# Welcome to the ETHIQ training information guide









## What is the ETHIQ Diploma?

The European Technical H&I Qualification (ETHIQ Diploma) is an online, Moodle based training course for technologists working in EFI accredited labs.



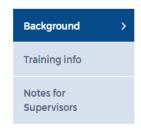
### Lab Directors Questionnaire

The Education Committee circulated a questionnaire to EFI Laboratories to gather feedback regarding a number of aspects of the ETHIQ Diploma training.

The main points from the questionnaire are:

- Feedback from guestionnaire was positive
- Most laboratories would plan to register eligible candidates gradually
- A webinar for trainees and training supervisors would be welcomed
- Translation of the logbook would be welcome in some countries cannot determine which from questionnaire?
- The cost of 200-250 euros would be prohibitive for some laboratories
- The need for candidates to be EFI members would be challenging for some laboratories

### ETHIQ Diploma Background



### **Background**

The ETHIQ Diploma is managed and administered by the EFI Education Committee. The purpose of the training is to enable technical staff working in H&I to demonstrate knowledge and competence within their workplace. All registrants for the ETHIQ certificate must be EFI members.

Training is aimed at all Technical Staff working in EFI accredited laboratories supporting clinical solid organ and/or haematopoietic stem cell transplantation. The definition of Technical Staff may vary between countries, but it is hoped that the ETHIQ will be an appropriate training scheme for staff that are involved in bench work in H&I labs, but who may not have the responsibility for final reporting of results. Senior staff (e.g. those who are Directors or co-Directors or those who wish to reach this level) are encouraged to develop their learning in order to take the EFI/UEMS ESHI Diploma.

The training is undertaken within the trainee's laboratory and will be delivered under the supervision of a local training supervisor over the course of 12-36 months. The training supervisor must be an individual who is a Director or Co-Director of an EFI accredited lab, or is a holder of the ESHI Diploma (honorary or by examination). It is also important that the Head of Laboratory (if different to the Training Supervisor) signs the application form (Appendix A) to show they are supportive of the trainee's application.

- Aimed at technologists involved in bench work in H&I labs but may not have the responsibility for final reporting of results
- Training is undertaken within the trainees own lab
- · Under supervision of a local training supervisor
- Expected to take 12 36 months

### For Supervisors

### **ETHIQ - Introduction & process**

Dashboard / My courses / ETHIQ - Introduction & process



### **Notes for Supervisors**

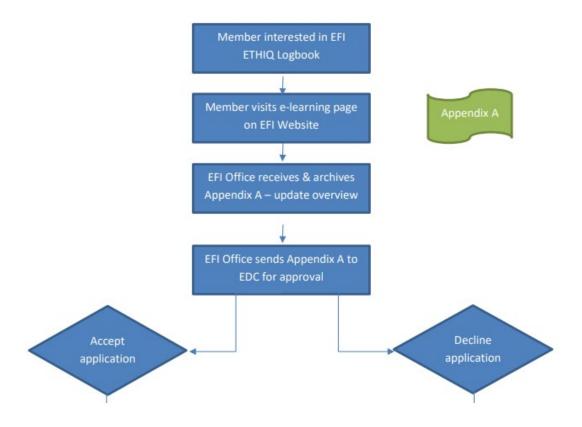
- The training supervisor must be an individual who is a Director or Co-Director of an EFI accredited lab, or is a holder of the ESHI Diploma (honorary or by examination)
- The Director of the H&I laboratory must also sign the application form (if different to the trainee supervisor) to show they are supportive of the trainee undertaking the ETHIQ
- The Training Supervisor must sign off all training manual evidence provided or delegate to an appropriate individual in the laboratory
- 4. The Training Supervisor must sign off the reflective learning activities
- The Training Supervisor must sign off the case study/validation report as being satisfactory (use the Assessment of Case Study / Validation report form in Appendix H)

### The Process – 1: Application

There are two deadlines per year to send in your application:

- 1<sup>st</sup> January
- 1<sup>st</sup> July

Per deadline 20 applications will be admitted in order of date of application. In case there are more applications, those applications will be automatically be admitted the next round.



