

To: Distribution List

From: Faculty Research Development Office Office of the Vice President for Research

Subject: Limited Competitions: Moore Inventor Fellows

Date: December 21, 2016

The Moore Inventor Fellowship program focuses on inventors at a critical stage of their innovations to support their work in ways that might be missed in the current research and development ecosystem. The scope of this call is intentionally wide: proposed projects should align broadly with the areas of foundation interest: scientific research, environmental conservation and patient care. The foundation aims to support inventions at an early stage the could lead to proof-of-concept work on an invention or advance an existing prototype that tackles an important problem. They seek innovations with the promise of making a long-lasting impact by addressing underlying problems in the field, but a clear path toward commercialization is not a requirement.

Candidates must be faculty, research scientists, postdocs, or other full-time staff at eligible institutions. Candidates must be within ten years of receiving the advanced terminal degree in their field (M.S., Ph.D. or M.D.). Each fellow is required to devote at least 25 percent of their time to their invention.

The funding amount is a total of \$675,000 (\$200,000 per year for three years and \$25,000 per year for indirect costs on MTDC). <u>Cost share is required in the amount of \$150,000 (\$50,000 per year) and must be nonfederal funds</u>. <u>Unrecovered F&A and Imputed F&A cannot be used as part of the cost share contribution as per the sponsor</u>. More details can be found in the attachment or on the UNM Limited Competitions website <u>http://research.unm.edu/frso-limited-competitions</u>. Nominations must be received by 5:00pm PT on February 8, 2017, with all application materials due by 5:00pm PT on March 1, 2017.

This is a limited competition; each institution can submit two nominations for consideration. Please submit your 2-page preproposal addressing the review criteria below (plus budget overview, cost share budget and abbreviated CV; all documents in a SINGLE PDF file, 11 point font) by NOON on Tuesday, January 17, 2017 to limited@unm.edu with the subject line indicating: MOORE - your name. No late submissions will be considered. Your 2-page preproposal must include the following: The first paragraph should describe clearly and without jargon the invention, the problem it seeks to address, and its potential impact. This paragraph is to be followed by: 1) Description of the invention. 2) Importance in the area of science, environmental conservation, or patient care and experience. 3) Stage of invention. 4) Current funding. 5) Feasibility. 6) Approach for measuring progress during the three year grant term. 7) Describe your plan for meeting the cost share requirement.

If you are affiliated with HSC, contact Corey Ford at 272-6950 for more information.

The Moore Inventor Fellows – 2017 Guidelines "50 Inventors to shape the next 50 years."

The Gordon and Betty Moore Foundation announces the second competition for <u>Moore Inventor</u> <u>Fellows</u>. The foundation seeks to identify outstanding inventors and innovators who harness science and technology to enhance the conduct of scientific research, strengthen environmental conservation, or improve the experience and outcomes of patient care.

The Moore Inventor Fellowship program focuses on inventors at a critical stage of their innovations to support their work in ways that might be missed in the current research and development ecosystem. We seek to provide freedom and support to promising inventors with compelling inventions to pursue their creative work.

Program Overview

Gordon Moore's contribution to the development of microelectronics helped produce the exponential growth of the digital revolution. In the spirit of Moore's passion for science and penchant for inventing, the foundation seeks to invest in people who create new tools, technologies, processes, or approaches with a high potential to accelerate progress in the foundation's three main areas of interest.

The foundation anticipates investing \$33.75 million to support 50 Moore Fellows. The first five fellowships were awarded in 2016. This year, the competition will focus on inventors at major research universities, additional institutions from among the top 50 National Institutes of Health-funded medical schools and universities, and selected non-academic environmental research institutions. Each eligible institution may nominate two people.

Each fellow will receive funding for three years at a level of \$200,000 per year from the foundation. In addition, the foundation will provide the host institution with \$25,000 each year to cover costs associated with administering the grant award, resulting in a total three-year award amount of \$675,000. Each host institution will be required to contribute \$50,000 in annual direct support of the inventor's work. This can be "in kind" as released time or access to special facilities for which there is normally a charge. We expect each fellow will be personally engaged in pursuing their invention and we require each fellow to devote at least 25 percent of their own time to their invention. Fellows may use the grant funds to support their own salary to create this opportunity. They may also hire undergraduate, graduate assistants or postdoctoral scholars and purchase services, equipment, or supplies.

Who and What We Seek to Fund

Candidates must be faculty, research scientists, postdocs, or other full-time staff at eligible institutions. Candidates must be within ten years of receiving the advanced terminal degree in their field (M.S., Ph.D. or M.D.).

The scope of this call is intentionally wide: proposed projects do not need to fall within our current funding priorities, but should broadly align with the program areas of foundation interest. As with all our grants, we seek to measure progress toward a defined goal during the three years of support.

We aim to support inventions at an early stage that could lead to proof-of-concept work on an invention or advance an existing prototype that tackles an important problem. We seek innovations with the promise of making a long-lasting impact by addressing underlying problems in their field, but a clear path toward commercialization is not a requirement. We are not interested in supporting projects that are already at a stage where significant venture capital is available. The foundation's policy is that intellectual property that results from a grant must be managed and disseminated in a manner that leads to the greatest impact. Each award will include IP terms to reflect the needs of that project.

We recognize that real invention can take surprising turns, so we seek creative individuals who have big ideas, deep knowledge, and the courage to take smart risks. We recognize that inventors and innovators come from a diversity of backgrounds, disciplines, and experiences and will look for creativity across a broad array of academic programs and research departments. Examples of such programs include, but are not limited to environmental science and conservation, oceanography, biology, engineering, physics, chemistry, materials science, neuroscience, public health, rehabilitation sciences and gerontology.

