



Science Foundation Ireland Investigators Programme 2016: SFI-Teagasc Partnership 14th September 2016



Investigators Programme Team



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Presentation Content

- Programme Overview
- SFI-Teagasc Partnership
- Application Process
- Review Process

PROGRAMME OVERVIEW

Investigators Programme 2016

Objectives

- To support **excellent scientific research** that has **potential economic and societal impact** aligned to Innovation 2020 enterprise themes
- To build capacity, expertise and relationships 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**
- To support relevant **collaborations** and partnerships between **academia and industry**
- To maintain Ireland's top-20 position in **international bibliometric rankings** through an increase in the number and quality of journal publications
- To allow Ireland-based researchers to win **top-tier international prizes**
- To facilitate **partnerships with other agencies**
- To support researchers returning to active academic research after a prolonged absence through the **Investigator Career Advancement (ICA)** component of the call

Programme Structure

- **Funding** : €400,000 - €2,000,000 direct costs to support the research programme costs of the applicant(s) and their research group(s)
- **Award duration:** 4 or 5 years
- **Eligible costs include:**
 - Relevant research expenses, including equipment, consumables and travel
 - Contributions to salaries/stipends for staff hired specifically to carry out the research programme
 - Lead PI/co-PI salaries are not eligible costs
- The SFI Grant Budget Policy and salary scales have recently been updated - <http://www.sfi.ie/funding/grant-policies/grant-applications-budget-policy.html>

Programme Remit



- Proposals must either be aligned to one of the 14 priority research areas or to any other area under SFI's legal remit where there is convincing evidence that there will be significant potential for economic and/or societal impact.

Programme Remit – SFI Legal Remit

- All proposals must align with **SFI's Legal Remit**, that is, *“oriented basic and applied research in the areas of science, technology, engineering and mathematics (STEM), which promotes and assists the development and competitiveness of industry, enterprise and employment in Ireland”*
- **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”*
- **Applied Research** is *“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”*
- Further information on SFI's remit is available - <http://www.sfi.ie/about/what-we-do/>

Support for Alternative Approaches to the Use of Animals in Research

- SFI aims to improve the welfare of animals used for scientific purposes and to promote the principles of the 3Rs – Replacement, Reduction and Refinement
- SFI policy - <http://www.sfi.ie/funding/grant-policies/sfi-policy-on-the-use-of-animals-in-research.html>
- Opportunity to seek funding to support the development and validation of new tests, models and approaches not involving the use of live animals and/or addressing the principles of the 3Rs
- Given the experience of the UK NC3Rs in funding research in this area, SFI may consult with this body in the identification of appropriate peer reviewers for applications that seek to incorporate such approaches.
- See Appendix F for further details

Lead and Co-Applicants

- The **Lead Applicant** is responsible for the scientific and technical direction of the research programme and the submission of reports to SFI –
 - Primary responsibility and accountability for carrying out the research
 - Primary point of contact for SFI during the review process and, if successful, during the course of the grant.
- The **Co-Applicant** has a well-defined, critical and continuing role in the proposed investigation
 - For the purposes of **eligibility, reviewing** and **monitoring**, a Co-Applicant applying for funding under the SFI Investigators Programme will receive equal evaluation to the Lead Applicant and will hold equal accountability for the delivery of the project.
- A **letter of support** must be provided from the host Research Body of any Applicant and co-Applicant.
 - This letter should comment on the infrastructure and services available to the programme and, in addition, should include the endorsement of eligibility of the applicants.

Collaborators

- 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.
 - CVs and Letters of Support must be provided for all Academic Collaborators
- Where strongly justified, Academic Collaborators based in an SFI Eligible Research Body within the Republic of Ireland may receive funding through the grant.
 - Funding allocated should reflect the supporting role that such Collaborators are expected to play
- An **Industry Collaborator** is an individual working in industry who is committed to providing a valuable intellectual and/or technical contribution to the proposed research.
 - Industry partners are not obligatory, but are permitted and, where appropriate for the topic of the research, are encouraged.
 - Letters of support must be provided by Industry Collaborators.
 - CVs for Industry Collaborators are not mandatory but failure to provide CVs may disadvantage an application during the review process.
- 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.

