SCIENCE FOUNDATION IRELAND

Career Development Award Programme 2016

Call for Submission of Proposals

Version 1.6: 10th Aug 2016

KEY DATES	
Call announcement	**31st August 2016**
Research Body notification of approved candidates	**16th Dec 2016 13:00 Dublin Local Time**
Deadline for submission of proposals	**22nd Mar 2017 13:00 Dublin Local Time**

Terms of Reference

While every effort has been made to ensure the accuracy and reliability of this document, it is provided for information purposes only and as a guide to expected developments. It is not intended, and should not be relied upon, as any form of warranty, representation, undertaking, contractual, or other commitment binding in law upon Science Foundation Ireland, the Government of Ireland, or any of their respective servants or agents. SFI Terms and Conditions of Research Grants shall govern the administration of SFI grants and awards to the exclusion of this and any other oral, written, or recorded statement.

All responses to this Call for Submission of Proposals will be treated in confidence and no information contained therein will be communicated to any third party without the written permission of the applicant except insofar as is specifically required for the consideration and evaluation of the proposal or as may be required under law, including the Industrial Development (Science Foundation Ireland) Act, 2003, the Industrial Development (Science Foundation Ireland) (Amendment) Act 2013 and the Freedom of Information Acts 1997 and 2003.

SFI Career Development Award Programme 2016

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1. Introduction

Science Foundation Ireland (SFI) is committed to supporting and developing early- and mid-career researchers to become excellent, fully independent research leaders and offers a suite of funding opportunities to help facilitate this transition, including support for those who are transitioning to independence, transitioning to leadership as well supporting more established research leaders. The purpose of these schemes is to fund scientific research projects of excellence with impact.

Current SFI schemes include the **SFI Starting Investigator Research Grant (SIRG)** which aims to support excellent postdoctoral researchers who wish to take steps towards a fully independent research career; the **SFI Career Development Award (CDA)** which aims to support early- and mid-career researchers who already hold a salaried, independent research post and who are looking to expand their research activities; and the **SFI President of Ireland Future Research Leaders programme** which is a recruitment-only programme designed to attract to Ireland outstanding new and emerging research leaders in both scientific and engineering domains.

In addition to SFI-led schemes, the Foundation provides funding opportunities for early-career researchers through the SFI-HRB-Wellcome Trust funded Research Career Development Fellowship (RCDF) and Senior Research Fellowship in Basic Biomedical Science[1] and the Royal Society –Science Foundation Ireland University Research Fellowship (RS-SFI URF)[2].

SFI is pleased to launch the **2016 Career Development Award (CDA)** programme, which supports excellent investigators still in the earlier stages of their research career who are already in an independent academic position (see Section 2.4 below). The award has a four-year duration and is intended to provide award holders with the opportunity to extend their research activities by allowing research teams to be built or expanded, and to assist in the procurement of required items of equipment and consumable materials to carry out the planned activities.

Research Bodies will be permitted to put forward **a maximum of 12 candidates** for the submission of a proposal to the CDA programme and are encouraged to prioritise their candidates by paying particular attention to the strategic research priorities of their research body, their (or Ireland's) future likely manpower needs in HEIs (e.g., taking into account future retirement patterns, areas of research they wish to develop, etc.), in addition to selecting excellent applicants.

2. Programme Details

2.1 Programme Remit

The legal remit of SFI is to promote, develop and assist the carrying out of oriented basic and applied research in strategic areas of scientific endeavour that concern the future development and competitiveness of industry and enterprise in the State. Innovation 2020[3] is Ireland's five-year strategy on research and development, science and technology. This strategy sets out the roadmap for

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[1] *http://www.sfi.ie/funding/funding-calls/sfi-hrb-wellcome-biomedic/*

[2] *https://royalsociety.org/grants/schemes/university-research/*

[3] *Innovation 2020, Published 2015*

continuing progress towards the goal of making Ireland a Global Innovation Leader, driving a strong sustainable economy and a better society, underpinned by excellent research that is defined within six designated enterprise themes (ICT; Health and Medical; Food; Energy; Manufacturing and Materials; Services and Business Processes).

Since the publication of the report of the National Research Prioritisation (NRP) Steering Group in 2012, which identified 14 priority research areas (that are now positioned within the six enterprise themes listed above), a more focused approach has been adopted in the public funding of research and innovation activity. Research prioritisation has concentrated the majority of Ireland's competitive funding on areas deemed likely to yield greatest economic and societal impact.

For the CDA 2016 call, proposals must either be aligned to one of the 14 priority research areas or to any other area under SFI's legal remit (see below) where there is convincing evidence that there will be significant potential for economic and/or societal impact.

The legal remit of SFI is to promote, develop and assist the carrying out of oriented basic and applied research in strategic areas of scientific endeavour that concern the future development and competitiveness of industry and enterprise in the State[4]. **Oriented basic research** is "*research that is carried out with the expectation that it will produce a broad base of knowledge that is likely to form the background to the solution of recognised, or expected, current or future problems or possibilities*". Additionally, **applied research** is defined as "*an original investigation undertaken to acquire new knowledge and is directed primarily towards a specific practical aim or objective. The results of applied research are intended primarily to be valid for a single or limited number of products, operations, methods, or systems*".

2.2   Objectives of the CDA Programme

- To support excellent scientific research that has potential economic and societal impact.
- To enable those at an earlier career stage who already hold permanent academic positions to advance their careers and build up their research teams and activities;
- To allow researchers in temporary positions to advance their careers and provide them with enhanced opportunities to move into a permanent academic position;
- To maintain Ireland's top 20 position in international bibliometric rankings through an increase in the number and quality of journal publications;
- To offer funding opportunities that enable the attraction and retention of researchers of all nationalities to work in an Irish Research Body;
- To build capacity and expertise that will allow researchers based in Ireland to lead consortia and to win further support through various non-Exchequer funding schemes, such as Horizon 2020;

2.3   Definitions of Applicant, Mentor and Collaborator

The **Applicant** will be a researcher with between 3-15 years' experience beyond the award of their PhD or equivalent qualification[5], who at the time of application will be either in a permanent, full-time academic position (either within the institution at which they wish to base their CDA-funded research or another elsewhere in Ireland or overseas), or employed on a temporary (fixed-term) contract. The applicant, who must not work under the guidance of a supervisor, will have already demonstrated

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research independence *for example* by securing a faculty position, by having several publications without the participation of their PhD supervisor, as well as having a track record with senior author publications, potentially having secured research funding and accumulated supervisory experience.

It is mandatory that, should the application be successful, the applicants must have taken up their independent position at their host institution before an award can commence.

Thereafter, they will be responsible for the scientific and technical direction of the research programme, the supervision of their research team, and the submission of reports to SFI. The applicant has primary responsibility for carrying out the research within the funding limits awarded and in accordance with the SFI Terms and Conditions of Research Grants[6]. The applicant will serve as the primary point of contact for SFI on the award.

The **Mentor** will be an established researcher within the host institution who will give advice and guidance to the award holder and associated team. The mentor may also take the role of a co-supervisor, but it is the award holder who will always act as the primary supervisor. The mentor does not play a supervisory or presiding role to the award holder, but acts solely as an advisor. **The nomination of a mentor is not obligatory in applications to the CDA programme, but may strengthen or formalise the institutional support to be provided to the applicant.**

An **Academic** Collaborator is an individual working in an academic institution who is committed to providing a valuable intellectual and/or technical contribution to the proposed research. As appropriate, Academic Collaborator(s) based in an SFI Eligible Research Body within the Republic of Ireland may receive funding through the grant (see Section 3.12), but the funding allocated should reflect the supporting role that such Collaborator(s) are expected to play in the research programme. CVs must be provided for Academic Collaborators.