## **Application Form**



ETHIQ LOGBOOK APPENDIX A

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### EFI ETHIQ LOGBOOK APPLICATION FOR REGISTRATION

TRAINEE INFORMATION Surname Click or tap here to Forename Click or tap here to enter enter text. Job title EFI Member ☐ Yes, membership number: Click or tap here to enter text. ☐ No, I will become an EFI member via the website: www.efi-web.org Start date in current lab Click or tap here to enter text. Laboratory / institution details Name of lab / institution: Click or tap here to enter text. Postal/Zip code: Click or tap here to enter text. City: Click or tap here to enter text. Country: Click or tap here to enter text. Telephone Click or tap here to enter text. Click or tap here to enter text. Signature of Trainee Click or tap here to enter

BORDOSTO HOLED TO SUPERIOR					
PROPOSED H&I TRAINING SUPERVISOR					
Note: The training supervisor mus	Note: The training supervisor must be a Director or Co-Director of an EFI accredited lab, and/or a holder of the ESHI Diploma				
(honorary or by examination)	(honorary or by examination)				
Name	Click or tap here to enter text.				
Current grade	Click or tap here to enter text.				
Signature of Trainee Supervisor	Date Click or tap here to enter				
			text.		

			Completion in Click or tap here to enter text. Years
Training start date	Click or tap here to enter text.	Proposed completion date	Click or tap here to enter text.



ETHIQ LOGBOOK APPENDIX A

Page 2 of 4

NAME OF HEAD OF DEPARTMENT  The above Trainee's application for registration on the ETHIQ Training Scheme has the full support of the Head of Department and the training laboratory holds current EFI accreditation.				
Name	Click or tap here to enter text.			
Current grade	Click or tap here to enter text.			
Signature of Head of	Date Click or tap here to enter			
Department			text.	

	Section A - Specialist H&I knowledge					
	(A1-A2-A3 Mandatory; A	4 Optional)				
A1 - Ba	asic Immunology					
	A1.a Innate immune responses					
	A1.b Adaptive immune responses					
A2 - Th	ne HLA System					
	A2.a HLA genes					
	A2.b HLA molecules					
	A2.c HLA nomenclature and polymorphism					
	A2.d Clinical relevance of the HLA system					
A3 - Tr	ransplant Immunology					
	A3.a Allorecognition					
	A3.b Rejection responses					
	A3.c Graft versus Host Disease (GvHD)					
A4 - H	& laboratory role in transfusion	Optional				
			1			



### ETHIQ LOGBOOK APPENDIX A

Page 3 of 4

	Section B - General competences (Mandatory)					
B1 - General	laboratory practice					
B1.:	a General laboratory practice					
B2 - Safe wo	rking practices in the clinical HLA laboratory					
	a Health and Safety					
B2.I	b Dealing with potential hazards in the laboratory					
B2.0	c Incident / Accident reporting					
B2.0	d Laboratory Equipment					
B3 - Quality	management					
B3.a Quality Management System						
B3.I	b Quality Control					
B3.0	c Quality Assurance					
B4 - Data ha	ndling					
B4.a	a Data handling					
B5 - Stock m	aintenance					
B5.	a Maintaining working stocks					
B5.I	b Receipt of stock deliveries					
B6 - Specime	en reception and handling					
B6.:	a Specimen reception					
B6.I	b Logging specimens into Laboratory Information Management System (LIMS)					
B6.	c Specimen storage					



