Paul Instrument Fund Scheme Notes

1.   Overview

Aim: The Paul Instrument Fund (PIF) provides grants for the design and construction of apparatus to measure phenomena in the physical sciences. Applications should contain genuinely new ideas, techniques or highly novel applications of existing ideas and techniques. The design and construction of a novel instrument as a result of combining several concepts and/or commercially available parts is only acceptable if the result is greater and more innovative than the sum of the constituent parts.

The Instrument should, as far as possible, be a standalone device and might be an outcome of a previous extensive research programme. The fund requested should not be to acquire or part fund an instrument or facility to support an existing or future programme of research in the sole applicant's and collaborators' laboratory. Instead, the proposer must demonstrate the applicability of the instrument to others in the scientific community.

Subjects covered: Physical sciences including pure and applied physics, biophysics and medical physics.

2.   Eligibility Requirements

Applicant must:
- hold a PhD
- be either a UK citizen and/or resident in the UK
- have sufficient tenure in their post to cover the duration of the award.

Length of tenure: 1- 3 years.

Place of tenure: UK University or not-for profit research institute.

Value: Up to £75,000 including staff costs - up to no more than 30% of the total funds requested. (Please note purchase of new instrument will not be covered with this grant).

3.   Timings and assessment criteria

Closing date: 15:00 (UK time) 22 May 2018

Note the deadline for the Head of Department Statement is the same as the round closing date: **15:00 UK Time 22 May 2018.**

Review process: Applicants should be aware that this application form will be considered by the selection panel who will prepare a short list for further consideration.

If your application is shortlisted, an assessor will be assigned to visit.

Results available: It is expected the results of the competition will be available around mid-March 2019. Please note that applications shortlisted by the Panel, will be assigned an independent

assessor that will visit and discuss your application with you, which is likely to fall between October to December 2018. The assessor will then make a recommendation to the committee. Final discussion of recommendations will be discussed by the Panel in February 2019.

Assessment criteria

The PIF committee also takes particular note of the following:

- The novelty aspect of the instrument proposed, applications are expected to be genuine new ideas, techniques or highly novel applications of existing ideas and techniques
- The feasibility of constructing the instrument and its successful operation
- The urgency of the instrument in terms of value to others and the contribution to science
- The value of the research within a broader scientific context, including any planned technology transfer or wealth creation; especially with an industrial application

Other Important information to note:

Intellectual Property: The Paul Instrument Fund was established through the will of the late R W Paul, which specifies that awardees should not obtain patents for instruments supported by Paul Instrument Fund money without first agreeing to such conditions and stipulations which the Fund Committee might impose. If successful, awardees who intend to licence or in any way generate income from an instrument developed or supported by the Paul Instrument Fund must first agree suitable conditions with the Fund Committee.

- Applications will be made using the new Flexi-Grant® system. FAQ and Troubleshooting information can be found online (support.flexigrant.com/support/home)
- Please read the enclosed scheme guidance notes to help you complete your application.
- If your research will generate data of significant value to the research community, we ask you to provide additional information on your data management and sharing plan.

4.   Application Guidance Notes

Using Flexi-Grant®

Applications can only be submitted online using the Royal Society's Grants and Awards management system (Flexi-Grant®) via https://grants.royalsociety.org**.** Further information about the Grants and Awards Management system can be found via https://royalsociety.org/grants-schemes-awards/grants/flexi-grant/. If you have not previously used Flexi-Grant®, please follow the registration process from the Flexi-Grant®, homepage. **Paper-based applications will not be accepted.**

Before completing the online form, all applicants should check that they comply with the eligibility requirements and ensure all necessary information is presented in the application. These requirements are strictly adhered to and applications without all the necessary information, or evidence to show the assessment criteria are met, will be rejected.

All applications must be approved by the UK Host Organisation before you can submit via Flexi-Grant®. Late applications will not be accepted.

ORCID identifier

All applicants applying to the Royal Society will be required to submit an ORCID (Open Researcher and Contributor ID) identifier before their application will be accepted for submission. ORCID maintains a registry of unique researcher identifiers and a transparent method of linking research funding, research publications, research data and any other research outputs to these unique

identifiers. This is a mandatory requirement at the application submission stage only. You can register for an ORCID identifier via https://orcid.org/register.

