

Child and Adolescent Musculoskeletal Pain

Guidance for Peer Review

- Catalyst Fellowships for Early-Career Researchers
- Career Development Fellowships for Mid-Career Researchers

Background to the Funders

The [Medical Research Foundation](#) is an independent charitable foundation. Formed by the Medical Research Council (MRC), we grow and nurture people and ideas wherever we see research opportunities with great potential.

Our research projects, including this research on musculoskeletal pain, are only able to take place as a result of the support of our generous donors.

[Versus Arthritis](#) was formed in 2018 following the merger of Arthritis Care and Arthritis Research UK. It is the largest charity dedicated to supporting people with arthritis and other musculoskeletal conditions.

Importance of Peer Review

Peer review ensures proposals for research funding are scrutinised by independent scientific experts who specialise in the areas of science covered in the proposal to assess, for example, the viability, quality, cost-effectiveness and impact of the science concerned.

External peer reviewers are experts in the field of research proposed in the application.

Expert review panels assess proposals, drawing on the external peer reviewers' comments and scores to make funding decisions. Panel members are high calibre, committed senior scientists at professor level or equivalent, based in a leading UK or world renowned research institute, university or biotechnology and pharmaceutical industry, who have broad experience of cutting edge research.

The objectives of peer review are to:

- Identify the best research addressing the most important and urgent questions
- Obtain value-for-money and ensure effective and efficient use of resources
- Identify the best scientists with the highest potential, working in the best environments.

There is an implicit contract between the applicant, the Medical Research Foundation and the reviewer. Effective review requires the commitment of all three. The Foundation outlines clear aims and assessment criteria for each of its schemes and calls. Proposals should fall within the criteria and explain clearly and comprehensively how they meet it.

Competition Background

The Medical Research Foundation, with support from Versus Arthritis, is inviting applications from mid-career researchers who are making the transition to research independence to support research that will increase understanding of the mechanisms underpinning child and adolescent musculoskeletal pain, and improve diagnosis, treatment and pain recovery.

Please note, this guidance covers both Catalyst Fellowships AND Career Development Fellowships within this call. If you are reviewing applications from both types of fellowship, please note the different guidance highlighted in bold in the 'Competition Background', 'Funding Available', 'Reviewer Assessment' and 'Scoring Matrix' sections.

Catalyst Fellowship applications within the broad field of child and adolescent musculoskeletal pain research are welcomed from **early-career researchers who are seeking to broaden their research experience and develop their own distinct research ideas, with a view of applying for a mid-career fellowship to transition towards research independence at the end of their Catalyst Fellowship.**

Career Development Fellowship applications within the broad field of child and adolescent musculoskeletal pain research are welcomed from **mid-career researchers who are seeking to make a transition to research independence and establishing their own research niche.**

For the purposes of this funding call, research can address musculoskeletal pain in children, adolescents

and young adults up to the age of 25. Research areas could include, but are not limited to:

- understanding of the biological mechanisms involved in the development of child and adolescent musculoskeletal pain
- long terms outcomes and potential for change
- treatment and interventions for child and adolescent musculoskeletal pain

To address these areas of research, the Medical Research Foundation and Versus Arthritis recognise the need for interdisciplinary and cross-sector collaborations in musculoskeletal pain research and particular welcome applications to this scheme that include such partnerships.

The Inclusion of Patient and public involvement and engagement (PPIE) is important in project design and/or over the course of the proposed research, applications that include PPIE are strongly encouraged. PPIE aspects of the application will be assessed by members of the Versus Arthritis Patient Insight Partner Group.

Funding Available

Catalyst Applicants may apply for a fellowship of **up to £150,000 to support their research, over a maximum of a 2-year period.**

Career Development Applicants may apply for a fellowship of **up to £400,000 to support their research, over a maximum of a 4-year period.**

There will be a total of £2,200,000 available in this competition, which will be split flexibly between the Catalyst Fellowships for Early-Career Researchers and the Career Development Fellowships for Mid-Career Researchers.

Successful candidates will be awarded either a Medical Research Foundation Fellowship or a Medical Research Foundation/Versus Arthritis Fellowship and will be informed of this at the point of award.

Integrity of Reviews: Declarations of Interest

Integrity between the applicant and reviewer is essential as is the relationship between the Medical Research Foundation, applicant and reviewer. Reviewers are asked to identify any possible **conflicts of interest** before they begin reviewing an application and to decline to review the application and state the reason why so this can be recorded.

