

February 23, 2024

To Research Organizations and Applicants,

Thank you for the critical work that you are doing to move the ball forward in brain health. In 2020 and 2021, we were invigorated by the quality of applications we received for the 1907 Trailblazer Award (the "Award"). We look forward to working with an exceptional talent pool again in 2024.

Each year, we hope to make the application process more efficient, effective and equitable. The note below is meant to take a step back and provide frank advice for applicants, prior to the detail of the appended Call for Applications ("CFA").

A) The Goal

Our goal for the 1907 Trailblazer Award is to catalyze disruptive - but actionable - ideas which have the potential to unearth causes and cures for psychiatric and neurodegenerative diseases and uniquely require the 1907 Trailblazer Award to see the light of day. Embedded in this statement, there are three key phrases: i) psychiatric and neurodegenerative brain health, ii) disruptive, iii) causes & cures.

B) General Advice

- Listen to our past classes of <u>Trailblazers</u> to understand the types of ideas (spanning basic science to clinical) which we're interested in. Listen to our <u>Science Innovation Committee Chair</u> and <u>Science Selection Committee Chair</u> regarding our unique approach.
- 2) Keep in mind that you're writing to a multidisciplinary group of scientists (1907 Foundation's <u>Science Council</u>, not a group of specialists in your own department or lab. Make sure your arguments are readily understandable to a diverse audience.
- 3) The most important part of your application is the text responses to the five part "novel idea." Our review process is blinded from start to finish (we will not be reviewing resumes or formal letters of reference this year). Our advice is to take the five text responses to your novel idea and give them to someone outside of your discipline (maybe a clinician). Ask them if they understand the intent of your words without requiring verbal explanation. Try to speak without acronyms or jargon. Some of the reviewers are clinicians and some are academicians.
- 4) Address the questions head-on and get to the point. We fixed the text responses to 500 words per question for this reason.
- 5) Please, to the best of your ability, minimize identifying information (institution, name, gender, ethnic background etc.) from all of your responses. Once an

application is nominated by a Research Organization, it will go through many rounds of reviews by Science Innovation Committee and Science Selection Committee members who will be blinded to the Applicant's profile and will only see the responses to the Novel Idea (not even a resume or formal letter of reference). We would like to review the novel ideas as blinded samples, question by question. Parts 4) and 5) of the novel idea may require information regarding your host institution, but we recommend not mentioning any names of people or institutions - and not rely on brands and affiliations in order to justify your proposal. The Novel Idea should speak for itself.

C) Novel Idea Advice

- 1) What is the novel idea? This is the 'elevator pitch' that must demonstrate the purpose, importance and uniqueness of your project. Connect the dots and show that this project achieves your goal. If everything you're suggesting is true, how will this improve outcomes for patients?
- 2) What is the scientific rationale? Sound scientific reasoning is far more important that pedigree or dogma. Show command of the pathophysiology and demonstrate the importance to psychiatric health conditions and treatments.
- 3) Who are you trying to help? Define the target patients. Define future translation to humans and the human experience. Whether basic science or near-term clinical application, you should have translation as the ultimate goal. Be as precise as possible when defining the target illness (e.g. "depression" is too vague a description). We encourage applicants to consider differences in neural functions rather than differences in symptoms when defining the illness.
- 4) What is the execution plan? Show that you have the requisite tools, resources and relationships to complete the research. Upload your budget to demonstrate how the \$100,000 in research funding will be spent. Be succinct on methods.
- 5) Why is 1907 Foundation best positioned to partner? Our goal is to catalyze new ideas and provide organic mentorship; it is not to provide follow-on funding to mainstream ideas. Prove to us that 1907 Foundation is uniquely positioned to fill the void. If the project is already being funded, it's in your interest to disclose this proactively and confront the question of how the 1907 Trailblazer Award is filling the gaps.

D) Review Criteria

1) Science

- i) Is the science sound?
- ii) Are the methods clear?

