New Frontiers in Research Fund: Transformation Stream  
Faculty of Medicine & Dentistry Guidelines  
2019-2020 Competition

Background:
Until 2018, the major Tri-council program for funding national, large-scale research and innovation networks was the Networks of Centres of Excellence (NCE). In 2018, the NCE program announced it would wind down, and its funding gradually transferred to the new New Frontiers in Research Fund. The New Frontiers in Research Fund is composed of three streams. The Transformation stream is that which will fund large-scale national networks for interdisciplinary and transformative research. The details of this program are currently the subject of a research community consultation process.

Our experience with the NCE program suggests that this new program will have very high standards for excellence. Proposals will require significant time, effort, and resources in order to be competitive, including support from the Faculty, University, and provincial stakeholders. In anticipation of an October launch of the Transformation stream, the Faculty of Medicine & Dentistry is initiating a Faculty-wide call for interest to encourage researchers to start planning their proposals and to determine its priorities for support.

Best fit PI: Senior researcher with a strong track record of collaboration and research impact who works with a diverse, interdisciplinary, and gender-balanced national network of collaborators


Value: Up to $4M per year for 6 years (including 25% indirect costs)

Key dates:

<table>
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<tr>
<th>Date</th>
<th>Event</th>
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<tr>
<td>August 28, 2019</td>
<td>FoMD Information Session</td>
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<td>September 27, 2019</td>
<td>FoMD Expression of interest deadline</td>
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<td>October 2019</td>
<td>Call announcement (anticipated)</td>
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<td>tbd</td>
<td>Notice of Intent to Apply deadline</td>
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<td>Letter of Intent deadline</td>
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<td>tbd</td>
<td>Full proposal deadline</td>
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Anticipated success rates:
100 LOIs expected > 20-30 invited to full proposal (20-30% of LOIs) > 6 awarded (6% of LOIs submitted)

Faculty review process and information session:
Internal expressions of interest are due September 27, 2019 for Faculty review and adjudication. This internal process will serve to identify the most competitive proposal(s) on which Faculty support will be focused, and to provide all applicants critical feedback on their proposals. There is not expected to be a formal quota of applications for this program, and accordingly, the Faculty review process will not prevent any applicant from submitting a proposal.
An information session will be held August 28, 2019, 2:30-3:30 pm in 2J2.14 WMC (Dean’s Boardroom) to discuss the program, relevant lessons from other New Frontiers streams and the NCE program, the expected standards of excellence for applications, and to answer questions on the FoMD process.

**Expected standard for success at the Letter of Intent stage:**
The draft criteria at the LOI stage include: high reward, feasibility, and high risk. The merit indicators for these criteria as defined in the first *Exploration* stream competition are in Appendix 1. See Appendix 2 for examples of teams successful at the LOI or full proposal stage of the 2018 NCE competition.

We expect that to be successful at the LOI stage of the New Frontiers in Research Transformation competition, proposals are likely to have the following characteristics:

1. The PI/Scientific Director is prepared to commit at least 40% of salaried time to running the proposed network.
2. The PI has an exceptional scientific track record, has active international collaborations, and has been awarded a multi-million dollar peer-reviewed grant in the last five years.
3. The FoMD team of investigators is exceptional, with demonstrable impacts on the health, economy, and education of Albertans.
4. EDI is clearly considered for the research team composition and Sex and Gender Based Analysis is clearly integrated into the research plan.
5. There are partners involved from across Canada, e.g. a minimum of 10 private sector partners and 10 academic institution partners.
6. There are international partners involved.
7. At least two other U of A Faculties are actively supporting the proposal.
8. Match funding from partners is secured to a value equal to the grant request.

During the FoMD review process, the potential of proposals to meet these criteria will be assessed. PIs should be aiming to exceed these criteria with their final LOIs. During early phases of project planning, the FoMD Office of Research can assist faculty members in developing their ideas and partnership to this level (for the 2019 call or a future one), or suggest alternative funding programs that could act as a stepping stone.

