

Regulations for the Use of the Real-Time PCR qTOWER Instrument

The qTOWER instrument is located in laboratory 333A of the Department of General and Medical Biochemistry, Faculty of Biology, University of Gdańsk.

These Regulations define the rules for reserving and using the instrument. Their purpose is to ensure equal access to the instrument for all users, efficient organization of work, and safe operation of the equipment.

1. Authorized Users

1. The qTOWER instrument may be used by employees and doctoral students of the Faculty of Biology, University of Gdańsk.
2. Students may use the instrument only under the supervision and responsibility of their supervisor.
3. Before using the instrument independently for the first time, each user is required to read these Regulations, accept the rules set out herein, and comply with them. A printed copy of the Regulations is available next to the instrument.
4. Only users who are able to operate the instrument and its software correctly may use the qTOWER independently. Users who have not received training in the operation of the qTOWER must be trained by the instrument supervisor or an experienced user before using the instrument independently for the first time.

2. Instrument Reservations

1. Every use of the qTOWER must be registered in the reservation calendar in advance. Use of the instrument without a prior reservation is not permitted.
2. A link to the reservation calendar is available on the website of the Department of General and Medical Biochemistry (biochemia.ug.edu.pl), under **“qPCR – Reservations”**.
3. The calendar can be viewed by employees of the Faculty of Biology who have an account in the **ug.edu.pl** domain, allowing them to check current instrument occupancy and available time slots.
4. Due to the organization of University of Gdańsk accounts within the Microsoft 365 environment, users with accounts in domains other than **ug.edu.pl** (including some student and doctoral student accounts) may not automatically gain access to the calendar after opening the link. In this case, the **“Request access”** option displayed by Microsoft should be used. At the same time, please send an e-mail to karolina.stojowska-swedrzynska@ug.edu.pl, providing basic information about the person requesting access: full name, Department, and the full name of their supervisor. Sending an e-mail is necessary because “Request access” notifications are not checked on a regular basis.
5. Users who wish to obtain permission to make reservations should contact the instrument supervisor by e-mail (karolina.stojowska-swedrzynska@ug.edu.pl), providing the e-mail address for which reservation privileges are to be granted. The message must also include confirmation that the user has read and accepted these Regulations, for example:

“I confirm that I have read the Regulations for the Use of the Real-Time PCR qTOWER Instrument and accept the rules set out therein.”

Reservation privileges will be granted after this confirmation has been received. These privileges are granted on a permanent basis; therefore, there is no need to contact the instrument supervisor again before making subsequent reservations. Detailed instructions for making reservations are available on the website of the Department of General and Medical Biochemistry (biochemia.ug.edu.pl), under **“qPCR – Reservations”**.

6. The system technically allows overlapping reservations. Users are responsible for checking the calendar before saving a reservation and ensuring that the selected time slot does not conflict with an existing reservation.

7. Users may create, modify, and delete their own reservations. They may not modify or delete reservations made by other users.
8. Reservations should reflect the actual time required to use the instrument, with a reasonable additional margin for completion of the program, saving the experiment, and collecting the plate. Excessively long time slots should not be reserved “just in case”.
9. If a reserved time slot will not be used, the reservation should be deleted as soon as possible so that the instrument becomes available to other users.

3. Use of the Instrument

1. Users are responsible for the correct preparation of their experiments and for setting the appropriate program parameters.
2. Before starting work, users should check that the instrument is available and that the previous experiment has been completed.
3. The work area must be kept clean, and care should be taken when inserting and removing the plate, as well as when opening and closing the instrument lid.
4. Users must not independently modify computer system settings, install or update software, or attempt to repair the instrument.
5. Any error, unusual instrument behavior, damage, or other technical problem must be reported to the instrument supervisor.
6. After use, the instrument and the surrounding work area must be left in a condition that allows the next user to begin work immediately.

4. Completion of the Experiment and Plate Collection

1. Whenever possible, experiments should be planned so that they finish at a time when the user can collect the plate in person. Leaving the plate in the instrument for extended periods, particularly overnight, should be avoided.
2. If it is necessary to leave the plate in the instrument for an extended period, the PCR program must end with an additional step maintaining the temperature at **10°C**. After standard completion of the program, the instrument automatically enters idle mode, in which the block is maintained at 4°C. Prolonged maintenance of the block at this temperature may adversely affect its operation and may lead to damage. Therefore, in accordance with the service recommendation, when a plate must remain in the instrument for an extended period, a final **10°C hold step** must be included. The user is responsible for collecting their plate and saving the experimental data before the end of the reserved time.
3. Users should remember that experimental data must be saved after completion of the program. Completion of the program itself does not mean that the experiment has been properly saved.
4. If, after the start of the next user's reserved time slot, a plate from the previous experiment is still in the instrument and the previous user is not present, the next user may:
 - save the open experiment;
 - remove the plate from the instrument and place it in the refrigerator;
 - leave a note in the designated notebook describing the actions taken.
5. The note should include:
 - information that the plate was removed and placed in the refrigerator;
 - the name under which the experiment was saved and the location of the folder;
 - the date;
 - the full name of the person who performed these actions.

The notebook designated for this purpose is kept in the drawer beneath the bench on which the instrument is located.

6. This procedure is intended to protect the previous user's data and material while allowing the next user to begin work. **However, responsibility for collecting the plate on time and properly securing the experimental data remains with the user who performed the experiment.** If an experiment is left after the reserved time has ended, preservation of the data or material in an unchanged state cannot be guaranteed.

5. Data Storage

1. Files related to qPCR experiments, including projects/experiments and templates, must not be saved on the desktop or in arbitrary locations on the computer.
2. All files must be saved in the designated **“Saved Documents”** folder, which can be accessed via a shortcut on the desktop.
3. Within the “Saved Documents” folder, users should locate the folder assigned to their Department. If a folder for a particular Department does not yet exist, the first user from that unit should create it.
4. Within the Department folder, each user should create a folder labelled with their **full name**. All projects, templates, and other files related to their experiments should be stored in this folder. Users may organize their own files within this folder as they see fit.
5. Students should not create separate personal folders. Their data should be stored in the folder of their supervisor.
6. Users are responsible for properly saving and securing their own experimental data. Important data should be regularly copied to the user's own storage device or another secure location.

6. Completion of Work

1. After completing an experiment, the user should:
 - ensure that the data have been saved correctly;
 - remove the plate from the instrument;
 - leave the work area clean and tidy.
2. After work has been completed, the qTOWER instrument and the computer must be switched off. The instrument and computer may remain switched on only if the next user is already present and takes over the workstation immediately.

7. Shared Use of the Instrument

The qTOWER is a shared instrument used by members of the Faculty of Biology. Efficient operation of the reservation system requires cooperation and mutual respect for reserved time slots.

In particular, users are expected to finish their work on time, avoid unnecessarily blocking the instrument, cancel reservations that will not be used, and leave the workstation ready for the next user.

In the event of a delay or other unforeseen situation, users should, whenever possible, contact the next user directly.

8. Technical Problems and Contact

Any malfunction, error message, suspected improper operation, or damage to the instrument must be reported to the instrument supervisor.

qTOWER Instrument Supervisor

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In the event of a serious malfunction, use of the instrument must be discontinued until the instrument supervisor has been consulted. Users must not attempt to repair the instrument themselves.