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Independent research fellowships

Opportunity status:	Open
Funders:	Natural Environment Research Council (NERC)
Funding type:	Fellowship
Publication date:	18 June 2020
Opening date:	18 June 2020
Closing date:	6 October 2020 16:00 UK time

Last updated: 2 October 2020

- ⓘ **Update for the IRF 2020 call:** Due to the disruption that the Covid-19 lockdown has had on research (in particular for those who are Early Career Researchers), applicants determining their total time spent working at a PostDoc level (or equivalent) should not include any time from 16 March to 6 October 2020 (IRF closing date).
- ⓘ Please also note that reviewer and panel guidance will be updated to ensure this period of disruption is fully taken into account.
- ⓘ NERC will review this pause for future IRF calls

Due to an update to policy, **applicants may only have one fellowship application under consideration by UKRI**. Applicants cannot submit applications to both NERC IRF and UKRI Future leaders fellowships rounds.

The NERC Independent research fellowship (IRF) scheme is designed to develop scientific leadership among the most promising early-career environmental scientists, by giving all fellows five years' support, which will allow them enough time to develop their research programmes and to gain international recognition.

As part of this scheme, NERC will expand its fellowship networking and training activities, working with host institutions, to support the development of future leaders in NERC science.

IRF key dates

- 18 June 2020 – call opens for applications on Je-S
- 6 October 2020 – call closes on Je-S
- October 2020 to January 2021 – peer review
- January to February 2021 – IRF sift meeting
- February 2021 – IRF sift meeting results available
- March 2021 – IRF interviews
- April 2021 – IRF interview results available

Application and assessment process

In order to identify future science leaders, the assessment process will concentrate on applicants' research potential, with track record assessed in a way that is appropriate to career stage. Applicants will be expected to:

- demonstrate their research vision and philosophy and outline ways in which their research could be developed over the five year fellowship
- explain how they will contribute to the international research area and interact with the leading international groups in their field
- explain how they will enable the potential economic or societal benefits of their research to be realised.

In order to demonstrate a commitment to the development of NERC IRFs, the head of department of the host institution will be required to demonstrate:

- the availability of structured institutional support, including infrastructure and facilities, funds to support research, and access to PhD students
- support for personal development of the fellow, including mentoring, appropriate review, and training courses.

NERC has prepared a document answering some common queries about the Independent research fellowships.

[Frequently asked questions \(PDF, 202KB\)](#)

Case study – Dr Sian Henley

School of GeoSciences, University of Edinburgh

Please summarise your background prior to applying for a NERC IRF award relevant to your successful application.

I completed my PhD in marine biogeochemistry at the University of Edinburgh. This involved two Antarctic summer fieldwork seasons involving extensive laboratory work using different geochemical and isotopic techniques and allowed me to publish three peer-reviewed papers.

During my PhD, I played an active role in both the UK Polar Network and Association of Polar Early Career Scientists. Alongside my fieldwork campaigns and conference attendance, these roles provided excellent opportunities for collaboration and networking both nationally and internationally.

Why did you choose to apply for an IRF?

I knew that an IRF fellowship was a great opportunity to take the leading role on a research project idea that I was excited about. The funding also lasts for five years, providing me with time to build my own research team and develop the scientific ideas that I am passionate about.

I also had excellent support from my colleagues with my application; the IRF will help me build collaborations between colleagues within my institution and the broader science community.

What are the main research goals of your IRF?

The overarching goal of my research project is to understand the changes in nutrient biogeochemistry underlying changes in productivity in the west Antarctic Peninsula sea ice zone as it evolves in response to ongoing warming trends, sea ice losses and changes in ocean mixing.

The key focus was to assess the cycling of fixed nitrogen and its implications for Southern Ocean nutrient budgets and biological uptake of atmospheric CO₂.

What notable outcomes, have arisen from your IRF to date? (These could include academic achievements or societal and economic outcomes).

The IRF has led to multiple peer-reviewed publications and additional research grants, with three as principle investigator. The IRF has given me the opportunity to communicate my research to the scientific community through invitations to present my work at conferences, talks and seminars.

The IRF has also opened up avenues in science-policy and public outreach initiatives across the UK, Europe and the USA.

I am also a co-chair of the Southern Ocean Observing System west Antarctic Peninsula working group and theme co-lead of the Scottish Alliance for Geosciences, Environment & Society.

Do you have any advice for potential applicants?

In my opinion, the most important things needed to obtain and deliver on an IRF are a great scientific idea and a project plan that you have the skills and expertise to deliver.

It's also really important to be confident in your idea and your ability, and to have a clear vision for your future research. Having a network of supportive colleagues and friends is also invaluable.

Case study – Dan Smale

Marine Biological Association

Please summarise your background prior to applying for a NERC IRF award relevant to your successful application.

I graduated with first-class honours in marine biology from Plymouth University, before undertaking my PhD with the British Antarctic Survey.

This involved living and working in Antarctica for two to five years to examine the effects of iceberg groundings on marine biodiversity.

After this I worked as a post-doctoral researcher at the University of Western Australia, for four years, developing indicators for Ecosystems-Based Fisheries Management and investigating climate change impacts on kelp forest ecosystems.

I later secured my first fellowship, a Marie Curie International Incoming Fellowship, which allowed me to return to the UK to continue my research on ecological responses to ocean warming.

After five years of post-doctoral research, resulting in three book chapters and 30 publications in journals including 'Science and Nature Climate Change', I was awarded a NERC Independent Research Fellowship hosted at the Marine Biological Association of the UK.

Why did you choose to apply for an IRF?

I believe that the benefits of an IRF are three-fold. First, it offers complete freedom to pursue my own research interests and to develop novel approaches and technologies, without the constraints of deliverable-driven project research.

Second, the IRF provides funding for five years, which is enough time to develop as an independent investigator and begin to build a research group, which in turn provides the opportunity to address some key knowledge gaps in marine ecology.

Third, the scheme is well-funded and provides the resources necessary to combine analytical techniques with large-scale fieldwork, which is needed to better understand climate change impacts on marine ecosystems.

What are the main research goals of your IRF?

Anthropogenic climate change is rapidly changing the structure and functioning of marine ecosystems. As well as increases in average temperatures, the frequency and magnitude of extreme climatic events is increasing.

The main objectives of my IRF are to examine spatial and temporal patterns in the occurrence of marine heatwaves (extreme oceanic warming events), and to quantify their impacts on populations, communities and ecosystems.

I am doing this by combining observational studies, experimental manipulations and analyses of historical time series.

What notable outcomes, have arisen from your IRF to date? (These could include academic achievements or societal and economic outcomes).

The IRF has allowed me to establish an international, multidisciplinary working group, comprising ecologists, oceanographers, climatologists and fisheries scientists, with the aim of better understanding the patterns, drivers and impacts of marine heatwaves.

It has also allowed me to continue investigating the impacts of climate change on marine ecosystems, which has led to papers in journals such as 'Science, Ecology Letters' and 'Proceedings of the Royal Society B'.

Our research on the impacts of a marine heatwave was also included in the Intergovernmental Panel on Climate Change's (IPCC) 5th assessment report.

Do you have any advice for potential applicants?

An IRF provides an outstanding opportunity to pursue your own research interests and develop a career as an independent scientist.

By their very nature, however, the awards are highly competitive, and my principal advice would be to seek feedback on any proposal or idea from as many mentors and colleagues as possible, and to accept the feedback positively and constructively to improve and develop the application.

Also, due to their competitiveness it is important to stay determined and focused, as many IRF recipients are not successful in the first instance. Good ideas tend to develop and mature into great ideas with time.