

## Alberta Precision Health Initiative Development Grant Program Guide

### BACKGROUND

Alberta Innovates is pleased to announce the Alberta Precision Health Initiative (APHI). Precision health uses an individual's genetic makeup, environmental exposures and lifestyle to create and apply a program of illness prevention, detection and intervention. Alberta is well situated to become a leader in this emerging field with assets that include a small, but diverse population, single health care delivery and payer systems and existing capacity and capabilities in the -omics fields\*, data repositories, biobanks and patient registries. This is a compelling opportunity to improve the precision of diagnosis, prevention and treatment of diseases in Alberta and the APHI will support the development of these precision health approaches in Alberta.

As part of the APHI, Alberta Innovates and Genome Alberta have partnered to develop the APHI Development Grant. The objective of the APHI Development Grant is to enhance Alberta's competitiveness in upcoming precision health funding opportunities. This objective will be accomplished by facilitating the coalescence of multi-sectoral teams and enabling those teams to develop cohesive plans which address health and health system challenges that can best be resolved through a precision health research and innovation approach. The goal is to leverage the teams' existing knowledge and resources to accelerate precision health in the province and beyond.

Successful teams will use the APHI Development Grant funding to engage team members, partners, stakeholders, end-users and decision makers to add value to their precision health research and innovation approach. The funds can also be used to consolidate, analyze and/or integrate the team's resources which will better position the team to undertake their precision health approach. These activities (not limited to those specifically identified above) will improve the value proposition for investing in the future applications. (See Appendix 1: Eligible and non-eligible costs.) *Please note that this grant is not intended to support the performance of wet lab work.*

\*omics is defined as comprehensive suite of approaches including (but not limited to) genomics, proteomics, metabolomics and bioinformatics

## Eligibility

Each eligible application will include:

- A project Lead or Co-Lead that is associated with an Alberta-based University or public Alberta institution
- A team of individuals which may include academics, clinicians, industry representatives, entrepreneurs and representatives of the health delivery system including its supporting networks such as the Strategic Clinical Networks (SCNs) and [SPOR SUPPORT Units](#) as appropriate.

## FUNDING

### Number of Available Grants

Anticipated to be up to 3, but more could be considered.

### Value of Grant

No set maximum amount, but the anticipated range is \$100K - \$300K per grant. Budgets over this amount *will* be considered if well justified.

Budgets should align with the proposed activities and an explanation for the funds requested is required. The budget will be assessed as part of the review process. A list of eligible and ineligible expenses can be found in Appendix 1.

### Term

Maximum of 18 months

## APPLICATION PROCESS

The APHI Development Grant application process has three stages. Each application must proceed through the registration process to be eligible for an invitation for a full application.

- 1) Registration
- 2) Registration feedback
- 3) Full application-by invitation

This registration process is intended to help teams strengthen their full applications by allowing them to incorporate feedback from the registration panel, including information on possible new collaborations.

### 1) Registration

Registrations will be reviewed by a panel of individuals representing knowledge and expertise in precision health, health care and health care delivery settings.

Registrations will be reviewed for:

- appropriateness to the funding opportunity
- linkage to health system needs and priorities;
- the strength of the team including the involvement of individuals across the sectors; and
- potential areas of synergy between applications.

**The registration screening is not intended to evaluate scientific merit.**

As part of their registration, teams must describe:

- their Overarching Plan for Research and Innovation in Precision Health. This is team's global plan for precision health for which they will seek national/international funding in the near term.
- the function of each of the individuals identified in the APHI Development Grant registration and their roles in the Overarching Plan for Research and Innovation in Precision Health.
- the activities they plan to carry out as part of the APHI Development Grant that will set the stage for the team to undertake their Overarching Plan for Research and Innovation in Precision Health.

### ***Overarching Plan for Research and Innovation in Precision Health***

The proposed Overarching Plan for Research and Innovation in Precision Health should describe how the team will adopt, integrate or validate precision health innovations to improve diagnosis, treatment and/or prevention of diseases that create a significant

social and economic burden in Alberta. This includes activities that address the gap from translational research to application in the clinic by identifying and tackling the key barriers to implementation of -omic and other complex health data into clinical decision making. Activities could also include those that explore the translational challenges including ethical, social, political, regulatory, policy or economic barriers that deter the responsible uptake of data and precision health in the clinic, and investigating strategies that promote uptake by the health system. This work can be supported by activities that enhance the capabilities of a precision health approach, i.e. a basic science component to inform the applied/implementation work. The Overarching Plan for Research and Innovation in Precision Health should:

- Build upon an existing area of strength in Alberta which will position Alberta to be competitive *nationally and internationally* in the identified area of precision health;
- Identify the existing resources that will be leveraged and explain how the proposed Overarching Plan for Research and Innovation in Precision Health links to activities underway in other jurisdictions;
- Explain the rationale for undertaking a precision health approach (prevalence, high cost or poor outcomes) and provide rationale for how a precision health approach will improve the current state;
- Enable prediction, prevention and/or treatment of disease at the point of care using a precision health based approach;
- Adopt, integrate and/or validate innovative precision health based diagnostics that substantially improve accuracy in diagnosis, prevention and/or treatment of diseases ;
- Implement precision health based intervention(s) that result in better patient outcomes for Albertans;
- Include reference to an economic evaluation to determine if the precision health approach is cost effective;
- Include reference to a translational/commercialization plan to ensure uptake into Alberta's health care system.

