Please note the following key dates:

Hudson River Research Grant Preproposals due:
Monday, November 5, 2018

Notification that a Hudson River Research Grant Full Proposal is requested:
Thursday, December 6, 2018

Hudson River Research Grant Full Proposals due:
Wednesday, January 16, 2019

Tibor T. Polgar Fellowship Applications due:
Monday, February 11, 2019

Mark B. Bain Graduate Fellowship Applications due:
Monday, March 11, 2019

HUDSON RIVER FOUNDATION

FOR SCIENCE AND ENVIRONMENTAL RESEARCH

Hudson River Fund: Call for Proposals

2019

17 Battery Place
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BOARD OF DIRECTORS

CONTENTS

THE HUDSON RIVER FUND 2019 CALL FOR PROPOSALS

The Hudson River Foundation's 2019 grant cycle of the Hudson River Fund for scientific and related public policy research is presented in this Call for Proposals to the Fund. The priorities for research grant awards are set forth in seven key interest areas:

- *Restoring the signature fisheries of the Hudson River to their full potential*
- *Restoring and improving habitats within the Hudson River Estuary*
- *Understanding the watershed (drainage basin) and its influence on the Hudson River*
- *Evaluating climate change impacts and implications*
- *Understanding human uses and interactions*
- *Understanding existing contaminants and contaminants of emerging concern*
- *Evaluating ecosystem services*

The particular significance of each of these areas to the mission and goals of the Foundation is elaborated below (pages 5–8), along with specific current research needs that have been identified for the Hudson River Fund.

THE HUDSON RIVER FOUNDATION

The Hudson River Foundation supports scientific and public policy research, education, and projects to enhance public access to the Hudson River. The Foundation was established in 1981 under the terms of an agreement among environmental groups, government regulatory agencies and utility companies seeking the constructive resolution of a long series of legal controversies concerning the environmental impacts of power plants on the Hudson River.

The Foundation's principal funding source is the **Hudson River Fund**, which was created in recognition of the critical need for an independent institution to sponsor scientific research programs that would contribute to the development of sound public policy concerning the River's ecological system. The Hudson River Fund was initially established with $12 million in 1982. Since then the Fund, which has more than tripled in value, has enabled the Foundation to award over 825 grants and fellowships totaling approximately $41 million to date.

In 2013 the US Environmental Protection Agency (EPA) selected the Foundation to manage the **New York-New Jersey Harbor & Estuary Program (HEP)** as part of the Foundation's overall mission and programs. One of 28 National Estuary Programs established under the 1987 federal Clean Water Act to identify, restore, and protect nationally significant estuaries of the United States, HEP has been an integral part of the Foundation's work for over 25 years. Working closely with EPA and HEP partners on many collaborative endeavors, the Foundation uses the goals and objectives contained in HEP's Comprehensive Conservation and Management Plan (CCMP) and Action Plans as a guide for identifying scientific research questions that will inform and support policy and management actions. The integration of HEP programs within the Foundation enhances the capacity of the Foundation to bring public and private stakeholders together to develop and implement actions that improve the health of the Hudson River Estuary.

THE HUDSON RIVER FUND

BACKGROUND

Under the terms of the Settlement Agreement that established it, the Hudson River Fund is dedicated to supporting

> *"scientific, ecological, and related public policy research on issues and matters of concern to the Hudson River, its tributaries and its drainage basin, with emphasis given, but not limited to, mitigating fishery impacts caused by power plants, providing information needed to manage the fishery resources of the Hudson River, understanding the factors related to the abundance and structure of fish populations, and gaining knowledge of the Hudson River ecosystem."*

The Hudson River Fund supports scientific research on all aspects of the Hudson River ecosystem, with emphasis on studies that bear on human uses of the system. Since utilization of fishery resources and other human uses have been dominant issues in the estuarine portion of the River (New York Harbor to the Troy Dam), the Foundation devotes particular attention to this part of the Hudson River ecosystem. However, the Foundation will consider proposals related to any part of the watershed or nearby coastal areas. Such areas are defined as those that either serve as seasonal habitats for biota of the Hudson River Estuary or influence the physical, chemical, or biological characteristics of the Estuary in other ways.

