Qatar Research Leadership Program
Post-Doctoral Research Award
QRLP – PDRA

Request for Proposals (RFP)
Sixth Cycle

Revised February 2020
Table of Contents

1. ACRONYM LIST ............................................................................................................................................ 3
2. COMPETITION SNAPSHOT .......................................................................................................................... 4
3. OVERVIEW OF QNRF AND THE AWARD ............................................................................................... 5
4. PROGRAM SCOPE ...................................................................................................................................... 6
5. BENEFITS OF PDRA ................................................................................................................................... 7
6. PROGRAM DESIGN .................................................................................................................................... 8
7. ELIGIBILITY .................................................................................................................................................. 8
8. PROPOSAL SUBMISSION PROCESS ...................................................................................................... 9
9. PROPOSAL PREPARATION ...................................................................................................................... 10
10. REGISTRATION AND PROPOSAL SUBMISSION .................................................................................. 14
11. THE SELECTION PROCESSES AND EVALUATION CRITERIA .......................................................... 17
12. BUDGET .................................................................................................................................................... 22
13. POST AWARD POLICIES AND PROCEDURES .................................................................................. 22
14. DELIVERABLES AND RESEARCH OUTCOMES ............................................................................... 23
15. RESEARCH ETHICS AND COMPLIANCE ............................................................................................ 25
16. INTELLECTUAL PROPERTY POLICY .................................................................................................. 25
17. PLANNED ANNUAL AWARD SCHEDULE .......................................................................................... 26
18. INQUIRIES ................................................................................................................................................ 26
19. DEFINITIONS .......................................................................................................................................... 26
20. APPROVED LIST OF TERMINAL DEGREES ....................................................................................... 31
21. RESEARCH FOCUS AREAS .................................................................................................................. 32
1. ACRONYM LIST

AA  Award Administration
AROR  Authorized Research Office Representative
AMG  Award Management Guide
Co-LPI  Co-Lead Principal Investigator
GAG  Grant Application Guide
GS  Graduate Student
IACUC  Institutional Animal Care and Use Committee
IBC  Institutional Bio-safety Committee
IP  Intellectual Property
IRB  Institutional Review Board
KI  Key Investigator
LoI  Letter of Intent
LPI  Lead Principal Investigator
NPRP  National Priorities Research Program
PI  Principal Investigator
PR  Peer Reviewer
QNRF  Qatar National Research Fund
QNRS  Qatar National Research Strategy
QRLP  Qatar Research Leadership Program
REG  Research Ethics Guide
RFP  Request for Proposals
RM  Research Mentor
RO  Research Office
ROC  Research Outcome Centre
SCH  Supreme Council of Health (Qatar)
SI  Submitting Institution
## 2. COMPETITION SNAPSHOT

<table>
<thead>
<tr>
<th>SCOPE</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Start of online proposal submission and vetting</td>
<td>Noon, Monday, 10th February 2020</td>
</tr>
<tr>
<td>Deadline for online proposal submission</td>
<td>Proposal submission by research mentor (RM): Noon, Monday, April 27th 2020</td>
</tr>
<tr>
<td>Deadline for RO vetting</td>
<td>Noon, Monday, May 4th 2020</td>
</tr>
<tr>
<td>Announcement of results</td>
<td>Mid of September 2020</td>
</tr>
<tr>
<td>Anticipated project start date</td>
<td>Project activities cannot begin until the Master Research Funding Agreement (MRFA) has been signed with the Qatar National Research Fund (QNRF). This process can take up to 60 days from the time of the award announcement and that should be taken into consideration when preparing the application implementation timeline.</td>
</tr>
<tr>
<td>Research areas</td>
<td>Research should be in areas representing the national research priorities for Qatar.</td>
</tr>
<tr>
<td>Awards parameters</td>
<td>Award Period: Up to two years. Award Amount: USD100, 000 per year.</td>
</tr>
<tr>
<td>How to apply</td>
<td>Register and submit the full application through the online submission system <a href="#">here</a>. The Grant Application Guide (GAG) is available for download at <a href="http://www.qnrf.org">www.qnrf.org</a>. The site will be active on 10th February 2020 (noon, Doha time).</td>
</tr>
</tbody>
</table>
3. OVERVIEW OF QNRF AND THE AWARD

The mission of Qatar National Research Fund (QNRF) is to advance knowledge and education by providing funding opportunities for original, competitively-selected projects at all levels and across all disciplines, with an emphasis on the following four pillars of the Qatar National Research Strategy (QNRS) detailed in section 21.

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

QNRF provides opportunities for researchers at all levels, from students to professionals, in the private, public, and academic sectors and strives to encourage and support high-quality basic, applied, and translational research serving Qatar’s national needs and interests.

Moreover, QNRF plays a core role in building the human capacity required to advance Qatar’s ambitious and dynamic research mission. One of its key capacity-building programs is Qatar Research Leadership Program (QRLP), which is dedicated to producing home-grown scientists who will steer the continuous development and sustainability of Qatar’s human capital and its research agenda. QRLP supports candidates from graduate level through postdoctoral experience to their early careers, enabling them to become independent scientists capable of leading the development of Qatar’s economic and scientific footprint.

One of QRLP tracks that underpins this journey is the Post-Doctoral Research Award (PDRA), created to enhance research human capital in Qatar. The PDRA objective is to help attract the best national and home-grown recent Ph.D. graduates and young researchers to encourage independence at an early stage of a research career. The PDRA track aims to select candidates with the highest potential and offer them highly competitive fellowship awards, benefits, research environment, and mentoring to ensure that they can achieve their highest potential in Qatar.

The awards are also designed to provide active mentoring to the postdoctoral scholars by the sponsoring institution mentors who will benefit from having these talented young scientists in their research groups. The research plan of each proposal must address important scientific questions related to national priorities to Qatar. Awards are made to approved submitting institutions inside Qatar for the support of nominated post-doctoral scholars who are or will be employed by those institutions.
The postdoctoral scholars, with support from their mentors, must develop and implement research projects that seek to address scientific questions relevant to Qatar’s research mission, strategy, and grand challenges. Research proposals may be in areas that are of national priority to Qatar as outlined in the Qatar National Research Strategy detailed in section 21.

The Awards are highly competitive, both financially and in standards of excellence. The program recognizes early stage investigators of significant potential, and provide them with research experience, mentorship, and training that will enable them to be established as future leaders in areas of interest to achieve Qatar’s research mission and R&D leadership position.

PDRA grants the submitting institution up to two years of financial support for a post-doctoral scholar which can be extended for one additional year. For each year of financial support, QNRF provides the submitting institution with funds to pay for the post-doctoral scholar’s salary, travel and other personal as described in section 12.

A PDRA Fellowship is not transferrable to another post-doctoral candidate in the same institution.

4. PROGRAM SCOPE

Postdoctoral scholars, with support from their Research Mentors, must develop and implement research projects that seek to address scientific questions relevant to Qatar’s research mission, strategy, and Qatar grand challenges. Research proposals may be in areas that are of national priority to Qatar as outlined here. The PDRA funding program is designed to attract postdoctoral scholars with high potential; promote their direct involvement in research work in Qatar; and build human research capabilities inside Qatar in areas relevant to Qatar’s R&D mission. The research plan of each proposal must address important scientific questions in support of areas of national priority to Qatar. Awards are made to submitting institutions inside Qatar for the support of nominated postdoctoral scholars who are or will be working in those institutions.

