



Training Catalogue 2026

National Institute
for Bioprocessing
Research and
Training (NIBRT)

About Us

The National Institute for Bioprocessing Research and Training (NIBRT) is a world-class centre of excellence for training and research in biopharmaceutical manufacturing.

Based in Dublin, Ireland, and supported by a global network of international partners, NIBRT delivers a comprehensive range of industry-leading training programmes in biopharmaceutical manufacturing for professionals at every stage of their career.





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Why Train with NIBRT?

NIBRT is a globally renowned centre of excellence for training in the biopharma industry. We know that success in biopharmaceutical manufacturing starts with exceptional training.

Our world-class programmes are designed to equip professionals with the skills, knowledge, and confidence to thrive in this rapidly evolving field.

By choosing NIBRT, you gain access to cutting-edge facilities, expert instruction, and a curriculum developed in line with industry needs. Whether you are advancing your career or enhancing your team's capabilities, NIBRT provides the training solutions to help you achieve excellence.



What Sets NIBRT Apart?

→ State-of-the-Art Facilities:

Train in our 8,300 m² simulated GxP facility, featuring best-in-class equipment and realistic production scenarios.

→ Comprehensive Curriculum:

Focusing on essential biopharma training areas, including drug substance and drug product manufacturing, quality control, Advanced Therapy Medicinal Products (ATMPs), vaccine production, and data analytics.

→ Flexible Training Options:

Choose from online, onsite, offsite, or blended learning, allowing you to access training in the format that best suits you or your team's needs.

→ Customised Programmes:

We create bespoke training tailored to the specific needs of your organisation – your training, your way, with tailored content, when you want it and where you want it.

→ World-Class Instructors:

Benefit from the guidance of subject matter experts who combine deep biopharma knowledge with exceptional teaching experience.

→ Research and Innovation:

Our programmes are informed by the latest research and technological advancements in biopharmaceutical manufacturing.

→ NIBRT Global Qualifications (NGQs):

Some NIBRT training programmes offer the additional option of a NIBRT Global Qualification (NGQ) – an internationally recognised, standardised accreditation for the biopharma industry.

→ Commitment to Excellence:

We continuously enhance our programmes to provide the most relevant, up-to-date training in biopharmaceutical manufacturing.

NIBRT Training by Numbers 2025



5,057

Trainees



30,354

**Training Days
Delivered**



133

Employees



8,600

**NIBRT Online Academy
(NOA) Users**



665

**Springboard+
Students**



97

**Countries
using NOA**

NIBRT Training Facilities

NIBRT is an 8,300 m² training and research facility. Our state-of-the-art training facilities offer trainees a realistic simulated training environment not previously possible anywhere in the world.



Fill Finish Suite Tour



QC Micro Suite Tour



Cytiva Single Use Suite Tour



Downstream Suite Tour



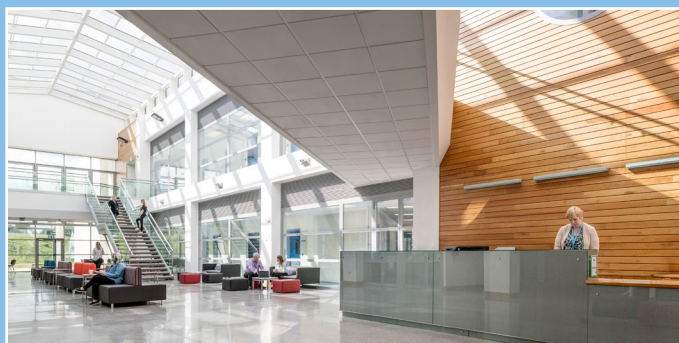
Advanced Therapy Manufacturing Lab Tour



Upstream Pilot Plant Tour



Clean Utilities Tour



Foyer Tour

Training Room 1 Tour



Inoculum Tour

NIBRT Floor Plan



1	Clean Utilities
2	Gown In/Out
3	COP/SOP
4	Buffer Prep
5	Media Prep

6	QC Analytics
7	QC Micro
8	Upstream & Harvest
9	Inoculum
10	Equipment Prep

11	Cell Culture
12	Single Use
13	Fill Finish
14	Lyophilisation
15	Downstream

16	ATMP
17	Gowning
18	Process Intensification (In development)

NIBRT Training Team

NIBRT's training team has a broad range of industry and academic experience.



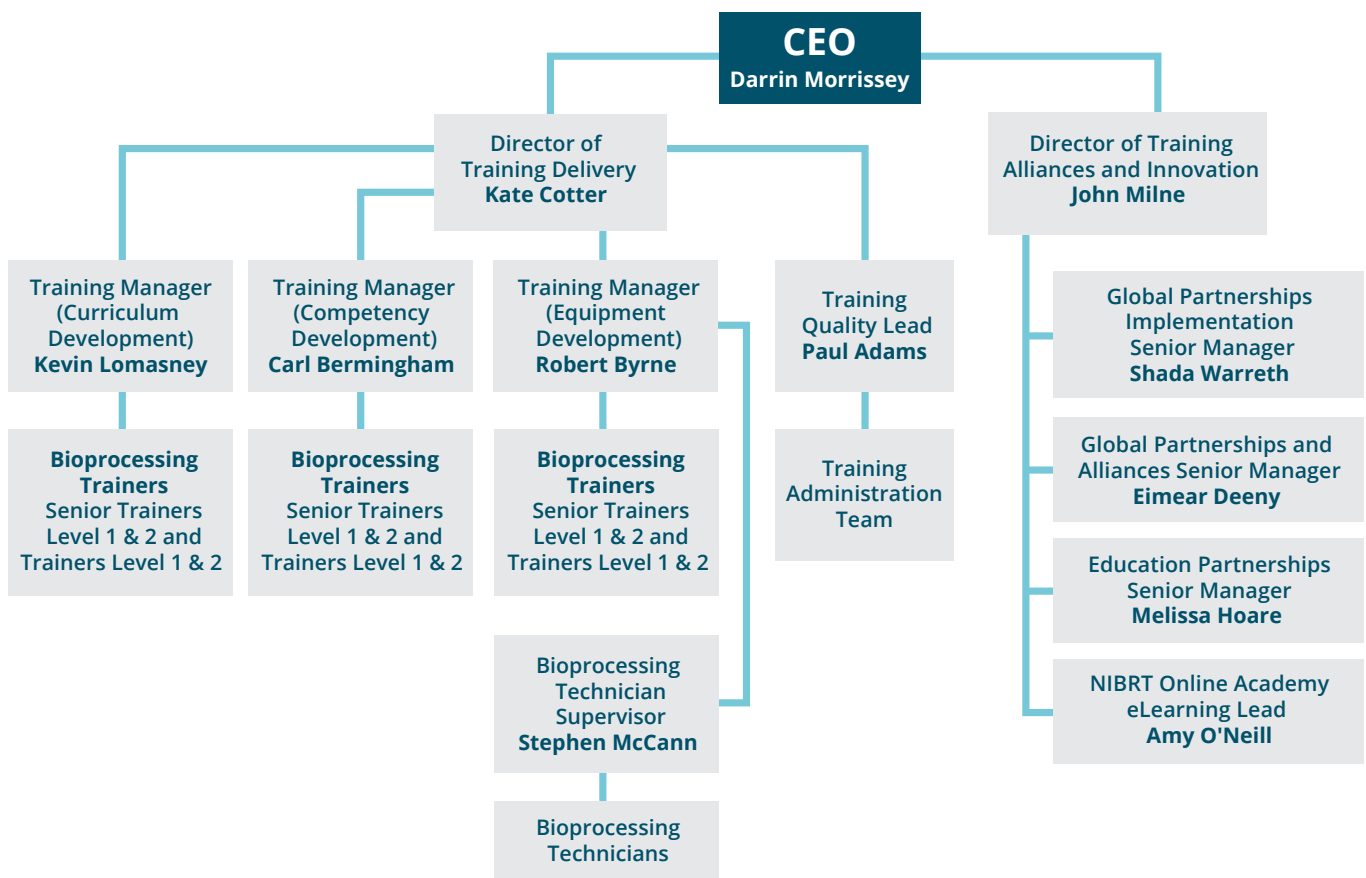
Our dedicated training team of nearly 40 full time employees, is focused on equipping professionals with the skills and knowledge needed to thrive in the evolving biopharma sector. With a commitment to excellence, our experienced instructors blend theoretical expertise with practical insights, ensuring a personalised learning experience for each participant.

- **Experienced Instructors:** Our trainers have extensive biopharmaceutical expertise.
- **Practical Insights:** They bring real-world industry experience to the classroom.
- **Personalised Learning:** Small class sizes ensure individualised attention.
- **Cutting-Edge Knowledge:** We stay up-to-date with industry advancements.
- **Proven Success:** NIBRT's training team has a strong track record of success.

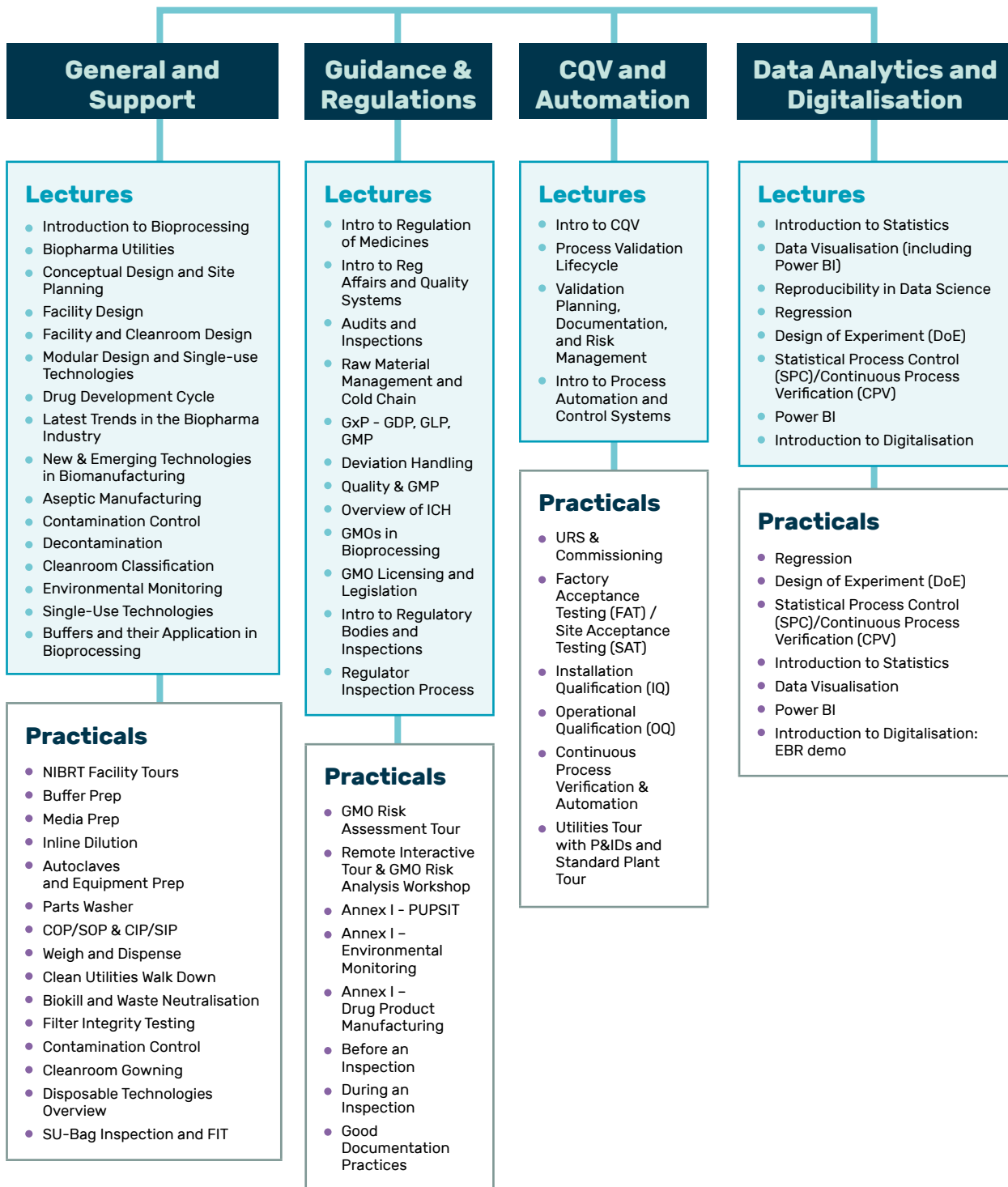


"I want to express our heartfelt gratitude for the incredible training sessions you provided to our group. The knowledge and expertise from your trainers were truly exceptional and greatly benefited our team. The training sessions exceeded our expectations, and our team members found them extremely valuable for enhancing their skills and knowledge in the field."