Nomination Procedure

Letters of invitation have been sent to the presidents and chief research officers of invited institutions. Each eligible institution can submit two nominations for consideration. **Nominations must be** received by 5:00 p.m. PT February 8, 2017, with all application materials due by 5:00 p.m. PT March 1, 2017. Eligible institutions must designate a contact person who has authorization to submit the nomination on behalf of the institution. Please email <u>inventors@moore.org</u> with the name and contact information of the designated individual no later than Dec. 1, 2016 to receive submission instructions.

Institutions can submit up to two nomination packets with the elements described below through the online application system, which will be accessible by the identified institutional contact for this program. Questions that are not covered in the online <u>FAQ section</u> of the Moore Inventor Fellows website may also be addressed to <u>inventors@moore.org</u>.

Nomination and Application Requirements

- 1. Basic nominee information: (Due Feb. 8, 2017)
 - A. Name of nominee
 - B. Nominee institutional, department and contact information
 - C. Statement of the institution's plan to assure that the nominee has at least 25% of their time to devote to their invention and \$50,000 in annual direct support of the inventor's work
- 2. Candidate nomination packet to include the following materials: (Due March 1, 2017)
 - A. Statement of invention (no more than two pages, including citations; single-spaced, 12-point font and one-inch margins). The first paragraph should describe clearly and without jargon the invention, the problem it seeks to address, and its potential impact. The statement of invention should also include the following information:
 - I. Description of invention
 - II. Importance in the area of science, environmental conservation, or patient care and experience
 - III. Stage of invention
 - IV. Current funding
 - V. Feasibility
 - VI. Approach for measuring progress during the grant term

- B. Summary CV (no more than two pages):
 - I. Educational and professional background
 - II. Key accomplishments, honors and demonstrated areas of expert knowledge
 - III. Other background information relevant to this invention
- C. One-page budget narrative that outlines how grant funds will be used
- D. Two letters of reference that evaluate the promise of the applicant and the invention, one from an individual within the nominating institution and one from an individual from an external institution. Letters should be no more than two pages.

Selection Process

The selection process has two stages. In the first, each submission will be reviewed by foundation staff with advice from external reviewers. Approximately ten percent of the initial applicant pool will move forward. In the second, these finalists will be asked to provide additional information and make an inperson presentation on the importance, plausibility, status, and possible impact of their proposed line of work to a panel of advisors. After these presentations, the advisory committee and foundation staff will make recommendations to the foundation president for the 2017 fellowships. Please see below for a detailed timeline of the selection process.

All information on the details of the proposed invention will be held confidential and members of the advisory committee will sign nondisclosure agreements before reviewing any applicant material. The foundation will work with selected fellows and their host institutions on agreeable language to be shared in announcements of the award winners.

Applicants will be considered solely on their merits and awards will be made without regard to age, race, national origin, citizenship, religion, gender, sexual orientation, or physical disability.

Evaluation Criteria

All applications will be evaluated with the following criteria:

Inventor

- 1. Demonstrated creative potential
- 2. Strong technical ability for the proposed line of work

Invention

- 1. Importance of the invention in areas of interest to the Moore Foundation science, environmental conservation, or patient care
- 2. Invention at an early stage that requires this funding for rapid progress
- 3. Plausibility of this invention to achieve the stated impact
- 4. Ability of dedicated funding and time to propel this innovation to the next stage of development; commercialization is not a requirement
- 5. Strength of the institution's commitment to the applicant's invention activities

Timeline for Awards

Nov. 10, 2016	Requests for nominations sent to institution presidents
Dec. 1, 2016	Online application system opens
Dec. 1, 2016	Institutions provide primary contacts to the foundation
Feb. 8, 2017	Institutions to provide basic nominee information
March 1, 2017	All application materials due
May 10, 2017	Finalists selected
June 5, 2017	Finalist presentations due
June 9, 2017	Finalist in-person presentations
July 17, 2017	Supplemental materials due
Fall 2017	Fellows announced

Grant Development Overview

The Gordon and Betty Moore Foundation works actively with grantees and stakeholders to solve problems and catalyze discoveries for lasting impact. We have found that active and creative engagement from both prospective grantees and foundation staff creates grants with impact. Thus, we have a highly interactive grantmaking approach that requires an authentic, honest and transparent relationship between grantees and our staff throughout the grant cycle.

Your program officer is the primary point of contact at the foundation for discussions relating to your potential grant. The program officer works closely with other colleagues, including program associates and grants administration staff, to form a grant team. Prospective grantees and the grant team engage in dialogue to understand each organization's strategic priorities. When there is common ground and shared goals, we work together to define and shape a grant reflecting these shared priorities. After a grant is approved and underway, grantees and the grant team communicate on the grant's progress and work together to resolve issues. Throughout the grant life cycle, members of the grant team play multiple roles including strategist, connector, manager and learner. Our grantees tell us that while our process is rigorous, it is also beneficial for clarity during planning and real-time adaptive management during project implementation. At its best, engagement between grantees and the grant team helps everyone involved to see a broader perspective on innovation and connection that can help make grants more effective.

This overview will help you prepare for successful grant development.

Grant Development

A strong grant is rooted in clear grant purposes and goals. While your organization and the foundation may have different strategic priorities, discussions with your grant team help to find common ground for a proposed grant. As a grant concept takes shape, you and your grant team will work together to articulate and refine the specifics of your grant.

From that base, you will formulate measures of success and progress, incorporate a data sharing plan (if appropriate) and develop activities into a work plan and budget to outline the grant activities and necessary resources. We believe that objective and meaningful measurement enables your organization and the foundation to understand how progress is being made and to learn and adapt when intended progress is not made.