Applicants are encouraged to provide detailed profiles of their relevant educational and research experiences and plans for research in such a way as to demonstrate potential for significant achievements in the proposed research work.

An institution is allowed to re-apply one time for each postdoctoral scholar, provided there are major changes in the application such as the research plan or the Research Mentor, or if there is a different submitting institution nominating the postdoctoral scholar. The applicant must address the review comments from the previous submission, if any.

A PDRA Fellowship is not transferrable to another postdoctoral scholar in the same institution.
5. BENEFITS OF PDRA

The following are benefits and objectives of the Post-Doctoral Research Awards:

5.1. Benefits to Qatar

- Advance the national agenda for world-leading science.
- Provide skilled, cost-competitive and readily trainable limited-term staff to carry forward Qatar’s research agenda.
- Provide academic and research institutions within Qatar with new ideas to perform research and build human research capacity in Qatar.
- Provide an opportunity to evaluate the potential of early-career scientists with the potential to become new hires as career scientists in Qatar.
- Train the next generation of national scientists and prepare them for future collaboration opportunities in fulfilling the Qatar National Research Strategy.
- Promote Research Mentors to proactively search for post-doctoral scholars that meet their institutional research needs.
- Attract and support outstanding national and home grown post-doctoral scholars.

5.2. Benefits to post-doctoral scholars

- Employment following the completion of graduate education and training, and further preparation for future careers.
- Recognize early-career investigators of significant potential.
- Contribute to the advancement of science as a profession in Qatar.
- Working experience with best-in-class scientists, one of whom will be the post-doctoral scholar’s Research Mentor, and with, where relevant, state of the art research facilities.
- Contribute socially and scientifically to Qatar’s research mission with potentially worldwide impact.
- Provide networking opportunities and potential support for future employment.
6. PROGRAM DESIGN

The awards are made to QNRF approved submitting institutions. The process of applying to PDRA starts with the submitting institutions in Qatar, applying for their nominated post-doctoral scholars for Award support.

Each prospective post-doctoral scholar is nominated to work with a prospective Research Mentor within a submitting institution in Qatar. The submitting institution considers the application of the potential post-doctoral scholar following its own processes of review; then, if it chooses to do so, submits a proposal for QNRF PDRA support which would include the name of the nominated postdoctoral scholar and the name of the Research Mentor. The submitting institution then invites both the postdoctoral scholar and the Research Mentor to register at QNRF online submission system to fulfill further submission requirements. Once awarded, the submitting institution will take the responsibilities of following its own institutional processes towards the employment of the postdoctoral scholar and administering the fund according to terms and conditions of the Master Research Funding Agreement (MRFA).

7. ELIGIBILITY

7.1. Eligibility of Submitting Institutions

7.1.1. Institutions inside Qatar with approved Research Offices (ROs) are eligible to submit proposals.

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

7.1.3. Research proposals should be in areas representing national research priorities for Qatar, as outlined here.

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

7.2. Eligibility of Participants

7.2.1. Approved submitting institutions in Qatar are eligible to nominate prospective post-doctoral scholars for an Award with the following criteria:

- Qatari nationals;
- Applicants of Qatari mothers;
- Qatari document holders;
- Applicants married to Qatari nationals;
- Applicants born in Qatar and been residents of Qatar for 8 years or more;
- Residents of Qatar for 10 years or more;
- Qatar Research Leadership Program (QRLP) graduates.
7.2.2. Individuals nominated by institutions for Awards must have earned their PhD degree no more than five (5) years prior to the proposal submission deadline.

7.2.3. Each post-doctoral scholar may be nominated by only one institution for an Award in each funding cycle.

7.2.4. Research team members in active QNRF funded projects are only eligible to apply to this program in the last year of their QNRF funded projects.

7.2.5. PDRA awardees cannot apply for any other QNRF research funding program until the last year of PDRA award and, if awarded, cannot start their grants until after their PDRA award is completed.

7.2.6. Only applicants with QNRF approved terminal degrees are eligible to apply. In the case of medical doctors, only MDs with MD-PhD degrees are eligible to apply.

7.2.7. A PDRA Fellowship is not transferrable to another post-doctoral candidate.

7.2.8. PDRA recipients may apply for another new award as long as the overall previous award period does not exceed 2 years.

8. Proposal Submission Process

8.1. Submission Flowchart

The following flowchart illustrates the steps necessary for proposal submission by the Applicant and the RO until the notification of the final award.
8.2. Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noon, Monday, 10 February 2020</td>
<td>Start of online proposal submission and vetting</td>
</tr>
<tr>
<td>Noon, Monday, 27 April 2020</td>
<td>Deadline for online proposal submission</td>
</tr>
<tr>
<td>Noon, Monday, 4 May 2020</td>
<td>Deadline for RO vetting</td>
</tr>
<tr>
<td>Mid of June 2020</td>
<td>Ineligible Proposal Notification</td>
</tr>
<tr>
<td>Mid of September 2020</td>
<td>Funding recommendation and announcement</td>
</tr>
</tbody>
</table>

9. PROPOSAL PREPARATION

Proposal preparation starts with the post-doctoral scholar’s nomination followed by assignment of the respective Research Mentor. Complete proposal requirements would require coordination between the Research Mentor and the nominated post-doctoral scholar. The application will include the following elements which will be required as part of the institution’s proposal for Award support.

9.1. Nomination of the postdoctoral scholar for the Award

The submitting institution must nominate the postdoctoral scholar for the award and identify the research area for needed postdoctoral scholar employment. In addition, the institution must identify and appoint a Research Mentor, who will guide and advice on the research conducted by the postdoctoral scholar.

9.2. Postdoctoral Scholar and Research Mentor profile information

Both the nominated postdoctoral scholar and the assigned Research Mentor are invited by the submitting institution to register at QNRF online submission system to enter their profile information and upload their professional CVs.

9.3. Postdoc academic achievements

Nominated postdoctoral scholar must demonstrate a high standard in academic achievement and provide previous degree transcripts of both undergraduate and graduate studies. This includes transcripts for all completed graduate work whenever applicable.

9.4. Essay of postdoc’s research background (up to 10 pages)

The nominated postdoctoral scholar should demonstrate previous research background and what was achieved from past research experience achievements indicating his/her specific role in the research either independently or as part of a team. This may include brief abstracts of previous projects or awards along with references of previous publications.
9.5. Three signed reference letters academic/non-academic

The proposal must include three reference letters from non-family members. Each reference writer must use letterhead and include his/her name, email, title, and professional affiliation. Each reference letter is limited to two pages, and should provide details describing the nature of the relationship to the nominee, comments about the nominee’s scholarly potential and prior research experiences, statements about the applicant’s proposed research, and any other information that would help the review panels to evaluate the application according to QNRF’s review criteria. The nominee should ask the reference writers well in advance of the proposal submission deadline, and it is recommended that he/she provides copies of relevant materials (such as VII.3 and VII.4 above) to the reference writers.