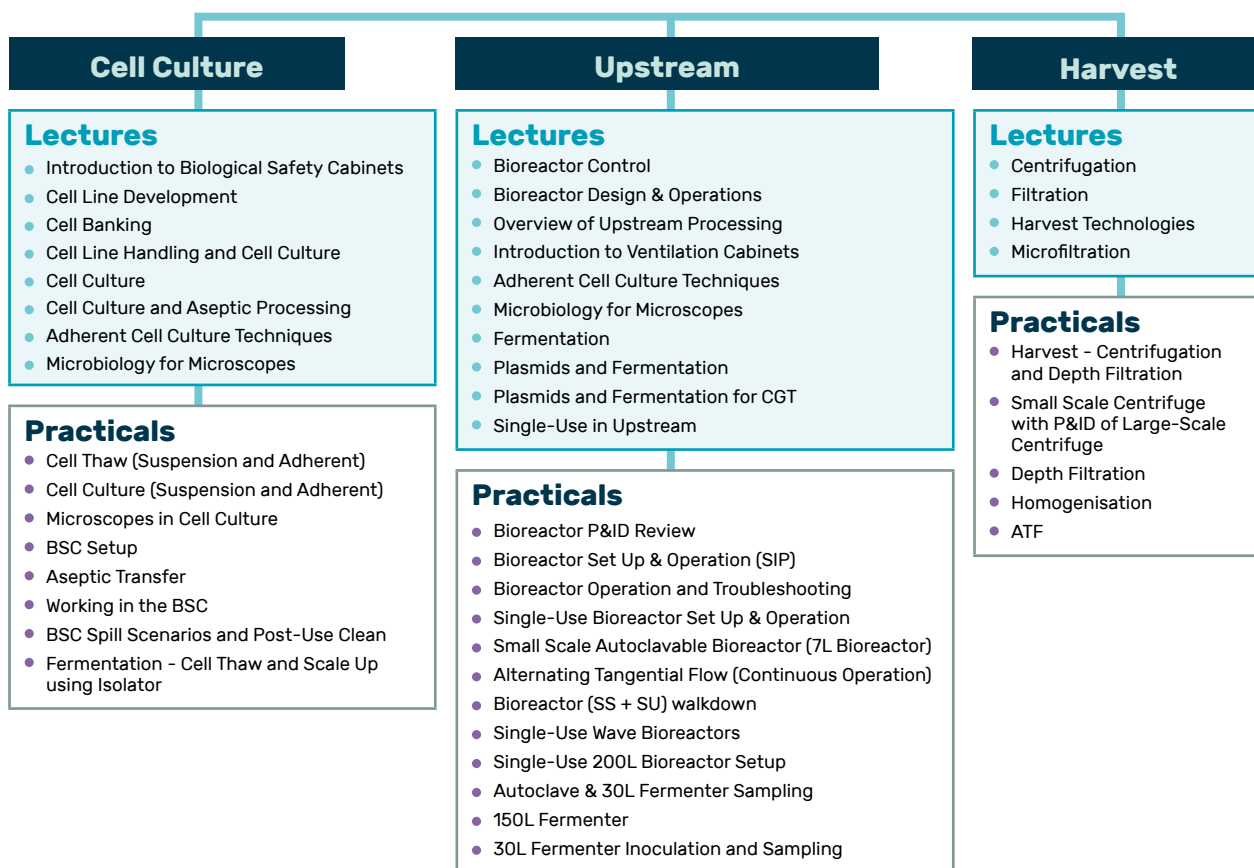
Fernanda Hussein, Global Commercial Training Manager,
Terumo Blood and Cell Technologies



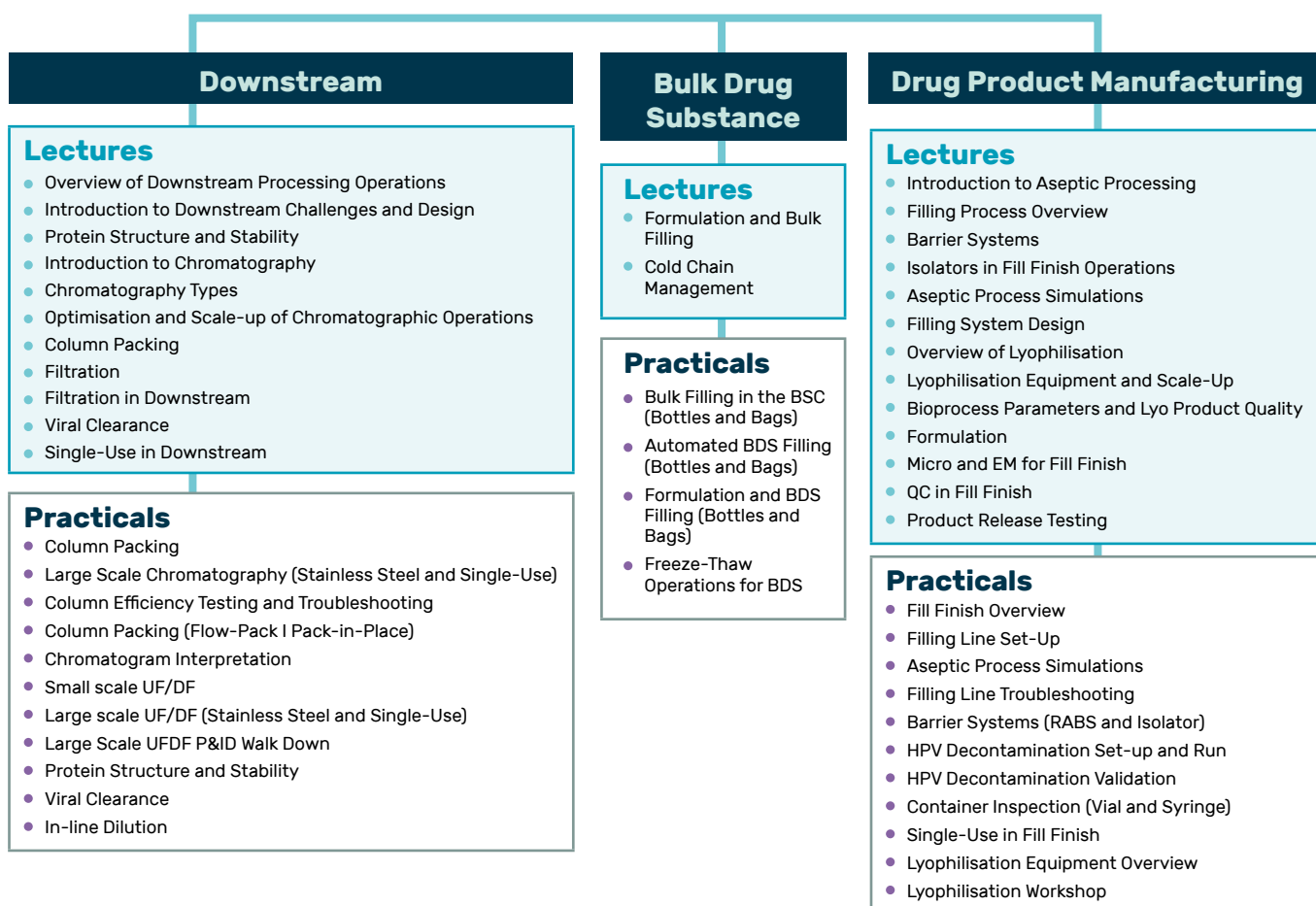
General Biologics Manufacturing Curriculum



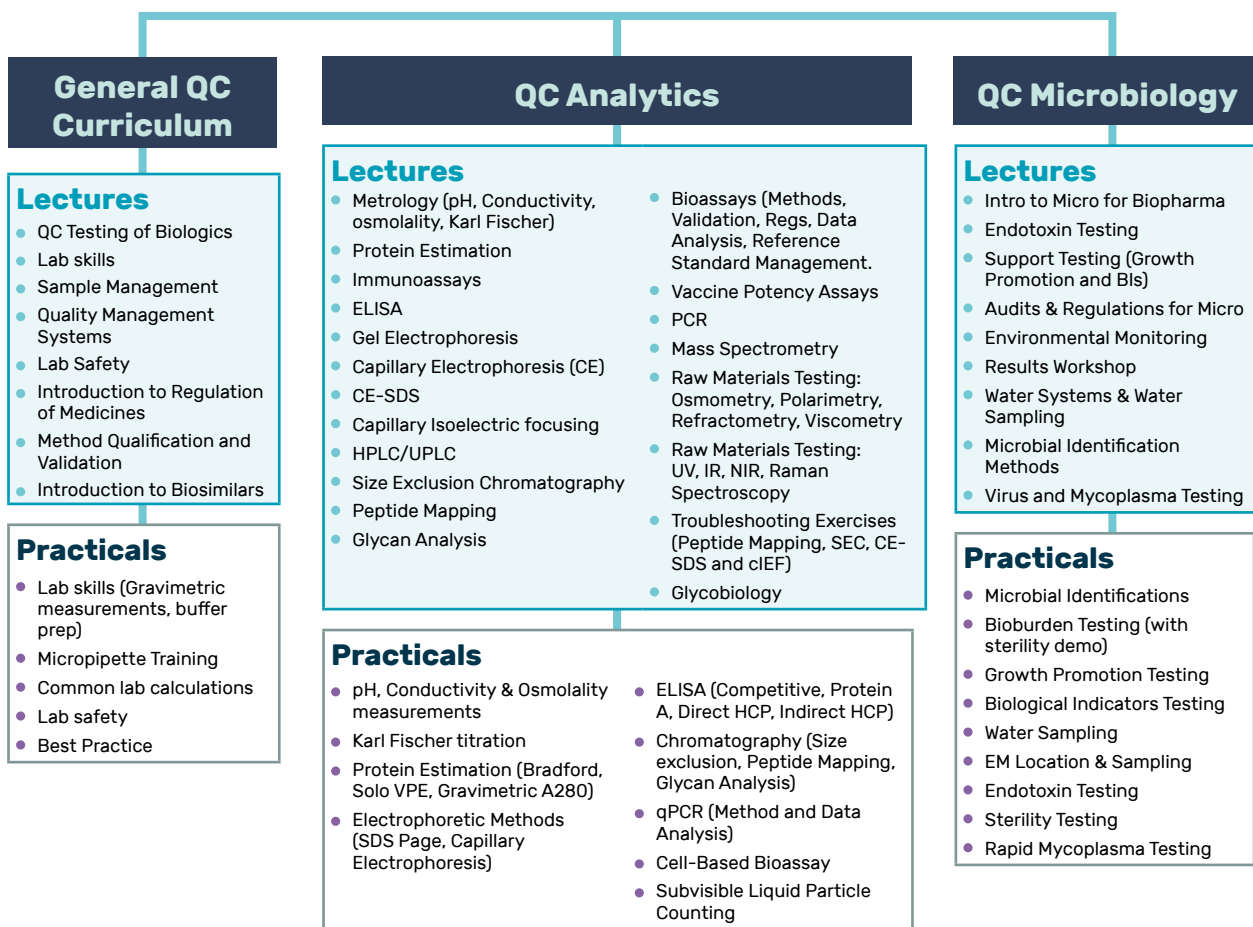
Recombinant Protein Manufacturing Curriculum



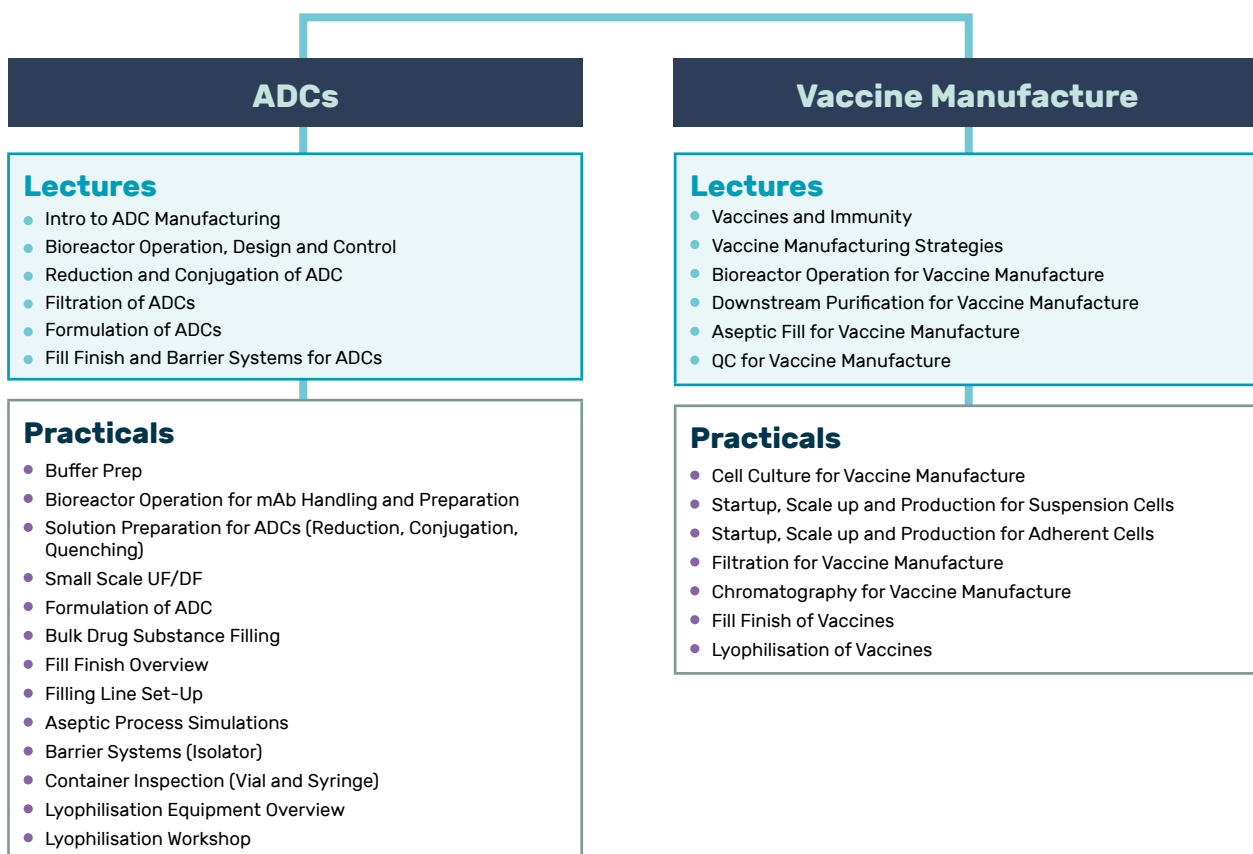
Recombinant Protein Manufacturing Curriculum



