Letters & Institutional Templates

“templates” for personalization
Institutional Commitment
Responsible Conduct of Research
Training in rigor/repro
Sample Budget
Diversity Eligibility

BMSC April 5
The Qualifier and the Fellowship

Fellowship Biosketch  5 page max
Project Summary/Abstract  30 lines of text
Project Narrative  3 sentences
Applicant Background & Goals  6 pages
Specific Aims  1 page
Research Strategy  6 pages
Respective Contribution  1 page
Selection Sponsor & Institution  1 page
Responsible Conduct of Research
Sponsor/Co-Sponsor Statements  6 page
LOS from collaborators  6 page
Inst Environment, Commit Training  2 page
Letters of recommendation  3 recc’s
Budget
(Diversity Eligibility)
Institutional Environment and Commitment

Review Criteria:

Institutional Environment & Commitment to Training

• Are the research facilities, resources (e.g., equipment, laboratory space, computer time, subject populations, clinical training settings) and training opportunities (e.g. seminars, workshops, professional development opportunities) adequate and appropriate?

• Is the institutional environment for the applicant’s scientific development of high quality?

• Is there appropriate institutional commitment to fostering the applicant’s mentored training?
The Applicant, **XX** is in her/his 4th year of graduate school at GW School of Medicine and Health Sciences. S/he successfully completed the Ph.D. qualifying exam on date and is a student in good standing in the **XX** Ph.D. program. His research project is on **XX**, and led by mentors **XX**.

**GW has strong, well-established research programs that support trainees.** GW is a private, midsized research university with a main campus in the highly urban center of Washington DC. The Foggy Bottom Campus includes the GW Hospital, the medical school laboratories in Ross Hall, the Milken Institute School of Public Health, and the adjacent Science and Engineering Hall; our partner institution, the Children’s National Health System is located about 3 miles away and connected by shuttle. GW has embarked upon an ambitious plan to increase research and researchers, adding over 40 researchers in 3 years (indexed in a searchable database), and is currently ranked #58 Best Medical Schools in Research (US News & World Report, 2021 rankings). GW SMHS generously supports faculty and students engaged in **biomedical research** and has numerous facilities that enhance the research environment.

Several fee-for-service research core facilities support this research project (choose several, describe how you will use). The Research Pathology Core Laboratory located in Ross Hall provides research services for both human and animal tissues, including tissue processing, embedding, sectioning, routine H&E and special stains, frozen sections, optimization and performance of immunohistochemistry, and electron microscopy. The Nanofabrication and Imaging center features state-of-the-art microscopy instrumentation and a newly-constructed Class 100 cleanroom. The Flow Cytometry core facility measures light scattering and fluorescence, and is used to identify subsets of cell populations. A Biostatistics Center is available for consultation on research projects. The Biorepository Center supports tissue storage and sampling. The Animal Research Facility provides space, equipment, and care for laboratory animals used for research. ARF is AALAC certified and
Career enhancement. SMHS recently invested in an office of research workforce development that provides advising for researchers at all career levels, a database for all training records, as well as the science and professional careers monthly series designed to address student and postdoc development. Recent and planned workshops focus on fellowship-writing, IDP, wellness planning in graduate school, teaching-intensive careers, as well as new courses on scientific writing in the qualifier, and grantwriting for the individual investigator.

The GW COMPASS, a student organization specifically for grad students in STEM fields, provides a community of professional support to facilitate the advancement of students by hosting networking engagements, fostering mentee and mentor relationships, and highlighting career opportunities for postgraduate life. The GW Center for Career Services provides extensive programming and services to graduate students, including the Handshake program to find a job. All trainees and faculty have access to resources in the Clinical Sciences Training Institute-Children’s National, a research center designed to develop and transform clinical and translational research. One important CTSI-CN resource is free biostatistics consulting, which is emphasized early in the experimental design process.

GW Facilities and Other Resources. As described in the Facilities and Other Resources section, GW provides the necessary facilities and other resources to support the research in this proposal. DESCRIBE. Career enhancement resources are available longitudinally throughout the PhD student curriculum as noted above, from required core courses to career center resources, to alumni interactions.

