



# ADITYA COLLEGE OF PHARMACY

## Research Consultancy Services

### About

Aditya College of Pharmacy is expanding its research facilities in order to provide services to the faculty, academic institutions, and small-scale industries

***"Collaborate with us to Unlock Exceptional Consultancy Services and Enhance Your Analytical Pursuits! Our state-of-the-art tools, supported by seasoned expertise, are poised to amplify your exploration and innovation. Reach out to us now to embark on a journey of limitless potential"***

### Why Choose us?

🌟 **Proficient Guidance:** Our cadre of skilled doctorates and researchers stands prepared to deliver customized remedies for your analytical quandaries.

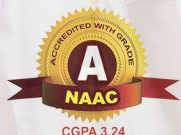
🔬 **Leading-edge Apparatus:** Attain entry to cutting-edge instrumentation, guaranteeing meticulous outcomes and nurturing breakthroughs.

🌐 **Varied Applications:** Whether you operate in the realms of pharmacology, pharmaceuticals, pharmaceutical analysis, or beyond, our facilities cater to an extensive array of sectors.

🔍 **Holistic Offerings:** From conceptualizing experimental frameworks to dissecting data, we remain steadfast partners throughout your analytical voyage.

📊 **Reliable Outcomes:** Obtain trustworthy data and perspectives that substantiate well-informed decision-making processes.

### APPROVALS AND ACCREDITATIONS THAT SHOW OUR RESEARCH PROWESS



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### Equipments available

#### HPLC



High-Performance Liquid Chromatography (HPLC) equipment is a sophisticated analytical tool used to separate, identify, and quantify components within complex mixtures. HPLC plays a vital role in quality control, drug development, and scientific research by providing accurate and precise measurements of compounds in diverse samples.

#### FTIR

Fourier-transform infrared (FTIR) spectroscopy proves invaluable for characterizing drug compounds and elucidating molecular structures. Its applications extend to diverse fields, including material analysis, polymers, and biomolecular interactions, facilitating essential insights and innovations in pharmaceutical research and development.



#### UV Visible Spectrophotometer

In pharmaceutical sciences, UV spectrophotometers are crucial for identifying drugs and ensuring the purity of nucleic acids, while also playing a vital role in quality control for beverages and conducting essential chemical research, including precise transition metal analysis



#### Potentiometer and conductometer

Potentiometers and conductometers are pivotal devices in the realm of electrochemical analysis and conductivity measurements, allowing for precise determination of electrode potentials and solution conductance.



#### Turbidimeter and Nephelometer

Turbidimeters and nephelometers are indispensable tools in analytical and environmental sciences, offering precise measurements of suspended particles' concentration and turbidity in liquid samples.



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# Research Consultancy Services

## Flame photometer

Biochemistry analyzer serves as a cornerstone, enabling comprehensive assessments of biological samples for diagnostic and research purposes. This sophisticated instrument quantifies biomolecules, enzymes, and metabolites, contributing to disease detection, monitoring, and scientific advancements by delivering precise and rapid analytical results.



## Photo Fluorimeter

A photofluorimeter is a critical tool in molecular and chemical analysis, detecting fluorescent emissions from substances upon excitation with specific wavelengths of light. It enables the quantification of fluorescence intensity, supporting the study of molecular interactions, biomolecule dynamics, and pollutant detection, thereby advancing our understanding of complex systems and facilitating precise measurements



## Rotary Vacuum Evaporator

Tablet compression press assumes a pivotal role, meticulously transforming powdered or granulated materials into precisely dosed tablets with consistent quality and integrity. This equipment streamlines the tablet formulation process, ensuring accurate dosing, uniformity, and rapid production, thereby contributing to efficient drug delivery systems and pharmaceutical advancements.



## Microwave reactor

Microwave reactors hold a pivotal role in modern chemical synthesis and material processing, leveraging microwave energy to expedite reactions and enhance yields. These reactors enable rapid heating and controlled conditions, revolutionizing reaction kinetics and enabling the efficient production of compounds and materials, thus contributing to advancements in diverse scientific disciplines and industrial applications.



## Extraction apparatus

Soxhlet extractor, percolator, and maceration apparatus hold essential roles, facilitating the efficient separation of desired compounds from natural materials. These tools are widely utilized in herbal medicine, essential oil production, and analytical chemistry, enabling controlled extraction processes

## BOD incubator

BOD Incubator provides controlled environments for cultivating and studying microorganisms, cells, and tissues. Widely employed in fields such as microbiology, cell biology, and tissue culture, these devices maintain precise temperature, humidity, and often CO<sub>2</sub> levels, fostering optimal growth conditions and enabling researchers to conduct experiments, develop therapies, and perform tests with reproducibility and accuracy.



