

## **BRIC-Translational Health Science and Technology Institute**

(An institute of the Biotechnology Research and Innovation Council,  
Department of Biotechnology, Ministry of Science and Technology, Govt. of India)

### **Request for Proposal (RFP)**

### **FOR**

**Transfer of Technology for Commercialization of a Consortium of Genetically Defined**  
***Lactobacillus paragasseri***

‘REP’ document can be downloaded from following websites:

**[www.thsti.res.in](http://www.thsti.res.in)**

**[www.eprocure.gov.in/epublish/app](http://www.eprocure.gov.in/epublish/app)**

**(RFP No: THSTI/S&P/RFP/01)**

**Dated: 09<sup>th</sup> October, 2025**

## **REQUEST FOR PROPOSAL**

**Subject: Request for Proposal for Transfer of Technology Transfer of Technology for Commercialization of a Consortium of Genetically Defined *Lactobacillus paragasseri*.**

BRIC-Translational Health Science and Technology Institute (BRIC-THSTI) Faridabad (herein after referred as 'the Institute' or 'THSTI') is an institute of the Biotechnology Research and Innovation Council (BRIC), Department of Biotechnology, Ministry of Science and Technology, Government of India.

The Executive Director, THSTI **Requests for Proposal (RFP)** from shortlisted agencies/firms that meet the eligibility criteria as outlined in the RFP document.

### **Schedule for the Request for Proposal**

Date of Publication	:	09/10/2025 at 1500 Hrs.
Last date and time for submission of Proposal by the Bidders	:	17/10/2025 at 1100 Hrs.
Date and time of opening of the Proposals	:	17/10/2025 at 11:30 Hrs.
Estimated Reserve Price	:	Rs. 50 Lakhs
Validity of the Proposal in response to RFP	:	120 days from the date of opening

**Note:**

- i. In case, the last date of receipt of RFPs and/or the day of opening of RFPs is declared as a Public Holiday or there is non- functioning of the institute due to any unavoidable reason, the next working day will be treated as the last date of receipt of RFPs and/or the day of opening of RFPs. The time will remain the same. No separate intimation will be given in this connection.
- ii. Kindly note that only offline submission of RFP will be considered against this RFP. Requests for extension of date and time for submission will not be entertained. The Executive Director, THSTI reserves the right to accept/ reject any or all RFP either in part or in full without assigning any reasons thereof.
- iii. In case of any clarification with regard to submission of RFPs, please contact to Sh. Manoj Kumar, Section Officer (S&P) (Tel: 0129-2876300/437) [manoj.kumar@thsti.res.in](mailto:manoj.kumar@thsti.res.in) and [purchase@thsti.res.in](mailto:purchase@thsti.res.in)

- iv. Interested bidders should submit their RFP in the prescribed format to the following address in hard copy:**

To,  
Sh. V. S. Rao,  
Administrative Officer (S&P),  
BRIC-Translational Health Science and Technology Institute (THSTI)  
Dept. of Biotechnology, Govt. of India,  
NCR Biotech Science Cluster,  
3rd Milestone, Faridabad–Gurugram Expressway,  
Faridabad- 121001 (Haryana)

**Sd/-  
AO (S&P)  
THSTI, Faridabad**

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## 1. Background:

BRIC-THSTI has established a consortium focused on *Lactobacillus paragasseri* for both nutraceutical and therapeutic applications. This unique, indigenous consortium consists of genetically defined and well-characterized strains that exhibit resistance to pathogens associated with the reproductive, respiratory, and gastrointestinal tracts, as well as anti-steatosis properties.

Our recent findings indicate that *L. paragasseri* also play a key role in reducing the risk of preterm birth (PTB). As part of this initiative, we will provide two complete genome sequenced well-characterized, active, and viable *L. paragasseri* cultures, along with comprehensive data on their genomes and phenotypic characteristics.

