Path towards Precision Medicine (PPM) Call

QNRF-QGP Joint Funding Call

Call for Proposals (CFP)

Fourth Cycle

Revised
March 2020
Contents

SECTION 1. ACRONYM LIST .............................................................................................................. 3
SECTION 2. PPM4 SNAPSHOT ........................................................................................................ 4
SECTION 3. OVERVIEW .................................................................................................................. 6
SECTION 4. PPM4 CALL OBJECTIVES ......................................................................................... 6
SECTION 5. RESEARCH PRIORITY AREAS FOR THIS CALL ...................................................... 6
SECTION 6. QATAR BIOBANK DATA & SAMPLES ......................................................................... 8
SECTION 7. ELIGIBILITY ................................................................................................................ 8
  7.1. ELIGIBILITY OF PROPOSAL .............................................................................................. 8
  7.2. ELIGIBILITY OF SUBMITTING INSTITUTION ...................................................................... 8
  7.3. ELIGIBILITY OF PARTICIPANTS ........................................................................................ 8
SECTION 8. SUBMISSION PROCESS ............................................................................................ 9
  8.1. PROPOSAL SUBMISSION FLOWCHART AND TIMELINE .................................................. 9
  8.2. APPLICATIONS PROCEDURES .......................................................................................... 10
SECTION 9. BUDGET .................................................................................................................... 10
  9.1. GRANT ................................................................................................................................ 10
  9.2. CO-FUNDING AND FUND MATCHING RULES .................................................................. 10
  9.3. GRANT AND EFFORT ALLOCATION ................................................................................ 10
SECTION 10. PERSONNEL REQUIREMENTS ................................................................................. 11
  10.1. LEAD PRINCIPAL INVESTIGATOR .................................................................................. 11
  10.2. PRINCIPAL INVESTIGATORS (PIs) .................................................................................. 11
  10.3. OTHER RESEARCH TEAM MEMBERS ............................................................................. 11
  10.4. GRADUATE STUDENTS .................................................................................................. 11
  10.5. UNDERGRADUATE STUDENTS ....................................................................................... 11
  10.6. CONSULTANTS ................................................................................................................ 11
SECTION 11. ONLINE SUBMISSION PROCEDURES .................................................................... 11
  11.1. SUBMISSION REQUIREMENTS ......................................................................................... 11
SECTION 12. PROPOSAL SCREENING .......................................................................................... 13
SECTION 13. PROPOSAL EVALUATION ......................................................................................... 13
SECTION 14. PRE-FUNDING .......................................................................................................... 15
SECTION 15. POST-AWARD .......................................................................................................... 15
SECTION 16. RESEARCH ETHICS AND REGULATORY REQUIREMENTS ...................................... 15
SECTION 17. RESEARCH INTEGRITY ............................................................................................ 15
SECTION 18. INTELLECTUAL PROPERTY POLICY ....................................................................... 16
SECTION 19. DATA MANAGEMENT PLAN POLICY ....................................................................... 16
SECTION 20. INQUIRIES ............................................................................................................... 16
SECTION 21. RESEARCH SUPPORT RESOURCES ......................................................................... 16
### Section 1. Acronym List

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AA</td>
<td>Award Administration</td>
</tr>
<tr>
<td>AMG</td>
<td>Award Management Guide</td>
</tr>
<tr>
<td>AROR</td>
<td>Authorized Research Office Representative</td>
</tr>
<tr>
<td>CFP</td>
<td>Call for Proposal</td>
</tr>
<tr>
<td>GS</td>
<td>Graduate Student</td>
</tr>
<tr>
<td>IACUC</td>
<td>Institutional Animal Care and Use Committee</td>
</tr>
<tr>
<td>IBC</td>
<td>Institutional Biosafety Committee</td>
</tr>
<tr>
<td>IP</td>
<td>Intellectual Property</td>
</tr>
<tr>
<td>IRB</td>
<td>Institutional Review Board</td>
</tr>
<tr>
<td>KI</td>
<td>Key Investigator</td>
</tr>
<tr>
<td>LPI</td>
<td>Lead Principal Investigator</td>
</tr>
<tr>
<td>MoPH</td>
<td>Ministry of Public Health – Qatar</td>
</tr>
<tr>
<td>PD</td>
<td>Postdoctoral Scholar</td>
</tr>
<tr>
<td>PI</td>
<td>Principal Investigator</td>
</tr>
<tr>
<td>PPM</td>
<td>Path towards Precision Medicine</td>
</tr>
<tr>
<td>PR</td>
<td>Peer Reviewer</td>
</tr>
<tr>
<td>QBB</td>
<td>Qatar Biobank</td>
</tr>
<tr>
<td>QGP</td>
<td>Qatar Genome Programme</td>
</tr>
<tr>
<td>QNRF</td>
<td>Qatar National Research Fund</td>
</tr>
<tr>
<td>QNRS</td>
<td>Qatar National Research Strategy</td>
</tr>
<tr>
<td>QRLP</td>
<td>Qatar Research Leadership Program</td>
</tr>
<tr>
<td>RA</td>
<td>Research Assistant</td>
</tr>
<tr>
<td>REG</td>
<td>Research Ethics Guide</td>
</tr>
<tr>
<td>RIG</td>
<td>Research Integrity Guide</td>
</tr>
<tr>
<td>RO</td>
<td>Research Office</td>
</tr>
<tr>
<td>ROC</td>
<td>Research Outcome Center</td>
</tr>
<tr>
<td>SI</td>
<td>Submitting Institution</td>
</tr>
</tbody>
</table>
## Section 2. PPM4 Snapshot