Applicant Eligibility

- Lead Applicants and Co-Applicants must:
 - be at least 5 years post-PhD
 - have at least 10 senior-author publications
 - have held an independent research grant
 - demonstrate a record of supervisory experience
- Lead Applicants and Co-Applicants must also:
 - be members of the academic staff of an eligible Research Body (permanent or with a contract that covers the period of the grant), **or**
 - a contract researcher with a contract that covers the period of the grant, **or**
 - an individual who will be recognised by the Research Body upon receipt of the SFI grant as a member of the academic staff or as a contract researcher.
- Retired or Emeritus members of academic staff, meeting all other eligibility criteria, are eligible to apply if their institution makes the necessary commitments; further details are available on the SFI website.
- Other criteria apply – see call document for details

Investigator Career Advancement

- Certain applicants to the SFI Investigators Programme may choose to be evaluated under the SFI Investigator Career Advancement (ICA) category. The aim of the ICA category is to support researchers returning to active academic research after a prolonged absence
- **Category 1:** Any applicant who has taken consecutive documented eligible leave (minimum 12 weeks) since 1st January 2008 and has since returned to work. Examples are listed in the call document
- **Category 2:** Permanent or contract academic staff who have returned to an academic research position since 1st January 2011, having worked for a minimum of 2 years in a science- or engineering-related industry
- Either ICA category only requires 5 senior author publications (all other eligibility criteria for IvP 2016 apply)
- ICA applicants under Category 1 are permitted to request funding for teaching buyout
- Review process is the same for ICA and non-ICA applicants

GSI, the MI & EPA

- Alignment to particular research topics outlined in Appendix A of the call document



SFI-TEAGASC PARTNERSHIP

SFI-Teagasc Partnership



The SFI-Teagasc Partnership aims to strengthen and accelerate research and innovation in the agri-food sector through the funding of joint grants between **scientists from the agriculture and food disciplines and scientists from other scientific and engineering disciplines.**

Objectives

- To strengthen **research and innovation** in Ireland's agri-food sector - underpin profitability, competitiveness and sustainability in line with the targets set out in **Food Wise 2025** and future agri-food sector strategies
- To contribute to the strategic research opportunities identified in NRP Area H: **Food for Health** and Area I: **Sustainable Food Production and Processing** and to deliver on the actions identified by the Prioritisation Action Working Group which are outlined in the **Sustainable Healthy Agri-Food Research Plan (SHARP)**
- To offer scientists in a range of disciplines the opportunity to find new outlets and applications for their work.

Partnership Remit

- Proposals submitted through the SFI-Teagasc Partnership should bring together, in a single multi-disciplinary team, scientists from the agriculture and food disciplines with scientists from other STEM disciplines. SFI-Teagasc Partnership proposals should align with one of the five technology areas described in the Teagasc Foresight Report:
 1. Plant and Animal Genomics and Related Technologies
 2. Human, Animal and Soil Microbiota
 3. Digital Technologies
 4. New Technologies for Food Processing
 5. Transformation in the Food Value Chain System.

Impact

- Discuss how the proposed research will assist in achieving the objectives of the SFI-Teagasc Partnership.
- Outline how existing agricultural knowledge and information systems could be used to achieve agricultural impact and/or how established channels for food industry innovation could be used.

SFI-Teagasc Partnership



- Minimum of 2 Applicants and a maximum of 3 Applicants per proposal
- At least one of the Lead or Co-Applicants must be a Teagasc employee
- In addition, at least one of the Lead or Co-Applicants must not be a Teagasc employee
- Each Applicant or Co-Applicant must account for a minimum of 30% and a maximum of 70% of the total budget (direct costs)
- Single budget - summarise how the responsibility for direct costs is divided between the Lead Applicant and Co-Applicant(s) in the budget justification

APPLICATION PROCESS

Application Process

- **Preliminary Information Request – 13:00, 30th September 2016**
 - For SFI's planning purposes only
 - Details of Co-Applicants not required at this stage
 - Information submitted to SFI through the Research Office
 - Eligibility checks will not be carried out on this preliminary information
 - Only Lead Applicants that have submitted the requested preliminary information through their host institution Research Office will be permitted to submit a proposal to the call

- **Proposal – 13:00, 9th December 2016**
 - Submission via SESAME – SFI's online grant management system
 - The proposal is submitted by the Lead Applicant to their Research Office
 - Research Office will then submit the proposal to SFI
 - Be cognisant of institutional deadlines!