Adding Participants

All applications must be commenced by the UK applicant. To invite a participant (i.e. Head of Department) to your application, the participant will need to be registered on Flexi-Grant®. You will need to ensure you have their registered email address to invite the participant on the participant tab. **Once participants have completed all their sections of the application form, please remind them to select 'Save & Submit' on the application form page or select 'Submit your contribution' on the summary page.**

The Research Support role displayed under the participants tab is an optional role, which allows you to invite an individual from the relevant UK Host Organisation research support team to review and amend the application prior to submission. The primary purpose is to ensure that the requested finances have been recorded correctly for this specific grant programme.
As this is an optional role, it will not affect your ability to submit your application for approval.

Completing the application form

Note that questions with * are mandatory fields. Please read these guidance notes carefully as you complete the form.

The application can be completed by using the navigation tabs on the application summary page, with each page categorised as follows:

> **Summary**
> **Eligibility Criteria**
> **Contact Details**
> **Applicant Career Summary**
> **Research Proposal**
> **Use of Animals in Research**
> **Financial Details**
> **Applicant Declaration**
> **Head of Department Support**

A full list of question fields to be completed as part of the application can be found in the following pages. In the following table each box represents a page of the application form; the left-hand column contains the questions within each of these pages as set out in the form; the right-hand column contains useful guidance on its completion.

Please note that questions with * are mandatory fields, which is typically the majority of questions. You will only be able to submit your application for approval by the Host Organisation once all sections of the application form have been marked as complete, and your participants have marked their work as complete (please check the status of participants under the participants tab on the application form summary page). Late applications will not be accepted.

Summary	
Summary Table	The summary page of the application form provides instructions for submission of your application for approval from the UK Host Organisation. In addition you are provided with an overview for each section of your application form, the approximate length of time it will take to complete each section, and the number of participants required to participate in completion of your application from. Participants can be invited from the participant 'tab' which can be located just above the **page summary** header.

Eligibility Criteria	
Eligibility Criteria*	Details of the eligibility criteria can be found on page 1. Please make sure that you meet all the eligibility criteria.

Contact Details	
Title, Names, address, organisation and country*	Review and complete your *personal details* accurately. Errors in this section can cause difficulties in processing your application. The address must be of the **organisation** at which you are employed. **Note:** correspondence in connection with this application will be sent to the applicant.
Email address*	This field defaults to the account in which the application has commenced, and is where all correspondence pertaining to the application throughout the application process, and in the event of the application being successful, will be sent. The applicant must therefore commence the application using the login email address used to register a user account on Flexi-Grant®.

Applicant Career Summary	
Title of Current Position*	Please state the title of your current position. *(20 words max.)*
Host Organisation*	Please select the organisation where the award will be held from the drop down list. Please note that this should be the official name of your **current employer**.
Current Department*	Please enter details of your current department name (e.g. Department of Astrophysics).
Current Position Start Date *	Please enter the date when your current position started.
Current Position end Date*	Please enter the date when your current position is expected to finish. If you are on a permanent contract please enter **31 December 2050** as your end date.
PhD Award Date*	Please enter the date that you were awarded your PhD. If you have not received your PhD, please enter your expected completion date below. If you do not hold a PhD please enter 00/00/0000.
Qualifications *	Please list all your qualifications in reverse chronological order. **Note:** Please retrieve your qualifications from ORCID or list all your qualifications in reverse chronological order.
Career History *	Please list all of your appointments since your PhD and the dates in reverse chronological order, stating if part-time (and percentage part-time) when necessary. **Note:** Please retrieve your career history from ORCID or list all your posts and the dates in reverse chronological order.
Subject Group *	Please select the subject group that most closely reflects your area of research from the drop-down menu.
Summary of Your Current Research *	Please provide an outline summary of your present research. Please also include a brief comment on the strength of your organisations. *(200 words max.)*
List your key and/ or relevant publications *	Please provide details of authors, titles and references of your best publications in refereed journals, in reverse chronological order. You should choose not only the best but also those most relevant to the application to support your case.

	Please provide up to **five** of your best publications. **Note:** Please retrieve your key publication from ORCID or list your publication n reverse chronological order.
Applicant Research Funding	Please list all your current and previous research funding in reverse chronological order. You should include details of any current and previous research funding relating to the proposed project.
Pending Applications	Please give details of any pending applications for research support or details of any pending patents. You should include details of any pending applications relating to the proposed project.

