

Cleanroom access for projects with special permission v 1.2 30th April, 2020

Access to the DTU's common infrastructure requires that the project that needs access has received a special permission given by DTU through the respective Head of Department. Once this is in place, proceed according to the regulations below – part 1 regarding booking and part 2 concerning safety.

Please be fully aware that the permission given is personal and only for the duration of the specific project. If we observe use of the facility that is not covered by a project with explicit permission by a Head of Department we have been instructed to report that unauthorized usage and revoke access immediately for a longer period.

The cleanroom is a research infrastructure that is used by many scientists with individual process flows and requirements. In these times it is a logistical challenge to regulate the usage of such a facility. We are in the process of optimizing the usage according to two main criteria:

- 1) Minimize the risk of virus contamination
- 2) Maximize throughput

This optimization is work in progress. There will be changes and adjustments both physically and using LabManager. It is our goal that we will be able to offer close to normal throughput once this optimization process is finalized. Please bear with us, this is a new situation. Make sure to observe all the rules and regulations, ask if anything is unclear and if you see behavior that will risk contamination please tell us and/or remind the person in a friendly way that there is a risk of contamination.

Part 1: Booking Rules

Cleanroom access is granted through a special permission. This permission is given under the condition that all rules and recommendations of the health authorities are observed. To ensure compliance with these general rules, we have to set a number of rules and restriction in place that are adapted to our environment.

Please read these rules carefully. Not complying with these rules can cause high risk of contaminating you and others. Furthermore, there is an immediate risk that non-compliance will lead to revocation of the special permission for all cleanroom users.

We will therefore be extremely strict in enforcing our general rules and guidelines but especially the rules imposed due to the current pandemic situation. Non-compliance even by accident and non-intentional can lead to an immediate revocation of your special permission to use DTU's cleanroom facilities and adjoining labs.

It is absolutely important that we follow all the following steps meticulously. If you have doubts and questions, please come forward with them (preferably to Flemming and Leif).

By default, your cleanroom access, access to building 346, and permission to book equipment has been cancelled due to the complete lock down of DTU (if you have been in the cleanroom during the last 2 weeks your access should be ok).

Opening hours: For safety reasons, with few people around the cleanroom and on campus and in order to ensure that the basic rules preventing contamination are obeyed at all times, at least one member of Nanolab's staff will be present during the opening hours that are set from **7:00 to 19:00 Monday to Friday**. During these hours we will also provide (limited) support. Special needs should be addressed beforehand as we are only allowed to have few staff

members present at any given time. Contact Leif and Flemming regarding special materials or process needs. Outside of these hours, the cleanroom is reserved for commercial production if there is a special agreement/permission.

Training: Until further notice we **do not provide training sessions**. Training sessions involve two or more people standing close together in front of an often small screen, talking loudly (because of background noise) to each other – a situation that is not compatible with minimizing the risk of infection. You cannot use a piece of equipment without proper training. If this is a major problem you can contact Leif and Flemming, but there is a chance that we will not be able to help in the current situation.

Before you start booking and planning your cleanroom work:

- 1) Send a request to use the cleanroom or other Nanolab labs to adm@nanolab.dtu.dk
 - a. This request should contain a proof that your project has got special permission (this can be a statement from your head of department in a separate mail or copy of the correspondence (excel file) sent to 101.)
 - b. An estimate over how many cleanroom hours (or other laboratories you need access (e.g. XPS lab, laser lab etc)) for your project and how these hours will be distributed over time and location.
 - c. State which laboratories you need access (e.g. cleanroom, XPS lab, laser lab etc)
 - d. State your labmanager initials and if applicable other persons initials if they are included in the special permission for the project (this should be stated and confirmed in point a))

- 2) Wait until you get a confirmation which states:
 - a. Your project is approved to get cleanroom access
 - b. A date when you can start booking in LabManager
 - c. A confirmation that you are a user with a critical project in LabManager

- 3) Once you have all the confirmations and a start date for booking you can use the booking system of LabManager with the following important modifications:
 - a. Read and understand the special rules that apply while entering and working in the cleanroom. These rules are provided and sent to you on a separate sheet and can be found in LabManager and on Nanolab's home page. These rules will undergo change and modifications. It is your responsibility to check if the rules have been changed before you are entering cleanroom (yes, each time before, we will also post changes in front of the cleanroom)
 - b. The number of persons in the cleanroom is restricted. At any given time, there are no more than 10 users plus 8 Nanolab staff allowed in the cleanroom.
 - c. In order to keep track on these numbers you have to book your planned cleanroom presence in a separate LabManager calendar. This means for every booking of equipment you have to make an additional "cleanroom presence" booking (same for the other labs respectively). Failure to do so (also if you forget) will lead to a deletion of your booking and revoke of access.