Commonly Used Terms

To start, here are terms you will hear frequently in the process:

- Outcome Transformative change in behavior, conditions and/or understanding.
- Output Tangible product, service and/or knowledge resulting from a grant's activities.
- Activities Actions and processes employed to produce outputs and/or outcomes.
- **Outcome plan** Plan for key outcomes and/or outputs and high-level activities associated with each grant. The outcome plan is the core of the grant and a tool in grant development, monitoring and management. The outcome plan is attached to the grant agreement, which formalizes the grant after approval.

Grant Package

Your grant team is responsible for completing a grant package with the following elements:

1. Grant Summary - A narrative description of the grant and its purpose including the significance of the problem that the grant will address, how the grant will address that problem, and external conditions affecting the grant. A description of a measurement strategy or key metrics that will be tracked to measure progress towards achievement of the grant outcome.

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- 2. Outcome plan As described above.
- **3. Payments and Requirements Plan -** A schedule of payments and required reports for the grant. In some cases, your grant team may require phone calls, meetings or a site visit.
- 4. Grant Budget An estimate of the costs of required resources for the grant's outcome plan.
- **5. Due Diligence Review** To better understand your organization, the foundation may review your organization's tax status, financial statements and other documents.

The outcome plan and the grant budget represent a reasonable arc of planned activity and resources with the understanding that changes to the plan are often necessary during implementation.

Grant Budget

Using the agreed outcome plan as a base, you develop the budget that estimates the costs of the required resources. This budget serves as the base of the proposed grant funding, payments and financial reporting. We do not require a specific budget format and encourage using a format that enables efficient tracking for your organization during the life of the grant.

While the format is flexible, the grant budget must at a minimum include an estimate of direct costs by year and expense line item, grouped by the following categories: personnel, consultants and contractors, sub-grants, other direct expenses, capital expenditures and a description of assumptions or justifications underlying the cost estimates which provide an explanation for how you determined expenses.

Grant budgets may include indirect costs of up to 12.5 percent of direct costs, excluding consultants and contractors, sub-grants, endowments, capital expenditures, fee-for-service charges, fiscal sponsor fees and tuition. Grant budgets may not include retroactive funding to reimburse costs incurred prior to the date the grant is approved.

Due Diligence Review

Parallel to the development of the potential grant, we may review finances and tax status to learn more about your organization. The potential grant may include aspects that require additional attention to ensure that the foundation complies with U.S. tax regulations. The findings from the due diligence process merge with the outcome plan development and help shape the proposed grant structure. Your grant team informs you if we require any documentation. For U.S. nonprofit organizations (except universities and hospitals), we typically request two years of audited financial statements and the current year budget. For non-U.S. nonprofit organizations, we require additional documents.

Process

The grant development process involves engagement between you and your grant team to shape all the dimensions of the grant in a collaborative fashion. Depending on the scale of the grant and the work to establish shared understanding, the time required for grant development varies. You and your grant team

will discuss an estimate of how long your grant will take to develop. Your grant team will share any deadlines that impact your potential grant. Please discuss any scheduled periods when you will not be available during the grant development process.

The formal stages in the process are as follows:

1. Grant Development

This is the primary phase for information gathering, interaction and due diligence. Starting with your proposed grant, we jointly develop and finalize the outcomes and budget through an iterative process. Then, your grant team writes the internal grant summary that includes information on the grant's outputs, outcomes and budget; how these outputs and outcomes contribute to the foundation's strategies; the required monitoring and reporting schedules; etc.

2. Submission and Approval

Our grants administration staff administers approval of the grant based on our delegation of approval authorities. If the appropriate authority approves the grant, our grants administration staff sends you a grant agreement, the document which lays out the conditions under which we are making the grant. Once the foundation and your organization execute the grant agreement, we consider the amount of the grant awarded (but not before). It can take a month or more until your organization receives the first payment, depending on how quickly the foundation and your organization sign the grant agreement. Note that travel schedules and holidays can impact the time period for execution.

Organizational Financial Review

An important and standard part of our grant development process is learning about your organization's structure and financial management. Organizational financial review enables us to develop a more robust understanding of our potential grantees and the proposed grant to support successful grant management, project implementation and outcome achievement.

To inform our understanding, we ask our potential grantees to provide the following:

- Audited financial statements for the past two years
- Organization-wide budget that includes both expense and revenue projections

In addition to these standard documents, we may ask grantees to submit audit management letters and year-to-date financials, or engage in a conversation with a member of our financial review team to discuss financial management practices.

Indirect Cost Policy

The Gordon and Betty Moore Foundation primarily funds specific projects with specific outcomes. The budget for each grant should reflect all of the expenses that are required for, and can be tracked directly to, the grant project. We call these costs "direct costs." In addition, we may cover a limited amount of expenses that cannot be tracked directly to the grant project. We call these costs "indirect costs."

Our indirect cost policy provides that the indirect cost rate may not exceed 12.5 percent of the direct costs of the project, excluding the costs of the following:

- Consultants, contractors and subgrants
- Endowments
- Equipment and capital expenditures
- Fee-for-service charges
- Fiscal sponsor fees
- Tuition

We realize that the indirect cost rate may not cover all of a grantee's general operating costs, and grantees may need to use other resources to cover these costs.

More information on our policy on direct costs and indirect costs is below.

