Principles of peer review

Medical research funders aim to make the most effective use of their resources through supporting the good science, and the best scientists. Peer review is an accepted means of assessing the quality of academic research, and AMRC believe that it is the best way for medical research charities to decide what research to fund. These principles of peer review have been developed to maximise the benefits of peer review, while addressing the criticisms and minimising the weaknesses of the system.

We recognise that our membership is diverse and charities will have many different ways of carrying out peer review in practice. This document outlines the mandatory standards to which all AMRC member charities operate, and highlights good practice that we encourage our members to adopt or work towards. We also recognise the challenges in implementing these principles in ‘single-institute’ charities, and offer supplementary guidance. If you are unsure of how these principles should be applied to your charity please contact us to discuss your circumstances in more detail.

Summary
External and internal reviewers
External and internal reviewers are both mandatory for deciding the scientific quality of research applications. Applications for grants worth over £25,000 per annum must be assessed by external peer reviewers with appropriate experience and expertise. All applications must be reviewed by a scientific advisory committee (sometimes called an internal peer review panel or similar).

Peer review within all AMRC member charities is carried out according to the following principles:

Accountability: Charities are open and transparent about their peer review procedures and publish details, including the names of the members of scientific advisory committees or other decision making bodies.

Balance: Scientific advisory committees reflect a fair balance of experience and scientific disciplines.

Independent decision making: The scientific advisory committee is independent of the charity’s administrative staff and trustees.

Rotation of scientific advisers: Scientific advisory committee members have a fixed term of office and do not have tenure.

Impartiality: Scientific advisory committees include a significant number of non-beneficiaries. There is a conflict of interest policy and potential beneficiaries are not present when decisions are made.

This document is a summary guide. For full guidance please see the resources available on the AMRC website www.amrc.org.uk/our-work/peer-review
Mandatory standards and good practice

External and internal reviewers
Mandatory standards:
- Bring together a scientific advisory committee, made up of independent experts, who meet on behalf of the charity to assess applications and make recommendations for funding to the charity’s trustees.
- Identify appropriate external experts to give detailed written feedback on research applications for all grants of over £25,000 per annum. These reports must be used by the scientific advisory committee to enrich their assessment of the applications.
- Use the scientific advisory committee and at least two external reviewers for all research grants worth over £25,000 per annum. It is important that the extent of peer review is in proportion to the amount of funding to be awarded. Larger grants may require more than two external reviewers. Grants worth between £10,000 and £25,000 per annum must be reviewed by the scientific advisory committee and under £10,000 per annum grants must be reviewed by the committee chair as a minimum.

Accountability
Mandatory standards:
- Have a research strategy and information about what type of research the charity funds available online.
- Publish scientific advisory committee members’ names and details of the peer review process online.
- Assess the replacement, refinement and reduction (the 3Rs) of animals in research applications. This includes ensuring all panel members are aware of the 3Rs and have suitable resources to consider them and referring all applications involving non-human primates, cats, dogs and equines to the National Centre for the 3Rs for special review.

At the 2013 AGM, AMRC members agreed to ensure that the 3Rs must be part of the peer review process when reviewing grant applications involving animals. This must be implemented by all members in time for the 2015 Peer Review Audit.

Good practice:
- Make calls for applications accessible to a wide range of potential applicants.
- Publish the charity’s conflict of interest policy online.
- Provide feedback to applicants.
- Publish success rates online and feed them back to applicants.
- Publish information on research that has been funded by the charity, such as about the disease areas covered or individual project summaries.

To improve transparency we have recommended that conflict of interest policies and information on the grants awarded by the charity are made available online.

1 http://www.amrc.org.uk/our-work/animal-research/amrc-policies-on-animal-research
Balance
Mandatory standards:
- Ensure scientific advisory committees reflect a fair balance of experience and scientific disciplines. Panels should reflect the remit of the charity and the funding stream, such that there is no over-representation of discipline. Attention should also be paid to the need to avoid discrimination against members on the grounds of age, gender, ethnicity or geographical location. Charities that have difficulty recruiting panel members in a specific disease area should seek scientists with expertise in overlapping research fields or who are familiar with relevant techniques.
- Use a variety of methods to select internal and external peer reviewers, so that charities do not rely on a single person or small group of people to nominate reviewers. All appointments to the scientific advisory committee must be approved by the charity’s trustees.

We have clarified that all appointments to the scientific advisory committee must be approved by the charity’s trustees.