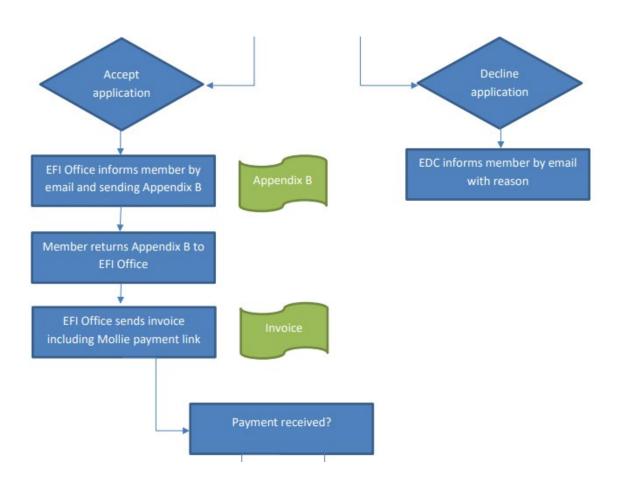
ETHIQ LOGBOOK APPENDIX A

Page 4 of 4

Section C - Specialist H&I competence	s
(Optional)	
C1 - Sample processing	
C1.a - Separation of serum/plasma samples	×
C1.b - Separation of lymphocytes from peripheral blood or tissues	×
C1.c - Freezing and thawing lymphocytes	×
C1.d - Extraction of DNA	×
C2 - Serological competences	
C2.a - Lymphocytotoxicity assays	
C2.b - Flow cytometry crossmatching	
C2.c - Antibody identification and definition by solid phase assays	
C3 - Molecular competences	
C3.a - DNA contamination tests	×
C3.b - Definition and analysis of HLA gene polymorphism by gel based PCR-SSP	
C3.c - Definition and analysis of HLA gene polymorphism by real time PCR	
C3.d - Definition and analysis of HLA gene polymorphism by PCR- SSO	
C3.e - Definition and analysis of HLA gene polymorphism by SBT: Sanger or NGS	
C3.f - Post-HSCT engraftment monitoring by STR (Short Tandem Repeats)	
C3.g - Post-HSCT engraftment monitoring by qPCR	

At the last page of the registration form you have to tick the checkboxes of your specialization. At least 50% of the boxes should be ticked.

## The Process – 2: Payment





### INVOICE ETHIQ TRAINING

Address:
EFI Office – Administration
Attn. Ingrid Abelman
Poortgebouw (Noord)
Kamer: N-00-002
Rijnsburgerweg 10
2333 ZA Leiden
The Netherlands

Email:education@efiweb.org



### ETHIQ LOGBOOK APPENDIX B

Page 1 of 1

#### BANK INFORMATION FORM

#### for payment of

#### EFI Technical H&I Qualification (ETHIQ) training

The total cost of registration is paid annually over the period of training. The minimum term of registration is 12 months and the maximum 36 months.

The registration fee covers the cost of the Training Manual and all the administrative costs of the Trainee's assessments.

PLEASE PROVIDE FULL DETAILS OF THE INDIVIDUAL TO WHOM THE INVOICES FOR REGISTRATION CHARGES SHOULD BE SENT

INFORMATION INVOICEE'S					
Invoicee's surname			Invoicee's initials		
Name institution					
Invoicee's full postal address					
Telephone		Email			

INFORMATION INVOICE ETHIQ TRAINING				
Purchase order Date				
Trainee name Trainee EFI Membership No				

To:			
Send by email to	:		

INVOICE NUMBER	INVOICE DATE	DUE DATE

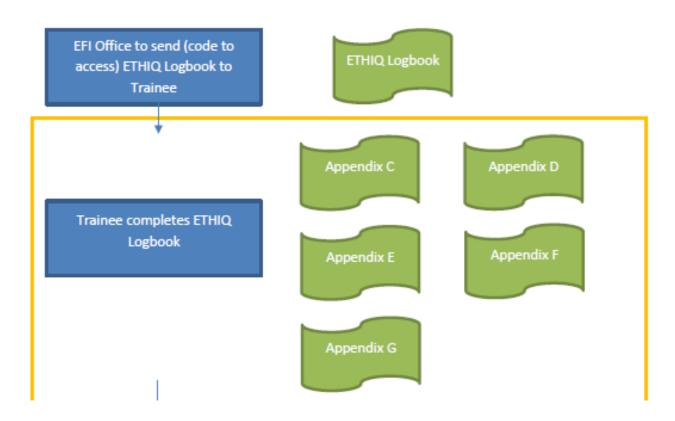
Membership number	Name	Training period	Description	Line total	
			ETHIQ Training fee		
			TOTAL	€	
PAYMENT MUST BE MADE FOR THE FULL AMOUNT, FREE OF BANK CHARGES, IN EUROS, WITHIN FOUR WEEKS AFTER RECEIVING THE INVOICE					

#### Payment

Please use the link\_in\_order\_to pay the above amount in full via Mollie. Please note Mollie (Stichting Mollie Payments) is the payment partner of European Federation for Immunogenetics.