Proposal

SECTION	DESCRIPTION	REQUIREMENTS
Proposal Summary	Title	Up to 30 words
	Duration	48 or 60 months
	Indicate if the proposal is under the SFI-Teagasc Partnership	Yes/No Selection
	Selection of research area	Select from list
	Justification of alignment with SFI's Legal Remit	Max. 250 words
	Select Primary and Secondary Research Areas	Select from list
	Provide requested information on Ethical Issues	See Sesame application for details

Proposal

SECTION	DESCRIPTION	REQUIREMENTS
Lead Applicant / Co-Applicant details	Complete mandatory Sesame Profile information	Mandatory profile fields marked in red
	ORCID iD	Link Sesame profile to ORCID iD
	ICA: Short statement (if applicable)	
	ICA: copies of relevant supporting docs (if applicable)	
	Percentage Time Commitment	
	CV – use template provided	Max. 5 pages
	Summary info – publication/ supervisory	
Expired, Current or Pending Support of Applicants	<ul style="list-style-type: none"> Indicate scientific overlap with other current or pending awards. For Applicants currently holding a major SFI award, provide details on how this will be managed: “Management of More Than One Major SFI Award” 	Max. 1000 words

Proposal

SECTION	DESCRIPTION	REQUIREMENTS
Collaborator(s) details	Name/Contact details etc.	
	CV for each Collaborator	Max. 2 pages
Infrastructure	Description of the infrastructure, facilities, services and space provided by Research Body	Max. 1 page
Proposed Budget	Details of all relevant costs	Budget Table in SESAME
Budget Justification	Upload the budget justification	Max. 3 pages
Letters of Support	Collaborators, including industry	Max. 2 pages
	Host Research Body of the Lead Applicant	Max. 2 pages
	Host Research Body of Co-Applicant(s) if in a different Research Body	Max. 2 pages
Excluded Reviewers	Up to three individuals may be excluded from reviewing the proposal	

Proposal

SECTION	DESCRIPTION	REQUIREMENTS
Main Body of Proposal	Keywords	Max. 15 words
	Scientific Abstract	Max. 200 words
	Lay Abstract	Max. 100 words
	Research Description – Refer to Appendix E for research involving animals or human subjects.	Max. 15 pages
	References	Max. 5 pages
	Impact Statement	Max. 3 pages

Research Description

- Describe clearly and concisely the **specific aims and objectives** of the proposal
- Explain the **background and significance** of the problem
- Ensure that the **novelty of the approach** is clearly explained
- The **methodology** of the proposed research should be well developed
- The application should also include:
 - Appropriate timelines, milestones and expected outputs for the proposed research (e.g., **a Gantt chart**)
 - Roles of the Lead Applicant, Co-Applicant(s) and Collaborators in the work programme need to be clearly described
 - Relevant preliminary data

Appropriate references and citations in a separate uploaded PDF (5 pages)

Economic and Societal Impact

For the Investigators Programme, scientific excellence is both necessary and paramount, but is not sufficient in isolation; applications must also demonstrate potential economic and societal impact (<http://www.sfi.ie/funding/sfi-research-impact/>)

Impact can be described as the *demonstrable contribution that excellent research makes to economy and society*.

- 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

Impact Statement

An Impact Statement is required. This will require you to devote a maximum of 3 pages for articulating the planned and potential economic and societal impact of the proposed research.

Watch SFI's Impact Webinar before preparing your Impact Statement!

<http://www.sfi.ie/funding/sfi-research-impact/>

We advise that applicants make best use of the allowed space; **impact is a key review criterion.**

The Impact Statements should be written primarily in lay, non-technical language, be as specific yet comprehensive as possible, and describe potential economic and societal impacts by answering the following overarching questions:

- ***Who will benefit from this research?***
- ***What plans will you put in place to increase the chances of economic and societal impacts from the proposed research?***
- ***Over what timeframe might the benefits from your research be realised?***

Research Body Approval

- 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

REVIEW PROCESS

Review Criteria

- **Applicant**

- Quality, significance, and relevance of the **recent research record of the proposed investigator(s)**, taking into account the career stage of the Applicant(s), performance on recent awards, and the Applicant's (and Co-Applicant's) record of securing relevant funding over the previous ten years.