**Support available from FoMD Office of Research for the top qualifying proposal:**

1. Grant development support, including writing coordination, partnership building, and seeking match funding
2. Match funding – cash and in-kind, to be negotiated based on the project
3. Strategic advice and coordination of reviews

**Questions:**
PIs are encouraged to contact Patricia Gongal (pgongal@ualberta.ca), Director of Major Grants in the FoMD Office of Research as soon as possible if they are interested in developing a proposal, or with any questions.

**Appendices:**

1. Excerpt of Merit Indicators from the New Frontiers in Research Exploration stream
2. Example profiles of successful NCEs and teams selected for full proposals in the 2018 competition
## Appendix 1: Excerpt of Merit Indicators from the New Frontiers in Research Exploration stream

### High Risk

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<th>High</th>
<th>Medium-High</th>
<th>Medium-Low</th>
<th>Low</th>
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<tr>
<td>The proposed research addresses a completely new theory; or aims to radically challenge accepted theories.</td>
<td>The proposed research addresses a novel concept that bridges theories established in different fields.</td>
<td>The proposed research addresses a novel concept closely linked to established theories.</td>
<td>The proposed research tests established theories.</td>
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<td>The proposed research is at the interface between disciplines, requiring a novel interdisciplinary approach (i.e., two or more disciplines that are not commonly combined).</td>
<td>The proposed research crosses disciplinary boundaries and integrates approaches from two or more disciplines.</td>
<td>The proposed research crosses disciplinary boundaries, using approaches from one or more disciplines.</td>
<td>The proposed research crosses disciplinary boundaries, involving two (or more) disciplines that are closely related or commonly crossed. (The interdisciplinary approach is established.)</td>
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<td>The approach goes beyond established approaches of any single discipline, bringing together disparate disciplines in new ways.</td>
<td>The approach involves the development of novel methods or techniques.</td>
<td>The approach involves the application of proven methods and techniques in a new context.</td>
<td>The approach involves proven methods or techniques.</td>
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### High Reward

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<td><strong>-</strong></td>
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<td>The proposed research did not sufficiently identify the intended outcome(s).</td>
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<td><strong>If successful, it is probable that the proposed research outcomes:</strong></td>
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<td>Will lead to groundbreaking advances in the area and/or significant advancements in current knowledge, methods and/or technologies.</td>
<td>Will lead to significant advancements in the area and/or advancements to current knowledge, methods and/or technologies.</td>
<td>May lead to significant advancements in the area and/or advancements in current knowledge, methods and/or technologies.</td>
<td>Are unlikely to lead to significant advancements in the area or in current knowledge, methods and/or technologies.</td>
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<td>Will impact a large and diverse community.</td>
<td>Will impact a large community.</td>
<td>May impact a significant community.</td>
<td>Will impact a limited community.</td>
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<td>Will open a new area of discovery or change the direction of thought in a discipline.</td>
<td>Will identify a new area for discovery or challenge the direction of thought in a discipline.</td>
<td>May identify a new area for discovery.</td>
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<td>Will resolve a long-standing scientific issue.</td>
<td>Will contribute to resolving a long-standing scientific issue.</td>
<td>May contribute to resolving a long-standing scientific issue.</td>
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<td>Feasibility</td>
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<tr>
<td><strong>High</strong></td>
<td><strong>Medium-High</strong></td>
<td><strong>Medium-Low</strong></td>
<td><strong>Low</strong></td>
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<td>The proposed research project is clearly presented and objectives are clearly defined.</td>
<td>The proposed research project is clearly presented and objectives are described.</td>
<td>The proposed research project is clearly presented. Objectives are described.</td>
<td>The proposed research project, as presented, lacks clarity. Objectives are not clearly described and/or there are concerns about the likelihood of being able to achieve them.</td>
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<td>Sex- and Gender-Based Analysis (SGBA) has been clearly integrated, (if applicable).</td>
<td>SGBA has been integrated, (if applicable).</td>
<td>SGBA has been integrated, (if applicable).</td>
<td>SGBA considerations are applicable and have not been clearly integrated.</td>
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<td>Active engagement and reciprocity with First Nations, Inuit and Métis peoples is present for Indigenous research, if applicable.</td>
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<td>Engagement and reciprocity with First Nations, Inuit and Métis peoples is present for Indigenous research, if applicable.</td>
<td>Engagement and reciprocity with First Nations, Inuit and Métis peoples should have been described and are lacking.</td>
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<td>The application clearly demonstrates that the research team has the required expertise and access to the necessary research resources to complete the work.</td>
<td>The application demonstrates that the research team has the required expertise and access to the necessary research resources to complete the work.</td>
<td>The application demonstrates that the research team has most of the required expertise and/or access to most of the necessary research resources to complete the work, though some aspects may be missing or insufficiently described.</td>
<td>The application does not clearly demonstrate that the research team has all the required expertise and access to the necessary research resources to complete the work.</td>
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<td>There is a high probability that the project objectives will be achieved on time.</td>
<td>It is probable that the project objectives will be achieved on time.</td>
<td>The project objectives might be met on time.</td>
<td>It is unclear that the project objectives will be met on time.</td>
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**Equity, Diversity and Inclusion**

