Improved processes for intern and fellow selection

To eliminate potential conflicts of interest and mitigate any power imbalances in the selection of interns and fellows, the Academic Programs Office implemented a new set of guidelines for the award processes based on recommendations from the STRI Scientific Council.and the Anti-harassment Task Team.

- External reviews will be required for all fellowship proposals.
- Mentors will no longer participate on fellowship or internship review committees for their own mentees.
- STRI will improve the diversity of committees for the short-term fellowship and internship selection.
- These changes aim to provide a framework that is adaptable and can be further improved with minor changes.
- Annual training to prevent implicit bias is now required for all staff scientists and members of the Academic Programs Office.
- All staff will be required to receive training to recognize potential conflict of interest and bias.

Content:

Selection process for the Smithsonian Institution Predoctoral and Postdoctoral Fellowships, the STRI Earl S. Tupper three-year postdoctoral fellowship; the Coates Fellowship; and the D. Ross Robertson fellowships for field research on neotropical shore-fishes.

1) **Initial competitive / non competitive vote**
   a) Each proposal will be thoroughly reviewed by at least 3 reviewers, including:
      i) The main advisor, a STRI staff scientist (**required** for the proposal to remain in future stages of review)
      ii) A co-advisor who is a STRI staff scientist (current or emeritus) or is a STRI Research Associate.
      iii) At least one, preferably two, independent reviewers (e.g. reviewers who will not be involved in the research) who have expertise in the area of the proposal
         - The reviewing pool will typically include staff scientists, emeritus scientists, STRI research associates or former postdocs and outside colleagues where appropriate.
         - The spouse or de-facto partner of a main advisor is not considered an independent reviewer and also cannot serve as co-advisor to a proposal.

- Applicants will recommend 3 potential reviewers on their application to assist Academic Programs in identifying independent reviewers. Former advisors (e.g. PhD advisor or committee members, postdoc advisors) of an applicant are not considered independent reviewers although they may write letters of recommendation.
- Applicants may identify members of the STRI community who they would like to exclude as reviewers.
- Academic Programs, in consultation with the Scientific Council, will identify a proposed list of reviewers for each proposal. Members of the Scientific Council who are themselves Main Advisors or Co-Advisors of an applicant will recuse themselves from discussion of potential independent reviewers for that applicant.
- Academic Programs will circulate the proposed reviewers to the nominated main advisors, who may recommend alternatives if s/he believes that the nominated independent reviewers will not afford the candidate a suitably fair hearing. A justification of the need for an alternate reviewer must also be provided to Academic Programs.

b) Reviews of all proposals (both competitive and noncompetitive) must be uploaded to SOLAA by the deadline provided by Academic Programs
   i) All fields in SOLAA must be completed and all rankings must be justified
   ii) In the "Comments/Feedback" section, all reviews must include:
   - A statement describing any assistance given to the applicant in preparing the proposal.
   - A statement regarding whether or not the reviewer anticipates being a collaborator on the research, contributing funding or technician support to the research.
   - A statement describing any conflict of interest. Any previous collaboration with the applicant, including publications, grant proposals or funding, and mentorship.
   - A self-evaluation of the reviewer's expertise and how well they feel they can evaluate the proposal (e.g., high level of expertise in all areas of the proposal, or just part – such as familiarity with the study organism or a particular technique employed).

c) Any other current or emeritus staff scientist may choose to upload additional written comments to SOLAA on any proposal at any time during the review process. These comments will be treated as extra reviews and will be available to the rest of the staff.

d) In order for a proposal to move forward, **the main advisor and at least one of the independent reviewers must rate it competitive (score of 4 or 5)**.
   i) If the main advisor rates a proposal non-competitive but the co-advisor and at least one independent reviewer deems it competitive, the main advisor will be asked to justify their rating
   ii) Similarly, if the main advisor rates a proposal competitive but the co-advisor does not, the co-advisor will be asked to justify their rating

e) All reviews will be anonymized and provided to the applicant, upon request.

f) Academic Programs will present the scientific staff with the complete list of competitive proposals that will be evaluated in Round 2.

g) Main advisors may petition Academic Programs to have a proposal included in the final round if they feel strongly that a proposal merits consideration even if it did not receive two "competitive" votes. A statement of why the proposal merits further consideration must be included.