Good practice:
- Have a scientific advisory committee composed of at least five members, including the chair.
- Consider the use of lay reviewers. *Natural ground: Paths to patient and public involvement for medical research charities*\(^2\) sets out key questions that charities can use to facilitate this process. Charities that involve lay reviewers should be clear about its purpose, and make this clear to applicants.

We have provided further guidance on how many members a scientific advisory committee should have.

Independent decision making
Mandatory standards:
- Ensure decisions on scientific quality are made by independent peer reviewers and not the charity’s administrative staff.
- Ensure any preliminary screening process (triage) is fair and transparent.
- Ensure the procedure for assigning reviewers to applications is fair.
- Have no more than two trustees on the scientific advisory committee; they must not constitute more than 25% of the panel. For committees of over 20 people, 20% may be trustees. Trustees may chair the panel but this is strongly discouraged if they are eligible to apply for funding from the charity.
- Have a quorum for the scientific advisory committee of at least three members.
- Ensure there is a clear line of communication between the scientific advisory committee and the charity’s board of trustees, and that the chair is able to communicate decisions to the trustees.

We have clarified the number of trustees permitted to be active members of a scientific advisory committee. We have added new guidance that trustees may chair the committee. We have added guidance on how many members of a scientific advisory committee are required for the meeting to be quorate.

Good practice:

- Allow the chair of the scientific advisory committee to attend trustee meetings to report on the activity of the panel.

**Rotation of members of the scientific advisory committee**

**Mandatory standards:**

- Appoint committee members, including the chair, for a fixed term of office. Members must serve no longer than eight years and must not re-join for three years after retiring from the committee. This must be made clear to those on the committee at the time they join.

We have provided further guidance on how long committee members may serve for.

**Good practice:**

- Set an initial term for scientific advisory committee members of three years, with the option of renewing for a further two or three years.
- Stagger the appointment of new members to maintain a balance of experience during transition.

**Impartiality**

**Mandatory standards:**

- Allow no more than 50% of the scientific advisory committee to be active grant holders (beneficiaries). Ensure that all scientific advisory committee members (including any trustees) sign the conflict of interest policy, so they are aware of their responsibilities. External reviewers should be given an opportunity to declare a conflict of interest before committing to reviewing applications.
- Ensure would-be beneficiaries are not present when their applications are discussed or when funding decisions are made. If a committee member has an involvement in an application, e.g. works in the same department or institution as an applicant, they must declare a conflict of interest, and the situation should be managed according to the conflict of interest policy. Recent guidance from the Charity Commission\(^3\) states that any trustees of the charity who also sit on funding committees should also adhere to the conflict of interest policy.
- The chair should not normally apply for funding, but if they do, they should not attend the meeting or appoint reviewers. If they do attend the meeting, they must not be present for the discussion of their own application or score any applications. They may act only as an impartial mediator in the meeting. Where the chair is required to be absent, it is the responsibility of the vice-chair or nominated person to facilitate the meetings and report to the trustees the outcome of the meeting.

**Good practice:**

- Devise an induction process for new scientific advisory committee members.
- Allow no more than 30% of the scientific advisory committee to be active grant holders (beneficiaries).

We have clarified that it is good practice to have a low percentage of scientific advisory committee members that are also grant holders.

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**Long-term funding and block grants**

This funding may be in the form of a core grant, centre funding, research programmes or linked research projects. These block grants are incredibly valuable to the institution, as they fund important research as well as providing researchers with 'protected' time where they can develop pilot research and apply for funding from additional sources. Some charities are setup to raise funds solely to support research at a single institution.

For these types of funding, additional mandatory standards apply:

- Request progress reports from researchers to be reviewed by the scientific advisory committee or external reviewers at least every 2 years.
- Undertake a regular site review of the quality, strategy and direction of research activity at least every five years. AMRC recommend every three to five years. This should be done by an external review committee, whose members have no connection with or interest in the unit or programme being assessed. One of the members should be a member of the charity’s scientific advisory committee.
- Ensure the review process is transparent and the process and timetable is agreed with relevant parties well in advance.
- Feed the assessment back to the institute and ensure there is a system in place to check that the findings and recommendations of the review are acted upon. This may require the charities to have written procedures to manage negative feedback and instigate disinvestment of funding.

We have provided clarity that the Principles of Peer Review apply to all research funding provided by AMRC members and that members providing block grants must also follow additional standards. We have added a requirement that progress reports must be assessed at least every two years.

**Further information**

All AMRC’s resources on how to follow these principles, including more detailed guidance, are available on the AMRC website [www.amrc.org.uk/our-work/peer-review](http://www.amrc.org.uk/our-work/peer-review)

If you have any queries about this document, please contact:

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