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<th>Example of potential measures</th>
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<td>Please see the Canada Research Chairs Program’s Best Practices Guide for Recruitment, Hiring and Retention for additional examples.</td>
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### Team composition and training activities

What measures and safeguards will be implemented to ensure that equity, diversity and inclusion principles are key considerations in the composition and management of the research group and training activities? This may include, but is not limited to, measures such as:

- Ensuring strong, consistent senior leadership that is committed to an equitable and diverse research team;
- Providing and encouraging unconscious bias and other EDI training for team members to build awareness of the different barriers that are faced by underrepresented groups in academia/research; and
- Implementing procedures to ensure that training and other opportunities associated with the grant (conferences, publications, networking) are distributed equitably among the team.

### Recruitment processes

What safeguards will be put in place to ensure the recruitment of additional team members (faculty, postdoctoral researchers, graduate students, etc.) is open and transparent and aligned with best practices (e.g., minimizing barriers and mitigating against unconscious bias)? This may include, but is not limited to:

- Unconscious bias and other EDI training for recruitment of committee members;
- Broad distribution of job postings, as appropriate, for the position;
- Ensuring a diverse hiring committee; and
- Ensuring that career leaves of applicants (e.g., parental leave, sick leave) do not adversely affect the candidature of a potential candidate.

### Inclusion

What measures will be put in place to ensure team members from underrepresented groups are supported and integrated into the team? This may include, but is not limited to:

- Mentoring programs;
- Creating opportunities for the team to discuss workplace environment concerns, and a plan to address any concerns that arise;
- Awareness/promotion of organizations or community groups that support underrepresented faculty; and
- Communication/institution of a network of Elders, traditional knowledge keepers, traditional healers and Indigenous-focused facilities (where appropriate).
Appendix 2: Example profiles of established NCEs and teams selected for full proposals in the 2018 competition

**Established NCEs**

   - 20 private industry partners, including Affymetrix, AstraZeneca, GE, GSK, Merck, and Roche
   - 12 foundation partners, including Canadian Cancer Society and the Terry Fox Research Institute
   - 20 academic partners
   - $22 million in cash contributions from non-academic partners
   - Federal funding through NCE program: $25M for 2014-2019
   - Provincial funding via Ontario Institute for Cancer Research

   - 12 industry partners, including IBM, Medtronic, and Siemens
   - 9 government partners representing 6 provinces
   - 7 non-profit/foundation partners
   - 20 academic partners
   - 20 hospitals/institutes
   - $33.3M in partner contributions
   - Federal funding through NCE program: $26.3M for 2014-2019

**Examples of teams selected to go to full proposal in the 2018 NCE competition**

Full results from the 2018 competition are available here:


**Invited to full proposal and successful**

- Canadian Mountain Network: [http://canadianmountainnetwork.ca/](http://canadianmountainnetwork.ca/)

**Invited to full proposal but unsuccessful**

- Canadian Partnership for Stroke Recovery: [https://www.canadianstroke.ca/en](https://www.canadianstroke.ca/en)
- Canadian Mitochondrial Network: [https://www.mitonet.ca/](https://www.mitonet.ca/)
- Technology, Research, Analytics, Network, Systems for Managing Heart Failure: [https://transformhf.com/](https://transformhf.com/)
- One Transplant for Life: [https://www.cntrp.ca/](https://www.cntrp.ca/)