

*Ending the Pandemic Threat: A Grand Challenge for
Universal Influenza Vaccine Development*

Contents

The Grand Challenge.....	2
Background	2
Objectives	3
Approach.....	3
Award.....	4
Suggested Reading.....	5
Target Product Profile.....	6
Rules and Guidelines.....	7
Overview	7
Grand Challenges principles.....	7
Application Instructions	8
Key dates and deadlines for this Grand Challenges.....	8
How to Apply.....	8
Letter of Inquiry (LOI) Application Format.....	8
Tips for Applicants.....	9
Eligibility Criteria	9
Review Process.....	10
Handling of Proposals	10
Review of Proposals	10
Management of Conflict of Interest	11
Eligibility and Notifications	11
Privacy Notice and Terms of Use	14
Frequently Asked Questions	14
Inquiries	14

The Grand Challenge

*(Facilitating innovation requires understanding) how do we create ecosystems that promote creativity...that promote innovation of benefit to the world and to humanity.*¹

Eliane Ubalijoro, McGill University, GCE Grantee

*The net effect of Grand Challenges will be a massive return – these investments, really, will be traceable to saving millions of lives.*²

Bill Gates

*This is an all-hands-on-deck time. If we get there, we can make influenza history.*³

Bruce Gellin, Sabin Vaccine Institute

Background

2018 marks the 100-year anniversary of the most severe influenza pandemic in recorded history, which killed an estimated 50 million people worldwide – more than the total deaths caused by the First World War. The subsequent influenza pandemics of 1957, 1968, 1977, and 2009, though milder than the 1918 pandemic, demonstrated the potential of influenza viruses to cause excessive morbidity, mortality, and, more generally, severe disruptions of healthcare systems. Clearly, the threat of pandemic influenza is very real. Also, influenza viruses pose a significant threat to humankind, with seasonal influenza disease leading to an estimated 290,000 – 650,000 deaths each year.

While vaccination remains the best tool for prevention of disease, the current influenza vaccines significantly underperform compared to the effective and durable vaccines used against other vaccine-preventable diseases around the world. One key reason for this comparatively reduced effectiveness is the influenza virus' propensity for generating mutations in its surface antigens – the very targets of today's vaccines. Furthermore, the predominant technologies for influenza vaccine production necessitate a protracted and inefficient manufacturing cycle and a huge supporting mechanism for biennial flu vaccine strain recommendations; by the time vaccines are ready for distribution – 6+ months after strain determination – the viruses circulating during next season may not match up well with those strains in vaccines leading to less than optimal vaccine effectiveness. Although other factors also contribute to poor vaccine effectiveness, the annual formulation changes, the cost of and limited access to current influenza vaccines (regardless of how well matched they are to circulating strains), and need for annual vaccinations are barriers to protecting against global seasonal influenza, particularly among those in low- and middle-income countries. Furthermore, at best they may only offer partial or minimal protection against emerging pandemic strains. Clearly, there is an unmet public health need for a transformative, game-changing universal influenza vaccine that will protect against all influenza strains for longer duration, alleviating the need for annual formulations and vaccinations and leading to a panacea for tackling pandemic and seasonal influenza disease threats.

¹ [Grand Challenges in Global Health – the First Ten Years](#)

² [Grand Challenges in Global Health – the First Ten Years](#)

³ [Andrew Nusca, "Why We Need a Universal Flu Vaccine", *Fortune*, 2018](#)

Objectives

To find a game changing, universal solution to all these challenges, the Bill & Melinda Gates Foundation and the Page Family are launching the “Universal Influenza Vaccine Development Grand Challenge” during the centenary year of the 1918 flu pandemic. The goal of this Grand Challenge is to identify novel, transformative concepts that will lead to development of universal influenza vaccines offering protection from morbidity and mortality caused by all subtypes of circulating and emerging (drifted and shifted) Influenza A subtype viruses and Influenza B lineage viruses for at least three to five years. It is envisaged that such a universal influenza vaccine would address the threat from both seasonal and pandemic influenza, thus alleviating the need for annual seasonal influenza vaccination campaigns, averting significant global morbidity and mortality, and better preparing the world for the next influenza pandemic.