9.6. Proposed research plan (up to 10 pages)

In cooperation with the postdoctoral, the Research Mentor must submit a plan for a research project that the postdoctoral would pursue during the award period. The plan should include the sections identified below and should use Arial font for the body text, font size 11, single space and the margins as identified in the template (no less than 1.0 inch all around).

The QNRF online submission system will not allow modifications to the Research Plan after the deadline of proposal submission to ROs. The research plan, as described in the following sections, may not exceed 10 pages excluding the cover page, table of contents and references. Sections other than the ones mentioned below are not permitted and may lead to disqualification during screening. This also includes appendices. Relevant sub-sections are allowed in the research plan. The research plan is composed of the following sections:

- **Background and Introduction:**
  - Outline of the background of the proposed research, knowledge or information that has led to the current project proposal assessing existing data or qualitative analysis with a discussion of how the proposed research would address gaps in current knowledge in the relevant field.
- **Statement of the problem:** A brief description of the proposed research, outlining the major aspect(s) of the proposed activity including clear research objectives. The description should be informative, highlighting the problem to be addressed and intellectual merit.
- **Methods:** Describe and explain, in detail, the specific research methods intended to be used and discuss the suitability of these methods for solving the research problems that are being investigated along with their advantages over other methods. Elaborate on specific procedures that will be utilized to collect and analyze the research data.
Indicate methodologies, procedures, situations or materials that may be hazardous to personnel and describe the precautions to be exercised.

- **Anticipated Results**: Describe research questions to be addressed, project goals and objectives to be met, list specific outcomes – technology, and advancing scientific knowledge.

- **Benefit to Qatar**: Clearly state the expected benefits of the research project to Qatar and the potential impact on society, the region, or the world community. Explain how the outcome will improve understanding or provide solutions.

- **Plans for disseminating research results**: Include a data/publications dissemination plan that details how the results and data created as an outcome of this project will be disseminated to the public via the QNRF Research Outcomes Center (ROC). The plan should include data sharing during all years of the project duration. The Postdoctoral scholar and Mentor are expected to provide updates on the progress of achieving the objectives of the dissemination of data/results plan in each progress report. In case that data from a particular project cannot be shared due to any confidentiality concerns, proper justification should be provided for QNRF’s consideration.

- **Postdoctoral scholar's role in the proposed research**: describe how the expertise and the experience of the postdoctoral scholar will be leveraged to carry out the research, how the postdoctoral scholar will assist and lead in some areas in conducting the research.

- **Planned Postdoctoral scholar’s other activities (e.g., teaching)**: Describe if the Postdoctoral scholar is going to be involved in teaching, mentoring, training/development, and/or other activities at the institution and what percentage of time these other activities may take.

- **Career intent following completion of post-doctoral research work**: Describe the longer-term plans for both the project and for the postdoctoral scholar following the award duration.

- **Risks and risk mitigation plan**
  This section should identify the potential risks related to the project and the way to mitigate them. Address the following types of risks as they relate to the proposed project: (i) Methodological/Technological risk – uncertainties involved in technology development; (ii) Resource Risk – potential impact of delays in getting access to support staff, equipment, data, facilities, etc.; (iii) Schedule risk – effect of not meeting timelines – potential impacts of delay in starting project; and (iv) Impact/Business Risks – uncertainties involved in adoptions of proposed solution, alternatives available, etc.
• Resources

In the research plan, indicate all resources currently available at the performance sites, as well as resources that are planned to be obtained in order to carry out the proposed research project, for the following types of resources:

- **Laboratory Space**: Describe the working space available, e.g. the Mentor’s lab space, equipment and lab facilities available.

- **Facilities**: Describe the availability and technical specialty of the core facilities required to perform specific experiments of the project.

- **Office and Computer Facilities**: Describe the availability of office space and computer facilities along with any software deemed crucial to the research project.

- **Major Equipment**: List the major equipment available in all performance sites that is considered as crucial to the success of the research project.

• References Section: Each reference must include the title, names of all authors, books or journals, volume numbers, page numbers and year of publication. Although there is no page limit, it is important to be succinct and select only those references in the current literature that are pertinent to the proposed research and for the peer reviewers. The reference number should appear in the text of the research plan. Proposals should comply with QNRF’s Referencing Guidelines and Plagiarism Policy. (Section IV in REG; at http://www.qnrf.org/en-us/Funding/Research-Ethics-Guide)

9.7. Research Ethics and Compliance

For research involving human subject(s), stem cells in human subject(s), research with laboratory animals, DNA research and biohazards materials, the postdoctoral scholar and mentor are required to comply with the laws and regulations set out by the Qatar Supreme Council of Health (SCH) for the protection of the human subjects and laboratory animal (See section 15).

9.8. Potential IP

In this section, there are six questions that need to be addressed by the Mentor. More information about the IP policy can be found at (http://www.qnrf.org/en-us/Funding/IP-Policy).

9.9. Miscellaneous Documents

- A copy of a valid passport and valid Qatari ID are required.
- For children of Qatari mothers, a copy of the mother’s ID is required
- For applicant married to a Qatari national, a copy of the marriage certificate is required along with a copy of his/her ID
• For travel documents holders, a copy of that document is required
• For candidates who were born in Qatar, a copy of their birth certificate is required
• For residents of 8-10 years or more, a proof document is needed e.g.: primary, preparatory and secondary school certificates, university certificates, letter from current/previous employer(s), copy of previous residence permits.

In addition, this section may contain any supporting documents such as tables, appendices, etc. However, documents uploaded wrongly under this section, such as a research plan, will not be considered. Only relevant documents related to the project should be uploaded because QNRF’s online system automatically limits the number of uploaded documents. All the information required for the evaluation process should be in the research plan.

9.10. Declarations
Mentor should declare electronically that the proposal is their own work with the postdoctoral scholar, except where appropriately referenced, and that the proposal is not and will not be submitted in whole or part for funding twice within the same cycle, or to other funding programs within QNRF, or other funding agencies. This is to avoid any possible co-funding. The plan will be evaluated based on scientific merit, impact in advancing knowledge and understanding within the field of the proposed research area or across other disciplines, access to resources and benefit to Qatar.

10. REGISTRATION AND PROPOSAL SUBMISSION
The nominated post-doctoral scholar and the Research Mentor should register and submit their proposals on QNRF’s online submission system as explained in the Grant Application Guide (GAG) posted on PDRA’s Download Centre (http://www.qnrf.org/en-us/Funding/Capacity-Building-and-Development-Programs/Postdoctoral-Research-Award-PDRA) on QNRF’s website. All uploaded files must be in PDF format.

10.1. Proposal submission
10.1.1. The post-doctoral scholar and the Research Mentor must each first register at https://oss.qgrants.org/ as a “New User”, if not already registered in QNRF database. The post-doctoral scholar should choose the role “Post-Doctoral” and the Research Mentor should choose the Role of “Participant” from the dropdown menu. The registration process requires uploading the CV and providing profile information. Applicants with QNRF approved terminal degrees are eligible to apply. An applicant is required to use his/her official work email addresses (if available) when registering. Those who have previously registered do not need to re-register but will need to update their profile and CV as applicable.
10.1.2. The Research Mentor and the post-doctoral scholar may register at any time. They must be registered before going on to the next step.