2) Selection of finalists

a) All staff scientists will participate in review groups to evaluate the proposals ranked as competitive in Round 1. If needed, Research Associates, emeritus scientists, staff members from other SI units, and former postdoctoral fellows can be included in the review groups to increase the breadth of expertise.

b) Equal numbers of proposals will be randomly assigned to each review group by Academic Programs. For SI and Tupper/Coates fellowships, there will be three or four groups, depending on the number of proposals received.
   i) Tupper/Coates fellowship applications will be evaluated together

c) Academic Programs, in collaboration with the Scientific Council, will assign each staff member to a review group and will balance the diversity of scientific expertise in each group, to the extent possible.
   i) Main advisors, or other staff members with a conflict of interest, will be included in review groups in which they do not serve as the main advisor to any proposals.
   ii) In cases where conflicts of interest cannot be eliminated through group assignments, group members with conflicts will step out during the discussion of any proposals where they have a conflict of interest
   iii) For the Robertson fellowship, the committee(s) will include staff from both NMNH and STRI, as per the terms of the endowment.

d) All review groups will meet at a designated date and time that will be announced, and a calendar invitation sent out, at least six months prior to the meeting date.

e) Academic Programs will assign a committee chair to each group at least two weeks before the group meetings. The chair will have procedural responsibilities and will ensure that all proposals are given equal consideration.
   i) The committee chair will assign 1-2 proposals to each committee member for which they will lead the discussion. The focus of the discussion should be strengths and weaknesses of the proposals.

f) Prior to review group meetings, advisors may add additional comments to SOLAA to respond to comments by other reviewers or provide more background information.

g) Staff will read the subset of proposals assigned to their review group prior to the group meeting.

h) Review groups will meet in-person and discuss each proposal assigned to their group. After review of all proposals, committee members will vote by anonymous ballot and provide ranks of the top 3 proposals (scores 3-2-1, with all other proposals receiving a score of 0). These rankings will be compiled by the committee chair, reviewed by the group, and all proposals will be assigned to one

of three categories: Top priority for funding, fund if possible, not a priority for funding.
  i) A rubric using a set of defined categories (see sample rubric below) may be used at this stage to assist in the ranking process.
i) For SI proposals, a maximum of three proposals may be advanced by each review group as "top priority for funding".
  i) Proposals included in the "Fund if possible" category should be ranked based on the votes they received. Proposals with top rankings in this group are considered alternates that may be evaluated in the final round of fellowship review if three proposals are not advanced by all review groups
j) As panel review of Tupper and Coates fellowship applications will happen in concert, two proposals may be advanced by each review group as "top priority for funding".
  i) Proposals included in the "Fund if possible" category should be ranked based on the votes they received. Proposals with top rankings in this group are considered alternates that may be evaluated in the final round of fellowship review if two proposals are not advanced by all review groups.
k) A short panel summary, including the elements highlighted in the review rubric (see below), will be prepared for all proposals. Staff members who lead the discussion of each proposal will prepare these summaries which will be based on the group discussion of each proposal. Panel chairs will collate all panel summaries.
l) Panel summaries and rankings of all proposals will be forwarded to Academic Programs who will share them with members of the committee participating in the final awards meeting.

3) Awarding of Fellowships – SI Fellowships

a) A final committee of at least **five** staff scientists and one external member will be appointed by the STRI Director in consultation with Academic Programs and the Scientific Council.
b) This committee will be newly selected each Fellowship cycle and, in general, people who serve in one year will be excluded from serving the following year (unless this is necessary to ensure sufficient disciplinary representation, while avoiding conflicts of interest).
c) A representative from Academic Programs will serve as committee chair and will have procedural responsibilities, including ensuring that all proposals are given equal consideration.
d) Staff scientists who serve as advisors for one of the finalists, or who have some other strong conflict of interest with one of the finalists, will be excluded from serving on this committee.
e) Committee members will read all proposals that advance to the final round and will meet in person to discuss them in depth. Panel summaries from the previous round of reviews will be provided to committee members in advance of the meeting and will serve as the starting point of discussions.
f) The mandate of this committee is to rank proposals into three categories - must fund, fund if funds are available, or do not fund.