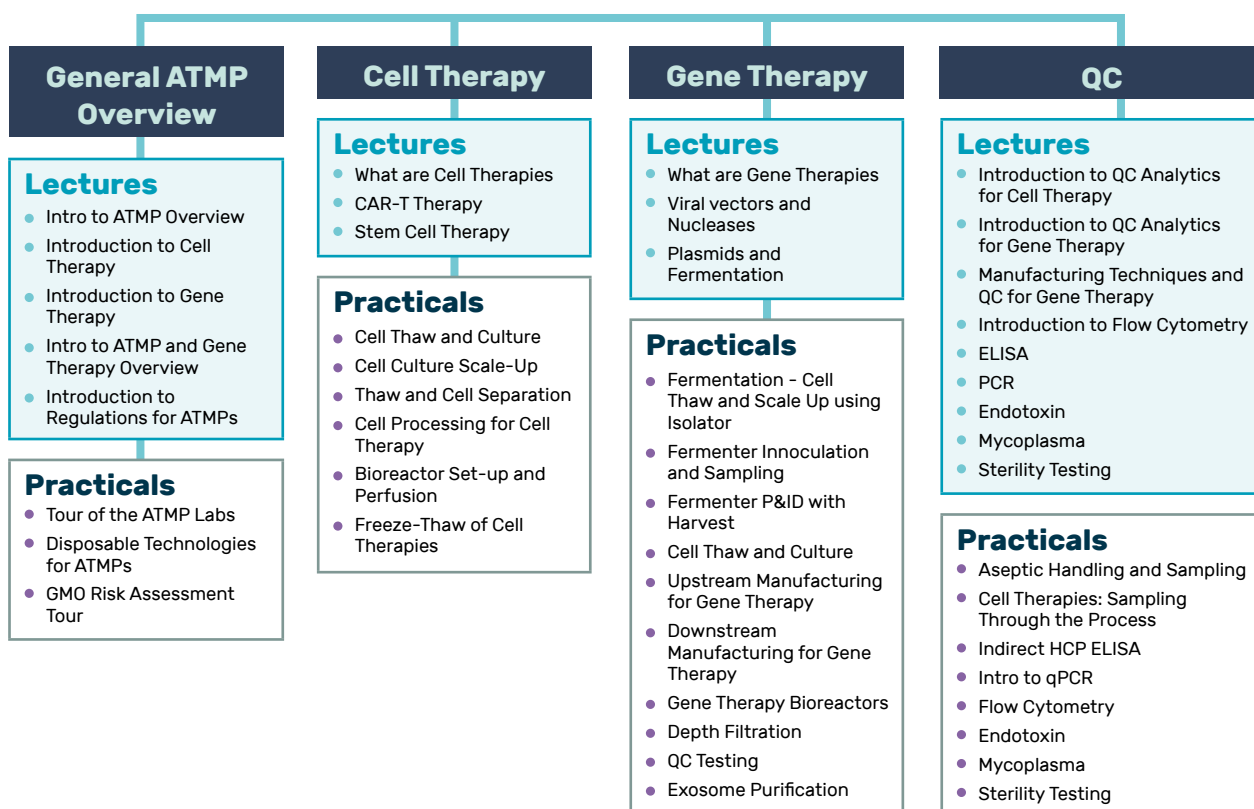
Recombinant Protein Quality Control Curriculum



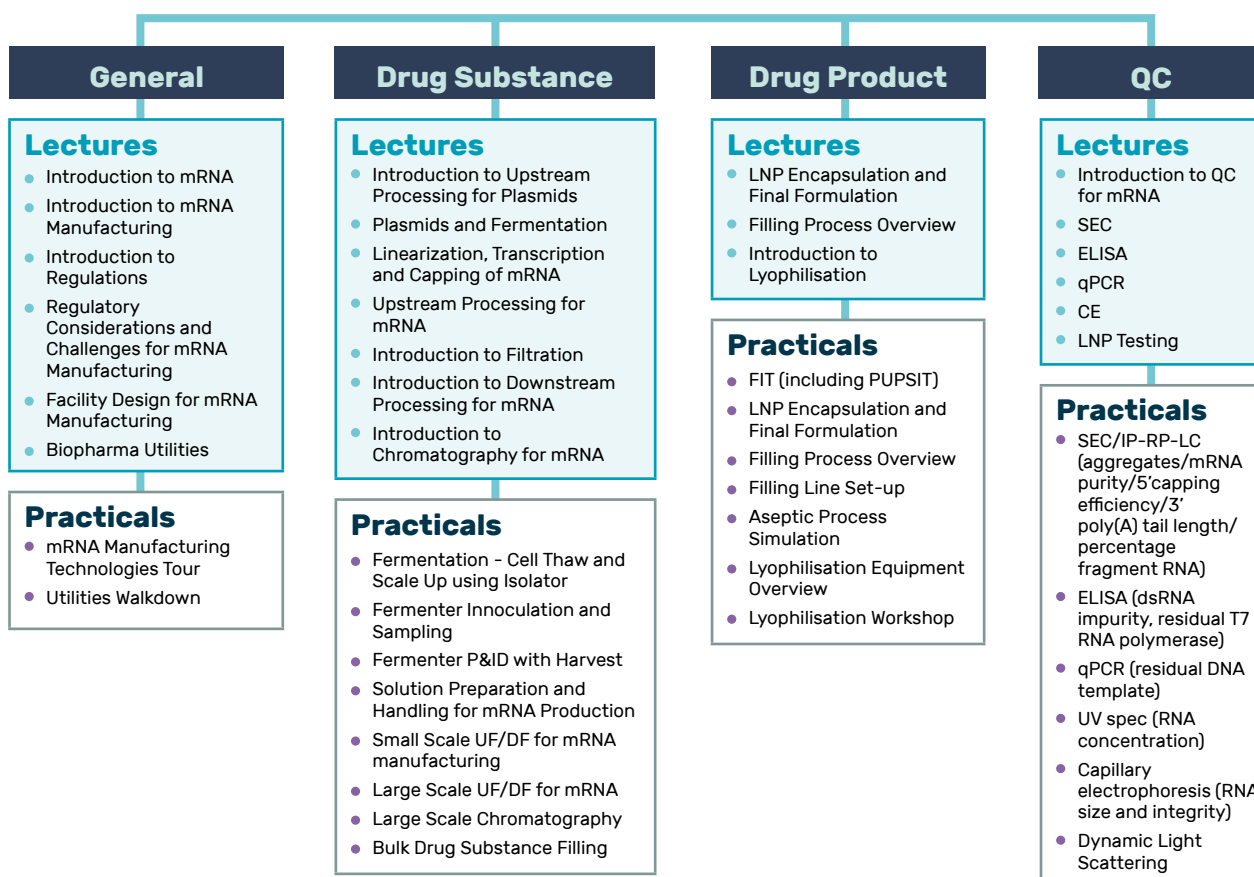
Antibody Drug Conjugate and Vaccine Manufacturing



Advanced Therapies Manufacturing Curriculum



mRNA Manufacturing Curriculum



Which Training Programme Should I Choose?

NIBRT provides a broad range of biopharma training options to cater to the diverse learning requirements of our clients.

Whether you are an individual or an organisation, we offer a host of training solutions delivered in various flexible formats to meet your unique needs.



“NIBRT’s world-class facilities and custom training programmes provide our teams with invaluable opportunities to deepen their product application knowledge in the bioprocessing and CGT fields. Feedback from colleagues has been excellent, and we look forward to honing our expertise with further NIBRT custom courses that help us excel when finding solutions for our customers’ fluid path challenges.”

Paul Stevens, Head of Global Training at Watson-Marlow

Customised Training

Tailored biopharma training programmes customised to meet the unique requirements of our clients.

NIBRT creates customised biopharma training with content fully aligned to a team's goals and delivered through flexible options – at NIBRT, online, at your facility, or blended. Programmes range from focused 1–2 day workshops to comprehensive, long-running courses.

Short Courses

Short (1–5 days) classroom, practical, or live online sessions focusing on specific biopharma topics.

These courses are open for all to book on predetermined dates, subject to availability.

On Demand E-Lessons (NOA)

Access pre-recorded modules covering a broad range of fundamental biopharma topics.

Learn at your own pace and convenience, with course modules typically spanning 45 minutes to 1 hour.

University Courses

NIBRT offers a selection of certificate, degree, and master's programmes in partnership with various Irish universities.

Course content is delivered by these universities, with practical components conducted at the NIBRT facility.

Funded University Courses – Springboard+

These programmes, funded at a rate of 90–100%, focus on high-demand biopharma skills areas. Course content is delivered by universities with practical elements at the NIBRT facility.

Springboard+ is co-funded by the Government of Ireland and the European Union.



Customised Training

Tailored to Your Team's Needs

At NIBRT, we understand that every organisation has unique training needs. That is why we specialise in designing customised training solutions that align with your team's goals, skill levels and operational requirements.

Your Course. Your Way.

Our customised courses are built in partnership with you – ensuring that your team gets the most relevant, practical and impactful learning experience possible.

Your Content

**Customised
Training
Content**

How Do You Want it

**Customised
Flexible Delivery
Methods**

When You Want it

**Customised
Course
Scheduling**

Trusted by Industry Leaders

Our Customised Training Clients 2025



Why Choose NIBRT for Customised Training?



Practical, Hands-On Learning

Practical training that mirrors real life challenges, ensuring skills transfer directly to the workplace.



State-of-the-Art Training Facilities

GMP-simulated, pilot-scale facilities where participants gain experience in environments that closely replicate real industry conditions.



NIBRT Global Qualifications (NGQs)

Trusted, industry-recognised qualifications that validate skills and knowledge worldwide.



Expert Trainers

Delivered by NIBRT's highly experienced team, combining technical expertise with practical insights.



Reduced Onboarding Time

New hires become productive faster with focused, role-specific training.



Risk Mitigation

Training at the NIBRT facility reduces errors and safety risks before entering live production settings.



Flexible Delivery Options

Programmes designed around your needs - onsite at NIBRT, at your facility, online, or blended.



Training at NIBRT is delivered from our state-of-the-art bioprocessing manufacturing pilot plant and training labs using the latest industry equipment. With 20 fully equipped training suites and lecture rooms, participants gain hands-on experience in environments that mirror real-world operations. Take a [virtual tour](#) of our facilities.

Our Customisation Process:

"Building competency through customised programmes."

Step 1 Consultation

We start by listening. Together, we clarify your training goals, desired outcomes, trainee profiles, and gather an understanding of your manufacturing operations to add context to the training.

Step 2 Course Design

Our experts craft a tailored programme - selecting the most relevant topics, defining the right duration, and choosing the ideal delivery format to fit your team's needs.

Step 3 Approval and Booking

You stay in control. We confirm costs, finalise schedules, and take care of all logistics, ensuring a smooth process from start to finish.

Step 4 Delivery

Our experienced trainers bring the programme to life, delivering engaging, practical, and results-driven training tailored to your team.

Step 5 Evaluation and Follow-Up

We measure impact through assessments and feedback, provide certificates of completion, and help you define next steps to keep building capability.

