

ANALYSIS OF BIO-ACTIVES AND PHARMACEUTICALS

INTERNATIONAL SCHOLARS

The overall goal of the **EXTRACTION AND ANALYSIS OF BIO-ACTIVES AND PHARMACEUTICALS** training program lead to a multitude of careers in pharmaceuticals , herbals , drug discovery and quality control analyst. While entry-level positions can be achieved with a bachelor's degree, greater levels of education afford more opportunities - specifically with regards to research and industry opportunities.

SCOPE OF THE TRAINING -

- Research
- Quality Control Analyst
- Pharmaceutical Chemist
- Industry – Pharmaceuticals , Herbal etc.

TRAINING SYLLABUS

UNIT – 1 LAB SAFETY , CHEMICAL HANDLING , CALIBRATION AND RECORD MAINTENANCE

Basics of chemical lab safety and Procedures , Handling of Equipments , Preparation of Chemical & Reagents , chemical hazards and safety , calibration procedures , record maintenance and data handling .

Preparation of Buffers, Acid-Base Equilibrium, pH, Buffer System, Charge, pI and pKa, Value, Quantitative determination of pharmaceuticals .

UNIT – 2 EXTRACTION AND SAMPLE PREPARATIONS

Introduction - What are bio actives ? , source of bio actives , pharmaceutical salts and API etc.
Extraction of Bio active from Plant , Microorganism , Fruit or any biological source.

Extraction Procedures - Distillation , Soxhlet Extraction , Vacuum Rotary Evaporation , Solid Phase Micro Extraction , Centrifugation, Digestion etc.

Sample Preparation - Optimization of sample preparation methods for sample analysis

UNIT 3 - BIO OR CHEMICAL ASSAY FOR QUALITATIVE ANALYSIS

Qualitative assay of carbohydrate: Molisch, Fehling, Benedict, Barfoed, mucic acid, Iodine, Seliwanoff, Bial, Osazone Quantitative determination of carbohydrate , Determination of disaccharide, Lactose , Sucrose , Determination of Lipids; triglycerides , Test of Fatty Acids , Determination of Vitamin C , Determination of Vitamin E , Determination of serum phosphate .

Assay of Alkaloids, Flavonoids, Glycosides, Free Glucose, tannins, Anthraquinone, Saponins, Phenols etc.

UNIT 4 - BIO BURDEN ASSAY OF PHARMACEUTICALS AND ANTI MICROBIAL ACTIVITY IN BIOACTIVES

Microbial Analysis for different bio-pharmaceutical Products , Biochemical Characterization and data analysis , Microbial Detection through PCR (16S Rdna)

Antimicrobial assay development for bio actives

UNIT 5 - INTRODUCTION TO SPECTROSCOPY AND CHROMATOGRAPHY

Introduction of Spectroscopy - Sample Preparation , Calibration , Standard Curve , Sample run and data analysis .

Introduction of Chromatography - How to separate bio active ? , Preparation of Samples , Solvent selection , selection of stationary phase , selection of mobile phase , Column Chromatography , Thin Layer Chromatography

Introduction of HPLC - Introduction to chromatography and chromatographic process-four modes of chromatography - reversed-phase, normal phase, ion exchange and size exclusion, Instrument operation- each part of an HPLC instrument in detail – including the solvent delivery system, sample injection, connecting tubing and fittings, commonly used detectors .

Introduction of GC - The theory of GC, The GC System, Column types and packings, Mobile phases, the chromatogram, Familiarization with the instrument, Basic Operation

UNIT 6 - METHOD DEVELOPMENT FOR PHARMACEUTICALS AND BIOACTIVES

Sample solvents, Column selection, Partition coefficient, Mobile phase selection, Gradients, Effect of flow rate, Temperature effects and Sample preparation.

Resolution, Efficiency, Asymmetry, Capacity factor, Selectivity, Signal to noise ratio, Precision and accuracy, System suitability limits and manual calculation of parameters, setting up software to perform system suitability calculations.