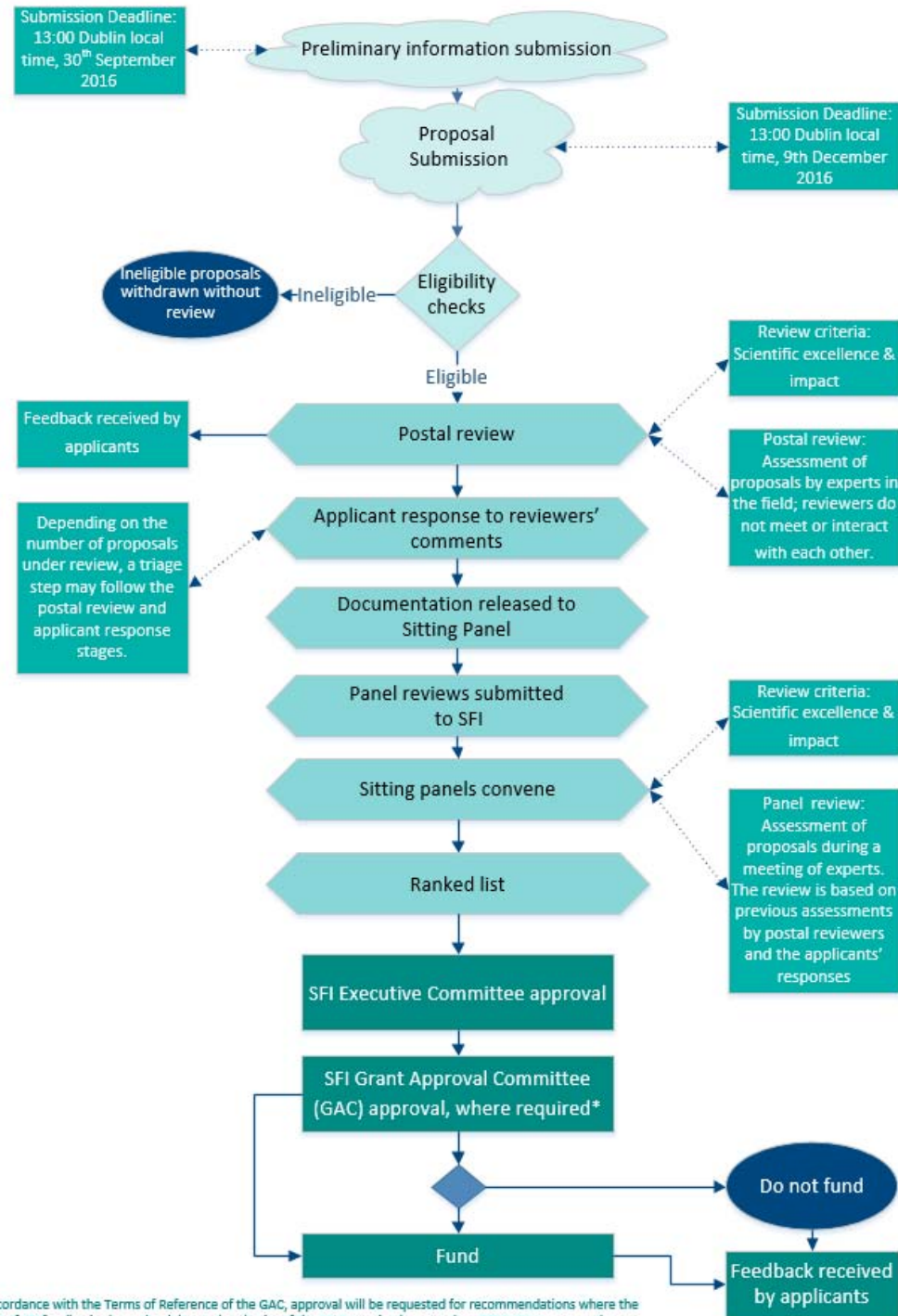
- **Proposed Research**

- **Quality, significance, and relevance of the proposed research**, including value for money and the potential to advance knowledge and understanding within its own field and/or across different fields.

- **Impact**

- **Quality, credibility and relevance of the impact statement**, including the likelihood, scale and value of societal and/or economic effects on Ireland as a result of the proposed research, which may be realised in the short term or over a longer period.

Application and Review Process



* In accordance with the Terms of Reference of the GAC, approval will be requested for recommendations where the amount of SFI funding is above the delegated authority of the SFI Executive (greater than €250,000 per annum).