10.1.3. Once the online proposal submission is open for this cycle, the Research Mentor would then re-enter the submission site, choose PDRA and click on “Enter PDRA proposal channel” and then select “Proposal Registration” tab and provide information on the classification of the intended research topic, research title and summary (not to exceed 300 characters) in Arabic and English, and the post-doctoral scholar’s email address. The Research Mentor would then receive a PDRA registration number for the proposal in the format PDRA03-NNN-N-NNN by email and by SMS. If a proposal is registered or is submitted twice in the same PDRA cycle, the proposal will be eliminated in the screening process and will not be sent to the panel review.

10.1.4. The post-doctoral scholar would receive a notification in the dashboard once they sign in at https://oss.qgrants.org/. The post-doctoral scholar would then proceed to provide additional personal information, e.g. number of family dependent, and to upload the required transcripts (if transcripts are issued in a language other than English, an RO-approved translation of the transcripts in English must be uploaded), essay, and reference letters described in section 9 above. For applicants who have received their degrees from institutions that do not issue transcripts (e.g. some institutions in some European countries), they can provide proof of courses taken, any projects completed, and training attended during their studies. These documents will automatically appear in the Research Mentor’s proposal preparation window. The Research Mentor would not be able to do a final submission of the proposal to the Research Office (RO) until the post-doctoral scholar has completed submission.

10.1.5. The Research Mentor would then complete the preparation process online by uploading the proposed research plan described in section 9. This, in addition to the post-doctoral scholar’s uploaded documents, would then be submitted by the Research Mentor to the RO for vetting. However, for Research Plans that are written in Arabic, the Advisor needs to upload an additional copy of it in Word format. It is strongly recommended that the Research Mentor does not wait until a few hours before the deadline for completing the submission process to the RO as online submission problems, if encountered, might require time to be rectified.

10.2. Proposal vetting

10.2.1. The RO of the submitting institution will have online access via the QNRF online submission website to the proposals submitted by the postdoctoral scholar and
the Research Mentor and, prior to the proposal’s final submission, shall vet the proposals submitted by the Research Mentor for compliance with institutional policies, as well as QNRF policies, as stated in the AMG and in this RFP.

10.2.2. The electronic submission will only be considered as officially submitted once vetted by the RO.

10.2.3. The RO may return the proposal back to the Research Mentor for modifications. The Research Mentor will receive this request by email with the RO’s comments. The status of the proposal will be ‘Open for modification’ in the Proposal Status tab until resubmitted. In this event, the Research Mentor should select the file that needs to be modified and go back to the ‘Prepare Proposal’ tab, delete the previous PDF file and then upload the modified file. The research plan cannot be modified at this time. The RO will then be able to vet and submit the final modified file to QNRF. The electronic submission will only be considered as officially submitted once vetted by the RO. As part of the proposal vetting procedure the RO must electronically agree to the terms and conditions stated in the endorsement letter, certifying compliance of the submitted proposal with the following:

10.2.3.1. Adherence to QNRF policies, as stated in this RFP.
10.2.3.2. Adherence to the institution’s internal policies.
10.2.3.3. Assuming that time and resources are available to the research team to carry out the project
10.2.3.4. Confirming that any required Institutional Review Board (IRB), Institutional Animal Care and Use Committee (IACUC) and the Institutional Bio-safety Committee (IBC) review and approval will be obtained according to Supreme Council of Health (SCH) – Qatar’s policies and regulations
10.2.3.5. That the proposal is complying with all the laws and regulations applicable to the jurisdiction in which the research is being conducted.
10.2.3.6. The project budget is in accordance with the institution’s internal financial and research budget policies.
10.2.3.7. All travel budget items are complying with QNRF travel policy (http://www.qnrf.org/en-us/Funding/Policies-Rules-and-Regulations/Travel-Policy).
10.2.3.8. Indirect costs are charged in proportion to activity measured by the actual expenditure.
10.2.3.9. All research plans are checked against their own institutions’ plagiarism policies. It is the institution’s responsibility to address any plagiarism-related issues discovered during the vetting process. To facilitate this task, QNRF can provide the RO with a similarity report at the time of the proposal vetting.
10.2.3.10. That the proposal is complying with the QNRF policies and guidelines as stated in this RFP.

10.2.3.11. If any of the submitted proposals require compliance and assurance documentation, then during vetting, the RO must accept electronically that they are committed to provide all the necessary compliance and assurance approvals during the pre-funding stage, if the proposal is awarded.

10.2.4. If the proposal is awarded, the RO is required to vet online the pre-funding submission, collect the hardcopies of job offer and Postdoctoral PhD certificate from the postdoctoral scholar and mentor and submit them to QNRF within the pre-funding stage (see section 13).

10.2.5. At this stage, the RO will be required to accept all terms and conditions of institutional endorsement for the proposal.

10.2.6. Once PDRA requirements are submitted and vetted, there will be no permission granted to alter any components, until the announcement of the awards. For changes that are required during the post-award, see section 13, Change of Status in Awarded Projects for details.

11. THE SELECTION PROCESSES AND EVALUATION CRITERIA

After the proposal submission deadline, QNRF will conduct an initial administrative screening for eligibility and completeness of proposals. Proposals are also checked for compliance with QNRF’s Referencing Guidelines and Plagiarism policies (Section V in REG; at http://www.qnrf.org/en-us/Funding/Research-Ethics-Guide). QNRF requires essential components for all proposals to be complete and compliant before the application can be considered for technical review. For incomplete or non-compliant proposals QNRF will either deem the proposal ineligible or in case of very minor infractions will pass along the proposal for technical review.


All eligible proposals will be subject to QNRF’s peer review process to determine the scientific merit of the proposal and panel review process to determine programmatic merit compared to the other proposals in the competition. The reviewers and expert panelists are appointed by QNRF who use the evaluation criteria described below in section 11.2 in reaching their decision.

QNRF relies on international reviewers who are prominent scholars in the relevant research fields to perform the scientific merit review and also provide their input on funding
recommendations. A panel review will be conducted after peer reviews are completed. The panel review will be conducted in two stages. Panelists will 1) individually review assigned proposals including peer reviewers’ comments and provide written evaluations, and then 2) convene at a panel discussion to engage with other panelists to jointly assess each proposal in comparison to one another. The goal of the panel is for panelists to collectively rank the proposals, in order of merit, based on the scientific and program merit criteria. The panelists will discuss the proposals in order to assign a grade and numerical ranking that justifies a funding recommendation by the panel. The panel will discuss each proposal one by one in relation to the evaluation criteria. The panel will provide to QNRF a list of funding recommendations and options. Panelists are selected either from Qatar or regional institutions and will include senior researchers and leadership of institutions in Qatar Foundation Research and Development.

11.2. Evaluation criteria

11.2.1. Intellectual Merit (Excellent; Very Good; Good; Fair; Poor)

- 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?
- To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
- 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?
- Are there adequate resources available to the LPI (either at the submitting institution or through collaborations) to carry out the proposed activities?

