



## LIFE AND CHEMICAL SCIENCES NATIONAL TRANSITION TRAINING FUND

# Project Evaluation

### AT A GLANCE

#### OBJECTIVES

Improve practical experiences in the life and chemical sciences industry and showcase career paths to facilitate the transition of talent into the sector

#### INDIVIDUALS ENGAGED

600+ attendees across 13 courses and 3 events

#### ATTENDEE PROFILE

57% Females  
 42% from minority backgrounds  
 10 % with caring responsibilities  
 5% with disabilities



### LESSONS LEARNED

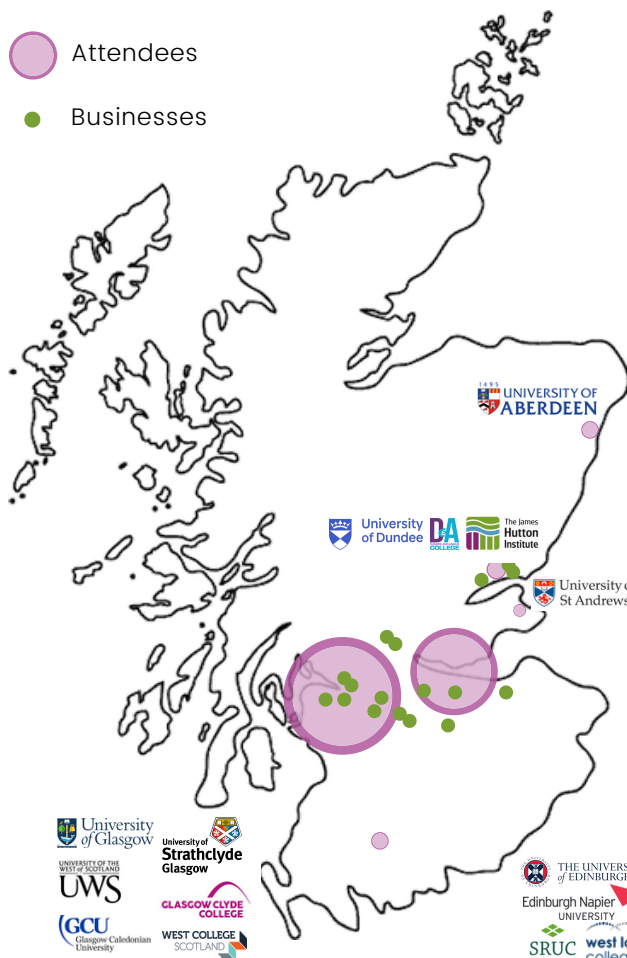
- Great support & enthusiasm for new skills training portfolio by many businesses
- Big appetite for practical life sciences training & engagement (all activities over-subscribed)
- Training is most effective in groups sharing a similar educational background

### LEGACY

- Essential Laboratory Skills course embedded in D&A College curriculum to support the education of laboratory technicians in the north of Scotland
- 3 regional SULSA Life Sciences Recruitment Days planned for 2023
- Animal Technician courses due to run again in 2023 (dependent on funding)
- Roll out of VR training in AY 2022/23

### SUPPORTING SCOTLAND

-  Attendees
-  Businesses



### OUTCOMES

**78%** are more likely to apply to the Scottish life sciences sector

- Transitioned and retained talent to and in the sector
- Increased wider engagement with industry through showcasing career paths in different areas of the sector
- Connected industry, universities and colleges



## NTTF SPOTLIGHT



## Practical and Sterile Manufacturing Skills within a GMP environment

### AT A GLANCE

#### OBJECTIVES

Develop a basic understanding of entry-level roles in the cell and gene therapy field and the skills needed for aseptic cell processing.

#### NUMBER OF ATTENDEES

23

#### ATTENDEE PROFILE

30% Career changers  
68% Women  
30% from minority backgrounds  
25 years median age

### MOTIVATION

1. Increase knowledge of the industry
2. Learn about GMP/ industry standards
3. Transition into the life sciences sector

### OUTCOMES

# 74%

of attendees are more likely to apply for a job at a life sciences company

# 82%

of participants would recommend this course to a friend

### TESTIMONIALS

"The course was a great introduction to a life science career. It gave you the basic knowledge of what is required to work in a lab and an insight into how your career could progress in that sector. Very good foundation course."

