

CIFAR Solution Networks

Second Call for EOIs: AI for Health in Canada

CALL GUIDELINES

CALL FOR

Expressions of Interest

PROGRAM

CIFAR Solution Networks

DEADLINE

Nov 21, 2022

THEME

AI for Health

BUDGET

\$840,000 over three years for the direct costs of the project plus financial and logistical support for meetings.

REGION(S) OF PROJECT FOCUS:

Canada

FUNDING DURATION

36 months (upon execution of funding agreement)

CONTACT

solutionnetworks@cifar.ca

1. Background

Artificial intelligence (AI) is becoming increasingly integrated in sectors of society, from finance to health care to transportation. AI poses significant implications to our lives, as well as to communities and countries around the world. While AI has the power to drive positive societal benefit, it also has the potential to impact society negatively, and cause harm through the misuse and sometimes unpredictable behaviour of the technology. This has triggered the need to explore strategies for how to design and govern AI in an ethical, accountable, and transparent way. CIFAR's AI & Society Portfolio, a key pillar of the [CIFAR Pan-Canadian AI Strategy](#), develops global thought leadership on the economic, ethical, political and legal implications of advances in AI. In 2020, CIFAR launched Solution Networks, a new program under its AI & Society portfolio.

This program brings together international experts from across academia, civil society, government, and industry to move beyond analytical dialogue and into sector-specific practice and action by developing and implementing solutions in the deployment of responsible AI. CIFAR Solution Networks is a collaborative initiative for interdisciplinary teams led by a core group of up to six individuals. Each team works together to develop approaches and applications to current challenges and opportunities to support implementation of beneficial and responsible AI. The solution could apply to any sector, including government, industry, health care and civil society, and will focus on the development, testing and deployment of defined practices and tools.

CIFAR's first Solution Network, Data Communities for Inclusion was announced in July 2021. More information about this Network can be found [here](#).

2. About this Call

CIFAR is launching a call for a Solution Network centered on the theme of [AI for Health in Canada](#). CIFAR will provide sustained support to a diverse interdisciplinary research and development network to develop innovative new approaches to a pivotal and urgent problem in the implementation of responsible AI in the health sector. We will be seeking networks that aim to solve challenges and barriers to the adoption of responsible AI within health systems.

Proposals that address the following will be of interest:

- Health data and AI ethics, trust, fairness, security, and/or privacy;
- Health data and AI interoperability, coordination, integration, collaboration and exchange;
- Health data and AI accountability and governance; and
- Other topics related to the implementation of responsible AI in the health sector.

The Solution Networks funded through this call should:

- Apply leading research and practice insights in the development of novel interventions, applications, or approaches to respond to current societal challenges related to AI implementation;
- Test prototypes to ensure uptake, including a community consultation within the first 18 months of the project (if not already completed at the time the Network is funded);
- Inform policies or practices that support and build trust in AI and mitigate potential social, ethical and economic harms; and
- Initiate efforts to scale the intervention

Proposals whose primary goal is to drive new knowledge or understanding in order to advance a field of study or that focus solely on technical solutions (e.g. improving machine learning algorithms) will **not** be considered.

3. Funding & Duration

CIFAR is a Canadian-based global research organization that convenes extraordinary minds to address the most important questions facing science and humanity.

CIFAR supports complex challenges that transcend disciplinary boundaries and geographic borders. We are not regarded as a traditional funder of research, but rather a global convener of experts across research and practice. We support synergy and collaborative investigation into important questions and challenges through sustained interactions between members within a network.

For this call, CIFAR will provide dedicated, flexible funding support for eligible research and development (R&D) activities for a successful Solution Network over three years to design, develop, test, and implement a novel solution. The successful Solution Network will receive:

- \$60,000 Cdn. per year for each co-director (up to two) and \$25,000 Cdn. per year for each core team member (up to four) to support R&D related to the Network.
- Up to \$60,000 Cdn. for each year to support costs directly associated with advancing the network's solution.
- Financial and logistical support to enable a minimum of two interactions per year (in-person or virtually) between members of the Network and external experts.

4. Eligibility Criteria

The Solution Network should be made up of an interdisciplinary and cross-sectoral team and must:

- be led by two co-directors and composed of up to four additional members (all members must be affiliated with a Canadian organization/institution)
- include at least one computer/data scientist from a Canadian university or research hospital
- include at least one expert in the legal, ethical, or policy implications of AI
- have at least one member based in the setting where the solution will be implemented
- achieve equity, diversity and inclusion in the team composition

It is strongly encouraged that teams include a [Canada CIFAR AI Chair](#) in their composition. The makeup of the team should represent the relevant interdisciplinary expertise required to design and implement the proposed solution. Consideration should be given to the relevant expertise needed for the successful adoption and scale of the intervention, i.e if the proposed solution will be applied at a healthcare setting, the team should include the stakeholders that the solution will impact.

