**Innovation Scholars: Data Science Training in Health & Bioscience**

**Guidance for Applicants**

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## Who can apply?

The following paragraphs set out the eligibility criteria for Innovation scholars: Data Science Training in Health and Bioscience (DaSH), at individual and institutional levels and their responsibilities.

### Eligibility: Applicant

To apply you must have pre-registered and received an invite to the full application stage.

The scheme is open to researchers and professionals from across universities, and other research organisations.

Applicants should have proven experience in the area of data science and/or training provision to enable rapid implementation of their proposals. Collaborations within and across sectors are encouraged. These can include collaborations outside the UK where the lead organisation is eligible.

### Eligibility: Organisation

The host organisation must be eligible to receive Research Council funding ([Further information on organisations eligible to receive funding](https://www.ukri.org/funding/how-to-apply/eligibility/)). Public Sector Research Establishments (PSREs) are eligible to apply to this scheme.

Collaborations within and across sectors are encouraged. Applications with industrial project partners should refer to the [Guidance for Business](#_Guidance_for_Business). Any partnerships should be described in the Team & Management section of the Case for Support. Partners could include industry, charities, professional bodies and existing research or training networks.

### Funding Opportunity Remit

Applications should result in training opportunities in data science to upskill health & bioscience researchers, relevant to one or more of the following themes:

* Data stewardship, management & sharing
* Manipulation & analysis of complex large-scale data
* Data modelling skills & training in data exploration/interpretation
* Integration of different types of data, such as imaging and genomics
* Software, computing, statistics or mathematics skills contextualised for data-intensive biosciences

Data science training in health and bioscience may be relevant to a number of inter-related areas such as bioinformatics, computational biology, healthcare informatics and systems biology.

Pertinent data and technical challenge areas include (but are not limited to) genomics & gene expression, proteomics & metabolomics, image analysis & phenotyping, digital health data, AI & machine learning, data visualisation, modelling, and reproducibility/good research practice (e.g. experimental design, workflows, fostering FAIR data principles) within data-intensive science.

A key objective is to give researchers the self-confidence and skills to analyse their own data.

***Training approaches***

Improvements may be delivered through a range of activities, mechanisms and approaches, within one or more of the following priorities:

* New, improved and expanded content, e.g. new learning materials, trainer resources
* New ways of working, e.g. development of high quality, open peer-learning environments, innovative pedagogy
* Approaches to broaden availability, suitability & usability of training resources for continuing professional development across different career stages, skill levels, and sectors within health & biosciences
* Integration & alignment of training resources to increase coherence and promote skills development pathways
* Intensive face-to-face short-courses & summer schools’ to meet priority skills needs (foundational or accelerator skills within scope)
* Virtual & remote training, including combinations of self-directed & trainer-supported activity
* Train-the-trainers approaches to strengthen capability across the UK to deliver training

***Audience***

Training should be broadly available to the UK research and innovation community, with a strategy to engage academic, industry and clinical researchers where relevant. This call will contribute to building digital workforce capacity and skills for data-intensive science in the UK, which are in high demand within the health and biosciences.

Consideration must be given to research culture and ensuring equality and inclusion in delivering the training offering (e.g. outreach to underrepresented groups, flexible access, approaches to selecting course participants). Offers must be outward facing beyond individual research organisations and geographic locations, and must support continuing professional development across career stages. The call is not intended to directly support MSc or PhD programs.

Applications should clearly outline the training need and how they uniquely fit into the wider training landscape, including opportunities for synergy with existing training resources and activities where relevant.

## Financial support available

£5 million is available, from which it is anticipated 5-10 awards will be made. There is no limit to the total support an application can request, but applicants should be mindful of the budget available and anticipated number of awards.

Awards will be a maximum 2 years in duration. Each award will support costs for staff and consumables to undertake the project.

The DaSH award cannot be used for:

* Full or partial PhD studentships
* Full or partial MSc/MRes studentships: UKRI does not provide funding for stand-alone master’s training grants
* Conference attendance/travel bursaries
* Subscriptions to existing platforms
* Training aimed *primarily* at non-UK based researchers and innovators
* Training aimed *primarily* at individuals undertaking undergraduate or postgraduate study
* Large infrastructure costs. Costs for equipment required to carry out the project will be considered.

Further details can be found under **Resource Summary**.

## Creating your Je-S account

All Investigators (Principal Investigators and Co-Investigators) are required to hold a Je-S account type, which allows their inclusion within the Je-S proposal as either PI or Co-I (Investigator).

Investigators from currently ineligible organisations e.g. PSRE’s should follow the guidance in section (1), below. Investigators affiliated with e.g. Higher Education Institutes, Independent Research Organisations (that have been through the official eligibility process), should follow the guidance below in section (2).

