

## Principles of EQA

- A large number of laboratories are provided with the same material and they are required to return results to a coordinating centre.
- There must be no difference in the treatment of an EQA sample and a patient sample: routine procedure and personnel who routinely perform the test.
- The EQA results are compared to determine the accuracy of the individual laboratory.
- EQA provides continuous education and training for laboratories, and should not be punitive.
- EQA participation is a vital tool in a quality management system, especially for laboratories that are accredited or that plan to seek accreditation.
- It is essential to follow-up EQA results and to discuss the reports in regular laboratory meetings; not only the negative remarks but positive results as well.

## Interesting links

[www.eurogentest.org/laboratories/eqa/](http://www.eurogentest.org/laboratories/eqa/)  
→ information on **EQA providers, Best Practice guidelines** and other documents related to EQA

[www.orphanet.org](http://www.orphanet.org)  
→ database for diagnostics tests

[www.eshg.org](http://www.eshg.org)  
→ a non-profit organization that aims to promote research, quality and communication in basic and applied human and medical genetics

## EuroGentest

**EuroGentest2** is a non-profit coordination action funded by the 7<sup>th</sup> Framework of the European Commission for **the harmonization and further improvement of genetic services**, across Europe.

**EuroGentest is not an EQA provider itself**, it aims to bring together EQA providers. Some specific goals of EuroGentest are:

- Organising Best Practice meetings to bring together experts on specific diseases to produce new guidelines.
- Striving for accreditation of all Genetics EQA schemes under ISO 17043
- Assessing and decreasing poor performance
- Harmonizing and improving the provision of EQA within Europe

*Coordination*  
Katholieke Universiteit Leuven  
Center for Human Genetics  
Belgium  
**[www.eurogentest.org](http://www.eurogentest.org)**

## External Quality Assessment (EQA)

*Required for accreditation*

*Molecular genetics*



*Training and education*

*Cytogenetics*

*Biochemical genetics*

*Achieve interlaboratory compatibility*

*Increase the quality of your lab results*

## What is EQA?

"A system of objectively assessing the laboratory performance by an outside agency. EQA is a system whereby a set of reagents and techniques are assessed by an external source and the results of the testing laboratory are compared with those of an approved reference laboratory. The main objective of external quality assessment is to establish inter-laboratory compatibility" (WHO 1981)

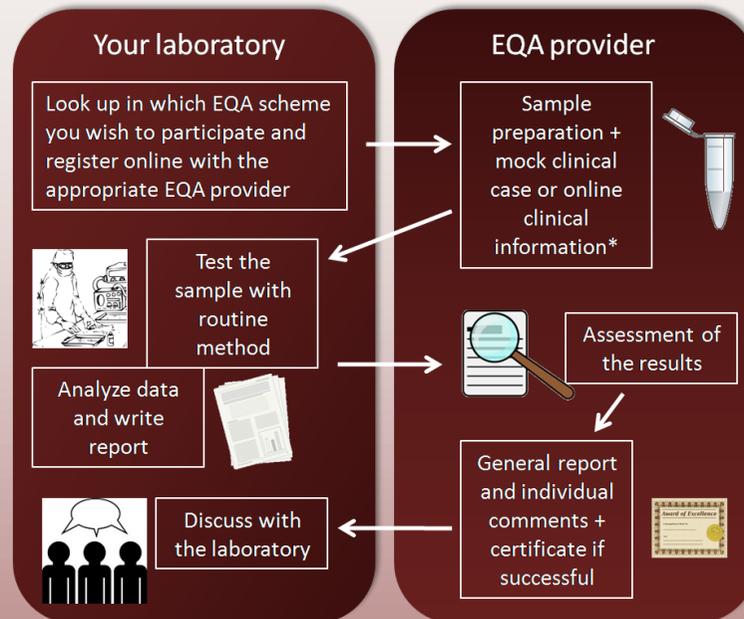
## Why EQA?

Specific regulation of laboratories performing molecular genetic tests is needed to ensure standards and quality assurance (QAu) and safeguard patient rights to informed consent and confidentiality.

The main objective of EQA is to assess the quality of the results and reports produced by a laboratory. The development of an EQA program also provides a unique opportunity to document variations between laboratories in diagnostic testing.

In addition, EQA provides continuous education and training for the laboratories which participate.

## General process of participating to an EQA scheme



*\*Depending on the EQA type*

## European EQA providers

At the EuroGentest website you can search for the appropriate EQA provider for specific tests or disorders:

<http://www.eurogentest.org/laboratories/eqa/>

### Search for an EQA scheme

Find information about EQA schemes across Europe.

#### EQA Scheme Directories

- Molecular genetics
- Cytogenetics
- Biochemical genetics<sup>†</sup>



Some major EQA providers that cooperate with EuroGentest are:

**CF network** <http://cf.eqascheme.org/>



**CEQA** <http://www.ceqa-cyto.eu/>



**ERNDIM** <http://www.erndim.org/>



**EMQN** <http://www.emqn.org/emqn/Home>

