# INTER UNIVERSITY CENTRE FOR BIOMEDICAL RESEARCH & SUPER SPECIALITY HOSPITAL

(An Autonomous Institution of Govt. of Kerala under Mahatma Gandhi University)
Rubber Board P.O., Thalappady, Kottayam, Kerala – 686 009, India

No. 33/A1/2019/IUCBR&SSH                                             Dated: 05.10.2020

## TENDER NOTICE

Sealed competitive tenders, superscribed "**No. 33/A1/2019/IUCBR&SSH Dated: 05.10.2020**", are invited from reputed firms for the supply and installation of Bioinformatics Software - Molecular Modeling & Molecular Docking Studies at **Inter University Centre for Biomedical Research and Super Speciality Hospital (IUCBR & SSH)** so as to reach the office of the undersigned not later than **03.00 PM** on **15.10.2020**. Tenders will be opened at **03:30 PM** on **15.10.2020**.

| Sl No. | Name of Software | Specifications | Qty |
|---|---|---|---|
| 01 | Bioinformatics Software - Molecular Modeling & Molecular Docking Studies | 1. Molecular Graphics – High Quality Publication level Image generation<br>2. Protein Structure Prediction (Homology, Threading, a*b initio*)<br>3. Predict the Effect of Mutation in 3D structure<br>4. Protein- Protein Docking (Flexible ligand – receptor refinement)<br>5. Protein Structure superimposition<br>6. Sequence Analysis – Pairwise & multiple sequence alignment, phylogenetic analysis<br>7. Electrostatic potential calculation<br>8. Predict druggable binding sites or pockets<br>9. Building Ligands and design libraries<br>10. Small Molecule Docking - Fast and accurate flexible-ligand docking<br>11. Scoring and post processing procedure.<br>12. Screen large databases from chemical vendors (sdf files) or from target specific libraries.<br>13. A selection of methods for incorporating receptor induced fit receptor flexibility.<br>14. Automatically convert your 2D database compounds to 3D, add hydrogens and assign charges. Including from Smiles to 3D and from 3D to Smiles conversions.<br>15. 2D and 3D Pharmacophore generation and pharmacophore based modeling<br>16. Apply database filters for criteria such as size, number of h-bond donors / acceptors / torsions.<br>17. Scan substituted derivatives of parent lead structure.<br>18. Building and applying QSAR models<br>19. Predict compound properties of leads<br>20. Chemical superimposition | 01 (One) |

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|---|---|---|
| | | 21. Sketch a 2D pharmacophore include points such as hydrogen bond donor, acceptor, distance, aromatic, hydrophobic. |
| | | 22. Extract 3D pharmacophore points from a ligand. |
| | | 23. Search 3D pharmacophores against databases containing 3D coordinates. |
| | | 24. Score 3D search hits and output results to chemical spreadsheets. |
| | | 25. Generate stereoisomers, tautomers |
| | | 26. Filter energetically unfavorable tautomers |
| | | 27. Preserve hybridisation upon tautomer generation. |
| | | 28. Combinatorial Library Generation |
| | | 29. Enumerate on-the-fly a new chemical database by adding chemical groups to defined R groups on a scaffold. |
| | | 30. Decompose a database into fragments. |
| | | 31. QM simulation and molecular dynamics of macromolecular structure and complexes |
| | | 32. ADMET studies |
| | | 33. Antibody modeling |
| | | 34. Antigen Antibody docking |
| | | 35. Protein – Polymer docking |
| | | 36. Small molecule- metal ion interaction studies |
| | | 37. <u>Software license required for a period of one year. Additional one year to be quoted separately.</u> |

**Earnest Money Deposit (EMD)** calculated @ **1% of the Purchase Assessment Cost (PAC),** subject to a minimum of **Rs. 1500/-,** should be paid by the firm. The E.M.D. should be furnished in the form of Demand Draft in favour of **Director, IUCBR & SSH** along with sealed tenders.
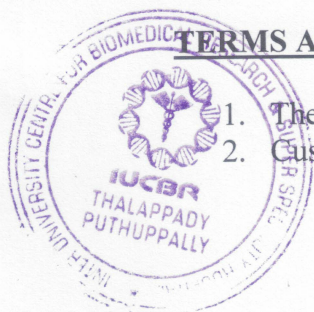
<u>**Tender form and other details**</u> can be had from the office of IUCBR & SSH on all working days, by paying the **Tender Fee @ 0.2% of PAC rounded to the nearest multiple of Rs.100, subject to a minimum of Rs. 400/- and maximum of Rs. 1500/- + GST @ 12%.**

For ensuring the guarantee, terms and conditions, etc. relating to the article supplied, an Agreement on stamp paper worth Rs.200/- must be submitted by the qualified bidder along with a Security Deposit @ 5% of the PAC.

Sealed Envelope containing tenders shall be addressed to **INTER UNIVERSITY CENTRE FOR BIOMEDICAL RESEARCH AND SUPER SPECIALITY HOSPITAL (IUCBR&SSH), SME CAMPUS, RUBBER BOARD P O, THALAPPADY, KOTTAYAM, 686 009**

**TERMS AND CONDITIONS:-**

1. The quoted Price should be inclusive of all taxes/freight/Installation etc.
2. Customs/ Excise Duty Exempted price should also be quoted

3. The tenders should have at least Three Months validity
4. Brochure of different models quoted should be enclosed
5. Warranty conditions, nearest servicing centers details, user reference, necessary supporting catalogues and demonstration should be provided
6. The right to accept or reject tenders without assigning any reason rests entirely with the undersigned
7. If the product has a Valid DGS & D rate contract, it may be quoted
8. If the date of receipt and opening of tenders is declared a holiday, the next working day shall be the last day for the purpose.

05.10.2020

Director

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