



AI Drug Discovery and Development Portfolio Course

AI Drug Discovery and Development Portfolio Course

Overview

AI Drug Discovery and Development Portfolio Course is a ten-day course for pharmaceutical research managers, drug development leaders, clinical innovation teams, biomedical research coordinators, R&D portfolio personnel, and life-sciences governance teams, who leave with an AI Drug Development Portfolio Plan. Participants assess targets, evidence, data, candidates, preclinical and clinical uses, safety signals, model credibility, human review, portfolio choices, and lifecycle monitoring. Agile Leaders Training Center provides training in AI drug discovery and development portfolio management.

Who Should Attend

- Pharmaceutical research personnel responsible for discovery priorities and evidence
- Drug development personnel responsible for candidate progression and decisions
- Clinical innovation personnel responsible for trial-support use cases
- Biomedical research personnel responsible for data and reproducibility
- R&D portfolio personnel responsible for investment and stage-gate choices
- Life-sciences governance personnel responsible for credible and monitored AI use

The course assumes participants contribute to pharmaceutical research or development decisions and leaves out computational chemistry coding, bioinformatics specialization, laboratory technique, and clinical diagnosis.

Departments and Industries

The course supports governed AI decisions across pharmaceutical discovery and development environments.

- Drug discovery and translational research
- Preclinical and clinical development
- Clinical operations and trial innovation
- Pharmacovigilance and safety functions
- Pharmaceutical and biotechnology organizations
- Research institutes and contract research organizations

Learning Objectives

By the end of this course, participants will be able to:

- Analyze AI use cases across the drug lifecycle
- Evaluate target, data, candidate, and trial evidence
- Apply context-of-use and credibility controls
- Build human review and reproducibility safeguards
- Prioritize initiatives and monitor lifecycle risks
- Build an AI Drug Development Portfolio Plan

Course Agenda

Day 1: Lifecycle Opportunities and Decisions

- Medicinal Product AI Lifecycle Map
- Drug R&D Value-Pool Assessment
- AI Use-Case Definition Canvas
- Scientific Decision Impact Matrix
- Multidisciplinary Ownership and RACI Chart

Day 2: Target Evidence and Data Readiness

- Target Identification Evidence Map
- Target Validation Question Set
- Biomedical Data Source Register
- Data Provenance and Quality Checklist
- Population and Bias Review Card

Day 3: Molecules and Candidate Prioritization

- Molecular Design Use-Case Screen
- Virtual Screening Evidence Table
- Candidate Prioritization Scorecard
- Prediction Uncertainty Record
- Human Scientific Review Gate

Day 4: Preclinical Planning and Reproducibility

- Preclinical Evidence Dependency Map
- Experimental Design Support Checklist
- Reproducibility and Replication Plan
- Model Limitation and Applicability Statement
- Preclinical Decision Traceability Log



Day 5: Context of Use and Credibility

- AI Context-of-Use Statement
- Risk-Based Credibility Assessment
- Performance Evidence Requirement Matrix
- Interpretability and Explainability Review
- Model Documentation and Change Register

Day 6: Clinical Development Support

- Clinical Development Use-Case Map
- Protocol Design Support Boundary
- Patient Selection Evidence Checklist
- Clinical Endpoint Support Review
- Human Clinical Decision Gate

Day 7: Trial Operations and Data Quality

- Trial Operations Workflow Map
- Site and Recruitment Support Screen
- Clinical Data Integrity Control List
- Protocol Deviation Signal Review
- Trial AI Output Verification Record

Day 8: Safety Signals and Lifecycle Monitoring

- Safety Signal Use-Case Assessment
- Pharmacovigilance Human Review Flow
- Model Performance Monitoring Baseline
- Drift Alert and Escalation Rules
- Lifecycle Reassessment Schedule

Day 9: Portfolio Governance and Sequencing

- AI Initiative Value and Risk Matrix
- Drug R&D Portfolio Prioritization Board
- Stage-Gate Evidence Decision Template
- Capability and Workforce Readiness Map
- Implementation Sequence and Dependency Plan



Day 10: Drug Development Portfolio Practice

- Suggested Exercise: Map Lifecycle Use Cases and Evidence
- Suggested Exercise: Review Targets, Data, and Candidates
- Suggested Exercise: Assess Clinical and Safety Controls
- Suggested Exercise: Prioritize Initiatives and Monitoring
- Capstone Exercise: AI Drug Development Portfolio Plan

Practical Exercises

The course uses suggested activities that turn AI opportunities into evidence-based and governed drug-development decisions.

