AI+ Pharma Practitioner™(APHARMA)

ID APHARMA **Price** CHF 995.—(excl. VAT) **Duration** 1 days

Who should attend

- Pharmacy & Life Sciences Students: Learners who want to complement their pharma or biotech background with practical AI skills.
- Pharmaceutical & Biotech Professionals: R&D, clinical, or regulatory teams aiming to apply AI in drug discovery, trials, and safety.
- Healthcare & Medical Practitioners: Doctors, clinicians, and healthcare managers interested in AI-driven decision support and precision therapeutics.
- Data scientists & AI Engineers: Technical professionals looking to specialize in pharma, healthcare analytics, and intelligent drug development pipelines.
- Healthtech & Medtech Innovators: Entrepreneurs, product managers, and consultants building AI-powered solutions for pharma, clinical research, and digital health.

Prerequisites

Requires basic biology knowledge, familiarity with pharmaceutical development and regulatory fundamentals, foundational understanding of AI and machine learning, essential data analytics skills, and strong awareness of ethical considerations in AI-powered healthcare.

Course Objectives

- Bridges AI and Life Sciences: Connects core AI skills with pharmaceutical R&D, clinical workflows, and regulatory realities to make you truly industry-ready.
- Speeds Drug Discovery & Development: Equips you to apply AI for target identification, molecule screening, and trial optimization, shortening development cycles.
- Enhances Decision-Making in Healthcare: Enables data-driven decisions using AI models for risk assessment, patient stratification, and treatment optimization.
- Increases Career Opportunities in Pharma & Healthtech: Positions you for emerging roles at pharmaceutical companies, biotech startups, CROs, and AI-driven health platforms.
- Prepares You for the Future of Precision Medicine: Builds the skills to contribute to personalized therapies, adaptive clinical pathways, and AI-augmented healthcare ecosystems.

Course Content

Module 1: AI Foundations for Pharma

- 1.1 AI and Machine Learning Basics
- 1.2 AI Algorithms and Models
- 1.3 Use Case: Predictive Modeling for Adverse Drug Reactions and Drug-Drug Interactions Using Historical Patient Datasets
- 1.4 Hands-on: Build Predictive Models Using No-Code Tool (Teachable Machine)

Module 2: AI in Drug Discovery and Development

- 2.1 AI in Molecular Drug Design
- 2.2 AI in Drug Repurposing
- 2.3 Use Case: AI-Driven Drug Repurposing Successes (COVID-19 Therapeutics)
- 2.4 Hands-On: Practical AI-Driven Molecular Design and Drug Repurposing Using Orange Data Mining Tool
- 2.5 Hands-On 2: Exploring Disease-Drug Associations with EpiGraphDB

Module 3: Clinical Trials Optimization with AI

- 3.1 AI-Enhanced Patient Recruitment
- 3.2 Clinical Data Management and Monitoring
- 3.3 Use Case: Pfizer’s AI-Driven Analytics for Optimizing Clinical Trials
- 3.4 Hands-on: Implementing Clinical Data Analytics Using No-Code Platforms (KNIME)

Module 4: Precision Medicine and Genomics

- 4.1 Personalized Treatment Strategies
- 4.2 Biomarker Discovery
- 4.3 Case Study: AI-Assisted Biomarker Discovery and Validation in Cancer Treatments
- 4.4 Hands-on: Hands-On Genomic Analysis – Exploring AI-Driven Genomic Interpretation Using CBioPortal

Module 5: Regulatory and Ethical AI in Pharma

- 5.1 Ethical Considerations and AI Governance

- 5.2 AI Compliance and Regulatory Frameworks
- 5.3 Case Study: Analyzing Ethical and Regulatory Challenges Encountered in Major AI-Driven Pharma Initiatives
- 5.4 Hands-on: Developing AI Governance Strategies Based on Ethical Frameworks
- 5.5 Hands-on: Literature Mining with LitVar 2.0

Module 6: Implementing AI in Pharma Projects

- 6.1 AI Project Management
- 6.2 Evaluating AI Tools and ROI
- 6.3 Hands-On: Practical AI Project Management Using Airtable for Tracking, Collaboration, and Management

