CALL FOR INVESTIGATOR-INITIATED RESEARCH PROPOSALS FOR SMALL EXTRAMURAL GRANTS (2025)

No.:ICMR/BMI/EPMS/CallforProposal/2023   **Date: 02 January 2025**

Overview and purpose

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

The proposed research projects in response to this Call for Proposals are investigator-initiated, i.e. conceptualised and implemented by the Principal Investigator and her/his team of co-investigators. The project should be well-circumscribed, and time bound to achieve specific and measurable objectives. Multidisciplinary projects which aim to find solutions to priority disease and conditions (see table 1) will receive preference for funding. Research proposals that take forward leads from previous ICMR grants to fruition will also be given preference.

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

I. <u>Discovery Research</u> focuses on generating proof-of-concept studies and preclinical validation of novel diagnostic and therapeutic modalities, including the identification of biomarkers, antibodies, vaccine candidates, drug targets, and novel molecules such as phyto-pharmaceuticals, receptors, activators, and inhibitors. It includes drug discovery and drug delivery systems, non-animal and animal models, organoids, organ on-chip, biomaterials and personalized medicine including immuno-therapeutics and genomic medicine. The scope also includes AI-ML algorithms for drug and biomarker discovery, as well as proof-of-concept studies for cutting-edge devices, biosensors, and 3D-printed materials for medical applications.

II. <u>Development Research</u> 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, health technologies like 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.

III. Delivery Research 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 scale-up access, and to successfully implement national health programmes 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 Centres) or how we can reduce treatment gaps for mental health conditions.

When submitting a delivery research proposal, it is essential for project investigators to possess a thorough understanding of delivery research and its various phases. The proposed intervention must be clearly articulated, and investigators should demonstrate a commitment to engaging stakeholders throughout the process. It is crucial to show the necessity of implementing the selected intervention in the specified settings, including the support from relevant parties and the alignment of the intervention with local needs. Additionally, applicants can access a series of online webinars on Delivery Research by the Indian Council of Medical Research (ICMR) on YouTube (https://www.youtube.com/watch?v=0Z8moYB7GIE&list=PL_GXps5ledc3YdW_7vE9HjEdyn1BHjsMU), which provide valuable insights and guidance

IV. Description Research 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.

Priority diseases or conditions

The research proposals dealing with the following priority conditions/diseases that align with above mentioned 4' Ds' of research will receive preference for funding:

Table-1: Priority Conditions/Diseases

Communicable Diseases (bacterial, viral, fungal, parasitic)	Non-Communicable Diseases (NCD)	Reproductive, Maternal and Child Health, Nutrition
One-health approach for infections of epidemic or pandemic potential	**Cancer**	Preconception care
Tuberculosis	Diabetes	Antenatal Care
Antimicrobial resistance	Cardio-vascular diseases	Intra and peri-partum 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 diseases**	Neonatal sepsis
Influenza and other Respiratory infections	**Common mental health disorders**	Early child development
Gastrointestinal infections including hepatitis	Chronic Gastroenterological/Liver diseases	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 e.g. diet, physical 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, especially inherited rare diseases	

*We encourage the researchers to submit proposals on these high-priority research areas

Duration of the project and funding:

The budget for the project must range between ₹10 lakhs to less than ₹2 Crores. The 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** (https://epms.icmr.org.in) by the Principal Investigator on behalf of the proposed team of Scientists/ professionals who have a regular employment in Indian 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 should have the credentials for relevant skills, and experience and have demonstrated the ability to solve health problems under consideration.

Proposal Review Process

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

Domain	Maximum score
Background & 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 and milestones to be achieved – is the study feasible in a timely manner?	15

- The Project Selection Committee will give final scores taking into account reviewer's scores and comments of all committee members.
- The committee may also provide comments for further improvement of the project.
- Top ranked proposals in each priority area will be funded.
- The proposed Budget will be reviewed by experienced researchers and justification/modifications may be asked from the PI, if required.

Timelines

Activities	Dates	
Release of Call	2 January 2025 (Thursday)	
Submission of proposal	From	To
	6 January 2025 (Monday) 10:00hrs	1 April 2025 (Tuesday) 17:00hrs
Review and selection	Mid-July 2025	
Proposal improvement & final submission of documents	Mid-September 2025	
Approval and release of funds	End of October 2025	

ICMR e-PMS portal will accept proposals against Extramural Research Programme: Investigator Initiated Projects-Small Grants between 06 January 2025, 10:00 hrs IST to 1 April 2025, 17:00 hrs IST

Points to keep in mind

- If similar projects are submitted for both intermediate and small grants by a PI/research team, the intermediate grant proposal will NOT be reviewed.
- If the same research team submits similar projects in the same call, the last submitted proposal will be considered for reviewing, and the others will be rejected without review.
- The PI must not have more than five ongoing research proposals funded by ICMR or the sum of grant amount of more than ₹25 crores from the ongoing research projects funded by ICMR.
- ICMR scientists/institutes are not eligible to apply in this call. ICMR scientists may be named as co-investigators in these projects, but no funds will be given to ICMR institutions or scientists.

Important points for the submission of proposal

1. Submission portal (https://epms.icmr.org.in) will open from 6 January 2025 (Monday) 10:00 hrs.

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-Small 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. PI's are advised to submit proposals well ahead of the last date, since servers may be overloaded and slow to respond on the last day of submission.

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: anand.bodade@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 1-15)

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 one from the list.(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.

8. Hypothesis/ Research question (up to 100 words): Please provide details in PICO/PECO 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 time-bound 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. Primary and secondary outcome measures
    e. Design of statistical analysis

11. Implementation strategy and milestones chart (e.g. Gantt/ PERT chart)

12. 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)

13. Immediate next steps following the end of the project (up to 100 words)

14. Whether the study is going to generate new intellectual property Please provide details

15. References (in AMA style)

PART-B

1. Preliminary work done by the PI including the source of funding (up to 250 words):Proof of concept (if any)

2. Skill and experience of the research team: Highlight only salient points (along with 5 relevant publications) that provides confidence to reviewers that the team can implement the project with quality.

3. Institutional Support/ Facilities: Share a brief note on inter-departmental orinter-institutional 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 asanimal 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 (maximum size 10 MB).

6. Budget: Budget should be as per ICMR guidelines available on the website. Justifications for all sub-headings under budget (as per ICMR format) are to be provided in detail. Without appropriate justification, the project will not be considered for review.

Format for the short resume (PI/Co-PI)

a) Name of PI/Co-PI along with their affiliation	
b) Date of Birth	
c) Domain Expertise	
d) Number of articles in PubMed (Past 10 years)	
e) h-index	
f) Fellow of Academies	

g) Maximum of 10 primary research publications related to the proposal.

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

h) Experience as Investigator (completed projects):

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

i) All ongoing research projects:

Project ID	Title	Grant amount	Funding agency	Start Date	Duration of project

Format of Budget for ICMR Extramural Call

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

a) Staff/Manpower	
Sl. No.	Salary (As per ICMR Project guidelines)
Justification of Staff/Manpower*	

b) Equipment				
Sl. No.	Equipment Name	Estimated cost with appropriate supporting document	Justification*	Mode of Proposed disposal

c) Contingency/Consumables	
Detail	Breakup with Justification*
Year 1:	
Year 2:	
Year 3:	
Consumables	
Detail	Breakup with Justification*
Year 1:	
Year 2:	
Year 3:	

d) Travel Allowance	
Detail	Justification*
Year 1:	
Year 2:	
Year 3:	
Overhead charges(as per rules)	
GRAND TOTAL	

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