No.: ICMR/BMI/EPMS/CallforProposal/2023 Date: 20-Dec-2023

Overview and purpose

Indian Council of Medical Research (ICMR) provides financial assistance for Indian scientists working outside ICMR institutes to conduct research in the fields of medicine, public health, and allied disciplines aimed at improving health of Indians under its Extramural Research Programme.

The Investigator initiated <u>Intermediate Grant</u> projects are expected to result in finding solutions to priority health problems for the country by validation or evaluation of interventions that already have beenshown to have proof of concept. Thus, the proposed study should stem from a well-documented proof of concept study and designed to achieve impact. The project should lead to significant contributions in generating effective interventions for prevention, diagnosis, treatment, or rehabilitation of those disease conditions. Potential deliverables from these projects should include patent/commercial products, or impactful publications to influence clinical or public health practice. Multi-site, multi-disciplinary studies are encouraged under this call.

The following types of research proposals will be considered. Some indicative examples of each category are given below.

<u>Discovery research</u> aimed at finding novel interventions (basic research) and validation in in-vivo models. If there is proof of concept of a biomarker which is to be taken for commercialization, is an example of such a study. Projects can focus on diagnostics, devices, therapeutics or vaccines and may include phytopharmaceuticals and traditional medicines and genomic methods/algorithms/tools for personalized medicine etc.

Development research aimed at developing interventions for screening, diagnosis, prevention, treatment of diseases/conditions or make existing interventions simpler, safer, more efficacious, or more affordable. Examples of such research includes development of Point of care tests, molecular diagnostic tests, medical devices, animal models for diseases appropriate dosage and formulations, artificial intelligence and machine learning predictive tools/models to solve health problems, phase-1 and phase 2/3 (or equivalent phase) clinical trials of vaccine and therapeutics etc.

<u>Delivery research</u> or implementation research aimed at learning how to overcome barriers in delivering effective interventions to the people who need them. This will include health system-based interventions to increase access, and to successfully implement national health programme or schemes, reducing inequity and improving quality of health care. Some examples include learning how to achieve single digit neonatal mortality rate in a district, how to integrate newer technological interventions into primary health care system to improve health and wellbeing of the population, how to optimize functioning of Ayushman Arogya Mandir (Health & Wellness centers) or how we can reduce treatment gaps for mental health conditions.

<u>Descriptive Research</u> aimed to understand the disease or condition including its burden, risk factors and determinants and pathogenesis mechanism will be funded if it generates information required for decision making on health problems where it is lacking. Some examples include study the relationship between long-term indoor and outdoor air pollution exposure and pregnancy outcomes, possible impact of PCV vaccination and pneumococcal diversity etc.

NB: If similar projects are submitted in both intermediate and small grants by a PI/research team; the intermediate grant proposal will not be reviewed.

Those projects focused on finding solutions for prevention, screening, diagnosis, treatment or rehabilitation of the following diseases or conditions will receive preference for selection.

Table-1: Priority Diseases and conditions

Communicable Diseases (bacterial, viral, fungal, parasitic)	Non-Communicable Diseases	Reproductive, Maternal and Child Health, Nutrition	
One-health approach for infections of epidemic or pandemic potential	Cancer – breast, cervix, oral,	Preconception care	
Tuberculosis	Diabetes	Antenatal Care	
Antimicrobial resistance	Cardio-vascular disease	Intra and peripartum care*	
Malaria	Chronic respiratory illness*	Postnatal care	
Vector borne diseases (other than malaria)	Chronic neurological illness	Preterm birth / low birth weight	
Sexually Transmitted Infections including HIV	Chronic kidney disease	Neonatal sepsis	
Influenza and other Respiratory infections	Common mental health disorders	Early child development	
Gastrointestinal infections including hepatitis	Chronic GE/Liver disease	Childhood Malnutrition, Breastfeeding and complementary Feeding*	
Sepsis, meningitis, encephalitis	Trauma and Burns	Anaemia in women and children*	
Urinary infections	Oral health problems	Common childhood diseases	
	NCD risk factors – diet, activity, alcohol, tobacco etc*.	Polycystic Ovary Syndrome & other reproductive health problems	
	Blood disorders like thalassemia, sickle cell disease, clotting disorders etc.	Adolescent health*	
	Climate change & its impact on health*	Contraception and infertility	
	Eye conditions		
	ENT conditions		
	Ageing and elderly health		
	Genetic diseases		

^{*} We encourage researchers to submit projects on these high-priority research areas. Duration of project and funding:

Budget for the project must range <u>between INR 2crores to less than 8 crores</u>. Project duration will be up to a maximum period of three years. An additional period of up to 6 months for preparatory activities (with no additional costs) can be incorporated in the project proposal.

