The ETHIQ Diploma Launch Meeting
Thursday 27th April, 13:30-14:30, Room I

The first intake is planned for July 2023

- The European Technical H&I Qualification (ETHIQ Diploma) is an online, Moodle based training course for technologists working in EFI accredited labs.
- Come and join us at the launch meeting to find out more about the training course
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.

# ETHIQ - Introduction & process

## Training info

The ETHIQ Training comprises four elements:

1. Online ETHIQ Training
2. A summary of individual learning and development events
3. A basic case or validation report
4. Final Assessment
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 summarised below:

- Feedback from questionnaire 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
Registration Process

• There will be two dates for registration each year, initially with a maximum of 20 registrants at each intake.
• Registration will be on the basis of the first 20 complete applications received.
• The first planned intake in 2023 will be: Registration deadline 1\textsuperscript{st} July.
• Subsequent registration deadlines each year will be:
  • 1\textsuperscript{st} January
  • 1\textsuperscript{st} July
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.
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 trainee's own lab
- Under supervision of a local training supervisor
- Expected to take 12 – 36 months
Notes for Supervisors

1. 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).

2. 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.

3. 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.

5. 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

1. Member interested in EFI ETHIQ Logbook
2. Member visits e-learning page on EFI Website
3. EFI Office receives & archives Appendix A – update overview
4. EFI Office sends Appendix A to EDC for approval

Accept application

Decline application
# Application Form

## EFTI ETHIQ LOGBOOK
### APPENDIX A

**APPLICATION FOR REGISTRATION**

<table>
<thead>
<tr>
<th>Surname</th>
<th>Click or tap here to enter text.</th>
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<tbody>
<tr>
<td>Forename</td>
<td>Click or tap here to enter text.</td>
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<tr>
<td>Job title</td>
<td>Click or tap here to enter text.</td>
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<tr>
<td>EFT Member</td>
<td>Yes, membership number: Click or tap here to enter text.</td>
</tr>
<tr>
<td>Start date in current lab</td>
<td>Click or tap here to enter text.</td>
</tr>
<tr>
<td>Laboratory / institution details</td>
<td>Name of lab / location: Click or tap here to enter text.</td>
</tr>
<tr>
<td>Country</td>
<td>Click or tap here to enter text.</td>
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<tr>
<td>Email</td>
<td>Click or tap here to enter text.</td>
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<tr>
<td>Signature of Trainee</td>
<td>Date</td>
</tr>
</tbody>
</table>

### PROPOSED HLI TRAINING SUPERVISION

Note: The training supervisor must be a Director or Co-Director of an EFTI accredited lab, and/or a holder of the EFTI Diploma (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. |

### Indication of the planning to complete the ETHIQ Logbook in 1, 2 or 3 years

| Training start date | Click or tap here to enter text. |
| Proposed completion date | Click or tap here to enter text. |

### 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 an EFTI accreditation.

| Name | Click or tap here to enter text. |
| Current grade | Click or tap here to enter text. |
| Signature of Head of Department | Date | Click or tap here to enter text. |

### Section A - Specialist HLI knowledge

(A1-A2-A3 Mandatory; A4 Optional)

**A1 - Basic Immunology**

- A1.a. B cells and MHC

**A2 - The MHL System**

- A2.a. HLA genes
- A2.b. MHL molecular
- A2.c. MHL transplantation and polymorphism
- A2.d. Clinical relevance of the MHL system

**A3 - Transplant Immunology**

- A3.a. Allorecognition
- A3.b. Rejection responses
- A3.c. Graft versus Host Disease (GVHD)

**A4 - HLI laboratory role in transfusion**

Optional [ ]
## Section B - General competences

(Mandatory)