1. Investigators from currently ineligible organisations e.g. PSRE’s, should Self-Register their organisation by selecting the following link: <https://je-s.rcuk.ac.uk/JeS2WebLoginSite/CreateOrg.aspx>. Following the addition of the organisation to the database, any Investigators (PI and/or Co-I), from that Organisation should be directed to Create their Je-S Account by selecting the following Create Je-S Account link: <https://je-s.rcuk.ac.uk/JeS2WebLoginSite/CreateAccount.aspx>.
2. Investigators from Higher Education Institutes, Independent Research Organisations (that have been through the official eligibility process), that do not currently hold a Je-S Account, should navigate to the create Je-S Account section of the Je-S login page: <https://je-s.rcuk.ac.uk/JeS2WebLoginSite/CreateAccount.aspx>.

Applicants must create a Je-S account type, which allows them to be included as an Investigator on the project (see below screenshot):

Where the Applicant is from a currently eligible Research Organisation e.g. HEI, the applicant should ensure they liaise with their Organisation’s Research Office responsible for proposal submissions, to confirm how much time they will need to process the application and complete the final submission process before the advertised call closing time/date.

Lead applicants from non-registered organisations e.g. PSREs, submit directly through Je-S to MRC.

Should applicants require assistance with any Je-S related matter, please contact the Je-S Helpdesk:

* Email: JeSHelp@je-s.ukri.org
* Phone: +44 (0) 1793 44 4164 (current limited opening hours 9am – 1pm, for telephone enquires)

## How to apply

The call will be available to select on Je-S from 13th October 2020. All proposals must be completed and submitted through the Je-S system by 16:00 (GMT) on 17th November 2020. Applications received after the deadline will not be considered.

In Je-S, all applicants to should select the following:

* From the applicant’s Je-S account home page, select ‘Documents’ from the left-hand menu list, then select ‘New Document’ from the functions section near the top of the page
* Council: **MRC**
* Document Type: **Research proposal**
* Scheme: **Research Grant**
* Call name: **(Invite Only) - Innovation Scholars: Data Science Training in Health & Bioscience 2020**

Please note that when an application is submitted through Je-S it does not pass directly to the Innovation Scholars team, but to the UKRI Grants Team who will then process the submission.

Should applicants require assistance with any Je-S related matter, please contact the Je-S Helpdesk:

* Email: JeSHelp@je-s.ukri.org
* Phone: +44 (0) 1793 44 4164 4164 (current limited opening hours 9am – 1pm, for telephone enquires)

## The application

### The proposal form in Je-S

The Je-S proposal form provides a summary of the whole project. Some of the sections are related to mandatory attachments, the attachments provide the detail required for decision-making purposes.

The main sections and headings in the proposal form are set out below, along with a description of the information required in each section.

### Organisation where the grant should be held

The lead RO will be responsible for administering the grant.

### Your reference

Please provide a suitable reference which will serve as your identifier for the proposal. Please note that once your application is submitted through Je-S, it will be assigned a unique reference number, generated by the system, which will be the main identifier for your application from this point onwards.

### Project title (150-character limit)

This should reflect the aim of the proposal.

### Start date and duration

Projects awarded are expected to start by 14 February 2021. This is flexible, but applicants wishing to start their project significantly after February 2021 should discuss their plans with the Data Science Training team (DataScienceTraining@ukri.org) prior to applying.

The duration may be up to a maximum of 24 months, dependent on the project requirements. Once a grant has been issued, grant holders are required to make every effort to start by the agreed date and to terminate the project in the stated duration.

### Applicants, including investigators

* Applicant to be entered under the ‘Principal Investigator’ heading.
* Partner(s) to be entered under the ‘Co-Investigator’ heading.

### Objectives (4000-character limit)

List the main objectives of your proposal in order of priority.

### Summary\* (4000-character limit)

Provide a plain English (layperson’s) summary of the proposed work, explaining the aims and objectives of the proposal, rational for the proposed project and the potential applications and anticipated benefits of the work.

\* This summary, including your name and institution, will be published on publicly available sites including UKRI Gateway to Research should the project be funded. Please ensure confidential information is not included.

### Technical summary\* (2000-character limit)

Provide a more in-depth summary aimed at panel members (academic and non-academic) who have some knowledge of the areas of research involved. This should cover the training need you plan to address and methods to be used.

\* This summary, including your name and institution, will be published on publicly available sites including Gateway to Research should the project be funded. Please ensure confidential information is not included.

