



# FASEB

Federation of American Societies  
for Experimental Biology

## Representing Over 110,000 Researchers

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### **FASEB comments in response to [NOT-OD-23-110](#), “Request for Information (RFI) on Recommendations for Improving NRSA Fellowship Review”**

Comments submitted electronically via online [submission form](#) on June 2, 2023.

*Please provide your comments on the proposed changes to NRSA fellowship review criteria.*

Federation of American Societies for Experimental Biology (FASEB), representing over 110,000 individual biological and biomedical researchers, is grateful for Center for Scientific Review’s (CSR’s) evaluation of the Ruth L. Kirschstein National Research Service Award (NRSA) review criteria. Established in [fall 2021](#), CSR’s Advisory Council [Fellowship Review Working Group](#) has reviewed pertinent data and crafted thoughtful recommendations. Overall, FASEB is very supportive of the proposed changes to the NRSA review criteria that aim to identify the most promising trainees with excellent, individualized training plans.

Proposed changes to the review criteria place emphasis on trainees’ accomplishments and aptitude, strength of the science, and supportive environment. FASEB appreciates efforts to reduce bias from outside factors. As [previously noted](#), we strongly agree with removing Institutional Environment and Commitment to Training as its own criterion—instead incorporating key aspects of the environment into the proposed Science and Scientific Resources and Training Plan and Training Resources criteria. Centering the trainee, training plan, and science over the reputation of the university is a substantial step toward reduced institutional bias.

Although FASEB was unable to reach consensus on removing the Sponsors, Collaborators, and Consultants section as an individually scored criterion, the importance of quality of training in the proposed criteria is critical. [Data](#) indicate that applications with assistant professors, both as individual sponsors and teams of sponsors, may suffer simply from the academic rank of the sponsor(s). However, FASEB maintains that quality of mentorship does not necessarily correlate with length of time as a Principal Investigator (PI) or number of trainees previously in the lab. The proposed Training Plan and Training Resources criterion includes evaluation of the training plan being specifically linked to the individual applicant, availability of training resources, the sponsor’s pedagogical plan that is appropriate for the goals of the applicant, and the sponsors’ philosophy and approach to training. Review of these factors will hopefully significantly reduce and eventually eliminate bias against applications with junior investigator sponsors, as all sponsors will be required to articulate their commitment to evidence-informed mentoring practices.

Through recent CSR Advisory Council meetings, FASEB has eagerly observed the Fellowship Review Working Group’s evolution of suggesting “the delta”—how much difference the fellowship would make for the applicant—be included in review. Current proposed criteria instead emphasize that reviewers consider the context of the applicants’ stage in training and the scientific opportunities they have had. FASEB applauds this strategy, as it may give more agency to applicants from diverse

backgrounds to speak to their relevant knowledge and experiences beyond a laboratory setting. However, echoing [prior comments](#), contextualizing applicants' experience is a highly subjective process. Great care will need to be taken to avoid further bias infiltrating the fellowship review process.

The proposed main review criteria, affecting the overall impact score, have been thoughtfully constructed to focus on the potential of the applicant, strength of the science, and quality of the training plan. FASEB supports these updates, and hopes to see meaningful changes in applicant and awardee data in the future—demonstrating the effectiveness of these changes with awards made to a broader pool of applicants with diverse backgrounds and less undue influence of the presumed sponsor and institution prestige.

***Please provide your comments on the proposed changes to the NRSA application instructions and materials.***

FASEB thanks the Fellowship Review Working Group for its carefully revised applicant materials. We are grateful for attention paid to the reference letters since the September 2022 CSR Advisory Council meeting [update](#), yet some [prior concerns](#) persist. Specifically, the instructions still imply all referees should be familiar with the applicant in a scientific setting. As previously noted, students from disadvantaged backgrounds who had work, caregiving responsibilities, or other commitments during their undergraduate degree may not have yet identified additional scientific mentors beyond their current research advisor. However, with clear instructions, applicants may be able to identify referees who oversaw their efforts in the context available to them (e.g., academic advisor, manager, professional society leader, community leader). These referees can address applicants' determination, creativity, and persistence—all qualities identified as valuable in the proposed review criteria. If a primary goal of these revisions is to improve award chances of all qualified applicants, reference letters from those outside a scientific context should be explicitly accepted.

Additional details describing applicant statements in the Fellowship Supplement are beneficial; however, the statement of professional and fellowship goals still highlights precise career goals. As [previously described](#), FASEB recommends emphasizing career exploration over a specific career path. Few trainees are certain of career goals until later in their degree timeline, and desired career path also frequently changes over time. Applicants must be assured the career goals question does not need to be a definite path, and reviewers need to honor their room for growth in desired career. Expanding to a less singular focus on a career path also makes space for the applicant to indicate crafting a mentor network, developing transferable skills, and making use of institutional resources to help inform their future career choices.

As noted, FASEB is thankful for the attention paid to quality of mentorship in the proposed revisions. The Training Plan, Environment, and Research Facilities sponsor/co-sponsor statement stresses crucial aspects of fostering and maintaining a training environment where the applicant will grow and thrive. Prompts for response requested in the proposed statement will require PIs to carefully consider each applicants' training goals and craft a tailored plan to support their trainee. Additionally, the previous recommendation from the Fellowship Review Working Group of a sponsor statement on PIs' prior fellows and trainees appears to have been eliminated from this section. FASEB had [previously expressed](#) unease about this statement, as it may have disadvantaged applicants with early stage investigator sponsors, and are therefore grateful for this update. The proposed sponsor and co-sponsor sections appropriately concentrate on how the sponsor(s) and environment will support the applicants' scientific and professional growth.

Most of our previously expressed worries centered on how the applicants, sponsors, and reviewers will interpret the new instructions and review criteria. Widespread communication with the extramural community and reviewer training will be critical. Many issues we raised in the past have been addressed, though one key area of concern remains. The applicant self-assessment and the sponsor reflection on the trainee's areas for growth still leave much room for interpretation, and potentially gamification, of the requested statements. Applicants are asked to describe two to four characteristics that will contribute to their success as a scientist, and two to four areas of growth as a scientist. Sponsors are asked to write about two to four characteristics of the applicant that speak to their potential to have a productive scientific career, and their most important areas for growth with respect to the applicant's scientific skill set. The desired outcome is unclear: does CSR and the Fellowship Review Working Group wish to see one-to-one alignment between the applicant's self-assessment and the sponsor's reflections on the applicant's areas of strength and growth—indicating the mentor and mentee discussed what each would write, or is each party to complete this on their own without influence from the other? Without clarity, reviewers may punish applicants for either scenario—too close alignment from the applicant and sponsor, or not enough congruency between the two statements. Expectations of similarity between these applicant and sponsor statements requires further explicit instruction, as it will likely not be obvious how these statements should or should not resemble each other.

As implementation begins, the importance of communication and training to all cannot be overstated. We look forward to future evaluations on whether these changes resulted in the desired broadening pool of applicants and awardees.