11.2.1.2. Impact (Excellent; Very Good; Good; Fair; Poor)

- How significant is the envisaged outcome in addressing priority issues, including QNRS (see section 21), in areas that are critical to Qatar, in terms of:
  - The potential for the proposed activity to benefit society or advance desired societal outcomes?
  - The expected benefits of the proposed research activity to Qatar?
  - Plans to disseminate and exploit the project’s results?
  - Plans to utilize project outcomes in future studies?
11.2.1.3. Methodology and Project Structure (Excellent; Very Good; Good; Fair; Poor)

- How well conceived and organized is the overall proposed project in terms of:
  - Timeline and specific work packages?
  - Coherence and effectiveness of the project organization, including appropriateness of the allocation of tasks and resources?
  - The scientific plan and the breakdown into work packages?
  - The organizational aspects of the project and the methods of coordination?
- Are there alternative methods/approaches to achieve the same objective?

11.2.1.4. Qualifications of the Research Team (Excellent; Very Good; Good; Fair; Poor)

- How well qualified is the research team inside/outside Qatar and are their designated roles suitable to conduct the research?
- Evaluate in terms of outcomes (if applicable) the achievements of the Lead PI from prior QNRF funded research or research funded by other organizations.
- Assess the LPI’s capability to coordinate the project and the research teams.

11.2.2. Programmatic Merit Criteria

Following the peer-review evaluation, QNRF will shortlist top-scoring proposals. Subsequent to that, expert panels will perform a programmatic review under the supervision of QNRF experts. The programmatic review is designed to assess and compare all proposals in a given science area. It takes into account the peer reviewers’ comments as well as the programmatic and strategic goals of QNRF related, but not limited, to:

- The strength of the alignment with QNRS’s goals and PDRA objectives; the quality of the QNRS alignment justification and the extent to which the project satisfies the PDRA objectives. (see section 21)
- Postdoctoral scholar’s research experience: Candidate’s ability in executing the research project, and capability to help build sustainable human capacity and capabilities in Qatar and/or help address QNRS objectives.
- Reference letters: What are the strengths and weaknesses of candidates’ research capabilities and work ethics?
• Postdoctoral scholar's academic achievements: Strengths and weaknesses of academic achievements and accomplishment in terms of expertise in relevant field of proposed research.
• Mentor’s profile: Strengths and weaknesses of mentor in providing mentoring and expertise in relevant field of proposed research, publication in related fields, participation in national and international scientific community, experience in obtaining research grants and research collaboration, and previous and current mentoring of postdoctoral scholars and graduate students.
• The relevance of the project to Qatar’s development with respect to socio-economic, health and environmental aspects as well as the potential to create positive international scientific visibility for Qatar.

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>Shortlisted – Programmatic Review</td>
<td>B</td>
<td>Competitive</td>
</tr>
<tr>
<td>Shortlisted – Programmatic Review</td>
<td>C</td>
<td>Not Competitive</td>
</tr>
<tr>
<td>Not Shortlisted</td>
<td>D</td>
<td>Not shortlisted</td>
</tr>
</tbody>
</table>

11.3. Anonymous Reviews

Following the announcement of results, QNRF provides each applicant with comments of the external and panel reviews for their proposal. All technical reviews are anonymous. QNRF does not provide end-ranking, grades, or numerical evaluation ratings to applicants, since applicants are unable to put these scores into context with the overall group of proposal ratings. The anonymous reviews are meant to provide critical feedback to the applicants.
QNRF will sanitize reviews to eliminate harsh or inappropriate comments and references identifying a reviewer or another applicant.

11.4. Resubmission

An institution is allowed to re-apply one time for each postdoctoral scholar, provided there are major changes in the application such as the research plan or the Mentor, or if there is a different submitting institution nominating the postdoctoral scholar. The applicant must address the review comments from the previous submission, if any. A PDRA fellowship is not transferrable to another postdoctoral scholar in the same institution.

12. BUDGET

12.1. Budget overview and duration of funding

Funds will be awarded to, disbursed and managed by the submitting institution. The expenditure will be monitored by the submitting institution and QNRF according to the Master Research Funding Agreement (MRFA).

The duration of Award support will be for two years in the first instance. Awarded institutions may request up to one year extension with no additional financial support. PDRA support extension for postdoctoral scholar candidate. The Award amounts will be as approved by the President of Research and Development of Qatar Foundation. Details of the initial Award parameters are given below.

Awards under PDRA will include the following, paid to and administered by the submitting institution in Qatar:

12.1.1. Competitive contract for funding, which will be determined by the QNRF Management from time to time. For the 2020/2021 fiscal year the funding will be the equivalent of US$100,000 per year. This grant includes USD 5,000 to cover for conferences expenses.

12.1.2. Costs for the proposed research, facilities etc., will be the responsibility of the host lab and institution and are not covered in the PDRA grant.

12.1.3. There will be no bond or conditions upon completion of contract.

12.1.4. The funding is subject to the post-doc maintaining satisfactory progress as per the policies of the submitting institution.

12.1.5. Indirect cost shall not exceed 5% of the total annual direct cost.

12.2. Payment schedule
12.2.1. Payment will be made upfront on an annual basis.

12.2.2. QNRF will disburse the next release of funds annually following submission of satisfactory annual progress reports.

13. POST AWARD POLICIES AND PROCEDURES

In addition to QNRF MRFA, the following post-award policies and procedures are specific to Post-doctoral Research Awards.

13.1. Pre-Funding

13.1.1. Awarded proposals will go through a pre-funding stage, which starts after the award announcement, and continues for 4 weeks.

13.1.2. Awarded Mentors and Postdoctoral scholars, through their ROs, are required to submit, electronic (online), the missing information, and also to submit postdoctoral job offer as an employment evidence..

13.2. Award Withdrawal

Awarded post-doctoral scholars are expected to start their research employment no later than nine months from the date of announcing the awards. Failure to do so will result in the withdrawal of the award.

13.3. Change of Status Request

The following requests are applied through a Change of Status Request Form (CSRF) that the submitting institution must submit online whenever needed during the lifetime of the award. All requests must be justified by the Research Mentor and approved by the institutional RO. The RO is responsible for informing QNRF of any change in the status of the postdoctoral scholars and their contact information during the award period.

13.3.1. Request to terminate the award.

13.3.2. Request to extend the duration of the award of up to one year.

13.3.3. Request to change the Research Mentor within the submitting institution.

13.3.4. Declaration of participation of the post-doctoral scholar as a research team member in a QNRF funded research project, which is part of or additional to the research work specifically related to the Award, without any financial benefit.
13.3.5. Request to suspend the Award for a period of approved leave. Such suspension may be granted only in full alignment with the policies of the submitting institution.

13.3.6. Request to change aims/tasks of the research plan.

13.3.7. Request to attend a conference.

13.4. Post-doctoral scholars and other QNRF grants

Awarded post-doctoral scholars are encouraged to participate as a research team member in any related QNRF-funded or other projects undertaken by any research group, provided that the post-doctoral scholar must not be financially compensated as an addition to the Award by the respective grant or other sources of funds for such participation.

13.5. Post-doctoral Scholar Full Time Employment

Awarded post-doctoral scholar must be employed full-time by the submitting institution for the duration of the Award. Any leave of absence should be in accordance with the submitting institution’s own policies. However, QNRF will not permit more than 90 days unpaid leave during the term of the award.