Industry partners are not obligatory, but are permitted and, where appropriate for the topic of the research, are encouraged. An industry partner should be listed within the documentation as an **Industry Collaborator**. CVs may be provided for Industry Collaborators; failure to provide CVs may disadvantage an application during the review process. Each Industry Collaborator must provide a letter of support with the grant application and this must clearly outline the role of that Industry Collaborator in the programme of research proposed.

The role of either the Academic or Industry Collaborator must also be referenced in the main body of the research proposal (for example: Will the Collaborators be supplying samples, data, etc.? Will the Collaborators be providing training in techniques or the use of equipment? Will the Collaborators directly participate in specific projects? Will Collaborators be acting in a purely advisory capacity?). Please see Section 3.13 for details on letters of support.

2.4   Eligibility Criteria of Applicant

All eligible applicants to the CDA 2016 call must meet the following eligibility criteria:

2.4.1 PhD Duration

- The applicant must be an early/mid-career researcher between 3 and 15 years post PhD or equivalent from the date of full proposal submission to SFI (22nd March 2017) and must have been conferred with their degrees in the period 2002-2014.
  - *Applicants holding an equivalent qualification may be eligible, but must seek approval from SFI in advance of submitting a proposal*
  - *The official date of a PhD is defined as the year that the degree was conferred, i.e. the year printed on the official PhD certificate. The number of years is determined by calendar year.*
  - *Allowances will be made for documented leave – see Section 2.4.6 for further details*

2.4.2 Research Independence and Publication record

- The applicant must not be working under the guidance of a supervisor.
- The applicant must demonstrate a proven record of internationally recognised research accomplishments and must be **senior author** (first or last) on **at least five primary research articles** (that is, not reviews or other secondary research articles) in international peer-reviewed publications.

2.4.3 Employment Status

- The applicant must hold a permanent or temporary (fixed-term) contract, salaried by the Research Body or in exceptional cases by an alternative funding source (see FAQs for further information) upon commencement of the award. A contract researcher must hold a contract that covers the period of the grant and must be recognised by the Research Body as an independent investigator with independent office and research space at the host Research Body for which he/she will be fully responsible for at least the duration of the SFI award.

2.4.4 Funding History

- The applicant may not hold or have held a PI-like award from SFI, this includes but is not limited to IvP (except for IvP Projects 2012), PI, PIYRA, President of Ireland Future Research Leaders Award, Research Centres and Spokes co-PI. Current holders of SFI ERC Development grants are not eligible to apply. Current or former holders of SFI awards such as US Ireland, IvP projects (2012), RFP, TIDA are eligible to apply at any point providing all other eligibility criteria are met. Current holders of a SIRG award are eligible to apply in the last 24 months of their award.
- Current holders of a Research Career Development Fellowship (RCDF – SFI HRB Wellcome Trust Biomedical Research Partnership) or a Royal Society-SFI University Research Fellowship may be eligible to apply in the last 24 months of their award (providing all other eligibility criteria are met). You must contact SFI in advance to determine your eligibility.
- Current holders of an ERC Starting Grant are eligible to apply in the last 24 months of their award (providing all other eligibility criteria are met). ERC Consolidator and ERC Advanced Grant current or past award holders are not eligible to apply.

The Research Body must confirm that the applicant meets the above criteria. Where an applicant fails to meet the eligibility criteria outlined above, the application will be deemed ineligible and will not be accepted for review.

<u>2.4.5 Other SFI awards</u>

Please note that submission of an application to the CDA programme may affect eligibility to submit to other SFI programmes – please refer to appropriate call documents. Note also that if a CDA proposal is under active review, proposals cannot be submitted to the SFI Future Research Leaders, Investigators, Spokes, Industry Fellowships, Starting Investigator Research Grant (SIRG) or similar programmes.

Applicants or Co-Applicants holding active SFI awards at the deadline for the submission of proposals to this call (22nd March 2017), or who are under review in other SFI calls, should refer to the information below regarding eligibility for the CDA 2016 call:

Applicants currently under active review by SFI as either Principal Investigator (PI) or co-Principal Investigator (co-PI) under certain programmes are not entitled to apply to the CDA Programme. These programmes include, but are not limited to: SFI Investigators Programme, SFI Research Centres, Spokes, SIRG and President of Ireland Future Research Leaders Award programmes. Please contact SFI in advance of applying to confirm your eligibility for this call where you are currently under review for another SFI programme not listed here.

Applicants or Co-Applicants under review for US-Ireland call are permitted to submit an application to the CDA Programme 2016.

Applicants under review in the Industry Fellowship (IF) 2016 call are permitted to submit an application to the CDA Programme 2016 but *may* be required to withdraw their application upon acceptance of an IF award, where successful.

<u>2.4.6 Eligible Leave</u>

An SFI CDA applicant may extend their period of eligibility by 18 months for each separate period in which they have taken a minimum of 12 weeks of consecutive documented eligible leave since the conferring of their PhD or equivalent.
This can include, but is not limited to the examples below:
- Statutory adoptive leave
- Statutory parental leave
- Statutory maternity leave
- Statutory paternity leave
- Carer's leave
- Long-term medical illness leave
- Conscription

No allowance will be made for part-time working (two years of half-time working counts as two full-time years). The maximum extension to the period of eligibility under this scheme is 4½ years (54 months). Note that career breaks (i.e. to go travelling or for other reasons not in line with those described above) do not constitute eligible leave.
Additionally, applicants may extend their period of eligibility by 12 months for each year spent working in a science or engineering related industry post award of PhD. The maximum extension to the period of eligibility under this scheme is two years (24 months).
In all cases, applicants wishing to extend their period of eligibility must produce documentary evidence from their host institution's Human Resources (HR) Department or, where applicable, the HR Department of their employer at the time of their eligible leave period(s). In addition, a verifiable copy

of the degree certificate must be provided to confirm the date of award of the PhD degree. Applicants must upload the relevant documents onto Sesame (See section 3.7).

Any queries in relation to eligible leave can be forwarded to cda@sfi.ie

2.5   Eligibility of Research Body

The Research Body is the body in charge of the financial and administrative co-ordination of the research programme supported by funding from SFI. A list of eligible research bodies is available on the SFI website.[7]

2.6   Funding

SFI Career Development Awards have a value of between €300,000 and €500,000 direct costs for a period of four years. General overheads, currently 30% of "modified" total direct costs, should not be included in the requested budget (see below).

The expected time commitment to the research supported through this award should constitute a significant fraction of the time available to the award holder. It is understood that CDA holders will actively seek further funding for their research.

The budget requested should include staffing costs for team members, to which SFI will contribute over the four years of the award. These costs must align to the SFI Team Member Budget Scales[8]. Please note that salary contributions must include PRSI at 10.75%. Requests for contributions to the applicant's salary are not permissible in applications to the CDA programme.

The remainder of the requested budget should cover the costs for materials and consumables, equipment and travel (see Section 3.11 for more details).

In addition to the direct costs, SFI also makes an indirect or overhead contribution to the host Research Body, which is reflected as a percentage of the direct costs (excluding equipment). Overheads are payable as a contribution to the research body for the indirect costs of hosting SFI-funded research programmes and are intended to enable the research body to develop internationally competitive research infrastructure and support services.

2.7   Proposal Review Procedure and Criteria

The submission of an application to SFI shall be construed as consent by the applicant to participate in the peer-review process.

Proposals will be assessed through a two stage panel review process, which is defined below and also described in the form of a flow diagram.

