

# Steering document for the MedH Flow Cytometry Facility at Karolinska Institutet

Last updated: 23.01.2018

## Background

The purpose of this steering document is to provide transparent guidelines for the management and usage of the Department of Medicine Huddinge Flow Cytometry Facility (MedH FCF). The facility is located within the Center for Hematology and Regenerative Medicine (HERM) at Novum.

The establishment of the facility in 2011, including acquisition of one high-end sorter (BD Aria) and one high-end analyser (SORP BD LSRFortessa), as well as recruitment of one Facility Manager, was made possible through generous funding from the Wallenberg Institute for Regenerative Medicine (WIRM), a research institute financed by Knut and Alice Wallenberg Stiftelsen, as well as initial contribution from HERM and MedH. The development of the MedH FCF has been led by the HERM leadership, the HERM PI group and the Facility Manager. Currently the facility also contains one additional high-end sorter (SORP BD FACSAria Fusion), co-financed by multiple KI centers at Huddinge, and one additional high-end analyser (Beckman Coulter CytoFlex), financed by KI/SLL core grant and user fees.

The facility is presently supported by a KI/SLL central core facility grant, allowing the facility to offer access with subsidized user fees to all Karolinska Institutet (KI) affiliated users. External (non-KI) users are offered services at non-subsidized user fees.

## Decision level

Facility Manager: Iyadh Douagi (iyadh.douagi@ki.se)  
Scientific Lead: Petter Woll (petter.woll@ki.se)  
HERM Platform Responsible: Yenan Bryceson (yenan.bryceson@ki.se)  
Line Manager: Eva Hellström-Lindberg (eva.hellstrom-lindberg@ki.se)

The Facility Manager oversees the instruments, provides practical training and performs assisted sorts. The Facility Manager is responsible for day-to-day management, with input from the Scientific Lead and Platform Lead when needed.

Decisions that impact the facility's use and budget are discussed within the MedH FCF User Group. With consensus within the MedH FCF User Group, the Scientific Lead is responsible for executing decisions. In cases where consensus is not achieved in the MedH FCF User Group, the Line Manager has the executive power to make decisions.

Current MedH FCF User Group: group leaders with considerable FACS experience/expertise from HERM (Petter Woll, Yenan Bryceson, Hong Qian, Sidinh Luc, Petter Höglund), CIM (Jakob Michaelsson), BioNut (Andreas Lennartsson/Peter Swoboda) and Lipid laboratory (Jurga Laurencikiene).

## MedH FCF vision

To be the leading flow cytometry core facility at the Karolinska Institute, through advanced instrumentation, a service-minded approach combined with broad theoretical and practical competence.

The main goals of the facility during 2018-2019 are:

1. Establish a state-of-the-art FACS facility at NEO with equal access to all KI and KS research groups
2. Maintain low-user fees by securing core facility/infrastructure grants and efficient day-to-day operation
3. Maintain and improve FACS forum allowing all users to get efficient input on FACS data
4. Provide assisted sorts according to user requirements
5. Actively work towards spreading advanced FACS troubleshooting competence to identified superusers.

### **Guidelines towards management of the MedH FCF**

- The facility is run on a non-profit principle, with any surplus being invested towards improvements of the facility, towards reducing the costs of future usage, or going back to the users according to their usage
- With central core facility support from KI, the facility will be run on an equality principle, meaning that access and costing will be subsidized and equal for all KI users. External (non-KI) users will be charged without subsidies, where non-academic external users are charged at an even higher rate.
- The facility will promote and perform assisted sorts, and also provide support for non-assisted usage.
- The facility will for each user request an annual membership fee of 2000 SEK (starting from January 2017). This fee include the cost required for mandatory basic practical training allowing new users to operate analysis instruments in the core facility and annual administrative cost.
- Users who want to perform non-assisted sorts have to attend the BD sort course. The facility does not offer comprehensive practical training for advanced FACS analysis but will instead mediate interaction between users to expand competence.
- The facility will arrange a regular FACS educational forum including group leaders within the MedH FCF user group for advice to individual scientists on experimental design, data analysis and FACS theory.
- The facility will ensure that assistance to scientists and instrument usage is charged according to established FACS user fees.

### **The economy of the MedH FCF**

- The facility's main income should be balanced based on user fees and the core facility support (SLL/KI grant).
- With core facility support, the user fees will be equal for all KI users. The user fees and core support are used towards covering cost for the Facility Manager's time, hourly fee for instrument usage, as well as costs for secretarial support, lease of premises and facility consumables.
- User fees should fully balance the facility's expenses as well as provide a reasonable surplus for its future developments.
- User fees should be reevaluated annually based on the facility's economical

result and annual presentation of the facilities budget.

