

# Response to the National Health and Medical Research Council's Consultation on Peer Review by the EMCR Forum of the Australian Academy of Science

## Peer Review Parameters

- **Track record assessment of an individual**

Respondents to an EMCR Forum survey preferred a narrative description of applicant's quality of all types of scientific outputs (papers, grants, patents, industry partnerships, new practice/policy) relevant to the application. The majority of respondents suggested the focus on reporting of number of publications and grants needs to be lessened.

Research environment description should be used to 'normalise' the output of big teams against smaller focused teams of researchers.

Contributions to medical (clinicians, allied health, public service), scientific (outreach, peak bodies, industry) and academic (teaching) communities should be viewed more favourably, assessment process currently favours full-time researchers.

- **Knowledge gain – quality of proposed research**

Respondents to the EMCR Survey overwhelmingly suggested the proposed research should be clearly transformative and not incremental. A separate pool of funding should be committed towards reproducibility studies that are currently rarely funded but vital and these should be assessed separately. Assessment (scoring) of the study design and feasibility should be separate to the quality of the idea. The impact of the research should be clear, for basic research, "will it change text books?" and for clinical/applied research "will it change practice?".

- **Innovation and creativity of proposed research**

Responses to the EMCR Forum survey had two main themes i) innovation is critical to progress and should be highly rewarded; ii) reproducibility should be more valued than innovation. These comments further support the need for project funding to assess reproducibility of previous research.

The focus of innovation and creativity assessment should be on the research question not the technologies used; it is innovative to use known techniques to answer new questions. Proposals which rely solely on use of new technologies as the innovative factor, should not be marked highly.

- **Significance – potential for research to advance knowledge and have impact**

This question received the least number of responses. Comments that significance is 'highly subjective', 'difficult to judge' and 'not foreseen'. Translation and social/economic benefit were suggested for non-basic research. For basic research the emphasis should be on knowledge gain rather than 'clinical significance' which is where the current focus is.

- **Synergy – team diversity and collaboration**

The majority of responses focused on diversity. Suggested areas to assess for diversity (for 'bonus points') were expertise/skill sets, gender, career stage and geographical location. Many indicated that there should not be a requirement or expectation of previous collaboration as this leads to conservative funding and a funding model of 'if you do what you have always done, you will get what you have always got'. Clear descriptions of each team members role in the project should be included and EMCRs performing task projects should be included as Investigators rather than just named as PSPs. The scoring/funding rules should not allow for unnamed PSP4/PSP5, all should be named investigators.

- **Feasibility**

Respondents to the EMCR forum survey indicated that feasibility should be assessed on i) facilities, ii) skills (narrative describing skillset, not including track record) iii) preliminary data and iv) study design.

## NHMRC's relative to opportunity and career disruption policies

### **With respect to peer review, what could be improved in the current Relative to Opportunity policy?**

Several responses to the EMCR Forum survey suggested adopting a similar approach to the ARC ROPE assessment. This allows for explanation of the impact of career disruptions on the applicants track record. It was also suggested by many that the current model for assessing career disruption is too restrictive as the impact on track record is long-term for many individuals and can take years to regain momentum.

### **With respect to peer review, what could be improved in the current Career Disruption policy?**

Several responses to the EMCR Forum survey suggested adopting a similar approach to the ARC ROPE. This allows for explanation of the impact of career disruptions, which differ for each individual and also for time working in industry, health service, or teaching that may impact on track record but all contribute to making more rounded researchers. In the current system where success rates are incredibly low and employment contracts often very short (<2 years), a narrative description of the impact of these kind of issues would be very beneficial.

## **Peer Review Processes**

The overwhelming response to this question was 'double-blind the review process' to remove all biases or unblind the spokesperson/external reviewers to increase the transparency of the process.

Spokesperson and reviewers feedback should be assessed for personal opinion, biases, and non-compliance to guidelines. The reliance on spokesperson scores with inherent personal biases rules out many projects before they are completely peer-reviewed.

A formal professional review board was suggested to determine projects that are funded; the proportion of the board could retain corporate knowledge of the previous year's applications so that applications that improve are rewarded.