Stage 1 Remote Panel Review Stage

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[7] *http://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information/ Please note that Research Bodies that have been approved specifically for SFI non-research programmes are not eligible to apply for funding under the CDA Programme.*
[8] http://www.sfi.ie/funding/sfi-policies-and-guidance/budget-finance-related-policies/
1.-SFI-Team-member-scales_amendments_January-2018_Final.pdf

The assessment will be carried out by panels of distinguished international scientists and engineers. International panel members will be selected with appropriate experience. The panel members will exhibit a broad range of expertise relevant to the proposals under review and the criteria under which they will be assessed.

The proposals will be assessed on the basis of three key evaluation criteria, weighted as described below:

- **Quality, significance, and relevance of the research record of the applicant commensurate with their career stage (weight 40%)**
  Impact and citation level of prior publication; record of securing relevant funding; success with patent applications; visibility at and involvement in international conferences; relevant industrial experience; suitability for a CDA award etc.
- **Quality, significance, novelty, and strategic relevance of the research plan (weight 40%)**
  Novelty, importance, timeliness of the proposed research; suitability of mentor (if applicable); quality of institutional support; communication and description of the research; comprehension of the current state of the art; etc.
- **Potential impact and value to Ireland (weight 20%)**
  Appreciation of how research may be developed and exploited in the medium-to-long term; realistic and convincing evaluation of the benefits that will result from a successful project; areas and fields where impacts are likely to be made; etc.

Applicant Response
Reviews received from peers will be collated and forwarded to applicants. Applicants will then be afforded the opportunity to submit a response to the reviewers' comments. Applicants will be given a defined period of time in which to respond (advance notice of dates and guidelines relating to the response will be indicated to applicants). A triage step will follow the remote panel review and applicant response stages and the highest quality proposals will progress to Stage 2. Applicants will be notified about the outcome of the Stage 1 review upon completion of this process.

Stage 2 Panel Review
International panel members will be selected with appropriate experience and will include a broad range of research areas relevant to the proposals. They will not have been involved in the Remote Panel Review Stage. In addition to briefing material, the panel members will receive the proposal, anonymised remote panel reviews and the applicant's response to the panel reviews. Stage 2 panel members will assess the inputs of the panel reviews and the overall merit and priority of applications. Panels will be invited to rank proposals and to make recommendations on which applications should be given consideration for funding by SFI. The same review criteria will be applied at this stage as used for the Remote Panel Review.

The identity of international experts who conduct either the Postal or Panel reviews shall remain confidential and will not be disclosed to the applicants. However, decisions resulting from the evaluation will be given to the applicant(s), including the remote panel reviews, the Stage 2 panel reviews, where relevant, and the scribe notes recorded by SFI Scientific Staff. SFI shall not be liable for the release of information concerning proposals to third parties by those international scientists involved in the merit review process.

SFI reserves the right to modify the review process. Applicants will be notified of any relevant modification to the review procedure.

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3.   Application Procedure

3.1   Nomination of Candidates by Research Bodies

The research offices of potential host institutions will be expected to instigate a procedure to select candidates for this call. Those wishing to apply to the CDA 2016 call should first contact their intended host institution, informing the Research Office about their identity and credentials (curriculum vitae), the identity of their chosen mentor (if required), and an outline of their intended research plan.

Eligible research bodies may nominate up to **a maximum of 12 candidates** from whom proposals will be invited. Research offices will be asked to submit a list of their approved applicants, provisional titles for their applications, and a description of the selection process that was undertaken in order to select their nominated candidates. Any proposals submitted by applicants not included on this list **will be deemed ineligible and will not be reviewed**.

Please note that Research Bodies must provide SFI with their list of approved applicants by 13:00 on the 16th December 2016. The document should be sent by email to cda@sfi.ie, and may include a maximum of 12 candidates. If more than 12 candidates are included, applications from that institution will be deemed ineligible.

Following successful selection of candidates by the associated host Research Body, approved applicants will be required to submit a proposal to SFI. **Proposals must be submitted online through SESAME to SFI by the Research Office of the applicant's research body before the call deadline (22nd March 2017 at 13:00).**

Only proposals submitted by applicants approved in advance by their host institution will be eligible for this call. Any other submitted proposals will not be accepted for review.

3.2   SESAME

For the 2016 CDA Programme, proposals will only be accepted through SESAME, SFI's grants and awards management system.

All applicants are required to have their SESAME Research Profiles linked to an ORCID iD before an application can be submitted. See Section 3.3 for more information.

Access to SESAME is controlled by staff at the research office of your host Research Body. Please follow your internal organisational process to request this access. Once you have been registered by your research office, **you will receive an email** containing the following:

1. Username
2. Password
3. SFI PIN number
4. SESAME website address

Your **username** and **password** are needed to log in to SESAME.

SESAME is accessed using the Internet; no additional software needs to be installed. You can access SESAME online from any location. The configuration of some browsers and internet infrastructure (popup blockers, firewalls, etc.) can restrict an individual's access to the internet and as a result to the SESAME system. If you are having any such difficulties, please contact your organisation's internal IT support team.

> **The SESAME system is accessed using the following Internet address:**
>
> **https://grants.sfi.ie**

Please see the **SESAME Researcher User Guide[9]** for more detailed information

Once submitted by the host Research Body to SFI through SESAME, an application cannot be withdrawn and subsequently modified for resubmission in the same call, regardless of the date of submission.

Proposals must be submitted online through SESAME to SFI by the Research Office of the applicant's Research Body before the call deadline.

3.3 ORCID iD

ORCID[10] provides a unique identifier for all researchers which can then be linked to their different research works across different platforms. In December 2015, SESAME integrated with ORCID making it possible for researchers with a SESAME Research Profile to connect directly to an ORCID iD from their profile.

There are a number of benefits to creating an ORCID iD, which include the following:

- ORCID allows you to pull information from different platforms creating a centralised reference to your different works (e.g. publications, patents, awards) in one location using a single sign in.
- Your ORCID iD is a unique identifier which distinguishes you from other researchers with a similar name.
- Using the ORCID iD assists in making your research works more visible to funders and publishers. You are able to build a complete picture of your research in one location.

As part of the integration of SESAME with ORCID, it is possible for researchers to import publication data from ORCID directly into their SESAME Research Profile. For the CDA 2016 call, **applicants** are required to link their SESAME Research Profiles to an ORCID iD **before an application can be submitted**.

3.4 Eligibility Questionnaire

Applicants are required to complete the eligibility questionnaire upon commencing an application to the CDA 2016 call (see Section 2.4 for eligibility details).

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[9] *http://www.sfi.ie/resources/SESAME-User-Guide-Researcher-v-6-11.pdf*

[10] *http://orcid.org/*

3.5 General Guidelines for Research Proposal Preparation

Applicants should carefully follow the instructions below in the SESAME Researcher User Guide[9] to complete the various sections of the application. A checklist is provided in Appendix D at the end of this document. Please contact your Research Office well in advance in order to obtain registration details for SESAME.

- **All text in uploaded PDF attachments** must be provided in Times New Roman font, or similar, with minimum font size of 12, and at least single-line spacing as well as a minimum margin size of 2.54cm. Text in diagrams may be in any clearly legible font.
- Uploads in SESAME must be submitted in **Adobe or Microsoft PDF format only**.
- The number of pages in attachments <u>must not</u> exceed the specifications for any given section. **Applications that do not comply with these guidelines will be deemed ineligible and will be returned without review.**
- Appendices or other unsolicited documentation are not permitted. **Applications that include such unsolicited documentation will be returned without review.**
- The currency to be used is the **euro** (€).
- File sizes of attachments should be **less than 5MB**.

> **Applications not adhering to these guidelines or with incomplete content will be deemed ineligible and will not be accepted for review, regardless of the date of submission.**
>
> **It is the responsibility of the applicant to ensure that eligible proposals are received by SFI on, or before, the deadline indicated. In order to safeguard against ineligibility, applicants are reminded to adhere rigorously to the guidelines presented in the call documentation and to review the proposal document prior to submission in SESAME.**
>
> **Applications cannot be withdrawn and modified for resubmission in the same call.**

3.6 Proposal Summary

- **Proposal Title (max. 30 words)**
  The Research Proposal title should clearly convey the nature of the research to be undertaken, and should not contain confidential details, given that the titles of funded proposals are published by SFI.