### SCOPE

<table>
<thead>
<tr>
<th>Submission opens</th>
<th>15 January 2020 (noon, Doha time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission deadline</td>
<td>Final date for proposal submission by LPI: 8 April 2020 (noon, Doha time). Final submission and RO vetting: 15 April 2020 (noon, Doha time). The complete application is due at this time.</td>
</tr>
<tr>
<td>Announcement of results</td>
<td>September/October 2020</td>
</tr>
<tr>
<td>Scope</td>
<td>Any personalized medicine proposal shall be handled only through this call. Samples are preferably Qatari based (nationals and long-term residents) through Qatar Biobank.</td>
</tr>
<tr>
<td>Anticipated project start date</td>
<td>Project activities cannot start until a Master Research Funding Agreement (MRFA) has been signed. This process can take 60 days from the time of the award announcement and this should be taken into consideration when preparing the application implementation timeline.</td>
</tr>
<tr>
<td>PPM4 Call objectives</td>
<td>The objective of the 4th Call of Path towards Precision Medicine (PPM) is to support and advance research that aims to provide tailored medical treatment catering to the individual characteristics of each patient based on their genetic profile to improve care quality while reducing unnecessary diagnostic testing and therapies. Moreover, it aims to support research that benefits from the first phase of the Qatar Genome Programme (QGP) in understanding disease phenotype/genotype correlations, translating research findings into medical products for better healthcare quality, and promoting engagement of healthcare providers and community in Qatar towards a better understanding of precision medicine.</td>
</tr>
</tbody>
</table>
| Research priorities | 1. Immunogenomics and precision immunotherapeutic approaches  
2. Clinical implementation of pharmacogenomics  
3. Multi-omics analysis of common chronic diseases such as cardiovascular diseases, neurological disorders and cancer.  
| Eligible applicant | The LPI must be a researcher who holds a research-oriented doctorate or any of the approved terminal degrees as defined under the approved list of terminal degrees and has at least five peer reviewed publications. The LPI must be affiliated with an institution inside Qatar. |
| Awards parameters | For up to four-year awards, application budget may not exceed US $200K for a one-year project, US $400K for a two-year project, US $600K for a three-year project and US $700K for a four-year project. For projects of more than one year, the budget may not exceed US $250K in any year. This amount includes personnel, capital equipment, consumables, materials, services, travel, miscellaneous, and indirect costs as applicable. |
| Co-funding opportunities | QNRF & QGP encourage co-funding of projects in cash and/or in-kind. **No fund match will be provided.** |
| IP Policy | QNRF & QGP will follow the Qatar Foundation (QF) Intellectual Property (IP) Policy. For further details, refer to the QF IP policy at [link](#).
<table>
<thead>
<tr>
<th>How to apply</th>
<th>Register and submit the full application through the online submission system website: <a href="https://oss.qgrants.org/">https://oss.qgrants.org/</a>. The Grant Application Guide can be downloaded from the <em>Download Center</em> for the NPRP at <a href="http://www.qnrf.org">www.qnrf.org</a>. The site will be active on 15 January 2020 (noon, Doha time).</th>
</tr>
</thead>
<tbody>
<tr>
<td>QNRF program contact</td>
<td>QNRF support system: <a href="http://support.qnrf.org/index.php/?Tickets/Submit">http://support.qnrf.org/index.php/?Tickets/Submit</a>.</td>
</tr>
</tbody>
</table>
Research Ethics and Regulatory Requirements document at the link  
For information about QBB/QGP resources, visit:  
[http://www.qatarbiobank.org.qa/research](http://www.qatarbiobank.org.qa/research)  
Section 3. Overview
Qatar National Research Fund, in collaboration with the Qatar Genome Programme (QGP), has launched the fourth cycle of the Path towards Precision Medicine (PPM4) call with the aim of capitalizing on the wealth of data generated by QGP and supporting the vision of making Qatar a pioneer in genomic medicine research. QNRF’s vision is to enable research and development excellence in Qatar to achieve a sustainable, diversified economy through the advancement of research and education by providing funding opportunities for original, competitively-selected research and development at all levels and across all disciplines with emphasis on the following four pillars of the Qatar National Research Strategy (QNRS):