Although the central purpose of the Hudson River Fund is to sponsor research in the natural sciences and public policy, the Foundation also assists in the coordination of research concerning the Hudson River ecosystem and promotes efforts leading to improved management policies.

The Foundation seeks to advance understanding of the issues affecting the River by supporting the dissemination of information gained both through Foundation-funded research programs and through other sources. The Foundation sponsors workshops and conferences, bringing together authorities working within the Hudson River Valley and elsewhere to discuss scientific and public policy issues. Reports from these meetings give direction for further scientific work and improve the information used as a basis for public policy decisions.

THE ROLE OF THE FOUNDATION IN HUDSON RIVER SCIENCE: RESEARCH PRIORITIES FOR THE HUDSON RIVER FUND 2019 CALL FOR PROPOSALS

The Foundation seeks to elucidate the dynamic interactions among the physical, chemical, and biological processes that are important to the Hudson River ecosystem. In particular, the Foundation encourages research in areas that are both scientifically important and relevant to current or anticipated public policy and resource management issues affecting the River and its watershed. Recognizing that both basic and applied research are fundamental to the management of Hudson River resources, the Foundation places special emphasis on research that has clearly articulated significance for policy issues identified in the management programs described below and is conducted in the context of other ongoing research and monitoring in the River and its watershed.

Through the New York-New Jersey Harbor & Estuary Program (HEP) (http://www.harborestuary.org/pdf/HRF-ActionAgenda-draft-0517.pdf), as well as in its collaboration with other Hudson River and Harbor resource management programs, including the New York State Hudson River Estuary Program (http://www.dec.ny.gov/lands/4920.html), the Comprehensive Restoration Plan for the lower Estuary (http://www.harborestuary.org/watersweshare/), and the recently completed Hudson River Comprehensive Plan (http://www.thehudsonweshare.org), the Foundation regularly reviews the overall status of scientific understanding of the Hudson and identifies both broad areas of research and particular scientific questions that merit attention both immediately and over the next five to ten years. The Foundation continues to believe that funding a broad portfolio of projects, including basic research along with studies that address both immediate and emerging environmental policy issues, is important to, and eagerly sought by, both the research community and the government agencies with Hudson River management responsibilities.

The Foundation has identified **seven areas of interest** that require expanded scientific examination over the next several years. **These areas, highlighted below, formed the basis of the Foundation's two most recent grant cycles, and will continue to guide the program of the Foundation in its 2019 Hudson River Fund grants.** Specific elements of these areas, however, have been augmented and elaborated this year in light of updates to management program agendas and new scientific information generated since the Foundation's previous grant cycle.

In the 2019 cycle, the Foundation is seeking proposals for research in the following areas:

- ***Restoring the signature fisheries of the Hudson River to their full potential***. The status of the Hudson River's most important anadromous and catadromous fish species is mixed, with several (e.g., American shad, American eel and sturgeons) in marked decline in recent years. Better scientific information is necessary to understand the factors controlling the abundance of these fish and to apply this knowledge to their management. The Foundation is therefore interested in supporting research that will inform the conservation, protection and rebuilding of these stocks of fish. American shad was an important recreational and commercial Hudson River fishery throughout the 20th century. However, the stock has declined in recent years, and as a result, commercial and recreational fisheries for shad were closed in 2010. Since that time, there has been no evidence of significant recovery in the Hudson River stock of American shad. It would therefore be beneficial to have better scientific information about the factors controlling the population of Hudson shad, particularly since neighboring systems, like the Delaware Estuary, appear to be more stable than the Hudson. New information could then be utilized by fishery managers in a revised shad restoration plan for the Hudson River. The Foundation is interested in adding to the base of knowledge about Hudson River fisheries and integrating its work with Hudson River and coastal fisheries managers, including the New York State Hudson River Estuary Program and the Hudson River Comprehensive Management Plan, which have set fisheries restoration as a fundamental goal.

