

Information for applicants: Senior research fellowships

Parkinson's UK is the largest charitable funder of Parkinson's research in Europe. So far, we've invested more than £120 million in ground-breaking research.

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1. Purpose and scope

- Applicants should be prepared to establish their own research group for the study of Parkinson's.
- The duration of a fellowship is for three years and a maximum of £300,000. All costs requested must be fully justified.
- Funding is available to cover the cost of the applicant's salary and appropriate start-up
 and running costs. It may also provide support for additional research assistance, for
 example, a technician or research assistant.
- Extensions of up to two years to an awarded fellowship will be considered by the charity but may be dependent upon the host institution committing funds towards the fellow's salary.
- We're keen to receive applications from researchers working across all fields of Parkinson's research.

2. Eligibility

• Grants are tenable at a UK university, NHS trust, statutory social care organisation or other research institution.

Parkinson's UK is the operating name of the Parkinson's Disease Society of the United Kingdom. A company limited by guarantee. Registered in England and Wales (948776). Registered office: 50 Broadway, London, SWIH 0DB. A charity registered in England and Wales (258197) and in Scotland (SC037554).

- Principal applicants should be able to demonstrate
 - a strong track record of original and productive research in their area which shows productivity and impact across past appointments (typically at least one previous post-doctoral appointment).
 - the progress they have made in moving towards independence through diverse collaborations and partnerships independent of their sponsors and past supervisors
 - receipt of small amounts of independent funding (such as a previous intermediate fellowship) and/or a track record of effective management of a small number of their own laboratory staff.
- Applicants may have previously spent time away from research (for example time spent out
 of employment, maternity leave, or long-term sick leave). Our reviewers will allow for this
 when the application is considered.
- Researchers who hold tenure are not eligible to apply as a principal applicant.
- Applicants must demonstrate that they have incorporated the appropriate roles and balance of expertise/experience within the research team on the application to successfully undertake the project.
- **Supervisors** should hold employment or honorary (if a clinical academic) contracts with the host institution that extend beyond the period of the grant.
- **A co-supervisor** is a person who will assist the grantholder (the principal applicant) in the management and leadership of the grant. Co-supervisors must have the relevant skills and experience to carry out this role.
- **Co-supervisors and collaborators** may be based at institutions outside the UK and / or at pharmaceutical or biotech companies.
- A maximum of five co-supervisors can be added to an application. There are no restrictions on the number of collaborators.
- Please include all co-supervisors and collaborators on your preproposal that would be included in a full application. Additional collaborators may only be added at the full application stage in response to suggestions from the reviewers
- Applicants are expected to ensure that they create a suitably diverse research team, taking
 into account issues such as race, ethnicity, gender, age, disability, sexual orientation, religion
 and belief. They will be asked to justify the research team's makeup in the application.
- Applicants should read <u>research grant terms and conditions</u> and the charity's <u>research grants costs quidance</u> before completing the application.

3. Application procedure

- There is one application round per year. Closing dates for preproposal and full grant applications can be found on the <u>Parkinson's UK website</u>.
- Deadlines may be subject to change. Any changes will be shared widely via the charity website and relevant newsletters.
- Applications must be submitted by 4pm on the deadline dates.
- All applications must be made in English.

