

Lab Name	Clinical Trial Lab
Year of Establishment	2022-23
In charge Name	Dr. Nehal Suthar

Overview

A clinical trial lab plays a critical role in the research and development of new medical treatments and interventions. These labs are designed to support the various phases of clinical trials. This Lab was established in 2022, which helps to invent new methods for treatment of disorder.

Importance in Clinical Trials

Clinical trial labs are essential for generating reliable data to support the safety and efficacy of new treatments. They ensure that all biological samples are handled with precision and care, and that the resulting data is robust and reproducible. The meticulous work done in these labs forms the backbone of clinical research, ultimately contributing to advancements in medical science and patient care.

By maintaining high standards of quality and adhering to rigorous protocols, clinical trial labs help ensure the integrity of clinical trials and the validity of their findings, paving the way for new and effective medical interventions.

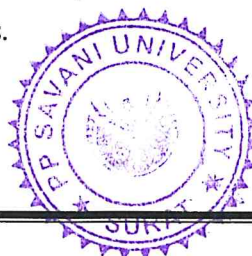
Key Functions

1. Sample Collection and Processing

- **Sample Collection:** Clinical trial labs collect biological samples such as blood, urine, from trial participants.
- **Processing:** The collected samples are processed to prepare them for analysis. This includes procedures like centrifugation and preservation.

2. Sample Analysis

- **Biochemical Analysis:** Measuring the concentrations of various biomolecules, such as proteins, lipids, and metabolites.



- **Genetic Analysis:** Performing DNA/RNA extraction, PCR, to identify genetic variations.
- **Immunoassays:** Detecting and quantifying specific proteins or antibodies to assess immune responses.

3. Data Management

- **Data Collection:** Recording all data meticulously to ensure accuracy and reliability.
- **Data Storage:** Safeguarding data in secure databases with backup protocols.
- **Data Analysis:** Utilizing statistical software to interpret the results and draw meaningful conclusions.

4. Quality Control and Assurance

- **Standard Operating Procedures (SOPs):** Adhering to SOPs to maintain consistency and reliability for trials.
- **Calibration and Maintenance:** Regular calibration and maintenance of equipment to ensure accurate results.
- **Regulatory Compliance:** Ensuring all activities comply with regulatory standards like GCP (Good Clinical Practice) and GLP (Good Laboratory Practice). PPSU ethical review Committee registered under ICMR.