## Stability cabinet

In controlled environmental conditions, the stability cabinet stands as a cornerstone, ensuring the integrity and longevity of pharmaceuticals, vaccines, and sensitive products by providing consistent temperature and humidity settings. Integral to quality assurance and regulatory compliance, this cabinet supports product stability studies and safeguards the efficacy of critical medical and scientific materials.



## Laminar Air flow

Laminar airflow systems play a vital role by providing controlled, clean environments that minimize airborne contamination. These systems use specialized filters to create a unidirectional flow of purified air, crucial for tasks such as microbiological research, sterile product preparation, and aseptic procedures, ensuring optimal conditions for sensitive processes and safeguarding experimental accuracy and patient safety.





# Research Consultancy Services

## Brookfield viscometer

Brookfield viscometer assumes a critical role, precisely characterizing fluid flow behavior and consistency across a spectrum of industries. Employed in sectors such as manufacturing, food processing, and pharmaceuticals, this instrument offers meticulous insights into material properties, facilitating quality control, process optimization, and product development through its ability to quantify viscosity under varying conditions.



## Tablet compression press

Tablet compression press assumes a pivotal role, meticulously transforming powdered or granulated materials into precisely dosed tablets with consistent quality and integrity. This equipment streamlines the tablet formulation process, ensuring accurate dosing, uniformity, and rapid production, thereby contributing to efficient drug delivery systems and pharmaceutical advancements.

## Capsule Filling Machine

The capsule filling machine occupies a crucial position, expertly encapsulating precise doses of medications, supplements, or powders within gelatin or vegetarian capsules. Widely employed in the pharmaceutical and nutraceutical industries, this equipment streamlines the encapsulation process, ensuring dosage accuracy, uniformity, and efficient production, thus facilitating convenient and effective delivery mechanisms for a range of oral medications and dietary supplements.



## Dissolution apparatus

The tablet dissolution apparatus holds a crucial role, meticulously simulating and quantifying the release of active ingredients from solid dosage forms. Employed in drug development and production, this apparatus aids in understanding drug behavior, ensuring consistency, and adhering to regulatory standards, thereby contributing to effective medication formulation and bioavailability assessments



## Tablets and Capsules evaluation Apparatus



Tablet and capsule evaluation apparatus are essential tools in pharmaceutical quality control, facilitating comprehensive assessments of dosage forms' physical characteristics, dissolution behavior, and disintegration properties. Utilized in drug development and production, these instruments ensure uniformity, bioavailability, and efficacy

## Deep Freezer

Deep freezer stands as a crucial apparatus, maintaining ultra-low temperatures to preserve biological samples, vaccines, and sensitive materials. These freezers ensure long-term stability and viability of stored items, playing a vital role in safeguarding valuable assets, facilitating experimental integrity, and supporting critical medical storage needs.



## Hematology Analyzer

Hematology analyzers play a pivotal role in diagnostics, accurately assessing blood cell counts, identifying abnormalities, and providing valuable insights into a patient's overall health, thus enabling healthcare professionals to make informed decisions and tailor treatment plans effectively.



## Biochemistry Analyzer

Biochemistry analyzer serves as a cornerstone, enabling comprehensive assessments of biological samples for diagnostic and research purposes. This sophisticated instrument quantifies biomolecules, enzymes, and metabolites, contributing to disease detection, monitoring, and scientific advancements by delivering precise and rapid analytical results.







# Research Consultancy Services

## Rotorod Apparatus

The rota rod apparatus is a pivotal tool in neuroscience and behavioral research, enabling the assessment of motor coordination and balance in experimental animals. It measures the ability of animals to maintain balance on a rotating rod, providing insights into motor function and potential interventions



## Analgesiometer

An analgesiometer is a critical instrument in pain research and pharmacology, used to measure the response of animals to pain stimuli and assess the efficacy of analgesic substances. It quantifies pain thresholds, aiding in the evaluation of pain-relief mechanisms and the potential effectiveness of pain management interventions, .



## Cook's Pole Climbing Apparatus

The Cook's pole climbing response apparatus is a significant tool in behavioral research, particularly in studies involving rodents. It evaluates an animal's climbing ability and coordination on a vertical pole, offering insights into motor skills, coordination, and potential neurological or drug-induced effects.