<table>
<thead>
<tr>
<th>B1</th>
<th>General laboratory practice</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1.a</td>
<td>General laboratory practice</td>
</tr>
<tr>
<td>B2</td>
<td>Safe working practices in the clinical HL A laboratory</td>
</tr>
<tr>
<td>B2.a</td>
<td>Health and safety</td>
</tr>
<tr>
<td>B2.b</td>
<td>Dealing with potential hazards in the laboratory</td>
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<tr>
<td>B2.c</td>
<td>Incident / Accident reporting</td>
</tr>
<tr>
<td>B2.d</td>
<td>Laboratory equipment</td>
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<tr>
<td>B3</td>
<td>Quality management</td>
</tr>
<tr>
<td>B3.a</td>
<td>Quality Management System</td>
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<tr>
<td>B3.b</td>
<td>Quality Control</td>
</tr>
<tr>
<td>B3.c</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>B4</td>
<td>Data handling</td>
</tr>
<tr>
<td>B4.a</td>
<td>Data handling</td>
</tr>
<tr>
<td>B5</td>
<td>Stock maintenance</td>
</tr>
<tr>
<td>B5.a</td>
<td>Maintaining working stocks</td>
</tr>
<tr>
<td>B5.b</td>
<td>Receipt of stock deliveries</td>
</tr>
<tr>
<td>B6</td>
<td>Specimen reception and handling</td>
</tr>
<tr>
<td>B6.a</td>
<td>Specimen reception</td>
</tr>
<tr>
<td>B6.b</td>
<td>Luggage specimens into laboratory Information Management System (LIMS)</td>
</tr>
<tr>
<td>B6.c</td>
<td>Specimen storage</td>
</tr>
</tbody>
</table>

## Section C - Specialist H&I competences

(Optional)

<table>
<thead>
<tr>
<th>C1</th>
<th>Sample processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>C1.a</td>
<td>Separation of secretions/urine samples</td>
</tr>
<tr>
<td>C1.b</td>
<td>Separation of lymphocytes from peripheral blood or tissue</td>
</tr>
<tr>
<td>C1.c</td>
<td>Freezing and thawing lymphocytes</td>
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<tr>
<td>C1.d</td>
<td>Extraction of DNA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C2</th>
<th>Serological competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>C2.a</td>
<td>Lympho cytotoxicity assay</td>
</tr>
<tr>
<td>C2.b</td>
<td>Flow cytometry crossmatching</td>
</tr>
<tr>
<td>C2.c</td>
<td>Antibody identification and definition by solid phase assays</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C5</th>
<th>Molecular competences</th>
</tr>
</thead>
<tbody>
<tr>
<td>C5.a</td>
<td>DNA contamination tests</td>
</tr>
<tr>
<td>C5.b</td>
<td>Definition and analysis of HLA probe polymorphisms by gel based PCR-SNP</td>
</tr>
<tr>
<td>C5.c</td>
<td>Definition and analysis of HLA gene polymorphisms by real time PCR</td>
</tr>
<tr>
<td>C5.d</td>
<td>Definition and analysis of HLA probe polymorphisms by PCR-SSCP</td>
</tr>
<tr>
<td>C5.e</td>
<td>Definition and analysis of HLA probe polymorphisms by SBT- Sequence or SSCP</td>
</tr>
<tr>
<td>C5.f</td>
<td>Post-MCIT organ/mount monitoring by STR (Short Tandem Repeats)</td>
</tr>
<tr>
<td>C5.g</td>
<td>Post-MCIT organ/mount monitoring by qPCR</td>
</tr>
</tbody>
</table>

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The Process – 2: Payment

- Accept application
  - EFI Office informs member by email and sending Appendix B
  - Member returns Appendix B to EFI Office
  - EFI Office sends invoice including Mollie payment link
  - Payment received?

- Decline application
  - EDC informs member by email with reason
  - Appendix B
  - Invoice
# Invoice and Payment

**To:**

**Send by email to:**

---

**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.

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<table>
<thead>
<tr>
<th>INFORMATION INVOICER’S</th>
<th>INFORMATION INVOICE ETHIQ TRAINING</th>
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<tbody>
<tr>
<td>Invoicee’s surname</td>
<td>Invoicee’s surname</td>
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<td>Invoicee’s initials</td>
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<td>Name institution</td>
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<td>Purchase order</td>
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<td>Date</td>
<td>Date</td>
</tr>
<tr>
<td>Trainee name</td>
<td>Trainee name</td>
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Payment:

Please use the ETHIQ payment to pay the above amount in full. Mollie (Mollie Payment) is the payment partner of European Federation for Immunogenetics. Use this form only for the completion of this particular payment. Please make sure that you fill in all the details correctly.