CIFAR is committed to equity, diversity and inclusion. We recognize that bringing together individuals from multiple backgrounds, perspectives and experiences is integral to advancing excellence and increasing the impact of our organization. Ensuring that every person feels valued and welcome is vital to achieving our mission, and embodies our values of diversity, excellence, respect and collaboration.

5. How to Apply & Timelines

- All EOIs must be submitted through the online application system by Monday, November 21, 2022, at 11:59 pm EST. Applications received after the submission deadline will not be considered.
- Acknowledgement of receipt will be sent to all applicants whose EOI was received before the deadline.
- Applications (EOIs and Full proposals) can be submitted in either English or French.
- Applicants that have been invited to submit full proposals will be notified by Monday, December 19, 2022, 11:59 pm EST. Evaluation and review criteria of full proposals will be provided at this time.
- Full proposals must be submitted through the online application system by Monday, February 20, 2023, at 11:59 pm EST. Proposals received after the submission deadline will not be considered.
- Finalists will be invited to present their full proposal at a virtual review panel meeting. The finalists will be notified by Tuesday April 11th, 2023, 11:59 pm EST.
- The review panel meeting will be held in May 2023. The successful Network will be selected following the review panel meeting.

6. Expression of Interest Requirements

Submissions will be asked to include the following information:

- Administrative Information:
 - Project title
 - Names, affiliations, and full addresses of all individuals that will be part of the Network team
- Solution:
 - Rationale
 - CIFAR convenes the world’s best minds around the most complex and difficult questions of our times. Proposals should describe the current context in which the solution is being developed and the gap and challenges that the proposed solution will respond to. Proposals should articulate how this solution differs from others that have been attempted in the region or more broadly.
 - Impact
 - Proposed solutions should aim to move beyond the advancement of knowledge and the development of principles and frameworks for responsible AI. Successful proposals will aim to make a transformative impact on the adoption of responsible AI within health systems and should articulate how the solution proposed will drive positive change, what that will look like, and the intended societal impacts including who will benefit.
 - Methodology:
 - Proposals should articulate the methodology by which the Network will implement the solution, including experts the Network plans to engage during development and implementation. Engaging patients/the public or potential users of the proposed solution will be important so that the

solution takes into account, and is appropriate for, the specific limitations and possibilities of the relevant stakeholders. Proposals should include a plan to address equity, diversity, inclusion and sustainability in the project design and implementation. Applicants are required to have their proposals evaluated according to the requirements of their institutional ethics review process.

- Risk Assessment:
 - Applicants should describe any potential risks they foresee in implementation of their solution. Please include any legal, political or societal factors that may hinder success of the solution. Applicants should articulate how they plan to mitigate these risks.
- Solution Network:
 - Potential Leadership:
 - CIFAR's experience is that leadership plays a crucial role in the success of a given project. The EOI applicants are expected to describe the potential leadership of the proposed project. The two potential co-directors should be selected not only for their influence within their given area but also for their openness to disruptive thinking, ability to drive deep collaboration across disciplines and sectors, and their commitment to impact. The proposal should make clear why these two individuals are best suited to lead this team and solution.
 - Excellence of Team
 - CIFAR creates global communities of exceptional experts dedicated to open, sustained collaboration, exploration and impact creation. Potential team members should be experts in their communities. Applicants should demonstrate the excellence of proposed team members and make clear how the team members reflect the necessary expertise required to support the solution proposed.

7. Review Process & Evaluation Criteria

a) Expressions of Interest

The review process for the expressions of interest will consist of the following steps:

1. Completeness of application and verification of eligibility requirements: CIFAR will review all submitted EOIs to ensure they are complete and meet eligibility requirements. Incomplete EOIs or those that do not meet the requirements will not be considered.
2. Review and ranking of expressions of interest: An external expert review panel will review and score eligible EOIs using the evaluation criteria below.
3. Shortlisting expressions of interest: On the basis of scoring, those applications that show the most promise for impact, will be invited to submit a full proposal.