2) Innovation

- i) Is the science innovative or incremental?
- ii) Would this project get funded by traditional channels without 1907 Foundation?

3) Relevance

- i) Is the project relevant to the 1907 Foundation's mission of finding causes and cures for psychiatric illnesses?
- ii) Does the candidate identify the pathophysiology / target conditions?

4) Execution

- i) Does the candidate have the requisite resources and experience?
- ii) Does the letter of reference confirm this?

Thanks for the time that you've committed to the cause and to this process, and best of luck!

Sincerely, 1907 Foundation

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1907 TRAILBLAZER AWARD Call for Applications

Released February 23, 2024 (Updated March 11, 2024)

About the 1907 Trailblazer Award

The 1907 Trailblazer Award was established to encourage high-impact, step-change approaches to research in the brain and mind sciences for psychiatric health. In addition to supporting a specific research project, the Award intends to increase the size of the talent pool of early career investigators researching causes & cures for psychiatric illness. We promote these aims by providing a US\$100,000 research grant on an unrestricted basis, a US\$20,000 prize to enhance the economic security of the scientist, and travel & expense coverage for attendance to in-person annual meetings. Each winner will be invited to present interim findings (year 1) and final findings (year 2), where they can form scientific relationships with other Fellows, our Science Innovation Committee and our Science Selection Committee. We aim to build community and provide value to the scientist in excess of the monetary element.

At 1907 Foundation, we have a small team of Executives, Science Innovation Committee directors and Science Selection Committee directors with representation across disciplines (including both finance and science), institutions and geographies. We foster a culture of innovation, we encourage risk-taking and we assess applications based on the merit of the novel idea, not the identity of the applicant. Our selection process is guided by - by not determined by - a robust and objective analysis of statistical review data from 1907 Foundation's Science Innovation Committee and Science Selection Committee. In this vein, we hope to attract scientists who can think creatively across disciplines and who are motivated to swim against the tides of consensus. We want to see your outside-the-box ideas and methods, and we encourage applicants who have never received a major grant to apply.

Projects must be grounded in the study of biological mechanisms underlying brain function, cognitive processes, and/or consciousness. We support projects for basic science in addition to near-term applications (e.g. disruptive technologies and potential clinical interventions).

Application Steps

The application calendar is included below. Note that while the steps (re: Atala registration) outlined appear more onerous than a typical grant application process, the reason is so Applicants can become affiliated with Research Organizations. Atala will allow more friction-free connections between Funding Organizations with Research Organizations and Applicants. All Applicants and Research Organizations who register for the 1907 Trailblazer Award will be able to view future CFAs listed in Atala, including from any third party Funding Organizations unaffiliated with 1907

Foundation. The purpose of Atala is to enable improved reach and efficiency in connecting Applicants, Research Organizations and Funding Organizations.

- Atala registration waitlist begins for Applicants and grant officers at Research Organizations (on February 23, 2024). Applicants and grant officers at Research Organizations should register at https://atala.community. We encourage the administration of interested institutions to broadcast this CFA to departments and faculties across their Research Organization. The Award is open to all universities/research institutions in the US, Europe, Canada and Israel (understanding, however, that command of the English language is a requirement). Furthermore, we encourage university administrations to broadcast the CFA to departments outside of the medical school; faculty from the psychology, neuroscience, math, informatics, engineering and physics departments and others are also encouraged to apply. A university or hospital system can have multiple Research Organizations, with each Research Organization defined by its Dunn & Bradstreet D-U-N-S number.
- 2) Research Organization nomination process begins (on March 8, 2024).
 - a. Research Organizations: Register as a "Research Organization" in Atala. A Research Organization can have multiple administrators. Administrators will have the ability to add Applicants to their Research Organization and then nominate (beginning April 15th) up to three candidates per Research Organization. Applicants will only be able to apply for the 1907 Trailblazer Award after being added to the Research Organization as an Applicant. We recommend that Research Organizations add all researchers within their D-U-N-S interested in brain health such that they can access all awards not just the 1907 Trailblazer Award which will be listed in Atala.
 - b. Applicants: Register as an "Applicant" in Atala and either make a request to join your Research Organization or have your grant officer invite you to your Research Organization. Beginning April 15th, Applicants in Atala who are affiliated with a Research Organization can be nominated for the 1907 Trailblazer Award.
- 3) Nominated candidates begin applying within Atala (on April 15, 2024). Research Organizations will be able to nominate up to three Applicants decided via internal competition who must be registered to the Research Organization in Atala. Nomination decisions should emphasize identification of disruptive ideas in alignment with causes and cures for psychiatric and neurodegenerative illnesses which root back to neural circuits. Identifying information about the Applicant will not be considered in any part of the selection process by 1907 Foundation, so we encourage Research Organizations to make nomination decisions based on assessment of the Novel Ideas alone.
- 4) Application deadline for nominated candidates (on May 3, 2024).