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**INVOICE NUMBER | INVOICE DATE | DUE DATE**

**Membership number | Name | Training period | Description | Line item | ETHIQ Training fee | TOTAL |

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*PAYMENT MUST BE RECEIVED BY THE FULL AMOUNT PRIOR TO COMMENCEMENT OF TRAINING PRIOR TO THE DUE DATE INCLUDED ON THIS INVOICE.*

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**ETHIQ LOGBOOK APPENDIX B**

Page 1 of 1
The Process – 3: Registration

EFI Office to send (code to access) ETHIQ Logbook to Trainee

Trainee completes ETHIQ Logbook

ETHIQ Logbook

Appendix C

Appendix D

Appendix E

Appendix F

Appendix G
The process – 4: Application for final assessment

Trainee sends Appendix H to ERI Office

- EFI Office notifies EDC that ETHIQ Logbook and appendices C-G are available for review and approval

- Approved
  - EFI Office to provide access code to ETHIQ Assessment

- Declined
  - EDC to inform Trainee with reason of decline

Trainee undertakes the ETHIQ Assessment
The Process – 5: Completion

Succeeded

EFI Office to provide certificate

EFI Office ask for feedback

EFI Office to list successful Trainees for EFI Newsletter

Failed

Certificate

Feedback form
Getting started


Username:

deborahsage

Password:

.........

Remember username

Log in

Forgotten your username or password?

Cookies must be enabled in your browser

?
EFI Education Dashboard

Course overview

- **ETHIQ Assessment (pilot)**
  - Status: Incomplete

- **ETHIQ - Introduction & process**
  - Status: Hidden from students

- **ETHIQ - Section A - Specialist H&I Knowledge**
  - Status: Incomplete

- **ETHIQ - Section B - General Competences**

- **ETHIQ - Section C - Specialist H&I Techniques**
  - Status: Incomplete
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.
Evidence of training

In order to complete the Training Manual, evidence must be provided. Signing off competences and knowledge can be delegated by the training supervisor to other senior staff in the laboratory. Note: all forms can be completed in English or in the local language of the candidate's laboratory. Appropriate assessment methods are:

1. **Written (W)**
   The candidate has written a summary to show their understanding of the section. Use the Written Evidence form in Appendix C.

2. **Observed (Obs)**
   The candidate has been observed competently performing the process on at least two occasions. Use the Observed Competency Evidence form in Appendix D.

3. **Oral (O)**
   The supervisor (or delegated individual) and the candidate have discussed the section. Make a record of the discussion using the Oral Discussion Evidence form in Appendix E.
This section of the manual contains the specialist H&I knowledge which is required of all candidates.
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)
### General Competences

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1</td>
<td>General laboratory practice</td>
</tr>
<tr>
<td>B2</td>
<td>Safe working practices in the clinical HLA laboratory</td>
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<td>B3</td>
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<td>Stock maintenance</td>
</tr>
<tr>
<td>B6</td>
<td>Specimen reception and handling</td>
</tr>
</tbody>
</table>

This section of the manual contains the competences which are required of all candidates.
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)
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.
C2.c - Antibody identification and definition by solid phase assays

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)

C2.c - ETHIQ Observed Competency evidence form (Appendix D)
Individual learning and development events

Candidates must submit a summary of individual learning and development events. It would be expected that candidates attend a minimum of 3 learning events (seminars, presentations, conferences, local meetings) per year of their training period.

Please use the REFLECTIVE LEARNING ACTIVITY RECORD FORM (Appendix F) for each event.

F. Reflective Learning Activity Record Form
Completion of a Case Study or Validation report

ASSESSMENT OF 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

<table>
<thead>
<tr>
<th>Assessment method</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trainee Supervisor signature</td>
<td>Trainee signature</td>
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</table>
The Final Assessment

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.

H Training Manual Application For Final Assessment Form
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.
Congratulations!!!!!!!

ETHIQ DIPLOMA

is awarded to

Name of 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

Ann-Margaret Little
President

Dave Roelen
Secretary

Deborah Sage
Chair Education Committee
Feedback pilot applicants
ETHIQ Diploma
Experience

• 4 applicants in our region: 2 in Lyon, 1 in Grenoble and 1 in St Etienne
• Technical supervisors
• 15 months time period between registration and final assessment
Organisation

• One candidate ⇔ One supervisor
• Takes 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
Motivation

- 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.
Positive Consequences for applicants

• 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, and even higher wages .... 😊
Questions??