- Energy and Environment
- Computer Science and ICT
- Health
- Social Sciences, Arts and Humanities

QGP is one of the major national genome programs in the region and is spearheading the implementation of advanced precision medicine in Qatar. The project differentiates itself from other disease-based research organisations in the region as it is a population-based initiative using specimen and population samples gathered by Qatar Biobank (QBB). One of the main goals of QGP is to encourage cutting edge genomic research in Qatar and foster the building of local research networks that will make best use of the huge amount of data being produced by the project.

Section 4. PPM4 Call Objectives
The objective of the PPM call is to support and advance research that aims to guide healthcare decisions toward the most effective prevention of disease or treatment for a given patient based on their genetic profile. This call will continue to support genomic research in Qatar by utilizing the samples and data collected and generated by QBB and QGP, with more focus on innovative projects aiming at translating basic research into clinical implementation.

Section 5. Research Priority Areas for this Call
The PPM4 has the same research areas as the past cycle to enable more investigators to work on these important areas. The four main research priority areas are the following:

5.1. Immunogenomics and precision immunotherapeutic approaches

Brief description:
This is an established field of biomedical research, yet it is currently seen as a re-emerging one with exciting new developments. This was acknowledged by the 2018 Nobel Prize in Physiology and Medicine, which went to discoveries in cancer immunotherapies by James Allison of Texas MD Anderson Cancer Center in Houston, USA, and Tasuku Honjo of Kyoto University in Japan. Each of these researchers discovered ways to remove the immune system’s “brakes” that prevent it from attacking tumor cells. Such cancer immunotherapies would revolutionize the treatment of certain types of cancers.

PPM4 will support research utilizing Qatari genomic data within immunological studies and therapeutic approaches to tackle non-communicable diseases like cancer, autoimmune diseases, inherited immune system disorders and other immunological abnormalities.

Specific research priority areas (preferred but not limited to):

5.1.1 Utilizing genomic and other -omics analysis of Qatari-based samples (preferably, QBB/QGP data and samples) leading to innovative approaches to understand disease trends.
5.1.2 Development/validation of disease gene panels and clinical exome sequencing for immunotherapeutic treatments of diseases affecting public health in Qatar.
5.1.3 Utilizing research platforms technologies such as gene editing and iPSCs, stem cells, proteomics, metabolomics, bioinformatics, imaging, biomedical engineering, and vivarium in Qatar-based research institutions.
5.2. Clinical implementation of pharmacogenomics

Brief description:

This call encourages projects that will promote the translation of basic genomic research findings into outcomes adaptable for clinical implementation, thus converting laboratory discoveries into innovations in healthcare. Pharmacogenomics is widely seen as one of the main areas where there is enough solid evidence to make a good case for the implementation of precision medicine. In addition to optimizing therapeutic responses to the various drugs, pharmacogenomics can also heavily impact healthcare economics.

Specific research priority areas (preferred but not limited to):

5.2.1 Identification of predictive biomarkers for different pharmacogenomics approaches and using such information to match patients with molecularly targeted therapies in clinical trials.

5.2.2 Research approaches that explore the complexity of the genotype–phenotype associations of therapy. Bioinformatics has an important role to play in addressing the complexity of the underlying genetic basis of common drug response. Furthermore, bioinformatics and statistical analyses of the data obtained from Qatari-based samples (preferably, QBB/QGP data and samples) to identify gene functionalities, in both in vitro or/and in vivo systems, are important.

5.3. Multi-omics analysis of common chronic diseases such as cardiovascular diseases, neurological disorders, and cancer

Brief description:

PPM4 is aiming to fund promising proposals that will investigate and use multi-omics approaches for landscape of cancer, cardiovascular, and neurological diseases in the Qatari population. Both QNRF and QGP are interested in supporting proposals aiming to explore such national priority diseases extensively at the molecular level. The utilization of bioinformatics tools and statistical analyses of data obtained from Qatari patients to identify disease markers that can be used in diagnostic and preventive measures at the clinical end is also encouraged.

Specific research priority areas (preferred but not limited to):

5.3.1 Utilizing genomic and other -omics analysis of Qatari patients leading to innovative discoveries of disease trends in this population.

5.3.2 Development/validation of disease gene panels for diagnostic and preventive approaches of such disorders.

5.4. Precision medicine digital e-solutions and applications

Brief description:

In order to expand public knowledge and practice of precision medicine, utilizing technologies and digitalization approaches is essential to build novel patient-centered technologies. QNRF and QGP will support innovative projects that will advance public health by promoting the translation of basic and clinical research outcomes into consumer-based solutions and e-health tools. PPM4 will support proposals that will empower not only patients, but also researchers and medical professionals to implement precision medicine applications in everyday life.