Research Proposal	
Project Title *	Please provide a title for the proposed instrument. *(20 words max)*
Start Date *	Please enter the proposed start date of the project. This must be on or after **1ˢᵗ April 2019**
End Date *	Please enter the proposed end date of the project. This must be within three years of the start date
Keywords *	Please provide 5-10 keywords that could be used to describe your research. This will aid with identifying the most appropriate peer reviewers.
Subject Group *	Please select the subject group that most closely defines the research area of the research proposal from the drop-down menu.
Subject Area*	Please select one or more subject areas that most clearly defines the research area of the research proposal from the subject sub-category list.
Lay Summary *	Please provide a lay summary of your proposed project. This should be understandable by a layperson. Explain why you have chosen to work in this subject area and what it is about your proposed research that you find particularly exciting, interesting or important. If applicable, please also explain the potential impact or wider benefits to society of your research. *(250 words max.)*
Research Proposal *	Please provide the details of the proposed programme of work, commenting specifically on what your scientific question is, why it is important and what your experimental approach will be during the duration of the award. **Text box (4000 words) or PDF Upload (Do not exceed 4 pages of A4, portrait orientation.** Please do not use a text size smaller than Arial 10 and please also ensure that the PDF document is not more than 3MB. Applicants are requested to make sure uploaded PDF documents are unlocked.
Participants	List other project participants, their current academic role/post and why you wish to include them on the project. For example, this could be a co-applicant *(200 words max.)*
Patents	Please tell us about any patent you hold relating to the proposed project.

Commercialisation	Please tell us about any commercial partnership agreements you plan to have, and with whom? Plus, what plans, if any, you have to exploit the commercial or economic benefits resulting from the construction of the instrument?
Other apparatus	Please provide details of similar instruments or prototypes which may be applicable or relevant to your application. (Maximum 500 characters including spaces)
Outline of Data Management and Data Sharing Plan*	If the proposed research will generate data that is of significant value to the research community, then please provide details of your data management and sharing plan. *(200 words max.)* The Society supports science as an open enterprise, and is committed to ensuring that data outputs from research supported by the Society are made publically available in a managed and responsible manner, with as few restrictions as possible. Data outputs should be deposited in an appropriate, recognised, publically available repository, so that others can verify and build upon the data, which is of public interest. The Society does not dictate a set format for data management and sharing plans. Where they are required, applicants should structure their plan in a manner most appropriate to the proposed research. The information submitted in plans should focus specifically on how the data outputs will be managed and shared, detailing the repositories where data will be deposited. In considering your approach for data management and sharing, applicants should consider the following: • What data outputs will be generated by the research that are of value to the public? • Where and when will you make the data available? • How will others be able to access the data? • If the data is of high public interest, how will it be made accessible not only for those in the same or linked field, but also to a wider public audience? • Specify whether any limits will be placed on the data to be shared, for example, for the purposes of safeguarding commercial interests, personal information, safety or security of the data. • How will datasets be preserved to ensure they are of long-term benefit?

Use of Animals in Research

The Royal Society is committed to supporting the development of alternative methods to reduce and/or replace the use of animals in research. Applicants proposing to use animals in their research must ensure that the use of animals falls within the regulations stipulated in the Animals (Scientific Procedures Act) 1986 and subsequent amendments. Additionally, applicants should continually be aware of developments in best practice, and adopt the principles of the 3Rs (https://www.nc3rs.org.uk/the-3rs) when designing and conducting experiments on animals.

As a funder of research, the Society takes its responsibilities towards the UK Animals (Scientific Procedures Act) 1986 seriously, and requires applicants to consider the questions below when preparing grant applications that include the use of animals.

Does your proposal involve the use of animals or animal tissue?*	Select 'Yes' or 'No'. If you have selected 'Yes' it is mandatory to complete all of the relevant questions on the Use of Animals in Research page.

Financial Details

General Information	Please provide a summary of your requested budget in the table provided. The total requested cost should not exceed £75,000 (including VAT if applicable).
	Please include a breakdown of proposed expenditure including details of basic salary, consumables and equipment.
	Applicants must consult with the appropriate financial administrators when completing these details. Please note this scheme is not covered by Full Economic Costing.
Financial Details	Please provide details of the funding required for each year of the research grant under the relevant headings.
Basic Salary*	State the required basic salary contribution. Salaries should be as up to date as possible and include earnings related national insurance contributions, impending increases etc. • No provision can be made for university overheads • Salaries should form no more than 30% of the total funds requested
Equipment * Consumables*	Please note purchase of new instrument will not be allowed
Justification for Salary*	Please provide justification for the amount requested.
Justification for Equipment*	Please fully justify your request for equipment.
Justification for Consumables*	Please provide justification for the amount requested.