While other funders are supporting development of universal Influenza vaccines, three things set this Grand Challenge apart. We seek to fund ideas that are bold and innovative, bridging the funding ‘valley of death’ to translate these novel approaches into products ready for human clinical trials. We also aim to encourage interdisciplinary collaboration and cross-fertilization of ideas from outside the traditional influenza research community. Third, we seek completely transformative approaches rather than incremental research.

Our collective belief is that innovation is catalyzed through rigorous collaboration and enriching of ecosystems, and we hope this Grand Challenge will stimulate creative thinking beyond the traditional influenza community. Although not exhaustive, examples of researchers and disciplines we would like to see further integrated and supported include computational and systems biologists, virologists, immunologists, bioinformatics, artificial intelligence, deep learning, machine learning, the HIV/AIDS and cancer immunotherapy research communities, etc. Fundamentally, we are looking for unconventional approaches that effectively drive or harness immune responses in desired ways and **develop universal influenza vaccines that are ready to start clinical trials by 2021.**

Approach

All proposals must be aligned with the Gates Foundation’s intervention Target Product Profile (iTPP). The iTPP (detailed below) describes the desired characteristics of a universal influenza vaccine. Most importantly, new vaccines should have the potential to be used in all age groups around the world, especially in developing countries. We are looking for affordable, effective vaccines that are suitable for delivery through existing immunization programs in-country, which has implications for product presentation and stability as well as for dosing route and schedule. The vaccines need to be broadly protective across Influenza A and B strains for a minimum of three to five years. Technologies will need to be scalable to meet worldwide demand.

We are looking for proposals that:

- Engage scientists across a variety of disciplines, *including those new to the influenza field*
- Demonstrate *innovative thinking* by incorporating concepts or technologies not currently being used within/addressed by the influenza vaccine field
- Present concepts and strategies that are “off the beaten track,” significantly radical in conception, and daring in premise.

Please note: grantees will have access to a wide-range of Gates Foundation-funded resources and technology platforms to support their projects.

Examples of what we're looking for may fall into broad categories:

1. **Antigen-centric:** discovering new antigens/targets through Artificial Intelligence, Machine Learning, and/or Deep Learning approaches to get beyond traditional surface hemagglutinin
2. **Host-centric:** approaches that (a) generate, enhance, or modify human immune protection, including sterilizing immunity (b) ensure longer term (possibly life-long) immune response (c) describe surrogates for longevity of immune response and (d) that target specific tissue or cell types for appropriate induction of local and systemic immunity leading to broader and longer protection
3. **Technology-centric:** including (a) novel vaccine concepts, targets and constructs inspired by new observations or understanding about the nature of the influenza virus or the human response to it and (b) applications of radically new technologies for disease protection, such as production of immunogens using synthetic biology or radical genetic engineering approaches
4. **Enabling advances:** including challenge models to quickly demonstrate safety and proof-of-concept for influenza vaccines

We also would be very happy to receive proposals that describe approaches for employing multiple interventions in combination.

In addition, we may entertain concept proposals related to use of DNA/RNA based delivery of longer acting universal influenza monoclonal antibody for passive prophylaxis or use of such monoclonals for exploring appropriate epitopes for universal influenza vaccine, if generally aligned with our iTPP.

We will NOT consider funding for:

- Marginal improvements in current seasonal influenza vaccines
- Precedented approaches using biosimilars to antigens or adjuvants currently in clinical development
- Basic studies of pathogen or human biology without a clear component that tests the potential for translation into product
- Development of assays, new reagents, adjuvants, or production technologies improving licensed and late-stage vaccines already in development
- Therapeutic monoclonal antibodies for treatment of influenza patients.