Confidentiality

The proposal and any associated papers have been forwarded 'in confidence'. When undertaking to review a proposal, a reviewer commits to keeping all information confidential and never to use, retain or copy the information in the proposal. Reviewers must not make use of the research designs or research findings from a proposal under review and should not allow others to do so.

Reviewers accept and acknowledge that any comments submitted to the Medical Research Foundation may be provided to the applicant, on a confidential basis and in anonymised form, to allow an applicant to respond to issues raised as part of the peer review process and to benefit future proposals. Reviewers should be careful not to include information in their review which compromises their anonymity. Applicants are also required to maintain a similar duty of confidence as it is recognised that reviewers may, from time to time refer to ongoing research, either their own or other researchers for the purposes of comparison.

Reviewer Assessment: Evaluation Criteria

The proposal should be considered against the following four core criteria:

■ Catalyst Fellowships

1. **Importance:** How important are the questions, or gaps in knowledge, that are being addressed?
2. **Scientific potential:** What are the prospects for good scientific progress?
3. **Career development:** Has the applicant demonstrated the development of their own distinct research ideas? To what extent will the proposal contribute towards the career progression of the applicant, and making them an independent researcher in future?
4. **Resources requested:** Are the funds requested essential for the work, and do the importance and scientific potential justify funding on the scale requested?

■ Career Development Fellowships

1. **Importance:** How important are the questions, or gaps in knowledge, that are being addressed?
2. **Scientific potential:** What are the prospects for good scientific progress?
3. **Career development:** Has the applicant demonstrated the potential to transition to research leadership? To what extent will the proposal contribute towards the career progression of the applicant?
4. **Resources requested:** Are the funds requested essential for the work, and do the importance and scientific potential justify funding on the scale requested?

Reviewers should also identify any ethical issues or risks to human participants that need further attention.

Reviewer Assessment Form

Reviewers are asked to complete a reviewer assessment form using the headings below. The questions under each heading are provided as a guide and it is not necessary to answer each one.

Detail assessment of proposed programme and applicant

- Is the proposal realistic in its timeframes and resources?
- How convincing and coherent is the overall proposed approach? Is the methodology appropriate?
- How original or innovative are the proposals? Has the work already been done or is it being done elsewhere?
- Does the applicant have the expertise and skill-set to carry out the proposed study?
- Is the applicant's track record and achievements to date good?
- Is the applicant's proposed time commitment to the work appropriate and sufficient?
- Where there is a request to fund personal salaries are the requests in each case reasonable?

Applicants' wider contribution

- How good is the prospect for significant scientific advance?
- Has the applicant contributed to the training and development of individuals
- How does the proposal contribute to the wider research community?
- Does the proposal contribute to broader society (what is its potential for high health and/or socioeconomic impact)?

Environment and collaborators

- Is the proposed environment(s) suitable and does it have the variety of expertise and disciplines to support the research?
- Has the host institution(s) demonstrated a clear commitment to the proposed research for the duration of the grant?
- Are any collaborators well chosen?
- Does the environment provide appropriate opportunities for career development of personnel supported on the grant?
- Are there any dependencies on other organisations or funding of which Medical Research Foundation should be made aware?

Value for money

- Does the study represent good value for money in respect of the resources being requested from the Medical Research Foundation?
- Are the proposed resources fully justified in terms of the proposed science?
- Will the expected benefits of the research justify its cost to the Medical Research Foundation?

Ethics and other implications

- Is the work ethically acceptable?
- Where applicable, is the use of animals and human participants / tissue appropriate and in line with the Medical Research Foundation guidelines?
- Are the ethical review and research governance arrangements clear and acceptable?
- Are there any other implications which could put the Medical Research Foundation, participants in the research, or the applicant at risk?
- Are there any risks that the Medical Research Foundation should be taking into account when deciding whether to fund this research?

Overall comment

- Overall, what is the quality of the proposal?
- How significant is the proposed study in terms of its potential impact?
- To what extent will the proposed study extend the base of knowledge?

Reviewer Assessment: Scoring

Reviewers are asked to score the proposal using the scoring range below. First decide whether the proposal is excellent, good, potentially good or unacceptable. Then use the descriptions within the relevant band (see Annex 1) to select a score that reflects the overall summary, using whole numbers only. Reviewers should ensure their comments justify the score awarded. Reviewer's scores will be taken into consideration by the Expert Review Panel.