## 2. Purpose:

The purpose of this RFP is to obtain a **PROPOSAL** from the short-listed bidders for undertaking Transfer of Technology for commercialization of a consortium of *Lactobacillus paragasseri*. The Agencies/ Firms would be granted rights to undertake further development, manufacture, sell, and commercialize the Technology/Product “Transfer of Technology for Commercialization of a consortium of *L. paragasseri*” or undertake further R&D and commercialize the end product(s) /technology. An Agreement following RFP is proposed to be executed on a “Non-Exclusive” basis with single/multiple Agencies/ Firms.

## 3. Terms of reference:

The institute is willing to collaborate with eligible agencies/ firms for transfer of technology as proposed below:

- i. An RFP indicating on the potential use of a consortium for commercialization should be submitted by the agencies/firms.
- ii. The consortium may also be used for developing biotherapeutics against infections, metabolic disorders such as obesity, Type 2 diabetes, Metabolic dysfunction-associated steatotic liver disease (MASLD) etc.
- iii. The same consortium can be explored to develop biotherapeutics against antibiotic associated diarrheal disease and Pre-Term Birth (Reference: Talukdar et al., 2024, iScience; Talukdar et al., 2025, Genomics)
- iv. Proposal detailing the pathway to commercialize will be requested eligible agencies/ firms.

## 4. Additional notes on technical scope and deliverables:

- i. The bidder should clearly specify any other technical support or information required from the institute.
- ii. The bidder should clearly specify the potential commercial and R&D use of this consortium.
- iii. Any item which is not clear may be clarified by the bidder through email.

## 5. Role of the Institute & Bidder:

### a. Role of the Institute:

- i. **Characterization of *Lactobacillus paragasseri* strains:** We will evaluate strains produced in a GMP facility for their viability, pathogen resistance, and therapeutic potency against metabolic and infectious diseases, if needed.
- ii. **Genome Engineering:** In future, we aim to perform genome engineering of *L. paragasseri* to develop the next generation live recombinant biotherapeutics.
- iii. **Biofactory Development:** We will explore the potential of *L. paragasseri* as a biofactory for producing and secreting peptides of human or microbial origin, which have therapeutic applications.

**b) Role of Bidder:**

- i. The bidder shall have the required infrastructure, material, manpower, technical know-how, experience and regulatory understanding required for product development either directly or otherwise.
- ii. The bidder shall agree to share the technical data and participate in all discussions in a professional and mutually agreed-upon manner.
- iii. The bidder shall be responsible for obtaining all necessary regulatory approvals, covering the entire process from R&D and product development to commercialization.
- iv. The technology should only be used for product development and commercialization not for sub licencing to any third party.

**6. Terms & Conditions:**

- i. The bidder is required to submit a copy of this RFP document, with all pages signed by the authorized person, to confirm that bidder has read and understood the conditions of this RFP document and that the proposal is submitted in full understanding and agreement of the requirements of BRIC-THSTI.
- ii. The complete RFP shall be without alteration or erasures, except those to accord with instructions issued by the BRIC-THSTI or as necessary to correct errors made by the bidder, in which case, such corrections shall be initialled by the person or persons signing the RFP.
- iii. Wherever a specific form is prescribed in the RFP document, the bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the said information. For all other cases, the bidder shall design a suitable format to hold the required information.
- iv. BRIC-THSTI reserves the right to call for any clarifications confined in the broad scope, wherever such a clarifications become necessary for proper judgment in evaluation.
- v. All amounts received in connection with the transfer of the technology are strictly non-refundable and will not be refunded under any circumstances.
- vi. THSTI will issue the applicable proforma/ tax invoices for receipt of amount from the bidder.

**7. Intellectual Property Rights (IPR) & Licensing:**

- i. Intellectual Property (IP) shall mean patents, rights to inventions, copyright and related rights, moral rights, rights in designs, rights in trademarks, rights to preserve the confidentiality of information (including know-how and trade

secrets) and any other intellectual property rights, in each case whether registered or unregistered and including all applications (or rights to apply for and be granted), divisional, continuations, continuations-in-part, reissues, renewals or extensions of, and rights to claim priority from, such rights and all similar or equivalent rights or forms of protection which subsist or will subsist now or in the future in any part of the world regarding subject matter disclosed in Licensed patents.