Use this data only for the completion of this particular payment. Please make sure that you fill in all the details correctly.

## The Process – 3: Registration



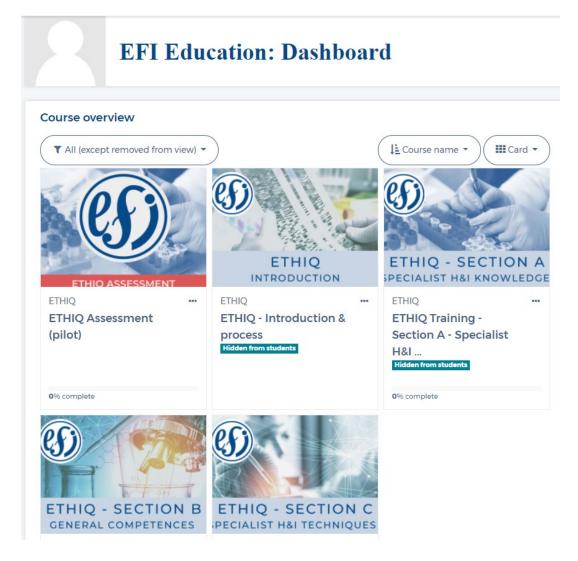
After your registration and deadline date you will receive your login details in order to get access to the moodle based programme.



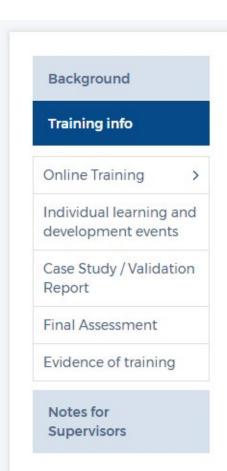
https://myportal.efi-web.org/login/index.php

### **EFI Education Dashboard**

After you have logged in you enter the dashboard with your logbook.



## Online training logbook



### **Online Training**

The Training Manual describes the competences required of technical staff working in the H&I laboratory and is split into 3 sections:

#### 1. Section A - Specialist H&I Knowledge

Section A contains the Specialist H&I knowledge the candidate is expected to understand. For Section A parts 1-3 are mandatory and part 4 may be completed if relevant to the candidates experience.

#### 2. Section B - General competences

Section B of the manual contains the competences which are required of candidates in whichever part of the laboratory they are working. All areas of this section must be completed.

#### 3. Section C - Specialist H&I Techniques

Section C contains specialist H&I competences which may or may not be pertinent to the role of the candidate. The candidate does not have to complete all of Section C if gaining sufficient experience is not possible in their laboratory. However, as a minimum, at least 50% of one of the sections must be completed.

## How to complete and document training

You can complete all documents in your own language.





ETHIQ LOGBOOK APPENDIX C

#### WRITTEN EVIDENCE FORM

Section A - Special	ist H&I Knowledge	A1.b Adaptive immune responses		
Summary of topic in candidates own words (note: in English or language local to the laboratory):				
Sources of information				
Journal of Internation				
A		B. J.		
Assessment method	W	Date		
Trainee Supervisor signature		Trainee signature		

## ETHIQ Training Section A – Specialist H&I Knowledge





This section of the manual contains the specialist H&I knowledge which is required of all candidates.