Award

Pilot awards (\$250,000 up to \$ 2 million):

This request for proposals intends to fund pilot awards of up to USD \$2 million over 2 years, with the anticipation that one or more pilot projects, on demonstration of promising proof-of-concept data (e.g., from animal models), may be invited to apply for a full award up to USD \$10 million. Full awards would be intended to fund IND-enabling and clinical studies.

Pilot awards do not include a requirement for an industry or translation partner but such partnerships would still be welcome. Industry is also welcome to apply directly for the pilot award. Successful pilot award recipients will have the opportunity to apply for additional funding, which could include grants, program related investments and/or contracts and must include a biopharmaceutical industry or other translational partner.

We reserve the right to determine eligibility for subsequent funding for this call based on these characteristics.

Suggested Reading

Please note: these suggested readings obviously do not represent an exhaustive list of all universal influenza vaccine activities and concepts and very few, if any, are likely to meet all the requirements of our iTPP (described below). We include these for illustrative purposes only and encourage applicants to understand and think beyond the ideas discussed below.

1. [Arun Kumar, et al. \(2018\) Novel Platforms for the Development of a Universal Influenza Vaccine. *Frontiers in Immunology*. \(doi:10.3389/fimmu.2018.00600\).](#)
2. [James E. Crowe, Jr. \(2017\) Is it Possible to Develop a “Universal” Influenza Virus Vaccine? Potential for a Universal Influenza Vaccine. *Cold Spring Harbor Perspectives in Biology*. \(doi:10.1101/cshperspect.a029496\).](#)
3. [Sarah F. Andrews, et al. \(2017\) Is it Possible to Develop a “Universal” Influenza Virus Vaccine? Immunogenetic Considerations Underlying B-Cell Biology in the Development of a Pan-Subtype Influenza A Vaccine Targeting the Hemagglutinin Stem. *Cold Spring Harbor Perspectives in Biology*. \(doi:10.1101/cshperspect.a029413\).](#)
4. [Florian Krammer, et al. \(2017\) Is it Possible to Develop a “Universal” Influenza Virus Vaccine? Toward a Universal Influenza Virus Vaccine: Potential Target Antigens and Critical Aspects for Vaccine Development. *Cold Spring Harbor Perspectives in Biology*. \(doi:10.1101/cshperspect.a028845\).](#)
5. [Davide Angeletti and Johnathan W. Yewdell. \(2017\) Is it Possible to Develop a “Universal” Influenza Virus Vaccine? Outflanking Antibody Immunodominance on the Road to Universal Influenza Vaccination. *Cold Spring Harbor Perspectives in Biology*. \(doi:10.1101/cshperspect.a028852\).](#)
6. [Francesco Berlanda Scorza, et al. \(2016\) Universal Influenza Vaccines: Shifting to Better Vaccines. *Vaccine*. \(doi:10.1016/j.vaccine.2016.03.085\).](#)
7. [Erin Sparrow, et al. \(2016\) Passive Immunization for Influenza through Antibody Therapies, a review of the pipeline, challenges and potential applications. *Vaccine*. \(doi:10.1016/j.vaccine.2016.08.057\).](#)

Target Product Profile

Indication	Protection from morbidity and mortality caused by all subtypes of circulating and emerging (drifted and shifted) Influenza A subtype viruses and Influenza B lineage viruses
Target Population	From six weeks with no upper age limit. High risk populations including pregnant women, children with underlying medical conditions and the elderly
Efficacy	Protection of at least 70% against moderate to severe disease caused by all strains of influenza A and B across all age groups
Duration of protection	Three to five years
Onset of immunity	Four weeks
Herd protection	Desirable
Dosing schedule	Vaccine naïve subjects (pediatric): No more than 3 doses over a 5 year period, compatible with current EPI schedule including co-administration Influenza primed subjects: Single or two dose primary series, booster every five years Single or two doses in Pregnant women
Vaccine Safety	No worse than EPI vaccines
Stability/ Shelf life	Minimum shelf life of 2 years at 2-8 deg C
Product registration path	Universal flu vaccine is likely to be licensed as Seasonal flu vaccine also useful for pandemic, based on clinical efficacy against circulating influenza strains with passive serum transfer studies in appropriate animal model (ferrets?) showing protection against pandemic strains
WHO PQ date	2027
Primary target delivery channel	Routine immunization for infants/children Pre-pandemic global campaign
Target countries	All