Let's build the right training solution for your team

Contact us at **training@nibrt.ie** to schedule a consultation



I would like to acknowledge the wonderful partnership we have with NIBRT over the last decade. They have consistently provided us with a variety of courses both standard and be-spoke to accommodate our training needs for a highly regulated Aseptic manufacturing environment. This has been particularly evident in the support they have provided whilst we grow the team in our greenfield fill finish facility here in the Astellas Tralee Plant. Additionally, their two-day introduction course for our graduates has been a great success. The feedback on the quality of their courses has been overwhelmingly positive, which reinforces our decision to collaborate with them. I look forward to continuing this partnership into the future".

Sheila Counihan Team Lead Pharma Manufacturing Learning & Development - Astellas Ireland

Short Courses

NIBRT's short courses are designed to address the evolving training needs of the Biopharma industry. Covering key areas such as manufacturing operations, quality and regulatory compliance, digitalisation, advanced therapies, and quality control testing, these intensive programmes combine expert instruction with practical experience. Learners benefit from access to world-class facilities and equipment, with flexible delivery options including online, onsite, and blended formats.

Earn a NIBRT Global Qualification (NGQ)

Select NIBRT short courses offer the option to earn a NIBRT Global Qualification (NGQ) – an internationally recognised qualification, accredited by Atlantic Technological University (ATU) and worth 5 European Credit Transfer System (ECTS) credits. This optional add-on is available for a fee of €500 and involves completing a multiple-choice quiz, a 2,000-word lab report, and a 1,500-word reflective assessment. Look for the NGQ symbol to see if a course is eligible. Earning an NGQ is a valuable way to boost your credentials and take the next step in your career.



Biopharma Manufacturing Operations

All courses can be customised and scheduled for groups on request.



An Introduction to Biopharma Manufacturing

Full course onsite at NIBRT

Course 1:	27 January (NIBRT)
Course 2:	05 October (NIBRT)

[CLICK LINK TO ENROL](#)



Future Trends in Biopharma Manufacturing

Full course onsite at NIBRT

Course 1:	08 May (NIBRT)
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[CLICK LINK TO ENROL](#)



Good Manufacturing Practice for Biopharma Manufacturing

NGQ

Full course: online and onsite training, with an option for online only

Course 1:	03-04 March (Online)	
Course 2:	03-04 March (Online)	09-10 March (NIBRT)

[CLICK LINK TO ENROL](#)

Short Courses

Biopharma Manufacturing Operations (continued)



Cleanroom Behaviour in Biopharma Manufacturing

NGQ

Full course: online and onsite training, with an option for online only

Course 1:	15-16 April (Online)	
Course 2:	15-16 April (Online)	23-24 April (NIBRT)

[CLICK LINK TO ENROL](#)


Introduction to Upstream Processing Operations

NGQ

Full course: online and onsite training, with an option for online only

Course 1:	09-10 February (Online)	
Course 2:	09-10 February (Online)	16-17 February (NIBRT)
Course 3:	08-09 June (Online)	
Course 4:	08-09 June (Online)	15-16 June (NIBRT)
Course 5:	14-15 September (Online)	
Course 6:	14-15 September (Online)	21-22 September (NIBRT)
Course 7:	08-09 December (Online)	
Course 8:	08-09 December (Online)	14-15 December (NIBRT)

[CLICK LINK TO ENROL](#)


Introduction to Downstream Processing Operations

NGQ

Full course: online and onsite training, with an option for online only

Course 1:	11-12 February (Online)	
Course 2:	11-12 February (Online)	18-19 February (NIBRT)
Course 3:	10-11 June (Online)	
Course 4:	10-11 June (Online)	17-18 June (NIBRT)
Course 5:	16-17 September (Online)	
Course 6:	16-17 September (Online)	23-24 September (NIBRT)
Course 7:	10-11 December (Online)	
Course 8:	10-11 December (Online)	16-17 December (NIBRT)

[CLICK LINK TO ENROL](#)

Short Courses

Biopharma Manufacturing Operations (continued)



Fill Finish Operations

NGQ

Full course: online and onsite training, with an option for online only

Course 1:	16-17 February (Online)	
Course 2:	16-17 February (Online)	23-24 February (NIBRT)
Course 3:	19-20 May (Online)	
Course 4:	19-20 May (Online)	25-26 May (NIBRT)
Course 5:	21-22 September (Online)	
Course 6:	21-22 September (Online)	29-30 September (NIBRT)
Course 7:	02-03 December (Online)	
Course 8:	02-03 December (Online)	07-08 December (NIBRT)

[CLICK LINK TO ENROL](#)


Harvest Operations for Biopharma Manufacturing

Full course onsite at NIBRT

Course 1:	02 March (NIBRT)
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[CLICK LINK TO ENROL](#)


Introduction to Commissioning, Qualification, and Validation (CQV) for Biopharma

Full course onsite at NIBRT

Course 1:	13-14 April (NIBRT)
Course 2:	14-15 September (NIBRT)
Course 3:	30 November - 01 December (NIBRT)

[CLICK LINK TO ENROL](#)


Introduction to Lyophilisation for Biopharma Fill-Finish Operations

Full course onsite at NIBRT

Course 1:	13-14 April (NIBRT)
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Short Courses

Biopharma Manufacturing Operations (continued)



Biodecontamination of Isolators for Biopharma

Full course onsite at NIBRT

Course 1: 04-05 June (NIBRT)

[CLICK LINK TO ENROL](#)



Manual Visual Inspection Essentials: Navigating Regulations, Identifying Defects, and Analysing Root Causes

NEW

Full course onsite at NIBRT

Course 1: 15-16 April (NIBRT)

[CLICK LINK TO ENROL](#)

Biopharma Guidance and Regulations

All courses can be customised and scheduled for groups on request.



Annex I: A Practical Perspective

Full course onsite at NIBRT

Course 1: 19 January (NIBRT)

Course 2: 07 September (NIBRT)

[CLICK LINK TO ENROL](#)



Operator Inspection Readiness: A Practical Perspective

Full course onsite at NIBRT

Course 1: 06 March (NIBRT)

[CLICK LINK TO ENROL](#)



Pharmaceutical Quality Systems: A Risk-Based Perspective

NEW

Full course onsite at NIBRT

Course 1: 20 April (NIBRT)

[CLICK LINK TO ENROL](#)

Short Courses

Quality Control (QC)

All courses can be customised and scheduled for groups on request.



Introduction to QC Testing for Protein Based Therapies

Full course: online and onsite training, with an option for online only

Course 1:	09-11 February (Online)	
Course 2:	09-11 February (Online)	19-20 February (NIBRT)

[CLICK LINK TO ENROL](#)



QC Micro Skills for Biopharma

Full course: online and onsite training, with an option for online only

Course 1:	11-13 May (Online)	
Course 2:	11-13 May (Online)	20-21 May (NIBRT)

[CLICK LINK TO ENROL](#)



Introduction to Quality Control Lab Skills for Biopharma

NGQ

Full course onsite at NIBRT

Course 1:	02-05 March (NIBRT)
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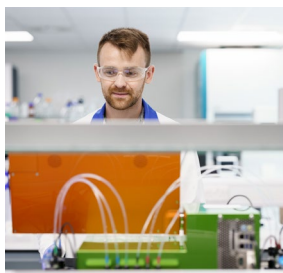
QC Analytics for Antibody-Drug Conjugates

NEW

Full course: online and onsite training, with an option for online only

Course 1:	03-05 June (Online)	
Course 2:	03-05 June (Online)	09-10 June (NIBRT)

[CLICK LINK TO ENROL](#)



Introduction to QC Analytics for Cell Therapy Manufacturing

Full course onsite at NIBRT

Course 1:	27-29 April (NIBRT)
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[CLICK LINK TO ENROL](#)

Short Courses

Advanced Therapies

All courses can be customised and scheduled for groups on request.



Introduction to ATMP Manufacturing

Full course onsite at NIBRT

Course 1: 26-27 February (NIBRT)

[CLICK LINK TO ENROL](#)

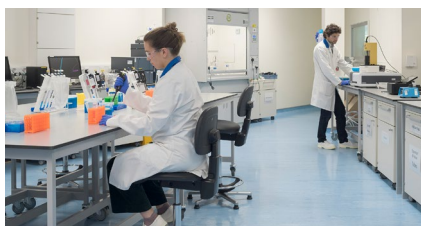


Introduction to Cell Therapy Manufacturing

Full course onsite at NIBRT

Course 1: 20-22 April (NIBRT)

[CLICK LINK TO ENROL](#)



Introduction to Gene Therapy Manufacturing

Full course onsite at NIBRT

Course 1: 14-16 October (NIBRT)

[CLICK LINK TO ENROL](#)

Additional Modalities



An Introduction to Antibody Drug Conjugate Manufacturing

NEW

Full course onsite at NIBRT

Course 1: 28-29 May (NIBRT)

[CLICK LINK TO ENROL](#)

All courses can be customised and scheduled for groups on request. The following courses are available on request.

- **Advanced Therapy Medicinal Products (ATMP) Development and Manufacturing** **NGQ** **NEW**
- **Regulatory Training for Advanced Therapy Medicinal Products (ATMPs): Understanding Manufacturing and Inspection Practices** **NGQ** **NEW**
- **Flow Cytometry for Advanced Therapy Manufacturing**
- **Fundamentals of Vaccine Manufacture**
- **Introduction to mRNA Manufacturing Operations**
- **Manufacturing of CAR-T Cell Therapies**
- **Manufacturing of Stem Cell Therapies**

Short Courses

Digitalisation Courses

All courses can be customised and scheduled for groups on request. The following courses are available on request.

- **Introduction to Digitalisation in Biopharma**
- **Introduction to Data Analytics for Biopharma** **NGQ**
- **Advanced Data Analytics** **NGQ**
- **Microsoft Power BI**
- **Masterclass in Machine Learning**
- **Design of Experiment (DoE)**



Short Courses

Short Courses with NIBRT Partners



STERIS Master Class: Applied Cleaning Validation Practices

Full course onsite at NIBRT

Course 1:	15-16 April (NIBRT)
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[CLICK LINK TO ENROL](#)



Inspired Pharma – Pharmaceutical GMP Auditor/Lead Auditor Training

Full course onsite at NIBRT

Course 1:	15-19 June (NIBRT)
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[CLICK LINK TO ENROL](#)



Technical Writing (+Regulatory Aspects) with Irish Quality Centre

NEW

Full course onsite at NIBRT

Course 1:	24 -25 February (NIBRT)
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[CLICK LINK TO ENROL](#)



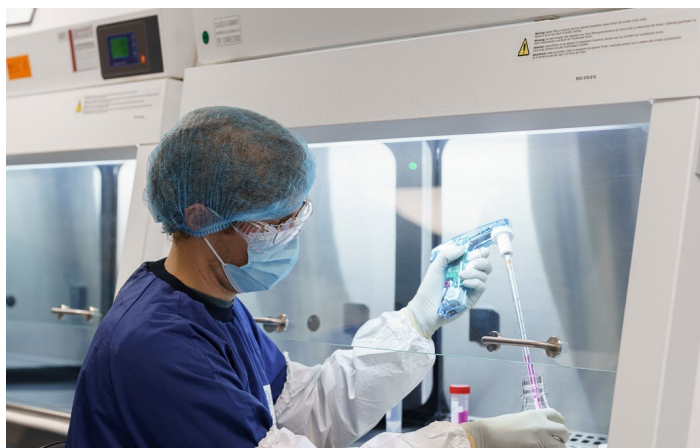
Virtual Quality Partners Good Distribution Practices

NEW

Full course onsite at NIBRT

Course 1:	26 -27 March (NIBRT)
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[CLICK LINK TO ENROL](#)



Short Courses



Managing Asset Reliability: Biopharma Process Equipment with Pro-Reliability Solutions

[CLICK LINK TO ENROL](#)



Bioprocess Optimisation and Scale-Up for Downstream Operations with Avantor

[CLICK LINK TO ENROL](#)



Equipment Reliability with SCRI-IS

[CLICK LINK TO ENROL](#)



Introduction to Biopharma Operations with Engineers Ireland

[CLICK LINK TO ENROL](#)



Introduction to Bioprocessing for Engineers with Engineers Ireland

[CLICK LINK TO ENROL](#)



CELLT2: Advanced Cell Therapy Technology with Cytiva

[CLICK LINK TO ENROL](#)



NIBRT Online Academy (NOA)

NOA is an industry leading, on-demand learning platform for key aspects of biopharma manufacturing.

noa.nibrt.ie

[Click here](#) for full course list



What NOA Provides to Trainees and Organisations

Elevate Your Biopharma Skills: NOA offers cutting-edge, industry-focused courses designed to provide you with the fundamental knowledge and concepts needed to understand the production processes of protein, and cell and gene based therapies.

Expert-Led Learning: all courses are developed and delivered by industry experts in bioprocessing training. NIBRT courses are created in the NIBRT facility and delivered by our own trainers. NOA also provides selected content from Skillpad, Cytiva and QRMI.

Entire Bioprocessing Workflow: content covers the full range of bioprocessing activities from cell culture to formulation and fill finish. Learn the entire process or focus in on an area of interest.

Learning Management System (LMS)

Integration: access to individual course content, or entire suites of courses, available in a variety of integrations with client's LMSs or internal training platforms.