Note: We request that applicants do not include the words ‘Cov-19’, ‘Covid-19’ or ‘Coronavirus’ in the ***Title, Summary or Technical Summary*** sections unless the application relates to proposed research in this area.

### Resource Summary

Proposals will be assessed on the quality of the training and value for money in terms of the resources requested, including whether or not the funds requested are essential and adequate for the work and justified by the importance and potential of the proposed training. Costs sought should be specified as far as possible in the proposal.

### Costing your proposal/Application Costs

Important Note: This call aims to build data science skill capacity on a national level with impact beyond individual research organisations. Therefore, all costs relating directly to the development and delivery of training will be made at 100% of the requested funding. All other costs are subject to Full Economic Costing (FEC). Applicants should read this section carefully and contact DataScienceTraining@ukri.org if unsure on how to input costs.

Costs must be presented within the fund types in the Je-S proposal form. The fund heading and type will depend on the nature of the cost incurred. For the DaSH scheme, the majority of costings directly associated with development and delivery of training should be entered under ‘Exceptions’ for each heading.

|  |  |  |  |
| --- | --- | --- | --- |
| **Fund type** | **Fund heading** | **Examples** | **% MRC Contribution** |
| Exceptions: Costs that are directly associated with development and delivery of training | * Exception – Staff
* Exception - Travel & Subsistence
* Exception - Other Costs
 | * Salary of any member of the project team (e.g. PI, CoI, postdocs, technicians, statisticians, technologists, methodologists etc.) working 100% of their time on this project or where their time is supported by a full audit trail
* Consumables (includes small items of equipment costing <£10k inc VAT)
* Consultancy fees
* Subcontractor costs
 | 100 |
| Directly Allocated (DA): Costs of resources used by a project that are shared by other activities. Charged to projects on the basis of estimates. Do not represent directly auditable costs on a project-by-project basis. | * DA - Investigator
* DA - Estates Costs
* DA- Other Directly Allocated

(includes pool staff, infrastructuretechnicians and other staff) | * Salary of PI and CoIs if they are working on several projects and activities
* Salary of postdocs, technicians, statisticians, technologists, methodologists working within core facilities and shared with other activities (when not included within the ROs estates or indirect cost rates)
* Facility usage costs
 | 80 |
| Indirect Costs: RO overhead costs | * Indirect costs
 | * Individuals categorised as research staff on the proposal form attract an indirect cost. Technicians and other research support staff, such as computer officers, project managers, engineers etc., are not regarded as research staff and therefore are not included in the FTE multiplier for calculating indirect and estates. The [TRAC Guidance](https://www.trac.ac.uk/tracguidance/) provides details.
 | 80 |

Please note, we would not expect awards to be used for computers and laptops for staff on continuing contracts.

### Other Support

Support on current projects from other sources. Applicants must declare any relevant financial support which has been awarded or applied for. This should include any funding that has been obtained or requested for any aspect of the project currently being applied for, by either the applicant or research partner.

### Related Proposals

Please specify if the current proposal is related to a previous proposal to UKRI (e.g. submission to the BBSRC STARS scheme).

### Project Partners

UKRI encourages and supports collaborative research projects and team approaches. Collaborators based in different organisations to the investigators or in industry can be formally recognised in applications as named project partners.

Project partner details should be listed, along with their contribution which may be financial, in-kind etc. An organisation should only be named as a project partner if it is providing specific contributions (either direct or indirect) to the project.

Please note project partners do not need to be based at an eligible RO or have a verified Je-S account.

The applicant should include details of the Cash and/or in-kind contributions the Project Partner is providing the project.

Attach a letter to the proposal from each partner added to the Je-S proposal (see below for details of the information we need the partner organisation to provide within their Letter of Support).

These letters are added within the project partner screen, not within the attachments section. Having added the details for your item press “Save” which will then provide a link to add the attachments.

The content of the letter should:

Confirm commitment to the proposed project;

Clearly explain the value, relevance and possible benefits of the work to the project partner; give the nature and equivalent value of any in-kind contribution, and/or declare the value of a cash contribution, and period of support; and describe the added value to the project of the project partner’s involvement.

The letter should be dated and should be written when the proposal is being prepared. The letter should be targeted specifically to the project. A standard letter declaring support for the proposed work is not helpful.

**Please note, the Project Partner Letter of Support is added to the Project Partner entry added to the Je-S form (Do NOT add to attachments section of the Je-S form).**

Applications including industry collaborators should follow the [Guidance for Business](#_Guidance_for_Business) Collaborators.

### Technical and ethical considerations

Please complete each of these sections with the required information by ticking the appropriate boxes.