Rules and Guidelines

Applications due no later than June 22, 2018, 11:30 a.m. U.S. Pacific Daylight Time

Overview

Grand Challenges is a family of initiatives fostering innovation to solve key problems in global health and development for those most in need. Each initiative is an experiment in the use of challenges to focus innovation on making an impact. Individual challenges address some of the same problems, but from differing perspectives.

Grand Challenges principles

1. Strategic and well-articulated Grand Challenges serve both to focus research and development efforts and to capture the imagination of and engage the world's best researchers and innovators. The Grand Challenges model focuses on seeking solutions to well-defined problems. The initiative brings these problems to the attention of relevant communities of solvers, both individuals and organizations, and invites creative and forward-thinking approaches to address issues that, if solved, can dramatically improve the world we live in.
2. Projects are selected based on public and transparent calls for proposals seeking the best ideas. The Grand Challenges programs do not purport to know the solutions to the world's most pressing development issues—but they are willing to take risks and invest to create new solutions. The Grand Challenges model aims to engage new solvers with fresh ideas.
3. Funders, innovators and other stakeholders actively collaborate to accelerate progress and promote advances to ensure they serve those most in need. The public, private, academic and nonprofit sectors must work together to accelerate and scale up innovations that can improve the lives of those most in need.
4. Projects are selected not only for scientific excellence but also for the likelihood that they will achieve the desired scale and impact. Successful applicants present projects that, when proven successful through the collection of rigorous evidence, have the potential to serve those most in need. Investing in scientific innovation—as well as in the business and social innovation needed to increase impact at scale—will help ensure that these efforts have the greatest possible impact in terms of lives saved or improved.
5. Researchers and innovators work to ensure that the fruits of their projects are accessible and available to those most in need. Fostering ties to industry, both by helping bridge the private and public sectors or by directly funding a company, can create sustainable enterprises, and reduce the time from discovery to development, production and impact. Key to this is developing global access strategies to ensure that those most in need benefit from new solutions. For additional information on the Foundation's global access and open access requirements, please see the Foundation's [Global Access website](#) and [Open Access Policy](#).

Application Instructions

Key dates and deadlines for this Grand Challenges

Key Dates*	Event
April 27, 2018	Topic Published
June 22, 2018, 11:30am PDT	Letter of Inquiry due

*Note, any changes to these dates will be posted on the Grand Challenges website

Applicants can expect to hear if their LOI is selected to move forward in August 2018. Full proposals will be invited from selected applicants and we expect to make funding decisions by November 2018.

How to Apply

Changes to the Rules and Guidelines and to the Frequently Asked Questions (FAQ) document will be posted periodically on the webpage for each open challenge at the Grand Challenges website (gcgh.grandchallenges.org), including any changes to the dates listed above. Please read the current FAQ before submitting any questions or concerns.

Letter of Inquiry (LOI) Application Format

We encourage you to use the provided RFP-specific LOI instructions document, which can be downloaded after clicking “Apply Now” on each application page and can also be found in the Supporting Material. You are required to submit either a Microsoft Word® or PDF document; no more than three pages in length. Please do not include a cover sheet with your proposal. A cover sheet will be automatically generated from your registration data.

