Australian Microscopy & Microanalysis Research Facility

ACCESS POLICY – July 2010

PREAMBLE

The following document outlines the Access Policy to instrumentation within the Australian Microscopy & Microanalysis Research Facility (AMMRF). The document aims to be comprehensive, covering all instrumentation that is presently housed within the various nodes across the country. Having access to key characterisation instrumentation across the country by a wide range of users, is a keystone of the philosophy behind the NCRIS funding model. The AMMRF are custodians of microscopy and microanalysis facilities that are modern, state-of-the-art and are well staffed with expertise. These facilities can provide the Australian research communities with unprecedented access to instrumentation that in the past would only have been available to researchers based at the institution housing the instruments.

DEFINITIONS

Prior to determining the access policy, a number of clear definitions are required to be developed in order to set limits and obligations which need to be encompassed in the Access Policy. These are set out below:

Internal Users
Users from the host node only.

External Users
Users from institutions, government bodies or industrial organisations outside the hosting node.

Core Time
Between 8 am and 6 pm, Monday to Friday on a normal working day.

Full Utilisation
An instrument is regarded as fully utilised if it records 2000 hours of beam time annually. The calculation is based on usage of 40 weeks/year, 5 days per week, 10 hours per day.

Importantly, the usage of instrumentation will vary depending on the nature of the instrument and the type of experiment that is performed. Instruments such as electron microprobes, atom probes and micro-CT scanning systems that have automated systems, can produce data with minimal human intervention. It is expected that these platforms will record usage far in excess of 2000 hours. Overall however, the assumption has been made, that 2000 hours provides an average across a very wide range of instruments and usage patterns.

Flagship Instrumentation
Each node of the AMMRF has key instrumentation that reflects the expertise and strength of the node. Table 1 outlines the NCRIS flagship instruments in each node and the planned procurement timeline.

Table 1

Node	Instrument	07/08	08/09	09/10	10/11
USYD	Wide-field-of-view laser atom probe	Operational			
UNSW	High-resolution SEM analysis facility phase 1	Commission	Operational		
SARF (UA)	Dualbeam FIB-SEM	Operational			
UQ	High-throughput cryo-TEM	Order	Commission		
UWA	Ion microprobe	Order	Commission		
SARF (UoSA)	ToF-SIMS	Order	Commission		
UNSW	High-resolution SEM analysis facility phase 2			Order	Commission

Flagship instrumentation established by NANO-MNRF is also included as flagship instruments in the AMMRF. These include:

- Dualbeam FESEM/FIB at UNSW
- Local Electrode Atom Probe (LEAP) at USYD
- NanoSIMS at UWA
- Cryo-TEM at UQ

Flagship Engineers

AMMRF Flagship Engineers are responsible for the operation of the flagship instrument and will play a key role in facilitating the Access Policy.

User Types

Each node has identifiable categories of users, which defines the ability of a researcher to access the instruments.

- **Category 1 User:** Beginner or inexperienced user who requires full technical support to complete any experiment. Projects are therefore conducted during core-time only.

- **Category 2 User:** Intermediate user who is able to use the instrument, but will require on-call technical support. This category of user is allowed to use instrumentation within core-time only.

- **Category 3 User:** Experienced user who is able to use the instrument with minimal supervision and is able to use the instrument out of core-time.

Laboratory Manager

Each node has a Laboratory Manager who oversees the operational aspects of the facilities. The laboratory managers are responsible for ensuring instrumentation is available for the maximum time that it can be and for data collection to enable reporting. The laboratory managers are listed in Table 2.

Table 2

Node	Laboratory Manager
University of Queensland	Mr John Nailon
University of New South Wales	Ms Jenny Norman
University of Sydney	Mrs Ellie Kable
SARF (Adelaide University, University of South Australia, Flinders University)	Mr John Terlet
University of Western Australia	Mr Steve Parry
Australian National University	Dr Frank Brink

Node Director

Each node has an identified node director.

Table 3

Node	Director
University of Queensland	Prof. John Drennan
University of New South Wales	Prof. Paul Munroe
University of Sydney	Prof. Simon Ringer
SARF (Adelaide University, University of South Australia, Flinders University)	Prof. Hans Griesser
University of Western Australia	Prof. David Sampson
Australian National University	Prof. Tim White

Scientific Director

Professor John Drennan, The University of Queensland.

AMMRF Travel and Access Program Panel

Under the direction of the Scientific Director of the AMMRF, the Access Panel will decide on TAP proposals. The access panel will consist of the Deputy Directors of each node.