 Once nominated, Applicants should re-read this CFA in full and then apply to the prompts in the 1907 Trailblazer Award Application. The Application within Atala will mirror the application questions in this CFA.
- 5) Award recipients selected and announced (by December 15, 2024). Three Award winners will be selected and announced. All Applicants who registered in Atala will have the benefit of finding and applying for awards from other Funding Organizations in the portal. Further, candidates will be able to

permission other Funding Organization partners of 1907 Foundation to view applications such that Applicants can receive inbound interest without having to apply more than once.

All deadlines are at 23:59 U.S. EST.

Application Questions

The application is centered on a five-part "novel idea." In the novel idea, the applicant must explicitly address the following five questions, max 500 words (excluding citations) each:

- 1) What is the novel idea and what is the potential impact to the field? Explain the novel idea in lay terms. What does it hope to achieve? How can it empower others in the field to identify causes and cures? If everything you hypothesize is correct, then how will brain health outcomes improve?
- 2) What is the scientific rationale of the idea given current gaps in knowledge? Explain how your proposed research is different from other research undertaken in the field. Demonstrate that you understand the universe of similar experiments - completed or ongoing - and that yours is differentiated and necessary.
- 3) If everything you say in your Novel Idea is true and everything goes to plan, how will this improve health outcomes, and for whom? We support projects across the spectrum from basic science to near-term clinical application. Explain where your idea lies on this spectrum, and which patient groups will benefit from your research whether in a year, or in 20 years. Basic science will be funded to the extent the applicant can demonstrate long-term translation to long-term brain health outcomes for a defined patient (as defined by genes, experiences or choices) or pathophysiology (routing back to neural circuits). Please be as precise as possible when defining the target illness(es), and consider differences in neural functions rather than differences in symptoms.
- 4) What is your execution plan and why are you uniquely positioned to execute? What tools, resources and relationships do you have to enable you to complete the research? What percentage of your time will be dedicated to this project? How do you anticipate the US\$100,000 research grant to be used?
- 5) Why is 1907 Foundation best positioned to partner with you? Explain why your project requires dedicated unrestricted funding and why it would not be likely to be funded from traditional sources (universities, governments, other established foundations).

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FAQ

What kind of research is supported?

Applications for the 1907 Trailblazer Award should describe programs of work that aim to improve knowledge and outcomes of psychiatric illness through brain-mind research. Eligible disciplines include but are not limited to neuroscience, neurology, psychology, psychiatry, cognitive neuroscience, clinical psychology, computational neuroscience, neuroimaging, genetics and engineering (including novel technologies and devices). We particularly encourage research that involves human patients, but projects can also focus on well-validated animal models, and/or on psychiatrically-relevant research in healthy humans or conceptual/theoretical work. The projects can be framed around a single disorder or can be transdiagnostic, e.g. with an emphasis on shared risk factors (genetic or environmental) or common neural substrates. For projects in basic science, applicants who provide an in-depth understanding of the disorder(s) they are trying to treat will be prioritized.