- The Scientific Lead oversees the economy of the facility together with the Facility Manager, and report back to the User Group and the Line Manager.
- The facility should consult the MedH FCF User Group before making any decisions with major financial implications, present a solid foundation for any suggested major investment and be prepared to revise the investment plan based on this feedback.
- The MedH department and the HERM leadership group must also be consulted regarding questions of hiring new staff.

### **Responsibilities of the Scientific Lead of the facility**

- To take primary responsibility for implementation of decisions made by the MedH FCF User Group
- To take the initiative to, and lead, regular meetings with the Facility Manager and the Platform Lead.
- To lead the MedH FCF User Group meetings.
- To take full responsibility for the financial balance and economical development of the facility, including timely billing of users. This will be delegated to appropriate staff (Facility Manager, MedH administration, HERM secretary).
- To actively search for external support for the facility.

### **Responsibilities of the Facility Manager**

- To make sure the facility's priorities are followed.
- To establish routines and checklists that secure optimal instrument operation and proper usage.
- To develop a program for introduction of new users to the facility.
- To promote and perform hands-on assisted sorts according to user-defined needs.
- The Facility Manager is not expected to be present in the facility out of regular work hours but will ensure a system for reaching primary and secondary contacts individuals are available at the instruments should a problem arise with instrumentation out of regular work-hours.
- To lead regular FACS forum meetings and to make sure relevant FACS expertise (Scientific Lead or a member of the MedH FACS Steering group) is present at these meetings.
- To direct new users to join and present tentative projects at the weekly FACS Forum.
- To prepare and submit quarterly reports for each instrument to the Scientific Lead. The reports should contain details showing investigators' independent usage of instruments and assisted sorts for billing purposes.
- According to agreed template, report and discuss his monthly time management with the Scientific Lead.
- Notify all users about unexpected events, including instrument problems and clear timeline for when these will be solved. Once resolved this must also be communicated to all users, including what was done to resolve the issue.
- To develop relevant expertise by maintaining an international network, participating in meetings and communicating with companies. It is expected that the Facility Manager present a summary to the MedH FCF User Group after

such visits. On a yearly basis, a maximum total of 5 days away from the FACS facility are allotted to these activities, including giving external seminars etc. Additional absence for training is given in agreement with the Scientific Lead and Line Manager.

- To set up a system for communicating absence from the facility during working hours to users.
- To interact with and train 4-5 selected “superusers” to develop technical instrumentation skills sufficient for performing advanced troubleshooting of instruments if the Facility Manager is occupied with another instrument or away from the facility.
- To ensure that basic technical support (superusers and Scientific Lead) is notified and present during planned absence. This should be done at least one week before the planned absence.
- Promote the facility through regular updating of homepage and maintain links to Karolinska Institute core facility structures.

### **Responsibilities of the MedH FCF User Group**

- The MedH FCF User Group is an advisory group consisting of group leaders with FACS competence and who are major users of the facility.
- The User Group meets 3-4 times per semester and the members are expected to attend these.
- The members are expected to contribute to discussions regarding priorities, routines, organisation and economy of the facility, putting the facility’s best in the foreground.
- The group leaders from HERM who are members of the MedH FCF User Group are expected to attend the weekly FACS Forum.
- The members of the MedH FCF User Group could at the request of the Scientific Lead be asked to assist with tasks beyond attending the User Group meetings
- Composition of the FACS User Group are evaluated annually by the Scientific Lead.
- Group leaders who are not members of the MedH FCF User Group are welcome to participate in the MedH FCF User Group meetings, if they feel they have specific issues related to the management of the facility that they want to discuss with the group. If so they should contact the Scientific Lead in advance of the meeting.
- The minutes of the MedH FCF User Group meeting are sent to all members of the group and can be requested by all KI group leaders.

### **Responsibilities of the users**

- To adhere to all rules and regulations of the MedH FCF facility as outlined in this and any standard operating procedures associated with the instruments.
- To document usage of the instruments and report any problems to the facility manager.
- To contribute with advanced training of inexperienced users and as tutors or lecturers in courses arranged by the facility.
- In order to document usage of the MedH FCF, which is important when securing core funding, the users are encouraged to acknowledge the MedH FCF in publications in which data generated in the facility are included. As a core

facility, there are no expectations with regard to co-authorships for the staff operating the facility (unless the users think this is scientifically warranted).

Please use the following statement for acknowledging the MedH FACS facility:

“We would like to acknowledge the MedH Core Flow Cytometry facility (Karolinska Institutet), supported by KI/SLL, for providing cell sorting services\*\*/cell analysis services\*\*/technical expertise\*\*/scientific input\*\*”.

\*\*delete as required.