



## **CYTOGENE RESEARCH & DEVELOPMENT LLP**

K-51, UPSIDA Industrial Area, Kursi Road (Lucknow) Dist - Barabanki – 225001

ISO 9001:2015

ISO 14001:2015

ISO 45001:2018



# LIST OF TENTATIVE PROJECTS



*These are the list of tentative titles which shows the type of work that can be chosen by the students. There will be slight change in the titles which will be allotted to students. Each students will be allotted separate titles to work, the data of work can be published by student itself independently*

# 1

## Method Development, Validation and Application of Medicinal pure compound by HPLC & HPTLC

*The program delves into the intricacies of developing and validating analytical methods for the assessment of medicinal pure compounds. Participants will gain expertise in optimizing HPLC and HPTLC methodologies, ensuring accuracy and precision in compound analysis. Moreover, the dissertation emphasizes the practical application of these methods in the pharmaceutical and healthcare industries, providing a holistic understanding of how these techniques contribute to the quality control and characterization of medicinal compounds. Through hands-on experience and theoretical insights, participants will be equipped with valuable skills essential for research, quality assurance, and product development in the field of medicinal chemistry.*

Number of seat:

5

**How to Apply:**

Given on later page

**Fee:**

3 Month: Rs. 22,000/-

4 Month: Rs. 26,000/-

6 Month: Rs. 30,000/-

List of instruments to be used in this Project -

- ❖ HPLC
- ❖ HPTLC
- ❖ GC
- ❖ UV-Vis Spectrophotometer
- ❖ PCR
- ❖ Gel Dock
- ❖ Centrifuge
- ❖ Electrophoresis
- ❖ SDS-PAGE
- ❖ pH Meter
- ❖ Laminar Air Flow
- ❖ BOD Incubator
- ❖ Autoclave
- ❖ Microscope (Integrated camera)
- ❖ Incubator/Shaker
- ❖ Oven
- ❖ Microwave oven
- ❖ Analytical Balance
- ❖ -20 Fridge
- ❖ Muffle furnace

# 2

## Comparative determination of sibutramine as an adulterant in natural slimming products by HPLC and HPTLC densitometry

*This dissertation aims to address the rising concerns related to the authenticity of natural slimming products in the market. Students engaging in this research will delve into the intricacies of developing and validating analytical methods using both High-Performance Liquid Chromatography (HPLC) and High-Performance Thin-Layer Chromatography (HPTLC) densitometry. The emphasis lies on the identification and quantification of appetite suppressants, commonly used as adulterants in natural slimming formulations. Through a comparative analysis of the two chromatographic techniques, participants will gain comprehensive insights into the advantages and limitations of each method. The project holds significant implications for consumer safety and regulatory compliance in the nutraceutical industry, providing a valuable contribution to the field of analytical chemistry and quality control.*

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# 3

## Harmful food additive analysis and profiling of nutritional composition of samples from street food.

*This research initiative aims to address the critical issue of food safety and nutritional quality in street food, a staple of many communities. The dissertation involves the development of analytical methods, possibly utilizing techniques like HPLC and nutritional profiling, to identify and quantify harmful food additives in commonly consumed street food. Simultaneously, the nutritional composition of these samples will be comprehensively examined to provide insights into the overall health impact of street food consumption. By offering a holistic approach, this is not only contribution to the field of analytical chemistry but also holds significant implications for public health and regulatory practices, aiming to enhance the safety and nutritional quality of street food offerings.*

Number of seat:

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- ❖ SDS-PAGE
- ❖ pH Meter
- ❖ Muffle furnace
- ❖ Garber centrifuge
- ❖ Laminar Air Flow
- ❖ BOD Incubator
- ❖ Autoclave
- ❖ Microscope (Integrated camera)
- ❖ Incubator/Shaker
- ❖ Oven
- ❖ Microwave oven
- ❖ Analytical Balance
- ❖ -20 Fridge

# PROJECT INCLUDE

## **LITERATURE STUDY ON THE SELECTED TOPIC**

*This includes a thorough background study related to the required material by the research. This helps the candidate to gain basic knowledge on the topic*

## **SYNOPSIS PRESENTATION**

*A layout of the entire work in the form of synopsis is prepared by the candidate under the guidance of the faculty. Synopsis is then presented by the candidate in the form of presentation to the guide and other faculty members. After correction candidate can move to next step*

## **TARGET SELECTION & PRACTICAL**

*Candidate has to select the targets from the data base as mentioned in their synopsis. This is the major step of the program. Candidate has to complete his/her entire practical work under the guidance of the faculty. No work will be done by the faculty, candidate has to perform the entire work by themselves*

## **DATA MANAGEMENT AND RESULT ANALYSIS**

*All the results obtained during the work must be managed in very organized form and complete its analysis*

## **REVIEW OF COMPLETE WORK**

*A review of the complete work followed by the viva voice is done for every student individually*

## **REPORT PREPARATION**

*A compilation of entire work in the form of thesis is prepared by every student. All the steps will be performed by the students under constant guidance of faculty*

# PUBLICATION

- ❖ *In future participants can publish the data collected during the project work.*
- ❖ *As each member will work separately, no data will be shared in between and it will be unique enough to publish it.*
- ❖ *CytoGene has no role in Publication of data obtained in this project. Independently candidate can publish it.*
- ❖ *Candidate may put a name from CytoGene in authorship while publishing the data or can acknowledge us.*



# HOW TO APPLY



*CytoGene's reputation for fostering innovation and pushing the boundaries of scientific exploration makes it a compelling choice for those eager to make a meaningful impact in their chosen field. By applying for a dissertation at CytoGene, individuals can embark on a transformative journey to enhances their academic and research skills.*

1

Send your CV along with cover letter to **training@cytogene.in**

2

If shortlisted, we will inform and send the form to register with in a week

3

Registration will be completed with duly filled form and payment Rs. 2000/-

4

A confirmation letter will be generated and sent against registration with Date of joining

5

At the time of joining, an institutional document, one personal ID and remaining fee has to be paid

6

Training will be continued as scheduled and will be reviewed time to time.



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