## Supporting attachments in Je-S

All applications require a completed proposal form accompanied by several mandatory attachments. Attachments must conform to the following requirements:

* completed in Arial font size of 11pt, excluding text on diagrams and the use of mathematical symbols;
* use single line spacing and standard character spacing;
* have margins that are not less than 2cm;
* PDF documents with numbered pages and logical file names so that information can be found easily.

All templates referenced below can be found on the call page under ‘[Supporting documents’](https://www.ukri.org/funding/funding-opportunities/innovation-scholars-data-science-training-in-health-bioscience/).

This scheme has no returns period. Failure to provide required components or information may mean that your proposal will be withdrawn from the scheme. Any additional attachments other than those listed below will not be considered by the panel.

**Table 1: Supporting attachments in Je-S**

| **Mandatory attachments**  | **Conditions**  |
| --- | --- |
| Case for Support | Applicants must use the template providedA maximum of six sides of A4 (including references) |
| Capability to Deliver **(Upload to Je-S using the Supporting Data attachment type)** | Applicants must use the template providedA maximum of two sides of A4 per application |
| Gantt Chart | A maximum of one side of A4 |
| Justification for Resources  | A maximum of two sides of A4 |

|  |  |
| --- | --- |
| **Additional attachments** | **Conditions** |
| Data Science Training Industrial Collaboration Agreement (DSTICA) (**Upload to Je-S using the MICA form attachment type**) | For more information see [Guidance for Business Collaborators](#_Guidance_for_Business)Business collaborators must use the template provided |
| Heads of Terms | For more information see [Guidance for Business Collaborators](#_Guidance_for_Business) |

### Case for Support (maximum of six sides of A4)

This should be a self-contained description of the proposed training with relevant background and should not depend on additional information. Please note justification of resources is not required in the Case for Support. This is a separate document which should be attached to each Je-S application.

Applicants must use the template provided.

### Capability to Deliver (maximum of two sides of A4)

Applicants must use the template provided and upload as a Supporting Data attachment type. Only one document should be completed per application, regardless of the number of named investigators or organisations involved. No additional CVs or publication lists should be uploaded.

The Capability to Deliver should only include information relevant to the application. Unnecessary personal data (e.g. home address, date of birth, personal phone numbers and emails) should NOT be included.

### Justification of resources (maximum of two sides of A4)

Cross council guidance on writing a good justification of resources (JoR) document is available on the [Je-S Handbook](https://je-s.rcuk.ac.uk/handbook/pages/GuidanceonCompletingaStandardG/CaseforSupportandAttachments/MRCSpecificGuidance.htm).

For the DaSH scheme, the majority of costings should be entered be under ‘Exceptions’ for each heading. See Resource Summary for further details.

The role of the JoR is to aid reviewers when assessing proposals so that they can make an informed judgment on whether the resources requested are appropriate for the research posed. The JoR is a mandatory attachment to the proposal and should be no more than two sides of A4. It should take into account the nature and complexity of the proposal. It should not simply be a list of the resources required (already defined in the Je-S form). All items requested in the Je-S form must be justified in the JoR. The JoR is a free text document. We recommend that you match the costs to the proposal headings below (where appropriate) so that you do not miss any costings from the Je-S form or any justifications for the items requested. All items listed under Exceptions must be fully justified as to how they will directly contribute to development and delivery of training.

**Gantt Chart (maximum of one side of A4)**

Provide a diagrammatic workplan of proposed project to demonstrate that your team can deliver the stated aims in the available time.

This attachment cannot be used for any other purpose.

## Guidance for Business Collaborators

Any proposal involving a collaboration with one or more industrial partners (contributing either in cash or in kind) will be handled as a DSTICA. DSTICA is a mechanism to support the establishment of an agreement between academic and business partners, which can be applied to the DaSH call. DSTICA facilitates collaboration as it allows partners to work out and clearly specify arrangements for relative responsibilities, governance, regulatory approvals, indemnity, intellectual property rights, reporting, and access to data before a project starts.

In addition, DSTICAs help to establish that proposed collaboration arrangements are eligible under subsidy rules. UKRI reserve their position to adapt the funding model to comply with future UK subsidy rules.

If a proposal involves business collaboration, applicants need to:

* Label their proposal ‘’DSTICA:’’ before the project title

(For example - DSTICA: Development and delivery of data science training)

* Include a completed DSTICA form attached as a pdf in the Je-S using the MICA form attachment type
* Include an agreed Heads of Terms, attached as a pdf in the ‘Attachments’ section of Je-S
* Provide the name of their business partner’s organisation, the name of their industry partner’s contact and their business partner’s contribution under the ‘Project partner’ section in Je-S.

