Intellectual Property in Animal Biotechnology Training Course

Professional Development Training Course Outline

Category	Veterinary and Animal Science	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

Intellectual Property in Animal Biotechnology is at the forefront of innovation, biosafety, genetic engineering, CRISPR genome editing, synthetic biology, animal health commercialization, and global bioeconomy growth. As breakthroughs in transgenic animals, gene-edited livestock, biopharmaceutical production, veterinary biologics, precision breeding, and regenerative medicine accelerate worldwide, protecting inventions through robust patents, trade secrets, plant and animal variety protection, regulatory data exclusivity, and technology transfer strategies has become mission-critical. Intellectual Property in Animal Biotechnology Training Course provides a deep, practice-oriented foundation in IP strategy, patent drafting, freedom-to-operate (FTO), biosimilar pathways, licensing models, and global regulatory frameworks shaping animal biotechnology innovation.

Designed for scientists, innovators, entrepreneurs, technology transfer professionals, and policy leaders, this course bridges legal frameworks and cutting-edge biotech applications. Participants will explore landmark cases, including patent disputes around CRISPR-Cas9, the commercialization of cloned animals like Dolly the Sheep, and global patent standards influenced by the World Intellectual Property Organization and the World Trade Organization TRIPS Agreement. By combining innovation management, regulatory intelligence, bioethics governance, and commercialization strategy, this program equips participants to secure, defend, and monetize intellectual assets in the rapidly evolving animal biotechnology ecosystem.

Programme Curriculum

Intellectual Property in Animal Biotechnology Training Course

Introduction

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Course Duration

5 days

Course Objectives

1. Understand Patent Law in Biotechnology and global IP harmonization frameworks.
2. Analyze CRISPR Patent Landscape & Genome Editing Disputes.
3. Develop Freedom-to-Operate (FTO) and Patentability Search Strategies.
4. Draft Biotechnology Patent Claims for Transgenic Animals.
5. Navigate Regulatory Data Protection & Biosafety Compliance.
6. Evaluate Technology Transfer & Licensing Models in Agri-Biotech.
7. Manage Trade Secrets & Bioprocess Confidential Information.
8. Assess Ethical, ESG & Bioethics Governance Risks.
9. Structure IP Commercialization & Startup Spin-off Strategies.
10. Understand Global TRIPS Compliance & Cross-Border Enforcement.
11. Conduct IP Valuation & Biotech Portfolio Management.
12. Address Patent Infringement Litigation & Dispute Resolution.
13. Integrate AI in Drug Discovery & Precision Livestock IP Protection.

Target Audience

1. Animal Biotechnology Researchers & Genetic Engineers
2. Veterinary Biologics Developers
3. Agri-Biotech Startup Founders
4. IP Attorneys & Patent Agents
5. Technology Transfer Officers (TTOs)
6. Regulatory Affairs Professionals
7. Policy Makers & Bioethics Committees
8. Investors & Venture Capital Analysts in Life Sciences

Course Modules

Module 1: Foundations of IP in Animal Biotechnology

- Patentability criteria: novelty, inventive step, industrial applicability
- Biological material deposits & Budapest Treaty
- Ownership of genetically modified organisms
- Patent vs. plant/animal variety protection
- Global patent filing systems (PCT route)
- **Case Study:** Patent protection of **OncoMouse** and its global legal challenges.

Module 2: CRISPR & Genome Editing Patent Wars

- CRISPR patent landscape mapping
- Priority disputes & inventorship
- University vs. corporate IP ownership
- Licensing frameworks in genome editing
- Royalty stacking risks
- **Case Study:** Patent battle between the **Broad Institute** and the **University of California** over CRISPR rights.

Module 3: Transgenic Animals & Cloning Innovations

- Patent drafting for gene-edited livestock
- Cloning technologies & ethical considerations
- Animal welfare compliance
- International filing strategies
- Enforcement challenges
- **Case Study:** Commercial cloning implications after **Dolly the Sheep**.

Module 4: Regulatory & Biosafety IP Interface

- GMO regulatory approvals
- Biosafety protocols & compliance
- Data exclusivity in veterinary biologics
- Overlap between patents & regulatory protection
- International biosafety agreements
- **Case Study:** Regulatory and IP pathway for genetically engineered salmon by **AquaBounty Technologies**.

Module 5: Licensing, Technology Transfer & Commercialization

- Exclusive vs. non-exclusive licensing
- University spin-off structuring
- Joint venture agreements
- Cross-licensing in biotech
- Global market entry strategies
- **Case Study:** Technology transfer practices at **Massachusetts Institute of Technology** in life sciences commercialization.

Module 6: Trade Secrets & Bioprocess Protection

- Protecting proprietary cell lines
- NDAs & confidentiality agreements

- Manufacturing process IP
- Cyber-biosecurity risks
- Trade secret litigation
- **Case Study:** Trade secret disputes in vaccine development involving **Moderna**.

Module 7: IP Valuation, Investment & Portfolio Strategy

- Biotech IP valuation models
- Due diligence for investors
- Patent landscaping tools
- Risk assessment & mitigation
- Mergers & acquisitions IP audits
- **Case Study:** IP valuation during acquisition strategies by **Zoetis**.

Module 8: Ethics, Global Policy & Future Trends

- Bioethics in gene editing
- ESG compliance in biotech
- AI-driven breeding technologies
- Digital sequence information (DSI) debates
- Future of synthetic biology IP
- **Case Study:** Global IP governance discussions at the **World Intellectual Property Organization** on genetic resources.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call *+254769199797*

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

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