- Application is by a two stage process, consisting of a preproposal and a subsequent full application.
- The full application stage is by invitation only for those applicants who have passed independent scientific review at the preproposal stage.
- Both preproposal and full grant applications to Parkinson's UK are made through the charity's <u>online grant application system</u>.
- Applicants will receive confirmation by email from the online grant applications system once a grant application is submitted.
- Shortlisted applications will be invited to a virtual interview panel. The panel will be made up
 of lay and scientific members of the <u>College of Experts</u>.
- Applicants are not required to submit a hard copy application.
- In order to avoid formatting problems, text from other documents should be pasted into
 Notepad (or similar programme) before being copied into the online application form.
- CVs should be submitted using the <u>Parkinson's UK template</u> and no personal information such as home addresses etc, should be included. At the preproposal stage, a CV should be included only for the principal applicant and supervisor. At the full application stage, CVs should be included for all of the co-supervisors, as well as the principal applicant and supervisor.
- Details of any collaboration must be included. A letter confirming agreement from each collaborator should be submitted at the full application stage.
- If the project includes work with human participants, please ensure a letter of written support is supplied from a clinical collaborator at the full application stage.
- Appendices for the preproposal stage you may submit up to two A4 pages of figures and
 / or pilot data. Any confirmatory letters should also be submitted as appendices but do not
 count towards this two page limit. The two page limit on appendices does not apply for the
 full application stage. Applicants are requested to only include information that is directly
 relevant information in the appendices.
- Any relevant 'in press' articles and pre-prints should be attached as appendices.
- Covering letters are not required.
- Use of generative artificial intelligence (AI) tools when developing proposals, applicants
 must ensure that any generative AI tools they utilise are used responsibly and in
 accordance with relevant legal and ethical standards where these exist (or as they
 develop). Any outputs from generative AI tools in applications should be acknowledged.
- At the preproposal stage, please include a personal statement, plain English abstract, scientific abstract, objectives, preliminary budget, project background, experimental plan and details of the research team. This information is submitted as part of an online application form. There are word limits for each section of the online preproposal application form: Personal statement (500 words max), Eligibility (500 words max), Abbreviations (500 words max), Plain English abstract (350 words max), Scientific abstract (300 words max), Objectives (5 key project milestones max), Project background (450 words max), Experimental plan (400 words max) and Research team (300 words max). Any references should be included within the appendices.
- At the full application stage, please include the relevant information for your plain English

summary including a lay abstract, project background and impact. This information is submitted as part of an online application form. The scientific research proposal should include the following information: background and plan of investigation which should explicitly cover study design, methods of data collection analysis and time schedule. The research proposal should be submitted as a PDF and should be no longer than 4,000 words. Research proposals longer than this will be rejected. A full list of references for the application should be listed within the research proposal section. Figures can either be embedded within the research proposal or included as an appendix. Any references and figure captions do not count towards the research proposal word count.

Unless the charity requires further information, no correspondence will be entered into until
the results are notified. Applicants are requested not to initiate contact with the Research
grants team during the review process.

4. Costing the full application

- Please read our <u>guidance on allowable and non allowable research costs</u>.
- In line with the Association of Medical Research Charities guidelines, Parkinson's UK will only reimburse directly incurred research costs for awarded grants as per the application submitted.
- Applicants must fully justify the funds requested.
- Applicants must apply for funding in British pounds sterling.
- The research budget in the preproposal should be realistic. If the proposal proceeds to the
 next stage, the overall costs included within the full application are required to be within
 ±10% of the overall costs stated in the preproposal application. Please note, costings at the
 preproposal stage do not need institutional approval.
- In the preproposal research budget, applicants are not required to list each item separately
 for the categories within the research expenses. Applicants can include details of the types
 of items covered for each category within the 'Item column'.
- Applicants who are successful at the preproposal stage will be asked to submit a full application.
- At the full application stage, costs requested must be itemised and further details are required to be submitted on the budgeted costs within the 'justification for the support requested' section.
- Applicants should seek the advice of their institution's Finance or Research Office on costing
 the full application well in advance of the application deadline. When a full application is
 submitted via the online application system, it is sent directly to Parkinson's UK.
- Staff costs: Basic salary should be stated for each individual. Provision for London weighting, superannuation and National Insurance should be shown separately in the space provided. An appropriate grading and salary must be quoted even where a named assistant cannot be specified. Both the grading and salary should have the approval of the appropriate administrative officer of the institution where the assistant would be employed. Parkinson's UK will not pay salaries for principal investigators, co-supervisors or collaborators named on the funding applications unless their salaries are dependent on grant funding. In these cases the charity would require a letter from the Institute confirming this to be included in the appendices at both the preproposal and full application stage.

Applicants who are healthcare professionals who hold a post at a senior level, such as a Consultant Neurologists, who are requesting salary related costs, must provide a letter to the charity confirming that the salary costs requested are dependent on grant funding. Applicants receiving a full-time salary in their healthcare post may not request salary costs.