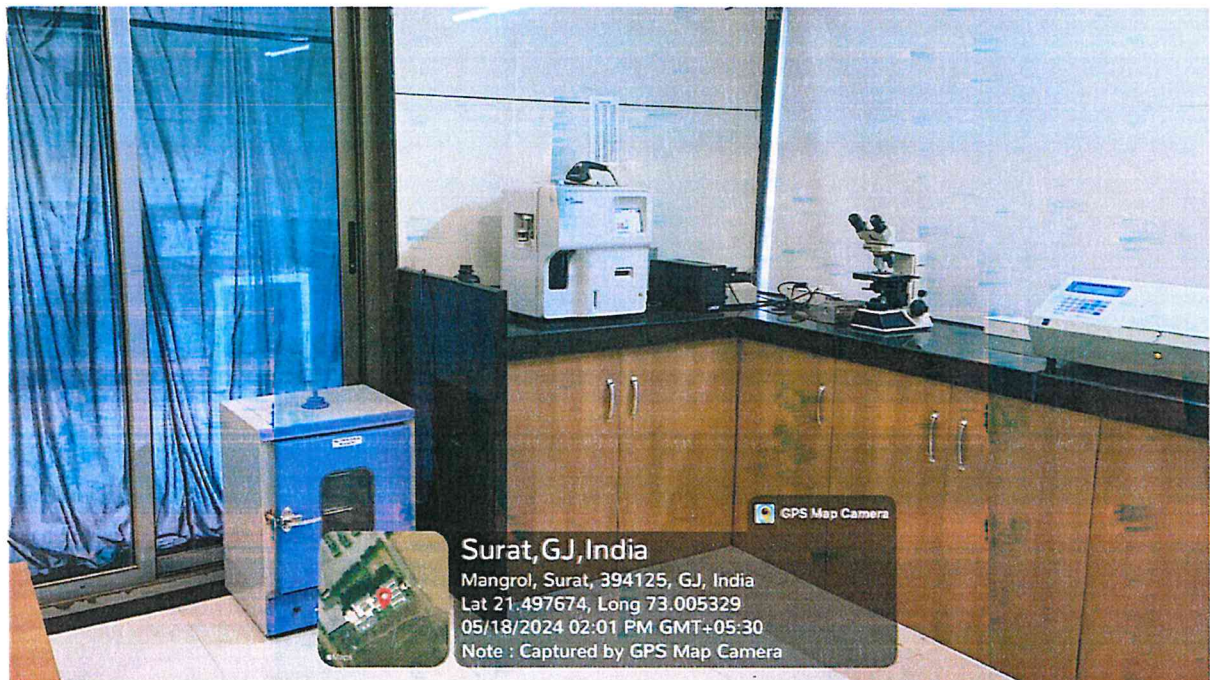
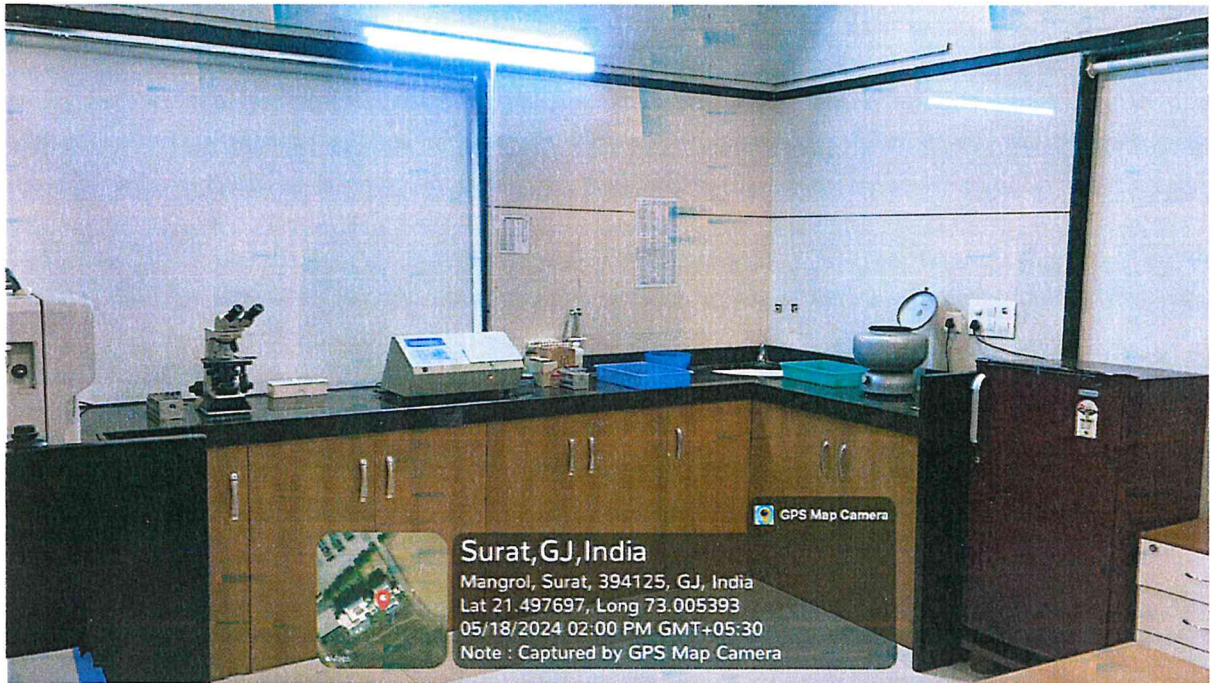
5. Collaboration and Reporting

