EOI No. ICMR / EOI / qRT-PCR / 2021 Dated 19/02/ 2021

**Indian Council of Medical Research, New Delhi**

**Invites**

**Expression of Interest (EOI)**

**For**

**Transfer of Technology for Development of TaqMan SARS CoV -2 multiplex RT PCR for screening human respiratory samples**

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1. **Letter of Invitation**

**INVITATION OF EXPRESSION OF INTEREST**

Indian Council of Medical Research, New Delhi, invites Expression of Interest (EOI) through email from experienced Indian agencies for undertaking ***Transfer of Technology for Development of TaqMan SARS CoV -2 multiplex RT PCR for screening human respiratory samples.***

The EOI Document containing the details of qualification criteria, submission details, brief objective & Scope of work and evaluation criteria etc. can be downloaded from the ICMR website

Schedule for the Proponents is as under:

|  |  |
| --- | --- |
| EOI Document Number | ICMR / EOI / qRT-PCR / 2021 dated 19/02/2012 |
| Date of Publication | 19/02/2021 |
| Last date/Time of submission | 05/03/2021 |

Note: Due to the current COVID-19 situation, the EOI may be submitted through email to sadhana\_s@ymail.com and wasona.hq@icmr.gov.in. Shortlisted manufacturing companies shall only be contacted for the further process of Technology Transfer. ICMR reserves the right to cancel this request for EOI and/ or invite afresh with or without amendments, without liability or any obligation for such request for EOI and without assigning any reason. Information provided at this stage is indicative and ICMR reserves the right to amend/add further details in the EOI.

**2. Background**

The Indian Council of Medical Research (ICMR), New Delhi, the apex body in India for the formulation, coordination and promotion of biomedical research, is one of the oldest medical research bodies in the world. The ICMR has always attempted to address itself to the growing demands of scientific advances in biomedical research on the one hand and to the need of finding practical solutions to the health problems of the country, on the other. The ICMR has come a long way from the days when it was known as the IRFA, but the Council is conscious of the fact that it still has miles to go in pursuit of scientific achievements as well as health targets.

**3. Objective**

National Institute of Virology (NIV), Pune one of the constituent Institutes of the Indian Council of Medical Research (ICMR), New Delhi, has developed a new and useful TECHNOLOGY, (Technology as indicated in **Schedule-A**) and is the owner of said TECHNOLOGY including any underlying Intellectual Property(ies) and Commercialization rights. By virtue of financial support and research endeavour provided by ICMR, they legally possess the rights and authority to retain full or part of the ‘TECHNOLOGY’ by itself or to assign at its discretion full or part of the TECHNOLOGY including any patent(s) or intellectual property rights(s) on the invention(s) arising out of such endeavours, and/or ICMR is lawfully entitled to enter into any form of non-exclusive license agreements with selected manufacturer / manufacturers including transfer of the TECHNOLOGY through suitable agreement to any other interested manufacturers.

**4. Broad Scope of Work**

Subject to the terms and conditions of an Agreement, ICMR shall grant a non‐exclusive License to the manufacturer (s), a royalty bearing right and license to use and practice the Technology and PROCESSES (“Licensed Technology”) to manufacture, sell and commercialise the Product (Technologies as indicated in Schedule-A) in the designated Territory, including without limitation the right to use, copy, modify, distribute, make derivative works of and otherwise exploit the Licensed Technology including a non‐exclusive right to manufacture, sell and market Products worldwide and the right to use Licensed Technology for manufacturing Products worldwide; during the Term of this Agreement (“License”). The agreement is proposed to be executed on “Non-Exclusive” basis with multiple manufacturers, due to the large quantity demand of CODID-19 RT PCR test kits that is being envisaged.