- ii. In case of Transfer of Technology, institute is the sole owner of the said Technology, including any underlying Intellectual Property(ies) and commercialization rights.
- iii. Institute is lawfully entitled to enter into any form of non-exclusive License Agreements with selected agencies/ firms including transfer of the Technology through suitable Agreement(s). Background Intellectual Property (“BGIP”) shall always remain the sole and Non-exclusive property of the Party generating the BGIP.
- iv. The institute is lawfully entitled to enter into any form of non-exclusive License Agreements with selected agencies/firms including Transfer of the Technology through suitable Agreement(s).
- v. In additions to the above, all the IPR related terms and conditions will be decided based on the IPR guidelines issued by the Department of Biotechnology, Govt. of India vide its O.M No. PID-14011/1/2022-MED-DBT dt. 06.09.2023 as amended time to time.
- vi. Publication: The institute would reserve the sole right to publish or not to publish the technology.
- vii. Data Rights: The existing data rights shall be solely owned by the institute.

8. **Process involved in Technology Transfer:** Active cultures of genetically defined two strains of *Lactobacillus paragasseri* will be provided to the selected bidders for culturing appropriate growth conditions for their subsequent commercial use after execution of agreement.

9. **Techno Commercial bid:** The Techno Commercial bid should be submitted as per the format at **Annexure-I & II**.

10. **Authorized Signatory:** The ‘Applicant’ mentioned in the RFP document shall mean the one who has signed the Proposal document forms. The applicant should be the Head of the laboratory/institution/organization or a duly Authorized Representative, for which a Certificate of Authority shall be submitted. All certificates and documents (including any clarifications sought and any subsequent correspondence) submitted thereby, as far as possible, shall be furnished and signed by the Authorized Representative.

11. **Documents to accompany the proposal:** The complete proposal shall be submitted in “techno commercial bid” in one part viz. Technical proposal cum Financial Bid as detailed below in sealed envelope:

**Contents of the Envelope:**

- i. Technical proposal cum Financial Bid.

- ii. RFP document duly sign & stamped on all pages.
- 12. Bid Evaluation Criteria/ Methodology for Selection:** THSTI may constitute an evaluation committee and the technology may be transferred to the bidder who quoted the highest price (H1).
- 13. Rejection of Proposal:** The Proposal is liable to be rejected if:
- i. The proposal is not submitted as per the requirements indicated in the RFP.
  - ii. Not in the prescribed format.
  - iii. Not properly stamped and signed as per requirements.
  - iv. Received after the expiry of due date and time.
  - v. All relevant supporting documents are not furnished.
  - vi. The proposal shall be substantially responsive without any material deviation.
  - vii. Proposal not fulfilling the terms of the document will be summarily rejected.
  - viii. Any other non-compliance.
- 14. Commercial Terms:** The 100% amount to be paid to the THSTI before receiving the technology.
- 15. Default or failure:**
- a) Default or failure by the bidder in any of the under mentioned cases, including but not limited to the following shall be the basis of taking action under this clause of the RFP which may include termination:
    - i. This technology should be used exclusively for nutraceutical purposes, in full compliance with the relevant guidelines.
    - ii. Sub-licensing of the technology for commercial purposes is strictly prohibited.
    - iii. If the bidder misconducts in any manner.
    - iv. If there is any change in the constitution of the bidder or in the circumstances or organization of the bidder, which is detrimental to the interests of the institute.
    - v. Dissolution of the bidder (If a firm or commencement of liquidation) or winding up (whether voluntary or compulsory) of the bidder (if a company or appointment of a receiver or Manager of any of the bidder's assets and / or insolvency or the bidder (if a sole proprietorship) or of any partner of the bidder (if a firm).
    - vi. If the bidder or any person employed by him shall make or offer for any purpose connected with the contract any gift, gratuity, royalty, commission, gratification or other inducement (whether money or in any other form) to any employee or agent to the institute.
  - b) Any rework required due to error or technical decision of the bidder will be at the bidder's own expense.



16. **Termination:** BRIC-THSTI may terminate the contract at any time by written notice, without affecting its right to claim damages for delay, poor work, bad workmanship, or any other breach of the contract.