13.6. Termination of Award

QNRF has the right to terminate any Award for any of the following circumstances:

13.6.1. When the submitting institution does not submit a satisfactory annual report within the allowed period.

13.6.2. When the submitting institution terminates the post-doctoral scholar’s employment.

13.6.3. When the post-doctoral scholar has been found guilty of academic or scientific misconduct following due process as provided by the submitting institution’s policies and rules, e.g., plagiarism, falsification of results.

14. DELIVERABLES AND RESEARCH OUTCOMES

The following deliverables are required by QNRF and are to be submitted to the QNRF online system by the institution through the RO.
14.1. Annual Reports

Annual reports are to be submitted in accordance with the cycle’s timeline. The Research Mentor is expected to report on research activities conducted by the postdoc.

14.2. Research Outcomes

14.2.1. Publications and Acknowledgement

All types of publications and other outcomes resulting from an Award must include an acknowledgment of QNRF support and a disclaimer stating the following:

“This [publication, report, etc.] was made possible by a post-doctoral research award [PDRANN-NNN-N-NNN] from the Qatar National Research Fund (a member of The Qatar Foundation). The contents herein are solely the responsibility of the author[s].”

14.2.2. Research data

Data generated by the research of the post-doctoral scholar must be available upon request by QNRF in an accessible form, allowing reasonable time to publish and/or protect the intellectual property.

14.2.3. Public report

At the time of completion of the project, the Research Mentor and the post-doctoral scholar should also submit a Final Public Report on the description of the project, results and analysis in the Research Outcomes Center (ROC). It should be ensured that the report does not contain any confidential, proprietary information; unpublished data that might compromise publishing results in the research literature; or invention disclosures that might affect IP rights. This report will include the following disclaimer: “This Public Report is published verbatim as submitted by the post-doctoral scholar and the Research Mentor of this award. The content of this Report is the authors’ responsibility and does not necessarily reflect the views of QNRF.”

14.2.4. Final presentation

Upon successfully completing a project, the post-doctoral scholar and the Research Mentor are required to upload a presentation of the final report. The research team may be asked to deliver a final presentation, as required and
arranged by QNRF, allowing sufficient time to the postdoctoral scholars and mentor to prepare and deliver a professional presentation of findings.

15. **Research Ethics and Compliance**

With respect to the protection of rights and welfare of human subjects and laboratory animals involved in research, the institution(s) involved in research should commit to follow the regulations, policies and guidelines of Qatar Supreme Council of Health (http://www.sch.gov.qa/about-sch/departments/research); internationally recognized best practices and standards; the institution’s own policies and procedures; Qatari applicable laws; and the QNRF’s Research Ethics Guide (REG) http://www.qnrf.org/en-us/Funding/Research-Ethics-Guide. QNRF’s REG consists of the following:

15.1. **QNRF’s Code of Practice**; for further information on QNRF’s Code of Practice as applied to its research grants, please see Section III of the REG.

15.2. **Plagiarism and Referencing Policy**; for more information on the policy please refer to Section IV in REG.

15.3. **IRB Certification for Human Subjects**: Upon announcement of the funding results, a successful postdoctoral scholar and mentor must submit to QNRF the approval(s) for the research protocol(s) from the relevant Institutional Review Board (IRB) (Section V in REG) during the pre-funding stage.

15.4. **IACUC (Institutional Animal Care and Use Committee) Certification**: Upon announcement of the funding results, a successful postdoctoral scholar and mentor must submit to QNRF the approval(s) for the research protocol(s) from the relevant Animal Care Committee (Section V in REG) during the pre-funding stage.

15.5. **Institutional Biosafety Committee (IBC) Certification, if applicable.**

16. **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.
17. PLANNED ANNUAL AWARD SCHEDULE

There will be one cycle per academic year. The following are the estimated timelines for the 2020 cycle:

<table>
<thead>
<tr>
<th>Proposal Submission</th>
<th>Awards Announcement</th>
<th>Annual Reports Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>10th February 2020</td>
<td>Mid of September 2020</td>
<td>Annually beginning one year after employment</td>
</tr>
</tbody>
</table>

18. INQUIRIES

For any inquiry about this RFP and the electronic proposal submission process that is not already answered in the Q&A section of QNRF website, please use the QNRF “Support” link on the website. 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.

19. DEFINITIONS

**Applicant Channel:** An online channel within the QNRF OSS through which the awarded post-doctoral scholar and Academic Advisor may track the status of their awarded projects and submit reports.

**Awardee:** A “Submitting Institution” awarded grant(s) from QNRF and is a party to the Master Research Funding Agreement.

**Award Year:** 12 month period starting from the Project Start Date.

**Clinical Trials:** A Clinical Trial is a prospective biomedical or behavioral research study of human subjects that is designed to answer specific questions about biomedical or behavioral interventions such as: drugs, treatments, devices, or new ways of using known drugs, treatments, or device.

**Co-Funding:** Funding in whole or in part, from a third party, other than QNRF or Qatar Foundation, for the same research project.

**Conflict of Interest:** A set of circumstances or situations that creates a risk that professional judgment or actions of the Awardee or its employees or agents are motivated by a financial
advantage or personal benefit arising from their professional standing, either through outside professional activities or through their research, administrative, or educational actions.

**Direct Cost**: Expenses related directly to the performance of the project research activities. Direct cost includes the “Personnel” cost, the “Equipment” cost, the “Travel” cost and the “Miscellaneous” cost.

**Duplication**: Refers to the implementation of a research project, in whole or in part, concurrently with another QNRF funded project, or one that is supported through any other funding source.

**Eligible Expense**: Expenses incurred by the Awardee while carrying out the research as outlined in the approved proposal that are covered by the funds obligated in the PDRA grant, and in accordance with the Awardee’s policies and procedures.

**Fund Management Agreement**: A signed agreement between the submitting institution and QNRF that details the mechanism which governs the management of the post-doctoral scholar award funds by both the awardee institution and QNRF. Funds will be advanced to the submitting institution upon signature of this agreement by both parties.

**Graduate Student**: A graduate student (GS) is a student enrolled for a graduate degree in a university and engaged in research that is in direct fulfillment of a requirement for that degree.

**Grant**: Term used to describe the funding instrument used by QNRF for the execution of material support for the PDRA.

**Institutional Animal Care and Use Committee (IACUC)**: Institutionally mandated committee that is established within the Awardee or the sub-awardee (using animal laboratory for research or instructional purposes), to review and approve all research aspects and other activities of the institution's animal care and program use, and to make sure that it complies with the ethics and guidelines set by the Qatar Supreme Council of Health (SCH) (http://d13jic5e805ehy.cloudfront.net/app/media/31) and the relevant IACUC of the country where the research is conducted.

**Institutional Bio-safety Committee (IBC)**: Institutionally mandated committee that is established within the Awardee or the sub-awardee to review and approve all research aspects and other activities involving the use of recombinant DNA and bio-hazardous materials.

