ANSTO Anonymised Review round - ACNS & NDF 2022-1

Guidelines for Scientific Reviewers in the ANSTO Research Portal (ARP) 28 February 2022

ANSTO is participating in an Australian trial being run by the Office of the Australian Government Ambassador for Women in STEM (https://www.ansto.gov.au/anonymised-review), in which applicants to the Australian Centre for Neutron Scattering, including proposals associated with the National Deuteration Facility, remain anonymous. The study hypothesis is that anonymised review will aid the removal of structural barriers to the career progression of women in STEM. However, preliminary analysis of historical ACNS data (anonymised) provided to the study indicates genders bias has not been observed in the ACNS review and allocation process.

To conduct the Anonymised Review trial, certain portal functionality was transferred to the ANSTO Research Portal (ARP) (https://portal.ansto.gov.au/). All ACNS & NDF 2022-1 round proposal applications have been received on this platform and all reviews (technical, safety, sample environment, scientific) will be recorded in the ARP.

Proposal types included in this Anonymised Review round are: Neutron (Normal) and Deuteration/Neutron. Note the new Deuteration/Neutron proposal type for users to request access to both ACNS instruments and NDF capabilities where deuterated molecule/s are required for the proposed neutron experiments at ACNS. These proposal types will be checked during Technical Review for compliance with the 'Anonymity Guidelines for Principal Investigators (or authors)' made available to all prospective proposers (https://www.ansto.gov.au/anonymised-review). These guidelines apply to the proposal PDF 'Science' upload only. Submissions found **not** to be compliant will be 'flagged' by the assigned ACNS and NDF technical reviewers for the use of the Anonymised Review study organisers. No changes will be made to any proposals submitted.

What this means for Scientific Reviewers

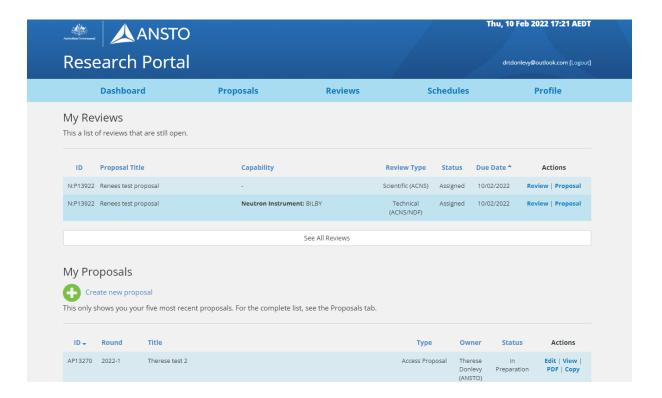
Scientific reviewers who are assigned to peer-review a proposal, will not have access to the identity, institution/ organisation or track record and experience of applicants. The process for scientific scoring of merit access proposals remains unchanged. Scientific reviewers will receive access to an 'Anonymised Review version' of the proposal and are asked to review the embedded 'Science' PDF to make their assessment.

Where applicants have not successfully followed the Anonymised Review Guidelines and have identified themselves or their affiliation within the proposal, Scientific Reviewers are asked to remain impartial in their assessment and ignore that information.

Actions for Scientific Reviewers to complete in ANSTO Research Portal (ARP):

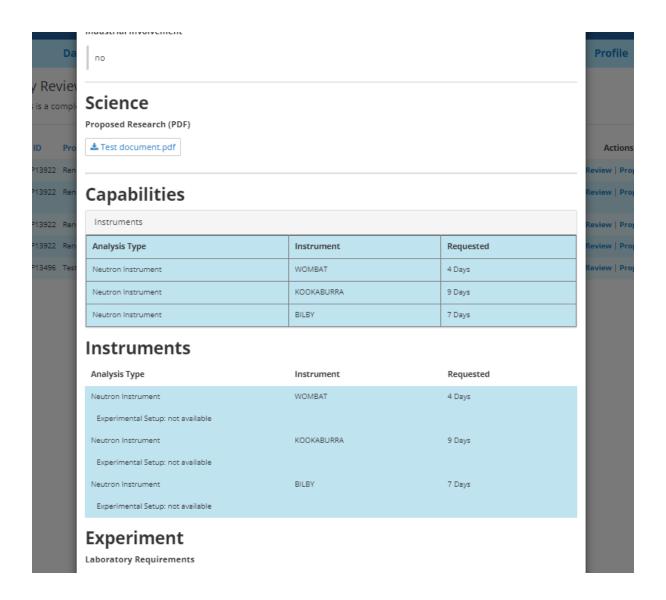
• All Scientific reviewers will need an ARP account. If you don't have an account in ARP already, a basic account has been created using your ACNS Customer Portal email has been created for you in order for you to be assigned reviews.

- On first login to ARP you will need to create a password using the 'Forgot your password?'
 feature. If you have any difficulties with this, please contact the User Office NSW
 (user.office.nsw@ansto.gov.au)
- Please check and complete your personal details in the 'Profile' tab once you are logged in.
- Once logged into the ARP, your dashboard will list some of your review assignments (and proposals for which you are a PI or co-proposer if relevant).
- Go to the 'Reviews' tab on the top menu or select the 'See All Reviews' tab to see all proposals that you have been assigned for review.