Specific research priority areas: (preferred but not limited to)

5.4.1. Projects focusing on development of e-solutions and/or digital tools aimed at empowering patients with lifestyle management based on their genetic makeup.

5.4.2. Projects focusing on development of e-solutions and/or digital tools aimed at facilitating the work of health care professional in hospitals and clinics to provide more efficient care utilizing genomic information.

5.4.3. Projects focusing on development of e-solutions and/or digital tools aimed at ethically approved easier delivery of personal genomic reporting to participant’s utilizing QGP generated personal genomic reports.
Section 6. Qatar Biobank Data & Samples

Qatar Biobank (QBB) is Qatar’s National Repository Center for biological samples and health information records, enabling research towards the discovery and development of new healthcare interventions. QBB aims to recruit 60,000 Qatari nationals and long-term residents (>15 years residence) aged ≥18 years, and follow up with these same individuals every 5 years to record any subsequent health conditions. At present, QBB has sampled more than 30% of the targeted population.

QBB biorepository covers Omics data, from whole genome analysis to transcriptomics, epigenomics, proteomics and metabolomics to clinical diagnostic biomarkers and a variety of biological sample types enabling medical research of evidence-based healthcare interventions. You can find more information about QBB in their website at http://www.qatarbiobank.org.qa.

- LPIs are required to check the availability of the data and samples within QBB, to avoid any duplication in research, the list of research data available can be obtained from QBB’s Research Data Available link on their website. In order to access these samples/data, LPIs are required to submit to QBB Research Collaboration and Data Access/Sample Request Form at their website.

In case the sample or data is not available or the sample size is not representative, LPIs are strongly encouraged to collect their new samples and data through QBB, as deemed fit.

All researchers interested in applying to QBB sample access are required to create a profile through QBB Research Portal at https://researchportal.qatarbiobank.org.qa, where further information and the application form is available (https://www.qatarbiobank.org.qa/research/how-to-apply).

Should LPIs have any queries about sample availability or data type, a pre application query form is available within the research portal and will be sent directly to the Qatar Biobank Research Access Office at qbbresearch@qf.org.qa.

For additional information about the other research support resources, please refer to the link.

Section 7. Eligibility

7.1. Eligibility of Proposal

The proposal must be within one or more of the specific research priority areas described in Section 5.

7.2. Eligibility of Submitting Institution

7.2.1. Institutions inside Qatar with approved Research Offices (ROs) are eligible to submit proposals. See submitting institution and RO roles in the “Institution’s responsibilities and Post-Award” document available at link.

7.2.2. Submissions should be within the research area(s) of the submitting institutions, as declared by the approved ROs.

7.2.3. Authorized Research Office Representatives (ARORs) and other members of the RO are not eligible to participate in any PPM projects.

7.3. Eligibility of Participants

7.3.1. Eligibility of Lead Principal Investigators (LPIs)

7.3.1.1. The LPI must be affiliated with a submitting institution inside Qatar. They are eligible to apply for one PPM proposal per cycle. The LPI may collaborate with other research entities, located inside or outside Qatar.

7.3.1.2. The LPI must hold a research-oriented doctorate or any of the approved terminal degrees as defined under the approved list of terminal degrees, which is available at link.

7.3.1.3. The LPI should have at least five single- or co-authored peer-reviewed publications uploaded in their profile in the QNRF online submission system. Types of publications accepted by QNRF include journal papers, full paper conference proceedings, books, book chapters, or patents by the LPI. In addition, QNRF accepts peer-reviewed creative works that cover the following research areas: performing arts,
visual arts, creative writing, design works and communication media. These creative works are only accepted when the LPI provides an “attestation letter” from the LPI’s affiliated institution, indicating that these particular creative works are acceptable research outcomes.

7.3.1.4. An applicant/active awardee of the Junior Scientists Research Experience Program (JSREP) is not eligible to apply as LPI to the PPM call, however they may apply as LPI only on the 3rd year of their JSREP project provided they meet the participant eligibility described above.

7.3.1.5. A post-doctoral scholar is not eligible to act as a LPI (see definition at link).

7.3.2. **Number of Roles**
7.3.2.1. The LPI can submit only one application per cycle.
7.3.2.2. The count of an individual participation in all ongoing PPM projects as a key investigator (KI) must not exceed three roles, with research effort not exceeding the allowable institutional percentage of effort.

**Section 8. Submission Process**

**8.1. Proposal Submission Flowchart and Timeline**

8.1.1. **Flowchart**
The following flowchart illustrates the steps necessary from the time of proposal submission by the LPI and the RO to the notification of the final award.