**Indirect Cost**: Institutional expenses that are not readily identified with a research project implementation, yet necessary for the general support of the project by the institution where it is being performed.
**Intellectual Property (IP):** All intellectual property rights, of any kind or nature throughout the world, whether existing now or in the future, including without limitation rights with respect to (i) inventions (whether or not patentable and whether or not reduced to practice), designs, patents and patent applications; (ii) trademarks and service marks together with all goodwill associated therewith and worldwide registrations, applications and renewals related thereto; (iii) copyrights, copyrightable works (in whatever form or medium), and all registrations, applications and renewals for any of the foregoing; (iv) trade secrets, data, database rights, and confidential information; and (v) all claims, causes of action and remedies of any kind related to the foregoing.

**Institutional Review Board (IRB):** Institutionally mandated committee that is established within the Awardee or the sub-awardee to review and approve all research aspects and other activities involving human subjects in order to ensure that the rights and the welfare of human subjects are protected and that risk of harm thereto is minimized as described in the Policies, Regulations and Guidelines for Research Involving Human Subjects of the Qatar Supreme Council of Health [link](http://d13jic5e805ehy.cloudfront.net/app/media/24) and in the relevant regulations or policies of the country where the research is conducted.

**Miscellaneous:** refers to items of various types, forms and characteristics necessary for the implementation of the research project and are not categorized under equipment, travel or personnel.

**Plagiarism:** Any appropriation, duplication or replication of work, from another author or self, without proper referencing. Plagiarism includes putting one’s name to someone else’s publication or work, putting one’s name on someone else’s phrase, taking someone else’s idea, recycling one’s own material, amending the content of one’s (or previous) research activity to satisfy the requirements of another activity without proper referencing.

**Post-doctoral scholar:** An individual who has received a doctoral degree (or equivalent) and is engaged in a temporary and defined period of mentored advanced training to enhance the professional skills and research independence needed to pursue his or her chosen career path.

**Project:** refers to individual research activity funded by QNRF in accordance with this Agreement and a Project Agreement.

**Project Agreement:** Agreement between QNRF and the Submitting Institution governing a grant for a named Project specifying the Project title, duration, budget breakdown, academic advisor, and post-doctoral scholar(s).
**Project Lifetime:** Duration that extends from the Project Start Date until the acceptance of the project’s final report.

**Project Start Date:** Date specified in writing by QNRF after receipt of the first installment of the awarded grant by the Awardee in its bank account. Awardees shall create a separate sub account in their financial system solely dedicated to disperse, identify, and manage QNRF Award funds.

**Qatar Innovation Promotion Award (QIPA):** A QNRF funding program that supports innovative ideas with high potential impact/benefits for the economy and society of Qatar. QIPA invests in original competitively selected innovative ideas of individuals from all sectors and sections of Qatar’s economy and society to enable an early demonstration of the potential impact of their innovations in the form of a demonstration/prototype.

**QNRF Online Submission System (OSS):** Web based solution that streamlines the full range of grant management processes from submission of research proposals and pre-award phase to post award phase and project completion.

**Qatar National Research Strategy (QNRS):** A strategy developed by Qatar Foundation Research & Development to address the research priorities of the State of Qatar.

**Referencing:** The practice of acknowledging / citing other work consulted for any original work in the body of the text and providing a final corresponding list. References need to be provided while using another author’s opinions, theories, data or any other material. Referencing must be done for information used from any books, articles, videos, computers, personal communications or other sources of information.

**Request for Proposals (RFP):** A document issued by QNRF for each PDRA cycle highlighting the guidelines, eligibilities and policies for participating in the specific PDRA cycle.

**Research Misconduct:** Research misconduct is the violation of the standard codes and accepted practices as well as the ethical behavior of the scientific community for maintaining the integrity of the research conduct and record. The misconduct must be committed intentionally, or knowingly, or in reckless disregard of accepted practices. Research misconduct includes; but not limited to; fraud, fabrication, falsification, or Plagiarism in proposing, performing, or reviewing research or in reporting research results. Research misconduct does not include honest error or honest differences of opinion.

**Research Office (RO):** The department within the submitting institution responsible for vetting submitted research proposals and administrating awarded research projects.
Research Office Channel: An online channel within the OSS through which the Awardee’s ROs manage and vet and submit all reports, requests and documents related to the awarded projects.

Research Office (RO) Vetting: Administrative procedure required from the Awardee’s RO prior to submitting any proposal, reports and requests to QNRF, through which the RO confirms the accuracy of submitted information and its compliance with the Awardee’s policies and procedures and those of PDRA.

Research Outcome: Any form of recognized and distinguishable outcome generated by the progress and activities of the research project such as peer-reviewed publications, patents, creative works, and others.

Research Outcome Center: ROC is a centralized, web-based repository system that collects research outcomes from all QNRF-funded research projects such as public reports on completed projects; journal and conference publications; books and book chapters; poster presentations; patents & invention disclosures; videos; datasets; creative works; etc.

Research Team: Individuals involved in the scientific execution of the awarded project, by devoting a specified effort during the project lifetime namely: key investigators, post-doctoral scholars, graduate and undergraduate students, research associates, research assistants, and lab technicians.

Reside inside Qatar: Refers to the status of an individual who has a contract with an institution (as defined above under “awardee”) and, in addition for expatriates, a work visa in the state of Qatar valid for the entire period of the proposal.

Submitting Institution: A research institution registered inside the State of Qatar that has appropriate research resources specialized in area(s) within QNRS and is responsible for submitting research proposals to QNRF. Once awarded, such an entity will be termed as the Awardee.

Suspension: Status during which an awarded PDRA project is not permitted to carry out part of or all research effort and expenditure during a time period designated by QNRF. All installments are also put on hold during the suspension period.

Termination: Status in which an awarded PDRA project is stopped prior to the original Project End Date.

Withdrawal: Status in which an awarded PDRA project is rescinded and is no longer funded.
20. **APPROVED LIST OF TERMINAL DEGREES**

**Terminal Academic Research Degree:** In academic fields, the typical terminal degree is the Ph.D (or doctorate). Typical list of terminal academic research degrees include:

- Doctor of Arts (DA)
- Doctor of Business Administration (DBA)
- Doctor of Canon Law (JCD)
- Doctor of Design (DDes)
- Doctor of Education (EdD)
- Doctor of Engineering (DEng/Dr. Eng./Engd)
- Doctor of Information Technology (DIT)
- Doctor of Laws (LLD) (In the USA, the LLD is only awarded as an honorary degree.)
- Doctor of Juridical Science (JSD/SJD) (In the USA)
- Doctor of Management (DM)
- Doctor of Medicine (MD, in the USA)
- Doctor of Music (DMus)
- Doctor of Musical Arts (DMA)
- Doctor of Philosophy (PhD or DPhil)
- Doctor of Professional Studies (DPS)
- Doctor of Science (DSc)
- Doctor of Social Science (DSocSci)
- Doctor of Public Health (DrPH, DPH)
- Doctor of Theology (Thd or DTh)

**Other Approved Terminal Degrees:**

- Master of Fine Arts (MFA)
- Master of Library and Information Science (MLIS)
- Master of Library Science (MLS)
- Master of Architecture (MArch)
- Master of Design (MDes)
- Master of Landscape Architecture (MLA)
- Master of Urban Design (MUD)
- Master of Product Design (MPD)
21. RESEARCH FOCUS AREAS

