## **EXPLORE OUR** TRAINING PROGRAM FOR INTERNATIONAL STUDENTS

#### **Industry Updated 100% Hands On Learning**

Our training programmes are specifically created for the career advancement of students to assist them in learning about cutting-edge technologies and enhancing their abilities for food, pharma. biotechnology. pharmaceutical industry and research.

### **Our Program For**

- Healthcare Industry
- Biotechnology Research
- Biopharmaceuticals
- Food Industry
- Cosmetic Industry
- Forensic Science

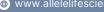




5000

Square Feets Lab Space







DIAGNOSTICS & HEALTHCARE INDUSTRY



Real Time PCR

Flow Cytometry

Immunoassay

Biochemistry

PCR

✓ ELISA

Immunofluorescence

Microbiology

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**Our Website** 

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### **Diagnostics & Healthcare Industry**

#### Module 1: Nucleic Acid Extraction (DNA & RNA) & Its Purity Analysis

**Unit 1: DNA Extraction** 

Unit2: Quantitative & Qualitative Analysis of DNA Qualitative Analysis of DNA

**Unit3: RNA Extraction** 

**Unit4: RNA Quantification and Purity Check** 

#### **Module 2: PCR For Disease Diagnosis**

**Unit 1:** RNA Extraction & mRNA Purification

**Unit 2: First Strand cDNA Synthesis** 

Unit 3: Qualitative RT-PCR

Unit 4: Nested PCR for Molecular Diagnostics

#### Module 3: Real Time PCR & Molecular Diagnostics

Unit 1: Total RNA Extraction & First Standard cDNA Synthesis

Unit 2: Basics of Real Time PCR, Primer Design and Software

Unit 3: Real Time PCR Sample Run for molecular diagnosis

Unit 4: Data Analysis and Reporting

#### Module 4: ELISA & Diagnostics

Unit 1: Understand principles of ELISA and immunodiagnostics

Unit 2: Plate coating, blocking, washing, sample loading

Unit 3: Reading absorbance using ELISA reader

Unit 4: Plotting standard curve, interpreting OD values

#### **Module 5: Flow Cytometry in Diagnosis**

Unit 1: Basics of Flow Cytometry & its application in clinical diagnostics

Unit 2: Sample Preparation for BD Flow Cytometer

Unit 3: Sample run for detection

Unit 4: Analyse data with Flow Cytometer Software

#### Module 6: Immunofluorescence Assay For Diagnosis

Unit 1: Basics and Calibration of FL-Microscopy

Unit2: SYBR® Green Staining for Microscopy

Unit3: Immunofluorescence Characterization

Unit4: Olympus FluoView FV1000 software

#### **Module 7: Microbial Diagnosis**

Unit 1: Total RNA Extraction & mRNA Purification

**Unit 2: First Strand cDNA Synthesis** 

Unit 3: Qualitative RT-PCR

**Unit 4: Nested PCR for Molecular Diagnostics** 



### **Information**

## TRAINING FEE ( Diagnostics & Healthcare Industry USD 500

#### **DURATION**

30 to 45 Days or 100 Hrs

#### **EMPLOYMENT OPPURTUNITY IN HEALTHCARE SECTOR**

Market Value (2024): ~\$20–25 billion globally Expected CAGR: >12% annually (2024–2030) Projected Value (2030): ~\$50–60 billion

#### **OUR OBJECTIVES**

Human Resource Generation refers to the systematic development of skilled professionals to meet the growing demands of the healthcare and diagnostics industry. With the rapid expansion of diagnostic technologies.

#### **Hiring Sectors:**

- Molecular Diagnostic Labs
- Genomics Companies
- CROs & Biotech
- Public Health & Govt Labs

#### ASK FOR CUTOMISED TRAINING FOR WORKING PROFESSIONALS

Customized training programs for working professionals in diagnostics can cover a range of topics, including Molecular Genetics, Immunoassay, Flow Cytometry, HPLC, Cytogenetics and Microscopy. We will decide training fee for customised program after mutual discussion.