- Research expenses: A detailed breakdown of intended expenditure must be given.
 Fellowships do not cover administrative expenses. Costs for attending conferences can be requested. The charity funds UK based research posts only, however research expenses can be requested of up to £10,000 for overseas research work essential to the success of the proposed project. Detailed justification for this must be provided.
- Open access publications: Costs related to open access publishing may be included.
 Please see our guidance on open access publishing. The costs requested must be fully justified.
- **Animals:** The species, sex, number and unit cost of all animals must be shown. Please also see our policy on the use of animals in research.
- **Biological materials (such as human tissue or cell lines):** Please specify the type of tissue or cell lines involved, as well as the sex if known.
- Research involving human participants: Please give details of what will be expected of study participants and the costs involved. You may find it helpful to carry out <u>patient and</u> <u>public involvement (PPI)</u> during the design of your study to ensure that you have considered the unique needs of people affected by Parkinson's. Please specify the number and sex of the study participants.
- Patient and public involvement (PPI): You may include costs for any planned patient and
 public involvement (PPI) activities in your application for all types of research projects, for
 example travel expenses for a face-to-face meeting. Please see our PPI guidance on how to
 involve patients and the public in your research in a meaningful way.
- Equality, diversity and inclusion (EDI): You may also include costs for any planned
 activities in relation to EDI, for example consultation with an EDI specialist on delivery
 support and advice. Please see our <u>Race Equality in Research project webpage</u> for
 guidance on how to think more about ethnicity and inclusion when planning and designing
 your research.
- Equipment: Costs for small items of scientific equipment specific to the grant may be requested. Quotes must be included at the full application stage for items costing £5,000 or more. For large items of scientific equipment, the majority of the cost should be contributed by the host institute.
- Inflation: Inflation will not be paid in year one. Inflation in years two and three is allowable up to 3%. In the financial schedule of the application form, inflation should be shown separately from the research costs. The research costs should be entered into the application form excluding inflation. The level of inflation requested for years two and three can then be added separately for the 'Salaries and related costs', 'Research expenses' and 'Equipment' sections (applicants can select none, 1%, 2% or 3%). The inflation will be calculated automatically at this rate and the correct amounts will be added on to the costs as a separate 'Inflation' line in the table.

5. Review procedure

- Preproposals will be independently reviewed by three scientific members of our <u>College of Experts</u>.
- Full applications will be independently reviewed by three scientific members of our <u>College</u> of <u>Experts</u> and a group of lay grant reviewers, who are people affected by Parkinson's.
- All applications are reviewed using a ten point system, with 0=Unfundable and 10=Highly fundable / Highly competitive at International Standard (see Appendix).
- Applications which involve non-human primates, cats, dogs, horses or pigs will be sent for additional expert 3Rs review by the NC3Rs.
- Applicants submitting preproposals with substantive scientific merit, that are also viewed to be important and relevant to people with Parkinson's, will receive an email notification inviting them to submit a full application. This invitation will include brief feedback from the scientific reviewers.
- Applicants submitting preproposals that lack scientific merit, or are not viewed as being
 highly relevant to people with Parkinson's, will receive an email stating they are not being
 invited to submit a full proposal. These applicants will receive feedback from the scientific
 reviewers.
- All proposed research projects should be in the best interests of people affected by Parkinson's. All full applications are reviewed by people affected by Parkinson's. A good plain English summary is essential, as the lay grant reviewers must be able to read and understand your application. The plain English language sections must use an appropriate lay language, avoid technical language, and give a realistic representation of scientific sections of the project in terms of potential outcomes and timescales. Applicants are expected to seek lay input on their plain English summary in advance of submitting any application. Applicants can request lay feedback on their plain English section prior to applying by contacting our <u>patient and public involvement</u> (PPI) programme at least three weeks prior to the application deadline for full applications.
- For full applications, the review comments, the mean review scores from both the College of Experts scientific reviewers and lay grant reviewers will be used to identify a shortlist of highly ranked applications for further discussion at a virtual interview panel.
- Feedback from College of Expert scientific reviewers and lay grant reviewers will be sent to
 principal applicants of shortlisted applications who are invited to interview at least one
 week before the interview date. Applicants will then have the opportunity to reply to the
 queries raised or provide clarification during the interview presentation.
- The virtual interview panel of scientists and lay review co-ordinators which is made up of members of the College of Experts will discuss the interview candidates and score the shortlisted applications. The mean review scores submitted from both the College of Experts scientific reviewers and lay review co-ordinators will be used to identify applications that they will then recommend for funding to the Parkinson's UK Chief Executive Officer.
- Applications will be judged against the following criteria:
 - o research standing of the proposed fellow
 - their ability to make an impact on Parkinson's research
 - o potential support from the host institution
 - the career aspirations of the applicant

