



Our research is supported by

DESCRIPTION

The genomics platform contains equipment for genetic analyses such as an ABI genetic analyser 3130xl used in DNA fragment analysis to genotype individuals. Both internal and external researchers use this equipment.

A PyroMark Q24 using pyrosequencing technology has been acquired more recently to enable real-time, sequence-based detection and quantification of sequence variants and epigenetic methylation.

Other available equipment within the platform: NanoDrop™ spectrophotometers, an Agilent Bioanalyzer and several qRT-PCR for gene expression analyses.

Future evolution

- High throughput: the platform aims to acquire a droplet digital PCR for high throughput gene expression analysis. Given the rapid and costly evolution in high throughput equipment, UNamur invests in a well-equipped platform, the Genomics core at UZLeuven, to perform its high throughput analyses at a reduced price and with privileged access including transcriptome, genome and methylome sequencing, ChIPseq to study the interaction between proteins and DNA and microarrays
- Obtain a common workspace for the platform at UNamur: in order to centralize all the equipment and share the knowhow between scientists.

EXPERTISE

DNA/RNA sequencing, DNA fragment analysis (microsatellites and SNP), gene expression, epigenetic methylation, next-generation sequencing, ChIPseq, microarray.

EQUIPMENT

Gene dosage and gene expression

Spectrophotometers: DNA, RNA and protein dosage (Nanodrop)

Agilent™ Bioanalyzer (microfluidic cards): quantify and evaluate the quality of nucleic, protein and cellular samples

RT-qPCR: gene expression (low output)

RT-qPCR ViiA7: gene expression (microfluidic – URBC)

Future investment:
Droplet digital PCR (ddPCR) – next generation gene expression

Future direction: **NGS sequencing**

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Future direction: **Pyromark Q24 + high throughput pyrosequencing (methylome sequencing)**

DNA/RNA sequencing

Outsourcing

DNA fragment analysis

Genetic analyzer (microsatellite analyses) **ABI313xl** (URBE)

Epigenetics

Pyrosequencer: Pyromark Q24 – sequence variants and DNA methylation

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