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- We need Valid VISA & FRRO Registration
- We do not provide any Food or Accommodation



PHARMACEUTICALS, BIO-PHARMA & AYURVEDA INDUSTRY



- ✓ In-vitro Research
- Flow Cytometry
- ✓ Immunoassay
- **✔** Biochemistry
- ✓ HPLC
- Gas Chromatography
- Various Microscopy

- Cancer Research
- Real Time PCR
- ✓ ELISA
- Immunofluorescence
- Fast Protein Chromatography
- ✓ Low Pressure Chromatography
- Microbiology

#### **Send Your Resume**

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#### **Our Website**

www.allelelifesciences.com

**Contact Us** 

09891179928

### **Biotechnology / Bio-Pharmaceuticals Research**

#### Module 1: In-vitro Cell Culture

Unit 1: Preparation and Sterilization of Culture Media

Unit2: Sub-culturing (Passaging) of Adherent / Suspension Cells

Unit3: Microscopic Observation of Cell Morphology & Cell Counting

Unit4: Trypsinization and cryo Preservation of cells

#### **Module 2: Drug Screening Assays**

Unit 1: Drug Cytotoxicity Analysis

**Unit 2: Trypan Blue Exclusion Assay** 

Unit 3: LDH Release Assay

**Unit 4: Catalase Assay in Cells** 

#### Module 3: Drug Analysis by Flow Cytometry

Unit 1: Basics of Flow Cytometry in drug analysis

Unit 2: Cell counting by Flow Cytometer

Unit 3: SYBR Green or Propidium Iodide (PI) Cell Staining

**Unit 4: Data Analysis** 

#### Module 4: Immunofluorescence Assay For Drugs

Unit 1: Cell Preparation, Drug Treatment and Staining for IFA

Unit 2: Microscopy and Data Analysis

Unit 3: Comet Assay (Single Cell Gel Electrophoresis)

**Unit 4: DNA FISH Assay** 

#### Module 5: Gene Expression by Real Time PCR

Unit 1: Total RNA Extraction & First Strand cDNA Synthesis

Unit 2: Basics of Real Time PCR, Primer Design and Software

Unit 3: Real Time PCR run for gene expression

Unit 4: Data Analysis

#### Module 6: Stem Cell Extraction & Pluripotency Assay

Unit 1: Isolation of Stem Cells

Unit2: Subculture of cells and maintenance

Unit3: DNA Extraction & Quality check

Unit4: Pluripotency marker analysis - Nanog gene

Training Fee - USD 500



#### **Production of Bio-Pharmaceuticals**

#### Module 1: Genetic Engineering Technique

Unit 1: PCR amplification of gene of interest

Unit2: Digestion of Plasmid with restriction enzymes used for GOI

Unit3: Ligation of Plasmid Vector and Digested PCR Product

**Unit4: Transformation into Competent Cells** 

#### **Module 2: Microbiology and Bio-Process**

Unit 1: Isolation and Culturing of Microorganisms

Unit 2: Bacterial Growth Curve & cell count

Unit 3: Production of biomass & measurement

Unit 4: Cell Harvesting & Product Recovery

#### **Module 3: Optimization & Partial Purification**

**Unit 1: Fed-Batch Fermentation Simulation** 

**Unit 2: Enzyme Activity Assay** 

Unit 3: Determination of Specific Growth Rate (µ) and Yield Coefficient

**Unit 4: Partial Purification** 

#### Module 4: Protein Liquid Chromatography (FPLC)

Unit 1: Basics of Protein Liquid Chromatography & Buffer Preparation

Unit 2: Fast Protein Liquid Chromatography - Affinity, Ion Exchange and Size Exclusion