### ***APHI Development Grant Activity Description***

The APhi Development Grant Activity Description should identify the activities that are needed to bring the team and its existing data and resources together and set the stage for undertaking the Overarching Plan for Research and Innovation in Precision Health.

The APhi Development Grant Activity Description should:

- Identify the activities that will be undertaken as part of the APhi Development Grant
- Explain how the APhi Development Grant activities will position the team to undertake the Overarching Plan for Research and Innovation in Precision Health
- Describe how these activities will position the team to be competitive in upcoming funding competitions such as Genome Canada's upcoming Large-Scale Applied Research Project Competition in Genomics and Precision Health

### **2) Registration Feedback**

Feedback on the registration is intended to:

- provide the applicant with comments from the panel which should be considered when developing applications in this or other related opportunities; and
- facilitate conversations among applicants to encourage the development of engagement and collaborations when synergies exist between applications.

As it is anticipated that up to 3 teams will receive support, the feedback should be viewed as an opportunity to network with other applicants working in a similar area and registrants should be open to collaborations.

Please note that the Proposal Title and names of the Lead and Co-Leads for each application will be shared among all registrants (Leads and Co-Leads) as part of the Registration Feedback. This information will allow groups to network with others working in a similar area and potentially collaborate.

### **3) Full Application - by Invitation**

The full application will expand on the information provided in the registration, and will include a more elaborated Overarching Plan for Research and Innovation in

Precision Health and description of the APhi Development Grant Activities. The full application will be informed by feedback from the registration panel and potentially by new collaborations or additional team members.

Full applications will be evaluated by an independent committee of expert reviewers representing perspectives from across the precision health innovation continuum. Applications will be reviewed and assessed on the information provided in the application.

### **Full Application Assessment Criteria**

The full applications will be assessed using the five criteria listed below:

- **Feasibility:** The APhi Development Grant activities described are appropriate and achievable within the outlined budget and will position the team for success in implementing their proposed Overarching Plan for Research and Innovation in Precision Health. The proposed Overarching Plan for Research and Innovation in Precision Health is feasible and likely to succeed given the team composition, timeline, and magnitude of the proposed change. There is a strong likelihood that the Team will be successful at attracting additional funds to support the precision health research and innovation plan.
- **Environment:** The proposed team has the appropriate breadth of perspectives from academia, clinical settings, industry, entrepreneurial enterprises, and the health delivery system including its supporting networks - the SCNs and SPOR SUPPORT Units as appropriate. The team has included the necessary expertise to complete the Overarching Plan for Research and Innovation in Precision Health and includes individuals to ensure uptake, adoption and implementation of research findings in to Alberta's health system and a plan to engage these individuals.
- **Integration:** The scientific evidence supporting the proposal is strong and builds on an existing area(s) of strength in the province. There is evidence that the proposed activities lead, extend, and/or complement national and international initiatives in the area.

- **Relevance:** The identified issue is important due to prevalence, high cost or poor prognosis/outcomes. The activities outlined in the Overarching Plan for Research and Innovation in Precision Health have the potential to substantially improve patient outcomes and/or care.
- **Potential Impact:** There is evidence that a move to a precision health approach would improve care when compared to the current state. The team has a sound approach to measure the improvements as a result of implementing the Overarching Plan for Research and Innovation in Precision Health, a plan to undertake an economic evaluation to determine if the precision health approach is cost effective and a translational/commercialization plan to ensure uptake into Alberta's health system.

## CONTACT INFORMATION

For further information on the APHI Development Grant, please contact:

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## APPENDIX 1: ELIGIBLE AND INELIGIBLE COSTS

**Eligible costs:** Eligible costs are should be reasonable and incremental costs for items that directly support the activities of the APhi Development Grant and include the following categories:

- Administrative costs that are specific to the APhi Development Grant such as travel and communications
- Salaries, benefits and supplies to support APhi Development Grant activities
- Services from others such as (but not limited to) those associated with bringing the team's data and/or resources together
- Minor equipment (less than \$10,000)
- Costs associated with workshops/meetings to plan the team's research activities that will be conducted as part of your future grant
- Costs associated with hiring a grant writer to assist in coordinating grant applications related to acquiring funding for your Overarching Plan for Research and Innovation in Precision Health.

### **Ineligible costs:**

- Health system operational costs
- Salaries of researchers or senior management currently funded by their respective organizations
- Costs associated with the protection of intellectual property
- Major equipment (more than \$10,000)
- ***Clarification: APhi Development Grant funds are not eligible to be used to generate new biological data. Therefore, salaries, benefits and associated costs for the performance of wet lab work are not eligible expenses. In addition, activities related to the generation of new data such as sample collection, cohort maintenance or sequencing are not eligible expenses.***





Note: All expenditures, including those planned for outside of Alberta, must be appropriately justified.