The key criterion in assessing applications will be the extent to which research programs bring us closer to causes and cures based on an enhanced understanding of how aberrant neurobiological and/or psychological mechanisms give rise to behavioral (objective) and psychological (subjective) symptoms. A good example of this approach is provided by the emerging discipline of computational psychiatry, which aims at uncovering the neurobiological mechanisms underlying psychiatric symptoms. By contrast, research programs that simply test the efficacy of an existing intervention are poorly aligned with our aims. Similarly, applications that follow established research paradigms - for example, using standard analytic tools on large public imaging databases - are not suitable for this call.

Step-change research is risky but it should also be robust. We define "high reward" to be incremental knowledge gain that can unlock novel understandings for causes and cures and help people in the coming decades. We particularly encourage research involving underrepresented topics (including taboo topics) and methods. The Award seeks to build a community of researchers where failed hypotheses are encouraged and where open science practices are embraced. We encourage research programs that emphasize the reliability and reproducibility of scientific findings, and provide (where possible) open access to data, methods and research papers.

Projects should represent new lines of research and be distinct from other well-funded research projects conducted by the investigator. This competition encourages innovative, unorthodox and exploratory research that may be in the early and conceptual stages of project development, but has potential for significant impact on our understanding of the brain. The generated data will enable early-career investigators to apply for larger grants that will lead to long-term projects and create innovative and sustainable research programs.

What are the eligibility requirements?

Applicants must be within ten years of the date when PhD/MD degree was awarded (whichever came later and with exceptions for maternity leave, paternity leave and other excused absences). For clinical scientists, the 10year clock starts upon completion of all residency and fellowships. Please use February 23, 2024 as the end date for calculation of the 10-year period.

- Applicants will currently be employed by a university or public research institute in the US, Europe, Canada or Israel, with full-time employment guaranteed for the duration of the project.
- Applicants will have demonstrated independence from senior colleagues. They must be able to initiate and direct their own research as principal investigator ("PI"), have full responsibility for running their labs and full control of their research funds.
- Applicants should affirm that they have all of the resources from their Research Organization to achieve what they endeavor to achieve in their Novel Idea
- Research applications may be related to but cannot be identical to any other currently funded projects.

How many Awards will be made?

For the 2024 cohort, 1907 Foundation will select up to three recipients.

What comprises a Research Organization?

We recognize that the characterization of a "Research Organization" is different for each university and hospital. 1907 Foundation goes by Dun & Bradstreet D-U-N-S numbers in determining what comprises an institution. Grant officers should find their D-U-N-S number prior to registering a new Research Organization in Atala. We are flexible to include separate nominations from individual hospitals or departments in order to attract a diverse applicant pool and to not pose an undue burden on administration.

Are faculty outside of psychiatry allowed to apply?

1907 Foundation strongly encourages faculty with specialization outside of psychiatry (e.g. endocrinology, genetics, radiology, etc.) and outside of medicine (e.g. psychology, neuroscience, engineering, informatics, physics, maths, etc.) to apply.

Am I eligible to apply if I have never received a major grant before? Yes

Am I eligible to apply if I applied in the past?

Yes. However, any resubmission of previous applications should reflect all learnings since the data of last submission, including latest research literature. We urge candidates to be intellectually honest in assessing what has changed since their last proposal, and whether the

Are Post Docs allowed to apply?

More specifically, we have been asked whether a research fellow/research scientist who i) is a PI, ii) has lab independence and iii) has full budget control, but is not technically "tenure or tenure-track," would qualify. The answer to this question is "yes."

We want candidates who are early career, creative and energetic. We understand that "tenure-track" at various institutions and geographies means different things. If candidates meet the 10 year cutoff from MD/PhD (whichever came last), in addition to the three requirements above, we would like to consider them in the process.

What can the funding be used for?

