

Overview of the Michelson Prizes: Next Generation Grants

KEY DATES: 2021

- Application portal opens April 1, 2021
- Applications due June 18, 2021, 5:00 pm EDT (UTC -4)
- Short-listed candidates notified: August 2021
- Notice of award: October 2021
- Awards ceremony: early December 2021.
- Award start date January 1, 2022
- Award cycle is January 1, 2022 – Dec. 31, 2022

Background

The Michelson Medical Research Foundation (MMRF) together with the Human Vaccines Project established the Michelson Prizes for Vaccine Research (now the Michelson Prizes: Next Generation Grants) in 2018. This \$20 million initiative, funded by the MMRF and administered by the Human Vaccines Project, supports young investigators 35 years and younger who are using disruptive research concepts and inventive processes to significantly advance the development of vaccines and immunotherapies for major global diseases.

The 2020 Michelson Prizes will focus on two areas:

- 1) **Human Immunology and Vaccine Research.** The committee will be looking for research aimed at tackling the current roadblocks that exist in human vaccine development and expanding our limited understanding of key immune processes that are fundamental to successful vaccine and immunotherapy development, (e.g., immune memory, immune receptor recognition, tissue-specific responses, host-microbe interactions, underlying genetic mechanisms, genetic susceptibility, etc.).
- 2) **Climate Change and Human Immunology:** Climate change has a profound effect on human health; pollution and other environmental stressors related to climate change increase susceptibility to disease, especially in vulnerable populations. Harnessing the immune system will be critical to mitigate negative health impacts. The committee is looking for research that expands our understanding of the potential effects of climate change on immune function with a particular interest in research that will directly translate into vaccine and immunotherapy development to mitigate its impact.

The Michelson Prizes are intended to draw young investigators from a wide range of disciplines, including computer science, artificial intelligence/machine learning, protein engineering, nanotechnology, genomics, parasitology and tropical medicine.

Applicants must submit an online application that will be judged based primarily on innovation and the ability to bring new insight and approaches to immunology and vaccine-based research. Applications will be reviewed by a distinguished committee of internationally-recognized research scientists.

Award Information

The Michelson Prizes are intended to support individuals early in their careers who possess novel ideas and who have significant potential to execute these ideas to affect transformative change in their respective fields. Research should incorporate multiplexed and non-traditional approaches from outside the fields of immunology and vaccinology and demonstrate a high degree of novelty and creative thinking. The successful applicants will clearly articulate a vision that challenges current dogma and demonstrates an ability to look beyond convention to make a lasting impact on vaccine and immunotherapy research.

Eligibility

Applicants must be 35 years or younger at the time of application submission (**born on or after June 18, 1985**). Early career independent investigators, postdoctoral fellows, clinical fellows (including residents and interns), and other researchers currently in training positions are eligible for these awards. An eligible applicant, regardless of ethnicity, nationality or citizenship status, must be employed by, or affiliated with, an eligible organization. Examples of eligible organizations include academia, biotechnology companies, foundations, government and non-governmental organizations, and research institutes. Individuals from such organizations, including organizations based outside of the US, are eligible to apply. Each applicant may submit only one Michelson Prize application per year.

While the Michelson Prizes are focused on research outcomes in the field of vaccine and immunotherapy discovery, applicants from the full spectrum of related disciplines, including clinical research, biochemistry, molecular biology, engineering, computer science, biophysics, nanotechnology, etc., are encouraged to apply. *Prior experience in human immunology and/or vaccinology is not required*, however, the application must clearly articulate how the proposed research will impact and advance our understanding of human immunology and/or vaccine science.

Application Information

The 2021 Michelson Prizes require an on-line **application**. Individuals who are short-listed will be requested to provide **supplemental information** to aid in the final selection process. The submission process should be started early to avoid missing deadlines. **All communications will be made through email.**

The Michelson Prizes are not intended to support an incremental progression of an already established research project or fund an extension of the applicant's doctoral or postdoctoral mentor's research. The application must describe **how** a new idea or approach will enhance our understanding of human immunology, with trans-disease applications to accelerate vaccine and immunotherapeutic discovery. If proposing to develop an innovative or original technology, the application must clearly state **how** the technology will significantly impact human immunology, immunotherapy, vaccine discovery or neglected parasitic disease. The inclusion of preliminary data is not required; however, if preliminary data relevant to the proposed project is included, it will be critiqued as part of the research plan.

The following are key aspects of a Michelson Prizes Application:

- **Innovation:** Innovation is the most important review criterion. Innovative research may introduce a new paradigm, look at existing problems from new perspectives, or exhibit other highly creative qualities. Research that represents an incremental advancement on previously published work is not considered innovative.
- **Impact:** The proposed research should impact an area of paramount importance in human immunology, vaccinology, immunotherapy or parasitic disease. It is the responsibility of the applicant to clearly and explicitly describe the potential impact of the proposed research on human immunology and vaccine and immunotherapeutic discovery and to convey its level of significance.
- **Research Strategy:** The scientific rationale and experimental methodology should demonstrate critical understanding and in-depth analysis of immunology, vaccine science, immunotherapy or parasitic disease. Experimental strategies may be novel or may be based on strong rationale derived from a literature review.