Part 2: Safety rules – rules to minimize risk of infection

Explicit rules how to enter the cleanroom are given in the sheet below. You will also find this sheet posted in Bldg. 346 on our homepage and in LabManager. It will undergo revisions and updates and be adapted to the changing situation. It is therefore extremely important that you look at it each time you are entering the cleanroom.

It may not be very comfortable, but it has proven efficient to wear facemasks. Therefore, it is obligatory to wear face masks in the cleanroom and all the common research infrastructure labs at all times. This is standard procedure in many cleanrooms and especially effective in a situation when you are talking to another person. Please follow the instructions when and where to put on and discard the mask.

Our gowning area and the corridors leading to that area are not designed for keeping a distance of 2 meters. We have laid out rules for entering and using the gowning area, most explicit on the dirty side, where people spent most of the time. Please remember that the gowning area (on both sides) is a transit area and the main bottleneck regarding usage of the cleanroom. There try to minimize the time you stay in this area, be swift in your gowning procedure, do not talk with other people unless absolutely necessary while being in the gowning area.

Be considerate when you pass people in the corridor, step to the side, hold your breath for the moment passing.

Wait outside the gowning area until it is your turn and the waiting zone inside is vacant.

When using glasses, wipe them down with alcohol. Same goes for face-shields before and after use.

Should you have accidentally touched yourself in the face with gloved hands, clean your gloved hands with alcohol before you touch anything else and change gloves in the gowning area.

You will observe that we installed measures ensuring that the cleanroom suites are hung with a distance of approx. 20 cm. Please observe these arrangements and make sure that your cleanroom suit does not touch any other suit already hanging there.

Gowning being a major bottleneck we have decided that you should leave the cleanroom immediately through the nearest exit in case of alarm. Do so, also in case of mild evacuation (ventilation alarm). Proceed as if it would be an immediate evacuation (hard evacuation) and proceed (still in your cleanroom suit) immediately to our collection and gathering area in front of building 358. Stay there until a Nanolab staff member will give you further instruction. Remember to keep distance, also in this situation.

A small video, showing how to enter the cleanroom, explaining the new gowning rules is in the making. We hope to make it available soon in LabManager and on our homepage.

We are trying hard to provide a safe environment that allows as many users as possible to their work and conduct their research. Please help us by being patient, considerate and understanding and thereby contribute to an environment where we all can achieve what we set out to achieve despite this difficult situation.

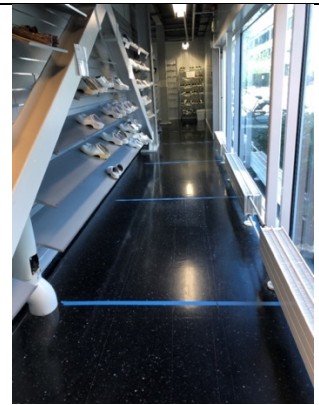
Rules for entering the cleanroom

In case of an alarm, both hard and mild evacuation, leave the cleanroom immediately through the nearest emergency exit, go to building 358, and wait for DTU Nanolab staff to arrive.

Clean your hands thoroughly before entering the corridor to the cleanroom

Before entering the gowning area, wait in the corridor in front of the entrance door.

Observe the markings on the floor.



Make sure no one else is waiting inside the gowning area in the waiting zone before entering.



Immediately after entering gowning area: disinfect your hands, and then put on a facemask.

Only one person allowed in the waiting zone, waiting for cleanroom access inside gowning.



Observe the markings on the floor for going in/going out of the cleanroom.



Only one person per marked field.

The transit zone is where the suits and boots are placed, passing through only.



At all time, KEEP DISTANCE.

When leaving, do not take off your gloves and face mask until you are at the washroom.



**Dispose your gloves and face mask.
Afterwards, wash your hands thoroughly
using soap.**

