Quantum-Safe Pharma Intensive

Practitioner intensive

A full-day workshop for pharma and biotech teams planning a PQC migration through change control. Leave with an inventory plan and year-one roadmap.

Duration	Level	Fee
8 hours	**Practitioner**	**US$1,499 live online**
Planning workshop	No cryptography background needed	US$1,999 in person

Pharmaceutical and biotech companies modify validated systems only through change control, with documented testing and evidence an inspector can review. In a post-quantum cryptography (PQC) migration, replacing an algorithm, a cryptographic library, or a certificate authority in a GxP system is one of those changes. Regulators, industry bodies, and trading partners also set the cryptography of some interfaces, so part of the migration depends on their timelines. In this workshop, you build the program plan for that migration, with each change to a validated system planned through change control.

What you will build

- An estate map that marks what your teams, suppliers, CDMOs, regulators, and trading partners control
- A program charter and a steering committee structure that includes quality assurance
- An inventory plan, with its tracks, starting records, and order
- An initial priority list with evidence gaps recorded, and a signature longevity plan for one regulated archive
- A supplier and CDMO register with graded dates, and draft contract and quality agreement clauses
- A register of the requirements and dates that regulators and trading partners set
- A classification matrix for cryptographic changes, and a workstream structure with role and resource assumptions
- A year-one plan by quarter, with board KPIs and the decisions you need from others

Who should attend

- Program managers and PMO leads
- The CISO or CIO who will sponsor the migration
- IT quality and computerized system validation leads
- Manufacturing and laboratory systems owners
- Serialization and supply chain leads
- Regulatory operations
- Security architects
- Procurement, supplier quality, and compliance

The intensive is for pharmaceutical and biotech companies, including those that manufacture through contract development and manufacturing organizations (CDMOs). We recommend sending a mixed group from one company, ideally the people who would be members of its quantum readiness steering committee. Bring at least one person from quality assurance. Many of the sequencing decisions in this workshop are change control decisions.

Preparation

We recommend Quantum-Safe Healthcare as preparation, though you can enroll without it. It covers pharma, health systems, and medical devices at overview depth. You can work through the day with data from your own company or with a sample pharmaceutical company we provide.

Why Quantum Academy

This intensive is built on the Applied Quantum PQC Migration Framework, published openly under Creative Commons at pqcframework.org. The course author wrote the framework. No published extension of the framework covers pharma or GxP validation yet. The instructors teach the manufacturing and laboratory material from the framework's OT & Critical Infrastructure Extension, and teach GxP validation from their own field work.

Curriculum and enrollment

The day

The instructor starts each module with a short briefing. You then apply the module's template to your own estate or to the sample pharmaceutical company. In person, we teach the intensive from 09:00 to 17:00 local time, with lunch and two breaks:

09:00–09:50 · Module 1. The shape of a pharma migration
The instructor walks through the domains of a pharmaceutical estate, from research and clinical systems to manufacturing, laboratories, quality records, and the supply chain.

09:50–10:40 · Module 2. Mandate, governance, and the business case
You define a steering committee that includes quality assurance and validation, and build the business case with planned system upgrades shown separately from new money.

10:40–11:00 · Break

11:00–11:45 · Module 3. Inventory planning across the GxP estate
You plan the inventory in tracks for validated applications, manufacturing and laboratory equipment, signed archives, external interfaces, and shared IT and PKI.

11:45–12:30 · Module 4. Risk scoring and signed records
For one regulated archive, you draft a signature longevity plan: how long its signatures must stay verifiable, and how to re-sign or re-timestamp it without altering originals.

12:30–13:30 · Lunch

13:30–14:20 · Module 5. Suppliers, CDMOs, and quality agreements
You classify suppliers, equipment makers, and CDMOs by how much of your timeline they control, and open every conversation with the same two questions about crypto-agility.

14:20–15:10 · Module 6. Regulators and trading partners
You record each interface whose cryptography others set as its own dependency, from FDA and EMA submission gateways to DSCSA trading-partner credentials and serialization data exchanges.

15:10–15:30 · Break

15:30–16:15 · Module 7. Change control and program structure
You draft a classification matrix for cryptographic changes, with the GxP risk, testing, and evidence each class requires.

16:15–17:00 · Module 8. Year-one plan, KPIs, and the asks
You assemble the day's work into a year-one plan by quarter, with supplier questionnaires and the ownership register started in the first quarter.

Live online, we teach it in two four-hour sessions on consecutive days, each with a short break. We cover Modules 1 to 4 in the first session and Modules 5 to 8 in the second.

Formats and fees

Format	Delivery	Fee
Live online	Two four-hour sessions on consecutive days	US$1,499
In person	One day, 09:00 to 17:00 local time	US$1,999
Private team training	Only your own colleagues attend	Quoted per engagement

What is included

- The course handbook, a PDF of the full material with the instructor notes written out
- A PDF copy of *Quantum Ready* by Marin Ivezic, the companion book to the framework the day draws on
- The working documents you build during the day, editable and yours to keep
- 180 days of access to the corresponding online on-demand course. Where that course is not yet published, the 180 days start on the day it is.
- A Quantum Academy certificate of completion. It confirms that you completed the course and is separate from Quantum Academy's professional certifications.

Explore the course

Dates and booking: quantumacademy.com/courses/quantum-safe-pharma-intensive/

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Prices as of October 2026.
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