



CALL FOR PROPOSALS IN A JOINT NSF-BSF PROGRAM IN ECOLOGY AND THE EVOLUTION OF INFECTIOUS DISEASES (EEID)

The U.S. – Israel Binational Science Foundation (BSF) is accepting applications in joint funding programs in Ecology and Evolution of Infectious Disease (EEID), with the Environmental Biology Division (DEB), in the Biological Science Directorate (BIO) of the U.S. National Science Foundation (NSF), and in cooperation with other agencies.

The terms of this program are as follows:

General:

- 1. This NSF-BSF program is not a “special” program with the NSF setting aside money for potential grants. Rather, it is an integral part of the regular NSF programs in this discipline, with no “special” funds. Clear understanding of it by the U.S. partner is essential before embarking on proposal writing.**

Synopsis of the Program:

- 2. The Ecology and Evolution of Infectious Diseases program supports research on the ecological, evolutionary, and socio-ecological principles and processes that influence the transmission dynamics of infectious diseases. The central theme of submitted projects must be quantitative or computational understanding of pathogen transmission dynamics. The intent is discovery of principles of infectious disease transmission and testing mathematical or computational models that elucidate infectious disease systems. Projects should be broad, interdisciplinary efforts that go beyond the scope of typical studies. They should focus on the determinants and interactions of transmission among humans, non-human animals, and/or plants. This includes, for example, the spread of pathogens; the influence of environmental factors such as climate; the population dynamics and genetics of reservoir species or hosts; the cultural, social, behavioral, and economic dimensions of disease transmission. Research may be on zoonotic, environmentally-borne, vector-borne, or enteric diseases of either terrestrial or freshwater systems and organisms, including diseases of animals and plants, at any scale from specific pathogens to inclusive environmental systems. Proposals for research on disease systems of public health concern to developing countries are strongly encouraged, as are disease systems of concern in agricultural systems. Investigators are encouraged to develop the appropriate multidisciplinary team, including for example, modelers, bioinformaticians, genomics**



researchers, social scientists, economists, epidemiologists, entomologists, parasitologists, microbiologists, bacteriologists, virologists, pathologists or veterinarians, with the goal of integrating knowledge across disciplines to enhance our ability to predict and control infectious diseases.

For a full program description please read the NSF solicitation here:

https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5269

Regardless of the system or approach taken, a proposal must have a significant focus on the ecology of disease transmission to be eligible for funding.

The EEID program is not intended to be the only avenue of support by the participating agencies for supporting research on infectious diseases. Specifically, proposals submitted in response to this announcement must address ecological dynamics and among-host transmission, even when evolutionary studies are a substantive part of the proposal. Investigations that are outside the scope of this EEID announcement include:

- those limited solely to genetic patterns of evolutionary change (e.g., comparative genomics),
- those that focus solely on human diseases without considering the broader ecological context,
- those that focus solely on within-host biological processes,
- those that focus solely on vector species ecology, and
- those that have not pre-identified at least one pathogenic organism that will be the focus of the study (i.e., metagenomic surveys to identify the pathogenic organism are not included in this solicitation).

Projects focusing on **marine systems are no longer accepted**, except for those dealing with aquacultural systems within the purview of the USDA-National Institute of Food and Agriculture.

3. Prior to submission, the U.S. applicant should contact the appropriate NSF program manager to discuss the research focus of his international project.

4. Applications are to be submitted to the NSF according to its submission regulation, even if the application may eventually be chosen for a grant by the NIH or USDA. See the NSF solicitation for further details on the joint review process.



5. Applications must be submitted jointly by an Israeli, and an U.S. scientist from a U.S. research institution.
6. The NSF accepts applications only from U.S. scientists. Submission to the NSF should be made by the U.S. PI alone, but he has to note in the cover page that it is an “NSF-BSF Application” (the Israeli does not appear as a formal co-PI on the application). In the U.S.-Israeli applications, the role of the Israeli partner(s) must be described. Furthermore, it should be clearly explained why the contribution of the Israeli PI to the research project is important/essential.
7. If awarded a grant, the U.S. scientist will receive a grant from the NSF, while the Israeli scientist will receive a grant from the BSF.
8. The size of the BSF grant to the Israeli is expected to be up to 80,000\$/year for experimental programs and up to \$55,000/year for theoretical or computer based research program, **subject to the availability of funds**. If more than a single Israeli group is involved in the research, the budget may be increased by up to 50%.
9. BSF will follow the decision by the U.S. funding agency regarding the length of the project.
10. The program will use a single submission process, without a pre-proposal stage.
11. The program is expected to be held annually.
12. We have put together a short presentation with tips for Israeli PIs who are interested in submitting an NSF-BSF proposal. We advise that you read it carefully before starting to look for a partner. You can download it [here](#)