How to apply

A proposal can be submitted for financial support through ONLINE MODE ONLY by the Principal Investigator on behalf of the proposed team of Scientists/ professionals who have a regular employment in Medical Institutes/ Research Institutes/ Universities/ Colleges/ recognized Research & Development laboratories/ Government and semi-government organizations and NGOs (documentary evidence of their recognition including DSIR certificate, as applicable should be enclosed with every proposal). The research team shouldhave credentials for relevant skills, experience and demonstrated ability to solve health problems under consideration.

Number of ongoing projects funded by ICMR in which applicant is Principal Investigator must be less than five AND sum of grant amount of ongoing projects must be less than INR 25 crores.

ICMR scientists/institutes are not eligible to apply in this call. ICMR scientists may be named as coinvestigators in these projects, but no funds will be given to ICMR institutions or scientists in these cases.

Proposal Review Process

Two independent experts will review and score each project proposal. The scoring criteria are as follows:

- Rationale of the project is it likely to solve a priority problem? 20
- Possible impact is it likely to have an impact on health outcomes? 20
- Novelty/innovation is the study developing or testing a new idea? 15
- Methodology are study methods appropriate to achieve the objectives? 30
- Implementation strategy is the study feasible in a timely manner?

Projects that receive a score of at least 60 will be considered by Project Selection Committee. The committee will collectively score all the proposals and rank them; the committee may also provide comments for further improvement of the project.

Budget review will be done by a committee of experienced researchers to increase or reduce the budget as needed. Top ranked proposals in each priority area will be funded.

Timeline

Activities		Dates		
Release of Call	20-Dec-202	23 (Wednesday)		
	From	To		
Submission of proposal	01-Jan-2024 (Monday)	29-Feb-2024 (Thursday)		
	10:00hrs	17:00hrs		
Review and selection	21-May-2	21-May-2024(Tuesday)		
Proposal improvement & final submission of	20-June-2	20-June-2024(Thursday)		
documents				
Approval and release of funds	30-Septembe	30-September-2024 (Monday)		

^{*} ICMR epms portal will accept proposals against Extramural Research Programme: Investigator Initiated Projects-Intermediate Grant between 01-January-2024, 10:00 hrs IST to 29-Feb-2024, 17:00 hrs IST

Important note for the submission of proposal:

- 1. Submission portal will open from 01-January-2024
- 2. After completing mandatory section of PI profile, click on "Proposal submission →Click on Call for proposal → Click on the click here to apply new proposal against "Extramural Research Programme: Investigator Initiated Projects-Intermediate Grant" →Fill the form step by step.
- 3. Kindly ensure that all sections are adequately filled with the necessary details.
- 4. Inclusion of at least one Co-PI from PI's institute is mandatory.
- 5. PIs are advised to submit proposal well ahead of the last date, since servers may be overloaded and slow to respond.
- 6. For any query related to the call, please mail to the addresses given below; other modes of communication won't be entertained.

Technical concerns related to application process	Any other concerns related to call
Email: po.epms@icmr.gov.in	Email: emr.hq@icmr.gov.in

Annexure-I: Format for Project Proposal

PART-A

(No personally identifiable information for PI/institute should be included in part-A, Sl 1-14)