g) Awards will be made from the group of top ranked proposals. The number of awards will be subject to availability of funds but may also take into account institutional goals for balancing diversity of research topics, diversity of fellowship recipients, and equitable distribution of resources to staff members.

h) Academic Programs will notify all applicants of the award results and provide each applicant with the panel summary for their proposal as feedback. Anonymized reviews of proposals will also be provided upon request.

Awarding of STRI Fellowships
3-year Tupper Postdoctoral and Coates Fellowships

a) All finalists selected in Round 2 will be invited to give a brief virtual talk to staff scientists (15-20 min) presenting aspects of their proposed project that were not covered in their application
- Talks should be coordinated so they all occur on the same day, if possible
- Candidates should be given the opportunity to present in the language of their choice. If not presented in English, simultaneous translation should be provided

b) All staff scientists may participate and there will be 30 minutes for questions and discussion following the applicant's talk.
- An applicant's advisor may ask questions but will not be permitted to help defend the proposal

c) Awards will be decided on by voting. All staff scientists who attend the talks may vote via anonymous ballot (provided they wrote any reviews requested in Round 1 and participated on a review panel in Round 2), using the same final ranking and score tallying protocol under the current system.
- The proposals receiving the highest numbers of votes will be awarded a fellowship (one Tupper and one Coates award per year)

d) Academic Programs will notify all applicants of the award results and provide each applicant with the panel summary for their proposal as feedback. Anonymized reviews of proposals will also be provided upon request.

D. Ross Robertson fellowships for field research on neotropical shore-fishes

In 2022, the Robertson Fellowship will be a 3-month predoctoral fellowship. We recommend that applications are reviewed using the below guidelines for Short Term Fellowships, with the exception that the review committee include members of both the STRI and NMNH staff scientist communities, as per the terms of the endowment.

Moving forward, when the endowment is able to support a three year postdoc, we recommend that applications are reviewed as described above for Tupper/Coates fellowships, with the following differences:

Round 2: Selection of finalists
a) Review groups will include staff scientists from both STRI and NMNH, as per the terms of the endowment
b) The number of review groups will depend on the number of applications received.
c) If the number of proposals received for the Robertson fellowship in a given year warrants only one review committee, this committee may make the final recommendation for awarding of funds
    (1) In this case, awards will be decided on by voting. Committee members will vote via anonymous ballot using the same final ranking and score tallying protocol under the current system. The proposal receiving the highest numbers of votes will be awarded the fellowship

d) If there are multiple review committees, each one may advance two proposals as "top priority for funding".

e) Proposals included in the "Fund if possible" category should be ranked based on the votes they received.

(1) Proposals with top rankings in this group are considered alternates that may be evaluated in the final round of fellowship review if two proposals are not advanced by all review groups.

Round 3: Awards will be made according to the guidelines for Awarding of Fellowships – SI Fellowships. The final committee should include at least five staff scientists from STRI and NMNH and one external committee member.

Staff participation:

1) **Initial Written Review (Round 1)**: All current staff scientists, emeritus staff, research associates, and former postdocs can be called upon to review (emeritus staff, research associates and former postdocs may decline to review). Staff from other SI units and outside experts may be included, if needed.
   a) A primary advisor and co-advisor should be designated by the applicant. Two independent reviewers will be assigned to each proposal through Academic Programs.
   b) If a reviewer fails to submit their review by the deadline that is given to them, they will not be allowed to participate in subsequent rounds of deliberations or voting.
      i) New reviewers will be assigned by Academic Programs as needed when reviews are not submitted by the deadline. These reviewers will be given two weeks to complete their reviews.
   c) If the main advisor of a proposal does not submit a review, Academic Programs will contact the applicant and assist them with finding a new advisor.

