

STANDARD OPERATING PROCEDURE – CYTEK AURORA (Zen):
Start-up, Cleaning and Shutdown

START-UP – Only if you are the **first user** of the day and the facility staff have not started the instrument.

1. Check the level of sheath fluid (ddH₂O) and waste.
 - a. If sheath fluid is low replace with one of the tanks to the left of the Cytek Aurora.
 - b. If waste is full, dump into sink as normal and add enough bleach to cover the bottom of the tank before re-attaching.
 - c. If you notice that all of the sheath tanks are almost empty please notify the flow core staff so we can refill them
2. Turn the Cytek Aurora on (circular silver button on left hand side)
3. Log in to PPMS with your EMORY ID and PASSWORD, start SpectroFlo software, and log in with your lab's username (ex. Admin-Lab) and password. See Password notice on instrument.
 - a. Username and password for the SpectroFlo software are case sensitive

BEFORE EACH RUN – ALL USERS

1. Check the level of sheath fluid (ddH₂O) and waste.
 - a. If sheath fluid is low replace with one of the tanks to the left of the Cytek Aurora.
 - b. If waste is full, dump into sink as normal and add enough bleach to cover the bottom of the tank before re-attaching.
 - c. If you notice that all of the sheath tanks are almost empty please notify the flow core staff so we can refill them
2. Perform a SIT Flush before running your samples

CLEANING AFTER EACH RUN – ALL USERS

1. Add two tubes to your experiment and label one 'BLEACH' and one 'WATER'.
2. Insert a tube of 1 mL of 10% bleach (Sodium Hypochlorite). **RECORD** for 3 minutes on HIGH.
3. Insert a tube of 1 mL of ddH₂O. **RECORD** for 3 minutes on HIGH.
4. Leave the ddH₂O tube on the SIT.
5. All data is exported automatically to the FCS folder shortcut on the desktop as FCS 3.0 files (Do not rename or delete the experiment/files in this folder) Use SPECTROFLO to rename any experiments or tubes.
6. Log out, wipe down with 70% ethanol, clean up any spills, throw away any garbage, and take your belongings with you.
7. Check the instrument schedule to determine if you are the last user of the day. If so, continue with shutdown procedure.

SHUTDOWN OF THE CYTEK AURORA – LAST USER OF THE DAY

There is no need to shut down between different users. Please check the online bookings schedule to confirm you are the last user of the day.

1. On the left hand side of the software window, click on the 'Cytometer' button
 - a. At the bottom of the list click on 'Fluidics Shutdown' and follow the on-screen prompts
 - b. **Make sure the tubes have minimum of 3ml of liquid in them, it will use a large volume for the shutdown procedure**
 - c. **Leave tube of distilled water on the SIT**
2. Turn off the Cytek Aurora by pushing the round, silver button on the left-hand side of the machine

TURN OVER:

INSTRUMENT ISSUES

1. If there is a clog, follow these steps:
 - a. Perform a SIT Flush 2 times, and attempt to run your sample again
 - b. If you still cannot collect data
 - i. Click on 'Cytometer' on the left hand side of the software
 - ii. Perform a 'Clean Flow Cell' two times; first with a tube of bleach, and then with a tube of water
 - iii. Perform a SIT Flush
2. To switch between Plate and Tube mode:
 - a. Click on 'Preferences' in the top right of the software window
 - i. Make sure either 'Plate' or 'Tube' is selected depending on what you will be running
 - ii. Use the plate loader arm to move the plate loader SIT forward or backwards, depending on what you will be running
 - iii. Go back to your experiment and run like normal

If there are any issues with the instrument, please follow the Troubleshooting Guide, if this does not rectify the issue please file an **INCIDENT REPORT** of **Low** or **Medium** Severity, this ensure all members of the core staff receive a high priority email and can deal with it as soon as possible.

DATA THAT IS OLDER THAN 1 MONTH WILL BE DELETED!

*****NEW: Deviations from SOP (INCLUDING FAILURE TO RECORD CLEANING) that result in instrument downtime or inhibit the next user from typical use will incur extra charges!***** Please see current billing policy for details.