- **Duration of Award Requested**
  All CDA-funded proposals are supported for a period of 48 months.

- **Resubmission Statement**
  Applicants must declare whether a new submission relates to a previously submitted application to any SFI scheme. If the application is a resubmission, a statement referencing the previous application and explaining the differences must be provided and make reference to reviewer comments where relevant. This statement will assist SFI Scientific Staff in the assessment of eligibility of a revised application and will not be shared with reviewers. See Section 4 for further details.

- **NRP Area**
  Applicants are requested to identify, where possible, the NRP area that best reflects the proposed research. Where a proposal does not align to any of the NRP areas, please select "Other" from the drop-down menu.

- **Research Area -Primary**
  Applicants should select a primary SFI research area from the drop-down menu, which best describes the proposed research.

- **Research Area - Secondary**
  Applicants should select a secondary SFI research area from the drop-down menu, which best describes the proposed research.

- **Alignment to SFI Legal Remit (max. 250 words)**
  This section must be used to describe how the proposed research aligns to SFI's legal remit, as defined in Section 2.1. This statement will be used to determine the eligibility of the application. For more information, please visit the SFI What We Do webpage and refer to Additional Guidance for Applicants on SFI Remit[11].

- **Ethical Issues**
  Applicants are required to answer the questions related to Ethical Issues. Applicants who answer 'yes' to either of the two questions, are required to complete and upload the Ethical Issues Table.

3.7 Lead Applicant Details

- **Location of Applicant at time of Submission**
  Applicants must enter the country in which they are employed at the time of submission

- **Lead Applicant % Commitment to Project**
  Indicate the Applicant's time commitment to the proposed research project as a percentage of his/her total working time. The expected time commitment to the research supported through this award should constitute a significant fraction of the time available to the award holder.

- **Applicant CV**
  A CV for the applicant (**maximum of five pages**) should be completed and uploaded as a PDF document. A link to the template is provided at the top of the application form, and is also displayed at the end of this document (see Appendix A). Publications in peer-reviewed journals (including conference proceedings) should be listed, ensuring that the criteria outlined in Section 2.4 are adhered to. Please indicate with an asterisk those publications where the applicant was the senior author.

- **Eligible Leave**
  If applicable, applicants who have taken documented eligible leave and wish to extend their period of eligibility must upload the information requested in Section 2.4.6 of this call document.

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[11] *Additional Guidance for Applicants on SFI Remit*

- **Publication Output**
  Provide summary information on the total numbers of publications to date. (See Section 2.4 for the eligibility criteria relating to publications).

- **Supervisory Experience**
  The applicant must provide details in the boxes provided on the number of Masters-level students and PhD students that they have supervised through to graduation and who they are currently supervising. The number of other staff currently being supervised (e.g., Research Assistants) must also be detailed.

3.8   Research Funding

Applicants must provide details on expired or current research funding that has been received since the award of their PhD or within the last ten years, whichever is the shorter. In addition, details on pending applications for support should also be provided. Personal awards and those obtained as part of a larger group of investigators should be listed; for the latter, values for the total award and the amount assigned to the applicant must be provided. Information on how to add details on research funding may be found in the SESAME Researcher User Guide[9]. Once all relevant awards have been listed, the following text box should be used to describe (in a maximum of 600 words) any scientific overlap that exists between any of the previously funded projects and the research proposed in the CDA application. **SFI will not support research programmes currently being funded by another source.**

3.9   Collaborator and Mentor Details

- **Addition of Collaborators**
  Include the name, contact information and other requested details of Collaborator(s), if any. Please indicate whether Collaborators are based in academia or industry; only Academic or Industry Collaborators will be considered for CDA 2016 applications (see Section 2.3 for further information). Once details regarding the name and institution of the Collaborator have been added and saved, which is achieved by clicking on the "Save Draft" button at the bottom of the application form, it will be possible to upload the Collaborator CV (**maximum of two pages**) by clicking on the appropriate button. A template is not provided for Collaborator CVs. Relevant publications for the Collaborator should be listed, ensuring that the two-page limit is not exceeded. CVs are mandatory for Academic Collaborators and may also be provided for Industry Collaborators.

- **Addition of Mentor**
  If applicable, information about the nominated Mentor must be included in this section. Clicking on the "Add" button opens a form into which details about the mentor should be completed. Ensure that "Mentor" is selected in the 'Collaborator Type' drop-down menu. **Only one mentor may be assigned in the proposal**. Once details regarding the name and institution of the mentor have been added and saved, which is achieved by clicking on the "Save Draft" button at the bottom of the application form, it will be possible to upload the mentor's CV (**maximum of two pages**) by clicking on the appropriate button. A template is not provided for mentor CVs. Relevant publications for the mentor should be listed, ensuring that the two-page limit is not exceeded. CVs are mandatory for the nominated Mentor.

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3.10 Main Body of Proposal

- **Keywords**
  Keywords/phrases (**maximum of 15**) should be listed from the research discipline or sub-discipline that best describe the research proposed in the application.

- **Scientific Abstract**
  This should be a succinct (**maximum of 200 words**) and accurate summary of the proposed work when separated from the application.

- **Lay Abstract**
  This should be a succinct (**maximum of 100 words**) and accurate summary in lay, non-technical language of the proposed work when separated from the application.

- **Programme Documents Upload (Research Programme and Impact Statement)**

  Please note the total number of pages in the Programme Documents Upload must not exceed 11 pages (Research Programme – eight pages, References – one page, Impact Statement – two pages).

  In no more than eight pages (**with one further page allowed for references**), and uploaded as a PDF document, the applicant should describe their research plan and provide sufficient detail for peer reviewers to comment on the quality of the proposed ideas. Include the background for context, objectives and methodology. The background section should include and provide references to the state-of-the-art in this research field, which should then be listed after the research summary. The proposed research programme should be novel, cutting edge, competitive, and strategically important. The objectives should be coherent, well-planned and should be linked with real deliverables. The application must include appropriate timelines, milestones, and expected outputs for the proposed research (e.g., a Gantt chart). Importantly, the applicant **must** clearly outline plans for the team members that will be involved in this proposal, aligning projects and work packages to the postgraduate and/or postdoctoral researchers that will be employed.

Within the Sesame application, all Applicants are required to answer questions related to Ethical Issues. These questions are outlined in Appendix B. Those applicants proposing research that involves animal and/or human subjects must also provide the information requested in Appendix C within the description of their proposed research and methodology

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  Within the same PDF document, and following the references page, a brief impact statement (**maximum of two pages**) must be provided. The statement must articulate the planned and potential impact of the proposed research and **will be assessed as part of the review process**. SFI recognises that impacts can take time to develop from research and in many cases are unforeseen or occur serendipitously, particularly for those still at an earlier stage in their careers. However, in line with the Irish Government's wish to demonstrate the economic, social and cultural benefits of its publicly funded scientific research, it is essential that applicants to the CDA programme can provide a vision of how their research can potentially be developed to the benefit of the wider society as well as to the scientific community.

Impact can be described as the demonstrable contribution that excellent research makes to the economy and society. Impact embraces the diverse ways in which research-related knowledge and skills benefit individuals, organisations and nations by:

- Powering an innovative and enterprising economy
- Creating high value jobs
- Attracting, developing and nurturing businesses, scientists and talented people
- Increasing the effectiveness of public services and policy
- Enhancing quality of life, health and creative output
- Developing the country's international reputation
- Educating and training the population
- Solving major national and global problems and challenges, such as food security and world hunger, climate change, energy security, ageing population, rural sustainability, and other sustainability challenges

The statement should consider some or all of the above potential impacts to give confidence to reviewers that clear thought and realistic ambition have been employed to assess the likely or potential longer-term benefits of CDA-funded research, including and going beyond the training aspects for both the PI and the team members.