Unit 3: Run of Protein Sample in Protein Chromatography System

Unit 4: Data Analysis & Software handling

#### **Module 5: Protein Analysis**

**Unit 1: Protein Estimation Assay** 

Unit 2: Analysis of Protein by SDS-PAGE

**Unit 3: Zymography** 

**Unit 4: Protein / Enzyme Activity Assay** 

#### **Module 6: Analysis of Amino Acids**

**Unit 1: Quantitative Estimation by Ninhydrin** 

Unit2: Amino Acid Separation by Ion-Exchange Chromatography

**Unit3: Derivatization & Sample Preparation** 

Unit4: High-Performance Liquid Chromatography (HPLC) of Amino Acids

#### Module 7: ELISA & Western Blot

Unit 1: ELISA-based binding studies

Unit 2: SDS-PAGE Electrophoresis for Western Blot

Unit 3: Transfer on PVDF or Nitrocellulose Membrane

Unit 4: Blocking, Antibodies and Detection



## **Quality Control of Pharma / Bio-Pharma Products**

#### Module 1: Quality Analysis of Pharma Products by HPLC

Unit 1: Principle of HPLC, Parts, Detectors and Application

Unit2: Sample and Standard Preparation of Pharma Product

Unit3: Chromatographic Conditions and Sample run

**Unit4: Data Analysis & Reporting** 

#### Module 2: Analysis by Gas Chromatography

Unit 1: Principle of GC, Parts, Detectors and Application

Unit 2: Sample and Standard Preparation of Pharma Product

Unit 3: Chromatographic Conditions and Sample run

**Unit 4: Data Analysis & Reporting** 

#### Module 3: Spectrophotometric Assays

Unit 1: Assay & Analysis of aspirin

Unit 2: To perform analysis of paracetamol

**Unit 3: Analysis of Vitamin C** 

Unit 4: Estimation of Drug Content in Pharmaceutical Syrup

#### Module 4: Microbial Test for Pharma / Bio-pharma

Unit 1: Microbial Limit Test (MLT)

Unit 2: Antibiotic Assay (Microbiological Assay)

**Unit 3: Sterility Testing of Pharma Product** 

Unit 4: Bacterial Endotoxin Test (BET) / LAL Test

#### **Module 5: Analysis of Pharmaceuticals**

Unit 1: Assay of Active Ingredient

Unit 2: Confirm API identity using TLC

Unit 3: pH & Viscosity

**Unit 4: Preservative Content Determination** 

#### Module 6: Herbal Extraction & Analytical Procedures

Unit 1: Soxhlet Extraction, Drying the solvent by Vacuum Rotary Evaporator

Unit 2: Qualitative assay of Herbals - Assay

Unit 3: Quantitative assay

**Unit 4: Size Exclusion Column Chromatography** 

Training Fee -USD 500



#### TRAINING FEE (Pharma, Biopharma & Biotech Industry

Bio-pharma Research - USD 500 Bio-pharma Production - USD 500 Pharma/Bio-pharma Testing - USD 500

#### **DURATION**

30 to 45 Days or 100 Hrs For Each Training Program

#### **EMPLOYMENT OPPURTUNITY IN PHARMA, BIO-PHARMA & BIOTECH SECTOR**

Market Value (2024): ~\$220–250 billion globally Expected CAGR: >12% annually (2024–2030) Projected Value (2030): ~\$500–600 billion

#### **OUR OBJECTIVES**

Human Resource Generation refers to the systematic development of skilled professionals to meet the growing demands of the healthcare and diagnostics industry. With the rapid expansion of diagnostic technologies.

#### **Hiring Sectors:**

- Biotech Research Labs
- Pharma Companies
- CROs & Biotech
- Bio-pharma Production
- Testing Lab
- Public Health & Govt Labs

#### ASK FOR CUTOMISED TRAINING FOR WORKING PROFESSIONALS

Customized training programs for working professionals in pharma / biotech / research lab can cover a range of topics, including Molecular Genetics, Immunoassay, Flow Cytometry, HPLC, Cytogenetics and Microscopy. We will decide training fee for customised program after mutual discussion.

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FOOD & NEUTRACEUTICAL INDUSTRY



✓ Real Time PCR

✓ Flow Cytometry

Immunoassay

Biochemistry

PCR

✓ ELISA

Immunofluorescence

Microbiology

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### **Training For Food Science & Industry**

#### **Module 1: Food Microbial Analysis**

**Unit 1:** Direct Microscopic Examination of Food Products

Unit2: Aerobic Mesophilic Plate count- Streaking & Plate Count

Unit3: Enumeration of Food Microbes & Colony Counting

Unit4: Detection and confirmation of Salmonella species in Food Sample

#### **Module 2: PCR Multiplexing in Food Samples**

Unit 1: Extraction, Purification and optimisation of both Food Microbial DNA

Unit 2: Qualitative and Quantitative Analysis of DNA

Unit 3: Primer Design and Optimisation of Annealing Temperature

Unit 4: PCR Multiplexing analysis for Meat Adulteration

#### Module 3: Food Allergen Screening by Real Time PCR

Unit 1: Sample Preparation & DNA Extraction

Unit 2: Basics of Real Time PCR, Primer Design and Software

Unit 3: Real Time PCR Reaction Setup

**Unit 4: Data Analysis and Reporting** 

#### Module 4: Food Preservative Analysis by HPLC

Unit 1: Sample Preparation Example (Benzoic/Sorbic Acid in Juice)

