Investigator Initiated Research (IIR) Initiative 2021

ICMR-IAVI Joint Call for Proposal

Closing Date: 15th May 2021

The Indian Council of Medical Research (ICMR), under the Department of Health Research, Government of India, is the apex body in India for the formulation, coordination and promotion of biomedical research and continues to nurture ecosystems for enabling medical innovations and their introduction into the health systems across the country. Throughout this journey, ICMR has established a number of regional and international collaborations to accelerate health research in India leveraging on complementary strengths and synergies. This includes the successful partnership with IAVI towards joint mandate of developing scientifically robust practical solutions to public health problems. IAVI, a global non-profit product development partner (PDP) organization, generously supported by U.S. Agency for International Development (USAID), is dedicated to building and strengthening capacity and capability in India and Africa towards accelerated efforts to develop a safe, effective, affordable and globally accessible HIV biomedical prevention tool to serve the unmet global health needs tailored to the most relevant populations.

*ICMR and IAVI have undertaken a joint initiative to launch the **Investigator Initiated Research (IIR) Call 2021** inviting research proposals from young investigators across Indian and African partner institutes **on HIV and HIV-COVID-19 research** under various priority areas towards enhancing indigenous scientific capacity of young investigators and promoting regional collaborations between India and Africa.*

The IIR Call 2021 will have two components:

- **Young Investigator Award –** This award is for a short, concise project that should be completed within one year following allocation. This award will be specifically for young investigators from Indian institutes to support research carried out in India. The Young Investigator award ranges from 30,000-35,000 USD.
- **Regional Collaboration Award –** This award is to support collaborative projects between young Indian and young African investigators to advance scientific research and leadership across both regions. The award ranges from 120,000 – 150,000 USD for the period of 1 year.

IIR call 2021 will aim to support ***2-3 Young Investigator Awards and 1 Regional Collaboration Award*** through a competitive selection process.

Eligibility

Researchers who have an advanced degree (PhD in life sciences/social sciences (including current PhD students) or equivalent Medical degree), have some experience of working in the field of HIV or want to pursue research in the field of HIV, and are under 40 years of age will be considered as Young Investigators who will be eligible to apply for this call.

Scope of the projects

Scientifically robust comprehensive proposals are invited in the field of HIV/AIDS prevention research as well as HIV-COVID 19 (impact on vulnerable communities at risk of HIV). The proposals for 2021 may be in any of the disciplines of epidemiology, socio-behavioural research, immunology, virology, discovery research and trial preparedness towards informing product development. The proposed work may also include research questions utilizing data and samples from ongoing and prior trials and other studies as may be available to applying investigators.

The scope of this call would include the following research areas in the field of HIV and HIV-COVID:

- *Epidemiology and Socio-behavioral research*
    - Identifying most relevant target populations - Studying social, economic, behavioural and biological determinants of HIV risk and transmission (including their physical and virtual network dynamics) in diverse (including hard-to-reach) population (including at-risk key populations, adolescents and young adults, pregnant women, and children below 2 years) along with incidence/prevalence of the disease across India and Africa;
    - Understanding population needs and factors (individual, social and structural) influencing a) uptake of preventive health services; and b) research participation; including intersectionalities like gender and sexual identity, stigma and discrimination, racial/ethnic or geographic disparities as well as impact (social, behavioral, economic, health systems, mental health) of COVID-19 among populations at risk of HIV in India and Africa;
    - Studying diversity and evolution of circulating viruses across different risk groups (including high risk key populations, adolescents and young adults, pregnant mothers and children below 2 years) and geographical regions (including urban/ rural) in India and Africa;
    - Developing and piloting interventions/behaviour change strategies among at-risk populations (including at-risk key populations, adolescents and young adults, pregnant women, and children) towards improving prevention outcomes in the two regions;

- Acceptability & feasibility studies to inform development, introduction and uptake of prevention products in India and Africa;