Manufacturers may quote Royalty not less than 5 % (five percentage) on Net Sales of the PRODUCT on half yearly basis as entered in the books of account maintained by LICENSEE, up to 31st March and up to 30th September respectively every year regularly and punctually and in any event not later than the first day of May and first day of November immediately following in every such year provided that the liability of the LICENSEE to pay royalty under and in terms of this sub‐clause (A) shall accrue upon the commencement of the commercial sale of the Product (“**Royalty**”) manufactured at the plant and shall continue till the Term from such commencement and after the Term the Licensed Technology will be royalty free. In the event of default in payment of royalty as above, interest @ 2% (two percentage) per annum on the Royalty due shall be charged for the first six months. If default persists for more than six months interest at similar rate will be charged on the accrued interest also from the due dates of payments till realisation/recovery of such amounts by the LICENSOR. Taxes and levies, as made applicable by the Government, shall be charged at the time of payments made to LICENSOR over and above the payments mentioned in this Agreement.

This LICENCE shall be valid from the EFFECTIVE DATE and subject to covenants and conditions herein contained and shall remain in force for a period of twenty (20) years commencing from the accrual of LICENSEE’s obligation to pay Royalty to LICENSOR, after the commercialization of the Product (the “Term”). After the period of 20 years the LICENSE will be royalty free.

“**NET SALES**”, means, with respect to a given calendar quarter, the gross amount invoiced, less the deductions calculated in accordance with the Indian Accounting Standards.

**5. Instructions to Proponents**

**5.1 Documents to furnish**

Proponents are requested to go through all pre-qualification requirements, scope of work for execution & requirements w.r.t technical / financial capabilities for acceptance and submission of documents for verification by ICMR.

Documents to be furnished are:

1. Authorization Letter (Format – 1)
2. Declaration - Expression of Interest (Format – 2)
3. Undertaking with regard to Blacklisting (Format-3)
4. Undertaking with regard to Non-Litigation (Format – 4)
5. Production Capacity Undertaking (Format-5)
6. Royalty Offer (Format-6)
7. EOI document with each page duly stamped and signed by the Authorized signatory.
8. Supporting documents, as mentioned in Format-2
9. MSME Certificate (if applicable)
10. Any other information which proponent may like to provide.

ICMR reserves the right to call for any clarifications confined in the broad scope, wherever such a clarification become necessary for proper judgment in evaluation.

**5.2 Rejection Criteria**

 The application is liable to be rejected if:

1. The proposal is not submitted as per the requirements indicated in the EOI.
2. Not in the prescribed format.
3. Not properly stamped and signed as per requirements.
4. Received after the expiry of due date and time.
5. All relevant supporting documents are not furnished with the PQC.
6. The proposal shall be substantially responsive without any material deviation, failing which the proposal shall be summarily rejected.

**5.3 Disclaimer**

1. ICMR shall not be responsible for any late receipt of applications for any reasons whatsoever.
2. ICMR reserves the right to reject all applications without assigning any reasons thereof.
3. ICMR may relax or waive any of the conditions stipulated in this document as deemed necessary in the best interest of the ICMR without assigning any reasons thereof.
4. To include any other item in the Scope of work at any time after consultation with proponents or otherwise.

**6. Evaluation Methodology**

Screening of EOIs shall be carried out as per Pre-Qualification criteria mentioned in the EOI document and based on verification of documents submitted.

Shortlisted proponents shall be sent the Memorandum of Understanding (MoU), Material Transfer Agreement (MTA) and other required documentations.

**7. Pre-Qualification Criteria (PQC)**

The following will be the minimum Pre-Qualification Criteria (PQC). Responses not meeting the minimum PQC will be summarily rejected and will not be evaluated further:

|  |  |  |
| --- | --- | --- |
| **Sl. No.** | **Pre-Qualification Criteria** | **Supporting copy of documents required*****(All documents must be self-attested by the authorised person of the proponent).*** |
| 1 | The proponent shall be a legal entity, registered as a Company/LLP/Society/ partnership firm/ proprietorship firm under respective acts in India. | Company Incorporation Certificate from ROC/Partnership deed etc. |
| 2 | The proponent must be registered in India with taxation and other administrative authorities. | GST Registration or GST exemption certificate/ PAN Card |
| 3 | The proponent should have manufactured qRT PCR products for any other disease, atleast in three (3) immediate preceding years (2017-18 to 2019-20). | Pamphlet / brochure of the product |
| 4 | The proponent has to be profitable and should not have incurred loss atleast in three (3) immediate preceding years (2017-18 to 2019-20). | Certificate from the Chartered Accountant of the Organization/ Audited Balance sheets for last three financial years or Income Tax return. |
| 5 | The proponent should not have been black-listed by any Central /State Government / Public Sector Undertaking, Govt. of India, atleast in three (3) immediate preceding years (2017-18 to 2019-20). | Undertaking on the Letter Head of the Proponent duly signed & Stamped by Authorized Signatory (As per format – 3). |
| 6 | The proponent should have a registered office and a manufacturing Unit in India | Registration copies of both |
| 7 | The proponent should not be involved in any major litigation that may have an impact of affecting or compromising the conditions required under this EOI and in the MoU. | Undertaking on Proponent’s Letter Head, duly signed and stamped by the Authorized Signatory (As per format – 4) |
| 8 | GMP and ISO Certification | Registration copies of both |
| 9 | DCGI License, can be obtained parallely | Licence copy |
| 10 | Capacity to produce at least one lakh qRT-PCR test kits per week | Undertaking (As per format – 5) |
| 11 | Royalty offer | (As per format – 6) |

 In case of any clarification required, please contact:

For scientific issues

Dr. Varsha Potdar, Scientist-D, ICMR-NIV, Pune - 9890307757

For Administrative issues

Dr. R. Lakshminarayanan, ADG (A), ICMR, New Delhi - 9422517998

**Format-1**

**Authorization Letter**

(To be submitted on Agency’s Letter Head)

To,

The Director General,

Indian Council of Medical Research,

Ansari Nagar, New Delhi.

Subject: Letter for Authorized Signatory

 Ref. No. Ref: EOI No. ICMR / EOI / qRT-PCR / 2021 dated 1st January 2021

Sir,

This has reference to your above mentioned Expression of Interest (EOI) for Transfer of Technology for Development of TaqMan SARS CoV‐2 multiplex RT PCR for screening human respiratory samples.

Mr./Miss/Mrs/Dr \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is hereby authorized to submit the EOI documents and participate in the processing on behalf of M/s\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Agency Name).

The specimen signature is attested below:

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(Specimen Signature of Representative)

 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Yours faithfully,

(Signature of the Authorised signatory)

Name:

Designation:

Seal:

 Date:

 Place:

**Format-2**

**Expression of Interest**

*(To be submitted on Agency’s Letter Head)*

To

The Director General

Indian Council of Medical Research,

Ansari Nagar, New Delhi.

Subject: Submission of Expression of Interest (EOI) for Transfer of Development of TaqMan SARS CoV‐2 RT PCR for screening human respiratory samples.

 Ref: EOI No. ICMR / EOI / qRT-PCR / 2021 dated 1St January 2021

Sir,

The undersigned having read and examined in detail all the EOI documents pertaining to your transfer of technology, do hereby express the interest to undertake the manufacture of the product as mentioned in the EOI document. The details of the Company and contact person are given below:

|  |  |  |
| --- | --- | --- |
| 1 | Name of the Proponent |  |
| 2 | Address |  |
| 3 | Name, designation & address of the person to whom all references shall be made |  |
| 4 | Telephone No. (with STD code) |  |
| 5 | Mobile No. of the contact person |  |
| 6 | Email ID of the contact person |  |

The following documents are enclosed:

|  |  |  |  |
| --- | --- | --- | --- |
| Sl. No. | Documents required | Type of document attached | Page No. |
| 1 | Company Incorporation Certificate from ROC/Partnership deed etc. |  |  |
| 2 | GST Registration or GST exemption certificate/ PAN Card. |  |  |
| 3 | Pamphlet or Brochure |  |  |
| 4 | Certificate from the Chartered Accountant of the Organization/Audited Balance sheets for last three financial years, Income Tax return. |  |  |
| 6 | Proof of a registered office and a manufacturing Unit in India. |  |  |
| 8 | GMP and ISO Certification. Registration copies of both |  |  |
| 9 | DCGI License  |  |  |
| 10 | Authorization Letter | As per format – 1 |  |
| 11 | Expression of Interest | As per format – 2 |  |
| 12 | Undertaking on the Letter Head of the Proponent duly signed & Stamped by Authorized Signatory (As per format – 3). | As per format – 3 |  |
| 13 | Undertaking on Proponent’s Letter Head, duly signed and stamped by the Authorized Signatory  | As per format – 4 |  |
| 14 | Undertaking to produce atleast one lakh test kit per week | As per format – 5 |  |
| 15 | Royalty Offer | As per format – 6 |  |
| 16 | MSME Certificate (if applicable) |  |  |

I/we hereby declare that my/our EOI is made in good faith and the information contained is true and correct to the best of my/our knowledge and belief.

Thanking you,

Yours faithfully,

(Signature of the Authorised signatory)

Name:

Designation:

Seal:

 Date:

 Place:

**Format-3**

**Undertaking with regard to blacklisting**

*(To be submitted on Agency’s Letter Head)*

To,

The Director General,

Indian Council of Medical Research,

Ansari Nagar, New Delhi.

Subject: Undertaking regarding Blacklisting / Non-Debarment

Ref. No. Ref: EOI No. ICMR / EOI / qRT-PCR / 2021 dated 1January 2021

Sir,

It is hereby confirmed and declared that M/s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is not blacklisted/debarred by any Government Department/Public Sector Undertaking/ Private Sector/or any other agency for which works/assignments/services have been executed / undertaken.

Yours faithfully,

(Signature of the Authorised signatory)

Name:

Designation:

Seal:

 Date:

 Place:

**Format-4**

**Undertaking with regard to Non-Litigation**

*(To be submitted on Agency’s Letter Head)*

To,

The Director General,

Indian Council of Medical Research,

Ansari Nagar, New Delhi.

Subject: Undertaking regarding Litigation

Ref. No. Ref: EOI No. ICMR / EOI / qRT-PCR / 2021 dated 1st January 2021

Sir,

It is hereby confirmed and declared that M/s -------------------------------------, does not have any litigation / arbitration history with any Government department/ Public Sector Undertaking/ / or any other public authority with which any MoU was / has been executed / undertaken.

Yours faithfully,

Signature of the Authorised signatory)

Name:

Designation:

Seal:

 Date:

 Place:

**Format-5**

**Undertaking with regard to production capacity**

*(To be submitted on Agency’s Letter Head)*

To,

The Director General,

Indian Council of Medical Research,

Ansari Nagar, New Delhi.

Subject: Undertaking regarding Production Capacity

Ref. No. Ref: EOI No. ICMR / EOI / qRT-PCR / 2021 dated 1st January 2021

Sir,

It is hereby confirmed and declared that M/s -------------------------------------, does have the capacity (including fund, material, staff etc) to produce and market atleast 01 (one) lakh test kits per week of TaqMan SARS CoV‐2 multiplex RT PCR for screening human respiratory samples.

Yours faithfully,

(Signature of the Authorised signatory)

Name:

Designation:

Seal:

 Date:

 Place:

**Format-5**

**Undertaking for Royalty**

*(To be submitted on Agency’s Letter Head)*

To,

The Director General,

Indian Council of Medical Research,

Ansari Nagar, New Delhi.

Subject: Undertaking for Royalty

Ref. No. Ref: EOI No. ICMR / EOI / qRT-PCR / 2021 dated 1st January 2021

Sir,

It is hereby confirmed that M/s -------------------------------------, agrees to pay a Royalty of ---- % (in words----) on Net Sales to the ICMR, as per the terms for the Transfer of Technology of TaqMan multiplex RT-PCR for SARS CoV‐2 detection for screening human respiratory samples

Yours faithfully,

(Signature of the Authorised signatory)

Name:

Designation:

Seal:

 Date:

 Place:

**SCHEDULE – A**

**TECHNOLOGY**

**Development of TaqMan SARS CoV‐2 multiplex RT PCR for screening human respiratory samples.**

**ICMR’s invention/Collaborated Inventions:**It is developed by ICMR- National Institute of Virology (ICMR-NIV), Pune, India a premiere institute of ICMR.