Access Anytime, Anywhere: NOA's flexible online platform lets you access industry-leading biopharma education from the comfort of your home or office. Study at your own pace, wherever you are in the world.

Stay Current: the biopharma industry is ever-evolving. NOA ensures you stay up-to-date with the latest trends, technologies, and regulatory changes, keeping your skills sharp and in demand.

Career Advancement: Jump ahead in your career with NOA's comprehensive curriculum. Whether you're new to biopharma or a seasoned pro, our courses can help you excel in your current role or transition into exciting new opportunities.

Start Training Now - NOA Licences

To take an individual course now, simply visit the NOA website and purchase the licence which will grant you three months of access. For wider deployment of NOA licences to entire teams, departments, or organizations please contact NIBRT directly.

email: support.noa@nibrt.ie



Key Benefits for Bulk Licence Purchases

- **Significant Discount** – purchases of 201, or more, licences avail of a significant discount, which increases in step with the licence volume
- **Extended Access Period** – all trainees can access the purchased courses for an extended period – 12 months instead of the standard 3 months
- **Single Sign On (optional)** – remove the need for your trainees to create accounts on NOA and allow them direct access from your own LMS
- **Manage Seats (optional)** – take control of your licenses and enrol your trainees when needed during the access period
- **Trainee Analytics** – download real time progress reports for your group, or individual trainees, to monitor their progress and your return on investment



“Zifo has been using NOA for three years to train all our lab compute specialists, and it has become a critical part of our training programme. Each year, we see improved results, with employees better equipped to handle client issues and solve problems effectively. I highly recommend NOA as a cost-effective and efficient way to train teams on the fundamentals of biopharma.”

Neil Whitworth, Director of Lab Support Services, Zifo R&D Solutions

NEW COURSES!

GMP: Foundations of Good Manufacturing Practices

Data Analytics: Descriptive Statistics for Biopharmaceutical Manufacturing

COMING SOON!

Fill Finish: An introduction to Key Operations.
Vaccines: An Introduction to Vaccine Manufacturing.

Free demo of Bioreactor Operations course available

University Programmes

NIBRT is pleased to partner with Irish universities to provide a range of programmes at both undergraduate and postgraduate level.



Completing the Level 6 in Biopharmaceutical Processing at NIBRT has been an invaluable experience. The course provided a perfect balance of theory and hands-on training, giving me practical skills and confidence to apply directly in the industry. The instructors were knowledgeable and supportive, and the facilities are second to none. I feel well-prepared to progress in my career thanks to this program."

Darren Mc Nulty,
L6 Biopharmaceutical Processing ATU and NIBRT



The course in Biologics Manufacturing provided a clear and well-structured curriculum, which strengthened my understanding of the pharmaceutical industry as a whole and has supported me in my current role."

Ciara Barry,
L9 Commissioning Qualification and Validation for Biologics, ATU and NIBRT

MSc Programmes

MSc in ATMP Technology and Manufacturing

This MSc in ATMP Technology and Manufacturing aims to provide scientists and engineers with a comprehensive grounding in critical aspects of ATMP cell therapy, vector manufacturing and quality control/quality affairs.


[CLICK HERE](#)

MSc in ATMP Vector Manufacturing

This course is designed to give students a grounding in critical aspects of ATMP vector manufacturing and quality control / quality affairs. By undertaking this course, students will gain an understanding of the facts, concepts, principles, theories and methods associated with vector manufacturing in the context of the ATMP industry.


[CLICK HERE](#)

MSc in ATMP Cell Manufacturing

This programme is designed to provide students with a comprehensive grounding in critical aspects of ATMP cell therapy and quality control / quality affairs.


[CLICK HERE](#)

MSc in Validation and Digitalisation Technologies

The MSc in Validation and Digitalisation Technologies aims to provide scientists and engineers with a comprehensive grounding in critical aspects of biopharmaceutical support activities and biopharma related aspects of Industry 4.0, with a specific focus on equipment and facility validation, and digital technologies.


[CLICK HERE](#)

MSc in Bio-Industry 4.0

This MSc is aimed at manufacturing, quality, engineering and site management personnel who are looking to increase their understanding and application of the latest digital trends and technologies in the Bio-Industry 4.0 field.


[CLICK HERE](#)

MSc in Commissioning, Qualification and Validation for Biologics

This MSc provides a pathway for qualified graduates who wish to pursue a career in validation and is designed to provide students with the knowledge required to be involved in the commissioning of equipment and utilities used in biopharmaceutical plants.


[CLICK HERE](#)

MSc in Biopharmaceutical Science

This postgraduate programme in biopharmaceutical science aims to provide students with a comprehensive grounding in critical aspects of biopharmaceutical processing and their support services.


[CLICK HERE](#)

MSc in Biopharmaceutical Processing (by research)

This MSc in Biopharmaceutical Processing involves study of the discovery, development and processing of biopharmaceutical drug products. Students complete a range of online modules that have been designed in conjunction with the biopharmaceutical industry, while also completing a significant research project in an applied biopharma area.


[CLICK HERE](#)

MEngSc in Biopharmaceutical Engineering

This advanced postgraduate degree programme offers a combination of lectures, tutorials, practical sessions and project work delivered by university and industry experts.


[CLICK HERE](#)

MSc in Bioprocess Engineering

The MSc is an interactive and dynamic programme that will develop students' knowledge and appreciation of the conceptual and factual basis for bioprocess design and operation.


[CLICK HERE](#)

MSc in Biopharmaceutical Technology

The MSc in Biopharmaceutical Technology builds on biotechnology expertise and industry links that have been developed over the past 20 years and includes classes and laboratory sessions, site visits to local biopharmaceutical plants and guest lectures, in addition to practical training at NIBRT.


[CLICK HERE](#)

MEngSc Pharmaceutical & Biopharmaceutical Engineering

The MEngSc in Pharmaceutical and Biopharmaceutical Engineering is a part-time modular degree where students have the opportunity to gain a formal qualification in areas of particular topical interest to the bio/pharmaceutical industry. The programme is designed to allow students to upskill their competence for these important industrial sectors, including issues such as product containment, powder/particle technology, design of API and secondary production facilities, current Good Manufacturing Practice (cGMP), design of classified facilities, aseptic processing facility design, utilities and services, data analysis and process validation.


[CLICK HERE](#)

Certificate Programmes	Level	ECTS
Certificate in ATMP Vector Manufacturing	9	30
Certificate in Bioindustry 4.0	9	30
Certificate in Biopharmaceutical Science	9	30
Certificate in Biopharmaceutical Processing	9	30
Certificate in Bioanalytical Techniques	9	10
Certificate in Commissioning, Qualification and Validation for Biologics	9	30
Certificate in ATMP Cell Manufacturing	9	30
Certificate in Biopharmaceutical Science	8	30
Certificate in Bioprocessing Technologies	8	30
Certificate in Biopharmaceutical Processing	7	30
Certificate in Bioprocess Engineering	7	30
Certificate in Biopharmaceutical Processing	6	30
Certificate in Aseptic Biopharmaceutical Operations	6	30

Major Award Programmes	Level	ECTS
BSc (Hons) in Biopharmaceutical Science	8	60
BSc in Biopharmaceutical Science	7	60
Postgraduate Diploma in Science in ATMP Technology and Manufacturing	9	60
Postgraduate Diploma in Science in Validation and Digitalisation Technologies	9	60

Springboard+



Springboard+ is an upskilling initiative in higher education which offers courses at certificate, degree and master's level leading to qualifications in areas where there are employment opportunities in the economy.

Springboard+ is co-funded by the Government of Ireland and the European Union.

NIBRT Springboard+ Programmes

NIBRT's Springboard+ programmes are designed to equip participants with the necessary skills for entry and career progression in the thriving biopharma sector. Gain a highly sought-after biopharma qualification without the financial burden of high course fees.

- NIBRT Springboard+ graduates have a strong track record of obtaining employment in the biopharmaceutical sector.
- All lectures are delivered online to provide a flexible learning environment, while practical placements in NIBRT's award-winning pilot plant facility provide candidates with the practical skills and experience required by industry.
- Modules in career support and development are provided.
- Instructors have extensive experience in training in the biopharmaceutical industry.



The quality of instruction has been excellent, with lecturers providing timely, constructive, and insightful feedback that greatly enhances the learning process. The courses themselves are well-designed, engaging, and relevant to industry needs, making them highly applicable to my role as a Process Specialist"

Ross Slevin,
Process Specialist, Springboard+ Funded Course

Springboard+ is co-funded by the Government of Ireland and the European Union.



Rialtas na hÉireann
Government of Ireland



Arna chomhchistiú ag an Aontas Eorpach
Co-funded by the European Union

HEA | HIGHER EDUCATION AUTHORITY
AN tÚDARÁS um ARD-OIDEACHAS



How Much Does the Programme Cost?

- All courses are free for those that are unemployed and in receipt of an eligible social welfare payment.
- All L6 programmes are free, regardless of whether someone is employed or unemployed.
- For L7 - L9 courses, employed participants pay 10% of course cost with 90% funded.

Application Process

All applications can be made on www.springboardcourses.ie.
Please contact springboard@nibrt.ie with any queries you may have.

2025/2026 NIBRT Springboard+ Programmes

L6 Cert in Biopharmaceutical Processing
L6 Cert in Aseptic Biopharmaceutical Operations
L7 Cert in Biopharmaceutical Processing
L7 Cert in Bioprocess Engineering
L8 Cert in Biopharmaceutical Science
L9 Cert in Commissioning, Qualification and Validation

Global Partner Programme

The NIBRT Global Partner Programme supports an international alliance of leading training and education organisations to help address the global shortage of a skilled biopharma workforce.

The Global Partner Programme outlines a flexible, phased approach that provides training and education capability in a partner's region. The programme operates on a franchise type model, where NIBRT can provide set-up and ongoing support to its partners.

Support to partners includes:

- Facility design
- Equipment list
- Business and operating model development
- Branding and marketing
- License of NIBRT's award winning curriculum
- Curriculum design, development and delivery
- Train-the-Trainer Support Services

NIBRT currently has Global Partners in Canada, USA, Africa, Australia and South Korea.

- Canadian Alliance for Skills and Training in Life Sciences (CASTL), Canada
- Korean-NIBRT (K-NIBRT), South Korea
- BioHub Maryland, United States
- Biologics Innovation Facility (BIF), Australia
- San Jacinto College, United States
- Institut Pasteur de Dakar, Senegal



Canadian Alliance for Skills and Training in Lifesciences (CASTL), Canada



CASTL is a national skills and training organisation formed to address the talent needs of the Canadian life sciences sector.

Specialising in biopharmaceutical manufacturing, CASTL delivers on the economic and sectoral demand for individuals who have the technical skills to enter, thrive and meet the needs of the fast-growing Canadian biomanufacturing industry. With

multiple GMP-simulated biomanufacturing training facilities, CASTL provides industry-informed hands-on training, theoretical knowledge and e-learning.



CASTL is the exclusive provider of the National Institute for Bioprocessing Research and Training (NIBRT) licensed training programs in Canada. CASTL is supported by the National Lead Partner adMare BioInnovations and its adMare Academy. The adMare Academy is dedicated to providing the specialized training required to foster the next generation of highly qualified personnel who will drive the growth of Canadian life science companies. CASTL continues to deliver popular hands-on training programs such as the British Columbia Bioscience Reskilling Program - Elevate, which is CASTL's national biomanufacturing training program. Other notable training program offerings include the PEI Bioscience reskilling program, the RNA Therapy Training:Factory-School program, BioWorks training program and tailored nanotraining delivery in relevant scientific disciplines. CASTL successfully completed a NIBRT Quality audit of the CASTL Montreal Biomanufacturing Training Facility in July 2025.

Locations: Charlottetown (PEI), Montreal (QC), Richmond (BC)

Website: www.castlcanada.ca **Email:** info@castlcanada.ca

Korean-NIBRT (K-NIBRT), Incheon, South Korea



In July 2021, NIBRT announced a new global partnership with K-NIBRT to develop a world class biopharma manufacturing training and research centre in Incheon, South Korea.

K-NIBRT has developed into Korea's bioprocessing workforce development institute by licensing NIBRT's world-leading training and education curriculum in biopharmaceutical manufacturing.

K-NIBRT facilities consist of the K-NIBRT Education centre with extensive mRNA facilities and two new K-NIBRT facilities. The Bioprocess Workforce Training Centre (mAbs centre) and the Bio-Pharmaceutical Convergence Center (Cell and Gene therapy facilities) became operational in 2025 with the vision of establishing the leading biopharmaceutical manufacturing training in the Asia-Pacific region. K-NIBRT delivers didactic training in General Introductory courses all the way to more complex areas of Pharmaceutical Regulation and Safety Management.

K-NIBRT's hands-on training provides practical experience for job seekers and employees in the biopharmaceutical industry through modules covering key manufacturing technologies such as upstream processing, downstream processing, formulation, and quality control. K-NIBRT have developed specialised training programs for high school students, industry professionals and women scientists in recent years.