General

A1 - Basic Immunology

Al.a - Innate immune responses

Al.b - Adaptive immune responses

A2 - The HLA System

A3 - Transplant Immunology

A4 - H&I laboratory role in transfusion

### A1.b - Adaptive immune responses

#### Understands:

- the cells involved in the adaptive immune response
- · the role of antigen presenting cells
- . T cell subsets and their roles
- MHC restriction for T cell activation
- T cell activation via class I and class II antigen presentation
- . B cell activation and antibody production
- · antibody classes and subclasses



A1.b - ETHIQ Written evidence form (Appendix C)



#### ETHIQ LOGBOOK APPENDIX C

#### WRITTEN EVIDENCE FORM

Section A - Special	ist H&i Knowledge	A1.b Adaptive in	imune responses
Summary of topic in candidate	Summary of topic in candidates own words (note: in English or language local to the laboratory):		
Sources of information			
Assessment method	w	Date	
Trainee Supervisor signature		Trainee signature	

### ETHIQ Training Section B – General Competences





This section of the manual contains the competences which are required of all candidates

#### General

B1 - General laboratory practice

B2 - Safe working practices in the clinical HLA laboratory

B2.a Health and Safety

B2.b Dealing with potential hazards in the laboratory

B2.c Incident /
Accident reporting

B3 - Quality management

B4 - Data handling

B5 - Stock maintenance

B6 - Specimen reception and

## B2.b Dealing with potential hazards in the laboratory

#### Aware of:

- potential chemical and biological laboratory hazards
- methods for dealing with spillages
- why and when working surfaces and floors need to be decontaminated or disinfected
- reporting procedures for potential / hazardous faults
- the need for safe storage of hazardous materials
- the dangers of liquid nitrogen
- the local waste disposal policy



B2.b - ETHIQ - Oral discussion evidence form (Appendix E)



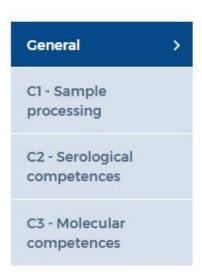
#### ETHIQ LOGBOOK APPENDIX E

P2 h Dealing with natastial baseds in the

#### ORAL DISCUSSION EVIDENCE FORM

Section B - Gene	ral competences		atory
Summary of discussion (to be	completed by trainee superviso	r or nominated deputy):	
Sources of information			
	_		
Assessment method	0	Date	
Trainee Supervisor signature		Trainee signature	

### ETHIQ Training Section C – Specialist H&I Techniques





### Specialist techniques

This section contains specialist competences which may be pertinent to the role of the candidate. All competences relevant to the candidate's laboratory should be completed. Where a candidate contributes to a technique but does not perform all of it they can be assessed for their contribution, provided this is made clear in the evidence form submitted. The candidate does not have to complete all of Section C, if gaining sufficient experience is not possible in their laboratory. However, as a minimum, at least 50% of one of the sections must be completed.

#### General

C1 - Sample processing

### C2 - Serological competences

C2.a -Lymphocytotoxicity assays

C2.b - Flow cytometry crossmatching

C2.c - Antibody identification and definition by solid phase assays

C3 - Molecular competences

### <u>C2.c - Antibody identification and definition</u> <u>by solid phase assays</u>

#### Understands:

- the basic principles of antibody detection/definition
- problems that may be encountered in solid phase assays for antibody detection
- the need for quality control samples in solid phase assays for antibody detection Competently:
- follows the local procedures for antibody detection/definition using solid phase assays
- analyses / interprets the results of the assay seeking advice as necessary



C2.c - ETHIQ Written evidence form (Appendix C)