- ***Restoring and improving habitats within the Hudson River Estuary***. Massive alteration of habitats sets the Hudson River and its watershed apart from many other regions. The Comprehensive Restoration Plan for the lower Estuary and the recently released Hudson River Comprehensive Restoration Plan are both science-based frameworks that provide important sets of habitat restoration goals for the entire Estuary. The Foundation seeks scientific information to support the goals of these plans. In particular, better understandings of the condition and value of shallows and shorelines, especially in urban settings, in order to support and guide implementation of habitat restoration, including oyster reefs, would be of great benefit. This would include assessing the risks of restoration in areas subject to sea level rise and where activities may occur in contaminated areas or in areas that may be subject to new contamination after restoration.

- ***Understanding the watershed (drainage basin) and its influence on the Hudson River.*** The Foundation recognizes the importance of tributaries as components of the Hudson River watershed and seeks to provide scientific input into the planning and implementation of programs to protect, maintain and restore them. Tropical Storms Irene and Lee in 2011 demonstrated how sub-watersheds can be altered through flooding and erosion, greatly affecting the larger Hudson watershed and the River. Gaining a fuller understanding of these effects is of particular interest to the Foundation.

- ***Evaluating climate change impacts and implications.*** The Foundation seeks to develop new scientific understandings of the impacts and implications of climate change in the Hudson River and its watershed. The Foundation is especially interested in advancing research that assesses possible alterations to processes and components of the Hudson ecosystem in light of updated projections of air and water temperatures, new precipitation patterns, extreme weather events, ocean acidification, and sea level rise for the region. Potentially affected processes and components include eutrophication, harmful algal blooms, habitat loss, species shifts, and species migration, including invasive species that may expand their geographical distribution.

- ***Understanding human uses and interactions.*** The Hudson River is situated in the most densely populated region in the United States. Understanding how human uses have affected and continue to affect the Hudson ecosystem, and sharing that knowledge with resource managers, restoration practitioners, policy makers, and stewards of the Hudson River and its watershed, is fundamental to the Foundation's mission. While the Foundation seeks to advance understanding of the effects of many human uses of the River, it has a particular interest in helping to guide decisions that will be made in the future regarding the modification of shorelines in response to extreme events, sea level rise, ecosystem restoration, waterfront revitalization and infrastructure maintenance. The Foundation therefore seeks research that will contribute to a strong scientific understanding of options and potential outcomes of proposed efforts to enhance, restore, and protect shorelines and nearshore areas. In particular, the Foundation seeks better understanding of the ecological functioning of existing and potentially enhanced urban shorelines and nearshore habitats, their value relative to nearby habitats, and the physical, geological, chemical, and other factors that are likely to affect the character of those habitats into the future.

  In addition, the Foundation is interested in gaining new insights about the potential impacts of large barriers that are now being considered to mitigate storm surge damage in the lower estuary. A report commissioned by the Foundation and HEP and released in September 2018 (*Preliminary Evaluation of the Physical Influences of Storm Surge Barriers*) provides a precursory assessment of possible hydrodynamic and hydrologic changes induced by the barriers, and presents suggestions for future research. Of interest to the Foundation is the refinement of modeling tools that can be used to better describe changes in physical processes near the barriers and throughout the estuary, and research to examine the potential consequences

of those physical changes on other conditions in the Estuary (e.g., water quality, sediments, fish habitat and migration, wetlands, marine mammal movements, etc.) And finally, the Foundation is interested in gaining better understandings of other human interactions with key species (e.g., marine mammals, American eels, forage fish, etc.) and the potential impacts of invasive species in the River and Estuary.

- ***Understanding existing contaminants and contaminants of emerging concern.*** The presence of a variety of contaminants in the Hudson River and its watershed is a short and long-term concern from an ecological and human health perspective. The consequences of legacy contaminants in the Estuary, particularly PCBs, continue to be of significant interest to the Foundation since PCB inputs from upriver sources are expected to continue well into the future. New insights about PCB transformations will be useful in planning PCB remediation and restoration efforts in the Estuary.

  The Foundation is also interested in developing better understandings of the consequences of contaminants of emerging concern, including fluorinated organic chemicals, like PFOA and PFOS, (perfluorooctanoic acid and perfluorooctanesulfonic acid), pharmaceuticals, and microplastics found in the Hudson River and its watershed. The Foundation seeks research proposals to better understand how these introductions may be affecting human health and the aquatic biota, and how the contaminants may be transformed and transported within the ecosystem.