Table 4

Node	Deputy Director
University of Queensland	Prof. Rob Parton
University of New South Wales	A/Prof. Marion Stevens-Kalceff
University of Sydney	A/Prof. Filip Braet
SARF (Adelaide University, University of South Australia, Flinders University)	Prof. Joe Shapter
University of Western Australia	A/Prof. Martin Saunders
Australian National University	Dr Frank Brink

Lead Time

The lead time is from acceptance of any user registration project proposal, and the time actually performing the experiment. This may vary between nodes, however, a lead time of less than 3 weeks is the target for the AMMRF.

Beam-time Fees

These fees are defined in the business plan. For external users from universities or publicly funded research institutions, the fee is $40/per beam-hour on a flagship instrument. For non-flagship instruments charges will range vary between $30 and $90 per hour as set by the relevant node. Commercial organisations will be charged at commercial rates as established by the respective node.

ACCESS OPTIONS

There are two options to gain access to instrumentation within the AMMRF:

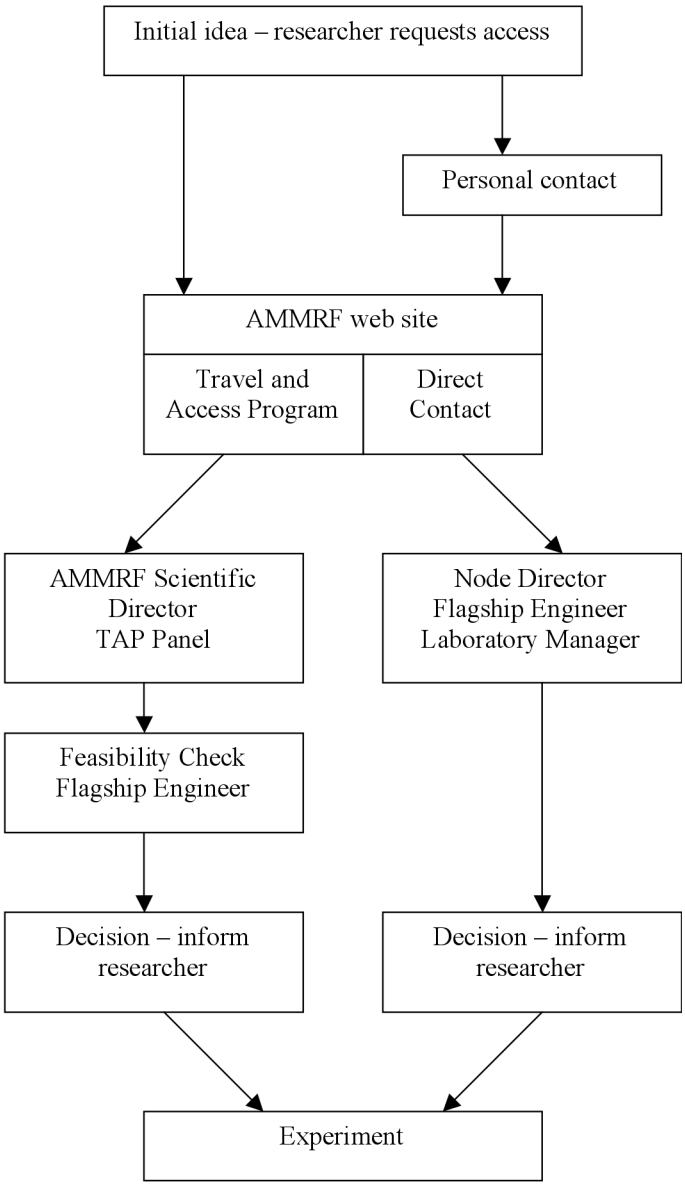
1. Direct contact with a specific node
2. Travel and Access Program

In both cases, selection for access will depend on a combination of scientific merit, track record of the applicant, feasibility of the program of work, and scientific innovation of the proposal. In both cases, a written case will be made through the relevant node web-site for assessment. TAP applications can be made on-line via the AMMRF website.

- For direct contact: projects are assessed by the Node Director in consultation with the Laboratory Manager and relevant technical and scientific staff, including the Flagship Engineer. Acceptance of a project is at the discretion of the Node Director.

- For TAP: applications will be reviewed by the Scientific Director and the AMMRF TAP Panel, and access plans are discussed with the relevant Flagship Engineer.

The schemes in each case are illustrated schematically below.