The Applicant, \{STUDENT NAME HERE\}, is in his/her Nth year of graduate school at GW School of Medicine and Health Sciences. He/She successfully completed their Ph.D. qualifying exam and is a student in good standing in the XX Ph.D. program.

Name of the individual providing this information:
Training in the Responsible Conduct of Research

All applications for support under this FOA must include a plan to fulfill requirements for Instruction in the Responsible Conduct of Research (RCR). Taking into account the level of experience of the applicant, including any prior instruction or participation in RCR as appropriate for the applicant’s career stage, the reviewers will evaluate the adequacy of the proposed RCR training in relation to the following five required components: 1) **Format** - the required format of instruction, i.e., face-to-face lectures, coursework, and/or real-time discussion groups (a plan with only on-line instruction is not acceptable); 2) **Subject Matter** - the breadth of subject matter, e.g., conflict of interest, authorship, data management, human subjects and animal use, laboratory safety, research misconduct, research ethics; 3) **Faculty Participation** - the role of the sponsor(s) and other faculty involvement in the fellow’s instruction; 4) **Duration of Instruction** - the number of contact hours of instruction (at least eight contact hours are required); and 5) **Frequency of Instruction** – instruction must occur during each career stage and at least once every four years. Plans and past record will be rated as **ACCEPTABLE** or **UNACCEPTABLE**, and the summary statement will provide the consensus of the review committee.

Plan for Instruction in the Responsible Conduct of Research (2020)

GW is committed to promoting the highest standards of ethical research and scholarly conduct while pursuing its research mission. The university believes that responsible conduct of research (RCR) training is an essential component and includes instruction on professional ethical behavior tailored to subject matter career stage context and other participant needs.

All lab-based researchers complete both General Laboratory Safety Training and Biosafety/Bloodborne Pathogen Training before they are allowed access to SMHS laboratories, with additional specific tool safety training available from the Office of Laboratory Safety (OLS). All employees or individuals associated with the university have a responsibility to read and understand GW’s Policy and Procedures Regarding Allegations of Research Misconduct. Completion of these training activities is documented by OLS.

RCR training is part of the educational and outreach activities supported by the GW Office of Research Integrity led by Sheila Garrity JD MPH, Associate Vice President for Research Integrity and Research Integrity Officer, and additional Research Integrity Leadership within the Office of the Vice President of Research.

Formal Instruction in the Responsible Conduct of Research. All biomedical science PhD students are required to complete BMSC 8217 Scientific Ethics & Grant writing, generally in the first year (2 credits; course director Dr. L. Caldovic).

1) Format: 11 face to face lectures and discussion and student projects. This course uses texts and cases from Steneck, NIH Office of Research Integrity website, Macrina Scientific Integrity 4th edition and Bulger, Bioethics.
2) Subject matter: the ethics of biomedical investigation and principles behind the use of animals in research, research misconduct, human/clinical experimentation, data acquisition and management, stem cell research, responsible authorship and publication, peer review, mentoring, conflicts of interest and commitment, collaborative relationship.
3) Faculty participation: NIH funded and training faculty facilitate lectures and small group discussion, with administrator subject matter experts as appropriate. In 2019, faculty facilitators included P. Marvar, R. Cruz, J. Triplett, D. Mendelowitz, of which R. Cruz is the training faculty of this T32.
4) Duration of instruction: The graduate course occurs with 11 hours over a semester
5) Frequency: Instruction occurs once during each educational stage, and is augmented with refresher lectures.
6) Compliance. Participation is confirmed by class registrations with Institute of Biomedical Sciences, and is documented in all lectures by a sign-in sheet and head-count. If students are >10 minutes late, they are considered absent.
RCR—add your refresher activities

Continuing Education in Responsible Conduct of Research occurs after the first year, and involves a combination of ongoing lectures and refreshers: Investigators and trainees are encouraged to participate in laboratory interactions and university workshops as part of their ongoing training, and to document attendance in the RCR documentation form. In addition, PIs are encouraged to use best practices in their research groups (Antes PLOS One 2019). GW libraries host ongoing workshops in related issues, such as data management, cloud computing, data wrangling and processing. Additional lectures are listed in the OVPR Research Updates, and are used as refreshers. Recent lectures included “RCR workshop on data management, data sharing and data in research March 26 2019; Spring regulatory updated and hot topics in clinical research DC CTSA consortium April 29 2019; Data ownership during career transition May 9 2019.