1. Energy and Environment
   1.1. Oil & Gas in Qatar (exploration, production and Processing)
      1.1.1. Technologies & processes for safe, economical and environmentally responsible exploration & production of the hydrocarbons
      1.1.2. Technologies related to the processing of oil and gas
      1.1.3. GTL, LNG technologies
      1.1.4. Compression, fractionation, separation, transportation
      1.1.5. Environmental aspect of production and processing of hydrocarbons

   1.2. Solar PV

   1.3. Cooling and Energy Efficiency
      1.3.1. Key driver to reduce costs and CO2 emissions (Cooling has the lion’s share of the energy sector in the GCC 67% of electricity generated is consumed by domestic AC.
      1.3.2. Enhancement of cooling efficiency.
      1.3.3. Process optimization and industrial heat recovery.
      1.3.4. Socio-economic studies

   1.4. Environmental Sustainability
      1.4.1. The Natural Environment: Marine, terrestrial biodiversity, air quality
      1.4.2. The Built Environment: Architecture, Civil engineering, urban planning, mobility, transportation

   1.5. Carbon Capture & Utilization
      1.5.1. CO2 conversion into environmentally friendly useful products
      1.5.2. CO2 Capture & Transportation Technologies
      1.5.3. CO2 Utilization: CO2 as feedstock and CO2 chemical and biological conversion.

   1.6. Water production, storage, re-use and management
      1.6.1. Desalination
      1.6.2. Membrane technologies
      1.6.3. Energy efficiency
      1.6.4. Wastewater treatment reuse, unconventional source of water
      1.6.5. Water quality

   1.7. Advanced Materials for High Added Value Products and Process Industries
      1.7.1. Novel catalyst development, additive manufacturing, and high value polymer products.
      1.7.2. Novel technologies solving corrosion
1.7.3. High performance materials, e.g. self-healing materials; biologically inspired solutions for energy industry and environment applications.

1.8. Food Security and Local Food Production
1.8.1. Producing and protecting local agricultural products (plants, animal and fisheries resources).
1.8.2. Integration of relevant technologies into agricultural production (Artificial Intelligence and Smart Agriculture).
1.8.3. Integrate efficient water use, energy into agri-technology for efficient local food production.
1.8.4. Food safety and genetic enhancement techniques
1.8.5. Strengthening resilience among people and Agrifood systems: Supply Chain, Community Initiative, Policy and Legislation

2. Biomedical and Health Pillar

2.1. Non-Communicable Diseases (NCDs) including epidemiological studies, treatments, health economics and policies
2.1.1. Diabetes.
2.1.2. Cancer
2.1.3. Cardiovascular diseases, hypertension, Ischemic heart diseases, congenital heart diseases, rheumatic heart disease, and heart failure.
2.1.4. Renal diseases: Glomerulonephritis, Kidney Stones, Nephrotic Syndrome, Polycystic Kidney Disease (PKD) and Chronic renal failure.

2.2. Reproductive, Maternal and Child Health including epidemiological studies, treatments, health economics and policies
2.2.1. National Maternity and Perinatal Research, Neonatal and postneonatal care, High risk pregnancy
2.2.2. Children with cognitive impairment or abnormal neuropsychological development with focus on: Autism, Attention deficit hyperactivity disorder (ADHD), Fragile x- syndrome, Rett syndrome.
2.2.3. Primary and secondary male and female infertility.

2.3. Mental Health Research
2.3.1. Eating Disorders and Substance Abuse.
2.3.2. Anxiety Disorders, Attention Deficit/Hyperactivity Disorder (ADHD/ADD), Bipolar Disorder, Depression.
2.3.3. Neurodegenerative diseases mainly Alzheimer and Dementia.
2.4. Communicable Diseases (infectious diseases)
2.4.1. Human viral diseases and Multi-drug resistance (MDR) bacterial diseases,
2.4.2. Hospital acquired Infection and Control;
2.4.3. Emerging Infectious Diseases and Recent Outbreaks.

2.5. Precision Medicine
2.5.1. Immunogenomics and personalized immunotherapeutic approaches
2.5.2. Clinical implementation of pharmacogenomics
2.5.3. Multi-omics analysis of cardiovascular diseases
2.5.4. Precision medicine E-solutions and applications

3. Computer Science and ICT
3.1. Cybersecurity
3.1.1. Security of Industrial Control Systems
3.1.2. Threat intelligence and proactive security
3.1.3. Cybersecurity framework with state level auditing and compliance requirements

3.2. Smart Grids
3.2.1. Automation architectures and advanced metering infrastructure for active distribution systems
3.2.2. Electrified Transportation Infrastructure in Harsh Environment
3.2.3. Modeling and real-time simulation of power grids and interfacing with ICT platforms.

3.3. Big Data Analytics & Artificial Intelligence
3.3.1. To analyze, predict and provide efficient solutions to emerging issues and challenges to enhance efficiency and performance in different sectors, e.g., Energy, Health, Finance, Industry, Logistics, Sports & Agriculture
3.3.2. Efficient algorithms and systems for decision making and performance optimization

3.4. Healthtech
3.4.1. Digital Preventive Care
3.4.2. Telemedicine

3.5. Smart Cities
3.5.1. Internet of Things
3.5.2. Intelligent Transportation Systems

3.6. Next Generation Networks
3.6.1. Spectrum management and resource optimization
3.6.2. Self-organizing networks
3.7. Blockchain and applications
   3.7.1. Blockchain and secured Distributed Ledger Technology (DLT) applied to industry: Energy, Healthcare, Finance, Manufacturing, etc.
   3.7.2. Blockchain and data privacy

3.8. High Performance Cloud Computing
   3.8.1. Secure and reliable cloud computing that ensures confidentiality and privacy of data and information.
   3.8.2. High performance computing systems, algorithms and optimized software for:
      - Engineering
      - Life Science
      - Weather, Climatology, Earth Science
      - Material Science, Chemistry, Nanoscience
      - Elementary particle physics, Plasma physics

4. Social Sciences, Arts and Humanities

4.1. Lifestyle and Quality of Life
   4.1.1. Cyber crime
   4.1.2. Bullying
   4.1.3. Risk youth behavior
   4.1.4. Health life style.

4.2. Cultural Identity and the Development of Human Potential
   4.2.1. Gender equality
   4.2.2. Contemporary issues in Islam
   4.2.3. Role of media in society
   4.2.4. Population growth
   4.2.5. Labour and regulation

4.3. Economic Diversification and Sustainability
   4.3.1. Policy and programmes for the realization of diversification goals.
   4.3.2. Diversification in the economic sectors & ensures sustainability.
   4.3.3. Economy diversification.
   4.3.4. SMEs; Entrepreneurship; Financial Technology and Business regulations

4.4. Educational Outcomes
   4.4.1. STEM Education
   4.4.2. Teacher development
   4.4.3. Early childhood education.
4.5. Population growth and sustainability
   4.5.1. Aging
   4.5.2. Migration
   4.5.3. Population dynamics

4.6. Family Studies
   4.6.1. Family cohesion, marriage and divorce:
   4.6.2. Families at risk:
   4.6.3. Parenthood: Social policy research related to families

4.7. Gulf and Regional Studies
   4.7.1. Gulf studies
   4.7.2. International relations of the Gulf.