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## **EXPRESSION OF INTEREST**

# Wildlife Genomics and Bioinformatics Services

The Wildlife Institute of India has initiated research programs focusing on wildlife genomics and associated bioinformatics for species conservation. In order to maximise the use of these rapidly evolving tools in conservation genomics, the Institute invites an 'Expression of Interest' from competent agencies that is willing to work on a Public-Private collaboration and provide relevant facilities towards wildlife genomics. The contract will be initially for a period of three years, but extendable for another period of up to two years on mutually agreeable terms and conditions.

Detailed information of the required procedure can be downloaded from the Institute's website.

Expression of Interest completed in all respects should reach by SPEED POST in a sealed envelope superscribed 'EOI for Wildlife Genomics Facilities' on or before 15.02.2022 to the Registrar, Wildlife Institute of India, Chandrabani, Dehradun-248001 (Uttarakhand). Application received late will not be considered by the Institute. Director, Wildlife Institute of India, reserves the right to reject or all application without assigning any reason

Registrar
Wildlife Institute of India
Dehradun

# <u>Invitation for Expression of interest for collaborative research on</u> 'Wildlife Genomics and Bioinformatic Services'

#### **Background**

The Wildlife Institute of India (WII) established in 1982 is an internationally acclaimed Institution, offering training programmes, academic courses and advisory services in wildlife research and management. The Institute is actively engaged in research across the country on a range of wild animal and plant species and ecosystems in different biogeographic zones.

The Wildlife Institute of India has recently expanded its research focus on genomics and associated bioinformatics tools to understand evolutionary trends and conservation of various species, useful in devising management priorities and actions. In order to maximise the use of these rapidly evolving tools in conservation genomics, the Institute wishes to conduct collaborative research in a Public-private partnership mode, and invites an expression of interest from competent agencies in this regard.

#### **Terms and Conditions:**

### A) Infrastructure

- i. The agency/ laboratory should be DSIR approved to carry out research in wildlife genomics. All of the collaborative research needs to be carried out within India and no sample can be sent outside the country.
- ii. The agency should be leading provider of genomics services and solutions in India with recent next generation sequencing platforms available with them.
- iii. The agency should be well equipped with latest whole genome sequencing instruments (including short and long read sequencing and genotyping platforms) to carry out almost all possible applications applied for wildlife genomics.
- iv. The laboratory should be well equipped with working spaces for DNA and RNA isolations, ultra-molecular weight DNA and RNA library preparations, long read sequencing library preparation, fragment analyzer etc.
- v. The firm should be equipped with high end computing clusters to carry out bioinformatics analyses.

## B) Prior experiences

- The agency should have prior research experience working with research institutes involved in wildlife conservation. The agency should have at least 5-10 years of experience in providing genomic services to government institutes and associated labs.
- ii. The agency should provide track records/certificates of sequencing and analyzing genomes and transcriptomes of various wild species (including

plants, birds, animals etc.). Publications in the field of wildlife genomics and experiences with data submissions to repositories are essential.

### C) Research applications

- i. The agency should be able to carry out genome survey and generate denovo and reference genomes using latest techniques in a cost-effective manner. Further, the agency should provide the following facilities:
  - genome resequencing
  - identification of structural variants
  - optical mapping
  - hi-C scaffolding
  - full length transcriptome for tissue specific gene mining
  - differential gene expression
  - miRNA discovery
  - SNP genotyping
- ii. The agency should provide end-to-end genomic services ranging from genotyping by sequencing (GBS) to largest long read sequencing
- iii. The agency should provide full length metagenomics sequencing applications
- iv. The agency should provide no amplification (No-AMP) targeted sequencing applications
- v. The agency should providevarious Trio Binning applications using genomic data
- vi. The firm should provide low (<10k), mid ( $\sim$ 50k) and high (>700k) density SNP panel chip design technology for wild species
- vii. The agency should have a team with expertise in low quality/ low quantity samples in genomic research and associated bioinformatics analyses.
- viii. The agency should be willing to work with WII in a collaborative manner with WII scientists. If they have already performed in such manner with any other Institute, they should provide relevant documents to demonstrate the same.

The Bidders should submit the above documents along with the bid.

#### **Evaluation Process**

The agency will be shortlisted based on the above-mentioned parameters and presentation. A Committee duly constituted by Wildlife Institute of India will carry out a preliminary screening of all the received bids and will shortlist the bidders fulfilling the prescribed requirements. Selection Committee reserves the right to accept or reject any or all the bids at any time prior to award of contract/order, without assigning any reasons and without incurrence of any liability on Wildlife Institute of India. The Committee also reserves the right to negotiate the prices with the selected bidders to bring down the prices.

## **Proposal Invited**

Expression of Interest completed in all respects should reach by SPEED POST/REGISTERED POST in a sealed envelope superscribed **'EOI for Collaborative Wildlife Genomics Research**' on or before **15.02.2022** to the Registrar, Wildlife Institute of India, Chandrabani, Dehradun- 248001(Uttarakhand).