For more information and guidance on how to successfully articulate impact, detailed information including a webinar on research impact is available on the SFI website.[12] . Applicants are advised to refer to this information in advance of preparing their Impact Statement.

3.11   Proposed Budget

SFI funding supports the research programme costs of the applicant and their research group. Eligible costs include:

- Contributions to salaries/stipends for staff hired specifically to carry out the research programme. Applicant salary is not an eligible cost. Please consult the SFI website for more information on the SFI Grant Budget Policy (GBP: Version July 2016)[13].
- Relevant research expenses, including equipment, consumables and travel.
- Access charges for use of large items of infrastructure or test-bed facilities may be requested; see the GBP (version July 2016) for details.

The costs eligible for grant support by SFI under the CDA Programme are those costs that can, uniquely and unambiguously, be identified with the proposed research programme. Applicants must give details of all relevant costs, including staff, equipment, materials and travel. Ensure that the final total provided includes all costs requested from SFI. All awards are made directly to the applicant's research body.

See notes for completion of the budget table in the SESAME Researcher User Guide[9]. A link is also provided with information to assist with completion.

SFI Career Development Awards are funded to a minimum value of **€300,000** direct costs and a maximum value of **€500,000** direct costs for a period of four years. General overheads, currently 30% of "modified" total direct costs, should not be included in the requested budget (see below).

3.11.1 Staff: Salaries and Benefits

SFI CDA Programme grants do not fund the core salary or benefits of the Applicant. Contributions to team-member salaries, and fees and stipends for postgraduate students (PhD and MSc by research) may be requested. Salaries for Collaborators are not permitted. All information required to complete the Staff section of the CDA Programme budget can be found in Section 4.1 of the SFI Grant Budget Policy and the associated SFI Grants Team Member Budgeting Scale (version July 2016)[8]. Please note that the submission of an application by the host Research Body must only take place once salary contributions requested have been approved by the relevant Research Office(s).

3.11.2 Equipment

All information required to complete the Equipment section of the CDA Programme budget can be found in Section 4.2 of the SFI Grant Budget Policy.

3.11.3 Materials and Consumables

All information required to complete the Materials and Consumables section of the CDA Programme budget can be found in Section 4.3 of the SFI Grant Budget Policy.

3.11.4 Travel

All information required to complete the Travel section of the CDA Programme budget can be found in Section 4.4 of the SFI Grant Budget Policy.

3.12   Budget Justification

All information required to complete the Budget justification can be found in Section 7 of the SFI Grant Budget Policy.

The applicant must upload a Budget Justification as a PDF document. This is achieved by clicking on the "Upload" button in the application form and adding the appropriate file. Justification for requested salary, stipend, fees, equipment, consumables and travel should be provided in **no more than two pages**.

Clear indication should be given where funding is apportioned to Collaborators. Please note that Collaborators outside the Republic of Ireland or those not located within eligible Research Bodies in the Republic of Ireland are not eligible to receive funding through the CDA Programme.

3.13   Letters of Support

The following letters of support must be included:

- A letter of support from the **host Research Body named by the Applicant**, which should comment on the infrastructure and services available to the applicant and associated team. For example, details of the office, laboratory, computing, animal, or other facilities where the research will be carried out should be included as necessary.

- A letter of support from the nominated mentor **(maximum of one page)**, where relevant, which should comment on the support offered to the applicant. The letter should include a statement outlining how the mentor will provide added value to the proposal, bearing in mind that the applicant is already an independent researcher.

- A letter of support from **each Academic and Industry Collaborator**. Letters from Academic Collaborators should provide full details of the intended intellectual and/or technical input to the proposal. In addition, Academic Collaborators seeking funds through the award must describe how these funds will be utilised. Letters from Industry Collaborators should provide full details of the intended intellectual input and, where relevant, the level of financial (cash, in-kind or both) contribution to the research programme. Similarly, letters of support from International Academic Collaborators should provide details of any cash and/or in-kind contributions. Letters of support that do not originate from officially listed Collaborators will be removed from the proposal, as will letters from listed Collaborators that merely provide theoretical or general support without specifically describing a meaningful and impactful contribution to the proposal.

Letters of support from the host Research Body and Collaborators must be a **maximum of two pages**; Letters of support must not be included from other bodies and individuals who are not Collaborators. Such letters of support will be removed from the proposal.

3.14   Applicant Agreement to Terms and Conditions

It should be noted that submission of an application represents agreement from the applicant to the SFI Terms and Conditions of Research Grants. The applicant must tick the box to confirm that such an agreement is in place.

3.15   Proposal Submission to Research Office

Once all sections of the application form have been completed, applicants must submit their proposal to their Research Office by clicking on the "Submit for RO Review" button. Following submission, it will not be possible to edit the proposal while its status is given as "*Full Proposal - Pending RO Approval*". The Research Office may require applicants to make revisions to their proposals before they submit the application to SFI; a notification will be sent to applicants where such revisions are mandated, and the status of the proposal in SESAME will revert to "*Full Proposal – In Preparation*", thus allowing the required revisions to be made.

It is the responsibility of applicants to ensure that their Research Office has successfully submitted their proposal to SFI before the stated deadline of 13:00 on the 22nd March 2017. It is not possible to submit applications through SESAME once this deadline has elapsed.

Applicants will receive a notification from SESAME periodically when the status of their proposal changes. Alternatively, if you wish to track the status of your proposal (e.g., when the proposal is pending Research Office approval or under review at SFI), this information will be displayed in SESAME.

3.16 Research Body Approval

It should be noted that submission of an application represents an agreement to SFI Terms and Conditions of Research Grants. Submission must only be made by an authorised Research Body representative. In particular, the Research Body is approving:

- The eligibility of the applicants
- That the applicants are, or will be upon receipt of the grant, recognised as employees of the Research Body for the duration of the grant
- That the requested budget including salaries/stipends, equipment, travel and consumables are in line with accepted institutional guidelines
- The availability of infrastructure within the institution, as outlined by the applicant in the research proposal
- That the proposed research programme has not been funded by other sources
- That relevant ethical approval has been or will be sought and must be granted prior to the award commencing
- That the relevant licences will be in place at the time of award
- That the details provided in relation to research funding history (i.e., current, pending or expired grants, as detailed in the application) are valid and accurate

4.   Resubmission Policy

Applications to any call that are based primarily on unsuccessful submissions (following peer review) to any SFI programme must demonstrate that the review comments resulting from the initial application have been taken into account in the preparation of the new submission. SFI will not review resubmissions that have not clearly taken into account the major comments or concerns resulting from the prior review and these proposals will be withdrawn without review. Please see SFI Policy on Resubmission of Grant Applications[14] for further information. Applicants to an SFI call for proposals must declare whether a new submission relates to a previously submitted application to any SFI scheme. If the application is a resubmission, a statement referencing the previous application and explaining the differences must be provided and make reference to reviewer comments where relevant. This information can be provided within the relevant section of the SESAME application. This statement will assist SFI Scientific Staff in the assessment of eligibility of a revised application and will not be shared with reviewers. It will <u>not</u> be included in the full proposal PDF.

5.   Doctoral Education

For postgraduate students funded by SFI, the host Research Body is expected to adopt the principles, standards and good practice for doctoral education as described in the National Framework for Doctoral Education (2015),[15] which SFI has endorsed.