- o potential impact of the research for people affected by Parkinson's
- o importance and relevance of the research to people affected by Parkinson's
- o scientific quality of the proposal
- value for money
- o budget and infrastructure
- Applications are reviewed by lay grant reviewers who will consider the following points:
 - o the importance and relevance of the research for people affected by Parkinson's
 - o the potential benefit of the research for people affected by Parkinson's
 - if the proposed research involves human participants, whether they think people would be likely to take part
 - Based on the review timeline and grant acceptance process, it is likely that the earliest possible start date for successful applications will be January/February 2026.

6. Patient and public involvement (PPI)

- Patient and Public Involvement (PPI) is when researchers and people affected by conditions work in partnership to plan, design, manage, evaluate and communicate about research.
- Applicants are strongly advised to seek lay input on their research proposal as early as possible when devising their research questions, study design and PPI plans.
- PPI in research leads to higher-quality, more efficient research focused on what matters most to those living with the condition.
- All applicants are expected to work with people affected by Parkinson's in the development
 of an application for funding and, if successful, as much as possible throughout the
 research process. There are a number of ways that applicants can involve people in their
 research, including, but not limited to, in identifying and prioritising research questions,
 shaping study design and helping to write plain English summaries. Read this article for
 more information on how PPI can strengthen your application.
- Parkinson's UK can support researchers to involve people affected by Parkinson's through our <u>patient and public involvement</u> (PPI) programme, including by helping to plan meaningful involvement activities and find people to involve.
- Remember to include costs for any planned PPI activities in your application. This includes
 necessary expenses incurred by PPI contributors as a result of being involved in a PPI
 activity. Parkinson's UK also considers it best practice that PPI contributors are offered an
 honorarium for their involvement in research where the PPI activity requires a substantial
 time commitment. For more information please read our guidance for researchers on
 payment and recognition and INVOLVE's 'Budgeting for Involvement' document and 'Cost
 Calculator'.
- See our <u>PPI Guidance for researchers</u> and also our <u>PPI tools for lab based researchers</u> for more information, and get in touch with the team for support with PPI at <u>researchinvolvement@parkinsons.org.uk</u>

7. Recruiting study participants and staying connected

Parkinson's UK can help researchers to find participants for their research studies.

It is mandatory that grantholders share study results with any participants. Please also include a clear dissemination plan detailing how you intend to do this within the appendices of your full application. Grantholders will be required to report on how they have shared trial results with participants in their final reports.

Researchers are expected to keep participants up to date with the progress of their study, as this makes them more likely to take part in future research and helps to increase the quality of the research. Use this simple, free communication <u>toolkit</u>, co-produced with researchers and the Parkinson's community to stay connected with your participants. The toolkit was developed with the HRA (Health Research Authority) and RECs (Research Ethics Committees). Please contact participation@parkinsons.org.uk if you have any questions.

8. Equality, diversity and inclusion (EDI)

We actively encourage people from all sections of the community to apply for grants, regardless of race, ethnicity, sex, gender identity, age, disability, sexual orientation, or religion.

Parkinson's UK is here for everyone in the Parkinson's community. The <u>Parkinson's UK Equality</u>, <u>diversity and inclusion (EDI) strategy</u> sets out our overarching goal, ambitions and EDI promise. The charity wants equity for everyone who lives with Parkinson's, and the people in their lives, in the UK. Parkinson's affects all sections of the community, irrespective of race, ethnicity, sex, gender, age, disability, sexual orientation, socioeconomic group, religion or belief. Responses to Parkinson's treatment can be different depending on a range of factors. We believe Parkinson's research should involve, include and represent all members of the community. By having a diverse network of people involved with research, we're more likely to make breakthroughs that change the lives of all people with Parkinson's. The charity's <u>Race Equality in Research project</u> sets out our long-term strategy to increase engagement and participation in Parkinson's research with people from Black, Asian and Mixed Race backgrounds.