K-NIBRT successfully completed a NIBRT Quality audit of their Bioprocess Workforce Training Centre in August 2025.

Website: www.knibrt.com **Email:** knibrt@yonsei.ac.kr

BioHub Maryland, Maryland, USA



BioHub Maryland is accelerating the life sciences industry for companies and career seekers to expand the state's global innovation advantage.

NIBRT formed a partnership with BioHub Maryland in November 2023 and has grown from strength to strength since.

An initiative of the Maryland Tech Council, the largest technology and life sciences trade association in the state, BioHub Maryland helps residents of all backgrounds pursue rewarding careers in life sciences by offering skills training, career resources, and access to 1,200+ job openings in life sciences. BioHub Maryland also helps life sciences companies to grow by showcasing their career opportunities, training the next generation of life sciences talent, and providing strategic resources for raising capital.

Noteable BioHub partnerships in 2025 include those with Bowie State University on summer life science training, the Worksource Montgomery course on biopharmaceutical manufacturing, vendor training days and customised training for industry clients. The training center continues to expand its impressive equipment portfolio and customised training offerings to all lifescience companies in the region at their facility.

Website: www.biohubmaryland.com **Email:** info@biohubmd.com



Biologics Innovation Facility (BIF), Sydney, Australia



An alliance agreement between University of Technology Sydney (UTS) and NIBRT to deliver selected NIBRT courses utilising the purpose built \$11.5m UTS Biologics Innovation Facility (BIF) launched in July 2019.



The UTS Biologics operation, designed for practical vocational and professional training, is a strategic investment between UTS and the NSW Government aimed at building a future workforce with high quality transferable STEM skills for the biopharma industry.

BIF replicates NIBRT's Irish facility including separate teaching and process spaces and a full range of single-use upstream and downstream equipment, giving operators and technicians training opportunities ranging from fundamental sterile production techniques to complex biomanufacturing processes in a GMP environment. This offers a unique opportunity for students and biotech companies to upskill their future workforce. All training courses are delivered at the University of Technology in Sydney.

Website: www.uts.edu.au/bif **Email:** biologicsinnovationfacility@uts.edu.au

San Jacinto College, Texas, USA



San Jacinto College and NIBRT formed a partnership in October 2023 making San Jac the exclusive provider of NIBRT-licensed training in the southern part of the United States. The new training center offers regional biomanufacturing onboarding training, certificate, and degree programs.

The biotechnology program opened at the San Jacinto College South Campus in January 2024. The program offers an onboarding certificate to equip new biomanufacturing professionals with the skills and knowledge they need to seamlessly enter the field. Additional training offerings encompass all aspects of biomanufacturing, specialised instrumentation, equipment training, and advanced techniques.



San Jacinto College opened The Center for Biotechnology, on the San Jacinto College Generation Park Campus in Sept 2025. This state-of-the-art facility will provide comprehensive, hands-on training with realistic good manufacturing practices (GMP) simulated environments. The Center will offer an associate of applied science degree in Biomanufacturing Technology - San Jacinto College, and shorter credentials for post-graduates, to meet workforce needs.

Biomanufacturing Training credit programs: [Click Here](#)

Customisable Corporate Training: [Click Here](#)

Website: www.sanjac.edu **Email:** Robyn.Cardwell@sjcd.edu

Institut Pasteur de Dakar, Senegal



IPD brings together key capabilities and functions to address public health challenges in Africa.

Created in 1924, Institut Pasteur de Dakar works to accelerate equitable, sustainable and affordable access to health in Africa. As a Senegalese not-for-profit foundation recognised as being of public utility, IPD provides communities with healthcare solutions and laboratory services, engages in cutting-edge biomedical research and innovation, manufactures vaccines and diagnostics essential to African populations, develops human capital, and engages in public health activities such as epidemic intelligence, outbreak response, and surveillance.



IPD joined the NIBRT Global Partner Programme in May 2024 and began offering training programs in late 2024. Institut Pasteur de Dakar has been growing and diversifying their training offering to the African region throughout 2025. This partnership, established within the context of IPD's efforts to create a Regional Biomanufacturing Training Hub and made possible through the support of the Mastercard Foundation, marks a pivotal moment for the African continent as it strives to locally increase vaccine manufacturing to meet the growing demand for essential vaccines.

Website: www.institutpasteurdakar.sn **Email:** communications-ipd@pasteur.sn

This year, NIBRT further strengthened its international collaborations through a series of key events with global partners.

Highlights included the opening of the San Jacinto College Center for Biotechnology Training in Texas, participation in the Global Partners Summit 2025, and attendance at BIO Boston 2025.

These milestones reflected NIBRT's expanding global influence in biopharma education and training, with valued partnerships playing a pivotal role in driving shared goals of excellence and innovation across the industry.



Barry Shortt Speaking at the San Jacinto College Center for Biotechnology Opening in September 2025.



Killian O'Driscoll, Lt Governor Miller and John Milne pictured at BIO Boston, June 2025.



Institut Pasteur de Dakar "Train the Trainer" Programme at NIBRT, July 2025.



Peter O'Byrne with BioHub Maryland's Bowie State University Students, June 2025.



NIBRT & CASTL team members at the conclusion of the NIBRT Quality audit, July 2025.



BioHub Maryland & NIBRT team members at the Global Partners Summit, May 2025.



NIBRT & KNIBRT team members at the conclusion of the NIBRT Quality audit, Aug 2025.



NIBRT & San Jacinto College team at the Ribbon Cutting ceremony for the opening of the Center for Biotechnology, September 2025.



John Milne & Killian O'Driscoll with Institut Pasteur de Dakar and WHO team members, January 2025.



Darrin Morrissey and Shada Warreth pictured with IPD and K-NIBRT Global Partners at the Global Partners Summit, May 2025.



NIBRT with CASTL leadership team members at BIO Boston, June 2025.



San Jacinto College Center for Biotechnology training center opening, Sept 2025.



NIBRT with team members of the KNIBRT and KHIDI delegation visit to IDA Ireland, June 2025.

NIBRT Global Qualifications

**A Globally Recognised Standard of Excellence in
Biopharma Training**



The NIBRT Global Qualifications (NGQs) are internationally recognised training qualifications setting a new benchmark for biopharmaceutical education and workforce development.

Developed by NIBRT and accredited by Atlantic Technological University (ATU), NGQs are internationally recognised micro-credentials designed to help professionals advance their careers. Each NGQ combines expert-led theory with hands-on practical training in a GMP-simulated environment and earns you **5 ECTS credits**.

Why Choose the NGQ?

Globally Respected Certification – Recognised by employers worldwide, enhancing career prospects.

Accredited – Atlantic Technological University (ATU) accreditation, earning 5 European Credit Transfer System (ECTS) credits per module.

Industry Aligned – Developed with the latest biopharma practices for real-world applicability.

Hands-On Experience – Engage in practical, on-site training in a GMP simulated manufacturing environment.

Flexible & Manageable – Short, structured micro-credentials designed for busy professionals.

Earn University Credit – Each completed topic grants 5 ECTS.

Stackable Credentials – Build on individual qualifications to earn a special purpose award.

How it Works:

1. Complete an eligible short on-site training course at the NIBRT facility for (or at a NIBRT affiliated Global Partner Site).
2. Register for the corresponding NGQ below for €500. To earn the qualification, you will complete a multiple-choice quiz, a 2,000-word lab report, and a 1,500-word reflective assessment. Upon successful completion, you will receive your accredited NGQ certificate (5 ECTS). NGQs are stackable, leading to a Special Purpose Award (30 ECTS).

→ Downstream Processing Operations

[CLICK HERE](#)

→ Upstream Processing Operations

[CLICK HERE](#)

→ Fill Finish Operations

[CLICK HERE](#)

→ Cleanroom Behaviour

[CLICK HERE](#)

→ Quality Control Lab Skills

[CLICK HERE](#)

→ Good Manufacturing Practices

[CLICK HERE](#)

→ Data Analytics for Biopharma

[CLICK HERE](#)

→ Advanced Data Analytics for Biopharma

[CLICK HERE](#)

→ ATMP Development and Manufacturing
(Available on Request)

→ Regulatory Training for ATMPs:
Understanding Manufacturing
and Inspection Practices
(Available on Request)

3. You will receive a payment link to complete your €500 payment. If you have received a funding subsidy, you will be sent a payment link for the adjusted amount owed.

Already Completed a NIBRT Short Course?

Enrol in the matching online NGQ to retroactively earn the certification. Please note that this is only available for relevant courses completed in the past 12 months at the NIBRT facility (or affiliated partner site).



Case Study

Meissner Filtration Products



Meissner Filtration Products develops, manufactures, and services advanced microfiltration products, single-use systems, and equipment for critical global applications. Renowned for high-performance products and exceptional technical support, Meissner partnered with NIBRT in 2024 and 2025 to deliver customised training for their engineering and sales teams. The collaboration was a fantastic opportunity to highlight Meissner's investment in developing employee expertise and aligning its products and solutions to customer needs.

Training Delivered:

1. **Bioprocessing Manufacturing Operations Training for Application Engineers (June 2024)**
 - **Duration:** 3 days
 - **Participants:** 7 newly hired Application Engineers
 - **Focus:** Theoretical and practical training on drug substance manufacturing, including upstream and downstream processing, cell culture, disposable and harvest technologies, and filtration.
 - **Outcome:** Engineers gained a deeper understanding of how customers use Meissner's equipment and processes, empowering them to provide more informed, technically aligned solutions.
2. **Extended Bioprocessing Manufacturing Operations Training for Sales Team (August 2024)**
 - **Duration:** 4 days
 - **Participants:** 11 Sales Team members
 - **Focus:** Comprehensive overview of the full biopharmaceutical manufacturing process, from cell vial to product vial, with added emphasis on drug product processes and Cell & Gene Therapy.
 - **Outcome:** Sales professionals developed holistic knowledge of biopharma processes, enhancing their ability to engage customers and deliver innovative solutions.

Impact & Feedback:

Performance Ratings

Application Engineers:

Facility 9.5/10

Trainer 10/10

Overall 9.5/10

Sales Team:

Facility 9.2/10

Trainer 9.5/10

Overall 9.2/10

Participant Feedback:

- ✓ "Excellent trainer, outstanding course, and great facility."
- ✓ "Balanced theory and practical learning deepened understanding."
- ✓ "Highly relevant and applicable to real-world processes."

Organisational Outcomes:

- Improved customer engagement through stronger technical understanding.
- Enhanced insight into biopharma challenges, enabling tailored client solutions.
- Skill development and productivity gains through hands-on, competency-based learning integrated with Meissner's onboarding.



John O'Shea Site Lead / Director of Operations for Meissner Ireland:

Collaborating with NIBRT has been immensely valuable. The blend of classroom, discussion, and hands-on learning has equipped our teams to better support customers, optimise processes, and develop innovative bioprocessing solutions."

Contact Us

Training Team

Book a course directly via:

www.nibrt.ie/training-and-education

Email training team at training@nibrt.ie

Call training team at **+353 (0) 1 215 8100**

NIBRT Online Academy (NOA)

Enrol on a NOA course directly at:

noa.nibrt.ie

Email NOA team at support.noa@nibrt.ie

Further Information

For more information, please visit our website at:

www.nibrt.ie

Here you will find up-to-date information about course schedules, descriptions, registration, location and contact information.