## Electro convulsimeter

The electroconvulsimeter is a vital device in neuroscience and psychopharmacology research, designed to induce controlled seizures in laboratory animals for the study of epilepsy, anticonvulsant drugs, and related phenomena.



## Digital Photoactometer

The digital photoactometer is a crucial instrument in behavioral research, aiding in the quantification of light-induced behaviors and circadian rhythms in organisms. Widely used in chronobiology and animal studies, this apparatus measures responses to light stimuli, allowing researchers to analyze activity patterns, sleep-wake cycles, and the effects of light exposure on various biological processes

## Diuretic cages

Diuretic cages are essential tools in experimental physiology and pharmacology, designed to facilitate the collection and quantification of urine output in laboratory animals. Widely utilized in studies involving renal function, fluid balance, and drug effects, these specialized cages enable researchers to accurately measure and analyze urinary parameters



## Maze apparatus

Barnes Maze, T-maze, and other maze apparatus with shock chambers are critical tools in behavioral neuroscience, designed to study spatial learning, memory, and associative conditioning in rodents. These mazes provide controlled environments to assess an animal's ability to navigate and make decisions, often involving the application of mild aversive stimuli (such as electric shocks) to investigate fear conditioning and avoidance behaviors



## Eddy's Hot Plate

Eddy's hot plate analgesiometer is a device used in pain research to assess the analgesic effects of substances on animals. It involves placing an animal on a heated surface, and the reaction time to exhibit pain avoidance behaviors is measured, allowing researchers to evaluate the potential pain-relieving properties of drugs or interventions.





# Research Consultancy Services

## LIST OF ACTIVITIES OR RESEARCH SERVICES OFFERED

**Drug Formulation and Development:** Tablet and capsule evaluation apparatus are crucial for assessing the physical properties, dissolution behavior, and disintegration of dosage forms during drug formulation and development.

**Quality Control:** Tablet dissolution apparatus ensures the consistent release of active ingredients from tablets, aiding in quality control and ensuring drug efficacy.

**Pharmacokinetics Studies:** Photo fluorimeters can be used to quantify fluorescent markers in pharmacokinetics studies, helping researchers track the distribution and elimination of drugs in the body.

**Pharmacodynamics Studies:** Analgesimeters assist in studying the effects of pain-relief interventions or analgesic drugs on animal behavior, contributing to pharmacodynamics assessments.

**Neurological Drug Research:** Electro convulsimeters are valuable for evaluating the potential anticonvulsant effects of drugs in preclinical studies of epilepsy and other neurological disorders.

**Chronobiology Research:** The digital photoactometer aids in studying the effects of light exposure on circadian rhythms and sleep-wake cycles, relevant to the development of chronobiology-based treatments.

**Diuretic Drug Testing:** Diuretic cages are used to study the effects of diuretic compounds on urine output and renal function, facilitating research into diuretic drug efficacy.

**Behavioral Pharmacology:** Apparatus with shock chambers, such as mazes, are essential for investigating the behavioral effects of drugs, including fear conditioning, associative learning, and memory enhancement.

**Biomolecule Analysis:** Gel electrophoresis is used for separating and analyzing DNA, RNA, and proteins, supporting genetic research, diagnostic testing, and biotechnology applications in pharmaceutical development.

**Biopharmaceutical Analysis:** Fluorescent markers quantified using photo fluorimeters can help analyze protein interactions, folding, and stability, contributing to biopharmaceutical research.

**Pharmaceutical Biotechnology:** Gel electrophoresis is vital for analyzing DNA fragments during recombinant DNA technology and genetic engineering for biopharmaceutical production.

**Pharmacological Screening:** Maze apparatus with shock chambers can be used to assess the effects of potential therapeutic agents on learning and memory, aiding in pharmacological screening.

## REQUEST FORM

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

Designation: \_\_\_\_\_

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

Details of the research activity required: \_\_\_\_\_

Contact No.: \_\_\_\_\_ Email id: \_\_\_\_\_

Address: \_\_\_\_\_

(The above form should be filled and posted to the following address: ADITYA COLLEGE OF PHARMACY, Aditya Nagar, ADB Road, Surampalem - Pin:533437, Kakinada District, Andhra Pradesh, INDIA.)

Alternatively, you can scan the following QR code for filling an online request form:



OR

[CLICK HERE](#)