---

**PPM4 Proposal Submission Flowchart**

---

Proposed Submission (12 weeks)  
RO Vetting (13 weeks)  
QNRF Proposal Screening (4 weeks)  
Proposal Peer Reviewing, Programmatic Evaluation, Score Analysis & Funding Decision (20 weeks)  
Receiving Complementary documents for funded projects (8 weeks)  
RO Vetting (8 weeks)

3 Months  
6 Months  
2 Months

Proposal Preparation & RO Vetting  
QNRF Internal Processing  
Pre-Funding Phase

---

CFP, PPM4 call (March 2020)  
Page 9 of 16
8.1.2. **Timeline**
The following table shows important dates for the PPM4 cycle.

<table>
<thead>
<tr>
<th>Description</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online registration for LPIs</td>
<td>Always Open</td>
</tr>
<tr>
<td>Online registration of ROs and other Key Investigators</td>
<td></td>
</tr>
<tr>
<td>Open proposal submission as well as RO vetting* process.</td>
<td>12pm (Doha time), Wednesday, 15 January 2020</td>
</tr>
<tr>
<td>Close proposal submission by LPI</td>
<td>12pm (Doha time), Wednesday, 8 April 2020</td>
</tr>
<tr>
<td>RO Final proposal submission and vetting</td>
<td>12pm (Doha time), Wednesday, 15 April 2020</td>
</tr>
<tr>
<td>Ineligible proposals notification</td>
<td>May, 2020</td>
</tr>
<tr>
<td>Successful proposals notification, awards announced</td>
<td>September/October, 2020</td>
</tr>
</tbody>
</table>

*RO vetting can only start once the proposal is submitted

8.2. **Applications Procedures**

During proposal preparation, LPIs must select one of the three types of applications stated below:

8.2.1. **New**

8.2.1.1. LPI must select “New” application, if it is the first time that the application is submitted for funding.

8.2.1.2. New application may also include proposals that did not pass QNRF screening in previous cycles.

8.2.2. **Resubmission**

8.2.2.1. Proposals which passed screening but were not awarded are allowed to be resubmitted in the subsequent cycle. Such proposals should be flagged as “Resubmission.” Resubmission is allowed once only.

**Section 9. Budget**

9.1. **Grant**

Table 2 shows the maximum allowed grant of each award according to the project’s duration. However, the grant may not exceed **US$ 250,000** in any year for projects lasting two years and longer.

<table>
<thead>
<tr>
<th>Project duration</th>
<th>Maximum Basic Grant (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>One-year project</td>
<td>200,000</td>
</tr>
<tr>
<td>Two-year project</td>
<td>400,000</td>
</tr>
<tr>
<td>Three-year project</td>
<td>600,000</td>
</tr>
<tr>
<td>Four-year project</td>
<td>700,000</td>
</tr>
</tbody>
</table>

9.2. **Co-funding and fund matching rules**

QNRF & QGP encourage co-funded projects in PPM. In such a case, applicants are requested to comply with QNRF’s Co-funding Policy [link]. No fund match will be provided.

9.3. **Grant and Effort Allocation**

At least 50% of the proposed funded research effort must be conducted inside Qatar by the research team and at least 65% of the total annual budget must be expended inside Qatar.

Please refer to the Budget Components document available at [link].
Section 10. Personnel Requirements

10.1. Lead Principal Investigator
Please refer to the LPI eligibility in section 7.3.1.

10.2. Principal Investigators (PIs)
10.2.1. The PI must hold a research-oriented doctorate or any of the approved listed terminal degrees defined at link.
10.2.2. The PI must be affiliated with a research institution from inside or outside Qatar.
10.2.3. A JSREP grant recipient can participate in a PPM project only as a PI and only once throughout the JSREP grant.
10.2.4. A post-doctoral scholar is not eligible to act as a PI (see definition at link).

10.3. Other Research Team Members
Post-doctoral scholars, graduate students, technologists, research associates, research assistants, undergraduate students, lab technicians, and engineers are considered Research Team Members. For any other unlisted roles, the nearest applicable role should be chosen.

10.4. Graduate Students
A graduate student (GS) is eligible to participate in PPM projects provided that they are enrolled in a higher educational degree program at the submitting or collaborative institution and that the PPM research is relevant to the GS’s degree program. QNRF and QGP encourage applicants to hire QRLP (Qatar Research Leadership Program) graduates and GSs from Qatar. The QRLP graduates and candidates will be at zero cost.

10.5. Undergraduate Students
If necessary, the LPI may include undergraduate students as Research Team Members under the “Undergraduate Student” roles on the QNRF online submission website, provided that their participation complies with their institution’s policies.

