

Ono Pharma Foundation

Ono Pharma Breakthrough Science Initiative Awards Program

Program Information & Overview

Introduction

Ono Pharmaceutical Co., Ltd. is a leading global healthcare company committed to delivering new, innovative pharmaceutical products to patients and championing the fight against disease and pain. Ono Pharmaceutical carries out these goals in cooperation with researchers, patients, their families, and healthcare providers.

The Ono Pharma Foundation was established to support academic research in relevant scientific fields, which have the potential of making significant impact on therapeutic approaches to disease and pain management. The Foundation's competitive awards program, the *Ono Pharma Breakthrough Science Initiative Awards Program* ("Ono Initiative"), is the embodiment of the Foundation's commitment to focus on and accelerate researcher-driven open innovation by supporting high-risk and high-reward science research projects which have potential to lead to science discoveries/solutions and, possibly, based on further research, to breakthrough treatments for patients.

This document includes the following sections:

1. Mission
2. Description of the Ono Initiative
3. 2019 Application Schedule
4. Eligibility Requirements
5. Research Proposal Requirements
6. Selection Criteria
7. How to Apply
8. Frequently Asked Questions

1. Mission

The purpose of the Ono Initiative is to support scientist Principal Investigators ("PIs") with creative ideas in selected scientific research fields with the mission of seeking discoveries/solutions and development of high impact science.

The goals of the Ono Initiative are to:

- Identify and develop innovative research proposals and results that could lead to the development of breakthrough treatment solutions for patients.
- Support academic research and the career development of promising young and mid-career scientists.
- Build strong relationships within the community in order to lead to transformative research aligned with Ono Initiative's interest.

2. The Ono Initiative

Annually, the Ono Pharma Foundation considers proposals from PIs for research that could ultimately transform human health. Although additional areas of research may be added in future years, in 2019 the Ono Pharma Foundation will only consider proposals for scientific research projects addressing one of the following two fields of science:

- Chemical Biology Research



- Target research of Chemical Biology is not specified. Chemical Biology is defined as research that deals with the interface between chemistry and biology. The criteria for this field is deliberately broad so as not to disqualify potentially innovative and groundbreaking projects.
- Oligonucleotide Medicine Research
 - Target research of Oligonucleotide Medicine is defined as "Groundbreaking work using synthetic oligonucleotides to gain broadly valuable insights into molecular mechanisms, delivery strategies, pharmacology, or physiologic targets". Given the difficulty of achieving real progress, we strongly encourage interdisciplinary collaborations. It is essential that applicants or an applicant team be knowledgeable regarding the current state of the art in Oligonucleotide Medicine. Applicants should demonstrate an understanding of standards for ensuring rigor and explain why the proposal is designed to fill a major gap in knowledge or stimulate a new area of research. We encourage applications from investigators who understand the most contemporary issues confronting the field of Oligonucleotide Medicine and who are applying their research to existing *and* future problems.

Awards: Applications comprising laboratory investigation will be considered. Project duration may last up to three years with annual funding of \$300,000/year, totaling a maximum of \$900,000 for the normal term of a research project.

The Ono Pharma Foundation will provide up to a maximum of an additional 15% (\$45,000) per year of the funding to be used for indirect costs of the PI's institution. The total amount of the three-year grant would be up to \$1,035,000.

Five Awards are planned for 2019, contingent upon Ono Pharma Foundation appropriations and the submission of sufficient meritorious applications.

Symposium: Awardees will be invited to an annual science symposium held by Ono Pharma Foundation. The Foundation will reimburse transportation and daily costs.

3. 2019 Application Schedule

There are two steps to the application process:

1. Letter of Interest ("LOI") must be submitted by all nominated, interested, and eligible PIs.
2. A full Proposal must be submitted by invited and qualified PIs.

The timetable for both steps of the Application Process is outlined below in detail.

Step	Timeline	Responsible Party
Funding Opportunity Program Announcement	December 3, 2018	Ono Pharma Foundation
LOI submission open	December 3, 2018	Ono Pharma Foundation
LOI submission due date	February 28, 2019, 5pm ET *	PI/Institution
Request for Proposal ("RFP") sent out	May 1, 2019	Ono Pharma Foundation

Proposal due date	May 23, 2019, 5pm ET *	PI
Announcement of the Awards	July 15, 2019	Ono Pharma Foundation
Project Start	August - October, 2019	PI

**Addenda, supplemental materials, changes, or updates will not be accepted after the deadline for submitting either the LOI or the Proposal.*

***As a US private foundation, Ono Pharma Foundation grants to Canadian institutions are conditioned on an equivalency determination by the Foundation. This may require additional documentation and information from the institution not currently listed in the application process.*

Brief reports will be required every six months after the granting of the Award. These reports will be a means for assuring that the research follows the approved Proposal in content and timeframe. A final study report will be due two months after Project completion.

Selection Committee: Review of LOIs, final Proposals, and selection of Awardees will be carried out by a Scientific Advisory Board (“SAB”) made up of experts from the previously identified science fields but external to Ono and the Ono Pharma Foundation.

