

# Core Facility Genomics

News Flash – September 2023

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19th

## Core Facility Genomics (CFG) user webinar

19th of September 16:00-17:00

## “High Performance Compute and Bioinformatic”

To join: [Teams Link](#)

For more info: [CFG website](#)

[cfg.amsterdamumc.nl](http://cfg.amsterdamumc.nl)

## P2 solo: CFG expands on Oxford Nanopore Technology

Dear CFG users, MinION and Flongle Oxford Nanopore Technology was already available at the CFG, but we are truly excited and happy to inform you that we have extended our services herein. Recently we acquired Nanopore’s **PromethION** technology (P2 solo).

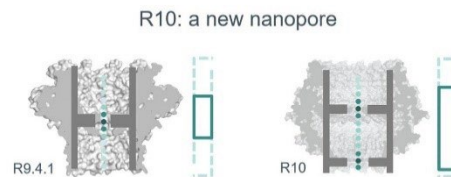
PromethION technology, in combination with our upgraded ICT equipment, allows you to sequence (direct and long read) whole genomes cost efficiently. Furthermore, novel genome assemblies, copy number variation, direct detection of nucleic acid modifications (conversion and amplification free) are other great advantages of this state of the art technology.

Please note that *adaptive sampling* (targeted sequencing) is now available with both PromethION and MinION technology. The new type of flowcells (double pore, R10), in combination with PromethION’s output (MinION ~ 50 Gb vs. PromethION ~ 290 Gb) increases sequence accuracy tremendously as well. R10 flowcell are available for both MinION and PromethION applications.

Please, feel free to contact our consulting team at [cfg@amsterdamumc.nl](mailto:cfg@amsterdamumc.nl) for further information about applying Nanopore technology in your experiment.



PromethION 2 solo



R10 flowcell – double pore detection

## CFG costs

Twice a year, in March and September, the CFG updates the prices. Our updated prices are available at [our CFG website](#).

Based on feedback we received from CFG users we added costs examples for experiments to this document. To help you calculate the costs for combined techniques. The costs examples are given at the end of the price list (see prijsvoorbeelden; voorbeeld 1, voorbeeld 2.....).

We want to encourage you to give us feedback about our services, so we know what could be optimized. For example the costs examples. But you can also think of our procedures, are they clear to you. Do you miss fields on the submissions forms? [Please let us know!](#)

## CFG LIMS

We received many positive reactions of CFG users about our new CFG LIMS. But of course there are also many things to optimize and update.

In the near future the following parts will be released:

- Complete user registration in CFG LIMS, no shadow registration with the current user registration form.
- Register for the use of instruments through an agenda in CFG LIMS.
- TapeStation submissions and data download via CFG LIMS.
- Several bugfixes.

When the new version of CFG LIMS is implemented, you will be notified by email en will receive more information.

**Update documents**

The documents related to the submission of NGS Sequencing samples are new or updated:

[NGS Sequencing submission procedure](#)

In the submission procedure is explained which requirements your samples need to meet.

[CFG: Gebruik NGS Sequencing submission form](#)

In this document all the fields of the submission form are explained.

[NGS Sequencing submission form](#)

A new version is available.

For **all** users it is necessary that they use the most up to date version of the documents. They can be found in [K2](#) for internal users and at the [CFG website](#) for external users.

**Dates lower occupancy CFG lab**14th of September

Due to a company outing there is a lower occupancy at the CFG lab. All users are informed by email.

16<sup>th</sup> of November

Due to a National Meeting for technicians of our Core Facility there is a lower occupancy at the CFG lab. Services will be continued this day as usual except questions, intakes etc. You'll be answered on a different day.

**Visit our website!**

[cfg.amsterdamumc.nl](http://cfg.amsterdamumc.nl)

E-MAIL

[cfg@amsterdamumc.nl](mailto:cfg@amsterdamumc.nl)

***QX200 Digital Droplet PCR***

At the CFG there are two QX200 Digital Droplet PCR (ddPCR) setups available.

The **VUMC system** is located at the CFG in the Medical Faculty building. The **AMC system** moved to G2-105-3 in August, making both systems more accessible for CFG users.

The QX200 ddPCR system provides absolute quantification of target DNA or RNA molecules for EvaGreen or probe-based digital PCR applications.

Examples of applications using the QX200 ddPCR system:

- **Cancer biomarker studies and copy number variation**  
Measure varying degrees of cancer mutations, detect rare DNA target copies, and resolve copy number variation states with superior sensitivity and resolution.
- **Pathogen detection**  
Employ the extreme precision of the QX200 System to quantify small fold changes in target DNA or RNA molecules in pathogen detection and monitoring.
- **Next generation sequencing**  
Perform accurate quantification and qualification of NGS libraries without the use of a standard curve.
- **Gene expression analysis**  
Achieve reliable and reproducible measurements of small fold changes for low abundance of mRNA and miRNA.

Interested? We love to show you the system and help you on your way. Please contact us at [cfg@amsterdamumc.nl](mailto:cfg@amsterdamumc.nl).

***Lightcycler LC480***

To optimize the communication about and the usage of the LightCycler LC480 at the CFG we're refreshing our list of "main users" for each department and/or LightCycler account. The main user is contacted regarding planned updates to the system and is the first point of contact within his or her own department for showing new colleagues how to use the systems at the CFG. All current users have received an email about this. Did we miss your department, please contact us [cfg@amsterdamumc.nl](mailto:cfg@amsterdamumc.nl)

The database of the LC480 at location VUmc is now accessible from the computer attached to the LC480. The work around for the instruments are now identical at both locations.

***LAS4000***

At CFG location AMC the CFG facilitates the use of the LAS4000 for imaging of blots, gels etc.. When working with the LAS4000 it is important that all the preparations are done at the CFG users own lab. It is prohibited to pipette your reaction chemicals at the CFG lab. The CFG has transport cassettes in stock which you can use for transport between your lab and the CFG lab.

***RDC-ADORE***

We are happy to inform you that in 2025 the CFG lab will also have a location in the new RDC-ADORE building at the VUmc. We are currently planning the lab space, determining the positions of the instruments that will be placed there. As our users at AMC are accustomed we will facilitate the central availability of equipment for CFG users. All research and diagnostic labs at the RDC-ADORE and surrounding AUMC / VU campus will be able to use these machines if needed.

If you are interested in the instruments/techniques that will be offered at our RDC-ADORE location please contact us at [cfg@amsterdamumc.nl](mailto:cfg@amsterdamumc.nl).