10.6. Consultants
If the need for consultant (see definition at link) services is anticipated, the nature of the proposed consultant services must be justified and included in the proposal. The consultant services cannot be considered as scientific or intellectual contribution to the project.

Section 11. Online Submission Procedures

11.1. Submission Requirements
11.1.1. The online application submitted by the LPI must be vetted by the Research Office (RO) of the submitting institution in order to be considered as an official submission to QNRF; RO vetting must be completed in accordance with the timeline (section 8.1.2), and the RO responsibilities at link.
11.1.2. All principal investigators listed on a PPM grant application, residing inside or outside Qatar, must register with QNRF at https://oss.qgrants.org/.
11.1.3. An applicant is required to use their official work email addresses during registration. Those who have previously registered do not need to re-register, but will need to update their profile and CV, as applicable. Applicants who register with two different emails will be disqualified.
11.1.4. Each LPI is required to upload a minimum of five peer-reviewed publications of their own during the registration.
11.1.5. Consultants are required to register and upload their CVs, stating their affiliation.
11.1.6. For the requirements regarding online registration, please refer to the Grant Application Guide at link.

11.2. Proposal Registration
11.2.1. After registration, the LPI is required to register the proposal at https://oss.qgrants.org/. For more information regarding the proposal registration and submission, please refer to Grant Application Guide at link.
11.2.2. The LPI may use the “Comments to QNRF” box to designate persons they would prefer not to review the proposal and should indicate why. The decision to follow the suggestions or not, however, remains with QNRF. The LPI may also utilize the “Comments to QNRF” box for any other issue they need to declare before submission. The LPI should also identify any research work that they have conducted/are conducting which is similar to the proposal and explain how the latter is distinct.

11.3. Proposal Preparation
During “Proposal Preparation”, the LPI has to submit the information according to the online sections listed below as well as to upload documents as required.

11.3.1. Proposal Summary: A brief description, written in the third person, outlining the major aspect(s) of the proposed activity, while illustrating the objectives and methods to be used. The description should be informative, highlighting the intellectual merit and the potential impact on the relevant specific research priority area(s). The proposal summary is requested during the proposal submission phase on the system.

11.3.2. Submitting Institution Information: A research institution registered inside Qatar that has appropriate research resources related to the selected specific research priority area(s) and is responsible for submitting research proposals to QNRF. The LPI’s institution in Qatar will be considered as the submitting institution and will be responsible for vetting the proposal.

11.3.3. Collaborative Institution Information: An institution inside or outside Qatar collaborating with the submitting institution in conducting the research proposal. If collaborative institutions are involved in the proposal, the LPI should enter the required information for each institution, including uploading an official support letter. The support letter template is available at [link]. Collaborative Institution must include at least one PI.

11.3.4. Personnel:
11.3.4.1. Research Team: The LPI can nominate Research Team Members (see definition at [link]) from the submitting and collaborative institutions. PIs are required to be registered in order to be added to the proposal submission. The system will request the PIs to update their profiles with all the required documentations/information, including those related to efforts, in order to be added to the proposal.

11.3.4.2. Consultant: The LPI lists the consultant(s) for the project, if needed. Consultants (see definition at [link]) are required to be registered in order to be added to the proposal.

11.3.4.3. Research Plan: The LPI should prepare the research plan file according to the research plan template available at [link]. The research plan should use Arial font for the body text, font size 11, single space and the margins as identified in the template (no less than 0.5 inches). The research plan must not exceed 40 pages in total. Excluding cover page, table of content, and references.

11.3.5. Budget: For more information on the budget, see Budget Components document at [link].

11.3.6. Co-Funding: In a case of co-funding, the LPI is required to provide justification, the total amount of co-funding, including the expected categories of contributions, and upload a commitment letter from the co-funder(s) signed by an authority of the co-funder(s). The commitment letter template is available at [link].

11.3.7. Other grants: The LPI should disclose any information on all on-going and previously completed research funds for each Key Investigator over the last three years such as project title, name of funding agency, project duration, start and end dates, the total amount of fund/year, total effort, remaining effort, abstract and, if applicable, outcome summary.

11.3.8. Ethical Compliance: For research involving human subject(s), stem cells in human subject(s), research with laboratory animals, DNA research and biohazards materials, the LPI is required to comply with the laws and regulations set out by the Ministry of Public Health – Qatar (MoPH) for the protection of the human subjects and laboratory animals.

11.3.9. IP/Market: This section addresses some questions related to Intellectual Property that need to be addressed by the LPI.

11.3.10. Miscellaneous Documents: This section may contain any supporting documents such as tables, appendices etc. However, documents wrongly uploaded under this section, such as a research plan, will not be considered. All the information required for the evaluation process should be included in the research plan. For any proposal utilizing Qatar Biobank (QBB) resources, a supporting letter from QBB should be uploaded in the miscellaneous documents section.
11.3.11. **Declarations:** The LPI should declare electronically that the proposal is their own work, except where appropriately referenced, and that the proposal did not and will not be submitted in whole, or in part, for funding twice within the same cycle, or to other funding programs within QNRF, or other funding agencies.