Direct Costs

Direct costs include all of the expenses that are required for, and can be tracked directly to, the grant project, including but not limited to:

- **Personnel** "Personnel" is the cost (pro-rated salary and benefits) of all staff directly involved with the project. In general, this includes the time and salary for each staff member on individual line items. Time should be estimated as a percentage of a full-time equivalent employee.
- **Consultants and Contractors** "Consultants and contractors" are the costs of hiring workers who are not employees of the grantee to assist the primary grantee with the planning, evaluation, development or implementation of the grant. Consultants and contractors may be individuals or organizations, nonprofit, for-profit or other type of entity. Consultants and contractors should be identified by function or purpose (e.g., communication, evaluation).
- **Subgrants** "Subgrants" are funds that will be distributed to other individuals or organizations to conduct their own activities that are coordinated by and support the primary grantee's activities.
- Other Direct Expenses "Other direct expenses" are the costs needed to complete the project, including but not limited to the cost of travel, training, conferences, supplies, computers and software.
- Equipment and Capital Expenditures "Equipment and capital expenditures" are the costs of purchasing equipment or other assets that have a useful life beyond a taxable year. Capital expenditures over \$10,000 should be itemized in the budget. The grant team may request that the grantee obtain a sampling of quotes for significant capital expenditures.

Indirect Costs

Indirect costs are expenses that cannot be tracked directly to the grant project. To calculate the indirect cost allocation, multiply the indirect cost rate (0 to12.5 percent) by the direct cost of the project, minus the following excluded items:

- Consultants, contractors and subgrants
- Endowments
- Equipment and capital expenditures
- Fee-for-service charges
- Fiscal sponsor fees
- Tuition

These categories of exclusions are explained below.

• **Consultants, contractors and subgrants** - Because the grantee generally passes these types of direct costs directly to a third party, and because these costs often do not involve substantial material indirect costs, we exclude consultant, contractor and subgrantee costs from the calculation of the indirect cost allocation for the primary grantee.

The indirect costs charged to the primary grantee by consultants, contractors and subgrantees are generally incorporated into the line items for these expenses. However, the budgets and expenditures for consultants, contractors and subgrantees must abide by the same policy as for the primary grantee, including that they cannot exceed our policy of 0 to 12.5 percent of allowable direct costs.

- **Endowments** Funding for endowments typically involves a significantly different structure compared to project grants. Therefore, we do not allow an indirect cost allocation on endowment funding.
- Equipment and Capital Expenditures Because equipment and other capital expenditures can be large expenses without the commensurate need to expand the organization's overall support structure, an indirect cost allocation may not be taken on equipment and other capital expenditures.
- Fee-for-Service Charges The grantee may not take an indirect cost allocation on fee-forservice expenses. We view these costs as similar to contractor fees where indirect costs are typically already embedded in the cost structure. Examples of fee-for-service charges include university core facilities charges and intramurally or extramurally performed specialized scientific analyses (nucleic acid/protein sequencing, mass spectrometry, etc.).
- **Fiscal Sponsor Fees** Organizations whose main purpose is fiscal sponsorship often provide back office and administrative services to a primary grantee in exchange for a fee. In these cases, the grantee can include a fiscal sponsor fee in the project budget but may not take an indirect cost allocation on this fee. Additionally, if the fiscal sponsor fee is expressed as a percentage of direct costs, it is subject to the same exclusions cited for indirect cost allocation (e.g., it must exclude subcontractor expenses from direct costs).

• **Tuition** - We do not permit an indirect cost allocation on tuition, because the primary grantee generally passes these types of direct costs directly to a third party, and these costs often do not involve substantial material indirect costs.

Gordon and Betty Moore Foundation

Data Sharing and Intellectual Property Policy

Introduction

The Gordon and Betty Moore Foundation works to find and support the bold ideas that will create an enduring impact in environmental conservation, patient care and science.

Foundation funding often results in data ("Data"), and products, such as research, reports, books, software, hardware, videos, and other works of authorship and inventions that may be covered by various intellectual property regimes, such as copyright and patent ("Intellectual Property").

Foundation Policy

The foundation's general policy is that Data and Intellectual Property must be managed and disseminated in a manner that leads to the greatest impact. Accordingly, in most cases, Data and Intellectual Property should be owned by the grantee and made available at no cost or, when justified, at a reasonable cost.

We recognize there may be circumstances where limited or delayed dissemination of Data, or a more proprietary or revenue-generating approach to Intellectual Property, may be appropriate to protect legitimate interests of the grantee, principal investigators, and research subjects; or because exclusivity may actually lead to greater impact by, for example, providing incentives for future private investment or a sustainability strategy.

Additionally, the foundation may develop specific applications of this policy in order to achieve the goals of a particular program, initiative, or consortia of grantees.

Applicability

This policy applies equally to grants, program-related investments and other funding vehicles used by the foundation, excluding contracts for services and direct charitable activities.

In all instances, we agree to suitable terms in each grant agreement on a case-by-case basis to ensure the objectives of our policy and its specific applications are met, while respecting the appropriate interests of others. Accordingly, the terms and conditions in our grant agreements, rather than this general policy, will be binding.

Data Sharing and Intellectual Property Plans

As part of the grant development process, the foundation may ask prospective grantees to develop a Data Sharing and/or Intellectual Property Plan. In this case, before funding is approved, the foundation and prospective grantee will agree on a plan that reflects the objectives of this policy. Implementation of the plan will be a condition of the grant and incorporated by reference in the grant agreement. The plan should address the topics described in our Data Sharing and Intellectual Property Packet.

Foundation Data and Intellectual Property

The foundation itself also creates and commissions data and intellectual property, and we adhere to this same policy. We've granted a Creative Commons Attribution-NonCommercial-NoDerivs 4.0 International license to the content on our website, (except for photos, logos and publications), which enables anyone to copy, distribute and display our content so long as the user mentions the foundation, links to our website, and does not change the content or use it commercially. We also make data about our grantmaking and finances available in our publicly posted tax returns and audited financial statements and in <u>Glass Pockets</u>.