How to Submit an Online Application

- Click the Apply Now link on the Human Vaccines Project's website: www.humanvaccinesproject.org/michelsonprizes
- To begin your application, you will need to register for a SurveyMonkeyApply account. Please click the link below for more information. Once you have registered, please save your login information; you will be able to save your application and edit it until you press the "Submit" button.
- Fill out the 2021 Michelson Prizes application form directly online and submit your completed form.
- Applications must contain all the information required in the form in order to be accepted.
- Applications must be submitted no later than June 18, 2021, 5:00 pm EDT (UTC -4)

Selection Process

All applications will be reviewed by highly qualified scientists and clinicians with relevant expertise in the scientific subject areas of the application. Each application will be evaluated for its own merit, independent of other applications. **Unfortunately, we are unable to provide any feedback to applicants regarding the specific review of their application.**

Applications will be evaluated according to the following criteria:

- **Innovation:** To what degree the project introduces a new paradigm, looks at existing problems from new perspectives, or exhibits other highly innovative and creative qualities
- **Impact:** The proposed research should impact human immunology and vaccine and immunotherapeutic discovery.
- **Research Strategy and Feasibility:** The scientific rationale and experimental methodology should demonstrate critical understanding and in-depth analysis of human immunology and vaccine and immunotherapeutic discovery. Experimental strategies may be novel or may be based on strong rationale derived from a literature review.

Short-listed candidates will be invited to submit supplemental information to support the review committee in making its final selection. Supplemental materials may include letters of recommendation, budgetary detail, etc. If you are selected to submit supplemental information, you will receive an invitation email from the Human Vaccines Project. We will communicate with all applicants once a decision has been reached.

Research Conditions

The applicant must maintain a 50% dedication of his/her full-time professional effort during the award period to the research funded by this award. The applicant is expected to assemble a research team that will provide the necessary expertise and collaborative efforts toward accomplishing the research goals proposed in the application.

The allocation of award funds for conduct of the Michelson Prize-funded project is under the control of the awardee and may be used flexibly for items such as salary, equipment, consumable supplies, travel to scientific meetings, and laboratory personnel working with the awardee. Specific limitations include the following: No more than 40% of the total award can be used for salaries, travel costs cannot exceed \$1500 and there is a \$15,000 cap on equipment. The Human Vaccines Project does not pay indirect costs on the Michelson Prizes.

It is the responsibility of the awardee, in conjunction with their institution, to ensure that all academic and research activities funded by this award and carried out in or outside the US comply with the laws or regulations of the US and/or of the foreign country in which the academic and/or research activities are conducted.

Research Involving Human Anatomical Substances, Human Subjects, or Human Cadavers: Research involving new and ongoing research with human anatomical substances, human subjects, or human cadavers must be reviewed and approved by the applicant's local Human Research Protection Office (HRPO), Institutional Review Board (IRB) or Ethics Committee (EC). Local IRB/EC approval at the time of submission is **not** required.

Research Involving Animals: Research involving new and ongoing research with animals must be reviewed and approved by applicant's local Institutional Animal Care and Use Committee (IACUC) of record. IACUC approval at the time of submission is **not** required.

Specific documents related to the use of human subjects, human anatomical substances, human cadavers and/or animals in the proposed research will be requested **if the applicant is selected for funding**.

The MMRF and the Human Vaccines Project intend that information, data, and research resources generated under awards funded by these prizes be made available to the research community and to the public at large in a timely manner via standard means of scientific communication, including publications and/or presentations in scientific forums. The MMRF and the Human Vaccines Project will not retain any rights to published results or patents that result from research funded by these prizes.

The MMRF and the Human Vaccines Project reserve the right to discontinue award funds if the recipient terminates or suspends their employment or association with their research institution or terminates or suspends their research activities for any reason (e.g., graduates, leaves the laboratory, leave of absence, etc.).

Award recipients are required to submit a progress report and accounting of the use of funds prior to the conclusion of the award funding cycle, which is December 31, 2022. Any publications or works created by the award recipient must acknowledge support from the Michelson Prizes for Human Immunology and Vaccine Research as follows: Author X and/or this research was supported by the Michelson Prizes for Human Immunology and Vaccine Research. Copies of journal articles and other publications that result from this research prize should be sent to the Human Vaccines Project (contact person will be provided).

Award Announcement

Applicants will be notified of their selection to receive a Michelson Prize in October 2021. The award period commences on Jan 1, 2022 and ends on December 31, 2022.

Oral Presentation and Awards Dinner

Michelson Prize winners will be required to present a brief overview of their awarded research project at the 4th Annual *Conference on the Future of Vaccine Discovery, to take place in December 2021*. Depending on Covid-19 restrictions, the 2021 Michelson Prizes awards ceremony may be virtual (date and location TBD).

Questions?

Please review our online Frequently Asked Questions first. Specific questions about eligibility or the application process, please email us at: [**michelsonprizes@humanvaccinesproject.org**](mailto:michelsonprizes@humanvaccinesproject.org)