The LOI application must include the following sections and must not exceed the **total page limit of 3 pages**. An outline for the LOI application is provided below:

1. Goals and Rationale

Describe the specific goals of the project and how they are responsive to the objectives noted in the Request for Proposals. Describe the advance in universal influenza vaccine development that the proposed project will deliver. Specify any hypotheses that will be tested. If applicable, briefly present any relevant preliminary data. Indicate the expected results from the project. Briefly indicate what the next steps might be and how the project’s results could lead to successful development of a universal influenza vaccine candidate. At the beginning of this section, include one or two sentences in bold that capture the essence of your idea.

2. Study Design, Scope, and Approach

This section should include a clear description of the research questions, the proposed research study, and how your project differs from current approaches. Please include your study design, including key milestones, as well as any supporting services (e.g., common assays, animal models, etc.) you may need to complete your work.

3. Organization and Investigator Capabilities & Collaboration

Summary of the lead PI’s and applicant organization’s previous experience and expertise that is relevant to this call. A description of collaborations, and if/how partnerships will be established (letters of support are not expected at this stage). This should include a description of where samples will be stored and analyzed, a plan to store isolates for future studies as well as a plan to share data.

Ending the Pandemic Threat: A Grand Challenge for Universal Influenza Vaccine Development

4. Budget

Summarize by research objective for each year of the project; **we will consider proposals for pilot awards of up to USD \$2 million over two (2) years.**

Proposals for this Grand Challenge must be submitted prior to the deadline of 11:30am Pacific Daylight Time on June 22, 2018.

Tips for Applicants

- ❖ Your proposal must comply with all restrictions and guidelines for the challenge to which you are applying, and it must explain how it addresses a key need highlighted in the challenge description. In addition, the challenge description highlights ideas that will not be funded, so applicants should make sure that their idea does not fall into one of these categories. The foundation only funds projects responsive to the Request for Proposals as it has a number of other avenues of funding for the equally important research that is otherwise within currently accepted program paradigms.
- ❖ The work proposed in your application must include a clear set of key experiments or activities that test your idea in a way that could provide sufficient evidence to warrant funding. Proposals with vague descriptions or vague testing methodologies will not be funded.
- ❖ The proposed project should have a clearly articulated goal, usually in terms of proving a hypothesis that if proved could lead to significant impact if properly scaled. The project plan should be organized by objectives that are logically required to achieve the goal of the project and should include a plan to **prove or disprove the underlying hypothesis** in an efficient and logical manner.
- ❖ Not all the reviewers for each proposal will be deep experts in the field. To maximize the chance of being funded, proposals should be written in clear language without jargon specific to a particular field.
- ❖ Your organization must meet the eligibility requirements as specified in this document and further refined in each of the challenge calls.

During the application process you will be required to confirm that you have read and understand the Website Terms of Use and Privacy Policy, and these Rules and Guidelines, and acknowledge that any information that you provide to us (either orally or in writing) will be subject to and handled in accordance with such provisions.

Eligibility Criteria

Grand Challenges is open to both foreign and domestic organizations, including non-profit organizations, for-profit companies, international organizations, government agencies and academic institutions. Individuals and organizations classified as individuals for U.S. tax purposes are not eligible to receive an award from the foundation as part of the Grand Challenges initiative.

Upon registration, applicants must provide information about the tax status of their organization as different terms and conditions may apply. You should confirm your organization's tax status with the appropriate advisor or entity within your organization such as your grants or contracts department, finance, or office of sponsored research. The foundation may request additional information regarding your tax status. For information about tax statuses, you may check with your own advisors and review information provided on the Internal Revenue Service web site at: www.irs.gov.

Each challenge published under the Grand Challenges may include additional instructions with regard to specific limitations regarding eligibility for that challenge.

Review Process

The review of proposals is a critical element of the Grand Challenges initiative - its goal is to filter and harness creative ideas. For each challenge call, we advertise a set of challenges carefully defined to elicit innovative responses to critical barriers in global health and development.