Date of Policy Approval: October 15, 2014 **Policy Approved by:** President **Policy Maintained by:** Legal Department

DATA-SHARING PLAN FOR MOORE FOUNDATION Coral resilience investigated in the field and via a sea anemone model system

(Arthur Grossman, Steve Palumbi, and John Pringle)

GENERAL PHILOSOPHY

The three Principal Investigators subscribe fully to the GBMF philosophy both as a matter of general principle and because we think that the immediacy of the worldwide threat to coral reefs demands a particularly high level of cooperation among investigators. Thus, we intend both to publish our findings promptly in journals cooperating with open-access policies and to make our data publicly accessible at or before the time of publication (as appropriate for the particular type of data).

1. DATA DESCRIPTION

A. Data to be collected include (i) annotated transcriptome assemblies for the anemone *Aiptasia*, several strains of the dinoflagellate *Symbiodiniuim*, and one species of coral; (ii) gene-expression (*i.e.*, transcript-abundance) data for the same organisms, collected under various environmental conditions (temperature, light intensity, possibly other variables); (iii) physiological data, mainly on photosynthetic function and optimal growth conditions, for various *Symbiodinium* strains, both while free-living and while living in a compatible host, and under various environmental conditions; (iv) detailed environmental data (including temperature, light levels, and pH over time) for the lagoon pools constituting the project's field site at Ofu, American Samoa.

B. Each of the four types of data listed in A will require a distinct format. (i) Transcriptome data will consist of annotated assemblies and raw sequence reads (short, paired-end reads from Illumina sequencing). (ii) Gene-expression data will be built into the transcriptome assembly and coupled to an SQL database of terms (tissue, environmental conditions, etc.) to allow searching for transcript-abundance changes correlated with specific parameters of interest. (iii) Physiological data will be provided as tabulations of the various measured responses as a function of the conditions applied and the identity of the strain tested. (iv) Environmental data will be provided in graphical (*e.g.*, temperature *vs.* time) form and as downloadable spreadsheets.

C. Data will be collected throughout the project, starting essentially immediately (because some transcriptome and gene-expression data are already available). Transcriptome and gene-expression data will be entered into electronic databases as soon as assembly and quality-control tests are completed. Physiological data will be entered into a database not later than the time at which they have been analyzed and organized for publication. At least initially, the *Aiptasia* transcriptome data (without expression data) will be made available through AiptasiaBase (<u>http://aiptasia.cs.vassar.edu/AiptasiaBase/index.php</u>), an existing sequence database set up in a collaboration involving the Pringle laboratory and currently hosted by Dr. Jodi Schwarz and her colleagues at Vassar College. Transcriptome data (containing both gene annotations and expression data), physiological data, and environmental data will also be available through a project website that we will develop. As the pool of gene-expression data expands, it may prove preferable to have it housed by the Stanford Microarray Database.

D. The only pre-existing data that we envision utilizing are those previously collected by our own groups or in earlier collaborative efforts in which our groups were involved. No special data-sharing arrangements are required.

E. We do not anticipate developing new analytical tools as part of this project. The sharing of geneexpression, physiological, and environmental data will involve the development of new databases that we will host on local servers and make available through the project website and our individual laboratory websites. F. Metadata will include (i) for transcriptome data, detailed descriptions (as for publication) of the environmental conditions pertaining at the times of mRNA collection, and of the procedures used for processing, sequencing, assembly, and annotation; (ii and iii) for gene-expression and physiological data, the precise environmental conditions and stresses that applied prior to and at the time of data collection; and (iv) for environmental data, the precise geographical coordinates and depths of the recording devices and the specifications of those devices. Note also that we intend to distribute freely both our *Aiptasia* clone (this has already been supplied to about a dozen other laboratories) and the various *Symbiodinium* strains that we will isolate and characterize; such distributions will always be accompanied by information on whatever we know about the properties of the organisms (*e.g.,* precise identification to clade and subclade and possible special nutritional requirements of particular *Symbiodinium* strains).

G. For the purposes of quality assurance, the data will be owned by the three collaborating Principal Investigators. However, the data will be placed in the public domain, with no restrictions on access or use, as soon as processing and quality control are complete (transcriptome sequences and gene-expression analyses) or organization and analysis (as for publication) are complete (physiological and environmental data).

2. DATA MANAGEMENT

A. Data will be stored at Vassar (AiptasiaBase – see above) and on local servers at Stanford.

B. Data will be hosted as noted above and will be searchable or downloadable remotely using conventional software. For extremely large data sets (*e.g.*, raw sequence data from Illumina sequencing or raw gene-expression data from RNA-seq), external hard-drives with the data will be made available for shipment to other laboratories.

C. The data archive will use the same location(s) and software as the initial data entry.

D. Metadata will be stored in the same databases as the primary data and will be accessed by links within the websites. See note under 1.B about use of SQL databases.

E. Data will be entered and maintained by AiptasiaBase staff and by our project personnel (including the dedicated bioinformatician) at Stanford. Our intent is to maintain archives indefinitely or until they are judged no longer useful.

F. Data quality will be assured by (i) tests whose nature and outcome will be available along with the data themselves and (ii) peer-review of publications that are based on the data.

G. Databases will be populated with the data obtained by our project personnel.

H. No proprietary data will be used.

3. DATA SHARING

A. Potential data users include all investigators working with the *Aiptasia* model system (a number that is expected to grow with time) or with cultured *Symbiodinium*, as well as many investigators working directly with reef-building corals.