- David, Warehouse manager



**Nadya Bruce** (She/Her) • 2nd

3rd Year Bsc Biological Sciences Student & Co-President of Eco Society at...  
1mo • 🗨️

A big thank you to **RoslinCT** and **SULSA - Scottish Universities Life Sciences Alliance** for hosting the 'Practical and Sterile Manufacturing Skills within a Good Manufacturing Practice Environment' course. I took part in the 2-day training course last week, which covered the basics of aseptic processing, gave an introduction to GMP training and behaviours, as well as the practical aspects of sterile manufacturing.

This was an eye-opening experience enhancing my depth of knowledge regarding the processes and challenges faced in cell and gene therapy research, and its introduction into the commercial sector. A special thanks to **Laura Kennedy**, **Laura Hendry**, **Graeme Dallas** for creating an engaging and insightful course.

[#manufacturing](#) [#genetherapy](#) [#training](#) [#GMP](#) [#lifesciences](#)





## NTTF SPOTLIGHT



# Essential Laboratory Skills

## AT A GLANCE

### OBJECTIVES

Opportunity to develop practical laboratory skills (pipetting, serial dilution, PCR) and an understanding of GLP, risk assessments and laboratory note book maintenance

### NUMBER OF ATTENDEES

6

### ATTENDEE PROFILE

33% Upskilling (from within industry)  
20% Women  
20% from minority backgrounds  
26.5 years median age

## MOTIVATION

1. Improve practical lab skills
2. Understand skills industry are looking for
3. Increase chances to find employment

## OUTCOMES

**100%** are more likely to apply for roles in the life sciences sector

The Essential Laboratory Skills course has been embedded in Dundee & Angus College's curriculum for AY 2022/23

## BUSINESSES SUPPORTED



# 5 stars



# 100%

of participants would recommend this course to a friend or colleague

## TESTIMONIALS

"Fun course with a ton of knowledge. Thank you to the team for organising it. Done labs skills that really were interesting!" - Danielle, D&A College

"This two day course has helped me revisit and practise laboratory practicals, revisit policy and procedures in different settings, once learnt/taught in my degree many years ago. Doing this helped me gain confidence, help me practise and I am more likely to apply for roles in the field."  
- Nazia, Homemaker

"Great learning experience with a dedicated team." - Connor, Wolf Formulations





# NTTF SPOTLIGHT

## Animal Technician Course

### AT A GLANCE

#### OBJECTIVES

Showcase the role of an animal technician in an academic and a commercial setting. Highlight the skills and behaviours required to succeed.

#### NUMBER OF TRAINEES

23

#### ATTENDEE PROFILE

24.5 years median age  
5% Males  
5% from minority backgrounds

# 4.1 stars

average rating



# 84%

of participants changed their perceptions about the animal technician role

# 56%

of participant are more likely to apply for an animal technician role after the course

### ORGANISATIONS INVOLVED



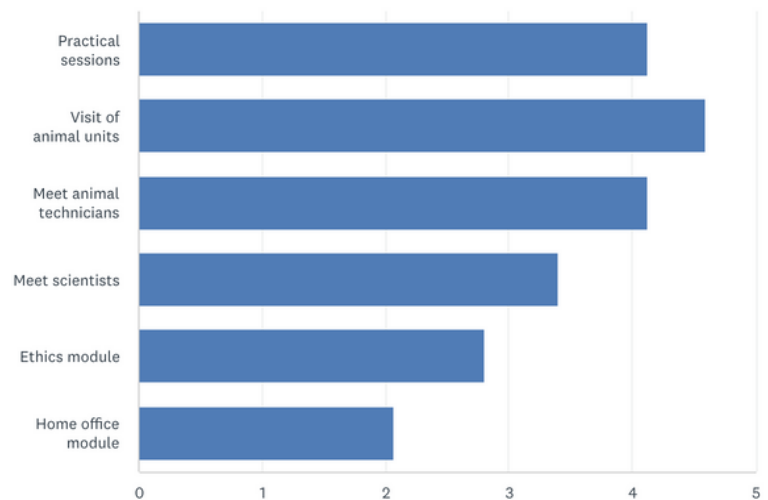
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THE UNIVERSITY of EDINBURGH