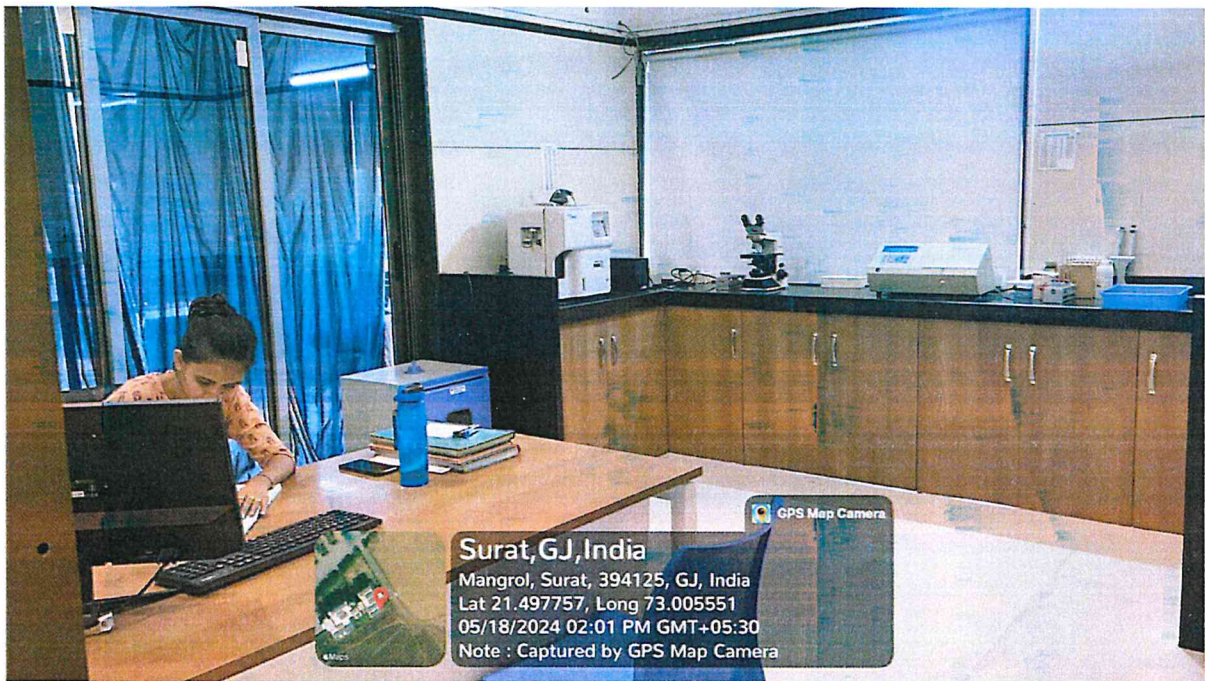
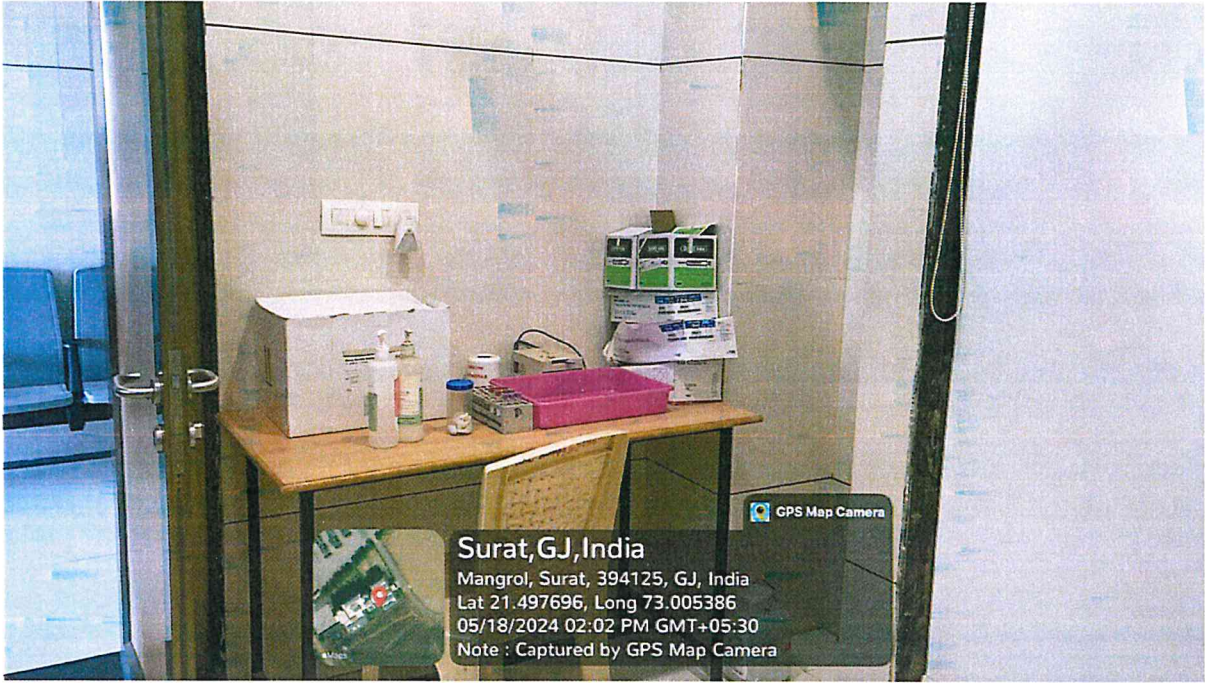
- **Interdisciplinary Collaboration:** Working with clinicians, researchers, and other stakeholders to facilitate comprehensive research.
- **Reporting:** Preparing detailed reports for regulatory bodies, sponsors, and publication in scientific journals.


Facilities

- **Analytical Instruments:** Spectrophotometers, chromatographs, DNA -RNA Isolation Kit, Polyacrylamide gel electrophoresis, UV Spectrophotometry, Calorie meter, PCR Machine, Digital BMI measurement Machine, TMT, Portable X-ray
- **Sample Storage:** Freezers, refrigerators, Deep Freez (-20·C) and for sample preservation.
- **General Lab Equipment:** Centrifuges, incubators, microscopes, pipettes.
- **Controlled Environment:** Clean rooms and controlled access areas to prevent contamination.
- **Safety Equipment:** Biosafety cabinets, fume hoods, and emergency safety stations.









Co-ordinator
PPSU




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