**Unit 2: Mobile Phase & Standard Preparation** 

Unit 3: Basics of HPLC, Software & Sample Run

Unit 4: Data Analysis & Reporting

#### Module 5: Toxins Analysis & Gas Chromatography

Unit 1: Analysis of Hydroxy Benzoates (Parabens) in Food sample

Unit2: Analysis of Cyclamate in Food Sample

Unit3: Basics of Gas Chromatography & Sample Preparation

Unit4: Data Analysis & Reporting

#### **Module 6: Nutrient Analysis of Food Products**

Unit 1: Amount of crude protein

Unit 2: Total carbohydrates Analysis

**Unit 3: Amount of crude Fibre** 

Unit 4: Total Fat / Lipid Analysis

#### **Module 6: Amino Acid Analysis in Food Sample**

Unit 1: Amount of crude protein

Unit 2: Total carbohydrates Analysis

Unit 3: Amount of crude Fibre

Unit 4: Total Fat / Lipid Analysis

#### TRAINING FEE (Food Industry)

**USD 500** 

#### **DURATION**

30 to 45 Days or 100 Hrs

#### **EMPLOYMENT OPPURTUNITY IN FOOD INDUSTRY**

Market Value (2024): ~\$20–25 billion globally Expected CAGR: >12% annually (2024–2030) Projected Value (2030): ~\$50–60 billion

#### **OUR OBJECTIVES**

Human Resource Generation refers to the systematic development of skilled professionals to meet the growing demands of the food and nutraceutical industry. With the rapid expansion of technologies.

#### **Hiring Sectors:**

- Food Research Labs
- Food Industry
- Nutraceutical Industry
- Testing Lab

#### ASK FOR CUTOMISED TRAINING FOR WORKING PROFESSIONALS

Customized training programs for working professionals in food industry can cover a range of topics, including Food Genetics, Immunoassay, HPLC, ELISA and Gas Chromatography. We will decide training fee for customised program after mutual discussion.

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**COSMETICS &** FRAGRANCE INDUSTRY



- Cell Culture
- HPLC
- Biochemistry
- ✓ Microbiology
- 🗸 Flow Cytometry 📝 Spectroscopy
  - Gas Chromatography
  - Distillation

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## **Training For Cosmetics Industry**

#### **Module 1: Microbial Evaluation of Cosmetics**

**Unit 1:** Total Aerobic Microbial Count (TAMC)

**Unit2:** Determination of Microbial Load in Cosmetics

**Unit3: Preservative Efficacy Test** 

**Unit4:** Pathogen Detection in Cosmetics

#### Module 2: Cell Viability & Regeneration Assays

Unit 1: Culture of dermal cell for assays

**Unit 2: Cytotoxicity of cosmetic ingredients** 

**Unit 3: Scratch Wound Healing Assay** 

Unit 4: β-galactosidase staining in cells & analysis

#### Module 3: Antioxidant, Anti-Aging & SPF Activity Testing

**Unit 1: ABTS Radical Cation Decolorization Assay** 

Unit 2: Collagen ELISA in Anti-Aging Cosmetics

**Unit 3: SPF (Sun Protection Factor) Testing** 

Unit 4: Total Phenolic Content (TPC) Assay

#### **Module 4: Genotoxicity of Cosmetic Product**

Unit 1: Revival and Culture of Cryopreserved Cells

**Unit 2:** In Vitro Micronucleus Assay

Unit 3: Comet Assay (Alkaline Version)

Unit 4: Ames Test (Bacterial Reverse Mutation Test)

#### **Module 5: Analysis of Toxins in Cosmetics**

**Unit 1: Cosmetic Sample Preparation for Toxins** 

Unit 2: Method Validation for Toxin Analysis with HPLC

Unit 3: HPLC Sample Run

Unit 4: Data Analysis & Reporting

#### Module 6: Distillation & Analysis of Fragrance Oil

Unit 1: Raw Material Identification & Evaluation

Unit2: Extract Fragrance oils using Steam Distillation

Unit3: Collection of Oil & Solvent Distillate

**Unit4: Analytical Techniques for Fragrance** 

#### **Module 7: Analysis of Finished Cosmetic Products**

Unit 1: pH & Viscocity analysis

**Unit 2: Water Activity (aw) Test** 

Unit 3: Sensory Evaluation & Hedonic Scoring of Perfume Blends

**Unit 4: Refractive Index Analysis** 



#### **TRAINING FEE (Cosmetics Industry)**

**USD 500** 

#### **DURATION**

30 to 45 Days or 100 Hrs

#### **EMPLOYMENT OPPURTUNITY IN COSMETICS SECTOR**

Market Value (2024): ~\$22.8 billion

Expected CAGR: >9% annually (2024-2030)

Projected Value (2030): ~\$40.8 billion

#### **OUR OBJECTIVES**

Human Resource Generation refers to the systematic development of skilled professionals to meet the growing demands of the cosmetics & fragrance industry. With the rapid expansion of technologies.