All applicants are encouraged to use an inclusive research design approach. If you are involving human participants or tissues, please address how these factors will be considered in your experimental plan. If your research involves animal models, cells, human tissue samples, or human participants, and you are not proposing to use both sexes, you will need to justify why. Please see the 'Writing a research grant application' section within the Appendix to this document for further details on how to consider equality, diversity and inclusion in all aspects of your research.

Please explain how you have considered these issues when creating a diverse research team. EDI data will be collected for all staff and students named in the research team via an online survey as part of the charity's monitoring processes.

We understand that different people choose different career paths, so we want to provide flexible research career opportunities. If you're funded by us, you can request flexible and part-time working. We always try to accommodate requests, as long as they fit in with the needs of employing organisations.

We consider the needs of everyone who applies for a grant at Parkinson's UK. If you have a disability, long-term health condition, mental health condition, are neurodivergent, or have care responsibilities and need support at any point during the application process, please get in touch and we'll be happy to help. You can email researchapplications@parkinsons.org.uk

9. Supporting document checklist

You must submit all required supporting documents at both the preproposal and full application stage by the application deadline, or your application will not be accepted. Please make sure that you submit all of the relevant supporting documentation when making your application.

Supporting document	Preproposal stage	Full application stage
CV for principal applicant and supervisor	Required - using the <u>Parkinson's UK</u> <u>template</u>	Required - using the <u>Parkinson's UK</u> <u>template</u>
CVs for co-suppervisors	Not required	Required - using the Parkinson's UK template
Supporting letters from collaborators	Not required	Required
Letter confirming salaries are reliant on grant funding	Required only when requesting salary costs for those named as an applicant, supervisor or collaborator on the research team	Required only when requesting salary costs for those named as an applicant, supervisor or collaborator on the research team
Salary scale	Not required	Required only when requesting salary costs (for each post requested)
Quotes for equipment purchase requested	Not required	Required only when requesting items of equipment costing £5,000 or more
Changes made to previous application	Required only for resubmissions - bullet point list of main changes and copy of the previously submitted research proposal section with inline text indicating main changes	Required only for resubmissions - bullet point list of main changes and copy of the previously submitted research proposal section with inline text indicating main changes
Figures and pilot data	Optional - maximum of 2 sides of A4 as an appendix	Optional (either within the research proposal section or the appendix)
References	Optional (include within the appendices)	Optional (either within the research proposal section or the appendix)
<u>'In press' articles and</u> <u>pre-prints</u>	Where relevant (include within the appendices)	Where relevant (include within the appendices)
Additional details on the patient and public involvement (PPI) plan	Optional (include information beyond the scope of the application form within the appendices)	Optional (include information beyond the scope of the application form within the appendices)
Dissemination plan for sharing study results with any participants	Not required	Where relevant (include within the appendices)

10. Unsuccessful applications

- Comments from the reviewers will be made available to unsuccessful applicants. No further discussion with Parkinson's UK staff or the College of Experts is allowed.
- On occasion, applications may receive high review scores but still be unsuccessful.
 Parkinson's UK are within their rights to choose to fund the fellowship that will have the most
 impact and most closely aligns with charity's strategy in increasing capacity in Parkinson's
 research and has the most potential benefit to people affected by Parkinson's, based on the
 recommendations of the funding panel.

11. Resubmissions

Only one resubmission is allowed. This includes instances where the application has previously been submitted via another Parkinson's UK grant scheme.

For unsuccessful applications, it is possible to submit a revised application at the preproposal stage of the following year's senior research fellowship round (if it still fits within the scheme's remit). Resubmitted applications must be significantly different from the original application and incorporate changes based on the feedback provided during the review process.