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### COURSE CONTENT



### TESTIMONIALS

"[The Animal Technician course] has given me positive insight into and education on a sector that has a lot of mystery and bad stigma around it." - Morgan, D&A College

"I feel the course has given the students a clear idea of how they can get in the industry and you can see the progression and how you can get too each step. I feel the qualifications (IAT) learning at your own pace is also advantageous and is practical for staff due to the nature of the job and there is no pressure on them to complete the units. The wellbeing and support that is provided is fantastic and shows the students that there is a sense of care and a 'family' like setting." - Noel, SRUC



## NTTF SPOTLIGHT

# SULSA Life Sciences Recruitment Day

### AT A GLANCE

#### OBJECTIVES

Showcase a variety of employers and career paths and highlight the skills needed to transition into the Scottish life sciences sector

#### NUMBER OF ATTENDEES

130

#### NUMBER OF INSTITUTIONS

10 Universities  
3 Colleges  
13 Businesses

## 4.7 stars

average rating



## 72%

 gained more knowledge  
about the sector

## 88%

 are more likely to apply to  
the exhibiting companies

### COMPANIES INVOLVED



### SKILLS WORKSHOPS

Tailored employability skills workshops for 87 attendees on the day to support their transition into the life sciences sector:

1. Identify and Market your Transferable Skills
2. Effective CV writing for life scientists
3. Interview preparation

## 88%

 have a better understanding of the skills  
needed to succeed in the sector

### TESTIMONIALS

"This event was so reassuring to me and opened my eyes to all the different roles available in the life sciences industry and all the different ways to get in!"

"This event exceeded my expectations in terms of opportunity to network and learn more about post PhD careers outside academia."

"SULSA organised the best employer and employee meeting, I will attend their recruitment day a zillion times."



## NTTF SPOTLIGHT

# Lighthouse Lab Transition Events

### AT A GLANCE

#### OBJECTIVES

Showcase a variety of employers and career paths to support the transition of Lighthouse Lab staff into the Scottish life sciences sector

#### NUMBER OF ATTENDEES

250

#### ATTENDEE PROFILE

27 years median age  
85% Females  
42% from minority backgrounds

### COMPANIES INVOLVED

Bio:Clavis™

bio:ascent

charles river

MERCK

Q<sup>2</sup> Solutions™

Roslin<sup>CT</sup>  
your advanced therapy solution

\*symbiosis

ThermoFisher  
SCIENTIFIC

valneva

### OUTCOMES

At least 70 applications received.

Numerous interviews held.

At least 30 job offers made.

### TESTIMONIAL

“It was an excellent thing to put in place and something that workplaces will rarely do for their staff. Please keep this! Thank you!”

### BIOINFORMATICS FOR LLIG

In cooperation with Glasgow Polyomics, we offered Lighthouse Lab staff funded places in their Introduction to Omics course to support career progression.

47 candidates participated in the 5-day training course which aimed at familiarising them with the basics and application of various omics disciplines as well as with big data sets.

**40%** did not have a life sciences background before working at the Lighthouse Lab

**63%** gained more knowledge about the sector

**92%** are likely to apply to the exhibiting companies



## NTTF SPOTLIGHT

# edify Cell Culture Skills Training course

## AT A GLANCE

### OBJECTIVES

Develop an innovative training tool for laboratory skills teaching and training of the cell culture process using immersive technologies

### CO-DEVELOPERS

Developed by Edify, sponsored by Merck



## OUTLINE BRIEF

Creation of a virtualised version of a general biosciences training lab; and the development of a bespoke VR training module focussed on training staff and students in the Cell Culture process. This includes the cell culture and cell passaging stages.

This virtualised teaching environment and training module will include the following:

- A highly realistic digital 3D counterpart of a general bioscience lab, enabling familiarisation with the lab environment and bioscience-specific protocols.
- A VR immersive training experience that better prepares users for the workplace.

