




TRAINING BROCHURE (International)



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For More Information:

-  **+91-8377082003 (WhatsApp Only)**
-  **www.allelelifesciences.com**
-  **C-59, Sector - 10, Ind. Area, Noida,
Uttar Pradesh - 201301**

Module I: In-vitro Technology, Cytology & Cancer Biology Lab

Application of Module:-

Vaccine Research, Drug Development, Cancer Research, Toxicology Analysis, Personalized Medicine, Diagnostics Development, Cosmetics and Consumer Products Analysis, Agricultural and Environmental Sciences

Major Instruments Used:

Bio-Safety Cabinet, Filtration Technology, Co2 Incubator(Thermo), Inverted Microscope with CCD Camera, Fluorescence Microscope (Olympus), Microplate Reader(thermo), Flow Cytometer (B.D Bioscience), Fluorometer, Cryo Preservation, Olympus FLU 1000 image analysis Software etc.

Duration - 80 Hrs or Upto One Month

Training Fee -

USD 200 (Foreign Student Study in India)
USD 1000(Faculty outside India)



Professional skills development



Non classroom Hands-on practical Learning



Industry-Relevant Certification

Module Details:

Unit I- In-vitro Cell Culture Technique

- Cell Culture Lab Safety, Lab Instrumentation & Basics of Cell Culture
- Microscopy & Calibration of Microscope
- Preparation of Media and Reagents for Mammalian Cell Culture
- Isolating Cells, Growing and maintaining of primary cell culture
- Check for the presence of pluripotency markers for Nanog / Sox2

Unit II- Cell Proliferation, viability, Migration, Invasion & Cytotoxicity Assay

- Identification of cells, Imaging, cell numbers, growth, and proliferation
- Cell Viability Assay
- Cell Migration and Invasion Assay
- Cell Cytotoxicity Assay

Unit III-Cell based Assay For drug screening & Flow-cytometry Analysis

- LDH- Release Cytotoxicity Assay
- Basics of Flow-cytometry & Software handling
- Apoptosis Assay by Flow Cytometry Using Annexin V Staining
- Flow Cytometry Data Analysis

Unit III-Cell based Assay For drug screening & Flow-cytometry Analysis

- Cell Staining Assay
- Immunofluorescence Characterization
- DNA Damage COMET Assay
- Fluorescent_in_situ_Hybridization_FISH



Module II: Molecular Genetics & Diagnostics Lab

Application of Module:-

Molecular Diagnostics, Food Industry, Testing lab, Biopharmaceutical Industry, Gene Therapy, Vaccine Research, Cancer Research, Toxicology Analysis, Food Product Testing, Cosmetics and Consumer Products Analysis, Agricultural and Environmental Sciences

Major Instruments Used:-

Real Time PCR (ABI & Biorad), 5 PCR Systems with gradient (ABI, Biorad, Eurofin and MWG Biotech), Agilent Microarray System, Gel Documentation System, Hybridization Oven (Affymatrix), Refrigerated Centrifuge (Thermo, Remi & Eltek), Speedvac DNA Concentrator(Thermo), Spectrophotometer (Thermo), Softwares etc

Duration – 80 Hrs or Upto One Month

Training Fee –

USD 200 (Foreign Student Study in India)
USD 1000(Faculty outside India)



Professional skills development



Non classroom Hands-on practical Learning



Industry-Relevant Certification

Module Details:

Unit I- Nucleic Acid Extraction (DNA & RNA)

- DNA Extraction from any tissue/culture
- Quantitative & Qualitative Analysis of DNA
- RNA Extraction & Optimisation
- Quantitative & Qualitative Analysis of RNA

Unit II- mRNA Purification and cDNA Synthesis, Qualitative RT-PCR

- RNA Extraction and mRNA Purification
- First Standard cDNA Synthesis
- Optimisation of PCR Reaction and PCR run
- Qualitative RT-PCR sample run & Analysis

Unit III- Primer Design, Molecular Diagnostics, SNP Detection and Multiplexing

- PCR run for Molecular Diagnostics
- Analysis of food samples by PCR Multiplexing
- SNP (Single Nucleotide Polymorphism) Detection
- PCR for DNA Barcoding Analysis

Unit IV-Real Time PCR Assay & Basics of Microarray Technology

- RNA Extraction and First Standard cDNA Synthesis
- Primer Design for Real Time PCR, Basics of Q-PCR
- Real Time PCR run with SYBR Green Assay
- Real Time PCR Data Analysis & Basics of microarray



Module III: Immunology Lab Technology

Application of Module:-

Molecular Diagnostics, Food Industry, Testing lab, Biopharmaceutical Industry, Gene Therapy, Vaccine Research, Cancer Research, Toxicology Analysis, Food Product Testing, Cosmetics and Consumer Products Analysis, Agricultural and Environmental Sciences

Major Instruments Used:

Bio-Safety Cabinet, Filtration Technology, Co2 Incubator(Thermo), Inverted Microscope with CCD Camera, Fluorescence Microscope (Olympus), Microplate Reader(thermo), Flow Cytometer (B.D Bioscience), Fluorometer, Cryo Preservation, Olympus FLU 1000 image analysis Software etc.