- Applicants are required to note in the declarations for the application that the proposal has previously been submitted to Parkinson's UK.
- Applicants must specifically include as appendices (i) a version of the previously submitted research proposal section that has inline notes to highlight where the main changes have been made, and also (ii) a list of bullet points indicating the main changes.

12. Contact us

If you have further questions about making an application, please contact the Research grants team.

Email: <u>researchapplications@parkinsons.org.uk</u>

Writing a research grant application

We only fund the best quality research so that every penny donated towards research will benefit people with Parkinson's. We receive a high volume of applications in each grant round, so it's vital that you make your application stand out from the crowd. Below are some tips and pitfalls to avoid when preparing your grant application to give yourself the best chance of success.

Make a good first impression

- Ensure that you are fully familiar with all sections of the 'Information for applicants' document.
- Read the Parkinson's UK research grant <u>terms and conditions</u> and <u>costs guidance</u> make sure your requests are allowable by Parkinson's UK.
- Ask at least one independent person to proofread your application reviewers dislike typographical and grammatical errors.
- Ensure figures make sense and are correctly referenced in the text.
- Make sure everything in your research proposal is correctly referenced.
- Even if your ideas are excellent, a badly presented application may make reviewers wonder if this is an indication of how the research will be conducted.

Write a good plain English summary

- It is important that you think carefully about your lay reader when writing your plain English summary.
- Lay grant reviewers may have considerable personal experience of Parkinson's but little specialised scientific knowledge.
- The plain English summary must accurately reflect the research proposal and scientific abstract.
- Although the summary should be written in simple terms, please make sure that it contains
 enough detail for a lay grant reviewer to make an informed decision about the project.
- Applicants should be realistic about the potential outcomes of their research and the likely timescales involved.
- Avoid using jargon, abbreviations and technical terms wherever possible if you have to use them provide a clear explanation and include a good glossary.
- Define any abbreviations in full words the first time you use them, in addition to including them within the abbreviations section.
- Avoid complicated English or uncommon words.
- Avoid elaborate explanations of 'what is Parkinson's'. Lay grant reviewers are very likely to know a lot about this already but want to know about the particular research project.
- Use active not passive phrases, for example say 'we will do it' rather than 'it will be done by us'.
- Keep sentences short try not to use more than 15 to 20 words per sentence.

- Break up the text, for example by using bullet point lists.
- If your study involves participants ensure you have included details of what will be involved for them and how they will be supported.
- Ask someone without a scientific background to read your draft and advise if anything is unclear.
- Applicants can request lay feedback on their plain English section by contacting our <u>patient and public involvement</u> (PPI) programme at least three weeks prior to the deadline.
- You can find more tips on writing a good plain English summary on the <u>NIHR guidance for</u> writing plain English summaries and the <u>'Plain English Campaign'</u>.

Clearly demonstrate how your research relates to Parkinson's

- Parkinson's UK only supports research into Parkinson's and Parkinson's like disorders. We
 want to fund research that has the greatest chance of improving the lives of people with
 Parkinson's.
- Applications for lab-based projects must clearly demonstrate how their research relates to Parkinson's and how it could provide valuable insights for future research.
- Scientific and lay grant reviewers have a lot of knowledge of Parkinson's and will usually
 have considered many applications over the years. They expect applicants to demonstrate
 a good understanding of Parkinson's. Applicants whose expertise and publications record
 primarily relates to another field should seek to collaborate with relevant experts in
 Parkinson's and people affected by Parkinson's where necessary.
- Parkinson's UK will consider applications which may provide insights into a number of neurodegenerative conditions, but again you will need to show the particular relevance to Parkinson's.

Ensure your research proposal is clear and logical

- Make sure your hypotheses are clear and firm, and that these are reflected clearly in the methodology.
- Show how the various experiments and stages of proposed research relate to each other.
- Give clear information on what the outcome measures will be.
- Identify and address any potential challenges or pitfalls what will you do if your first proposed experiment does not result in the outcome you expected? Or if you have challenges with recruitment or retention of participants?
- Provide sufficient detail on the experiments and how they will be carried out to show your understanding of what you're doing.
- Give realistic sample sizes and power calculations based on evidence.
- Clearly describe the future clinical benefits and timescales of practical improvements that could result from the research.
- Ensure your application includes details of how the results of your research will be made available to others.