6	Exceptional. Top international programme, or of exceptional national strategic importance
5	Excellent. Internationally competitive and leading edge nationally, or of national strategic importance

4	Very High Quality. Internationally competitive in parts
3	High Quality
2	Good Quality
1	Poor Quality
0	Ineligible for funding

Further Guidance

If you have any question or concerns regarding the peer review process please contact research@medicalresearchfoundation.org.uk or **020 7395 2410**.

Annex 1: Scoring Matrix for Panel Members

Score Indicators	Score
Exceptional – Top international programme, or of exceptional national strategic importance	
■ Scientific Quality and Impact – Crucial scientific question or knowledge gap or area of strategic importance to the UK – Original and innovative; novel methodology and design – Potential for high health and/or socioeconomic impact ■ Scientific Career development – Outstanding potential for career progression (broad contribution to research generation, engagement with wider research community, development of research niche) Catalyst Fellowships Or – Outstanding potential for research leadership (broad contribution to knowledge generation, engagement with wider research community, development of individuals within team) Career Development Fellowships – Excellent research environment (team, facilities, collaborators) ■ Justification of Resources – Potential for high return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation) – Appropriate staff time allocated to deliver project (Principal investigators and co-investigators) ■ Other: Ethical and/or governance issues are fully considered	6
Excellent – Internationally competitive and leading edge nationally, or of national strategic importance	
■ Scientific Quality and Impact – Crucial scientific question or knowledge gap or area of strategic importance to the UK	5

– Original and innovative; novel methodology and design – Potential for high health and/or socioeconomic impact ■ Scientific Career development – Excellent potential for career progression (broad contribution to research generation, engagement with wider research community, development of research niche) Catalyst Fellowships Or – Excellent potential for research leadership (broad contribution to knowledge generation, engagement with wider research community, development of individuals within team) Career Development Fellowships – Excellent research environment (team, facilities, collaborators) ■ Justification of Resources – Potential for high return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation) – Appropriate staff time allocated to deliver project (Principal investigators and co-investigators) ■ Other: Ethical and/or governance issues are fully considered	
Very High Quality – Internationally competitive in parts	
■ Scientific Quality and Impact – Crucial scientific question or knowledge gap or area of strategic importance to the UK – Robust methodology and design (innovative in parts) – Potential for high health and/or socioeconomic impact ■ Scientific Career Development – Very Good potential for career progression (broad contribution to research generation, engagement with wider research community, development of research niche) Catalyst Fellowships Or – Very good potential for research leadership (broad contribution to knowledge generation, engagement with wider research community, development of individuals within team) Career Development Fellowships – Very good research environment (team, facilities, collaborators) ■ Justification of Resources – Potential for significant return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation) – Appropriate staff time allocated to deliver project (Principal investigators and co-investigators) ■ Other: Ethical and/or governance issues are fully considered	4
High Quality	

■ Scientific Quality and Impact – Worthwhile scientific question or knowledge gap or a valuable scientific resource – Methodologically sound study – Potential for significant health and/or socioeconomic impact ■ Scientific Leadership – Good potential for career progression (broad contribution to research generation, engagement with wider research community, development of research niche) Catalyst Fellowships Or – Good potential for research leadership (good contribution to knowledge generation, engagement with wider research community, development of individuals within team) Career Development Fellowships – Good research environment (team, facilities, collaborators) ■ Justification of Resources – Potential for significant return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation) – Appropriate staff time allocated to deliver project (may be scope strengthen management of the project) ■ Other: Ethical and/or governance issues are well considered	3
Good Quality	
■ Scientific Quality and Impact – Worthwhile scientific question or knowledge gap or a valuable scientific resource – Methodologically sound study but areas require revision – Likelihood of successful delivery ■ Scientific Career Development – Appropriate potential for career progression (broad contribution to research generation, engagement with wider research community, development of research niche) Catalyst Fellowships Or – Appropriate potential for research leadership (scope to strengthen contribution to knowledge generation, engagement with wider research community, development of individuals within team) Career Development Fellowships – Appropriate research environment (scope to strengthen team, facilities, collaborators) ■ Justification of Resources – Potentially more limited return on investment (resources requested, likelihood of project delivery, anticipated knowledge generation) – Resources broadly appropriate to deliver the proposal	2
Poor Quality	

■ Scientific Quality and Impact – Poorly defined question – Methodologically weak study – Limited likelihood of new knowledge generation ■ Scientific Leadership – Poor Career development potential (Catalyst Fellowships) – Poor research leadership potential (Career Development Fellowships) ■ Justification of Resources – Potentially poor return on investment ■ Other: Ethical and/or governance issues are not adequately considered	1
Ineligible for funding	0