

Summary assessor statement

Department of Cell and Molecular Biology (ICM) at Uppsala University - Educational evaluation at postgraduate level, May 21, 2021

Members of the assessment panel:

Carolina Wählby, professor, Dept. IT, Uppsala Universitet (convening chair)

Björn Andersson, professor, Karolinska Institutet

Anna Arnqvist, professor, Umeå Universitet

Kriton Kalantidis, professor, University of Crete

Frida Niss, PhD student, Stockholms Universitet

The assessment panel was appointed in May 2020 and the final statement was delivered on April 1, 2021. The assessment is primarily based on the self-evaluation report from ICM (received on Nov 6, 2020) and on interviews conducted during a virtual site visit (February 16-17, 2021). A PhD student questionnaire was also included in the assessment.

It is the panel's general impression that ICM works towards a postgraduate education that is centered around the doctoral students' learning, and the department aims to produce good scientists, connected to the ongoing excellent research. We see a large number of highly competitive PIs providing a very well-functioning research environment with access to state-of-the-art research infrastructure, and a diverse group of promising PhD students.

Assessment and areas of development

Basis of the education program - recent changes and sustainability: New leadership and the evaluation process in itself seems to have helped ICM identify areas of improvement, and a number of positive actions were taken in the past year. A clear structure for postgraduate education that is uniform across the full department and overseen by a central Professor responsible for Research Education (FUAP) and delegated FUAPs has been introduced. The structure includes new routines and control points, and actions are needed to make it fully implemented and sustainable.

Design, implementation and results: Overall, it is evident that PhD students at ICM have access to a strong research environment with experienced supervisors that support learning and gain of knowledge in scientific fundamentals. PhD students at ICM also have sufficient access to relevant and advanced research infrastructure, research seminars and journal clubs. The ICM PhD theses are based on papers published in well-recognized journals, which further supports a very good basis to accomplish postgraduate education.

Gender equality and equal opportunities: The awareness of equality issues is strong, and the department has a representative group that meets regularly and discusses these issues. We saw a diverse and inclusive atmosphere that generally works well. However, cases of perceived differential treatment based on gender and country of origin were mentioned, and there is an issue with language and information in English.

Duration of PhD studies - current situation and future directions: We have noticed that a significant portion of PhD students stay longer than the four years officially expected. There are Student-centered and Lab-centered reasons for this. ICM should consider whether the current situation is to the advantage of the students. From the respect of the graduate student, it is advisable that graduate students receive their PhD degrees when their CV is strong enough to be competitive in whatever is their desired next step in their career. All the above depend on *A. The priorities of ICM*, and *B. On the career paths of PhD alumni*. We believe that keeping record of alumni career tracks would eventually assist ICM to make decisions that would better fit its priorities.

Collaborations: Keeping track of Alumni may bring additional added-value to ICM. An alumni association may allow for graduates to keep closer ties with ICM. This can be beneficial in multiple ways. For example: alumni may be involved in feedback, in improvement suggestions, as potential contact points for the next graduates and also as potential collaborators for research and employment.

In terms of collaborations in general, ICM is obviously doing a great job with multiple collaborations with world class institutions and individual groups. It also seems to have a large number of international students, a portion of which seem to have come to ICM through contacts and collaborations of individual PIs.

Communication: Though the administrative infrastructure seems well-developed and functional, there is a need for better administrative communication pathways within the department. Currently, the information available is unnecessarily scattered across several web resources. Likewise, the information about the requirements put upon the doctoral students for graduation can be made clearer to avoid misunderstandings and unnecessary stress.

Recommendations for Improvements

Basis of the education program and sustainability of structure: Make reality of the plans for a yearly supervisors' collegium. It should be a forum for supervisors to be updated on routines and regulations, and exchange of experiences at all levels. Themes could be efficient use of the individual study plans, PhD career advice & length of PhD studies, content of the mandatory literature courses and how they should be examined, and equal opportunities.

Ensure that the new structure and organization becomes sustainable, and is continuously reevaluated and supported by the Head of Department. We also recommend continued improvement of communication and regular surveys to get an overview of the work environment and ensure inclusiveness in an increasingly diverse and multidisciplinary environment.

Continue and intensify the work that has been initiated regarding **equality**, including the equality group, more translation of documents to English and increased awareness of equality issues among students, staff and supervisors.

Design, implementation and results - check-point seminars and PhD defense:

Establish a set of guiding questions for the check-point seminars. The questions should be

considered as a complement to the ISP, and used systematically to ensure that National Degree Learning Outcomes are addressed similarly at all check-point seminars.

Further, ensure that all research programs, following the approach of Microbiology, establish fixed literature lists for the half-time literature report. Establish a guide for the final (prior to defense) ISP discussion with the FUAP, the PhD student and the supervisor. Introduce routines for a committee to preview thesis kappas prior to printing.

In respect to the duration of the PhD studies: the panel recommends that ICM revisits its aims of the graduate program and identifies what are the objectives of the program and prioritizes them. Depending on the priorities set, the recent alumni career tracks and maybe even the current career trends, ICM may want to rethink the criteria and timing of PhD completion.

Collaborations: ICM seems to be very successful on collaborations both at a national and international level. The panel recommends that ICM continue working on making the graduate program more attractive and take advantage of the high quality and therefore competitive graduates it produces.

Communication: We recommend that a task force is set up to streamline the information access online, and to assemble a short list of common administration related questions paired up with the title of the person responsible for handling these. We also recommend that clearer guidelines for thesis requirements are formulated.