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[14] *http://www.sfi.ie/funding/sfi-policies-and-guidance/eligibility-related-information/*
[15] *http://www.hea.ie/sites/default/files/national_framework_for_doctoral_education_0.pdf*

6. Research Integrity

SFI places high importance on ensuring research integrity and endorses the National Policy Statement on Ensuring Research Integrity in Ireland[16]. All applicants and institutions are expected to abide by the aforementioned Irish Policy on Research Integrity and the European Code of Conduct for Research Integrity[17]. SFI plans to audit compliance by its award holders and relevant research bodies with the principles laid down in these guidelines that are relevant to the agency's activities and the awards it makes.

7. Ethical Issues

All investigators and research bodies must ensure that, before the research commences and during the full award period, all the necessary ethical, legal and regulatory requirements in order to conduct the research are met, and all the necessary licences and approvals have been obtained. All research bodies are responsible for ensuring that a safe working environment is provided for all individuals associated with a research project.

All applicants submitting a proposal are required to provide the information requested regarding Ethical Issues (Appendix B). This information must be provided within the relevant section of the SESAME application. Those applicants proposing research that involves animal and/or human subjects must also provide the information requested in Appendix C within the description of their proposed research and methodology.

SFI will require evidence that relevant ethical and regulatory approval has been granted for studies involving human or animal subjects prior to an award commencing. In exceptional cases where such research may not commence until a late stage of an award, SFI may permit submission of ethical and regulatory approvals following the award start date but prior to commencement of the research involving animal and/or human subjects.

8. Non-compliance

Proposals not in compliance with any details specified in this document or in the SFI Terms and Conditions of Research Grants[6] will not be eligible for a grant and will be returned without review.

9. Confidentiality

Science Foundation Ireland takes all reasonable steps to ensure that information provided in the application is treated as confidential, subject to submission to the members of its committees and merit review and to any obligations under law.

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[16] National Policy Statement on Ensuring Research Integrity in Ireland
[17] European Code of Conduct for Research Integrity

10.   Conflict of Interest

Conflict of interest rules are applied rigorously and apply to both reviewers and applicants.

Reviewers engaged by SFI are required to adhere to SFI's conflict of interest policy and immediately declare to SFI where a conflict of interest exists or arises so that an alternative reviewer may be appointed. International peer reviewers will not provide comments or scores on any application on which they have a conflict of interest.

Reviewers must adhere to high standards of integrity during the peer-review process. They must not compromise the intellectual property integrity of the application and may not appropriate and use as their own, or disclose to any third party, ideas, concepts or data contained in the applications they review.

SFI recognises that applicants may have a prior relationship with an industry collaborator engaged in an application for funding to SFI (e.g., industry consultancy role, founder of an academic spin-out company), which may be perceived as a conflict of interest. Where a potential conflict of interest exists, SFI requires that it is disclosed by the applicant to the Foundation and Research Body and is managed by the Research Body in accordance with the principles and mandates laid out in the National Intellectual Property Guidelines.

11.   Award Management

11.1   Reporting Requirements

The progress reporting requirements for all awards made under the CDA 2016 call must be adhered to, that is, those awardees that fail to comply will risk having their grant payments suspended and/or the processing of any applications under review in other SFI Programme funding calls paused, until their reporting status is rectified. Reporting is inclusive of annual reporting, completion of the annual stocktake of **SFI Research Outputs** (formerly referred to as the *SFI Census*) and the completion of a Researcher Snapshot.

The SFI Grants and Awards Management System, SESAME, is the primary conduit for annual reporting. CDA 2016 awardees will be requested to submit their annual report by 31st January every year to reflect the activity of the previous calendar year (January –December). The annual report template, which is available on SESAME, must be used. An additional final report, prepared with a template that is also available on SESAME, must be submitted within three months of the expiration date of the award. In addition to the annual report, awardees are also obliged to keep their SESAME Research Profile updated, since the annual stocktake of SFI Research Outputs is drawn directly from the data entered into the Research Profile; this must also be updated and completed in January every year. SFI reporting procedures are detailed on the SFI website[18], and webinars describing the entry of data into the Research Profile are also available.

The annual report is used to monitor progress of the individual awards against the overall objectives of the CDA Programme and associated Key Performance Indicators (KPIs), as set out in SFI's Strategic

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[18] http://www.sfi.ie/funding/award-management/reporting-procedures/

Plan, Agenda 2020. A number of the CDA Programme 2016 call objectives, associated with expected outputs, are discussed in turn below:

Objective: *To support excellent scientific research that has potential economic and societal impact*
Expected Outcomes:
Awards are made under the CDA 2016 call with reference to both scientific excellence and impact. In their annual reports, awardees are asked to report on Scientific Progress and Strategic Impact. In the Strategic Impact section of the annual report, awardees are provided with a list of 10 impact statements or declarations and are asked to prioritise those that are relevant to the outputs on their award. Narrative must then be provided with additional details justifying the options chosen, with cross reference to relevant metrics included in the Research Profile. This data will help towards quantifying the types of impacts arising from the awards SFI has made under the CDA 2016 call.

Objective: *To enable those at an earlier career stage who already hold permanent academic positions to advance their careers and build up their research teams and activities*
Objective: *To allow researchers in temporary positions to advance their careers and provide them with enhanced opportunities to move into a permanent academic position*
Expected Outcomes: A key purpose of the CDA programme is to provide support for early- and mid-career researchers (between 3 and 15 years post-PhD) who are either in full-time permanent faculty positions or who hold temporary positions where it is evident that the researcher is already fully independent. SFI's expectation is that the CDA Programme will provide the support necessary for these researchers to develop their research to a level where they can compete successfully for additional funding from both exchequer and non-exchequer sources. Additional funding secured during the reporting period will be captured directly in the Research Profile and annual reports.

Objective: *To maintain Ireland's top 20 position in international bibliometric rankings[19] through an increase in the number and quality of journal publications*
Expected Outcomes: To date, SFI funding has produced high-impact publications that have resulted in Ireland rising to the top 20 in international bibliometric rankings of repute. Agenda 2020 sets a target for Ireland to maintain its position in these rankings. SFI's expectation is that, given their calibre, CDA awardees will contribute significantly to this target. Awardees are asked to report on all refereed journal and conference publications and international presentations directly supported by the grant. This support must be acknowledged in all publications.

Objective: *To build capacity and expertise so as to enable researchers to compete in other funding programmes such as those coordinated by the ERC or through the Horizon 2020 framework*
Expected Outcomes: SFI expects that researchers based in Ireland will obtain funding from as wide a range of sources as possible. This success is not only pertinent to the Irish Government, which has set a target of securing €1.25bn in research funding under Horizon 2020, it is also essential for meeting and exceeding targets set against relevant Key Performance Indicators (KPIs) in Agenda 2020. Innovation 2020 notes that "*our current engagement at EU level focuses on contributing to the creation of the European Research Area and on maximising Irish participation in Horizon 2020".* SFI's expectation is that awards made under the CDA 2016 call will provide the support necessary for awardees to build capacity, expertise and relationships so as to enable researchers to compete successfully in funding programmes, such as the ERC and Horizon 2020. In their annual report, awardees are asked to report on the funding opportunities that they have both pursued and won and

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[19] *Based on Thomson Reuters InCites data (https://incites.thomsonreuters.com/#/analytics)*

also to report on the position held by the PI on successful awards. This will allow SFI to track this progress on an annual basis.

11.2   Progress Site Reviews

Each recipient of an SFI Career Development Award will be subject to progress review assessment in the form of a site review performed by international peer reviewers during the period of the award. The outcome of such a review will be taken into consideration in the assessment of future applications to SFI. As stated in the SFI Terms and Conditions of Research Grants, the Foundation reserves the right to terminate an award if, in the reasonable opinion of SFI, progress is not deemed to be satisfactory.