- *All submitted material will be kept strictly confidential. The selected final Proposals will be attached to the Award document and to an agreement with the Nominating Institution.*
- *A preliminary review of submissions will be carried out by the Ono Pharma Foundation to ensure proposals fall within the scope of research areas and that there are no obvious concerns with the proposed research. If concerns are identified, the Proposal may not be accepted prior to evaluation by the SAB.*
- *Members of the SAB are not eligible to apply for an Award. However, serving as a mentor to a PI/ Applicant is permitted/encouraged.*

4. Eligibility Requirements

Applicants must meet the following requirements. LOIs and final Proposals from applicants not meeting the requirements listed below will not be considered.

- PIs applying Chemical Biology area must be working at one of the nominating institutions. Nominating institutions might be replaced or added to in subsequent years.
- PIs applying Oligonucleotide medicine research area must be working in the United States or Canada.
- The PI must have a MD and/or a PhD degree.
- The PI may not already be engaged in other sponsored research with Ono Pharmaceutical Co., Ltd. and/or grant program with Ono Pharma Foundation.
- The PI may not apply for funding to amplify current work. However, PIs may research a new idea based on a prior findings of the PI.

2019 Applicant Nominating Institutions in Chemical Biology Research *

1. Baylor University
2. Boston College
3. Broad Institute of Harvard and MIT
4. California Institute of Technology
5. Columbia University
6. Cornell University
7. Emory University
8. Harvard University
9. Massachusetts Institute of Technology
10. Memorial Sloan Kettering Cancer Center

11. Northwestern University
12. Princeton University
13. Rice University
14. The Rockefeller University
15. The Scripps Research Institute
16. Stanford University
17. University of California – Berkeley
18. University of California – Davis
19. University of California – Irvine
20. University of California – Los Angeles
21. University of California – San Diego
22. University of California – San Francisco
23. The University of Chicago
24. University of Colorado – Boulder
25. University of Illinois at Urbana – Champaign
26. University of Michigan
27. University of Minnesota
28. University of North Carolina at Chapel Hill
29. The University of Texas – Austin
30. The University of Texas – Southwestern Medical Center
31. The University of Utah
32. University of Washington
33. University of Wisconsin – Madison
34. Vanderbilt University
35. Weill Cornell Medicine
36. Whitehead Institute
37. Yale University

**Each Nominating Institution may nominate up to two (2) applicants in Chemical Biology Research.*

2019 Applicant Nominating Institutions in Oligonucleotide Medicine Research**

All institutions in the US and Canada equivalent to the US 501(c)(3) entity.

***No limitation on the number of nominated applicants in Oligonucleotide Medicine Research.*

5. Research Proposal Requirements

Applicant PIs are expected to:

- Propose meaningfully novel research.
- Design studies and generate data to address at least one of the aforementioned fields of science.
- Complete the research, generally, within the full term of the Awards.

6. Selection Criteria

Applications will be assessed and Awards will be made based upon the following criteria:

- Scientific merit of the research Proposal
- Relevance of proposed research to the mission of the Ono Initiative
 - Significance
 - Innovation
 - Approach
- Technical considerations for the research
- Qualifications and relevant experience of the PI
- Evidence of a suitable research environment

7. How to Apply

- **LOI in Chemical Biology Research:** PIs should first contact the administration office of their Institution. Institutions will be asked to nominate PIs, but only the PI may submit LOIs and Proposals. An LOI should be submitted through the Ono Pharma Foundation online portal. To access the website, please click on the link below, select “Submit a Request,” and follow the online

instructions. If this is your first time visiting the portal, you will be sent your login information within 48 hours of submitting your “Registration”.

- **LOI in Oligonucleotide Medicine Research:** Your LOI should be submitted through the Ono Pharma Foundation website. To access the website, please click on the link below, select “Submit a Request,” and follow the online instructions. If this is your first time visiting the portal, you will be sent your login information within 48 hours of submitting your “Registration”.

Please see below for links to the Ono Pharma Foundation website and application portal:

- Website: www.onofound.org
- Application Portal: <https://ono.fluxx.io>
- **LOI:** An LOI submission must include the following information:
 - Contact Information
 - Vision of the Proposed Research – no more than approximately one & one-half pages, as instructed in the portal
 - Curriculum vitae (“CV”)
 - NIH Biosketch format is preferred
 - The CV must disclose all grants or awards currently received or pending which would be relevant to the Proposed Research
- **Proposal:** PIs invited to submit a full Proposal will receive instructions via email and in the Ono Pharma Foundation portal. The Proposal – in response to the RFP – must include the following information:
 - Contact Information
 - A detailed Research Plan (no more than seven pages), including:
 1. Background on the area(s) of research and key gaps in our understanding of the field or important challenges to be addressed.
 2. Recent progress by the PI, focusing on the past five years. Do *not* repeat material adequately covered in the prior CV or Biosketch. Do *not* include a Publication List. Only include references as needed from the CV.
 3. Overview of the Research Proposal. This should be a description of the key questions or challenges the PI plans to address and the general strategies. A detailed experimental plan is not expected. The proposed direction of the PI’s scientific project will be considered in the review process. If new opportunities or directions arise during the course of the research, the PI will have the flexibility to change course and pursue them. If such a development should occur, the PI should be in touch promptly with the Ono Pharma Foundation.
 - Other research, describing overlap with Ono Initiative
 - Itemized PI budget for the Proposal – not part of the Proposal page/word limit
 - Curriculum vitae (“CV”)

8. Frequently Asked Questions

See the *Frequently Asked Questions* (“FAQs”) for additional help. You may also e-mail questions to TCC Group: ono@tccgrp.com.