Key Dates

- **Preliminary information request** – 30th September 2016, 13:00 Dublin Local Time
- **Deadline for proposal submission** – 9th December 2016, 13:00 Dublin Local Time
- **Get set up on Sesame early and submit well in advance of the deadline to avoid problems!**

- Thank you
- Queries to: **investigators@sfi.ie**



ALL ABOUT Agriculture

This year is the **85th** year of the National Ploughing Championships, Europe's largest outdoor exhibition and Agricultural trade show

LAST YEAR SAW:

281,000 VISITORS
 spending **+€3million**
 during the **3 days** of the event
 with **1,500 exhibitors**



3 DAYS of exhibitions from 12 SFI Research Centres



SFI tent named as 1 of the 10 TOP THINGS TO DO AT THE Ploughing
 BY THE IRISH INDEPENDENT

Find us at **STAND 313 ROW 13**

SFI visitor numbers:

2,880 @ SHOWS
480 @ CENTRES WORKSHOPS
5000 @ SMARTPHONE MICROSCOPES

AGRICULTURE IN IRELAND

The Irish agri-food and drinks sector accounts for **11%** of Ireland's exports & **8.6%** of national employment:
230,000 jobs are linked to the sector

Two-thirds of Ireland's land area is used for agriculture

There are currently **+139,000** family farms in Ireland

Ireland exports food and drink to **+175** countries worldwide

2015 saw exports increase by **3%** to exceed **€10.8 billion**

Science Foundation Ireland supports Agricultural research in Ireland:

Since **2000** SFI has invested over **€41M** across **161** awards in agriculture

25 collaborations between industry and active award holders

Nearly **60** publications last year alone



10,000 radio-enabled sensors across **175 acres** in Carriganore feed into **CONNECT** and **WIT's Smart Agriculture** project

100 Trillion bacteria reside in the human gut. The APC microbiome are studying how the food we eat and the processing it goes through affects our health



Previously funded agri-food proposals

Lead Applicant	Research Body	Co-Applicant	Funded Proposals under NRP Area Sustainable Food Production and Processing
John O'Doherty	UCD	Torres Sweeney (UCD)	The Macroalgal Fibre Initiative: 'natural molecules naturally'.
Patrick Cullen	DIT	Paula Bourke (DIT)	Cold Plasma decontamination of Cereal Grains (PlasmaGrain)
Laurence Shalloo	Teagasc	William Donnelly (WIT)	Using precision technologies, technology platforms and computational biology to increase the economic and environmental sustainability of pasture based production systems
Donagh Berry	Teagasc	N/A	Precision cattle breeding using precision genomics
Michael Diskin	Teagasc	Mark Crowe (UCD)	The development of early non-invasive and reliable molecular biomarkers of pregnancy in dairy cattle.
Emmanuelle Graciet	NUIM	N/A	Regulation of Plant Immunity through Protein Degradation by the N-end Rule Pathway
Jonathan Yearsley	UCD	Mark Emmerson & Jack Lennon (QUB)	Biodiversity, resilience and food security: understanding the role of biodiversity in maintaining food production
Douwe van Sinderen	UCC	N/A	Functional analysis of the host adsorption and DNA injection processes of a lactococcal bacteriophage
Andrew Fowler	UL	N/A	Mathematical modelling of soil biomass
Philip McGinnity	UCC	Paulo Prodohl (QUB)	Wild farmed interactions in a changing world: formulation of a predictive methodology to inform environmental best practice to secure long-term sustainability of global wild and farm fish populations
Aoife Gowen	UCD	Amalia Scannell (QUB)	Multi-scale hyperspectral imaging for enhanced understanding and control of food microbiology (HyperMicroMacro)
David Reid	Marine Institute	Keith Farnsworth (QUB)	Creating the knowledge for precision fisheries management: spatially aware 'nudging' to achieve Maximum Sustainable Yield using real-time fisheries incentives.
Fiona Doohan	UCD	N/A	Identifying disease resistance breeding targets in order to enhance the sustainability of cereal production and the security of food supply.
Grace Mulcahy	UCD	Aaron Maule & John Dalton (QUB)	Application of New and Emerging Technologies to Develop Vaccines against Fasciola hepatica
Charles Spillane	NUIG	N/A	Harnessing epigenetic and genome dosage effects on hybrid vigour for sustainable crop and food production
David MacHugh	UCD	Stephen Gordon (UCD)	Development of Next-Generation Control Tools for Bovine Tuberculosis: A One Health Approach
Patrick Lonergan	UCD	N/A	Reducing embryo mortality through improved understanding of embryo maternal communication