  In addition, the Foundation is interested in gaining new insights about microbial contaminants related to the discharge of treated and untreated sewage. Of particular interest is the acquisition of new scientific information about the processes that govern the transport and persistence of pathogenic bacteria in nearshore areas that are increasingly used by the public. Such information could benefit the siting and operation of new waterfront access areas, provide information to recreational users of existing waterfront facilities about levels of contamination, and inform planning of ways to mitigate the effects of stormwater and combined sewer overflows. Finally, with regard to all classes of contaminants, the Foundation is interested in research that can elucidate potential changes in their behavior and transformations within the Hudson ecosystem in response to climate change.

- ***Evaluating ecosystem services.*** While it is generally recognized that the natural resources of the Hudson River and its watershed have great value, the services that the ecosystem provides have not generally been categorized and quantified in ways that have proved useful for managers and decision makers. Given the high degree of competition for government resources and the difficulty of making policy decisions concerning such services, the Foundation has sought to define and articulate more clearly the services provided by the Hudson River ecosystem in terms that meet the needs of the public sector. Consequently, the Foundation has embarked on a collaboration with ecosystem valuation experts to examine several key management and related scientific issues in the Estuary. If the anticipated insights and recommendations direct a conclusion that further solicited research on the application of ecosystem valuation to these issues will be useful to—and used for—management decisions, the Foundation may seek specifically focused proposals on this topic in a separate solicitation in 2019 or as part of future calls for proposals.

HUDSON RIVER FUND 2019 CALL FOR PROPOSALS: OTHER CONSIDERATIONS

In developing projects consistent with this Call for Proposals, the Foundation encourages the use of existing data sets to complement proposed laboratory and field programs and to synthesize information about a particular topic. Many such data sets have been generated over the past several decades, particularly through monitoring activities, and some of those monitoring programs continue today. These data provide an opportunity to conduct additional analyses related to scientific questions and issues that were not contemplated as part of the individual programs. For example, the Hudson River Environmental Conditions Observing System (www.hrecos.org) provides a unique opportunity to better understand how and why conditions are changing throughout the entire stretch of the tidal Hudson. In addition, a remote water sampling station, located at Marist College and now part of the HRECOS network, is available to investigators. Potential researchers are encouraged to consider using this facility, as well as other HRECOS data resources.

THE HUDSON RIVER FUND GRANTS PROGRAMS: CATEGORIES AND PROCEDURES

Hudson River Fund grants are made in five categories: Hudson River Research Grants, Travel Grants, Expedited Grants, Mark B. Bain Graduate Fellowships, and Tibor T. Polgar Fellowships.

HUDSON RIVER RESEARCH GRANTS

There will be one formal funding cycle in 2019 for Hudson River Research Grants in the areas discussed in the previous sections.

Hudson River Research Grant Policies and Application Procedures

The Foundation seeks proposals from researchers at colleges and universities; other non-profit institutions; profit-making institutions; government (local, state, and federal) agencies; and unaffiliated researchers. The Foundation prefers, but does not require, that unaffiliated researchers seek some institutional affiliation for the purpose of conducting the proposed research. There are no geographic restrictions on the location of either the investigator or the institution. Proposals seeking funding for more than two years are generally discouraged; investigators considering a longer-term project should consult with the Foundation's Science Director before submitting a preproposal.

Preproposals, full proposals, and fellowship applications are to be submitted electronically. **Necessary forms and full filing instructions can be obtained from the Foundation's website,** www.hudsonriver.org.

Preproposals

A proposal to the Foundation for a Hudson River Research Grant must be preceded by a preproposal consisting of a cover page, project description of no more than three single-spaced pages, and an estimated budget. **An electronic copy in PDF format** of the preproposal must be submitted **in accordance with the instructions on the Foundation's website,** www.hudsonriver.org**, by 5:00 p.m., Monday, November 5, 2018. Three hard copies** of the preproposal, **one with original signatures by the Institutional Representative and Principal Investigator on the Cover Page,** and postmarked by November 5, 2018, must also be sent to the Foundation. The preproposals will be reviewed by the Foundation, and the applicant investigators will be notified by **Thursday, December 6, 2018,** as to whether a full proposal should be submitted. Full proposals will be due by 5:00 p.m., **Wednesday, January 16, 2019.**

Proposal Design

Full proposals should be combined into one PDF document and include the sections described below insofar as they are applicable. Standardized forms, which should be used for each application, can be found on the Foundation's website, www.hudsonriver.org.