- Suggested activity: map lifecycle opportunities, define contexts of use, and assign decision ownership
- Suggested activity: review target evidence, data provenance, candidate uncertainty, and reproducibility
- Suggested activity: set clinical boundaries, verify trial outputs, and design safety-signal review
- Suggested activity: rank initiatives, set stage gates, sequence capabilities, and plan lifecycle monitoring

FAQs

Who suits AI drug discovery and development training, and what does it assume?

AI drug discovery and development training suits personnel responsible for research, candidate progression, clinical innovation, biomedical evidence, R&D portfolios, or governance. It assumes familiarity with the drug-development lifecycle and requires no coding.

How does AI drug development portfolio training differ from computational drug design training?

Portfolio training focuses on use cases, evidence, credibility, human review, stage gates, governance, and monitoring, while computational drug design training develops technical modeling and coding skills.

What makes an AI model credible for a drug-development decision?

Credibility depends on a clear context of use, risk-proportionate evidence, suitable data, documented performance, uncertainty and limitations, reproducibility, human review, change control, and lifecycle monitoring.

How should teams prioritize AI opportunities in drug development?

Teams should compare scientific value, decision impact, evidence readiness, risk, data access, workflow fit, review capacity, implementation dependencies, monitoring needs, and reversibility.



What belongs in an AI Drug Development Portfolio Plan?

The plan should include lifecycle use cases, contexts of use, evidence requirements, data sources, decision owners, human review, stage gates, initiative priorities, capability gaps, sequencing, performance measures, and reassessment triggers.

Conclusion

Participants take back an AI Drug Development Portfolio Plan connecting discovery, evidence, candidates, preclinical and clinical work, safety, credibility, governance, and monitoring. It changes how teams select and oversee AI-supported R&D decisions. The plan provides a basis for risk-proportionate evidence, reproducible work, accountable review, sequenced investment, and lifecycle control.



Training Course Categories

Agile PM and Project Management Training Courses

Certified Courses By International Bodies

Communication and Public Relations Training Courses

Data Analytics Training and Data Science Courses

Education and Learning Development Training Courses

Environment & Sustainability Training Courses

Facilities and Real Estate Training Courses

Finance and Accounting Training Courses

Governance, Risk and Compliance Training Courses

Healthcare Management Training Courses

Hospitality and Tourism Training Courses

Human Resources Training and Development Courses

IT Security Training & IT Training Courses

Leadership and Management Training Courses

Legal Training, Procurement and Contracting Courses

Maintenance Training and Engineering Training Courses

Marketing, Customer Relations, and Sales Courses

Occupational Health, Safety and Security Training Courses

Oil & Gas Training and Other Technical Courses

Personal & Self-Development Training Courses

Quality and Operations Management Training Courses

Quality and Operations Management Training Courses

Secretarial and Administration Training Courses

Shipping, Maritime and Ports Training Courses



Training Cities

Abu Dhabi UAE	Accra Ghana	Al Jubail Saudi Arabia
Amman Jordan	Amsterdam Netherlands	Athens Greece
Baku Azerbaijan	Bali Indonesia	Bangkok Thailand
Barcelona Spain	Berlin Germany	Cairo Egypt
Cape town South Africa	Casablanca Morocco	Chicago USA
Doha Qatar	Dubai UAE	Frankfurt Germany
Geneva Switzerland	Istanbul Turkey	Jakarta Indonesia
Johannesburg South Africa	Kuala Lumpur Malaysia	Kuwait Kuwait
Langkawi Malaysia	Lisbon Portugal	London UK
Madrid Spain	Manama Bahrain	Marbella Spain
Milan Italy	Montreux Switzerland	Munich Germany
Muscat Oman	Nairobi Kenya	New York USA

Training Cities

Nice

France

Paris

France

Phuket

Thailand

Port Louis

Mauritius

Porto

Portugal

Prague

Czech Republic

Riyadh

Saudi Arabia

Rome

Italy

San Diego

USA

Seoul

South Korea

Sharm El-Sheikh

Egypt

Singapore

Singapore

Tashkent

Uzbekistan

Tbilisi

Georgia

Tokyo

Japan

Toronto

Canada

Trabzon

Turkey

Vienna

Austria

Zanzibar

Tanzania

Zoom

Online Training

Zurich

Switzerland