Handling of Proposals

The foundation has put in place policies and procedures, exclusive to the Grand Challenges initiative, intended to restrict public dissemination of application materials. These policies and procedures include, when possible, having external reviewers sign confidentiality agreements and requiring that reviewers destroy or return to the foundation all copies of information acquired or created during the course of performing a review. In some instances, however, we are unable to put in place confidentiality agreements or to police the use of application materials.

Additionally, the foundation is required by the IRS to publish a list of its grants. The foundation also provides general descriptions of its grants on its web sites, in press releases, and in other marketing materials. Subject to this Privacy Policy, the foundation may also share information you provide to us (either orally or in writing) with third parties, including external reviewers, consultants, contingent workers, key partners and co-funders. These Rules and Guidelines are subject to these Terms of Use.

Review of Proposals

Due to the large number of proposals anticipated, applicants with proposals that are not selected for award will receive a notification of decline without specific feedback. Nonetheless, applicants are encouraged to submit ideas in future years.

The Grand Challenges application review process for Phase I is executed in four steps:

1. The first step consists of screening LOI applications to evaluate whether proposals address the key needs described in the topic. We screen for responses that are completely unrelated or specifically excluded in the topic description. Excluded responses encompass ideas related to the topic but that, for strategic reasons, we are not funding under the Grand Challenges initiative. In addition, we exclude proposals considered incremental advances, appropriate responses that are similar to work in which the foundation or other Grand Challenges programs are already investing, or avenues of inquiry we deem ill-suited to the Grand Challenges initiative. Applicants with proposals removed from consideration during the screening process will be notified that their proposals were declined but will not receive specific feedback.
2. In the second step, reviews are chaired or co-chaired by technical leads from the foundation and other funding partners and are conducted by reviewers both outside and within the foundation. Reviewers are selected from the world's leading researchers and comprise both experts in the

topic area and experts in complementary areas. Not all reviewers have deep expertise in the topic; please consider this information when drafting your proposal. Unlike most scientific funding programs, reviewers are encouraged to champion specific projects to be funded as part of the portfolio, without the need for a broad consensus on selections.

In order of importance, the criteria considered in these reviews are:

- ❖ Potential to lead to solutions with substantial **impact** related to the specific topic
 - ❖ **Scientific and technical excellence & innovation**, including:
 - creativity of the project’s approach and clear differentiation from existing approaches
 - a clear and rigorous conceptual framework for the activities
 - ❖ Project Plan, including:
 - investigator and organization capabilities and potential for collaboration
 - **value** in terms of appropriateness of the budget and timeline relative to project complexity, risk, and potential impact
3. The third step is the validation and final selection of the LOI applications to be invited to submit full proposals by an Executive Committee. Invited proposals will be provided additional technical instructions at that time.
 4. The fourth step involves repeating step two, but with regard to evaluation of the full proposal and with the inclusion of a more detailed review of the project plan and capability to execute the work.
 5. The fifth step is the validation and final selection of the proposals to be funded by the Executive Committee. The Executive Committee may recommend the proposal be funded, subject to specific modifications which will be negotiated as part of the award process.
 6. The sixth and final step is a due diligence review and to directly discuss and negotiate any adjustments to the proposed project recommended by the Executive Committee. Investigators will be contacted as part of the due diligence review.

Management of Conflict of Interest

To identify and avoid conflicts of interest among application reviewers, such reviewers will not be permitted to review proposals from organizations with which the reviewer has self-identified conflicts of interest.

Eligibility and Notifications

A. Allowable Costs

Grant funds may be used for the following costs: personnel, necessary travel, supplies, contracted services, sub-grants, and consultants. Partial or full support for equipment may be requested subject to the circumstances described below. Please provide budget estimates according to these categories. The foundation provides a limited amount of indirect costs based on the nature of the applicant organization.