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Module Details:

Unit I- Basic Immunology Techniques

- **Large-scale separation method of IgG Separation of Immunoglobulins by DEAE**
- **Chromatography**
- **Single Radial Immuno Diffusion Analysis**
- **Counter Current Immunoelectrophoresis**

Unit II- Enzyme immunoassays, Western Blot Assays

- **Enzyme Linked Immuno Assay for Diagnostics**
- **Indirect ELISA**
- **Immunoprecipitation Assay**
- **Western Blot Analysis**

Unit III- Tagging of antibody, Antibody Affinity Purification, IgG extraction & Purification

- **Label IgG with a fluorescent green marker(FITC)**
- **Quantification of fluorescent dye bound to IgG**
- **IgG Conjugation with FITC**
- **Immunoprecipitation Assay**

Unit IV- Flow-Cytometry and Immunofluorescence Assay

- **Intracellular cytokine staining**
- **Sample run by Flow Cytometry and Data Analysis**
- **Immunofluorescence Staining for Immunotyping**
- **Fluorescence Microscopy and Data Analysis**



Module IV: Protein Biology & Vaccine Research Lab

Application of Module:-

Molecular Diagnostics, Food Industry, Testing lab, Biopharmaceutical Industry, Gene Therapy, Vaccine Research, Cancer Research, Toxicology Analysis, Food Product Testing, Cosmetics and Consumer Products Analysis, Agricultural and Environmental Sciences

Instruments Used:

Fast Protein Liquid Chromatography (G.E Amersham), Affinity Chromatography System (Biorad), High Pressure Liquid Chromatography (Thermo & Agilent), SDS-PAGE & Western Blot Units, Gel Doc, 2-D Gel Electrophoresis (GE Amersham), Spectrophotometer etc

Duration – 80 Hrs or Upto One Month

Training Fee –

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USD 1000 (Faculty outside India)



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Industry-Relevant Certification

Module Details:

Unit I– Protein Extraction and Analysis

- **Protein Extraction from Cultured Cell**
- **Quantification of Protein - Bradford / Lawry's Method**
- **Analysis of Protein by SDS-PAGE**
- **Densitometric analysis of proteins**

Unit II– Partial Purification and Dialysis

- **Acid Base Equilibrium, pH, Buffer System, Charge, pI and pKa Value and Reagent Preparation**
- **Ammonium sulphate precipitation Assay**
- **Estimation of Protein after Ammonium sulphate precipitation**
- **Dialysis or Desalting of Protein Sample**

Unit III–Cell based Assay For drug screening & Flow-cytometry Analysis

- **LDH- Release Cytotoxicity Assay**
- **Basics of Flow-cytometry & Software handling**
- **Apoptosis Assay by Flow Cytometry Using Annexin V Staining**
- **Flow Cytometry Data Analysis**

Unit III–Cell based Assay For drug screening & Flow-cytometry Analysis

- **Cell Staining Assay**
- **Immunofluorescence Characterization**
- **DNA Damage COMET Assay**
- **Fluorescent_in_situ_Hybridization_FISH**



Module V: Analytical Testing Lab- Food, Pharma, Cosmetics, Forensics & Biopharmaceuticals

Application of Module:-

Molecular Diagnostics, Food Industry, Testing lab, Biopharmaceutical Industry, Gene Therapy, Vaccine Research, Cancer Research, Toxicology Analysis, Food Product Testing, Cosmetics and Consumer Products Analysis, Agricultural and Environmental Sciences

Instruments Used:

High Pressure Liquid Chromatography (Thermo & Agilent), Gas Chromatography (Shimadzu & Agilent), Spectrophotometer (Thermo), Microplate Reader, Vacuum Rotary Evaporator (Heidolf), Dissolved Oxygen, TDS, Column and Thin Layer Chromatography etc. etc

Duration - 80 Hrs or Upto One Month

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Industry-Relevant Certification

Module Details:

Unit I- Basic Analytical Procedures & Techniques

- Qualitative analysis of Protein, Carbohydrate, Starch, Fat, Secondary metabolites and Aspirin
- Quantitative Analysis of Aspirin, Carbohydrate (Food Sample) and Phenols (Herbal)
- Quantitative analysis of spiked drug from gastric lavage (Forensics)
- Chromatography Procedures - Column Chromatography & TLC

Unit II- Analysis of Finished Products - Pharma / Food / Cosmetics

- Determine of cell numbers, growth, and proliferation
- Cell Viability Assay
- Cell Migration and Invasion Assay
- Cell Cytotoxicity Assay