B. Some data will be released for general access as soon as the dataset is complete and quality is assured. For example, the transcriptome assembly will be released as soon as the data are fully assembled, checked adequately for quality, and sufficiently annotated to be widely useful. Before general release, the adequacy of data storage and access procedures will be tested first by project personnel, then by selected colleagues external to the project. A publication(s) describing the data collected and conclusions drawn from them would be submitted soon thereafter. Other data will more appropriately be made generally available at the time publications reporting on them are accepted.

C. Archived data will be made available initially as just described and are intended to be available indefinitely or until judged no longer useful.

D. Any data pertaining to this project that we control, which have resulted from non-GBMF projects (prior, ongoing, or future), will be made available according to the same principles as data resulting from the GBMF-supported studies.

E. Data will be accessed by other users as described above.

F. Raw data will be made available to interested users. In general, however, the data will be made available after processing such as quality control, assembly, and annotation (for transcriptome sequence assembly), organization by mapping RNA-seq reads onto the assembled transcriptome (for gene-expression studies), etc.

G. We intend that the data be available indefinitely beyond the term of the grant. The databases will be hosted by ourselves or potentially by consortia established in the field.

H. At this point, we cannot foresee the future hardware needs sufficiently clearly to include them in the budget for the proposed Grant.

I. We do not anticipate the development of data-analysis tools under the auspices of this Grant. If such tools should be developed, we will make them available through the project website with sufficient tutorial associated to allow future users to use the tools without undue difficulty.

J. No data-sharing agreement with outside vendors will be needed.

K. We intend to make all data freely and fully available to other investigators without the need for a Creative Commons-type license.

L. For the data that we provide, we will expect appropriate acknowledgment (of our publications and/or databases) by other users in their own publications or other uses of the data, in accord with well established scientific norms.

M. As noted above, we anticipate the prompt publication of papers in open-access journals that will be based on our data and make its availability widely known to other potential users.

DATA SHARING PHILOSOPHY

DATA SHARING PHILOSOPHY

The Gordon and Betty Moore Foundation's goals of scientific advancement, environmental conservation and health care improvement will best be served through a culture of open access to data. It is our philosophy that:

- All data used in or developed in whole or in part by foundation-funded projects (and that can be shared in a manner consistent with applicable laws) will be made widely available and freely shared as soon as possible¹. If data used in foundation-funded projects are owned by an additional party other than the grantee, we do not require it to be released, but the grantee will use its best efforts to encourage the data owners to make it openly and freely available.
- Data are shared with full and proper attribution to the data provider.
- Data developed in whole or in part by foundation grant funding are the property of the grantee unless otherwise specified. The grantee may protect its property through patent, copyright and/or other intellectual property protection instruments, except that it may not impede the effective access and use of the data by the public.
- The foundation is not responsible for any liabilities associated with errors in the data or misrepresentations or misinterpretations of publicly available data.
- The foundation supports grant funding for costs associated with data sharing and open access publication of scientific findings, where appropriate.
- The foundation and prospective grantees will jointly develop a Data Management and Sharing Plan prior to the finalization of a grant agreement.

The Data Sharing Philosophy applies to all activities that are financially supported in whole or in part by the foundation that include, but are not limited to:

Data collection and analyses, data, meta-analyses and information derived from preexisting datasets, and database development

Data sharing includes, but is not limited to, data contained within the following:

Publications, databases, derived data products, mathematical models and model code, metadata (defined as appropriate documentation describing the data, relevant specifics of their collection and the data format) and statistical and other forms of data reduction and analysis

¹ Examples of when data should be released: For data created for scientific and environmental conservation purposes, public release should occur not more than six months from the "date of collection" (defined as the date when data enters an electronic database), unless otherwise specified in the grant agreement between the grantee and the foundation; for DNA sequence data, "public release" (i.e. submission to an appropriate public database), should occur not more than six months after "completion" of the DNA sequence determination (as defined in the grant agreement between the foundation).

DATA SHARING AND MANAGEMENT PLAN

As part of the foundation grant development process, potential grantees are required to develop a Data Management and Sharing Plan with their foundation grant team. In these cases, before submitting a final grant proposal to the foundation for approval, both the potential grantee and the foundation grant team must approve a final version of the plan that is consistent with this Data Sharing Philosophy. Any exceptions to the Data Sharing Philosophy must be clearly articulated in the plan and approved by the grant team. Funds needed for data sharing and management may be requested as part of the proposal. Once finalized, the plan will be referenced in the grant agreement for the approved grant.

The plan should address the following three topics and any other topics identified by the foundation and/or grantee:

- 1. Data description. Questions to consider as appropriate:
 - What data will be collected during this project?
 - How many different data formats are anticipated? Please list formats.
 - When will the data be collected, when will they be entered into electronic databases and what databases will harbor the data?
 - Does this project involve organization or analysis of pre-existing data, and what are the data sharing arrangements for these data?
 - What are the anticipated data products (e.g., databases, analyses, tools)?
 - What kinds of metadata will be associated with the data?
 - Who is the owner of the data?
- 2. Data management. Questions to consider as appropriate:
 - Where (physically) will the data be stored?
 - What type of data access or data distribution mechanism and software will be used?
 - Will the location or software for initial data entry differ from the data archive?
 - How will metadata be stored, and what provisions will be made to enable metadata searching capability?
 - Who will be responsible for entering and maintaining data archives, and over what period of time will archives be maintained?
 - What data quality controls and assurances will be provided?
 - Who will contribute to the database?
 - Will proprietary data be used? If so, describe the permissions obtained to use the data.
- 3. Data Sharing. Questions to consider as appropriate:
 - Who are the potential data users?
 - What is the appropriate timing for release of data to the public or relevant users, and why?
 - When will archived data be openly available to other users?
 - If data from non-foundation-supported or previous projects are integral to the successful completion of the Grant Purposes, will the non-foundation-supported and/or pre-existing data also be made freely available?
 - How will other users (i.e., beyond the grantee and the foundation) access data and metadata?
 - Are the publicly available data in raw form? If not, what treatments have been

applied to the data prior to their being released to the public?

