



From Bench to Shop: Transitioning Technology to the Global Marketplace

Training Certificate for the Scientific Business
Development & Management Program

(2017-2018)

Program Overview

This international training certificate program offers a highly-valued experience unique to select agents and transboundary animal diseases (TAD). This program targets graduate students, post-doctoral candidates, and early career faculty, including industry and academic scientists interested in understanding the business regulations, federal and international processes, and research requirements for taking basic and/or applied high consequence TAD research through technology transition and commercialization.

This certificate involves an online curriculum of 4 modules to be taken over the course of 5 months, a 3-week experiential training in multiple locations with subject matter experts from academia, the biopharmaceutical industry, and government, to be concluded with a follow-on project.

Online Curriculum - consists of 4 Modules.

Module 1: Developing a Vision for Product Discovery to Commercialization.

Module 2: Bench: Developing a Strategic Plan of Work. Lessons include: Introduction to Product Discovery During the Bench Phase; Risk Assessment Methods for Working with Select Agents; Introduction to Biorisk Management; Biosecurity; Animal Use Ethics; Animal Biorisk Management; Facilities for Biomedical Research and Production; Bioethics in Biomedical Research, Regulations and International Interactions; and Select Agent Regulation, Biocontainment and Licensing.

Module 3: Technology Transition: Biological Product and Component Validation. Lessons include: Regulatory Pathways to License and Patent TAD Research and Development (R&D) Technologies; Good Lab Practices (GLPs) to Utilize During Scale-Up Production of TAD R&D Technologies; Good Management Practices (GMPs) to Utilize During Scale-Up Production of a TAD R&D Technology; and Quality Control.

Module 4: Business: Transition of a TAD R&D Product. Lessons include: Partnership Relations; Business Models and Plans; Entrepreneurship; Project Management; and Intellectual Property.

3-Week Experiential Training

College Station, Texas: Trainees will experience the processes necessary for moving a product from academic R&D through the technology and business transition pipeline at Texas A&M University and FUJIFILM Diosynth Biotechnologies.

Galveston, Texas: Trainees will be familiarized with the regulations and procedures involved for *in vitro* and *in vivo* work at high containment facilities with small animal models at University of Texas Medical Branch–Galveston.

Fort Collins, Colorado: Trainees will learn about transitioning small animal experiments to large animal full-scale experiments in a biosafety level 3 (BSL3) laboratory, and the steps necessary to transition R&D from academia to industry at Colorado State University and BioMARC.

Onderstepoort, South Africa: Trainees will learn about international regulations involving work with high containment animal pathogens, large animal BSL3 laboratories, and how technology is transitioned to the global marketplace at the Agricultural Research Council - Onderstepoort Veterinary Institute.

All travel, accommodation, and meals for the 3-week Experiential Training in South Africa, Texas and Colorado (June 2018) will be provided for selected trainees. The course is valued at \$15,000 per participant. A \$2,000 training certificate fee (and \$30 processing fee) is required from each selected trainee which is paid by a sponsor (usually your university or employer).

Apply online at: <http://vetmed.tamu.edu/benchtoishop>
Application due date: March 1, 2017
Questions? Contact us at benchtoishop@tamu.edu