- 1. **Title of the proposed research project (up to 25 words):** should be **specific**, **concise** and yet sufficiently descriptive and informative.
- 2. **Summary (up to 250 words):** A structured summary should contain the following subheadings: Rationale/gaps in existing knowledge, Novelty, Objectives, Methods, and Expected outcome.
- 3. Does it cover a priority area? If yes please select the most appropriate <u>one</u> from the list below: Ref: Table-1
- 4. **Keywords:** Six keywords separated by comma which best describe your project may be provided.
- 5. **Abbreviations:** Only standard abbreviations should be used in the text. List of abbreviations maximum of ten may be given as a list.
- 6. **Problem Statement (up to 500 words):** State the currently available information to present the problem adequately.
- 7. **Rationale of the study (up to 500 words):** Mention how the research question addresses the critical barrier(s) in scientific knowledge, technical capability, and/or programmatic/ clinical/lab practice and its relevance to local, national and international context with relevant bibliography.
- 8. **Hypothesis**/ **Research question (up to 100 words):** Please provide details in PICO format as applicable.
- 9. **Study Objectives (up to 25 words/ objective):** Define the objectives clearly and in measurable terms; mention as primary and secondary objectives, if necessary. Do not include more than 3-4 objectives. Provide specific, measurable and timebound outcomes for each objective.
- 10. **Methodology:** Include objective-wise work plan under the following sub-headings:
 - a. Study design
 - b. Study area (multiple choice): Community/Hospital/Laboratory
 - c. Sample size estimation and sampling strategy
 - d. Project implementation plan
 - e. Design of statistical analysis
- **11. Expected outcome/ Deliverables from the** project i.e., what will be known at the end, if the project achieves all the stated objectives (up to 100 words)
- 12. Immediate next steps following the end of the project (up to 100 words):
- 13. Whether the study is going to generate new intellectual property Please provide details
- 14. Timelines with achievable targets: GANTT/ PERT chart to be included.

Part-B

- 1. **Preliminary work** done by the PI including the source of funding (up to 250 words): (**Proof of concept**)
- 2. **Skill and experience of the research team:** Highlight only salient points (along with 5 relevant publications) that provides confidence to reviewers that team can implement the project with quality.
- 3. **Institutional Support**/ **Facilities:** Share a brief note on inter-departmental or interinstitutional collaboration needed for study implementation. Do mention the role and responsibility of the PI and Co-PIs.
- 4. **Laboratory facilities (in-vitro/ in-silico):** Mention the institutional resources (such as animal house, instruments/ equipment etc.) available for use in the proposed project for participating institutes.
- 5. Additional supplementary information including figures, tables, flow diagrams, data collection tool etc. can be shared as PDF (20-30 KB).
- 6. **Budget:** Budget should be as per ICMR guidelines available on the website. Justifications for all subheadings under budget (as per ICMR format) are to be provided in detail. Without appropriate justification, the project will not be considered for review.

Short Resume format (PI/Co-PI)

Name of PI/Co-PI	
Date of Birth	
Domain Expertise	
Number of articles in Pub Med (Past 10 years)	
H-index	
Fellow of Academies	
-	

• Maximum of 10 primary research publications related to the proposal.

Publication details in AMA style	Impact factorof journal	Author type (first,corresponding, coauthor)	Name of policy/programme/ protocol document or patent/commercialization of products where cited.

• Experience as Investigator:

Short title of project (Max. 10 words)	Role PI/Co-PI	Funding agency	Amount of funding	Reference of main publications

• Ongoing (approved or sanctioned) research projects (funded by ICMR):

Project ID	Title	Grant amount	Start date	End date

Format of Budget for ICMR Extramural Call

(Staff, Equipment, Contingency/Consumables and Travel Allowance)

Staff/M	lanpower				
Sl. No.			Salary (As per ICMR Project guidelines)		
Justifica	ation of Staff/Manpowe	er			
Equipn	nent				
S1.	Equipment Name	Estimated cost wi	th appropriate	Justification	Mode of Proposed
No.		supporting docum	ent		disposal
Conting	gency				
Detail			В	reakup with Jus	stification
Year 1:				•	
Year 2:					
Year 3:					
Consur	nables				
Detail			Breakup with Justification		
Year 1:					
Year 2:					
Year 3:					
	llowance				
Detail			Justifi	cation	
Year 1:					
Year 2:					
Year 3:					
	d charges(as per rules	s)			
Grand T	otal				

Justification must be given in adequate detail; else the proposed budget item will be removed from the approved grant.