<u>C2.c - ETHIQ Observed Competency evidence form (Appendix</u>

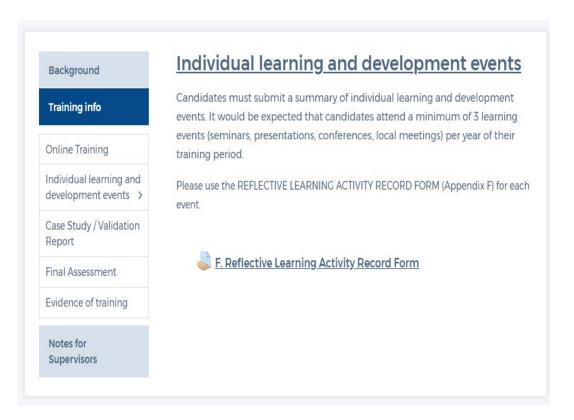


#### ETHIQ LOGBOOK APPENDIX D

#### **OBSERVED COMPETENCY EVIDENCE FORM**

Section C - Specialist H&I Techniques			ication and definition lase assays
Summary of occasions that competence was assessed by supervisor or nominated deputy (include whether SOP was followed, whether appropriate results were obtained and the date of assessment):			
Assessment 1:			
Assessment 2:			
ASSESSMENT 4:			
Trainee signed off as competent for this area in line with EFI Standards?			
□ Yes		□ No	
Assessment method	Obs	Date	
Trainee Supervisor signature		Trainee signature	

## Individual learning and development events



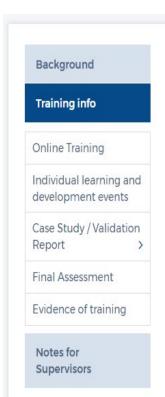


ETHIQ LOGBOOK APPENDIX F

#### REFLECTIVE LEARNING ACTIVITY RECORD FORM

Name of learning event: Date of learning event:			
Summary of learning event (to be completed by trainee):			
Assessment method		Date	
Trainee Supervisor signature		Trainee signature	

### Completion of a Case Study or Validation report



### Case Study / Validation Report

Candidates must prepare and submit one of the following:

- 1. A basic case study from within the candidates experience or
- 2. A validation report (e.g. new assay /reagent validation)

This must be completed using the candidate's own format (minimum 500-maximum 1,000 words). This can be completed in English or in the local language of the candidate's laboratory.

G. Assessment of Case Study / Validation report by Training Supervisor Form

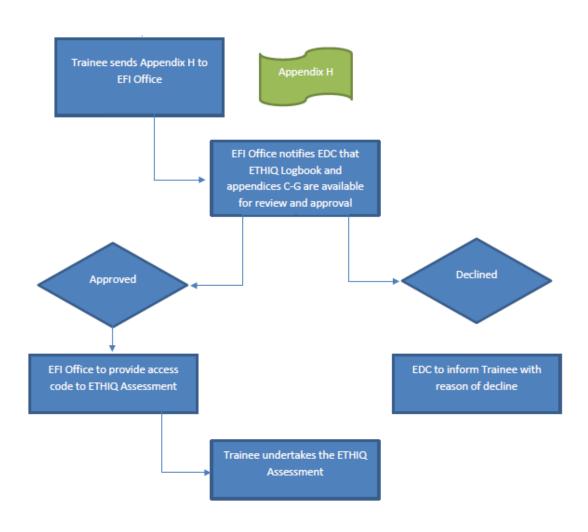


ETHIQ LOGBOOK APPENDIX G

#### ASSESSMENT OF CASE STUDY / VALIDATION REPORT

Candidates must prepare and submit one of the following:			
1. A basic case study fro	om within the candidates experi	ence or	
2. A validation report (e	g. new assay /reagent validation	on)	
W			43.70
	the candidate's own format (mi age of the candidate's laborator		ords). This can be completed
in English of in the local langu	age of the candidate 3 laborator	7.	
Assessment method		Date	
Trainee Supervisor signature		Trainee signature	

## The process – 4: Application for final assessment



### The Final Assessment



Background

Training info

Online Training

Individual learning and development events

Case Study / Validation Report

Final Assessment >

Evidence of training

Notes for Supervisors

### **Final Assessment**

At the end of the training period the Training Manual and associated evidence is sent to the EFI Education Committee and is assessed to ensure there is evidence of appropriate understanding and training in H&I (use the Training Manual Application for Final assessment form in Appendix H).

If sufficient evidence is provided the candidate is then invited to undertake a short online assessment which must be passed for the candidate to be awarded the ETHIQ Diploma. It will be possible to omit some questions if training has not been received in these areas. If there are deficiencies in the training then the candidate will be asked to remedy these deficiencies before re-submission for assessment.