- *Immunology, Virology and Discovery Research*
  - Study viral factors and their role in HIV replication dynamics /pathogenesis/transmission;
  - Use of functional genomic approaches to dissect effective adaptive and/or innate mucosal/systemic immune responses and host responses to HIV-1 acquisition and pathogenesis (in adults and paediatric population) as well as in co-infections like COVID-19;
  - Study B-cell and T-cell receptor diversity in healthy individuals to inform HIV vaccine design;
  - Isolation, functional characterization and suitability assessment of broadly neutralizing antibodies relevant to circulating HIV-1 strains (both adult & paediatric population) in India and Africa;
  - Design and characterization of immunogens that can elicit potent and broadly neutralizing antibodies for HIV-1;

- *Trial Preparedness*
  - Designing & piloting innovative and participatory community engagement strategies for outreach among HIV at-risk populations (including at-risk key populations, adolescents and young adults, pregnant women, and infants) for ethical conduct of biomedical research & prevention product trials.

Criteria for evaluation

Funding under this mechanism is only to support the realization of not-for-profit scientific work towards acquiring new knowledge, promoting scientific exchange within and across regions, and to foster the development of integration and cooperation between scientific organizations in India and Africa. Proposals will undergo a quality evaluation taking into account the following criteria:

- **Scientific Merit** - Does the project align with the call's objective? Is the proposed project relevant to and important for the HIV prevention landscape including vaccine and/or antibody design/development? Is there a strong scientific rationale for the project? What is the state of readiness for the proposed work based on the background information and scientific work in the relevant field? How significant is the impact that the proposed work will bring about in the field? How relevant are the proposed outcomes of the project to the needs and constraints of the country(ies)/regions and target groups/final beneficiaries?
- **Implementation Plan** - Are the objectives and endpoints/outcomes clear? Does the proposal have a justified study design, appropriate methodology and detailed analysis plan to achieve the stated objectives within feasible timeline? Is the implementation work plan adequately

detailed and realistic? Is there clear metrics for monitoring project progress including milestones, and outputs expected timelines?

- **Investigator** - Is the investigator and other researchers well suited to the project? Do they have appropriate experience and training? Will the project allow career development for a young investigator? If appropriate, is a suitable mentor identified? Is the investigator likely to make significant contributions to scientific capacity at the institute over time?
- **Operational Feasibility** - Does the applicant have access to adequate resources (samples, data, local linkages with relevant partners, infrastructure) to conduct the proposed work? Does the researcher consider/integrate other national collaborators, expertise and other ongoing work to strengthen the value or impact of this work? Has the applicant anticipated difficulties/risks that may be encountered? Have alternative tactics and mitigation plans been considered in case of failure?
- **Cost Effectiveness and Sustainability** - Is the ratio between the estimated costs and expected results satisfactory? Have the budgets required over the time frame been comprehensively mapped to highlight justified needs towards the proposed objectives? Are sustainability plans (based on results from current study) identified and linkages to broader national/international programs/sustainable funding mentioned?
- **Value of Partnership (For the Regional Collaboration Award only)** - Does this collaboration provide significant value addition for the work proposed? Do the investigators have complementary and integrated expertise? Is there any additional future work expected through this partnership? Are the plans for capacity building (cross learning, knowledge sharing and tech transfer) between the collaborators across two regions well-articulated and planned? Are the team roles and responsibilities (including project management and coordination, governance and organizational structure) clearly defined?

- *Collaborative projects across institutes and across disciplines are highly encouraged to increase generalizability of data; this is applicable for both the Young Investigator Awards in India and the Regional Collaborative Awards across India and Africa.*
- *Innovative research in partnership with senior researchers or external collaborators where the work significantly focuses on building scientific capacity of mid-early career investigators is also encouraged.*
- *It desirable that an applicant will apply for either one of the award categories; in case an applicant applies for both the award categories, s/he will be considered for only one grant category based on the review.*
- *All short-listed projects will be subject to the consideration and due approval by Health Ministry's Screening Committee (HMSC) before initiation. All budgets for the selected projects will be provided by IAVI.*

Application Procedure

The completed proposal should be a precise description of the intended research, including the scientific principles upon which it is founded; therefore, it should be limited to **7-8 pages**. A description of the primary objectives and what steps must be taken to achieve them must be provided. The proposal should be written to consider each of the review criteria outlined above.

We recommend that all co-investigators and collaborators mentioned in the proposal be aware of the proposed work and have granted written permission.

A format for Application is attached as Annexure 1.