Eligibility

1. All inquiries regarding the eligibility of the research topic must be made by the U.S. PIs to the program directors at NSF. BSF will not respond to any query regarding topic eligibility.
2. All regulations regarding eligibility of the BSF (for the Israeli PI) or the NSF (for the U.S. PI) will apply to this program.



3. **Each Israeli scientist is allowed to submit up to two applications/year, if at least one of them is to any of the NSF-BSF programs that have no deadline.**
4. Israelis with active grants are allowed to submit an additional application **to any of the NSF-BSF programs with no deadline** (they don't have to wait for the last year of their grant before submitting).
5. Israeli scientists will be allowed to submit both to an NSF-BSF program and the regular BSF program, including similar applications. In the event that they are awarded a grant in both programs, they will be funded in both, unless the research application is mostly similar, in which case only their NSF-BSF program will be funded.
6. In case of similar NSF-BSF and regular BSF applications, in which the NSF evaluation was not completed by the time the regular BSF awards are made, the BSF will defer its decision regarding a possible grant to this application, until the NSF-BSF awards are announced.

Evaluation

1. Proposals will be evaluated by the NSF, using its criteria. The BSF will create a small screening panel to quickly examine the role of the Israelis in the applications, and ascertain that it is meaningful, and that they have the knowhow and facilities to perform their part in the research. This panel will also advise the BSF regarding the budget requests, but will not evaluate the scientific merit of the applications. However, Israelis may possibly take part in the NSF evaluation process as panel members and/or external reviewers.
2. BSF is likely to fund any Israeli whose partner in this program is funded by the NSF.
3. NSF uses a conventional peer review system with expert panels and ad-hoc (external) reviews for full proposals. However, unlike the practice in Israel, panel members serve in an advisory capacity, and final decisions lie with the program managers and their management. These post-panel officials may introduce additional considerations, such as whether the research topic already has support from the U.S. government, whether support from other NSF programs may be sought, etc.
4. Israeli applicants are advised that they should pay particular attention to the NSF evaluation criteria, http://nsf.gov/bfa/dias/policy/merit_review/, which may include issues such as broader impact, data management, etc. that are either missing in BSF and ISF applications, or have a greatly different meaning (particularly the term 'broader impact').



Failure to appropriately refer to such topics by the U.S. partner may be detrimental to the proposal, including its rejection without review.

Submission

Proposals will be submitted to the program twice:

The U.S. scientist (only) will submit to the NSF using its regulations (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg) and submission system (<https://www.fastlane.nsf.gov/>). **The US PI submission to the NSF MUST include the BIOGRAPHY (in the NSF format) and BUDGET (in the BSF format) of the Israeli partner as part of the auxiliary material.**

The Israeli scientist (only) will submit to the BSF, also providing the U.S. scientist information, according to its regulations and submission system: <http://www.bsf.org.il/ElectronicSubmission/GatewayFormsAndGuidelines.aspx?PageId=7&innerTextID=0>. The applicants must submit to the BSF a copy of the PDF of their NSF application, with the added required information.

Timetable

Full proposals should be submitted to the BSF no later than 5 pm (Israel time) on November 27, 2018. NSF deadline is November 21, 2018.

Applicants are requested to acquaint themselves with the BSF regulations before they submit an application. In particular, they should acquaint themselves with the special document that describes the changes in the submission process from the regular (core) BSF program. The forms and regulations can be downloaded from the BSF website (www.bsf.org.il) under 'Guidelines & Forms'.

Questions regarding the applicability of the proposed research for this program should be directed by the U.S. partner to the program officer at the NSF. BSF will not respond to such inquiries. Other questions regarding this special BSF-NSF program can be discussed with the BSF management by mail or phone (972-2-5828239): Dr. Rachel (Heni) Haring (heni@bsf.org.il; ext 110) or Ms. Yael Dressler (yael@bsf.org.il; ext. 103). Questions regarding the online application system should be directed to Ms. Orli Rozenchwajg (orli@bsf.org.il; ext .109).



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