Module 7: Future Trends and Sustainability in Pharma AI

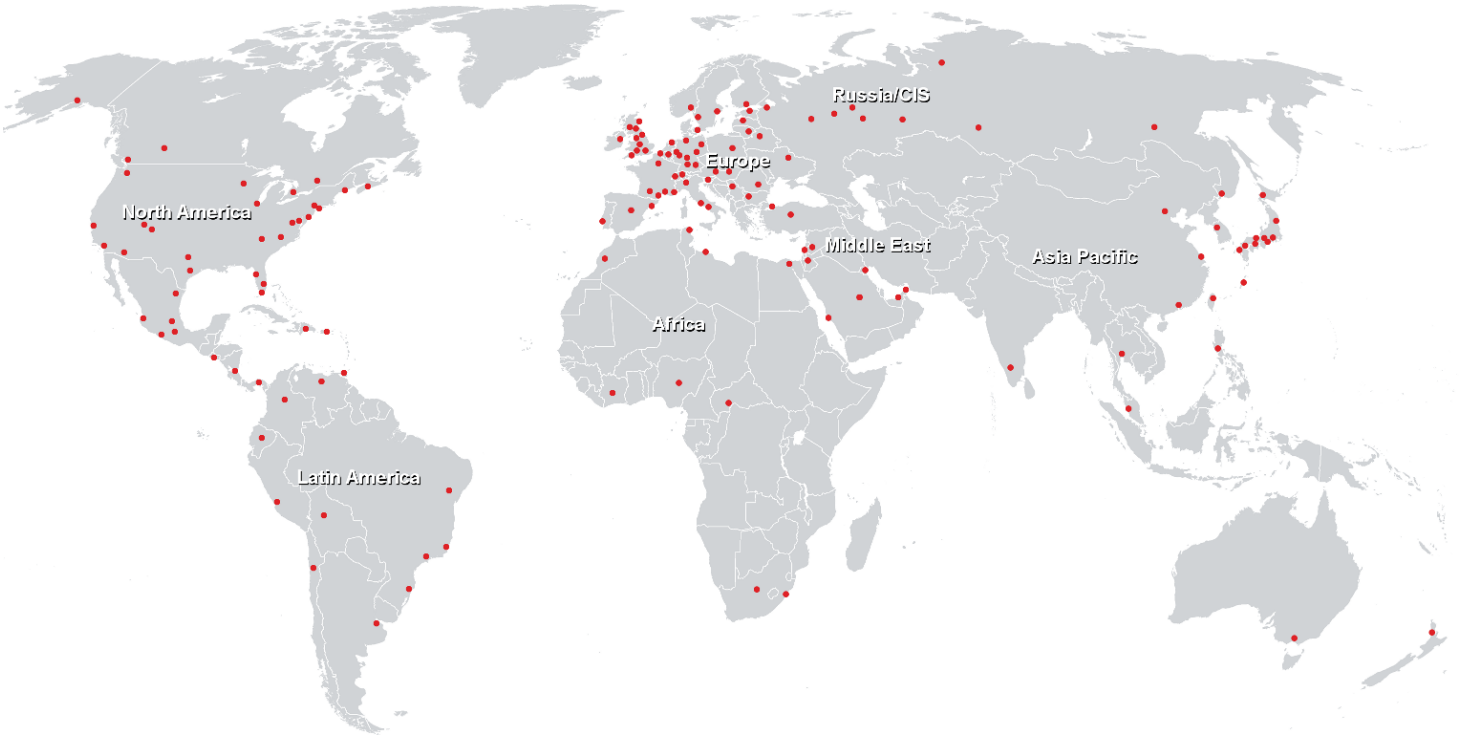
- 7.1 Emerging AI Technologies in Pharma
- 7.2 AI for Sustainable Healthcare
- 7.3 Case Study: Analysis of Sustainability Initiatives Driven by AI in Pharmaceutical Industry Leaders
- 7.4 Hands-on: Scenario Planning and Predictive Analytics Using Dashboards for Future-Focused Decision Making

Module 8: Capstone Project

- 8.1 Capstone Project 1: Predictive Modeling for Adverse Drug Reactions in Polypharmacy
- 8.2 Capstone Project 2: AI-Enhanced Clinical Trial Recruitment and Retention
- 8.3 Capstone Project 3: AI-Powered Drug Design for Rare Diseases
- 8.4 Capstone Project Evaluation Scheme

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Training Centres worldwide





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