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कल्याण मंत्रालय, भारत सरकार

Indian Council of Medical Research
Department of Health Research, Ministry of Health
and Family Welfare, Government of India

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ICMR Call for Proposals in the area of PCOS under ICMR Extramural Task Force Program

Background

PCOS is one of the most common endocrine pathologies affecting women of reproductive age and is characterized by hyperandrogenism, follicular dysplasia, amenorrhea or oligomenorrhea, and infertility. Several factors including genetic, environmental, and high BMI or obesity have been attributed to the pathogenesis of PCOS. However, there is paucity of information on a direct cause and effect relationship in PCOS which is further complicated by its complex pathophysiology. The prevalence of PCOS has increased among Indian women at a high rate in both urban and rural regions. The pattern and etiology of PCOS has been observed to vary across regions. Several studies have also demonstrated the clinical progression of PCOS into type 2 diabetes, cardio-metabolic disorders. Exposure to harmful chemicals; sedentary lifestyle and genetic predisposition are considered as etiological factors for PCOS.

The current treatment modalities majorly focus on ameliorating hyperandrogenic symptoms, inducing ovulation and improving hormonal imbalances. PCOS being a multifaceted disease, it becomes imperative to target other unexplored causes underlying PCOS causation and progression. A few studies have investigated the significant role of endocrine disrupting chemicals such as BPA, organophosphates and organochlorine in modulating hormonal signaling. In addition, a few reports are suggestive of altered gut microbiota in metabolic dysfunctions. However, studies exploring the role of major environmental factors and gut-micro flora in PCOS pathology are still scarce. Moreover, data on genetic and epigenetic changes in PCOS candidate genes are known to be also related to infertility in PCOS subjects; however, data from Indian population is warranted. Therefore, screening for susceptible genes with genome wide association studies can be useful in patient centric early detection strategy.

Further, epidemiological findings have also suggested that women with PCOS are more prone to gynecological cancer. However, the molecular mechanisms that link these two conditions are poorly understood. Recent research has highlighted the shared nature of the genomic and epigenomic features including miRNAs, long non-coding RNAs (lncRNAs), circRNAs, piRNAs and other associated small non-coding RNAs in PCOS and gynecologic oncogenesis. Pertinently, a detailed and a deeper molecular characterization of these features in Indian women will be very helpful in identifying the

key determinants of oncogenesis in cases of PCOS, and may open new avenues for developing these unique signatures as biomarkers for development of improved diagnostics and therapeutics.

Indian Council of Medical Research (ICMR) invites projects in the following thematic areas in PCOS

To address the issues related to risk/causative factors including environmental agents, genetics, epigenetics, metabolomics and gut microbiome in the pathogenesis of PCOS in context to Indian population, ICMR invites Concept Proposals in the following priority areas:

1. **Role of environmental chemicals in PCOS development and progression.**
2. **Role of genetic and epigenetic modifications in PCOS among Indian women.**
3. **Role of gut micro-biota in PCOS etiology.**
4. **Metabolomic studies in PCOS patients and their alteration if any with disease management interventions.**

The research proposals with translational value will be given priority. A clear and in-depth understanding of the PCOS etiology is vital to the development of effective screening tests and novel therapeutic and preventive strategies. The data generated from this program would help unveil the factors underlying PCOS pathogenesis among Indian women. Further, key significant molecular signatures in PCOS and PCOS associated gynecological oncogenesis will be identified and their role will be deciphered which may lead to development of prospective biomarkers in PCOS.

Complete research proposal is to be submitted in one-time submission process as per the details given below:

Proposals with specific objectives and definite scientific questions on the above focus areas should be submitted online by **22nd August 2022 at 5 pm.**

Who can submit project proposals?

The project proposal can be submitted for financial support through ONLINE MODE ONLY by scientists/ professionals who are a regular faculty in Medical Institutes/ Research Institutes/ Universities/ Colleges/ recognized Research & Development laboratories/ Government and semi-government organizations.

