

PCR Facility

Overview

This facility provides instruments for detection and quantification of nucleic acids and cloning experiments in plasmids. Our expert tech support will provide training, experimental consulting, and technical support to ensure high-quality results for final users.

Equipment

- NanoDrop One^C and NanoDrop Lite Plus Thermo Fisher ScientificTM are Microvolume UV-Vis Spectrophotometers useful for quantifying and qualifying DNA, RNA and protein samples in seconds with as little as 1-2 μ L.
- QubitTM 4 Fluorometer Invitrogen accurately and quickly measures the concentration of DNA, RNA, or protein in a single sample. It can also be used to assess RNA integrity and quality.
- GeneAmp PCR System 9700 Applied Biosystem is a high throughput thermal cycler. It is commonly used to amplify segments of DNA via the polymerase chain reaction.
- StepOneTM Real-Time PCR System Applied Biosystem is a 48-well, low-throughput Real-Time PCR instrument perfect for both first-time and experienced users for determination and quantitation of nucleic acid in various biological samples.
- CFX Connect Real-Time PCR System Biorad allows a rapid and sensitive determination and quantitation of nucleic acid in various biological samples. It is characterized by six independently controlled thermal electric units.

User manuals are available at the following links [\[see “User support material”\]](#)

Location

The instruments are located at 5° floor, north side, in the room GEOTEC 06-126 and at 2° floor, north side, in the room GEOTEC 03-081.

Opening hours

Monday to Friday: H24.

Please note that, according to the Safety Guidelines of University of Padua:

“Do NOT work alone outside of working hours, particularly in cold rooms, or in rooms with X-ray sources and in cases of complex and dangerous operations. It is always important to check if specific procedures require special attention (especially for the cold room).

The presence of undergraduate students is conditioned on the presence of at least one structured staff unit.”

Service Coordinator

Prof. Mauro Salvi

Staff

Dr. Francisca Venegas Celedon (pcr.biomed@unipd.it, 049-8276125)

Dr. Valeria Bertin (pcr.biomed@unipd.it; 049-8276060)

The Facility's staff are available Monday to Friday during normal working hours (09:00-16:00).

Guidelines

Users are expected to perform experiments independently and must be adequately trained to ensure proper use of the instruments.

First use of the instrument and training

Prior to the first use of any instruments, please contact Dr. Francisca Venegas Celedon or Dr. Valeria Bertin for the mandatory training.

Booking procedures

All equipment must be reserved before every work session.

Reservations are made through the dedicated page on the DSB Facilities & Services website by selecting the “book now” icon associated with the required instrument.

If your plans change, reservations may be cancelled up to 24 hours before the start of the reserved time slot. When making your reservation, indicate the name of the user, the group leader, and lab phone number.

Rules

Instruments placed in this room may not be moved without extraordinary maintenance.

Before your session:

- Wear clean gloves. DO NOT wear gloves when handling computer equipment such as keyboard, computer mouse, and PC.
- Equipment must be checked in all their parts: everything must be clean and without any obvious damage. If this is not the case, please immediately contact the staff.
- Report to the staff the presence of incorrect behavior or waste not properly disposed of.

After your session:

- DO NOT leave anything in the room and on the shelves.
- After use, it is RECOMMENDED to maintain clean the instrument and surfaces.
- Please check if you are the last user of the day/week and, in this case, switch the instrument and its computer off.
- The collection and disposal of waste produced by the ordinary use of the instruments are the responsibility and competence of the producer. The collection and conferral to the office of competence remain the responsibility of the producer.

Costs

Updated fees are available on the DSB Facility website.

Users will receive a biannual report that summarizes your reservations, based on the online booking calendar.

User support material

- GeneAmp9700_PCR_Applied_Biosystem.pdf
- Applied Biosystems StepOne™_reagent_guide.pdf
- CFX_Connect_Instrument_Guide.pdf;
- CFX_Maestro_Software_User_Guide.pdf
- TFS-Assets_MSD_manuals_nanodrop-one-user-guide-EN-309102-REV-A.pdf
- User_Guide_Qubit_4_Fluorometer_UG.pdf;
- Qubit™ Quick Guide.jpeg;
- Qubit™ RNA HS Assay Kit.pdf;
- Qubit™ RNA BR Assay Kit.pdf;
- Qubit™ Protein BR Assay Kit.pdf;
- Qubit™ dsDNA BR Assay Kit.pdf;
- Qubit™_dsDNA_HS_Assay_UG.pdf.
- Manual Nanodrop Lite Plus.pdf