Consider equality, diversity and inclusion in all aspects of your research

Parkinson's UK is here for everyone in the Parkinson's community. The <u>Parkinson's UK Equality</u>, <u>diversity and inclusion (EDI) strategy</u> sets out our overarching goal, ambitions and EDI promise. The charity wants equity for everyone who lives with Parkinson's, and the people in their lives, in the UK. Responses to Parkinson's treatment can be different depending on a range of factors. We believe Parkinson's research should involve, include and represent all members of the community. By having a diverse network of people involved with research, we're more likely to make breakthroughs that change the lives of all people with Parkinson's. The <u>Parkinson's UK Race Equality in Research project</u> sets out our long-term strategy to increase engagement and participation in Parkinson's research with people from Black, Asian and Mixed Race backgrounds.

Parkinson's affects all sections of the community, irrespective of race, ethnicity, sex, gender, age, disability, sexual orientation, socioeconomic group, religion or belief. There are also a broad range of factors that can impact the metabolism and response to treatments including physiology and genetics. These differences in response to treatments can be related to issues such as race, ethnicity (Ben-Joseph et al., 2020 and Sauerbier et al., 2018) and sex (Cerri et al., 2019). There can also be biases in medical devices and technologies against individuals of different ethnicities, sex, genders and other socioeconomic groups that may need to be mitigated (Equity in Medical Devices: Independent Review). For example, some devices employing infrared light or imaging may not perform as well in people with darker skin pigmentation - this would need to be taken into account in the development and testing of the devices. Al-enabled medical devices and use of polygenic risk scores in genomics may be particularly prone to biases against certain groups in the population. The 'STANDING Together (STANdards for data Diversity, INclusivity and Generalisability)' initiative led by the University of Birmingham has published recommendations on ensuring that the benefits of AI in healthcare are available to all. The social aspects of diversity also need to be considered, especially in relation to how this impacts on the way individuals are diagnosed and treated. Without a diverse group of individuals participating in research, researchers will not know if their results can be applied to all people equally.

Parkinson's UK is committed to supporting research that is inclusive, in both design and practice, and gives appropriate consideration to equality, diversity and inclusion issues to be beneficial for everyone. Applicants are therefore asked to consider and explain how they have taken these factors into account in all relevant aspects of their work. This could include:

• Inclusive research design - When designing research projects with human participants, applicants must consider factors such as sex, gender, age, ethnicity in their research questions, methods, implementation, outcomes and reporting. If your research involves animal models, cells, human tissue samples, or human participants, and you are not proposing to use both sexes, you will need to justify why. Applicants may wish to refer to the guidance provided by the MRC on sex in experimental design, the Sex Inclusive Research Framework for preclinical work developed by a working group led by AstraZeneca, and also the toolkit produced by NIHR and CEHR that includes help in developing research projects with human participants, and you are not proposing to use both sexes, you will need to justify why. Applicants may wish to refer to the guidance provided by the MRC on sex in experimental design, the sex in experimental design, the sex in experimental design, the sex in experimental design, the sex in experimental design, the sex in experimental design, the sex in experimental design, the sex in experimental design, the sex in experimental design, the sex in experimental design

- Participation and use of human tissue Applicants must consider how they will ensure that the participant groups and human tissue samples used reflect the diversity of the population. This could include carefully considering the eligibility criteria for study participants and the recruitment processes; developing study materials with inclusion in mind; ensuring the research team is aware of relevant cultural issues; and building partnerships with community organisations / trusted advocates. Applicants should consider if there are any issues that would impact the diversity of people with Parkinson's that would be willing and comfortable to take part (are there any barriers that would stop certain sections of the community from participating). Please refer to the guidance produced by the NIHR INCLUDE project on improving inclusion of under-served groups in clinical research, the NIHR video introduction on cultural competence in research and the NHS guidance on increasing diversity in research participation. Applicants should also refer to the toolkit developed in partnership with NIHR on increasing participation of Black and Asian minority ethnic (BAME) groups in health and social care research.
- Research team Applicants should consider the expertise required to carry out inclusive research and the diversity of their team, including a balance of gender, ethnicity and career stage. Researchers from under-served groups are more likely to be familiar with, and motivated to develop solutions for, health issues facing the demographic groups to which they belong. If appropriate it may be helpful to include those researching social and health disparities in under-served groups in your team. If relevant to the study, then it can also be helpful to include bilingual staff in the research team. When recruiting to your team you should consider diversity and follow best practice as advised by your Institution's HR department, including mitigating the impact of unconscious bias. It can also be helpful to consider how you will build an inclusive team environment where all feel valued and supported, with equal access to development opportunities.
- Patient and public involvement (PPI) Applicants must consider how they will involve the
 Parkinson's community in their research. When planning involvement activities, applicants
 should consider diversity and take steps to ensure they are as inclusive and representative
 as possible. You can find out more about how to address potential barriers in the HRA
 quidance on people-centred research.