UNIT 7 - HPLC AND GC ANALYSIS OF PHARMACEUTICALS AND BIOACTIVES

HPLC Analysis of Tablet , Syrup and antibiotics , bio active compound - Sample preparation , sample run and data analysis as pharmacopoeia standard.

GC Analysis of pharmaceuticals and bio active compound Sample preparation, sample run and data analysis as pharmacopoeia standard.

UNIT 9 - INTELLECTUAL PROPERTY , REGULATORY , ETHICS AND GUIDELINES FOR PHARMACEUTICAL OR NATURAL PRODUCT RESEARCH

Facilities Required For All Units :

HPLC , Gas Chromatography , SPME Extraction Columns , TLC Plate Viewer & Documentation Unit , Desiccator , TLC Sprayer Thermocycler , Gradient Thermocycler , PCR Cabinet , PCR pipettes , Gel Documentation System , Spectrophotometer .

Auto titrator , pH meter , Conductivity Meter , Bio-Safety Cabinet , BOD Incubator , Thermo Cycler etc. Karl Fisher Titrator , Ion Meter , D.O. Meter , TDS Meter , Viscometer , Refractive Index Meter , SPME Extraction , Centrifugation , Microwave Digestion , Column Chromatography

DNA Speedvac Concentrator , Hybridization Oven , Refrigerated Centrifuge , High Speed Refrigerated Centrifuge , Vortex Mixer , Dry Bath , Water Bath , Electrophoresis , Power Supply , Bio- safety Cabinet for RNA handling , Ice Flakes , Electrophoresis , Vectors and Restriction Endo - nucleases etc.

INFORMATION TO APPLY FOR THE PROGRAM

WHO MAY JOIN ?

Students From Life Science , Biochemistry , Microbiology , Chemistry , Pharmacy , Forensic Science , Food Science etc.

SELECTION CRITERIA :

FEE FOR TRAINING PROGRAM : USD 1500

DURATION - 20 to 30 Days (Timing 8.00 AM to 8 P. M)

APPROVAL OF THE TRAINING PROGRAM :

This training program is designed and approved by the organization Scientific Advisory Committee.

HOW TO APPLY –

Details of Documents :

1. Any identity proof along with University / College Identity Card
2. Valid Passport
3. Recommendation letter from Head of the Institution
4. Filled Registration form of Allele Life Sciences (P) Ltd with photograph
5. Registration fee will be USD 50
6. Registration fee will be paid through On Line Transfer :

For Details for on line Payment :

Kindly write us for bank Details For On Line Transfer at : allelelifesciences@gmail.com

For on Line Registration Send scan copy of all documents at : allelelifesciences@gmail.com

Note : Kindly send the receipt of the registration fee along with scan documents.

TNote : We will send confirmation at your email address withi 7 days.

For Any other query mail at : allelelifesciences@gmail.com or Call at - +91-9818185162

Registration Form is Given at nest page

Photograph

Registration Form

Name of Training Program :

Expected Date of Joining :

Candidate Details :

Name: Mr./Ms. _____

Father's Name: _____

Address : _____

Contact No. : _____ Mobile No.: _____

Email: _____

Institution -

Qualification -

Terms & Conditions :

1. The admission to training / internship programs will be confirmed after the payment of registration fee along with documents.
2. The registration fee deposited is completely non refundable.
3. The industrial training fee includes the cost of chemical , reagents and study material costs.
4. I will deposit the service charges as decided by the company at the time of joining date of training program.
5. Students have to bear their own boarding/lodging /conveyance charges. We facilitate students in finding proper paying guest arrangements.
6. The trainees will have to bring their own lab coat and wear them all the time in the campus.
7. Trainees are selected on first come first serve basis
8. Trainees will maintain adequate discipline inside the lab premises.

DECLARATION

I _____ from _____

hereby declare that all statement/information given in the application form are true to the best of my knowledge and belief . I will strictly abide by the norms/lab etiquette during the training

Signature

Place: _____

Date: _____

For office use only