12.   Intellectual Property Management

Intellectual Property (IP) should be managed according to the policies set out in the Government publication *'Inspiring Partnership - the National IP Protocol 2016'.*[20] In cases where additional guidelines are specified by SFI they must also be followed. The IP arrangements are the responsibility of the Research Body and shall reflect the collaborative nature of the project, the level of cash and in-kind commitment made by the Industry Partner and compliance with State Aid Regulations.

13.   Further information

FAQs are available from the CDA 2016 webpage.

For all additional queries please contact cda@sfi.ie.

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[20] http://www.knowledgetransferireland.com/ManagingIP/KTI-Protocol-2016.pdf

Appendix A: Applicant CV Template

To be used for applications to the SFI Career Development Award Programme 2016 call

5 PAGES MAX:
Section 1 (max. 2 pages) + Section 2 (max. 3 pages)

SECTION 1 – Required Details (up to 2 pages maximum)

NAME AND CONTACT DETAILS

CURRENT CONTRACTURAL STATUS (please select one)

Temporary/Fixed Term ☐   **Permanent** ☐

CAREER PROFILE (Education and Employment)
If you wish you may provide details of any career breaks or periods of part-time work, for example parental or long-term sick leave.

HISTORY OF MENTORING AND SUPERVISION
Please include numbers of current and completed MSc and PhD students, directly under your supervision, as well as details of previous and current post-doctoral staff.

INNOVATION/COMMERCIALISATION ACTIVITY (e.g., relevant industry collaborations, invention disclosures, patents, spin-outs)
Please distinguish between patents applied and under review versus patents granted

OTHER INFORMATION AS APPROPRIATE

Please include details of key achievements including measures of esteem, invited presentations, principal scientific activities and responsibilities, as well as a statement demonstrating the applicant's accomplishments as an independent PI.

SECTION 2 – Publication Listing (up to 3 pages maximum)

LIST OF PUBLICATIONS (up to a maximum space allowed)

Please **highlight below with an asterisk** each of your <u>senior author publications</u> (as per the eligibility criteria stated in Section 2.4 of the CDA Call Document).

Secondary research publications (e.g., Reviews, Highlights and Essays) that do not focus, in the main, on the applicant's own research results may be listed **but will not contribute towards fulfilling the eligibility criteria stated in the CDA Call Document**.

Please underline the name of the applicant on each publication listed.

Appendix B: Ethical Issues Table

Within the SESAME application, Applicants are required to answer questions related to Ethical Issues. These questions are outlined in the table below.

Section	Ethics Issues Table	
	Use of Animals in Research	
1	Does your research involve the use of animals?	Yes ☐ No ☐
2	Please confirm that Ethical approval will be obtained for the study prior to commencement of any research	Yes ☐ No ☐
	Human Participants / Material / Data	
3	Does your research involve human participants, human biological material, or identifiable/potentially identifiable data?	Yes ☐ No ☐ If No, please review entire checklist but do not complete Sections 4-21. If Yes, complete all remaining sections.
4	Please confirm that Ethical approval will be obtained for the study prior to commencement of any research	Yes ☐ No ☐
	Human Embryos/Foetuses	
5	Please confirm that your research <u>does not</u> involve Human Embryonic Stem Cells (hESCs)?	Yes ☐ No ☐
	Humans	
6	Does your research involve human participants?	Yes ☐ No ☐
7	Are they vulnerable individuals or groups, patients or persons unable to give informed consent (including children/minors)?	Yes ☐ No ☐
8	In the course of your research programme, do you propose to use Clinical Research Facility/Centre (CRF/C) facilities?	Yes ☐ No ☐
9	Is a formal sponsor required for the research programme?	Yes ☐ No ☐
10	Does your research involve physical interventions on the study participants?	Yes ☐ No ☐
11	Does your research involve a clinical trial or investigation?	Yes ☐ No ☐
12	Is the clinical trial or investigation covered by the EU Clinical Trials Directive?	Yes ☐ No ☐

13	If yes, please confirm that HPRA approval will be obtained prior to study commencement.	Yes ☐ No ☐	
14	Please confirm that an independent Trial Steering Committee (TSC) will be established.	Yes ☐ No ☐	
15	Please confirm that the trial or investigation will be registered in a publicly available, free to access, searchable clinical trial or investigation registry	Yes ☐ No ☐	
16	Please confirm that the requisite insurance cover will be sought for the clinical trial or investigation and evidence of cover submitted to SFI prior to trial initiation.	Yes ☐ No ☐	
17	Does this clinical trial or investigation involve activities outside of the Republic of Ireland or partnerships with international Collaborators?	Yes ☐ No ☐	
Human cells/Tissues			
18	Does your research involve human cells or tissues?	Yes ☐ No ☐	
19	Does your application include an element of biobanking?	Yes ☐ No ☐	
Personal Data			
20	Does your research involve personal data collection and/or processing?	Yes ☐ No ☐	
21	If any potentially commercially exploitable results may be based upon tissues or samples derived from human participants, please confirm that there has been appropriate informed consent for such use.	Yes ☐ No ☐	

Appendix C: Guidance on Ethical and Scientific Issues

Animal Studies

Where animals are to be used in research projects, applicants must comply with the SFI Use of Animals in Research Policy[21] and the Health Products Regulatory Authority's (HPRA)[22] position on the use of animals in research. SFI will only support research using animals that is fully compliant with the requirements of the HPRA, has been independently peer reviewed and where consideration has been given to the use of alternative approaches not involving the use of live animals and addressing the principles of the 3R's (replacement, reduction, refinement).

Additional external sources of guidance include the HPRA and ARRIVE[23] (Animal Research: Reporting In Vivo Experiments) guidelines produced by the UK National Centre for the Replacement, Refinement & Reduction of Animals in Research (NC3Rs).

In order to allow for the appropriate evaluation of the scientific merit of applications for funding involving animal use, applicants submitting proposals must provide the information outlined in Table 1 below *within the description of their proposed research and methodology*. In addition, within the SESAME application, Applicants are required to answer questions related to Ethical Issues. These questions are outlined in Appendix B.

Table 1[24] – Information required for research involving the use of animals

Information	Details to be provided in the main body of your Grant Proposal
Ethical Statement	Indicate the nature of the ethical review permissions, relevant licences and national or institutional guidelines for the care and use of animals that cover the research. **SFI will require evidence that relevant ethical and regulatory approval has been granted prior to the award commencing.**
Study Design	For each experiment, give brief details of the study design including: a) The number of experimental and control groups. b) Any steps taken to minimise the effects of subjective bias when allocating animals to treatment (e.g. randomisation procedure) and when assessing results (e.g. blinding). c) The experimental unit (e.g. a single animal, group or cage of animals). d) The number of times each animal will be measured.
Experimental animals	a) Provide details of the animals used, including species, strain, sex, developmental stage and weight. Include a sound scientific reason for these choices.

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[21] http://www.sfi.ie/funding/sfi-policies-and-guidance/ethical-and-scientific-issues/
[22] https://www.hpra.ie/homepage/veterinary/scientific-animal-protection
[23] https://www.nc3rs.org.uk/arrive-guidelines
[24] Table adapted from the NC3Rs ARRIVE Guidelines

	b) Provide further relevant information such as the source of animals, international strain nomenclature, genetic modification status (e.g. knock-out or transgenic), genotype, health/immune status, drug or test naïve, previous procedures, etc.
Sample size	a) Specify the total number of animals used in each experiment, and the number of animals in each experimental group. b) Explain how the number of animals was arrived at. Provide details of any sample size calculation used. c) Indicate the number of independent replications of each experiment, if relevant
Experimental outcomes	Details regarding the experimental outcomes to be assessed.
Planned statistical analysis	An explanation of how the number of animals was arrived at, including power calculations, if appropriate, or other supporting information to demonstrate that the findings will be robust. A brief overview of the planned statistical analyses in relation to the choice of sample size, along with details of any statistical advice available.