Please sign up to our NIBRT newsletter to receive updates throughout 2026

www.nibrt.ie/contact

Visit NIBRT

Clients are very welcome to arrange a visit at:

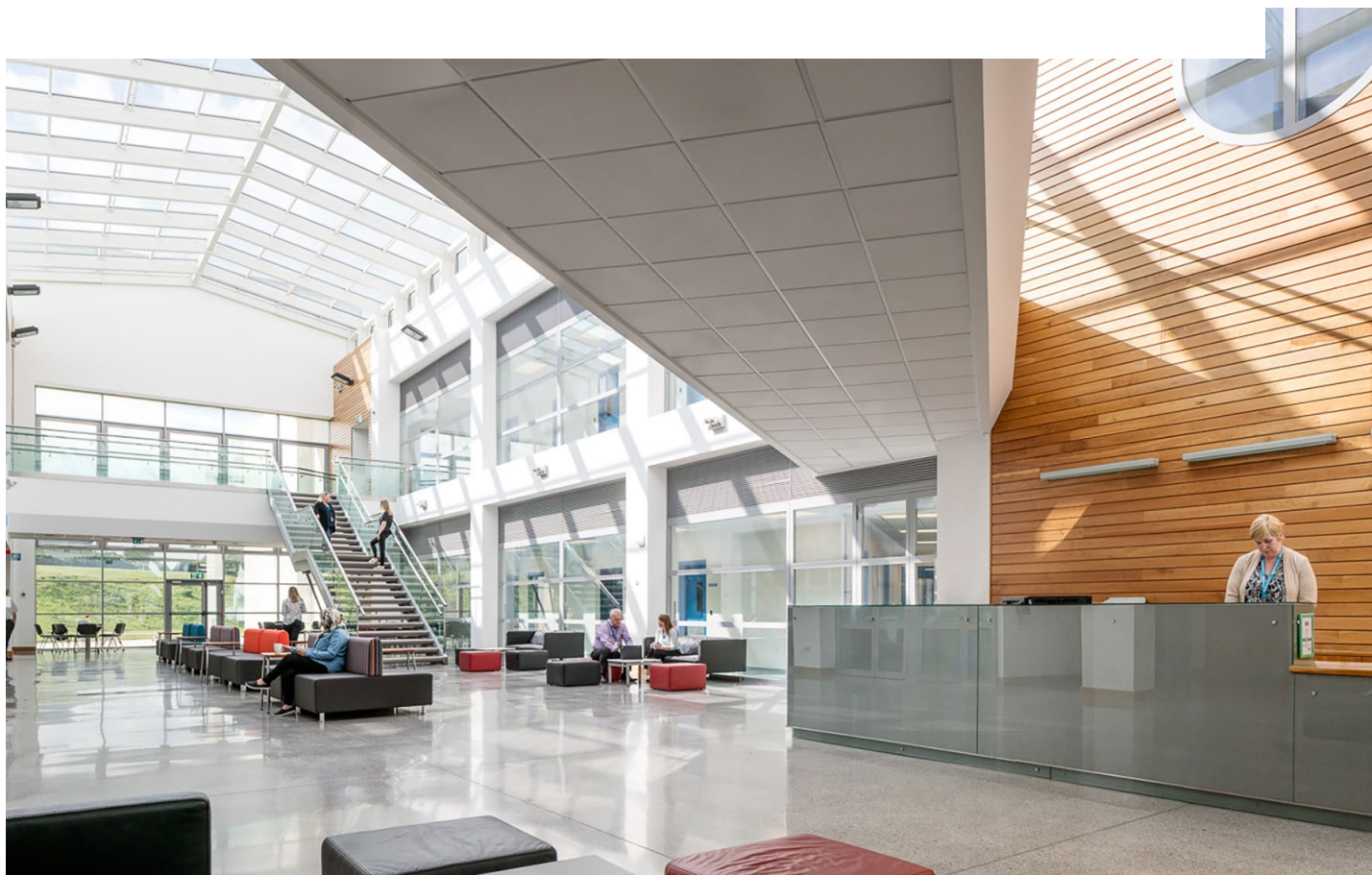
NIBRT

Foster Avenue,
Mount Merrion, Blackrock, Co. Dublin,
Ireland, A94 X099.

Web: www.nibrt.ie

Phone: **+353 (0) 1 215 8100**

Email: training@nibrt.ie





Invest in Ireland Awards 2025. The NIBRT team joined IDA CEO Michael Lohan to collect their award for Best Supplier while Eli Lilly were awarded the Staff Skilling award.



NIBRT was proud to welcome Minister James Lawless, who toured our state-of-the-art facilities, and learned more about our role in biopharma education research and innovation.



NIBRT proudly hosted the 2nd Annual Quality Business Leadership Summit on 11 May, bringing together 85 industry experts to explore approaches to quality and regulatory excellence.



NIBRT hosted our 11th annual Careers Fair at UCD on 29 March 2025, bringing together 26 top biopharma exhibitors and hundreds of attendees for a day of insights, connections and career opportunities.



NIBRT was delighted to collaborate with PharmaLex in hosting an event: "Integrating ICH Q9 and Q10 into Your Contamination Control Strategy."



Minister James Burke visited NIBRT to announce €17 million in Disruptive Technologies Innovation funding.

Appendix

Appendix 1 NIBRT Training Equipment List

Equipment	Manufacturer	Name	Equipment Description	Total	Location
Air Sampler	bioMérieux	Air IDEAL 3P Traceability	Active air monitoring for manufacturing facilities	1	Fill Finish
Air Sampler	EMTEK LLC	P100 Microbial Air Sampler	Active air monitoring for manufacturing facilities	1	Fill Finish
Air Sampler	Millipore	MAS-100 VF	Active air monitoring for manufacturing facilities	2	Fill Finish
Air Sampler	Millipore	Millipore Active Air Sampler	Active air monitoring for manufacturing facilities	1	Fill Finish
ATF System	Repligen	Repligen Cell ATF	Disposable ATF system used for perfusion processes	1	Upstream
Autoclave	Geringe	Geringe Autoclave Assembly	Sterilises equipment, reagents, and other material	1	Equipment Preparation
Bioanalyser	bioMérieux	Viteck 2C	Performs DNA, RNA, or protein sample analysis	1	QC Micro
Bioreactor	Applikon	Bio Console ADI 1025	Benchtop 7 L glass bioreactor system for cell culture applications	2	Media Preparation
Bioreactor	Corning	Ascent FBR	A fixed bed bioreactor system designed to combine the benefits of adherent bioproduction platforms with the scale and automation of suspension manufacturing systems	1	ATMP Manufacturing Technologies Suite
Bioreactor	Morimatsu	Mocellular 3 L Glass Bioreactor	Benchtop glass bioreactor system for cell culture applications	1	Upstream
Bioreactor	PALL	mPath	Bioreactor control system	1	ATMP Manufacturing Technologies Suite
Bioreactor	Pierre Guerin	150 L Stainless Steel Bioreactor	Stainless steel bioreactor used for cell culture applications	2	Upstream
Bioreactor	Pierre Guerin	30 L Stainless Steel Bioreactor	Stainless steel bioreactor used for cell culture applications	1	Upstream
Bioreactor	Univercells	Scale-X Carbo System	Fixed Bed Bioreactor and In-Line TFF Concentration	1	ATMP Manufacturing Technologies Suite
Block Heater	Eppendorf	Thermomixer Comfort	For the heating and mixing of samples	1	QC Analytics
Block Heater	Thermo Fisher Scientific	Digital Dry Bath	For precise temperature stability and uniformity when heating samples	2	QC Micro
BSC	AZBIL Telstar Technologies	Bio II Advance Plus 4	Biosafety cabinet class II for aseptic cell culture processes	3	Cell Culture Lab
BSC	AZBIL Telstar Technologies	Bio II Advance Plus 4	Biosafety cabinet class II for aseptic cell culture processes	12	ATMP Aseptic Manufacturing Training Lab
BSC	Biosciences	SAFEMATE 1.2	Biosafety cabinet class II for aseptic cell culture processes	1	Inoculum
BSC	Euro Clone	Aura Vertic SD4	Biosafety cabinet class II for aseptic cell culture processes	3	Cell Culture Lab

Equipment	Manufacturer	Name	Equipment Description	Total	Location
BSC	Euro Clone	SAFEMATE 1.2	Biosafety cabinet class II for aseptic cell culture processes	4	Cell Culture Lab
Bulk Fill	Parker	Parker SciLog® FD	Automated bulk fill system for filling of drug substance	1	Downstream
Capillary Electrophoresis	Beckman Coulter	PA 800plus	Electrokinetic sample separation and analysis	1	QC Analytics
Capillary Electrophoresis	Thermo Fisher Scientific	SEQ Studio	Sequencer that uses electrokinetic technology for analysis	1	QC Micro
Capillary Electrophoresis	BioTechne	MauriceFlex	Capillary electrophoresis system used for identity and purity testing	1	QC Analytics
Cell Bank	Statebourne	Biorack 750	Cell bank used for the long term storage of cells for biopharmaceutical production	1	Cell Culture Lab
Cell Counter	Beckman Coulter	ViCell Blu	Automated cell counter for cell viability	1	Cell Culture Lab
Cell Counter	Beckman Coulter	Vi-Cell XR	Automated cell counter for cell viability	1	Inoculum
Cell Counter	ChemoMetec	NucleoCounter NC-202	Automated cell counter for cell viability	2	Cell Culture Lab
Cell Counter	Roche	Cedex HiRes	Automated cell counter for cell viability	1	Cell Culture Lab
Cell Processing	Cytiva	Sefia S-2000	A functionally closed benchtop automated processing system for upstream or downstream	1	ATMP Manufacturing Technologies Suite
Cell Processing	Gibco by ThermoFisher Scientific	DynaCollect	An automated, closed instrument for cell isolation, activation, and bead removal	1	ATMP Manufacturing Technologies Suite
Cell Processing	Terumo	Quantum Flex	An automated, functionally closed cell culture bioreactor system	1	ATMP Manufacturing Technologies Suite
Cell Processing	Cytiva	Sepax C-Pro	A functionally closed benchtop automated cell processing system	1	ATMP Manufacturing Technologies Suite
Cell Processing	Gibco by ThermoFisher Scientific	CTS DynaMag	Aseptic magnetic separation system that isolates target cells or depletes unwanted cells	2	ATMP Manufacturing Technologies Suite
Centrifuge	Eppendorf	Centrifuge 5424	Benchtop centrifuge	1	QC Analytics
Centrifuge	GEA Westfalia Separator Group GmbH	Pilot Plant Centrifuge	Industrial scale stainless steel centrifuge used for cell harvest	1	Upstream
Centrifuge	GEA Westfalia Separator Group GmbH	Whisperfuge	Benchtop scale centrifuge used for cell harvest	1	Upstream
Centrifuge	Gibco by ThermoFisher Scientific	CTS Rotea	Counterflow centrifuge for cell processing	2	ATMP Manufacturing Technologies Suite
Centrifuge	Hettich	Hettich Zentrifugen	Benchtop centrifuge	1	Cell Culture Lab
Centrifuge	Orto Alresa	Bioprocen 22 R	Benchtop centrifuge	1	QC Analytics
Centrifuge	Orto Alresa	Consul 22	Benchtop centrifuge	2	ATMP Manufacturing Technologies Suite
Centrifuge	Thermo Fisher Scientific	SPD121P Speed Vac Concentrator	Remove solvents from a sample - works with the vapour trap	1	QC Analytics

Equipment	Manufacturer	Name	Equipment Description	Total	Location
Chromatography	Cytiva	AKTA process CFG	Manufacturing chromatography platform for running purification processes	2	Downstream
Chromatography	Cytiva	AKTA Process	Industrial scale mobile chromatography skid used for running purification processes	2	Downstream
Chromatography	Cytiva	AxiChrom Column Controller	Industrial scale chromatography skid and column used for running purification processes	1	Downstream
Chromatography	Cytiva	BPG 100/500 Column	Pilot scale column used for product purification	4	Downstream
Chromatography	Merck	ISOPAK Column	Industrial scale column used for product purification	1	Downstream
Chromatography	Merck	ISOPAK Slurry Transfer Skid	Industrial scale chromatography skid used for running purification processes	1	Downstream
Chromatography	Merck	Quikscale® Column GAP 100 x 550	Pilot scale column used for product purification	2	Downstream
Clean/Steam out of Place	BCD Engineering	Clean out of Place	Clean out of place station for cleaning of vessels and hoses	1	COP/SOP
Clean/Steam out of Place	BCD Engineering	Steam out of place	Steam out of place station for sterilisation of vessels and hoses	1	COP/SOP
Cleaning Systems	Ecolab	3 Bucket Systems	Cleaning systems for plant contamination control	5	Downstream
Controlled Thaw/ Freeze	Benchmark Scientific	Multi-Therm	Temperature controlled vortex	2	ATMP Manufacturing Technologies Suite
Controlled Thaw/ Freeze	Cytiva	VIA Freeze	Controlled rate freezer	1	ATMP Manufacturing Technologies Suite
Controlled Thaw/ Freeze	Cytiva	VIA Thaw™	Provides automated, controlled, and consistent thawing of cellular products in cryobags	1	ATMP Manufacturing Technologies Suite
Controlled Thaw/ Freeze	Huber	Unistat 815	Temperature control for a thermostat bath	1	ATMP Manufacturing Technologies Suite
Controlled Thaw/ Freeze	Single-Use Support	RoSS.pFTU	Controlled rate freezer for bags	1	ATMP Manufacturing Technologies Suite
Controlled Thaw/ Freeze	Thermo Fisher Scientific	CryoMed	Temperature controlled LN2 freezer	1	ATMP Manufacturing Technologies Suite
Depth Filtration	3M	Zeta Plus Encapsulated System Holder	Depth filtration system for harvest	1	Upstream
Depth Filtration	Filtrox AG	Discstar Bio SD 1/2"	Depth filtration system for harvest	1	Cytiva Suite
Depth Filtration	Merck	Millistak Pilot Scale Pod Holder	Depth filtration system for harvest	1	Upstream
Depth Filtration	PALL	Stainless Steel Depth Filter	Depth filtration system for harvest	1	Upstream
Depth Filtration	PALL	STAX Process Scale Chassis 5	Depth filtration system for harvest	1	Upstream