- The AMMRF will attempt to facilitate a lead time less than 3 weeks (for non-flagship and flagship instruments) from acceptance of proposal through to booked access. This will depend on instrument demand, nature of the project, training requirements, the availability and status of specimens. When instrument demand is high, access priority is at the discretion of the relevant Node Director who will take into account factors including, but not limited to, imminent deadlines, life-time of specimens, innovative nature of the experiment, visiting status of the researcher.

- In the context of projects on flagship instruments, each new project has a unique set of parameters that need to be taken into account when planning access. No single access process can be prescribed rather a consultative process will take place between Node Director, Flagship Engineer and Laboratory Manager to ensure that the lead time to access is as short as possible.

- It must be noted that some flagships instruments have extended lead times due to the nature of the experiments performed on them and the uniqueness of the facility within Australia. While the AMMRF will strive for minimum lead time, the target time of less than 3 weeks may not be possible at all times.

Access by Commercial Organsations.

Commercial organisations performing proprietary research or requiring access to facilities do so via the Direct Contact process outlined above. Acceptance of commercial work is at the discretion of the Node Director taking into consideration instrument availability and priority needs of internal and other external users. Beam time charges for commercial organisations will be charged at commercial rates as established by the respective node.

New User or Client Registration

- Each AMMRF node has a website that directs new users to a registration form and process.

- Design of the web interface will typically contain information on the following:

  - Contact details
  - Instrument experience
  - Project outline
  - Clearly identified instrument access required
  - Track record of applicant
  - Estimate of required time
  - Sample type, estimate of sample preparation required
  - Reporting
  - Acknowledgement

The AMMRF is moving to adopt a common user registration process across all the nodes of the facility so that the initial collection of information is:

For Direct Contact

- All new users will register at the node in which the prospective research will be carried out.

- Registration will include a description of the project to be undertaken and some self-assessment of the category of user (1, 2, or 3).

- A standard set of information will be entered on the registration form. This will aid in assessment, and deliver information for relevant key performance indicators.

- Registration triggers a local job number, identifies external users, category of user, and begins the process of introduction at each node.

- Assessment of the proposal will be undertaken at each node under the direction of the Node Director. A nominated panel at each node may include the local Flagship Engineer, Laboratory Manager and other relevant technical and scientific staff.

- Acceptance of projects will be at the discretion of the Node Director and will be predicated on the quality of the project, availability of instrument time and personnel.

- Assignment of beam/laboratory time will be determined by the node panel in conjunction with the Node Director.

- This process also applied to projects from commercial organizations.

TAP Projects

The AMMRF will host a travel and access program where researchers can obtain contributions to travel, accommodation and beam-time to carry out experiments at any node.

- Applicants to the process will use the AMMRF website to complete an electronic registration form.

- Applicants will be required to outline their research proposal and include information as to where the proposed research could be carried out.

- The Scientific Director of the AMMRF will coordinate assessment of all travel and access proposals, using the panel of Deputy Directors to make relevant decisions.

- Applications will be assessed, and applicants informed of the decision of the panel, as soon as possible but typically within 3 weeks.

- Applicants will receive formal notification of the outcome. Successful applicants will be informed of the financial contribution to their travel and accommodation that will be apportioned. The University of Queensland will be the contact point for management of AMMRF TAP and Ms Kay Hodge (k.hodge@uq.edu.au) is the contact person.

- Copies of this notification will be sent to the relevant Laboratory Manager, Flagship Engineer and Node Administrator.

- Each applicant will be asked to contact the Laboratory Manager or Flagship Engineer where the work will be undertaken. Simultaneously, relevant nodes will be informed of any pending contact.

- Successful applicants will pay for, and arrange, their own travel and accommodation. Reimbursement of the contribution to the value as stated in the original acceptance letter will be administered by the University of Queensland node of AMMRF. Reimbursement will be made on (a) sighting of receipts of travel and accommodation costs, and (b) submission of a scientific report on the work undertaken.

- Commercial organisations are not eligible to apply to the TAP

ACCESS OPTIONS

Any publications resulting from access to AMMRF facilities are to acknowledge the AMMRF with the following:

"The authors acknowledge the facilities, and scientific and technical assistance of the Australian Microscopy & Microanalysis Research Facility at the [insert name of node], [insert name of University or Institution], a facility that is funded by the University, and State and Federal Governments."

GRIEVANCES

Grievances related to instrument and facility access are to be reported to the relevant Node Director, and will be handled in accordance with the procedures of that node. Grievances not related to a specific node can be reported to the Executive Director, Prof. Simon Ringer (ph: 02 9351 2351, email: simon.ringer@sydney.edu.au) for consideration by the AMMRF Operations Committee.

AMMRF Scientific Director
July 2010