Failure to submit a DSTICA application with a completed DSTICA form and agreed Heads of Terms may result in your application being rejected.

### DSTICA Form

Every DSTICA application needs to include a DSTICA form and a Heads of Terms where applicants are asked to set out the following:

* Details of the lead applicant and industrial partner
* The objectives of the collaboration
* The collaborators and their contributions
* How the results of the collaboration will be disseminated
* How the proposed collaboration/outsourcing either enables the planned training to be undertaken or enables the planned training to be undertaken to the required quality or timescale.
* Why, in the absence of the requested funding, the planned training could not be undertaken or could not be undertaken to the required quality or timescale.
* Whether the academic applicants have a direct or indirect interest in the industrial collaborator(s) and, if so, how conflicts of interests between the parties are being managed.
* The value of the industrial party’s contribution
* How IP emerging from the collaboration will be managed

### Heads of Terms

The Heads of Terms (HoT) facilitates academic-industry collaborations as it allows partners to think through and work out arrangements for relative responsibilities in relation to governance, intellectual property rights, reporting, and access to data and samples before a project starts. The HoT should, as with the DSTICA form, be submitted together with your application. In contrast to the Collaboration agreement, the Heads of Terms is not a legally binding document. However, the terms set out in the two documents should be consistent with each other and any substantive post-award changes need to first be approved by UKRI.

The HoT should be agreed between the partners and set out the following:

* Scope and aims of the proposed project
* Duration of project
* Key tasks and responsibilities of the partners
* Project management arrangements
* Financial/resource contributions
* IP management and distribution arrangements
* Publications and announcements
* Withdrawal/Change of Control
* Termination

The maximum page limit for the HoT is six pages of A4. UKRI does not have the capacity to broker agreements between collaborators, and does not provide a specific template for the Heads of Terms.

### Collaboration Agreement

Any award offer will be conditional upon UKRI receiving a copy of a fully signed, legally binding collaboration agreement, between the partners (which must be consistent with your submitted Heads of Terms) within three months of the issue of an award letter and in advance of a project starting. Changes to the collaboration agreement, including changes of partners, will require prior UKRI approval. We will need to be satisfied that the original aims of the project can still be met and that the project continues to comply with future UK subsidy rules.

As with the Heads of Terms, we do not provide a template for the final agreement. Applicants may however want to consider using the Lambert agreement template.

Please send an electronic copy of the signed agreement to: DataScienceTraining@ukri.org

## Submission process

For this scheme, applicants need to submit an outline proposal before making a full proposal. Minimal feedback will be given at the end of the outline stage. Such feedback is designed to help applicants improve the quality of their subsequent full proposal (if invited) to strengthen its competitiveness.

It is the applicant’s responsibility to ensure they apply to the correct funding call/type of grant and that their application is submitted with adequate time to allow their research organisation, to complete necessary checks and complete the final submission (through JeS), to UKRI by 16:00 (GMT), on the advertised UKRI submission deadline. The applicant(s) must read and understand all guidance. If in doubt, please contact the Data Science Training in Health and Bioscience Team for further information.

## Review

Proposals will be evaluated by a panel with broad expertise in data science and/or training delivery. User perspectives will also be included.

Panel assessment criteria will include:

* Scientific value & quality of training
* Strategy
* Value & impact
* Team & management

Further details on the assessment criteria are included in the [call text](https://www.ukri.org/funding/funding-opportunities/innovation-scholars-data-science-training-in-health-bioscience/).

## Post Award Expectations

This call will contribute to building digital workforce capacity and skills for data-intensive science in the UK, which are in high demand within the health and biosciences. Training programmes are expected to be ambitious and deliver at regional/national scale and support best practice in data management. Award holders may therefore be requested to participate in UKRI activities to disseminate training opportunities and to promote the principles of Open Research Data ([Concordat on Open Research Data](https://www.ukri.org/files/legacy/documents/concordatonopenresearchdata-pdf/)).

## Useful Contacts

### Je-S helpdesk

Please note that when an application is submitted through Je-S it does not pass directly to the DaSH team, but to the UKRI Grants Team who will then process the submission. Should applicants require assistance with any Je-S related matter, please contact the Je-S Helpdesk:

* JeSHelp@je-s.ukri.org
* +44 (0) 1793 44 4164 4164 (current limited opening hours 9am – 1pm, for telephone enquires)

When reporting problems by e-mail or telephone, please supply the following information:

* Your name, organisation and user id
* The date and time
* The part of the form or system you were working on when the problem occurred
* The nature of the problem

### Innovation Scholars: Data Science Training in Health and Bioscience Team

For questions specific to the scheme: DataScienceTraining@ukri.org