## USER PROFILE

The primary users of the virtual environments and processes will be students and/or trainees higher and further education institutions, and potentially industry trainees and early career professionals.

These users will require some or all of the following features and functionality:

- Familiarisation with a bioscience lab environment and its protocols
- Training for work with pathogens (repeat opportunities and experiences that aren't available or practicable in the real world)
- Training in aseptic techniques
- Specific training or practice in cell culture technique
- Specific training or practice in cell counting methods
- All of the above training as a unified experience

## ANTICIPATED OUTCOMES

1. Increased access to cell culture training for students at Scottish education institutions
2. Standardisation of cell culture process according to industry SOPs
3. Higher efficiency in onboarding industry staff
4. Development of a 2D version for use in secondary education and the promotion of STEM careers





## NTTF CASE STUDY



## Practical and Sterile Manufacturing Skills within a GMP environment

### AT A GLANCE

#### YOUR NAME

Stephanie Brown

#### EDUCATION

University of Strathclyde, B.Sc (Hons) (1st Class) and M.Sc (Distinction)

#### OCCUPATION

Working full time at LumiraDx as a Quality Control Technician

### OBJECTIVES

I wanted to take part in this course as I felt that my time at university didn't involve very much cell culture or aseptic technique besides that taught in general lab classes. This was as a result of the practical projects I was involved in.

However, I felt that it was something I could do but didn't have any demonstratable experience in and was hoping that this course would give me a brief but intense overview so that going forwards in interviews for positions which required these skills I could say that I have participated in this course showing a keenness for learning and interest in the area.

### KEY LEARNINGS

#### Learning One

I have a greater understanding and appreciation of the need for aseptic technique and good cell culture technique in the manufacturing of Advanced therapies.

#### Learning Two

I have more practical experiences I can talk about in interviews going forward



No one said science would be glamorous 😊

Last week I attended the [#NTTF](#) course 'Practical and Sterile Manufacturing Skills within a GMP environment' at [RoslinCT](#).

This was a fantastic opportunity to learn about the importance of GMP, cell culture and aseptic technique within an industrial lab producing advanced therapy medicinal products.

I particularly enjoyed the practical aspects of the course which afforded me the opportunity to test my technique and improve my skill set.

Massive thanks to the team at Roslin CT for taking the time to deliver the course, to [SULSA - Scottish Universities Life Sciences Alliance](#) for their involvement, and [The Scottish Government](#), [Scottish Funding Council](#) and [Skills Development Scotland](#) for funding this opportunity.

[#development](#) [#opportunity](#) [#manufacturing](#) [#lifesciences](#) [#GMP](#) [#cellculture](#)



### OUTCOMES

I am hoping to continue to progress within my current role for the time being, gathering as many new skills, knowledge and as much experience as possible.

When the time comes to move on, I hope to move in to a more practical science role, which will most likely require aseptic technique and cell culture. I hope that despite my lack of experience, this course will make me stand out amongst the other candidates.





## NTTF CASE STUDY



## Practical and Sterile Manufacturing Skills within a GMP environment

### AT A GLANCE

#### YOUR NAME

Kirsty Swales

#### EDUCATION

Highers at school plus a number of HN units in Electronics and Computing from college and university.

#### OCCUPATION

Microsoft certified Server Administrator

"Even without a Biology background I would be very capable of working within the sector"

### OBJECTIVES

I want to return to the workforce after taking time away for caring responsibilities but I'd like to have a change in career and re-skill to work in a biology role so this was my motivation.

I hoped the course would give me an insight into working in a professional lab environment and the kinds of tasks undertaken and equipment used on a daily bases by lab technicians. I kept an open mind as to what specifically the course would cover.

### KEY LEARNINGS

#### Learning One

The most important take away from the course for me was that even without a Biology background I would be very capable of working within the sector.

#### Learning Two

The course gave me a thorough overview of the very specific role of a clean room operative and highlighted the extremely accurate and highly regulated aspects of the role.

### OUTCOMES

Whilst I had planned to retrain the course has help me define the area of biology I'd like to focus on and has given me the confidence that I could work in the life sciences sector. It has also encouraged me to look for lab technician opportunities that could give me some work experience together with my studies.