- How long beyond the grant term will the data be maintained and by whom?
- Does the proposed grant include provisions for future hardware upgrades in the event that data is to be stored and maintained well beyond the project period of the grant?
- If data analysis tools are to be created as a consequence of the grant, will a tutorial be available for training of future users of the data, and if so, how can it be accessed?
- Will a data sharing agreement be required between outside vendors? If so, a brief description of the agreement needs to be provided in the grant proposal.
- Is a Creative Commons type-license appropriate for sharing the data? Why or why not?
- How will appropriate attribution to the data provider be provided?
- Do you anticipate publishing a "Data Release Paper" for referencing and sharing the data?

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Article Detail



Moore Inventor Fellows: Frequently Asked Questions

Courtesy of Intel Corp.

July 31, 2016

Moore Inventor Fellows FAQ

As an institution eligible to participate in the Moore Inventor Fellows program, is there a specific process for internal solicitation and selection we should follow?

There is no specific process for internal solicitation and selection outlined by the foundation. We recognize inventors and innovators come from a diversity of backgrounds, disciplines and experiences and will look for creativity across a broad array of academic programs and research departments. Examples of such programs include, but are not limited to, environmental science and conservation, oceanography, biology, engineering, physics, chemistry, materials science, neuroscience, public health, rehabilitation sciences and gerontology.

My institution is not listed as eligible to participate in the Moore Inventor Fellows program. Is there an alternative route by which I can submit an application for consideration?

At this time, the competition is only open to inventors at Research 1 universities, additional institutions from among the top 50 National Institutes of Health-funded medical schools and universities, and selected non-academic environmental research institutions. Each eligible institution may nominate two people.

If an institution is part of a larger university system, do you allow nominations from other campuses not stated on the list of eligible institutions? What is the full list of eligible institutions?

Each institution is limited to nominating candidates from within its own campus. Schools that are part of systems with multiple campuses (e.g., large state systems) may not submit nominations for a candidate from another campus. The eligible institutions are:

Albert Einstein School of Medicine American Museum of Natural History Arizona State University-Tempe Baylor College of Medicine Bigelow Laboratory for Ocean Sciences Boston College

Boston University Brandeis University Brown University California Academy of Sciences California Academy of Sciences California Institute of Technology Carnegie Institution of Washington **Carnegie Mellon University** Case Western Reserve University **Clemson University Cleveland Clinic** Cold Spring Harbor Laboratory Colorado State University-Fort Collins **Columbia University Conservation International** Consortium for Ocean Leadership Inc **Cornell University** CUNY Graduate School and University Center **Duke University Emory University** Field Museum of Natural History Florida International University Florida State University George Mason University George Washington University **Georgetown University** Georgia Institute of Technology Georgia State University Gulf of Maine Research Institute Harvard University Icahn School of Medicine at Mt. Sinai Indiana University Iowa State University J Craig Venter Institute, Inc. Johns Hopkins University Kansas State University Louisiana State University and Agricultural & Mechanical College Marine Biological Laboratory Massachusetts Institute of Technology Mayo Clinic Medical College of Wisconsin Medical University of South Carolina Michigan State University Monterey Bay Aquarium Research Institute New York Botanical Garden New York University North Carolina State University Northeastern University Northwestern University **Ohio State University** Oregon Health and Science University Oregon State University Pennsylvania State University **Princeton University Purdue University Rice University Rocky Mountain Institute** Rutgers, The State University of New Jersey Scripps Institution of Oceanography Smithsonian Institution Stanford University Stony Brook University - SUNY



Stroud Water Research Center Inc. SUNY at Albany Syracuse University Temple University Texas A&M University Texas Tech University The Botanical Research Institute of Texas The Conservation Fund (The Freshwater Institute) The National Center for Genome Resources The Nature Conservancy The University of Texas, MD Andersen Cancer Center The University of Texas, Southwestern Tufts University **Tulane University** University at Buffalo - SUNY University of Alabama at Birmingham University of Arizona University of Arkansas University of California, Berkeley University of California, Davis University of California, Riverside University of California, San Diego University of California, San Francisco University of California, Santa Barbara University of California, Santa Cruz University of California, Irvine University of California,Los Angeles University of Central Florida University of Chicago University of Cincinnati-Main Campus University of Colorado at Boulder University of Colorado, Denver University of Connecticut University of Delaware University of Florida University of Georgia University of Hawaii at Manoa University of Houston University of Illinois at Chicago University of Illinois at Urbana-Champaign University of Iowa University of Kansas University of Kentucky University of Louisville University of Maryland, Baltimore (School of Medicine) University of Maryland, College Park University of Massachusetts Medical School University of Massachusetts-Amherst University of Miami University of Michigan University of Minnesota, Twin Cities University of Mississippi University of Missouri-Columbia University of Nebraska-Lincoln University of New Mexico-Main Campus University of North Carolina at Chapel Hill University of North Texas University of Notre Dame University of Oklahoma-Norman Campus University of Oregon University of Pennsylvania

Article Detail

FOUNDATION ()

University of Pittsburgh University of Rochester

University of South Carolina-Columbia University of South Florida University of Southern California University of Tennessee University of Texas at Arlington University of Texas at Austin University of Texas at Dallas University of Utah University of Virginia University of Washington University of Wisconsin-Madison University of Wisconsin-Milwaukee Vanderbilt University Virginia Commonwealth University Virginia Polytechnic Institute and State University Wake Forest University Washington State University Washington University in St. Louis Wayne State University West Virginia University Wildlife Conservation Society Woods Hole Oceanographic Institution Woods Hole Research Center World Resources Institute World Wildlife Fund (WWF US) **Yale University**



GORDON AND BETTY FOUNDATION (/)

I am an eligible individual at a participating institution but may leave my current institution during the course of the fellowship. Am I still eligible? Would you consider transferring a grant?

