AQUAEXCEL project information

Institute of Marine Research is partner in the FP7 project AQUAEXCEL *http://www.aquaexcel.eu/*, funded by the European Commission and launched in March 2011. AQUAEXCEL aims to coordinate and improve access to top class European aquaculture research facilities. On a regular basis, the project invites proposals from European research groups to utilize the facilities of any of the participating 23 Aquaculture Research Infrastructures.

For more information on the project, please consult www.aquaexcel.eu

How to access our Research Facility

Researchers from any EU or Associated State can apply for access to any of the AQUAEXCEL Research Infrastructures. Applications must be made to use a Research Infrastructure in a different country to that of the lead researcher. Details of the other Research Infrastructures available within AQUAEXCEL can be found on www.aquaexcel.eu and on each institution website.

Each Research Infrastructure has a budget based on units of access, which are detailed for Institute of Marine Research on this page. Access to the facilities is provided free of charge to users and travel and subsistence expenses will also be paid. In general, it is anticipated that access will be in the form of one or in some cases two scientists travelling to work at one of the Research Infrastructures for a period of between one and three months.

Applications for Transnational Access may be made by any organisation (including commercial companies), but the conditions of access require the results of the work to be published and made available to the scientific community via standard channels.

Applications for Transnational Access should be made in accordance with the guidance published in regular "Calls for Proposals" that are made available on the project website (www.aquaexcel.eu). Applicants are also encouraged to directly contact individual facilities to discuss their research plans in advance of submitting an application.

Applications for Transnational Access will be reviewed by an expert selection panel and an independent ethics adviser. Projects selected for Transnational Access will be expected to demonstrate high scientific quality, make efficient use of resources and effectively address issues important for the development of European aquaculture – e.g. as expressed through the Strategic Research Agendas of the European Aquaculture Technology and Innovation Platform (www.eatip.eu).

All Transnational Access projects must be carried out between October 2011 and January 2015. It is anticipated that individual Research Infrastructures will only be included in the six-monthly calls for access as long as there are remaining units of access available.

Institute of Marine Research in AQUAEXCEL

The Institute of Marine Research is the largest marine institute in Norway and covers marine living resources, marine environment and aquaculture. The main task is to provide advice to Norwegian authorities on aquaculture and the ecosystems of the Barents Sea, the Norwegian Sea, the North Sea and the Norwegian coastal zone. The aim of research and management advice provided by IMR is to ensure that Norway's marine resources and aquaculture industry are managed and develop within a sustainable frame. IMR are making available both landbased (Cell) and cage-based (CEL) facilities.

Introduction

Operating institution:	Institute of Marine Research (IMR)
Type Operating Institution:	Research Institute
Research Infrastructure(s):	IMR Matre

IMR Matre

Name of the infrastructure:	IMR Matre
Location:	Matre 5, N-5984 Matredal, NORWAY
Web site address:	http://www.imr.no
Contact:	Øivind Torslett, *oivindto@imr.no* Tom Hansen, *tomh@imr.no*
AQUAEXCEL TNA facility:	YES
Short description	IMR Matre has access to cultured and wild stocks of salmonids like Atlantic salmon, rainbow trout (only cultured fish), and Atlantic cod. In all these species experiments can also be designed with full-sib and half-sib groups. The available Atlantic salmon stocks include wild salmon from several Norwegian rivers, and wild cod stocks. The facilities has been used for species varying from salmonids to halibut, cod, herring and horse mackerel, and has also been approved for a variety of other species (e.g. mackerel, capelin, hake, sand eel, saithe, sea bass, sea bream and krill). AQUAEXCEL visitors will be invited to work in conjunction with one of IMR's eighteen research groups and if appropriate with existing research programs. Our experience is that a close integration of visitors is stimulating and lead to development of mutual ideas and networks. The researchers that work in aquaculture related topics produce more than 100 peer-review papers every year and create a stimulating scientific environment. IMR will designate a contact person and together with the liaison officer and personnel from the technical and biological support groups make sure that the visitors will be given the same support as the local researchers. This support includes full access to e-mail, internet, office facilities, computing library and chemical lab facilities. We can assist visiting scientists with accommodation nearby.
Keywords	Behaviour, handling, welfare, stress, physiology, nutrition, new

	feed resources.
Technical labs	Automatic feeding, Seacages and land facilities, photoperiod, salinity (0-35 ppt), temperature (1-20°C all year round), O_2 and CO_2 control. Chemical lab.
Processing labs	Slaughter facilities, chemical lab and processing facilities are available.
EU projects	WEALTH, FASTFISH, AKVAMAX, SALMOTRIP and LIFECYCLE
Number of researchers	12
Number of technicians	20
Lodging facilities	YES, new facility opening in February 2014. 10 rooms 5 min walk from the research station.
SERVICES - scientific support	AQUAEXCEL visitors will be invited to work in conjunction with one of IMR's eighteen research groups and if appropriate with existing research programs. Our experience is that a close integration of visitors is stimulating and lead to development of mutual ideas and networks. IMR will designate a contact person and together with the liaison officer and personnel from the technical and biological support groups make sure that the visitors will be given the same support as the local researchers. This support includes full access to e-mail, internet, office facilities, computing library and chemical lab facilities.
SERVICES - electronic databases	NO
SERVICES - quality assurance	IMR have a quality system that describes the biological procedures.
Safety and ethical issues	IMR have risk management procedures, disinfection methods, welfare and other ethical frameworks.
Other relevant information	

