) – you can ask for above this level but it may be reduced.

In accordance with the Notice: NOT-OD-02-017 entitled, "GRADUATE STUDENT COMPENSATION" published on December 10, 2001, in the NIH Guide for Grants and Contracts, total direct costs (salary, fringe benefits and tuition remission) for graduate students are provided at the NIH maximum allowable amount (zero level of the Ruth L. Kirschstein National Research Service Award stipend in effect at the time of the competing award). Support recommended for future years has been adjusted accordingly, if applicable. The full guide Notice describing the level of compensation allowed for a graduate student can be found at: [http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-017.html](http://grants.nih.gov/grants/guide/notice-files/NOT-OD-02-017.html)
**Information on Human Subjects:**

As of January 25, 2018 NIH updated their forms, and definition of clinical trial. With the new definition, some MIT applications may be classified as a clinical trial. PIs should contact COUHES for guidance if they are unsure if their project should be classified as a clinical trial; OSP can not make that determination. Not all human research is considered a clinical trial, but the definition is broader than in the past. This change in definition makes it critical that the PI/DLC/OSP take a moment to ensure they are using the correct funding opportunity.

**In KC:**
- In the compliance tab – human subjects should be pending.
- If you click on HUMANS SUBJECTS on the compliance tab, the study record should be uploaded here.
- Note, HUMAN SUBJECTS may appear more than once on this tab, if so, each time there should be a different study record attached (an application may have more than one study record/protocol associated with the study). If there is more than one study record, each attached form needs a unique name.
- What is completed on the study record is dependent on the type of study:

**Human Subjects Scenarios**

A. Human Subjects Research - not a clinical trial
   1. Complete sections 1 – 3.2 on form. (note, section 1.5 will be blank)
   2. Sections 3.3-3.5 are optional; but most likely left blank
   3. Do not complete sections 4 or 5

B. Human Subjects Research – clinical trial
   1. In KC, within the Human Subjects noted on the compliance tab, the box for clinical trial should be checked.
   2. Complete sections 1-4 (note, section 1.5 will be blank)

C. Exempt Human Subject Research:
   1. complete all of section 1 and section 3.1 which is a justification of the exemption. (note, section 1.5 will be blank)
   2. Note, COUHES should also approve the exemption.

D. Delayed Onset Human Subject study
   1. In KC, within the Human Subjects noted on the compliance tab, the ‘delayed onset’ box should be checked.
   2. Delayed onset justification is attached (not the study record as noted on scenarios A, B and C).

**Human Specimens**: an application may say NO to human subjects, but does include human specimens. In this case, you will see, on the Attachment Tab of KC, an upload/explanation for human specimen.

**Notes:**
- Since you can name more than one Study Record attached, one may exempt and one may be clinical trial – make sure the correct FOA is chosen.
- If the PI has answered YES to all of the questions in section 1.4 of the Study Record – this is a clinical trial – make sure the correct FOA is chosen and the all the correct fields are completed.

The RA-Help team developed a few quick card for guidance: [https://kc.mit.edu/quick-reference-cards](https://kc.mit.edu/quick-reference-cards)

See:
- Populating the PHS Human Subjects and Clinical Trial Information (HSCT) form in KC Proposals
- Populating the Extracted PHS Study Record for the PHS HSCT form
- User-Attached Mandatory S2S Forms
- User-Attached Optional S2S Forms
Helpful Web sites:

SF424 Instructions: https://grants.nih.gov/grants/how-to-apply-application-guide.html#inst


Parent FOAs: https://grants.nih.gov/grants/guide/parent_announcements.htm

Additional Information for Subcontracts:

The following two paragraph statement can be provided in a document signed (electronic is OK) by the Subawardee OSP Representative in lieu of a signed PHS398. XXX’s must be filled in with the Subawardee Institution name.

“In signing below and offering to participate in this research program, XXX certifies that: neither it nor their principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from receiving funds from any federal department or agency and are not delinquent on any federal debt; it is in compliance with the Drug Free Workplace Act of 1988; it is in compliance with U.S. Code, Section 1352, restrictions on the use of federal funds for the purpose of lobbying; it is in compliance with 42 CFR part 50 (Objectively in Research) regarding financial conflict-of-interest; it has filed annually with the Office of Scientific Integrity a PHS form 6349 governing Misconduct in Science; it has filed with DHHS compliance offices certification forms governing Civil Rights (441), Handicapped Individuals (641), Sex Discrimination (639-A), and Age Discrimination (680); it is in compliance with PHS policy governing Program Income; it has established policies in compliance with 45 CFR Part 46, Subpart A (protection of human subjects); the Animal Welfare Act (PL-89-544 as amended) and the Health Research Exchange Act of 1985 (Public Law 99-158); and that it is in compliance with NIH guidelines regarding human pluripotent stem cell research, transplantation of fetal tissue, recombinant DNA and human gene transfer research, and inclusion of women, children & minorities in research.

The appropriate programmatic and administrative personnel of each institution involved in this grant application are aware of the National Institutes of Health consortium grants policies and procedures for research administration and are prepared to establish the necessary inter-institutional agreement(s) consistent with the policy.”