**Inventors:**Dr. V A Potdar

**Co-Inventors:** Mrs Sheetal Jadhav, Mrs Veena Vipat , Dr M L Chaudhary

**Coordinators:** Dr. Priya Abraham, Director, Scientist G, ICMR-NIV, Pune

 **Need of Technology:** A new coronavirus, SARS-CoV-2, has emerged in 2019 and caused a human pandemic. Molecular diagnostic real time based test is the test of choice. ICMR –NIV Pune has developed single tube multiplex assay, which also passed multicentre (10 sites across India validation with 98 to 100 % concordance. The assay was also used to decode WHO EQAS panel. The results were 100% concordance. The kit is widely used by as gold standard assay by Government laboratories. Since the emergence of pandemic molecular test were rapidly developed, yet very few kits passed ICMR Validation criteria. Public health interventions are depend on early accurate and reliable laboratory diagnosis. It is also key factor for clinical management, quarantine measures and contact tracing. The assays are important to evaluate rapid antigen kits and evaluating antiviral drugs.

**Technology details:**

***Selection of target genes:***

The composition of the kit was adapted from immediately available WHO protocols in early phase of pandemic. The protocol was validated using control material (synthetic RNA for E gene) made available from European Virus Archive – Global (EVAg), a European Union infrastructure project and the plasmid DNA of SARS CoV-1 received from Univercity of Hong Kong.

The target genes includes Sarbaco group specific E gene, SARS CoV 2 specific ORF1b and RdRP gene along with housekeeping gene as *Beta* Actin

***Preparation of positive control (In vitro Transcribed RNA)***

*in vitro* transcribed (IVT) RNA was synthesized using T7 Riboprobe (Promega). Ten-fold serial dilutions of each transcribed RNA product were tested with respective gene primer probes sets for specific detection and limit of detection.

**Validation of the kit**

The kit was validated as per ICMR validation SOP by 10 VRDL laboratories validated the kit using 75 SARS CoV-2 positive including low medium and high CT values and 85 SARS CoV-2 negatives .The specificity and sensitivity of the kit was evaluated. All the 10 site had 100% specificity and 98-100% sensitivity. Analytical sensitivity / limit of detection was determined using 10-fold serial dilutions (~108 to 10 RNA copies/ µl) of in-vitro transcripts (RNA) of either E or ORF1ab or RdRp gene of SARS-CoV-2 .

**Application areas/Applicability:**

* Single tube multiplex RT PCR test developed for detection of SARS CoV-2 viral RNA in suspected cases.
* To check the reinfection
* To check the SARS Cov-2 status before vaccination.
* In anti SARS CoV-2 property of compound

**Unique points:**

* The NIV Single tube multiplex assay has one screening and two confirmatory genes along with housekeeping gene. This will be robust detection system and provide occlusive results for suspected case of SARS CoV-2.
* This is a gold slandered assay ,used by ICMR VRDL laboratories for large Scale testing
* This is the first SARS CoV-2 viral RNA detection kit and is cost-effective for an Indian setting. This will be useful for screening and confirming SARS-CoV-2 in suspected patients as well as studying the timing and duration of the antibody response.
* The test developed is rapid, cost-effective, user friendly and can detect SARSCoV-2 viral RNA in respiratory sample.
* It can give high through put testing capacity 93 samples per run in short turnaround time ( actual run time is 45 mints )
* The kit reagents are stable at -200 C for long time i.e. 24 months from the date of preparation. ( Currently we could complete 12 month stability test )

**Up scaling Status**

* The technology has been developed up to a large scale.
* Individual kit lots will be tested for QA/Qc and only then dispatched as per need.
* Till date 57 Lakh reagents were distributed to Government laboratory all over India

**Validation (3rd party):  Passed WHO External Quality assurance program in 2020 and 2021 with 100% concordant.**

**Patent profile:** Not applicable

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