B. Privacy Notice

To help foundation staff in their evaluation and analysis of projects, all documents, communications and associated materials submitted to the foundation (collectively, “Submission Materials”) will become the property of the foundation and may be subject to external review by independent subject matter experts in addition to analysis by foundation employees, contingent workers and/or consultants. Please consider carefully the information included in the Submission

Materials. If you have any doubt about whether to disclose confidential or proprietary information, the foundation recommends you consult with your legal counsel. You may wish to consider whether such information is critical for evaluating the submission, and whether more general, non-confidential information may be adequate as an alternative for these purposes. We respect confidential information we receive. Nonetheless, notwithstanding your characterization of any information as being confidential, the foundation may disclose all information contained in Submission Materials to the extent it determines is necessary to evaluate them and the manner and scope of potential funding and as may be required by law.

C. Disclaimer

Neither these Rules & Guidelines nor the associated challenge calls constitute an offer to contract or award grant funds. The foundation assumes no responsibility for the applicants' cost to respond to this these calls.

D. Release and Verification

In exchange for the opportunity to be considered for a grant, contract or program-related investment (PRI) (per the relevant challenge call), the applicant agrees that the foundation may, in its sole discretion: (1) amend or cancel any challenge calls, in whole or in part, at any time; (2) extend the deadline for submitting responses; (3) determine whether a response does or does not substantially comply with the requirements of the challenge call and/or these Rules & Guidelines; (4) waive any minor irregularity, informality or nonconformance with the provisions or procedures of the challenge call and/or these Rules & Guidelines; (5) issue multiple awards; (6) share responses generated by the challenge call and/or these Rules & Guidelines with foundation staff, consultants, contingent workers, subject matter experts, and potential co-funders; and (7) copy the responses.

Applicant agrees not to bring a legal challenge of any kind against the foundation relating to the foundation's selection and award of any grant, contract or award arising from these Rules & Guidelines and the associated challenge calls.

E. Warranty

By providing any Submission Materials, the sender(s) and applicant warrant to the foundation that they have the right to provide the information submitted and that such information is accurate. Any material misrepresentation, including omissions, may disqualify Submission Materials from consideration for a grant, contract or PRI award. Applicants with questions concerning the contents of their Submission Materials may contact the foundation at: grandchallenges@gatesfoundation.org.

F. Intellectual Property (IP)

Since the output of this program may lead to innovative technologies, techniques and/or products that will result in improved health and development-related products for those in greatest need in the developing world, the successful development of these high priority products may require substantial involvement and support of private sector industries as sub-contractors, and may also involve collaborations with multiple organizations, including academic and/or non-profit research institutions.

It is the intent of this program to support the formation of appropriate public-private partnerships that are essential to meet urgent global health and global development needs. IP rights and the management of IP rights are likely to play an important role in achieving the goals of this program. To this end, the foundation requires that, even at the LOI application stage, all applicants seriously consider their willingness to submit a full proposal in compliance with the foundation's proposal

guidelines, a portion of which asks for certain information and intentions regarding intellectual property and global access concerns. Specifically, the foundation requires that you agree to use good faith efforts to conduct and manage the research, technologies, information and innovations involved in the Project in a manner that enables (a) the knowledge and information gained during the Project to be promptly and broadly disseminated, and (b) the intended product(s) to be made available and accessible at an affordable price to people most in need in the developing countries of the world. The foundation refers to this as “Global Access.”

As part of the foundation’s review and evaluation of each full proposal, due diligence will be conducted with respect to each participant’s ability and commitment to manage intellectual property in a manner consistent with the stated scientific and charitable goals of the foundation. Due diligence activities may include inquiry into an applicant’s: (1) Freedom to operate (FTO) and ability to freely use and acquire needed background technology; and (2) Commitment to promote the utilization, commercialization and availability of inventions for public benefit in, or the benefit of, developing countries. In order to facilitate this due diligence process applicants are encouraged to provide information with respect to the items above in their Submission Materials.

