



Spatial Biologics Private Limited

From data to decision, we deliver.

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📍 TT-021, VIT-TBI, Katpadi, Vellore – 632014

Our Services

Computational Biology · In-Vitro Assays · Analytical & Formulation Services

1. Virtual Screening & Molecular Docking

- ▶ Protein-Small Molecule & Compound Libraries
- ▶ Protein-Protein & Peptide Complex Interactions
- ▶ Protein-DNA / Protein-RNA Complex Docking
- ▶ Protein-Lipid & Membrane Receptor Binding

2. Molecular Dynamics (MD) Simulation

- ▶ All-Atom MD Simulation (100 ns & customized)
- ▶ Coarse-Grain Simulation (0 – 700+ residues)
- ▶ Membrane & Transmembrane Protein Dynamics
- ▶ MM-PBSA / MM-GBSA Free Energy Profiles

3. Quantum Chemistry (DFT) Services

- ▶ Geometry Optimization & Conformational Analysis
- ▶ Time-Dependent DFT (TD-DFT) Spectroscopy
- ▶ Conceptual DFT (CD-DFT) Reactivity Metrics
- ▶ HOMO-LUMO Gap & QSAR Molecular Modeling

4. Cell Line Studies & In-Vitro Assays

- ▶ MTT Cytotoxicity & Cell Viability Assays
- ▶ ROS Spectrophotometry & Flow Cytometry
- ▶ Apoptosis Detection & Scratch Wound Assays
- ▶ qRT-PCR Expression & Biofilm Inhibition/Eradication

5. LC-MS/MS & Analytical Services

- ▶ High-Resolution Proteomics Identification & Analysis
- ▶ Metabolomics Small Molecule Profiling & Spectra
- ▶ UV-Vis Spectroscopy & HPLC Chromatography
- ▶ Biological & Biochemical Instrumentation

6. Formulation & Sequencing Analysis

- ▶ Nanoparticle Drug Delivery Formulation
- ▶ DLS & Zeta Potential Characterization
- ▶ Next-Generation Sequencing (NGS Data Analysis)
- ▶ Metagenomics, Microbiome & Transcriptomics

♦ HIGH RELIABILITY · PUBLICATION-READY REPORTS · FASTEST TURNAROUND TIME

Spatial Biologics Private Limited – Contract Research Organization (CRO) & Scientific Consulting

For inquiries & technical proposals: spatialbiologics@gmail.com | customersupport@spatialbiologics.com

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