The main body of the proposal should be as succinct as possible and no longer than 15 typewritten, single-spaced pages. However, there are no limits on appendices that support the main body of the text, as long as these materials relate substantively to ideas in the proposal. The contents should be assembled as follows:

The first section of the proposal should contain, in the order indicated:

1. *Proposal Cover Page* - The Proposal Cover Page form is provided on the Foundation's website, www.hudsonriver.org.

2. *Proposal Abstract* - A brief, topical abstract (200 words or less) must be typed on the Proposal Abstract form provided on the Foundation's website.

3. *Proposal Budget Summary* - The required Proposal Budget Summary form and instructions for completing this form are also provided on the Foundation's website. Written justifications of expenditures should be provided when special equipment items, extensive personnel, or use of facilities is involved. In the case of multi-year projects, the principal investigator must submit a separate budget for each year, along with a combined budget and a proposed calendar of research activities. **Please note:** It is the policy of the Foundation to disallow the charging of student tuition and profits or fees on research grants, and to encourage cost-sharing by the applicant's institution. In general, the Foundation will reimburse indirect costs up to 15 percent of the modified total direct costs (modified to exclude certain large equipment purchases and subcontractor services).

4. *Table of Contents.*

The remainder of the proposal should contain the sections described below, as appropriate:

5. *Statement of research goals and objectives.*

6. *Statement discussing the relevance of the project* to the overall mission of the Foundation and the Hudson River Fund "to make science integral to decision-making with regard to the Hudson River and its watershed and to support competent stewardship of this extraordinary resource." In addition, the proposal should state its relevance to one or more of the Foundation's 2019 research targets listed on pages 4 - 7.

7. *Description of the approach* to meeting objectives, based on current knowledge in the field of study, showing the relationship between proposed accomplishments and existing information, and describing specifically how data will be analyzed (including statistical methods and mathematical models). Proposers should consider the relationship of their intended research to other ongoing research and monitoring in the River, and should strive to interpret their research results through appropriate models and other synthesis frameworks that link relevant efforts together.

8. *Significance of the research* in its field of knowledge, its relationship to other ongoing research in the Hudson River, and its implications for public policy issues. The critical information or building blocks of knowledge to be provided by the proposed work should be clear. It should also describe how the proposed study will complement any ongoing research at the proposer's institution or any other institution.

9. *Description of related research* being conducted by the proposer(s) and specific past experience.

10. *List of specific tasks* to be performed (as an itemized list, separate from the description of the approach). If field work is proposed, maps depicting the sampling locations must be submitted. The Foundation has base maps of the entire Hudson Estuary that can be supplied to investigators upon request to the Science Director.

11. *Timetable* for completion of research activities in the project.

12. *List of current and pending research grants or contract support*. Include the project title, agency or foundation sponsoring the research, period of support, time commitment, and amount of award. Mention areas of overlap with the current proposal, if any, and describe time commitments for the principal investigator(s). If the proposed project is a continuation of previously HRF-funded research, a full discussion of the progress of that project, along with a report of any significant results, including publications, must be incorporated into the new proposal.

13. *Bibliography* for proposal (including article titles).

14. *Resumes* (five-page maximum) of investigator(s) and key support personnel.

The proposal with signatures on the Cover Page must be submitted electronically in one PDF document. Any reprints, appendices, or other materials to be considered with the proposal must be electronically attached to the individual proposal. To avoid delay in the review process, the proposal should be complete at the time of submission. Full proposals will be due by **5:00 p.m., Wednesday, January 16, 2019. In addition, five hard copies of the proposal, one containing original signatures by the Institutional Representative and Principal Investigator on the Cover Page, must be sent to the Science Director, Hudson River Foundation, 17 Battery Place, Suite 915, New York, New York 10004.**

Special Conditions

Confidentiality, to the extent possible, will be maintained in the review process, and proposals shall not be used for any purpose other than evaluation of merit for funding. Applicants are encouraged to draw the Foundation's attention to confidential or proprietary information contained in the proposal.