#### **Hiring Sectors:**

- Cosmetics Industry
- Fragrance Industry
- Cosmeceutical Industry
- Testing Lab

#### ASK FOR CUTOMISED TRAINING FOR WORKING PROFESSIONALS

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## FORENSIC SCIENCE LAB



- ✓ Real Time PCR
- ✓ HPLC
- Spectroscopy
- Biochemistry
- ✓ PCR
- ✓ Gas Chromatography
- Low Pressure Chromatography
- Ion Exchange Chromatography

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## **Training For Forensic Science Lab**

#### Module 1: Nucleic Acid Extraction (DNA & RNA) & Its Purity Analysis

**Unit 1:** DNA Extraction

Unit2: Quantitative & Qualitative Analysis of DNA Qualitative Analysis of DNA

**Unit3:** RNA Extraction

**Unit4:** RNA Quantification and Purity Check

#### **Module 2: STR Analysis**

Unit 1: DNA Extraction, Quantitative & Qualitative Analysis of DNA

**Unit 2: PCR Amplification of Y-STR Loci** 

**Unit 3: PAGE Setup** 

Unit 4: Visualization in Gel Documentation System & Analysis

#### **Module 3: SNP Typing Using Real-Time PCR**

**Unit 1: Mitochondrial DNA Extraction & Analysis** 

Unit 2: Basics of Real Time PCR, Primer Design and Software

Unit 3: Allele-Specific Real Time PCR Run

**Unit 4: Data Analysis and Reporting** 

#### **Module 4: Analysis of Forensic Toxicology Samples**

Unit 1: Solid Phase Extraction of Drugs from Urine

Unit 2: Clean-up using Alumina and Silica Column

Unit 3: Analysis of toxic compound in Gastric Lavage by HPLC

Unit 4: Data Analysis & Report Preparation

#### Module 5: Analysis of Toxic Anions by Ion Exchange Chromatography

Unit 1: Protein Precipitation or Extraction of sample

Unit 2: Dialysis of Forensic analysis

Unit 3: Selective Chemical Treatment and Microdiffusion of Forensic analysis

**Unit 4: Instrument Setup, Run and Detection:** 

#### Module 6: Toxins Analysis by Gas Chromatography

Unit 1: Sample Preparation - Solid-phase extraction (SPE) for blood, urine, or food

Unit2: Derivatization for thermolabile or non-volatile toxins

Unit3: Basics of Gas Chromatography & Sample Run

**Unit4: Qualitative and Quantitative Identification of Toxins** 

#### Module 7: Sample Collection & Preservation

Unit 1: Collection of Biological Evidence

**Unit 2: Buccal Swab Collection and Documentation** 

Unit 3: Packaging, Labeling & Chain-of-Custody Form Preparation

**Unit 4: Preservation of DNA Samples under Different Conditions** 

#### **TRAINING FEE (Forensic Science Lab)**

**USD 500** 

#### **DURATION**

30 to 45 Days or 100 Hrs

#### **EMPLOYMENT OPPURTUNITY IN FORENSICS**

Market Value (2024): ~\$ 340M

**Expected CAGR:** >13% annually (2024–2030)

Projected Value (2030): ~\$ 793M

#### **OUR OBJECTIVES**

Human Resource Generation refers to the systematic development of skilled professionals to meet the growing demands of forensic science With the rapid expansion of forensic technologies.

#### **Hiring Sectors:**

- Forensic Labs
- Insurance Companies
- Law Firm
- Govt Labs

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We aim to provide the highest quality services to our clients, considering our performance, consistency, safety, and value. To achieve this, we are continually improving processes, products, and services, meeting and exceeding customer satisfaction at all times.



## Why Choose Us?

We have a dedicated team of chemists, biotechnologists, analysts, engineers, and specialists to assist in our technological solutions and product development.