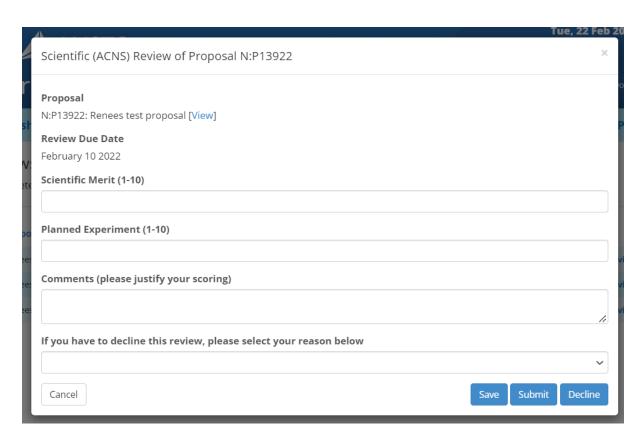
How to access a proposal for review in ARP

- Select 'Proposal' under 'Actions' in the assignment table as shown above. As a Scientific
 reviewer in the Anonymised Review proposal round you won't be able to see the proposal
 fields related to identity and team information.
- The proposal available to view also includes the uploaded proposal 'Science' PDF link, instrument and capability request/s, and experiment details. Clicking on the embedded PDF will open the 'Science' section of the proposal in a separate window for review.



How to complete a proposal Scientific Review in ARP

• Select 'Review' under 'Actions' in the assignment table. The screen below will show for the proposal you are reviewing.



 Note: you can also select 'View' in the proposal section of the technical review window above to view the proposal – an alternative to viewing in the review assignment table section.

Scoring

Please score each proposal for the quality of the science and the quality of the planned experiment and include comments supporting your score. Scientific reviewers will **not** have access to the **identity**, **institution** or **track record** of applicants. This means that 'track record' cannot influence any part of the reviewer scoring process.

Scientific Merit

- This is concerned with the relevance of the science to the field and the importance of the proposed research. Refer to the table below for guidelines.
- For NDF proposals, the focus is usually on the science to be undertaken using the deuterated
 molecule (not the deuteration process) and the value of the outcomes assuming
 experiments using the deuterated molecule are successful. It is a requirement that the NDF
 proposals have defined experiments (e.g., access to instruments or research infrastructure)
 to ensure the use of the deuterated products (within the Deuteration/Neutron proposals for
 ACNS instruments and Deuteration proposals for non-neutron applications and use at
 overseas facilities).
- Score out of 10; contributes 65% to the overall score.

Score	Recommendation	Publication prospects, if experiment works	Comments
10	Must do as soon as possible	Potential for Nature/Science	Could feature in a media release or ministerial brief if successful; would win a major prize if successful. Scientific or technical breakthrough; high profile, exciting broader impact; a major step forward to a scientific question. A strong justification is required from the reviewer when giving this score.
9	Must do	Headed for a leading discipline-specific journal (with JIF>6) e.g. Phys. Rev. Letter, JACS, Angewandte Chemie; potential for significant intellectual property or commercial opportunities for ANSTO	Will result in invited talks or feature in a major museum, trade, or other exhibit if successful; a reasonable incremental step forward; good solid science. A reasonable justification is required from the reviewer when giving this score.
8	Should do	Headed for a well-regarded discipline-specific journal with JIF>3 e.g. Phys. Rev. Langmuir, Macromolecules, J. Molec. Biol, Biochemistry	Worth giving a high-quality seminar about it if successful; an incremental step forward; good solid science. A reasonable justification should be given by the reviewer when assigning this score.
7	Should do	Immediately publishable	Worthwhile data collecting. Impactful.
6	Might do	Publishable	Data collection but without significant impact.
5	Might do	Publishable	Might be interesting, but unfocussed.
4	Possibly do	Publishable	Worthwhile but routine; could be done if time allows.
3	Strengthen scientific case and reapply in next round	Unlikely to be publishable	Marginal; questionable whether it's worth doing.
2	Do not give time	No prospect	Not worth doing, difficult to understand what they want to do.
1	Do not give time	No prospect	Not worth doing, unintelligible.
0	Investigation and/or reporting required	None	Evidence of plagiarism, fraud or other academic or ethical misconduct in the submission.

Planned Experiment

- Reflects, for example, if the use of the technique is appropriate and adequate? Does the
 proposal suggest an efficient use of samples(s) and sample environment? This includes
 consideration of use of requested deuterated products for the described experimental
 technique/s in NDF proposals. Have preliminary measurements been carried out and details
 provided?
- Score out of 10; contributes 35% to the overall score.

Comments

Your comments are essential to justify your scores and will be shared with users (de-identified) to assist them with future proposals if unsuccessful. We welcome comments on, but not limited to:

- Expanding on the reasons for your score (this is essential for very high or very low scores).
- If you consider a different instrument or technique would be more suitable.
- If you think the beam time or deuteration request is excessive or inadequate.
- If there are safety issues that have been overlooked in the proposal.

Additional notes on ACNS & NDF program proposals (not part of Anonymised Review Pilot)

ACNS & NDF program proposals are intended to enable a coherent program of research requiring a commitment of multiple time allocations or provision of multiple deuterated molecules/materials over a three-year period. Up to 25% of an ACNS instrument's beam time can be devoted to programs.

As well as the quality of science and quality of planned series of experiments, consider:

- Does the planned research fit the program category? Does it merit program status rather than a series of normal proposals?
- An indicative experimental plan only is requested for the three-year program. Detailed plans
 for each beam time allocation and/or deuteration product requests will be requested
 separately if a program proposal is approved.
- Will the participants quickly become sufficiently experienced to provide round-the-clock experimental support on the ACNS instruments for the whole program, with minimal support from ACNS staff?

Note: Unsuccessful program proposals will not be reconsidered as a normal single visit proposal for the coming schedule period.

Any problems or questions?

Reach out to the User Office – $\underline{user.office.nsw@ansto.gov.au}$ for technical issues in the ARP and Therese Donlevy ($\underline{tdx@ansto.gov.au}$) if you have any queries on the anonymised review component of the round.