Criteria for Evaluation of Proposals

Hudson River Research Grants are awarded after a rigorous review process, including peer review. Decisions are made on the basis of the following factors: 1) the appropriateness of the proposed study to the mission of the Foundation and, specifically, the relevance of the project to the priorities described on pages 4 - 7; 2) technical merit; 3) qualifications of the investigators and adequacy of facilities for carrying out the proposed research; 4) costs; and 5) likelihood of success, including the publication of the research results in peer-refereed journals. In the case of continuing projects, consideration will also be given to the level of progress achieved to date.

The Grant Award

Notification of Hudson River Research Grant awards will be made by April 2019. After initial approval of grants, the Foundation will arrange specific grant terms with successful applicants.

TRAVEL GRANTS

Travel Grants are available for travel related to the research goals of the Hudson River Fund as discussed in this Call for Proposals. The Foundation is particularly interested in visits by experts from outside the region to share new approaches to environmental questions about the Hudson River. Applications may be made either by individuals or by organizations on their behalf.
Applications may be made at any time but should be submitted as far in advance of anticipated need as possible. Institutions may not charge overhead on these grants. Travel requests to attend conferences are discouraged.

Applications should include a letter describing the purpose and time of the travel, a budget, and references. An electronic copy and one hard copy will be required. **All applicants for Travel Grants should contact the Science Director, Dr. Dennis Suszkowski, 212-483-7667, before applying.**

EXPEDITED GRANTS

The Foundation will consider throughout the year proposals for the study of emergency situations affecting the Hudson River, such as unexpected natural or human-induced events, or research for which additional funds are needed to enhance an existing investigation or take advantage of a compelling research opportunity prior to the Foundation's next formal funding cycle.

All potential applicants for Expedited Grants should contact the Science Director, Dr. Dennis Suszkowski at 212-483-7667 before applying. Applicants will be informed of the Foundation's decision, including specific conditions governing the grant as soon as possible.

MARK B. BAIN GRADUATE FELLOWSHIPS

In 2011, the Foundation named its graduate fellowship program in honor of Dr. Mark B. Bain for his outstanding contributions to Hudson River science. Dr. Bain was a professor of Systems Ecology at Cornell University for 22 years, and until his death in February 2012, a highly productive researcher studying aquatic systems throughout the world. Dr. Bain had a particular interest in the Hudson River and was supported by the Foundation in several important endeavors. His comprehensive study of sturgeons and ground-breaking work on ecosystem restoration planning significantly advanced the conservation of natural resources in the Hudson River and Estuary. The Foundation continues to recognize and remember Dr. Bain's achievements and the respect, admiration and affection for him in the Hudson River scientific community.

In 2019, the Foundation will award up to three full-time research fellowships to advanced graduate students conducting research on the Hudson River system. A fellowship awarded to a **doctoral** student will include a stipend, consistent with the policy of the student's graduate institution, in an amount of up to $19,000 for one year, and an incidentals research budget of up to $1,000. A fellowship awarded to a **master's level** student will include a stipend, consistent with the policy of the student's graduate institution, of up to $15,000 for one year, and an incidentals research budget of up to $1,000.

Conditions

Graduate fellowship awards are conditional upon a full tuition waiver or reimbursement by the university. Applicants must be enrolled in an accredited doctoral or master's program, must have a thesis advisor and advisory committee (if appropriate to the institution), and must have a thesis research plan approved by the student's institution or department.

The student's home university will be expected to be the primary source of support for materials and expenses required to do thesis research and will also be expected to cover any indirect costs associated with the project.

Application Procedures

The following materials must be included in an application (all necessary forms can be found on the Foundation's website, www.hudsonriver.org):

1. *A Proposal Cover page* (form provided on the Foundation's website, www.hudsonriver.org). Please include the name of the student in the *Principal Investigator* box. The title of the thesis/dissertation should be included in the *Title of Proposal* box. In the *Purpose/Objective* box, please state whether support is sought for a fellowship at the master's or doctoral level. Please list the student's advisor as co- principal investigator on the cover page.