17. **Arbitration:**

Any claim, dispute or difference arising out of or in connection with this REOI and the subsequent RFP and which cannot be settled by mutual consultations, shall be referred to sole Arbitration or an Arbitrator to be appointed by mutual consultations. The award of the Arbitrator shall be final and binding between the parties as per the terms and conditions of the Agreement to be executed on award of contract. The Arbitration proceeding shall be governed by the Arbitration and Conciliation Act, 1996 and the seat of arbitration shall be Haryana.

18. **Jurisdiction of Dispute:** All dispute(s) under this REOI shall be subject to the jurisdiction of Punjab and Haryana High Court.

19. **Terms not expressly provided for:** In case this REOI document does not contain provisions or terms for dealing with a situation that may arise during the execution of the works, the relevant provisions contained in the General Financial Rule 2017 or other relevant rules of the Govt. of India shall be followed and the same will be binding on the bidder.

## **Schedule A-Technology Details: -**

### **I. About Technology: -**

The bacterial consortium comprises two distinct strains of *Lactobacillus paragasseri*, both isolated from the reproductive tract of pregnant Indian women enrolled in the GARBH-Ini cohort. This particular strain has been completely sequenced, revealing its unique genomic characteristics that contribute to its beneficial properties. *Lactobacillus paragasseri* demonstrates significant antimicrobial activity against a broad range of pathogens, including those responsible for urinary tract infections, respiratory tract infections, bloodstream infections, gastrointestinal infections, and skin infections. This antimicrobial potential plays a vital role in supporting a healthy vaginal microbiome and providing protection against infections. Additionally, studies suggest that these strains help reduce the risk of preterm birth, highlighting its potential as a preventive agent in maternal and neonatal health. By promoting a balanced microbiota, *Lactobacillus paragasseri* not only supports reproductive health but also contributes to better pregnancy outcomes. The comprehensive genomic analysis of these strains, along with relevant laboratory experiments, deepens our understanding of its mechanisms and lays the groundwork for its use in probiotic therapies designed to enhance maternal and infant health across diverse populations.

### **II. Need and utility of the Technology from Public Health Perspective: -**

The bacterial consortium comprising two distinct strains of *Lactobacillus paragasseri* address critical public health needs. With rising concerns over maternal and neonatal health, particularly the incidence of preterm births and infections during pregnancy, this technology offers a promising solution. The complete genomic sequencing of these strains has unveiled their unique characteristics, demonstrating significant antimicrobial activity against various pathogens. Furthermore, these strains have demonstrated the ability to reduce hepatic and visceral fat accumulation, along with exhibiting cardioprotective effects, highlighting their strong potential for development as therapeutic agents against various metabolic disorders, including metabolic dysfunction-associated steatotic liver disease (MASLD). This innovative approach to probiotic therapy not only supports reproductive health but also aligns with public health goals to enhance maternal and infant well-being across diverse populations, ultimately contributing to healthier communities.

### **III. Product Features: -**

Whole genome sequenced, genetically characterized indigenous microbial isolates exhibit both pathogen resistance and anti-steatosis properties, making them valuable in promoting human health. These isolates have been significantly associated with positive term birth outcomes and demonstrate a reduced risk of preterm birth, highlighting their potential role in enhancing reproductive health. Additionally, this consortium has shown promising anti-steatosis functions in preclinical animal models, suggesting that these microbial strains may also play a beneficial role in metabolic

health. The *Lactobacillus paragasseri* isolates successfully produced curd from both cow and buffalo milk under optimal growth conditions.