Unit III- Sample Preparation and basics of HPLC & Gas Chromatography

- Basics of High Performance Liquid Chromatography & Gas Chromatography
- HPLC and Gas Chromatography Software & Its application
- Sample Preparation Technologies for HPLC - SPME, Purification, Derivatisation etc.
- Sample Preparation for Gas Chromatography

Unit III-Cell based Assay For drug screening & Flow-cytometry Analysis

- Sample run by High Performance Liquid Chromatography
- Data Analysis of HPLC
- Sample run by Gas Chromatography
- Data Analysis of Gas Chromatography



Module VI: Microbiology Lab– Food, Pharma, Cosmetics, Forensics & Biopharmaceuticals

Instruments Used:

Vertical Laminar Air Flow (4x2x2), Horizontal Laminar Air Flow (2x2x2), B.O.D. Incubator (Julabo), Orbital Incubator Shaker(Thermo), UV Chamber, Microscope with camera(Olympus), Colony Counter, Colorimeter, Muffle Furnace, Hot Air Oven , Desiccators and Lypholizer etc

Application of Module:-

Molecular Diagnostics, Food Industry, Testing lab, Biopharmaceutical Industry, Gene Therapy, Vaccine Research, Cancer Research, Toxicology Analysis, Food Product Testing, Cosmetics and Consumer Products Analysis, Agricultural and Environmental Sciences

Duration – 80 Hrs or Upto One Month

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Industry-Relevant Certification

Module Details:

Unit I– Isolation & Enumeration of Microorganism

- Sterilisation Techniques , Reagent Preparation, Buffers, Acid-Base Equilibrium
- Aseptic Technique and the Transfer of Microorganisms
- Streak Plate Method
- Selective and Differential Media for Identifying Microorganisms

Unit II– Bio-Chemical Characterisation For Preliminary Screening

- Bacterial Growth Curve by Microplate Reader
- Differential and Cytological Staining Techniques
- Motility Test of Microorganism
- Isolation and Identification of Two Bacterial Unknowns

Unit III– Antimicrobial Susceptibility & Antimicrobial Resistance (AMR)

- MIC determination
- In vitro Antibiotic Susceptibility Testing
- Isolation and Identification of Auxotrophic and Drug Resistant Mutants
- Protease & Carbapenemase production test

Unit IV– Microbial Analysis by PCR Technology

- DNA Extraction of microbial isolates
- Amplification of 16s gene with PCR technology
- Amplification of Anti Microbial Resistant gene
- DNA Sequencing Data Analysis



Lack of practical experience is one of the key barriers that newcomers face in their quest for a job. Our goal is to prepare students for the workforce in their field.

www.allelelifesciences.com

OUR PEDAGOGY

- Holistic Learning- Determination, Dedication, Discipline and Direction
- Lab manual provides a platform for understanding the basic of experiments
- Our technician will help you to operate instrument
- Be a teacher opportunity during learning
- Your help to other lab mates will make you confident.
- Certificate after successful completion of training

EMPLOYABILITY

Employability is related to attitude, discipline and ability to be employed. Our training program covers major instruments, tools, and techniques applied to related industries and research. **We do not guarantee for placement.**

BENEFITS

- Professional skills development
- Non classroom Hands-on practical Learning
- Customised Curriculum
- Industry-Relevant Certification
- Upskilling and Reskilling Programs
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FEE STRUCTURE

Fee

USD 200 (Foreign Student Study in India) |
USD 1000(Faculty outside India) For One
Module

DURATION

Duration - 80 Hrs or One Month



“Our training programmes are specifically created for the career advancement of students to assist them in learning about cutting-edge technologies”

Address Office:

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E : info@allelelifesciences.com



PERSONAL INFORMATION

Full Name :

Address :

Nationality :

Institution (If Any)

Phone :

Email :

Name of Training :

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 Rs 1000/- deposited is completely non refundable.
3. I will deposit the service charges as decided by the company in brochure at the time of joining date of training program.
4. Students have to bear their own boarding/lodging /conveyance charges.
5. Trainees will maintain adequate discipline & lab safety inside the lab premises.
6. Company will not be responsible for any medical, legal issues during the internship tenure.

Declaration

I 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 terms & conditions, norms, lab etiquette during the training .

Pay Registration Fee for confirmation of seat for training program.

Send the copy of the form, payment detail and any identity proof at :
info@allelelifesciences.com

Beneficiary Name - Allele Life Sciences Private Limited
Account Number - 61071508494
IFSC Code - SBIN0031811
Bank Name - State Bank of India
Bank Address - SBI, 14/15, Sector-18, Noida, UP - 201301

THANK YOU FOR REGISTRATION

We will send your training confirmation letter at your
Email ID given in the registration form

Trainee Signature

More Information :

If you do not receive confirmation letter
kindly WhatsApp your details at:

www.allelelifesciences.com

CONTACT US

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