Yes. The most important goal is for an individual to make progress on their project. We would make the grant to your current institution and discuss, on a case-by-case basis, the best way to handle the full term of the award if a fellow's status changes.

Are only individuals who have completed their degree eligible for nomination (e.g., no undergraduate or graduate students)?

Yes. At this time, the competition is open only to faculty and staff at eligible institutions.

Is there a specific cutoff date for the career stage requirement?

All candidates must be within ten years of receiving their Ph.D., M.D., M.S. or other terminal degree. There is no specific cutoff date; a degree received anytime within 2007 is acceptable.

I am an associate professor at an eligible university, within ten years of starting my tenure-line post but beyond ten years of receiving my degree. Am I eligible to apply?

No. All candidates must be within ten years of receiving their Ph.D. or other terminal degree. However, a degree received anytime within 2007 is acceptable.

I have a master's degree but not a Ph.D. Am I still eligible for nomination?

https://www.moore.org/article-detail?newsUrIName=inventorsfaqs

Article Detail

Yes. Different fields have different practices with regard to terminal degrees and advancement. We want to provide flexibility that allows for the most GORDON AND BETTY degree.

I am a member of an institution whose research, teaching and service responsibilities prevent me from spending a quarter of my time on invention activities. Does this mean I am ineligible?

Yes. Fellows must be engaged in the pursuit of their invention at least 25 percent time for the three-year duration of the award.

We are a team of two or more eligible faculty/staff. Can we apply as a group or must nominations be for an individual?

Each nomination must be for a single individual who can be considered the project lead. However, we understand that many projects are made possible through collaboration, and allow grant funds to be used toward collaboration in service of the project.

How much flexibility does the fellow have with respect to budget allocations?

Fellows can determine how grant funds are used for project purposes. Grant funds may be used to support portions of salary, undergraduate or graduate students, equipment or supplies.

Is the grant award for fellows \$600,000 or \$675,000?

The total grant award is \$675,000 for a three-year period. The fellow receives a total of \$600,000 (\$200,000 each year, for three years). The home institution will receive a total of \$75,000 (\$25,000 each year, for three years to offset costs associated with grant management).

Can you please clarify what costs are permissible as part of the institution's \$50,000 annual contribution?

Each host institution will be required to contribute \$50,000 in annual direct support of the inventor's work. This includes support for undergraduate or graduate students, equipment, supplies and other needs that will enable the fellows to focus on their inventions. Direct support in the form of salary is acceptable; however, the direct support requirement cannot be met without a proportionate release of time that the inventor spends on other duties (e.g., teaching). Clarification of the nature of institutional support will be required in nomination materials.

I have an idea for an invention but am not sure if it fits within the Moore Inventor Fellow program's goals. How can I check?

Broadly speaking, we seek to support ideas and inventors grounded in science and technology that could make important contributions to the areas of science, patient care or environmental conservation. To help ensure we have the strongest applicant pool possible, we have asked each eligible institution to nominate two candidates for consideration. We suggest you contact your institution point person to better understand the process for selection.

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What kind of information are you looking for in the "statement of invention"? How in-depth and technical should the description be, and do you allow figures, charts or other graphics?

From the call for proposals, we expect no more than two pages describing: the main idea, that idea's importance, its stage of invention, the problem the idea seeks to address, any existing or planned funding, feasibility (technical description) and potential impact of the invention in one of our three programmatic themes: science, environmental conservation, or patient care. You may include figures, charts and references within the total page length limit.

Will the intellectual property presented in the "statement of invention" be protected during the competition?

Yes, absolutely. We appreciate that nominees are sharing potentially valuable information with the foundation. All staff and external advisors who review applications have signed nondisclosure agreements with the foundation. All material submitted is protected. The foundation's Data Sharing and Intellectual Property Policy (https://www.moore.org/docs/default-source/Grantee-Resources/data-and-ip-policy-11-2014.pdf) states all intellectual property must be managed and disseminated in a manner that leads to the greatest impact. Each award will include IP terms to reflect the needs of that project.

In a project centered around invention, IP terms may be important to achieving the intended impact, so it may be appropriate to negotiate project-specific IP terms for the grant agreement. IP terms can be negotiated on a case-by-case basis once projects have been selected for funding. Submission of an application does not commit the university/institution or PI in advance to any particular IP terms.

Will I receive an update on the status of my nomination?

Yes. We will inform institutional contacts and nominees of their application status, but are unable to provide any review, feedback or assessment information.

Please read the Moore Inventor Fellows Guidelines (/docs/default-source/default-document-library/moore-inventor-fellows-guidelinesa8bd0361a10f68a58452ff00002785c8.pdf?sfvrsn=0) for more details.

SHARE

FAQs Settings Help



Home » Help

Help

For any questions pertaining to this application, please contact: Anna Gallagher (inventors@moore.org).

Frequently Asked Questions

Question: I don't know or have forgotten my password. How do I reset it?

Answer: You can request a password reset by visiting this page.

Question: The dates/times associated with my submitted material seem to be a few hours off. Why is this? Answer: This happens when we are unaware of your local timezone. Please set your timezone in your <u>account settings page</u>.

Technical problem? Please fill out a support request form for assistance.

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