You can also learn more in the Parkinson's UK <u>blog post on increasing diversity in research</u>. Please find below some specific examples of steps that researchers can take to increase diversity in Parkinson's research:

- Recruiting staff (clinicians, coordinators, researchers) who reflect under-served communities.
- Developing relationships with communities over the long term.
- Engaging with communities early to make sure the research questions asked are things that the community really wants to see addressed.
- Going beyond translating clinical tests and resources by also making sure they are culturally appropriate.
- Having open lines of communication to ensure people can discuss their concerns about taking part.
- Recruiting diverse teams of clinicians and researchers from the local community and training them.

Fellowships - Parkinson's UK Scientific reviewer scoring system

The listed characteristics are for guidance only. The characteristics are general statements on the overall quality of the application in each funding category. They are not a checklist of minimum criteria for the funding category.

Funding category

Characteristics for Scientific reviewers

Rating scale

Highly fundable

- Very important research questions; likely to result in advancement in the scientific understanding of Parkinson's or significant benefit for people affected by Parkinson's by addressing the priority research areas for improving everyday life.
- Excellent and appropriate methods and research design.
- Very strong, internationally competitive and diverse team, containing all relevant disciplines.
- The proposed fellow's expertise and suitability to carry out the project is very strong.
- Very good value for money.
- Clear and well written proposal.
- Strong evidence of meaningful and well-planned patient and public involvement, with activities integrated at appropriate points throughout the project..
- Plain English summary accurately reflects the research proposal and is realistic about potential outcomes and timescales involved.

Exceptional	10
Excellent quality research	9
Very good, bordering on excellent	8

Potentially fundable

- Relevant research questions; likely to result in advancement in the scientific understanding of Parkinson's, or benefit for people affected by Parkinson's by addressing the priority research areas for improving everyday life.
- Good quality and appropriate methods and research design.
- Competent, appropriate and diverse research team containing all key disciplines.
- The proposed fellow's expertise and suitability to carry out the project is appropriate.
- Good value for money.
- All key aspects of application are clearly presented
- Some evidence of patient and public involvement, with activities well planned and integrated at appropriate point.
- Plain English summary accurately reflects the research proposal and is realistic about potential outcomes and timescales involved.

Good quality research	7
Above average quality research	6
Acceptable quality	5

Not fundable (without significant changes)

- Research questions are not directly relevant to the scientific understanding of Parkinson's or do not address the priority research areas for people affected by Parkinson's.
- Inappropriate methods and research design of only modest or poor quality.
- Applicants without relevant research experience or key disciplines not represented.
- The proposed fellow's expertise and suitability to carry out the project is not appropriate for the proposed project.
- Poor value for money.
- Key elements of the application are unclear.
- Limited evidence of patient and public involvement with unclear plans.
- Plain English summary is unclear, does not accurately reflect the research proposal and is unrealistic about the potential outcomes and timescales involved.

Borderline quality research	4
Below acceptable quality	3

Definitely not fundable

- Irrelevant research questions.
- Poor/flawed/duplicative methods and research design.
- Key skills missing from the research team.
- Very poor value for money.
- Unclear application.
- No or limited evidence of appropriate patient and public involvement in the
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- Plain English summary is unclear, does not accurately reflect the research proposal and is unrealistic about the potential outcomes and timescales involved.

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