



**No. BT/ DBT/Med-II/Advt-II/2019**  
**Department of Biotechnology**  
**Medical Biotechnology Division**  
**Ministry of Science & Technology**  
**Government of India**

**Maternal and Child Health Programme**

**Call for Letters of Intent (LOIs) in the area of Problems associated with Women's Health**

Women have unique health issues and bear exclusive health concerns, such as pregnancy, menopause, cervical cancer and breast cancer. There are very few research programs that have absolute focus on fundamental and clinical aspects of women's health.

The Department of Biotechnology is desirous of inviting fresh perspectives and ingenious ideas to identify the problems and possible interventions and solutions on issues concerning Women's Health. A call for LOI forming independent components or multi-centric network program in both clinical and basic research is invited under following broad areas:

1. Development and evaluation of newer cost effective methods for menstrual hygiene
  - To study the health implications of menstrual hygiene management (MHM) on women of reproductive health and its implications.
  - To study the associations between specific menstrual hygiene practices and other pathogens causing RTIs or UTIs.
  - Health implications of menstrual wastes and management of menstrual wastes.
2. Newer strategies for prevention, diagnosis and treatment of sexually transmitted infections/ reproductive tract infections (except HIV)
  - Understanding impact of STI/RTI on reproductive and child health
  - To develop new interventions
3. Understanding the biology of Genital tuberculosis (female genital TB (FGTB)), diagnosis and evaluation of its management
  - Understanding low conception rates among infertile women with genital TB
  - Understanding risk of complications such as ectopic pregnancy and miscarriage among women with genital TB
  - Single diagnostic test to confirm the diagnosis of FGTB
4. Long-term effects of assisted reproduction on women's health

- Long term consequences of ovarian stimulation on ovarian pathophysiology
  - Identification of the causes underlying recurrent implantation failure
5. Understanding the biology and physiology of aberrant placentation in pregnancy complications
    - Physiology of parturition, preterm labor and premature rupture of membranes
    - Association of pregnancy-induced hypertension (PIH) and eclampsia with placental dysfunction
  6. Impact of maternal nutrients on fetal growth and early infancy
    - Impact of nutrition on fertility
    - Animal model for investigating the molecular mechanisms causing variations in fetal development
    - Understanding the molecular basis of maternal nutritional regulation of fetal development through the placenta
  7. Development of cost effective tools for non invasive prenatal diagnostics
    - Cost effective noninvasive prenatal genetic testing (NIPT)
  8. Optimisation of tools/protocol for artificial intelligence for cardiac topography
  9. Understanding the regulatory events associated with osteoporosis in women
    - Menopause and potential association with bone health and osteoporosis
  10. Understanding and development of novel interventions for autoimmune disorders in women and understanding why women have more autoimmune diseases than men.
  11. Delineation of etiological factors associated with Polycystic ovary syndrome
    - Genetic predisposition profile in Indian women with PCOS
    - Epigenetic modifications in women with PCOS
    - Effect of environmental factors (exposure to endocrine disrupting chemicals) in development of PCOS in adolescent girls in India
    - Investigation of Gut dysbiosis in women with PCOS
  12. Diagnosis, mechanistic aspects and novel treatment modalities in ovarian and endometrial cancer.
    - Development of markers for early diagnosis of endometriosis
    - Elucidate the mechanisms underlying progression of ovarian cancers

- Studies to investigate mechanisms underlying thin endometrium, Ashermann syndrome, uterine fibroids
- Assessment of the impact of uterine fibroids on endometrial receptivity
- New transgenic animal models of reproductive diseases for diagnosis and treatment

**The LOIs which are focused and those with translational potential would be preferred.**

The evaluation would be in accordance with the stated goals of the programme, uniqueness, track record of the main investigators and feasibility of doing the proposed research in their present setting. The decision would thereafter be communicated to investigators/coordinators. While experience in the area will be valued but will not be limiting for the right proposal.

**How to Apply:** Interested investigators/clinical researchers/scientists and clinicians with credible ideas working in recognized R&D Institutions can come together to submit the LOIs through email as per the format given below. Two hard copies of the same should be sent to Dr. Anamika Gambhir, Department of Biotechnology, Block-2, Room no.610, CGO Complex, Lodhi Road, New Delhi-110003, bearing the Advertisement No., and Title on the envelop in the format by 31<sup>st</sup> January 2020. (Email: [reproductivebiologydbt@gmail.com](mailto:reproductivebiologydbt@gmail.com)/[medbio2.hddb@nic.in](mailto:medbio2.hddb@nic.in)). **For any specific queries you may contact Dr Anamika Gambhir (9870396331)**

*Note: Format: Single space; Font: Arial; Size 12*

## **Proforma**

1. (i) Project/ Programme Title
  - (ii) Specific Area of your proposal
  - (iii) Single or Multi-centric
  - (iv) Names(s) of the Investigator(s),
  - (v) Institute address, Contact numbers etc.
2. Indicate category of domain expertise and potential PIs (Basic and/or clinical research). Multifaceted and multi-institutional collaborations encouraged.
3. Scientific Hypothesis and key questions to be addressed and Primary Objectives (100 words)
4. Detailed work plan i.e., how will you test the hypothesis/approach towards development of technology and solutions? (500 Words)
5. What is the novelty in your approach?
6. Feasibility of doing the study in your present institution/workplace.
7. Tentative budget (under the headings Non-recurring/Manpower/Recurring).
8. List 4-6 statements on expected deliverables (a) study outcomes (or) translational outcomes.
9. Professional Experiences and Training relevant to the project
10. CV of the investigators as per format (Annexure I).
11. Any other highlights

**(Annexure I)**

1. Name :.....
2. Date of Birth : ..... 3. Sex (M/F):.....
4. Designation .....
5. Department : .....
6. Institute/University : .....
7. Address :.....
- .....
- PIN : .....Telephone : ..... e-mail:.....
8. Specialization/Research Areas.....

9. Education Details (Post-graduation onwards & Professional Career)

SR. NO.	DEGREE AWARDED	INSTITUTION/PLACE	YEAR	FIELD OF STUDY

10. Employment Details: Position and Employment (Starting with the most recent employment)

SR. NO.	INSTITUTION/PLACE	DESIGNATION	FROM DATE	TO DATE

11. Awards/Honors Details

12. Details of ongoing/completed projects.

13. Publications of the last 5 years in relevant areas.