2) **Selection of Finalists (Round 2)**: All current staff scientists will participate in one of the review panels to choose proposals that will advance to the final round of consideration. Research associates, former postdocs, and emeritus staff may also be included in the panels (provided they did not decline to review or neglect to write a review requested in Round 1).

3) **Final decision (Round 3)**:
   SI Fellowships: A committee of at least **five** members will be formed from current staff scientists who are not primary advisors (or do not have other major conflict of interest) on proposals that have advanced to the final round. RAs and emeritus scientists may also be asked to serve on the committee as external members, as needed.
   Tupper and Coates fellowships: All staff scientists should participate and vote (provided they wrote any reviews requested in Round 1 and participated in Round 2).
   Robertson Fellowship: A committee of at least **five** members will be formed from STRI and NMNH staff who are not primary advisors (or do not have other major conflict of interest) on proposals that have advanced to the final round. RAs and emeritus scientists may also be asked to serve on the committee as external members, as needed.

Review Rubric (many questions adapted from SOLAA):
1) Who is the candidate? Comment on:
   a. The quality of the applicant's training, qualifications, and publication record (in the context of their academic level)
   b. Potential for the applicant to become a future leader in their chosen field
   c. Demographics – is the candidate from an under-represented community?
   d. The candidate's diversity statement - any circumstances that may have influenced the applicant's training and opportunities

     e. Has the applicant worked at STRI previously (e.g. intern, predoc, postdoc)? If so, which staff scientist(s) were they affiliated with?

2) Research quality and vision
     a. Is the topic innovative or original?
     b. Is the proposed work well-defined and clearly justified?
     c. What will be the significance of the work to its field?

3) Methodology
     a. Is there a hypothesis/research question? If not, is the work exploratory (e.g. taxonomy)?
     b. Do the methods address the hypothesis/research question?

4) Project Feasibility
     a. Can the project be completed in the proposed time frame?
     b. Is the budget adequate and well justified?
     c. Will additional funds be needed to complete the project? If so, where will these funds come from?

5) Evidence of support from advisors and collaborators
     a. Are there any problems with availability of space, facilities, equipment and/or other resources needed for the project or proposed research during the requested dates of tenure?
     b. Will the advisor provide funding to support the research?

6) Potential benefits to STRI. Such as:
     a. New expertise
     b. New collaborative opportunities
     c. New technologies

7) Overall ranking: _____
     5 = Excellent, 4 = Very Good, 3 = Good, 2 = Fair, 1 = Poor. 0 = Unsuitable

8) Additional general comments from the advisor/reviewer, including:
     a. A statement describing any assistance given to the applicant in preparing the proposal.
     b. A statement regarding whether or not the reviewer anticipates being a collaborator on the research, contributing funding or technician support to the research, and/or describing any other conflict of interest
          i. Any previous collaboration with the applicant, including publications, grant proposals or funding, and mentorship, should also be detailed
     c. A self-evaluation of the reviewer's expertise and how well they feel they can evaluate the proposal (e.g., high level of expertise in all areas of the proposal, or just part – such as familiarity with the study organism or a particular technique employed).

Short Term Fellowships

Academic Programs will request staff scientist participation in review committees as needed, subject to the constraints outlined below, and will provide the Director's Office with a record of staff participation in fellowship review at the end of each fiscal year. This record should also include the list of staff scientists who were ineligible to serve on these committees (e.g. because they served as advisors in a given round).

Short term fellowship applications may be submitted in either English or Spanish.

Short Term Fellowship (STF) review:

1) Main advisors and co-advisors will be assigned to each proposal by Academic Programs
   a) Main advisors must be current STRI scientific staff and should be requested by the applicant
   b) If no co-advisor is indicated in the application, Academic Programs will assign a co-advisor to each applicant
   c) The spouse or de-facto partner of a main advisor cannot serve as co-advisor to a proposal.
   d) Applicants may identify members of the STRI community that they would like to have excluded from consideration as an advisor of co-advisor.
2) Main advisors and co-advisors will write reviews and submit them to SOLAA
   a) If an advisor has multiple applicants, they should rank each one and provide a justification for this ranking
3) Academic Programs will form review committees
   a) All staff scientists may be asked to participate in these committees. If needed, Research Associates, emeritus scientists, staff members from other SI units, and postdoctoral fellows can be included in the review committees to increase the breadth of expertise.
   b) Main advisors, or other staff members with a conflict of interest, should not be included on the review committee for that cycle of STF review
      i) In cases where conflicts of interest cannot be avoided, co-advisors or other committee members with conflicts will step out during the discussion of any proposals where they have a conflict of interest
4) Committee meetings will be chaired by a member of Academic Programs who will ensure equal time for discussion of each proposal
5) After discussion of all proposals, proposals that have received high rankings from their advisors and favorable discussion from the committee will be considered as priorities for funding.   Committee members will submit anonymous rankings of all proposals in this category to assist with award decisions, using the same final ranking and score tallying protocol under the current system.
   a) Awards may be subject to availability of funds

Internships

Academic Programs will request staff scientist participation in review committees as needed, subject to the constraints outlined below, and will provide the Director's Office with a record of staff participation in fellowship review at the end of each fiscal year. This record should also include the list of staff scientists who were ineligible to serve on these committees (e.g. because they served as advisors in a given round).

Internship review guidelines:

1) Scientific staff members who wish to host interns, must develop an internship project proposal that they will submit to Academic Programs at least 3 months before the application deadline
   a. Intern project descriptions should be written using the standardized template from Academic Programs
   b. Academic Programs will post all project descriptions on the STRI webpage in English and Spanish so that candidates can view all available projects and submit their applications
2) Primary mentors must be current STRI scientific staff
   a. Secondary mentors may be Research Associates or postdocs
   b. The spouse or de-facto partner of a primary mentor cannot serve as co-mentor to a project.
   c. Doctoral students may not serve as mentors or co-mentors to a project
3) Applications may be submitted in either English or Spanish
4) Applicants may apply to two projects but should indicate their top choice
5) Mentors and co-mentors will review all applicants to their project and submit their comments to SOLAA
   a. Comments should include a mentoring plan and should also include specific goals and learning objectives for individual applicants
   b. In cases where a project receives multiple applications, mentors may contact the applicants and arrange for a virtual meeting to discuss the opportunity and better understand the applicant's interests prior to submitting their review
   c. When multiple applications are received, the mentors should rank their applicants and provide justification for these rankings
   d. Up to two applicants per project may be advanced for consideration for an intern award by the review committee.
   e. The lack of comments uploaded to SOLAA from the primary mentor will be considered a lack of support for the applicant
6) Applicants holding PhDs are not eligible for SI-funded internships and should be encouraged to apply for other SI/STRI fellowship opportunities
7) Academic Programs will form review committees
   a. All scientific staff may be asked to participate in these committees. If needed, lab managers, Research Associates, emeritus scientists, staff members from other SI units, and postdoctoral fellows can be included in the review committees to increase the breadth of expertise.
   b. Mentors, or other staff members with a conflict of interest, should not be included on the review committee for that cycle of intern review

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       i. In cases where conflicts of interest cannot be avoided, co-mentors or other committee members with conflicts will step out during the discussion of any proposals where they have a conflict of interest

8) Applications will be discussed, while considering the following factors:
   a. Good match between the project and the candidate's interests
   b. Opportunity for career advancement for the applicant
   c. Novel opportunities for applicants that haven't had previous research opportunities
   d. Diversity in the STRI intern community
   e. Availability of other financial resources to extend the internship (e.g. funding obtained from their school, additional months of support from the mentor)
   f. Completeness of the application.
      i. While letters of recommendation are a required component of the application, less weight should be put on the information provided in these letters as the type of information provided by recommenders can be highly variable

9) Only one intern may be awarded for each project.
   a. If a mentor has multiple projects, they may be awarded one intern per project

10) Committee meetings will be chaired by a member of Academic Programs who will ensure equal time for discussion of each applicant

11) After discussion of all applicants, those that have received high rankings from their mentors and favorable discussion from the committee will be considered as priorities for funding.