Awards of US\$100,000 will be made to successful applicants, via their institutions, for research costs. Funding is to be spent over a two-year duration and can support (examples):

- Stipends for research staff within the Award recipient's lab
- Equipment, supplies, laboratory costs and/or technician
- Imaging costs
- Publication fees
- Patient participant expenses
- Travel

In addition to the US\$100,000, US\$20,000 will be awarded as a cash prize payable directly to the recipient (50% after year 1, 50% after year 2). Lastly, 1907 Foundation will cover travel and expenses for in-person annual meetings.

Is a template funding agreement available?

Yes – the template funding agreement is available here. Further information on allowed expenses is provided in the funding agreement. As a charitable organization, we prefer that institutions do not apply indirect costs or overheads to these awards. We ask that applicants gain the agreement of their department head that the Award can be used by the Awardee. If some contribution to indirect costs is needed, the letter of support should state how much of the US\$100,000 (up to a maximum \$10,000) will be used in this way and explain why. Administrative overhead will not count against an Applicant so long as it falls within \$10,000.

What is required in the letter from the department head?

Upon selection of the three candidates, the department head (or higher administrative level) at each institution is required to provide a one-page letter of reference attesting to the applicant's suitability for the Award. The letter should attest to the Research Organization's commitment to supporting the applicant's project, including any additional or in-kind commitment of resources, including but not limited to relief from teaching/admin duties. What is also important to us is understanding what percentage of time the Applicant will commit to this project.

Only after the selection process and prior to public announcement is a letter of reference required. Applicants who have not received communication that they have been selected do not require a letter of reference.

What reporting is required by the Applicant?

We aim to be light touch in order to minimize the amount of time candidates spend on administrative reporting. The recipients will be invited to the annual meeting to present interim findings (year 1) and final findings (year 2). Within six months of the end date for the Award (the two-year period), we request final financial and scientific reports.

How will Applications be assessed?

Applications will be adjudicated by the Science Innovation Committee and Science Selection Committee Committee and scored based on overall quality and alignment with the aims of the Award program. The role of our Science Innovation Committee is to promote innovative ideas and methods whereas the role of the Science Selection Committee is to find projects which demonstrate necessary learnings to influence future health outcomes for patients.

Review Criteria

a) Science

- i) Is the science sound?
- ii) Are the methods clear?

b) Innovation

- i) Is the science innovative or incremental?
- ii) Would this project get funded by traditional channels without 1907 Foundation?

c) Relevance

- i) Is the project relevant to the 1907 Foundation Mission?
- ii) Does the candidate identify the pathophysiology / target conditions?

d) Execution

- i) Does the candidate have the requisite resources and experience?
- ii) What percentage of their time are they going to commit to this Novel Idea project?

How do we include citations?

We will allow you to upload a document with citations. Citations are not included within the 500 word limit. We ask that you provide a section of citations for each question (rather than in-text citations).

Are novel ideas related to neurodegenerative diseases invited to apply?

Novel ideas related to neurodegenerative diseases are welcome if they focus on the neuropsychiatric elements of these diseases and not neurodegeneration alone. There is clearly neural circuit overlap between neurodegenerative and neuropsychiatric diseases so it makes sense that we accept applications targeting either. An example of this would be neurodegeneration and impact to circuits of personality. Please also note that Atala will invite Funding Organizations across the brain health universe to meet and fund Applicants in the https://Atala.Community

Are novel ideas related to autism invited to apply?

Novel ideas related to autism are welcome, though we encourage applicants to focus on the neuropsychiatric elements of these diseases and how they can be relevant to psychiatric illnesses including, but not limited to, autism. Please also note that Atala will invite Funding Organizations across the brain health universe to meet and fund Applicants in the https://Atala.Community

Contact Information

For more information, or if you have any questions regarding the application process, please e-mail us at info@1907.foundation, fill out the form at the bottom of our <u>website</u> to receive our newsletter, and follow us on \underline{X} . Our address is 15275 Collier Boulevard, Suite 201-305, Naples, FL, 34119.