**IV. IP Filling Status/Publications:** - The details of publications from THSTI is stated as below: -

**IP:**

- a. **Bhabatosh Das**, Lekshmi N, Wadhwa N, Banerjee S. Genetically defined consortium of *Lactobacillus paragasseri* strains with antimicrobial, anti-steatosis, cardioprotective properties and development method. **Application Number: 202511069724. Year 2025**

**Publications:**

- a. Talukdar D, Raju YJ, Jana P, Sharma K, Babele P, Kothidar A, Ahrodia T, Narendrakumar L, Shyam KR, Singh U, Tanwar S, Harle S, Chaudhuri S, Raghavan S, Wadhwa N, Mukherjee S, Bhatnagar S, **Das B**; GARBH-Ini study group. Genomic insights into the potency and functional roles of *Lactobacillus* species in term and preterm births. *Genomics*. 2025 Jul;117(4):111063.
- b. Talukdar D, Sarkar M, Ahrodia T, Kumar S, De D, Nath S, Jana P, Verma J, Mehta O, Kothidar A, Yodhaanjali Y, Sharma K, Bakshi S, Singh U, Kshetrapal P, Wadhwa N, Thiruvengadam R, GARBH-Ini study group, Nair GB, Bhatnagar S, Mukherjee S, **Das B**. (2024) Preterm birth in early pregnancy through vaginal microbiome signatures using metagenomics and dipstick assays. Volume 27, Issue 11111238 November 15, 2024 *iScience*.
- c. Kumar S, Kumari N, Talukdar D, Kothidar A, Sarkar M, Mehta O, Kshetrapal P, Wadhwa N, Thiruvengadam R, Desiraju BK, Nair GB, Bhatnagar S, Mukherjee S, **Das B**. The Vaginal Microbial Signatures of Preterm Birth Delivery in Indian Women. *Front Cell Infect Microbiol*. 2021;11:622474. doi: 10.3389/fcimb.2021.622474. eCollection 2021.
- d. Mehta O, Ghosh TS, Kothidar A, Gowtham MR, Mitra R, Kshetrapal P, Wadhwa N, Thiruvengadam R, Nair GB, Bhatnagar S, **Das B**. Vaginal Microbiome of Pregnant Indian Women: Insights into the Genome of Dominant *Lactobacillus* Species. *Microb Ecol*. 2020 Aug;80(2):487-499. doi: 10.1007/s00248-020-01501-0.

## ANNEXURE-I

### LETTER OF PROPOSAL SUBMISSION

To,  
Executive Director  
Translational Health Science and Technology Institute  
NCR Biotech Science Cluster, 3rd Milestone,  
Faridabad-Gurgaon Expressway, Faridabad

Subject: Letter for Proposal Submission  
Ref: RFP No: THSTI/S&P/RFP/01

Dear Sir(s):

We, the undersigned, offer to undertake the ‘Transfer of Technology for Commercialization of a Consortium of Genetically Defined *Lactobacillus paragasseri*’ in accordance with your RFP referred above. We are hereby submitting our Proposal, which is included in this Technical cum Financial Proposal.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification.

Our Proposal is binding upon us.

We understand you are not bound to accept any Proposal you receive.

Name of Firm  
Authorized Signature [In full and initials]  
Name and Title of Signatory  
Address

**Authorization Letter**  
**(To be submitted on Facility's Letter Head)**

To,  
Executive Director  
Translational Health Science and Technology Institute  
NCR Biotech Science Cluster, 3rd Milestone,  
Faridabad-Gurgaon Expressway, Faridabad

Subject: Letter for Authorized Signatory  
Ref: RFP No: THSTI/S&P/RFP/ 01

Sir,  
This has reference to your above-mentioned RFP for Transfer of Technology for Commercialization of a Consortium of Genetically Defined *Lactobacillus paragasseri*.

Mr./Ms./Mrs./Dr ..... is hereby authorized to submit the Proposal document in response to the RFP and participate in the processing on behalf of M/s..... (Name of the organization), whose signature is below.

(Specimen Signature of Representative)

Date:

Place:

Yours faithfully,

(Signature of the Authorized signatory)

Name:

Designation:

Seal:

Place:

**ANNEXURE-II****FORMAT FOR FINANCIAL BID**

<b>S. No</b>	<b>Particulars</b>	<b>Amount</b>
1	Transfer of Technology for Commercialization of a Consortium of Genetically Defined <i>Lactobacillus paragasseri</i>	
2	GST	
<b>Total</b>		

**Note: -**

- a. All the applicable taxes will be charged extra such as TCS, TDS, GST etc.

.....**End of the Document**.....