Applicants are also expected to make new information and materials known to the research and/or medical communities in a timely manner through publications, web announcements, progress reports to the foundation, and other appropriate mechanisms. These concepts may be discussed at some length with the applicants invited to submit full proposals, and will be addressed (to the extent appropriate) within each final grant agreement. The Global Access Strategy, developed in connection with each grant awarded to each applicant who submits a successful proposal, will also include provisions defining these concepts.

G. Compliance with Laws and Other Requirements

1. **Compliance with Laws.** In carrying out the individual project, you will comply with all applicable laws, regulations, and rules and will not infringe, misappropriate, or violate the intellectual property, privacy, or publicity rights of any third party.
2. **Compliance with Requirements.** You will conduct, control, manage, and monitor the individual project in compliance with all applicable ethical, legal, regulatory, and safety requirements, including applicable international, national, local, and institutional standards (“Requirements”). You will obtain and maintain all necessary approvals, consents, and reviews before conducting the applicable activity. As a part of your annual progress report to the foundation, you must report whether the individual project activities were conducted in compliance with all Requirements.

If the project involves:

- (a) any protected information (including personally identifiable, protected health, or third-party confidential), You will not disclose this information to the foundation without obtaining the foundation’s prior written approval and all necessary consents to disclose such information;
- (b) children or vulnerable subjects, you will obtain any necessary consents and approvals unique to these subjects; and/or
- (c) any trial involving human subjects, you will adhere to current Good Clinical Practice as defined by the International Council on Harmonisation (ICH) E-6 Standards (or local regulations if more stringent) and will obtain applicable trial insurance.

Any activities by the foundation in reviewing documents and providing input or funding does not modify your responsibility for determining and complying with all Requirements for the project.

3. **Indemnification.** If the project involves clinical trials, trials involving human subjects, post-approval studies, field trials involving genetically modified organisms, experimental medicine, or the provision of medical/health services (“Indemnified Activities”), you will indemnify, defend, and hold harmless the foundation and its trustees, employees, and agents (“Indemnified Parties”) from and against any and all demands, claims, actions, suits, losses, damages (including property damage, bodily injury, and wrongful death), arbitration and legal proceedings, judgments, settlements, or costs or expenses (including reasonable attorneys’ fees and expenses) (collectively, “Claims”) arising out of or relating to the acts or omissions, actual or alleged, of you or your employees, subgrantees, subcontractors, contingent workers, agents, and affiliates with respect to the Indemnified Activities. You agree that any activities by the foundation in connection with the project, such as its review or proposal of suggested modifications to the project, will not modify or waive the foundation’s rights under this paragraph. An Indemnified Party may, at its own expense, employ separate counsel to monitor and participate in the defense of any Claim. Your indemnification obligations are limited to the extent permitted or precluded under applicable federal, state or local laws, including federal or state tort claims acts, the Federal Anti-Deficiency Act, state governmental immunity acts, or state constitutions. Nothing in this agreement will constitute an express or implied waiver of your governmental and sovereign immunities, if any.
4. **Insurance.** You will maintain insurance coverage sufficient to cover the activities, risks, and potential omissions of the project in accordance with generally-accepted industry standards and as required by law. You will ensure your subgrantees and subcontractors maintain insurance coverage consistent with this section.

Privacy Notice and Terms of Use

Our full privacy policy and terms of use are located at Privacy and Terms of Use.

Representation: By providing any Submission Materials, the sender represents to the Bill & Melinda Gates Foundation that he/she (i) has the authority to bind the named Applicant to the terms set forth above, without amendment, (ii) agrees to be bound by such terms; and (iii) has the right to provide the information submitted.

Please direct all questions about this initiative to: grandchallenges@gatesfoundation.org.

Frequently Asked Questions

Answers to many application questions can be found on the Frequently Asked Questions document posted on the webpage for each open challenge at the Grand Challenges website (gcgh.grandchallenges.org).

Inquiries

Please direct all questions about this initiative, selection criteria or application instructions by e-mail to the following address: grandchallenges@gatesfoundation.org.