**Section 12. Proposal Screening**

All submitted proposals are subject to screening by QNRF and QGP according to the screening process outlined at [link](#).

**Section 13. Proposal Evaluation**

**13.1. Proposal Review and Ranking**

The proposal review and ranking process comprises multiple assessment steps that include an initial peer review by international experts, followed by a programmatic review. The two processes are detailed below.

### 13.1.1. Peer Review

A minimum of three qualified international peer reviewers (representing an appropriate mix of academic, public healthcare providers, and community health expertise) as necessary, are solicited by QNRF to evaluate each proposal against a set of criteria, which is listed below. The reviewers will score the proposals, make recommendations to QNRF as to “fund” or “not fund,” and provide narrative feedback to applicants. The evaluation criteria consist of the following:

#### 13.1.1.1. Intellectual Merit (Excellent; Very Good; Good; Fair; Poor)

- Does the project address an important problem or a critical barrier to progress in the field? Is there a strong scientific premise for the project?
- Are the objectives for the project clear, measurable, realistic and, achievable?
- What is the potential for the proposed activity to advance knowledge and understanding within its own field or across different fields?
- How will successful completion of the aims change the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field?
- Does the application challenge and seek to shift current research by utilizing novel theoretical concepts, approaches or methodologies, instrumentation, or interventions?
- Are the concepts, approaches or methodologies, instrumentation or interventions novel to one field of research or novel in a broad sense?

#### 13.1.1.2. Expected Impact (Excellent; Very Good; Good; Fair; Poor)

- How significant is the envisaged outcome in addressing the specific priority area, in terms of:
  - The potential for the proposed activity to benefit society or advance desired economical and societal outcomes?
  - The expected benefits of the proposed research activity to Qatar?
  - Plans to disseminate and exploit the project's results?
  - Extent to which end-users may realistically benefit from the research
  - Plans to utilize project outcomes in future studies?

#### 13.1.1.3. Work Plan (Excellent; Very Good; Good; Fair; Poor)

- Is the plan for carrying out the proposed activities well-reasoned, well organized, and based on a sound rationale?
- Does the plan incorporate a mechanism to assess success?
- The breakdown into consistent work packages.
- Timeline and time-allocation for work packages.
- Coherence and effectiveness of the project organization, including appropriateness of the allocation of tasks and resources.
- The organizational aspects of the project and the methods of coordination.

#### 13.1.1.4. Qualifications and complementarity of the Research Team (Excellent; Very Good; Good; Fair; Poor)

- How well qualified is the research team inside and outside Qatar and are their designated roles suitable to conduct the research?
- Assess the LPI’s capability to coordinate the project and the research teams.
13.1.1.5. **Budget**
- Suitability of the budget in regard to the work plan and effort planning.
- Evaluation of the adequacy of co-funding commitments, if any.
- Appropriateness of the proposed outcomes and outputs for the amount of effort and funding.

13.1.1.6. **Research Compliance**
- Protection of human subjects.
- Inclusion and protection of children.
- Vertebrate animals.
- Biohazards.

The table below shows the weights of the peer review criteria.

<table>
<thead>
<tr>
<th>Criteria #</th>
<th>Criteria name</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1</td>
<td>Intellectual Merit</td>
<td>25</td>
</tr>
<tr>
<td>C2</td>
<td>Expected Impact</td>
<td>35</td>
</tr>
<tr>
<td>C3</td>
<td>Work Plan</td>
<td>20</td>
</tr>
<tr>
<td>C4</td>
<td>Qualifications and Complementarity of the Research Team</td>
<td>20</td>
</tr>
</tbody>
</table>

13.1.2. **Programmatic Review**
Following the peer-review evaluation, top-scoring proposals will be shortlisted based on the shortlisting procedure at [link](#) and the weightages above. Subsequently, expert panels will perform a programmatic review under the supervision of QNRF/QGP.

The programmatic review is designed to assess and compare all proposals in a given specific research priority area. It takes into account the peer reviewer's comments, as well as programmatic and strategic goals of QNRF and QGP, related but not limited to:

13.1.2.1. **The strength of the alignment with the PPM4 call objectives and the specific research priority area(s)**
- To what degree do the project objectives address the research priority areas of PPM4.

13.1.2.2. **The quality of the collaboration and the co-funding commitment**
- The extent of knowledge-creation inside Qatar and of knowledge-transfer to Qatar and the potential for technology-transfer to Qatar.
- The quality and extent of collaboration among researchers inside Qatar.
- If relevant, the quality level of involvement of research end-users, their capacity to utilize the research outcomes and their ability to benefit from them.
- If applicable, the quality and extent of any co-funding commitments.