2. *A description* (10 pages maximum, single spaced) of the thesis project. This should include a statement of the objectives of the project and the approach to the research, as well as a summary of research related to the project and already completed by the applicant.

3. *A timetable* for the completion of the research.

4. *A statement of the significance and relevance* of the project to the Hudson River Foundation's objectives.

5. *An estimate of the cost* of supplies, travel, etc. Use *Proposal Budget Summary* form (provided on the Foundation's website) and include stipend amount in *salaries* and research incidentals under *expendable equipment* (no other line items should be completed).

6. *Résumé* of student.

7. *A letter from the university* stating that the student will receive a tuition waiver or reimbursement for the period of the fellowship.

8. *Two letters of recommendation*; one must be from the student's advisor and should certify the student's current status, evaluate the student as a future researcher, and rate the student's project both on technical merit and on relevance to the goals of the Foundation. Fellowship awards will be made through the student's academic institution. Therefore, applications must be submitted through the institution's grants administration office.

Applications for graduate fellowships in electronic PDF format must be received by 5:00 p.m., **Monday, March 11, 2019**. Decisions will be made by the end of June 2019. Electronic filing instructions can be found on the Foundation's website, www.hudsonriver.org. **Three hard copies of the application, one containing original signatures by the Institutional Representative and Graduate Student on the Cover Page and postmarked no later than March 11, 2019, should be forwarded to the Science Director, Hudson River Foundation, 17 Battery Place, Suite 915, New York, NY 10004.**

TIBOR T. POLGAR FELLOWSHIPS

The Tibor T. Polgar Fellowship program is a unique educational research program sponsored by the Foundation in cooperation with the New York State Department of Environmental Conservation. The objective of the program is to train students in conducting and reporting on scientific studies and public policy research, while gathering important information on various aspects of the Hudson River and Estuary.

Named in honor of the late Dr. Tibor T. Polgar, a major contributor to the early development of the Foundation, this program provides a $5,000 grant and limited research funds for up to eight college students to conduct a summer of research on the Hudson River. Since this program was designed to assist aspiring scientists in honing their research skills, it is envisioned to be of greatest value to undergraduate and masters-level students.

Over the past 33 years, the Polgar Fellowship program has trained over 250 students and produced a large body of research on the Hudson River, with a concentration on the four marshes of the Hudson River National Estuarine Research Reserve. Funded studies are compiled in the Polgar Fellowship Reports published annually by the Foundation. Copies of previous years' reports are available on the Foundation's website, www.hudsonriver.org.

Because of the training and educational aspects of this program, each potential fellow must be sponsored by a primary advisor. The advisor must be willing to commit sufficient time for supervision of the research and its presentation, and to attend two meetings (orientation and final reports) with their students. Advisors will receive a stipend of $500.

Polgar Fellowships are awarded after a rigorous review process. Applications will be judged on the following criteria: relevance to the Hudson River and Estuary and the mission of the Foundation;

technical merit; likelihood of success; quality of written proposal in relation to the student's academic year; and advisor's letter of support, which should include a plan for assisting their Fellow throughout the Fellowship. Students may be awarded a maximum of two Fellowships during their academic career.

Application Procedures

Students applying for a Polgar Fellowship should include the following documents:

1. *A letter of interest* in the program; including a description of the student's background and future academic interests.

2. *A short description* (4-6 pages) of the research project, including a statement of its significance.

3. *A timetable* for completion of the research.

4. *An estimate of the cost* of supplies, travel, etc.

5. *A letter of support* from the student's advisor; which should provide a plan describing how the advisor will guide the Fellow through their research, including the advisor's participation at meetings, and preparation and review of the final report.

Applications for Polgar Fellowships in electronic PDF format must be received by the Foundation by 5:00 p.m., **Monday, February 11, 2019**. (For filing instructions visit the Foundation's website, www.hudsonriver.org). Successful applicants will be notified of their fellowship awards in early April 2019. **A hard copy of the application, postmarked no later than February 11, 2019, must also be submitted to the Polgar Fellowship Committee, Hudson River Foundation, 17 Battery Place, Suite 915, New York, NY 10004.**

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