Criteria for application:

The proposals should adhere to the focus areas described. The scientific team should have demonstrable expertise in the areas of focus. Collaborations between research and clinical teams will be encouraged. Proposals must be written in the English language and clearly titled in the ICMR format. Project descriptions and style should conform to ICMR guidelines and have all requisite approvals and permissions required.

Points to be kept in mind while submitting the proposals:

Duration of the research projects will be maximum for five years. Budget and duration of project as per recommendations of Project review group.

1. The proposals must address one of the focus thematic areas
2. Should focus on out comes that are readily translatable into practice.
3. Preferably be in multidisciplinary collaborative mode.
4. Be Innovative and promote development of indigenous technologies.
5. Be feasible within the constraints of the funding and time available.
6. Foreign collaboration is not allowed under the call.

Timeline:

- Launch of call for full proposals on ICMR website: **15th July 2022**
- Full project submission ends: **22nd August, 2022 at 5:00 PM**

Review Process:

Once the call is closed, the eligible proposals will be subjected to evaluation for technical correctness, novelty, feasibility, achievable milestones, timelines, budget adequacy and potential for impact.

Important information for the detailed proposal submission:

1. Open the ICMR Electronics Project Management System (e PMS) portal <https://epms.icmr.org.in>
2. Project proposal submission is three steps process in e-PMS.
 - Step 1 : PI Registration/Login
 - Step 2: Verify Email Id and Complete/Update PI Profile
 - Step 3 : Proposal submission
3. Click on "LOGIN and select "Register" for new registration OR else if already registered provide details to login and enter into e-PMS portal.
4. After registration in the portal, login in the portal. Verify your registered email and complete the PI profile. IP profile includes Personal detail such as -Salute, Name, DOB as per 10th certificate, Detailsof 10th (Board name, roll number, Year of passing), Attachment (10th certificate/mark sheet), Gender(Male/Female), Category (GEN, OBC, SC, ST), State, District, Institute Name (if name doesn't exist in the drop down list then there is an option to add the new institute also), Designation, Nature of Employment, Department, Broad Area of Research, Subject Area.
5. After completing mandatory section of PI Profile, click on "**Proposal submission → Submit New Proposal → Select Program → Task Force → Proceed**".
6. Detailed proposal format and other relevant documents can be downloaded at <https://epms.icmr.org.in/adhoc>. Detailed proposal Format and relevant format of Adhoc Proposal can be used for Task force also.

7. The user manual of e-PMS (under Guidelines→ e-PMS manual) available at <https://epms.icmr.org.in> Before proceed to submission the proposal, it is suggested to read user manual and guidelines; and make ready all relevant information, documents and research plan.
8. There is no separate budget head for consumable. Expense for consumable can be submitted under contingency budget head only along with item wise proper justification. It is advised to read carefully the budget provision available at Guideline for Extramural Research Programme of ICMR.
9. One Co-PI is mandatory from the PI institute. Eligibility criteria for Co-PI will be also similar as mentioned in above eligibility section.
10. Overhead charge will be as per ICMR order F. No. Sr.ACO/Misc.4(86226) dated 22/09/2020
11. All complete proposals should be submitted online at <https://epms.icmr.org.in> on or before **22nd August 2022 till 5 pm**. No submission after this date and time will be accepted and no queries in this regard will be entertained. Applicants are advised not to wait for the last minute to upload the documents, since server may be overloaded and slow to respond.
12. For any query please contact

Proposal submission related query	Program related query
<p>Dr Lokesh Sharma Scientist E and Program Officer Division of BMI, ICMR Headquarters, V Ramalingaswami Bhawan, Ansari Nagar, New Delhi-110029 Email: po.epms@icmr.gov.in</p>	<p>Dr. Taruna Arora Scientist 'C' & Program Officer Reproductive Health Division of RBMCH Indian Council of Medical Research V. Ramalingaswami Bhawan Ansari Nagar, New Delhi- 110029 Email: tarunakatyal@gmail.com</p>