The completed applications with all relevant attachments (as a single compiled PDF document) should be sent to the following email id: iircall2021@gmail.com

Important deadlines

Launch of the Call	March 2021
Application Deadline	15th May 2021
Expected timeline for declaration of results	June- July 2021

Contact Information

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Annexure – 1

Application Format

The application should be written in English.

Please use a standard font (such as Arial 11 point, 1 spacing) and one-inch margins in completing the application. Complete research proposal should be limited to 7-8 pages.

In addition to research proposal, please attach an abbreviated CV (2 pages) of submitting investigator, a copy of any key or important literature that is cited and supporting letters from co-investigators or collaborators if applicable. Do not attach any additional appendices.

The components of the research proposal should include the following:

Abstract (up to 500 words)

A concise description of the scientific program, and its expected outcome(s). Following questions should be addressed in the description:

- What major discoveries do you anticipate by undertaking this work?
- What scientific advancement(s) is anticipated and how it leads to advancements in product development or science?
- What key methodologies/ technologies will be employed to achieve the stated objectives.

Objectives/specific aims (up to 200 words)

Describes the major objectives/aims along with specific subobjectives.

Background and rationale (up to 700 words)

The applicants are asked to address the following:

- Describe the scientific foundation/ principles upon which your planned research rests;
- Provide a concise description of any scientific information/ data, novel discoveries, or guiding scientific doctrine that underpins, legitimizes, and substantiates your planned research; also highlight relevance of the work under the scope of this call;
- Describe the anticipated scientific and programmatic impact or value of the proposed work;
- A brief outline of the team's experience and ability to conduct the study should be provided as well as providing preliminary supporting data if applicable. Please include information of co-investigators and or collaborators where possible and their expected contribution to the work.

Brief description of methodology or study procedures (up to 1500 words)

Applicants are asked to provide a brief description of how they will achieve the objectives/specific aims along with the following:

- Describe the study population, number of participants and their desired characteristics including inclusion and exclusion criteria;
- Describe the nature of the data/samples collected (DNA, RNA, serum, plasma, cells or other) and the volume of blood/ sample. The specific study objective must be matched to the cohort/ sample type and any plans to store remaining samples must be clearly specified.

- Describe the scientific methodology and all experimental/data collection steps.

Brief description of analysis plan (up to 500 words)

Applicant should describe the analysis plan as relevant to the proposed work. It may include a list of pertinent variables to be used in the analyses, hypothesis testing and p value criteria, followed by a description of the different analyses to be done. Applicants are also encouraged to indicate available biostatistics support/ tools that will be integrated in the proposed work.

Brief description of the collaboration if applicable (up to 500 words)

A brief description of the collaborators and their role including any specific areas of expertise or resources they may bring. Collaborators may be part of the whole project or may be part of specific components e.g. the writing or data analysis, or earlier in the data collection phase if there are multiple sites that could participate.

Brief description on the mentorship if applicable (up to 350 words)

The capacity building component of mid-early investigators by senior experts. The proposed area of capacity building/ mentorship, why it was selected and the anticipated impact.

Milestones (up to 350 words)

Enumeration of the planned critical activities for the study and indicative timelines (e.g., draft protocol, submit to ethics, start research and/or analysis, write up results). Applicants are requested to provide a detailed workplan with clearly defined milestones/ deliverables along with the anticipated time for completion (measured in months following initiation of the program) for each of the milestones.

Budget (up to 500 words)

Applicants should provide a table that summarizes the budget for this project including adequate detail to allow an informed decision to be made about the request. Justification for each ask should be provided in a narrative following the table. In addition, the following should be addressed:

- Brief details on the source of additional/initial funding for work if appropriate (prior or current funding is not a requirement for this proposal and will not be counted for or against this submission).
- Details of sample shipments or of travel where necessary e.g. tech transfer training. Details of the budget should be explicit, particularly if aspects of the study are to be funded by other collaborators. Applicants may provide local currency amounts for budget but must include a column to show budget in US$.

Sustainability plans (up to 350 words)

Applicants are encouraged to identify potential opportunities to indicate plans for sustaining the work beyond the duration of this project through linkages to broader national/international programs/sustainable funding.