

AI Scientist Call

Call for research proposals for working with
AI Scientist systems

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v1.0

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INTRODUCTION

Launched in January 2023, ARIA is an R&D funding agency created to unlock scientific and technological breakthroughs that benefit everyone. This mission requires multiple shots on goals, a high tolerance for failure and an agile funding structure. AI Scientists represent a rare opportunity to tremendously scale our efforts on each of those fronts.

At ARIA, we believe the future will see far more AI scientists – AI tools that are designed to automate the core end-to-end process of science discovery – and that they will push the boundaries of human knowledge and progress. With our programmes and opportunity spaces already aimed at those objectives, we seek to understand how AI scientists could act as force multipliers across our current and emerging portfolio.

With this in mind, we're looking to fund ~5-6 projects (each with up to £500K) using AI Scientists to explore and understand what role AI Scientists may take in creating and performing research. This funding call is an exploratory call for us, where the outputs will help inform ARIA's work in this space. For example, it may result in future Activation Partners (Activation Partners are pioneers of new science innovation models, community builders, world-leading research labs, and deep-tech focused accelerators) related to AI Scientists. We may even learn that we should be creating new opportunity spaces, or research programmes, focused on the development of AI Scientist systems. More broadly, it will shape how ARIA can provide differentiated and catalytic support in this field to overcome current fundamental challenges, and expand its potential impact across diverse areas of science and technology.

SCOPE

To help guide and shape how ARIA thinks about AI Scientists, we are inviting proposals for a series of short exploratory projects, to be undertaken using AI Scientists. We are specifically looking for AI systems that are able to perform the full end-to-end workflow of scientific knowledge creation.

This includes:

- Ideation and hypothesis creation
- The design of experiments to test the hypothesis
- The ability to run experiments in (ideally fully automated) labs, and
- Interpretation of the results and the drawing of conclusions.

The AI system should be able to place the work in the context of related literature and knowledge, and produce a written report describing related work, the idea explored,

experiments, results and conclusions. The report should also include clear and unambiguous acknowledgement of what roles or actions any human has performed in the process to assist.

Your proposal should clearly state how humans are expected to help in the process, the rough capabilities of the AI Scientist, and any supporting evidence that the AI system proposed will be able to perform the work.

Please note that this is **NOT** directly a call to fund the development of an AI Scientist system. You are expected to have an already functioning AI Scientist system which can be used (to attempt) to solve a research problem.

Who are you?

We don't have hard constraints on the type of organisation we will work with. We welcome proposals from across the R&D ecosystem: individuals (including those not affiliated with an organisation), universities (including proposals from students, postdocs and staff), research institutions, small, medium and large companies, charities and public sector research organisations, including those located outside of the UK. The only constraint is that we are looking for organisations who have an already working AI Scientist system that they feel would be able to participate.

We welcome proposals where the AI Scientist system has generated the proposal, but we will also accept proposals written by a human. However, please be clear in your proposal what roles and contributions a human made versus your AI Scientist.

Guidance on AI Scientist Proposals

This call will be backed by up to £3M and targets awards of up to £500K with a maximum duration of 9 months. We want to be led by your instincts and experience. As a nascent area, we recognise that AI Scientist systems are currently specialised, therefore a proposal must specify the research area and problem the AI Scientist will tackle. We also encourage applicants to look at our current opportunity spaces and propose related problems.

Opportunity spaces are underexplored areas led by ARIA Programmes Directors that ARIA believes are likely to yield breakthroughs. Our current opportunity spaces can be found [here](#). Please note proposals for problems outside of the existing ARIA opportunity spaces are also welcome.

To help spark your ideas, here are some example problems:

- High-Throughput Mitochondrial Systems (within Bioenergetic Engineering Opportunity Space): Developing and optimising a cell-free system (synthetic or host-based) that effectively mimics or houses isolated mitochondria, enabling the rapid, high-throughput screening of small molecules for objectives like enhanced gene delivery into the mitochondrial matrix.
- Therapeutics and Target Discovery: Identification of a causal novel drug target for diseases in women's health, ideally with human genetic backing, with validation of the proposed mechanism of action in an appropriate human cell model.
- Developing drugs targeting the innate immune system (within Sculpting Innate Immunity Opportunity Space): an agentic system that can interpret multi-omics data to identify targetable innate immune pathways, design candidates, and test on relevant cell models for efficacy and toxicity.
- Materials and Chemical Design: Automated discovery and optimization of the composition, structure, and deposition parameters for thin films to achieve enhanced functional properties (e.g., in electronics, solar cells, or sensors).
- Solid-state material platforms for quantum many-body simulators: Discovery and synthesis of materials with controlled defects to enable a programmable platform that can simulate several complex Hamiltonians.

Each proposal should present two distinct problems: a **base problem** that the teams are confident their AI Scientist system can solve, and a more challenging **extension problem** that the system may struggle to solve.

We expect that your AI Scientist system should be able to explore a space, create hypotheses and design experiments to prove or disprove them, (ideally) execute the experiment on physical hardware (e.g. an automated or semi-automated labs), process the raw results and infer conclusions about the hypotheses, and finally create a report.