The RCR template can be “copied”—it’s institutional infrastructure and won’t be plagiarism, but do personalize to your application!
Plan for Instruction in Rigor and Reproducibility

Update template with workshops at Gelman, professional societies, etc.

PLAN FOR INSTRUCTION IN METHODS FOR ENHANCING REPRODUCIBILITY

Closely mentored research projects form the center of the IBS PhD program. A key goal for all trainees is to learn to design and conduct research on significant biomedical problems. All trainees engage in a primary research project with regular interactions with the research mentor and advisory committees including basic/clinical mentors. The research project forms the main venue for trainees to think through research problems with increasing independence. Progress of trainees is ensured through regular advisory committee meetings and twice-annual evaluations by the IBS.

In June 2014, NIH leadership convened a working group including the Nature Publishing Group and Science to broadly examine the issue of promoting reproducibility and rigor in the conduct of research. Briefly, the NIH summarizes these in four domains:

- Rigor of the prior research: careful, systematic, and unbiased evaluation of the work of oneself and others to fully justify the direction of further investigation
- Scientific rigor of design: the unbiased application of transparent methodology, analyses, interpretation and reporting of results
- Rigorous assessment of biological variables: consistent accounting for of the differences within populations including age, gender, race, ethnicity, genetics, environment, and socioeconomic status
- Authentication of tools: rigorous identification and validation of resources including reagents for laboratory, cell lines, animal models, and biologic therapeutics.

Experimental design, sample size and rigor and reproducibility form essential parts of research and are interwoven in all research training activities. All IBS PhD students receive an introduction to these principles in core courses including Scientific Writing and Speaking, Ethics and Grantsmanship, the rotation report written and oral presentations, and elective Writing the qualifier and fellowship formal courses.
Budget

PA-21-051 Parent F31
“Award budgets are composed of stipends, tuition and fees, and institutional allowance”

NOT-OD-21-049 Notice Budgetary Levels FY 2021

<table>
<thead>
<tr>
<th>Career Level</th>
<th>Years of Experience</th>
<th>Stipend for FY 2021</th>
<th>Less than IBS</th>
<th>Total DS</th>
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<td>Predoctoral</td>
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*Postdoctoral Trainees and Fellows:* For institutional training grants, (T32, T90, TL1) and individual fellowships, the fellowship level is determined by the number of full years of relevant postdoctoral experience when the award is issued. Relevant experience includes assistantship, internship, residency, clinical duties, or other time spent in a health-related field beyond the Ph.D. level. Once the fellowship level has been determined, the trainee or fellow must be paid at that level for the entire grant year. This establishes the stipend structure and does not change mid-year.

<table>
<thead>
<tr>
<th>Career Level</th>
<th>Years of Experience</th>
<th>Stipend for FY 2021</th>
<th>Less than IBS</th>
<th>Total DS</th>
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F31 Budget (one year)

Stipend  $25,836

Tuition
  60% up to $16,000 cap
  CCAS, student accounts,
  $1765 per credit
  year 3: 6+6 ($21,180) $16,000

Institutional Allowance (incl health insurance, 8%)
  Predoc $4,200 $4,200
  Postdoc $11,850
Consider Diversity Supplement to mentor’s NIH Grant

Typically grant has 2 years remaining to request a supplement for grad student or fellow. Salary, tuition, research up to a cap (NRSA postdoc year 1) full IDC

A candidate cannot be supported by a supplement if s/he is already paid on the grant! Students and mentors must plan ahead for supplement

From the candidate:
• Biosketch
• Candidate statement/Career goals

From faculty:
• Biosketch
• Research Plan in scope PI aims
• Training Plan
• Research environment
• Budget and Justification
• IRB/IACUC
• Eligibility Statement

See SMHS Research—Research Workforce for instructions, talk to me