Human Studies

For studies involving humans, ethical approval must be obtained from the relevant national or local ethics committee prior to the start of the project. SFI only permits early stage regulated clinical trials (Phase I or combined Phase I/II) and investigations to be undertaken under the scope of the following SFI programmes: SFI Research Centres, Spokes, and Strategic Partnerships in addition to SFI Research Professorship where the successful candidate will become a Co-Principal Investigator within an SFI Research Centre.[25] Clinical trials and investigations requiring approval by the Health Products Regulatory Authority (HPRA) will not be permitted through other SFI funding programmes.

Funding requests for early stage research involving human volunteers and/or human samples that does not require regulatory approval are permitted under CDA 2016. Where there is any doubt, applicants are advised to contact the HPRA prior to submission to ensure eligibility and are required to indicate in their application that the proposed study does not require HPRA approval.

Furthermore, in line with a current directive from its parent Government Department, research funded by SFI must not comprise any component of the following:

- Research intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer

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[25] *http://www.sfi.ie/funding/sfi-policies-and-guidance/ethical-and-scientific-issues/*

- Research using human embryonic stem cells or tissues.

In order to allow proper evaluation of the scientific merit of applications for funding, applicants who propose research involving human participants and/or biological material must provide the information requested in Table 2 below *within the description of their proposed research*. In addition, within the SESAME application, Applicants are required to answer questions related to Ethical Issues. These questions are outlined in Appendix B.

Table 2- Information required for research involving the use of human subjects

Information	Details to be provided in the main body of your Grant Proposal
Ethical Approval	Ethical approval is required for all research work funded by SFI that involves human participants or human material (including tissue). Applicants should state by whom and when the research programme will be reviewed and specify any other regulatory approvals that have been obtained, or will be sought. Applicants should allow sufficient time to obtain Ethical approval. **SFI will require evidence that relevant ethical and regulatory approval has been granted prior to the award commencing.**
Study Recruitment	Applicants are asked to provide specific details on study recruitment procedures including inclusion and exclusion criteria and informed consent procedures. These should include relevant, additional details for specific groups including children/minors, patients and vulnerable groups.
Clinical Research Infrastructure	Applicants are asked to provide specific details where they have access to, or plan to access, the support/services of a Clinical Research Facility/Centre (CRF/C) at study design and/or implementation phase. The following information must be provided: • Name and address of the CRF/C • Information on the nature and stage/s of the input/advice/collaboration/service • Rationale for the choice of facility/centre • Information on the costs of providing the service/input, setting out where this is provided in-kind, from additional funding or requested from the project budget Evidence of this support/service must be provided to SFI in the form of a letter from the Director of the facility at the time of application for funding.
Physical Interventions	Applicants are asked to address any potential risk and/or harm to the safety of the patients or human participants in the study, if relevant, and highlight any potential ethical concerns during this study and/or at follow-up stage, even if not part of this application and how you propose to deal with them.
Clinical Trials	SFI will only support trials that are fully compliant with the SFI Clinical Trial and Clinical Investigation Policy[25]and the requirements of the HPRA. For applications including clinical studies that fall within the scope of the EU Clinical Trials Directive, approval from the HPRA is required. Necessary authorisations for trials involving medical devices differ depending on the device. Applicants are responsible for ensuring that all necessary approvals are in place and provided to SFI prior to study initiation.

	• **Sponsor:** Plans for appropriate sponsorship arrangements must be included in the application i.e. Letters of Support must be provided from sponsors or potential sponsors. Please note that SFI cannot act as sponsor. • **Steering Committee:** Applicants should provide details on the establishment and membership of an independent Trial Steering Committee. If any other type of independent monitor is to be implemented, please indicate and provide any relevant details. • **Study Registration:** Applicants are asked to outline plans for the registration of their trial or investigation on a publicly available, free to access, searchable clinical trial or investigation registry such as the International Standard Randomised Controlled Trial Register (ISRCTN) or ClinicalTrials.gov. • **Multi-Jurisdictional Studies:** Subject to pre-approval from SFI, applicants should provide relevant details in relation to clinical research activities outside of the Republic of Ireland or partnerships with international Collaborators.
Human Cells/Tissues	Applicants are asked to provide details on the cells or tissues types, including the source of the material.
Biobanking	Applicants are asked to describe how they will comply with international best practice for biobanking components in this research programme[26,27,28,29], with particular regard to quality of sample collection, processing, annotation and storage, and describing data protection measures where appropriate. Please also reference relevant guidelines/standards you will use.
Protection of Personal Data	Compliance with legislation and EU rules on data protection is required. Applicants are asked to provide that appropriate safeguards will be put in place and provide examples e.g. details of their procedures for data collection, storage, protection, retention, transfer, destruction or re-use (including, collection methodology (digital recording, picture, etc.), methods of storage and exchange.

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[26] http://www.oecd.org/science/biotech/44054609.pdf
[27] http://www.isber.org/?page=BPR
[28] http://www.molecularmedicineireland.ie/page/g/t/103
[29] http://biospecimens.cancer.gov/bestpractices/2011-NCIBestPractices.pdf

Appendix D: Career Development Award Programme Proposal Checklist

SECTION	DESCRIPTION	REQUIREMENTS
Proposal Summary	Proposal Title	**Up to 30 words**
	Resubmission statement (if relevant). See Section 4 for details.	
	Duration of Award Requested	**48 months**
	Resubmission statement (if relevant). See Section 4 for details.	
	NRP Area	**Select one option from list**
	Research Area (Primary and Secondary)	**Select one for each from list**
	Justification for SFI Legal Remit	**Max. 250 words**
	Provide requested information on Ethical Issues	**See Sesame application for details**
Lead Applicant Details	Complete mandatory Sesame Profile information	**Mandatory profile fields marked in red**
	ORCID iD	**Link Sesame profile to ORCID iD**
	Location of Applicant at time of submission	**Select country of residence**
	Lead Applicant Commitment to Project	**Enter percentage figure**
	Lead Applicant CV – use template provided	**Max. 5 pages**
	Eligible Leave: copies of supporting docs (if applicable)	
	Publication Output	**Enter figure for each type**
	Supervisory Experience	**Enter figure for each type**
Mentor (if applicable)	Name/Contact details etc. for Mentor	**Enter details**
	CV for Mentor – no template	**Max. 2 pages**
Collaborator Details	Name/Contact details etc. for Collaborator(s)	**Enter details**
	CV for each Collaborator(s) – no template	**Max. 2 pages**
Main Body of Full Proposal	Keywords	**Max. 15**
	Scientific Abstract	**Max. 200 words**
	Lay Abstract	**Max. 100 words**
	Research Programme	**Max. 8 pages**

	References	**Max. 1 page**
	Impact Statement	**Max. 2 pages**
Research Funding	Expired, Current and Pending Funding	**Enter details**
	Indicate Scientific Overlap	**Max. 600 words**
Proposed Budget	Details of all Relevant Costs	**Budget Table**
Budget Justification	Budget Justification	**Max. 2 pages**
Letters of Support	Mentor Letter of Support (if applicable)	**Max. 1 page**
	Host Research Body Letter of Support	**Max. 2 pages**
	Letter of Support for each Collaborator, including industry	**Max. 2 pages**
Declaration	Agreement to SFI Terms and Conditions	**Tick box to agree**

Viewing the PDF of your application prior to submission allows you to verify content.

There is no system validation on multiple upload file fields as the number of documents required may vary for each application.

It is the responsibility of the lead applicant to ensure that all documentation is included and that page lengths are not exceeded.