Applicant Declaration*
By completing this section you are declaring that the information you have provided in your application is true and correct. • You are also signing to confirm the following: You have read the Terms and Conditions of Award under which Royal Society grants are awarded and, if a grant offer is made, you agree to abide by them. • You have access to the necessary facilities to enable you to deliver the research proposed, and will continue to have access to the facilities for the duration of the project. • You have agreed with your Head(s) of Department that you will be afforded sufficient time and resources to deliver the research project as described in this application.

Head of Department Support*
Confirmation of support of the project is required from the departmental head of the applicant. The applicant must invite the departmental head to participate in completion of the application form before it can be submitted for approval. Head of department should provide a statement on the suitability of the candidate and the merit of the project. In addition outline the proposed support to be provided to the candidate during the grant. Please ensure that you use the correct email address when inviting your Head of Department. In the event that the "applicant" is the Head of Department, statements will need to be supplied by the individual to whom the "applicant" reports i.e. a Dean or Head of Faculty. **Before inviting the Head of Department to participate in completion of your application form, the Applicant is instructed to ensure that the Head of Department are willing and available to provide a confirmation of support prior to the round closing date. Incomplete confirmations will mean that an**

application cannot be submitted and will be deemed to be ineligible.

Please check which email address the Head of Department would like you to use as they may already be registered with a user account on Flexi-Grant®. It is **important** that you enter the correct email addresses when inviting the Head of Department to support your application, as an email will be sent automatically from Flexi-Grant® to the Head of Department with instructions for viewing your application and providing their support. Any mistakes in the email addresses supplied will delay the progress of your application.

It is the responsibility of the applicant to:
- Inform both the academic and industrial Head of Department of the deadline
- Liaise with the Head of Department to ensure that they have received their invitation with instructions to participate in completion of your application, as no provision is made for non-receipt of these automatic emails.
- Keep track of the progress of Head of Department completion status on your application summary page. You can issue a **reminder** email through the participants tab on your application summary page.

If the instruction email from the Royal Society has not been received please:
a) double check the accuracy of the email address supplied on the application form
b) advise the intended recipient to check their spam filters/junk folders
c) contact the Royal Society with an alternative email address for the recipient

The Royal Society will not be held responsible for automated emails that are not received due to address errors or spam filters.

Once you have submitted your application for approval by your host organisation, automatic emails will be sent to the approving department of your host organisation asking them to log on to the system. You will not be able to submit your application until it has been sent to your host organisation for approval. The organisation approver will either: approve and submit your application, contact you to request modifications, or decline your application and contact you. It is recommended that you allow at least five working days before the deadline for this process.

Please be aware that it is your responsibility to ensure that you complete your application in time for your host organisation to process it (including requesting changes) and provide their approval by the closing date.

If your host organisation approver requests modifications through the Flexi-Grant email facility, they can unlock your application, allowing you to edit it. If they are unsure how to do this, they should contact the Grants Section. Once you have completed the requested changes, please use the application summary to re-submit your application for approval by your host organisation. Please also contact your head of department and alert them to the changes.

Once your host organisation have approved your application and submitted it to the Royal Society it will not be possible to make any changes.

Diversity Monitoring	
Diversity Monitoring	The Royal Society is committed to promoting diversity in UK science, technology, engineering, mathematics, and medicine (STEMM) by seeking to increase participation from under-represented groups. Please help us to monitor how effectively we are doing this by providing the requested information. All questions are mandatory. The information provided will form a confidential statistical record in accordance with the Data Protection Act and will not be used for any purpose other than analysis of the Society's activities.
	This information will be kept separately from the rest of your application and will not be seen by those involved in the selection process, including referees etc.
	You must either complete the form or tick the boxes stating that you 'prefer not to say'. If you do not select a box for each question, the system will regard your application as incomplete and will not allow you to submit it.
	Please note, that where an application contains applicant and co-applicant(s) details, all applicants will be expected to complete the diversity monitoring form.
	The lead applicant and co-applicant(s) are restricted to completing and viewing the diversity monitoring form that is relevant to them as individuals. You are not permitted to view the information provided by the other under this section of the application.

You are advised to print a PDF version of your application and check it thoroughly (including uploaded PDF files) before you finally press submit.

5.   Enquiries

If you have any enquiries about the submission of your application or about the Flexi-Grant® process, please contact the scheme manager by email to innovationgrants@royalsociety.org

Application Submission Process Flow Diagram

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                    │     ROUND OPENS     │
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          │  Applicants fill in form online via       │
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          │  UK Host Organisation and current         │
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    │  Society by deadline 15:00 UK time:  │      │  Rejection   │
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