Deliverables

We are interested not only in the scientific breakthroughs made, but also in understanding the process of your work. This will enable us to understand how to incorporate AI Scientist systems as Activation Partners or Creators in future programmes and opportunity spaces. As such we are looking for the following deliverables (these can be refined during negotiation):

1. Hypothesis and initial experiment(s) proposed and prepared.
2. Experiments run, and early data processed and interpreted.
3. Report generated and project complete.

We would like all AI Scientist system projects to start in January 2026. While these and the timelines can be refined during negotiations, the final report must be generated no later than 9 months from the start date.

Project management

We want to empower you to move at speed. The ARIA CTO along with other members of the ARIA team will meet with project teams on a bi-monthly basis to discuss progress and exchange insights. While these meetings will typically be virtual, we'll schedule one in-person meeting at your site to allow verification that the AI Scientist system is performing the work.

Budget

We're looking to fund project teams with up to £500,000 each (inclusive of taxes and all other costs), for a maximum length of 9 months.

We'll fund your costs (see our [eligible cost guidance](#) for more details) on a firm/fixed price basis. Payment will be within 30 days upon completion of all deliverables. We are open to discussing payments per deliverable.

Terms

The contract will be placed on mutually agreed terms and conditions proposed by the applicant. Any proposed T&Cs must reflect the key terms identified below:

- Either party shall have the right to terminate the contract or part of the contract for convenience upon ninety days' prior notice.
- ARIA shall have the right to terminate the contract or part of the contract where the supplier fails to provide the service contracted with a notice period of thirty days.
- The supplier will provide ARIA with a perpetual, irrevocable, royalty-free licence to use the Deliverables for internal non-commercial purposes. For the purpose of this clause, internal use shall mean use by ARIA, its agents and contractors and government departments.

- ARIA shall have the right to publish a summary of the awarded contract and the outcomes achieved in any medium (having redacted both parties' confidential information).
- The supplier shall indemnify ARIA, its agents, contractors and employees against the supplier's infringement of third party Intellectual Property Rights.
- All information shared with the supplier shall be subject to confidentiality terms.

THE APPLICATION

Interested organisations should submit a two page proposal. Organisations shortlisted based on their initial proposals may be invited to meet with ARIA to discuss and refine their approach. Proposal should outline:

- Your background and motivation for taking part in this call.
- A description of the research challenge, and why you think your AI Scientist system will be able to make contributions in that space.
- A high level breakdown of how much funding you need/what your expected cost would be using the table provided in the application portal.
- How long you would need to carry out the proposed activities (a high level timeline estimate no longer than 9 months).

How we'll choose the projects

We'll select applicants against the following criteria:

- **AI Scientist System Capability & Automation:** Evidence of the AI system's ability to perform the proposed work and the extent of end-to-end automation of the scientific workflow without human intervention.
- **Ambition, Clarity, and Suitability of the Research Problem:** The extent to which the proposed research problem is novel, ambitious, and potentially impactful, as well as how clearly it is defined and how well it aligns with the capabilities and intended purpose of the applicant's AI Scientist system.
- **Value for ARIA's Learning and Future Strategy:** The proposal's potential to generate valuable insights that will help ARIA understand the role AI Scientists may take in creating and performing research
- **Cost:** The costs proposed are reasonable/realistic and demonstrate value for the tax-payer, through a transparent pricing breakdown with no hidden costs and a proven ability to offer cost-effective solutions without compromising quality.

TIMELINES

This call for proposals will be open for applications as follows (we may update timelines based on the volume of responses we receive):

Applications open	14 October 2025
Clarification Questions deadline	7 November 2025
Application deadline	14 November 2025 (14:00 GMT)
As part of our review we may invite applicants to meet with the CTO or another team member to discuss any questions prior to final selection — this discussion can happen virtually or we may seek clarification on certain aspects of your proposal via email.	
Successful/Unsuccessful applicants notified	28 November 2025
At this stage you will be notified if you have or have not been selected for an award subject to due diligence.	
Please note, for those applicants not selected for shortlisting or award we will not automatically provide feedback.	
Latest Award Date	22 December 2025
Please note, contracts must be signed on, or before, this date for the project to be funded by ARIA, the offer of funding may be withdrawn if contracts cannot be signed by this date.	

Still have questions?

If you still have questions you can send them to clarifications@aria.org.uk by 7 November 2025. Any questions received after this date will not be reviewed. Any questions or responses containing information that is of relevance to all potential applicants that are

not considered confidential will be provided to everyone that has started a submission.

Submission details

Format	Up to two sides of A4 pages (PDF) (including diagrams, excluding references).
Deadline for proposals	14th November 2025 (14:00 GMT).
Responses to	Before submitting an application, please read this call for proposals in full. Please read the portal instructions and create your account before the application deadline.

APPLY HERE

If you are disabled or have a long-term health condition, we can offer support to help you engage with ARIA, navigate our funding application process, or carry out your project, you can find more information [here](#).