L. Training Manual Application For Final Assessment Form



#### ETHIQ LOGBOOK APPENDIX H

#### TRAINING MANUAL APPLICATION FOR FINAL ASSESSMENT FORM

is assessed to ensure there is evidence of appropriate understanding and training in H&I.		
is assessed to ensure there is evidence or appropriate unde	istalionig and danning in rixis	
Assessment method	Date	
	+	
Trainee Supervisor signature	Trainee signature	

General

ETHIQ Logbook Assessment (pilot)

### ETHIQ Logbook Assessment (pilot)

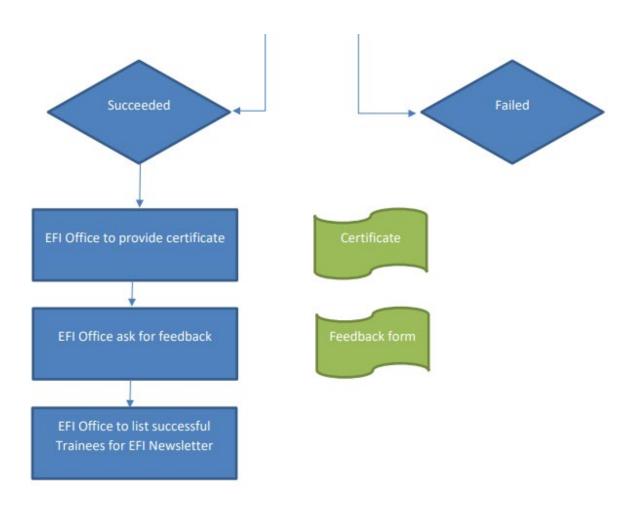
The ETHIQ Diploma is managed and administered by the EFI Education Committee. The purpose of the training is to enable technical staff working in H&I to demonstrate knowledge and competence within their workplace.

Following the successful assessment by the EFI Education Committee of your Training Manual and associated evidence, you have been invited to undertake a short online assessment which must be passed to enable the award of the ETHIQ Diploma.

You will be given 60 minutes to complete 30 multiple choice questions relating to topics contained in the ETHIQ syllabus. Candidates need to answer 75% of questions correctly to pass this assessment. If the outcome of the assessment indicates deficiencies in training that need to rectified, then the candidate will be asked to remedy these deficiencies before resubmission.



## The Process – 5: Completion



## Congratulations!!!!!!



### ETHIQ DIPLOMA

is awarded to

### Name candidate

for successfully passing the Training Manual and Online Assessment of the EFI Technical H&I Qualification (ETHIQ) for Technical Staff Working in EFI Accredited Laboratories

Date

amittle

Ann-Margaret Little President Dave Roelen Secretary

Cho

Deborah Sage Chair Education Committee

## **ETHIQ Training Programme Costs**

- Following feedback from EFI labs, the following proposal regarding cost and the requirement to be an EFI member has been approved by the EC
- Keep the cost at 200 euros for registration but to include EFI membership for the period while the candidate is undertaking the ETHIQ Diploma training.

### Experience pilot in France

A pilot was held in France with four applicants. Two from Lyon, one from Grenoble and one from St. Etienne. All four are technical supervisors and completed the programme in 15 months.

The pilot laboratories set up the ETHIQ diploma programma with the following organization:

- One candidate ⇔ One supervisor
- Time for both parties to provide proofs and evaluate the knowledge
- Planning of regular short interviews between candidate and supervisor to validate the progress, take care of difficulties and maintain confidence
- Fundamentals would need to be updated: provide adequate training courses to the candidate

During the pilot the candidates and supervisors noticed that:

- Both the candidate and the supervisor should be motivated to enter the program and finalise it in the dedicated time
- Time consuming: need to work at home for e-learning courses
- Supervisor must provide adequate supervision, recommendations, and advice

After completion of the ETHIQ diploma programme the candidates experienced the following benefits:

- Improvement and update of immunological and technical knowledge
- Valorization of personal work
- Recognition of lab position or a step-up to a more valuable position

## Questions ????

Send your question to Ingrid Abelman: education@efi-web.org