EOIs will be evaluated on the following criteria:

- Solution Relevance & Impact (30%)
 - Originality and relevance of the solution (15 %)
 - Significance of the anticipated impact (15 %)
- Solution Methodology (20 %)
 - Appropriateness of the scope and size of planned activities and methodologies to achieve expected outcomes (10 %)
 - Project demonstrates that patient/public engagement, equity, diversity, inclusion and sustainability have been appropriately considered in project design and implementation (10 %)
- Risk (10%)
 - Outlines implementation risks and identifies appropriate mitigation strategies

- Leadership (20 %)
 - Demonstrated excellence and appropriateness of the identified co-directors to lead the project; evidence of their ability to lead, drive collaboration and disruptive thinking
- Team (20 %)
 - Demonstrated excellence and appropriateness of the project team members to achieve the intended outcomes; leveraging of different types of experts and the integration of their unique perspectives and knowledge in the project is appropriate

b) Full Proposals

The review process for the full proposals will consist of the following steps:

1. Review of full proposals: Full proposals will be reviewed by the external expert review panel consisting of notable scientific, organizational, and community leaders.
2. Shortlisting full proposals: The review panel will then identify a shortlist of finalists who will be invited to present their proposal at a virtual review panel meeting in order to identify the successful Solution Network.
3. Review panel meeting and final selection: Finalists will be asked to prepare a proposal presentation for review panel members, which will be followed by a question period.

8. Intellectual Property

CIFAR will make no claim to the intellectual property associated with solutions developed as a result of this call. In addition, all project outputs must be made available to the public on an Open Access basis.

Frequently Asked Questions

1. What is a Solution Network?

A Solution Network is a team of cross-sectoral, interdisciplinary experts who design, develop and implement responsible and beneficial AI solutions.

2. Where should the solution be focused?

The solution funded through this call should be focused in Canada.

3. Can an organization be part of a Solution Network?

No, the proposed members of the Solution Network must be individuals. Organizations as a whole cannot be part of the Solution Network. An individual can represent their respective organization, however they must be the active contributor and dedicated member of the Solution Network.

4. Can an individual from a for-profit organization be part of the Solution Network?

Yes, however they will not receive Network member funding support. CIFAR will provide funding support for meeting travel and accommodation costs only.

5. Can an individual apply as part of more than one Solution Network?

No, individuals can only apply as part of one proposed Solution Network.

6. Will unsuccessful expressions of interest receive feedback?

No, due to the amount of submitted expressions of interest expected we will not be providing feedback to unsuccessful applicants. However, if you have specific questions you may email solutionnetworks@cifar.ca.

7. Can I apply with a solution that has already been designed?

We are seeking solutions to challenges in the adoption of responsible AI in the Canadian health system. Applicants may apply with a solution that has already been designed but has yet to be developed and implemented.

8. Can CIFAR help me connect to others interested in the Solution Networks call?

CIFAR staff can help make connections to specific individuals of interest in the CIFAR community (such as CIFAR research fellows or Canada CIFAR AI Chairs).

9. How can the funding be spent for the Solution Network?

The Solution Networks funding is flexible and may be used for teaching/course release, salary support, trainee support, travel-hosting expense, professional and technical services, in addition to other research and development related activity costs.

10. Can the Solution Network receive funding from other sources for the proposed solution?

Yes, the Solution Network is permitted to receive funding from other sources for the proposed solution.

11. Can alternate financial arrangements be made in cases where a Solution Network member cannot receive financial support?

No, we cannot make alternative arrangements if there is an individual that cannot receive Solution Network funding.

12. How many Solution Networks will be funded?

One successful Solution Network will be funded through this call. Future calls for Solution Networks will be announced at cifar.ca.

13. What are the different components of the EOI application?

Questions for the EOI application can be found in the [CIFAR application portal](#). Create an account to view all of the questions. The application requires one Network member to be the submitting applicant. We encourage you to work on a shared document before entering the EOI responses in the application portal.

14. What are the qualifications you are looking for in a proposed Solution Network member, in terms of experience and expertise?

Other than the eligibility requirements as stated for the membership of the Network, we do not have specific criteria in terms of work experience and expertise. CIFAR creates global communities of exceptional experts dedicated to open, sustained collaboration, exploration, and impact creation. Potential team members should be experts in their communities. Applicants should demonstrate the excellence of proposed team members and make clear how the team members reflect the necessary expertise required to support the solution proposed.

15. Should proposals be more oriented to research or to the implementation of solutions to concrete problems with real users?

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**FOR ANY FURTHER QUESTIONS ABOUT THIS CALL,
PLEASE CONTACT:**

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