13.1.2.3. **The potential impact on Qatar and the Qatar Genome Programme**
- The contribution of the project in paving the path toward precision medicine in Qatar.
- Reduce the cost of healthcare through reducing unnecessary diagnostic testing and therapies.
- Improve the quality of healthcare service through delivering accurate and prompt solutions and result interpretations.

13.1.2.4. **The past performance of the LPI and participating PIs**
- Prominence in the respective field of research, scientific background and track record (quality of publications/patents), proven abilities as an independent researcher to carry out the research project, research team leadership and project management experience.
- The quality of the outcomes and impact of prior QNRF funded research performed by the LPI and participating PIs.

13.1.2.5. **Previous QNRF funding in this area of research**
- Does the project duplicate/overlap with previous and existing grants in the QNRF portfolio?

13.1.2.6. **The composition of the local research team**
- Participation of local industry, academic and/or governmental entities.
- Local capacity building (training of graduate students in the project/ involvement of RAs, PDs, and junior researchers in the project).
- The level of commitment by local institutional participants (resources, effort).

13.1.2.7. **Budget**
- Appropriateness of the budget as related to the objectives of the project.
- If relevant, end-users’ contribution to the budget (co-funding)

At the end of the review and ranking processes, proposals are categorized in terms of their competitiveness. The final funding decision will group proposals as shown in the table below:

<table>
<thead>
<tr>
<th>Group</th>
<th>Evaluation Outcome</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortlisted – Programmatic Review</td>
<td>A</td>
<td>Highly Competitive</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>Competitive</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>Not competitive</td>
</tr>
<tr>
<td>Not shortlisted</td>
<td>D</td>
<td>Not shortlisted</td>
</tr>
</tbody>
</table>

**Section 14. Pre-funding**

14.1. Awarded proposals will go through a pre-funding stage, which starts after the award announcement, and continues for approximately eight weeks. During pre-funding, the submitting institution will be notified about the requirements (possible budget reduction, budget details, timeline changes, etc.).

14.2. During the pre-funding phase, the LPI should submit the data management plan as per the Data Management Policy available at link.

See more information on the pre-funding stage in the “Institutions Responsibilities and Post Award” document available at link.

**Section 15. Post Award**

For rules and regulations related to pre-funding, fund management, payment schedule and reporting, please refer to the Award Management Guide (AMG) document available at link.

**Section 16. Research Ethics and Regulatory Requirements**

The proposed research must meet all the requirements of applicable Ministry of Public Health policies for the protection of human subjects from research risks and data and safety monitoring (when applicable).

Please refer to the Research Ethics and Regulatory Requirements document available at link.

**Section 17. Research Integrity**

For further information regarding research integrity and other related policies, please see the Research Ethics Guide (REG) at link.
Section 18. Intellectual Property Policy
QNRF will follow the Qatar Foundation (QF) IP policy. Please consult the QNRF website for details on the applicable intellectual property policy [http://www.qnrf.org/en-us/Funding/IP-Policy](http://www.qnrf.org/en-us/Funding/IP-Policy).

Section 19. Data Management Plan Policy
This policy supports the development of a robust environment for the sustainable management, use and reuse of QNRF funded research data in collaboration with Qatar National Library (QNL).
QNRF recognizes the importance of data management to protect its investment in research and development by ensuring that research data is findable, accessible, interoperable, reusable (FAIR) which will:

1) expedite the scientific process;
2) reduce duplication of effort;
3) support reproducibility and research integrity;
4) optimize availability and reuse of research outputs; and
5) facilitate the preservation of the scholarly record of Qatar.

LPIs of the awarded projects should submit the data management plan during the pre-funding phase according to the templates that will be available on QNRF website. The Data Management Plan Policy is available at [link](http://www.qnrf.org).

Section 20. Inquiries
For any inquiry regarding this CFP and the electronic proposal submission process, please use the QNRF Support link at [http://support.qnrf.org/index.php/?/Tickets/Submit](http://support.qnrf.org/index.php/?/Tickets/Submit). Applicants can choose the appropriate department and specify the topic of their query for further information. QNRF’s response may be made publicly available in the Q&A section of the QNRF website. For any further enquiry regarding QBB/QGP, please use qbbresearch@qf.org.qa.

Section 21. Research Support Resources
This section describes a number of available research support resources whether within QNRF or inside Qatar. For more details, please refer to the "Research Support Resources" at [link](http://www.qnrf.org).
These resources include but not limited to:
- Qatar Biobank (QBB) data and samples
- Asset management (for available equipment)
- QNRF Researcher Network (QRN)
- QNRF awarded projects