Equipment	Manufacturer	Name	Equipment Description	Total	Location
Downflow Booth	Bio Air	Blue Air	Containment device for operator and product protection	1	Media Preparation
Endotoxin Test Reader	Bio-Tek Instruments	Synergy HTX	Multi-mode microplate reader	1	QC Micro
Endotoxin Tester	Charles River	Enosafe nexgen-PTS	An in vitro assay used to detect bacterial endotoxins	1	QC Micro
Filling Line	i-DOSITECNO & ESCO	Filling Line & Isolator	Aseptic liquid filling for GMP regulated facilities	1	Fill Finish
Filling Line	Watson-Marlow	Flexicon Filling Line & RABS	Aseptic liquid filling for GMP regulated facilities	1	Fill Finish
Filling Device	Terumo	Finia		1	Fill Finish
Filling System	Sanisure	Mixed4Sure	Single use small volume mixing system for multiple biopharmaceutical mixing steps.	1	Single-Use Suite
Filling System	Sanisure	One2Fill 10X	Bioprocessing bottle filling system enabling simultaneous filling of ten bottles	1	Single-Use Suite
FIT	Millipore	Integritest 4 with Exact Air II	FIT system with integrated WIT system	2	Downstream
FIT	PALL	AquaTest	FIT system with integrated WIT system	1	Downstream
FIT	PALL	Flowstar IV	FIT system	1	Downstream
FIT	Sartorius	Sartocheck 5	FIT system	1	Downstream
FIT	Meissner	AccuFlux	FIT system	1	Downstream
Flow Cytometer	Miltenyi	MACSQuant Analyser 10 Flow Cytometer	Flow cytometer for cell analysis	1	ATMP Manufacturing Technologies Suite
Gas Analyser	Servomex	5200 Multi Purpose	Analyser used to measure levels of O2, CO and CO2	3	Media Preparation
Homogeniser	GEA	Homogeniser	Homogeniser	1	Upstream
Incubator	Thermo Fisher Scientific	CO2 Incubator	Controlled incubation of cells	1	Cell Culture Lab
Incubator	Thermo Fisher Scientific	Incubator	To grow and maintain microbiological cultures or cell cultures	1	Inoculum
Isolator	Bioquell	QUBE Extension Module	Aseptic configurable isolator	3	Media Preparation
Light Box	Bosch	Bosch Light Box	LED light box for visual inspection of samples	1	Fill Finish
Light Box	Shield Medicare	KlerReveal UV 52W Cabinet	Viewing area illuminated by UV	2	QC Micro
Lyophilisation	Leybold	Lyo Microscope Pump	Freeze drying microscope for the analysis of freeze-dried samples	1	Fill Finish
Lyophilisation	Telstar	LYOBETA 3P8 Lyophiliser	Lyophiliser for the freeze-drying of final fill drug product	1	Fill Finish
Microbial Detection System	Beckman Coulter	HIAC 9703+	A liquid particle counter system to test parenteral products for sub-visible particle content	1	QC Micro
Microscope	Various	Microscope	Used for the microscopic identification of contamination and other microorganisms	22	Various
Osmometer	Gonotec	Osmomat 030	Measures osmolality for quality control purposes	2	QC Analytics

Equipment	Manufacturer	Name	Equipment Description	Total	Location
Oven	Memmert	Memmert UNE 400	Heating ovens used for heating, drying, tempering, testing, ageing, sterilisation	1	QC Micro
Particle Counter	Astech (Ireland) Ltd	Lighthouse Solair 3100+	Particle counter used for airflow determinations	1	Fill Finish
Particle Counter	Beckman Coulter	MET ONE 3400+	Particle counter used for airflow determinations	2	QC Micro
Particle Counter	Climet	CI 153 1 CFM Particle Counter	Particle counter used for airflow determinations	1	QC Micro
Particle Counter	TSI	AeroTrak APC	Particle counter used for airflow determinations	1	QC Micro
Partswasher	Suncombe	Parts Washer Pilot Plant	Used to clean equipment, tools, and parts used in manufacturing environments	1	Equipment Preparation
PCR	Applied Biosystems	QuantStudio 5 Real-Time PCR	Quantify nucleic acid in samples	1	QC Analytics
PCR	BIOFIRE Diagnostics a bioMérieux Centre of Excellence	FilmArray 2.0 Industry	PCR for the detection of mycoplasma contamination	1	QC Micro
Perfusion	PALL	Perfusion Skid	Stainless steel perfusion skid for bioreactor perfusion processes	1	Upstream
Plate Reader	Bio-Tek Instruments	Synergy HI	Single-channel absorbance, fluorescence, and luminescence microplate reader	1	QC Analytics
Pump	Levitronix	BPS-i30 & BPS-i100	Magnetic induction pump for ultrapure processing applications	4	Various
Pump	Masterflex	Ismatec® & L/S® Series	Industrial peristaltic pumps	12	Various
Pump	Watson-Marlow	100, 520S, 620S	Industrial peristaltic pumps	15	Various
Rocker	Bibby Sterilin LTD	Stuart See-saw Rocker	Laboratory scale mixing of liquids in vessels	1	QC Analytics
Scales	Sartorius	Sartorius Floor Scales	Industrial scale stainless steel floor scales	2	Various
Shaker Incubator	Eppendorf	New Brunswick S41i	CO2 Incubator Shaker	2	ATMP Manufacturing Technologies Suite
Shaker Incubator	New Brunswick Scientific	Excella E24	Controlled incubation of cells	1	Cell Culture Lab
Single-Use Bioprocessing System	Avantor	Inline Dilution Skid	Single use point of use buffer preparation, from concentrates	1	Downstream
Single-Use Bioprocessing System	Cytiva	GT MVP (Small Scale MVP)	Automated solution processing for a variety of processing steps	1	Downstream
Single-Use Bioreactor	Cytiva	Xuri	Single use wave bioreactor used for cell culture and scale up	1	ATMP Manufacturing Technologies Suite
Single-Use Bioreactor	Cytiva	ReadyToProcess Wave 25	Single use wave bioreactor used for cell culture and scale up	2	Single-Use Suite
Single-Use Bioreactor	Cytiva	XDR-200	Single use stirred tank bioreactor - 200 L	2	Single-Use Suite
Single-Use Bioreactor	Cytiva	XDR-50	Single use stirred tank bioreactor - 50 L	1	Single-Use Suite

Equipment	Manufacturer	Name	Equipment Description	Total	Location
Single-Use Bioreactor	Morimatsu	Mocellular WAV (Wavebag)	Single use wave bioreactor used for cell culture and scale up	1	Upstream
Single-Use Bioreactor	PALL	XRS 25 Bioreactor	Single use wave bioreactor used for cell culture and scale up	1	ATMP Manufacturing Technologies Suite
Single-Use Bioreactor	Sartorius	BIOSTAT CultiBag STR plus 200L	Single use stirred tank bioreactor used for cell culture and scale up	1	Upstream
Single-Use Centrifuge	Alfa Laval	CultureOne Primo	Single use centrifuge for cell harvesting	1	ATMP Manufacturing Technologies Suite
Single-Use Chromatography	Cytiva	AKTAready Gradient & ISO	Single use chromatography system	3	Single-Use Suite
Single-Use Mixer	Cytiva	XDM-100T	Single use mixer for point of use buffer preparation	1	Single-Use Suite
Single-Use UFDF	Cytiva	AKTAreadyflux	Single use ultrafiltration & diafiltration system	1	Single-Use Suite
SmartReg by SalamanderU	Execution System (MES)		Voice-activated low-code	1	Cell Culture Lab
Smoke Machine	Astech (Ireland) Ltd	AFM 35 Cleanroom Fogger	Cleanroom smoke machine for air flow demonstrations	1	Fill Finish
Smoke Machine	CAT Clean Air Technology	Volvano VP 12	Cleanroom smoke machine for air flow demonstrations	1	Cell Culture Lab
Sonicator	Elma	Elmasonic S 30 H	Device that uses ultrasonic energy to agitate particles in liquids	2	Equipment Preparation
Spectrophotometer	Agilent Technologies	Cary 60	Measures absorbance for quality control and routine analysis purposes	1	QC Analytics
Spectrophotometer	C-Technologies	SoloVPE	Measures absorbance for quality control and routine analysis purposes	1	QC Analytics
Spectrophotometer	Hitachi	U-2900	Measures absorbance for quality control and routine analysis purposes	1	QC Analytics
Spectrophotometer	Jenway	Jenway 6305	Measures absorbance for quality control and routine analysis purposes	1	QC Analytics
Spectrophotometer	Implen	NanoPhotometer	Microvolume absorbance measurement for quality control and routine analysis	1	QC Analytics
Sterility Tester	Charles River	Celsis Accel	Rapid sterility tester that confirms microbial contamination using an amplified ATP-based bioluminescence reaction	1	ATMP Aseptic Manufacturing Training Lab
Sterility Tester	Charles River	Celsis Adapt	Rapid detection of microbial contamination of short shelf-life products, ATPs, CGT production	1	ATMP Aseptic Manufacturing Training Lab
Sterility Testing	bioMérieux	BACT/ALERT 3D	Rapid and automated sterility test	1	QC Micro
Thermal Validator	Amphenol Thermometrics Inc.	Kaye Validator X2015E	Thermal mapping system for validation of thermal processes	1	Upstream
Titration	Mettler Toledo	Karl-Fisher Compact Titrator	Precision determination of moisture to ensure product quality, stability, and efficacy	1	QC Analytics
Transfection System	Gibco by ThermoFisher Scientific	CTS Xenon Electroporation Instrument	Benchtop electroporation device	1	ATMP Manufacturing Technologies Suite

Equipment	Manufacturer	Name	Equipment Description	Total	Location
Transfection System	Invitrogen	NeonTransfection System	Benchtop electroporation device	2	ATMP Manufacturing Technologies Suite
Tube Sealer	Cytiva	Hot Lips Tube Sealer	Aseptic tube sealing device	1	Equipment Preparation
Tube Sealer	Sartorius	BioSealer	Aseptic tube sealing device	1	Buffer Preparation
Tube Sealer	Sartorius	BioSealer	Aseptic tube sealing device	3	Equipment Preparation
Tube Sealer	Sartorius	BioSealer TC	Aseptic tube sealing device	2	Single-Use Suite
Tube Welder	Cytiva	Sterile Tube Fuser - Dry	Aseptic tube welding device	1	Equipment Preparation
Tube Welder	Sartorius	BioWelder	Aseptic tube welding device	3	Equipment Preparation
Tube Welder	Sartorius	BioWelder TC	Aseptic tube welding device	2	Single-Use Suite
Tube Welder	Terumo	Terumo Sterile Tubing Welder	Aseptic tube welding device	2	ATMP Manufacturing Technologies Suite
Ultrafiltration/ Diafiltration (UF/DF)	PALL	Minimate TFF system	Benchtop ultrafiltration & diafiltration system	6	ATMP Aseptic Manufacturing Training Lab
Ultrafiltration/ Diafiltration (UF/DF)	PALL	Benchtop Stainless Steel UFDF	Benchtop ultrafiltration & diafiltration system	1	Downstream
Ultrafiltration/ Diafiltration (UF/DF)	PALL	Ultrafiltration System Skid	Industrial scale stainless steel UF/DF skid for concentration and diafiltration	2	Downstream
Ultrafiltration/ Diafiltration (UF/DF)	SpectrumLabs	KrosFlo Research TFF System	Benchtop ultrafiltration & diafiltration system	1	ATMP Manufacturing Technologies Suite
UPLC	Acquity	UPLC System	Sample separation and analysis	2	QC Analytics
UV Lamp	Magnaflux LTD	Magnaflux ZB-100F	Portable, hand-held UV lamp for fluorescent non-destructive testing applications	1	COP/SOP
Vapor Trap	Thermo Fisher Scientific	Savant RVT400 Refrigerated Vapor Trap	Remove solvents from a sample - works with the speed vac concentrator	1	QC Analytics
Vessel	Kells Stainless Ltd	200 L Media Prep Vessel	Stainless steel vessel for media preparation	1	Media Preparation
Vessel	Kells Stainless Ltd	50 L Buffer Vessel	Stainless steel vessel for buffer preparation	2	Buffer Preparation
Vessel	Kells Stainless Ltd	25 L Capture Pooling Vessel	Stainless steel vessel for viral clearance/filtration	1	Downstream
Vessel	Kells Stainless Ltd.	25 L Viral pH Vessel	Stainless steel vessel for viral clearance/filtration	1	Downstream
Vessel	Kells Stainless Ltd	Harvest Vessel	Stainless steel vessel for collection of cell process outputs	1	Upstream
Viral Filtration	Asahi Kasei	Viral Filter	Viral filtration and gold particle testing	2	Downstream
Water and Bioburden Testing	Millipore	Milliflex Oasis Filtration System	System for microbiological examination of aqueous fluids	1	QC Micro
Water and Bioburden Testing	Millipore	Milliflex PLUS Pump	Vacuum pump system for microbiological examination of aqueous fluids	1	QC Micro
Water Bath	Medical Supply LTD	Water Bath	Incubates or thaws samples	1	Inoculum



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