IMR Matre Cell

Name Facility Unit 1	*IMR Matre Cell*
TNA	*YES*
Contact (Researcher)	*Øivind Torslett, oivindto@imr.no* *Tom Hansen, tomh@imr.no*
URL	*http://www.imr.no*
Postal Address	*Matre 5, N-5984 Matredal, NORWAY*
General description	The facility comprises 80 tanks with 100cm diameter. The experimental parameters are controlled by computers and can be regulated to preset values, or set to follow daily or seasonal cycles.
Technical description	The tanks with automatic feeding, photoperiod, salinity (0-35 ppt), temperature (1-20°C all year round), O_2 and CO_2 control. This environmental lab installation (cell) is excellent for studies on fish welfare, growth, reproduction, and flesh quality, involving experimental parameters like diet, ration and photoperiod, in salinities ranging from full freshwater to full salinity seawater and fish sizes from first feeding fry up to 2 kg. The tanks have waste feed collectors and some tanks have video cameras.

Remote monitoring & control	The experiments can be monitored and controlled over internet through a vpn client.
Water and environmental conditions	Seawater and freshwater 1-20°C, flow control, O2 and CO2 control.
Flowrate	The flowrate is regulated automatically and can be set to constant flow or be regulated to a constant or variable O2 level.
Temperature	The temperature is regulated automatically 1-20°C.
Salinity	The salinity is monitored and regulated automatically 0-34 ppt.
Oxygen	The oxygen level is monitored and regulated automatically.
pH	pH must be measured manually
Light intensity and wavelength	Each tank is controlled seperatly. Daylight.
Photoperiod	The photoperiod is controlled automatically and can be manipulated for each tank.
Fish measurements	All sampling are done manually.
Other / additional info	
Pictures/videos	

Modality of access

Because of the sophisticated design of this facility the research activities are virtually independent of season and are only limited by the fact that some life stages are only available 'in season'.

All the available facilities at IMR have been included in the institute's main database. As a consequence the facility description and availability can be accessed through the institute's intranet. Today requests/proposals are registered by the scientists in this web-based system. IMR has also appointed a committee that meet every three months to evaluate the different requests and assign the different resources and experimental facilities to the proposed research activities. In cases where several requests for the same facility overlap in time the committee can give priority or suggest moving research activities in time. IMR will make sure that AQUAEXCEL visitors will be given the same priority as our internal users and if the visitor wants it, a high degree of independence to the normal research activities at the infrastructure.

Visitor planning to perform experiments in the IMR Matre facility will provide an experimental plan for their work which will enable planning of activities in relation to other activities.

Unit of access

Access to one tank during one week. A typical project at the Matre cell installation under AQUAEXCEL will have access to up to 16 tanks which normally are organized in an experiment with four treatments and four replicates. A normal experimental period will be 3 months and the visiting scientist will normally come to Matre for the first and last two weeks to start and finish the activity, respectively. In the period when the visiting scientist is not at the facility the experiment will be followed by the technicians at Matre, in close contact with the visiting scientist. The visiting scientist can follow the experiment on internet.

IMR Matre CEL

Name Facility Unit 1	*IMR Matre CEL*

TNA	*YES*
Contact (Researcher)	*Øivind Torslett, oivindto@imr.no* *Tom Hansen, tomh@imr.no*
URL	*http://www.imr.no*
Postal Address	*Matre 5, N-5984 Matredal, NORWAY*
General description	The Cage Environment Laboratory (CEL) is a specialised facility for behaviour and environmental studies. The facility comprises 6 sea cages (12*12*12 meters).
Technical description	The equipment of this cage lab includes video cameras, echo sounders, continuous logging of T, S, O2 and light intensity in all cages.
Remote monitoring & control	There is no remote monitoring and control, only on-site.
Water and environmental conditions	Seawater.
Flowrate	Can be measured automatically.
Temperature	Can be measured automatically.
Salinity	Can be measured automatically.
Oxygen	Can be measured automatically.
pH	pH must be measured manually
Light intensity and wavelength	Can be measured automatically.
Photoperiod	Natural or manipulated
Fish measurements	All sampling are done manually.
Other / additional info	
Pictures/videos	

Modality of access

All the available facilities at IMR have been included in the institute's main database. As a consequence the facility description and availability can be accessed through the institute's intranet. Today requests/proposals are registered by the scientists in this web-based system. IMR has also appointed a committee that meet every three months to evaluate the different requests and assign the different resources and experimental facilities to the proposed research activities. In cases where several requests for the same facility overlap in time the committee can give priority or suggest moving research activities in time. IMR will make sure that AQUAEXCEL visitors will be given the same priority as our internal users and if the visitor wants it, a high degree of independence to the normal research activities at the infrastructure.

Visitor planning to perform experiments in the IMR Matre facility will provide an experimental plan for their work which will enable planning of activities in relation to other activities.

Unit of access

One cage for one week. Similarly, a project on the CEL installation will have access to 6 cages for three months. The experiments are normally organized two treatments and three replicates. The rest of the organization of the CEL based experiments is similar to the tank based experiments (see Cell above). However, CEL cannot be followed live on internet.