

UK-IODP

Announcement of opportunity

Closing date for Full Proposals:

07/04/10

To support UK membership in the international Integrated Ocean Drilling Program (IODP), NERC runs a UK research programme to enable UK Scientists to:

1. participate in and obtain material from drilling expeditions
2. ensure that IODP carries out the best and highest priority science, , and
3. capitalise on the results of IODP drilling and UK technologies, allowing them to benefit from technological advances in deep sea drilling.

The current phase of NERC's UK-IODP science support started in September 2008 and runs until 2013. Part of the funding for the programme is directed toward supporting research grants with the objective of taking forward IODP-related research in the UK.

Science support for the UK-IODP programme is funded through the NERC Research Programme funding stream (with the International subscription to IODP funded through the National Capability funding stream). Therefore, all projects funded by the programme will be expected to be strategically directed research. The UK-IODP Science Advisory Panel will provide guidance on the research themes for each of the funding rounds, based on their importance to achieving balanced research outputs from UK-IODP given the UK-IODP Science Plan and the fit with NERC Strategy and research themes.

IODP-related research can also be, and is encouraged to be, applied for via the Responsive Mode research funding stream in NERC.

This Announcement of Opportunity calls for Standard and Small Grants with a closing date of 7 April 2010 at 16.00

Standard Grant Proposals

The UK-IODP programme has a total of c. £1.5m (where this is 80% of Full Economic Costs) available to fund innovative standard grant proposals in three topic areas. Awarded grants will have a start date of no later than 1 August 2010. Topic areas are:

1. Oceanic records of palaeoclimate as constraints on climate modelling.

Using oceanic records to test climate models on time scales and boundary conditions relevant to future climate change, for example, using glacial-

interglacial records to better understand and constrain sensitivity of climate to pCO₂.

The palaeoclimate record shows that earth has oscillated rapidly from glacial to interglacial climate on timescales of thousands of years, has maintained greenhouse or icehouse conditions for millions of years and has undergone rapid singular events which have included massive carbon releases and mass extinctions. Climate models struggle to explain many of the changes exposing inadequacies in the models. Both the modelling and critical palaeoclimate records need to be improved. Grants concerned with both modelling of climate or obtaining palaeoclimate data sets critical for the modelling will qualify for funding.

2. Dynamics of the Earth's interior and its manifestation at the Earth's surface: processes and hazards at oceanic plate boundaries.

This theme includes research in two broad areas:

- sediment input and properties and the role of fluid circulation in the seismogenic zone at subduction zones
- interactions of magmatism and hydrothermal circulation and implications for ocean geochemistry at ocean spreading ridges.

Plate boundaries are the surface manifestations of deep Earth tectonics which ultimately drive all geological processes. They are also the sites of major solid-Earth-surface geochemical exchange which controls the surficial environment and major global hazards. Drilling is a critical component of research into these sub-sea environments and IODP is carrying ground breaking drilling into both young oceanic crust and at subduction zones. Research concerned with integrating the results of the recent drilling into our understanding of processes occurring in these environments will qualify for funding in this topic.

3. Microbiology/biogeochemical impacts and feedbacks and interactions of marine biosystems to a changing environment (to include deep-biosphere).

Projects could include (i) developing methodologies to extract and analyse low biomass samples; (ii) developing novel technologies to detect biomarkers including devices for field use.

Small Grant Proposals

The UK-IODP programme has a total of c. £0.6m (where this is 80% of Full Economic Costs) available to fund innovative small grant proposals in four topic areas. Awards will be 18 months in duration with a start date of no later than 1 August 2010. Topic areas are:

1. The Impact of Ocean Crust Generation and Alteration on the Oceans.

Creation of oceanic crust is a fundamental Earth process which controls ocean geochemistry with implications for the Climate System. Proposals could address issues such as the geochemistry of ocean crust generation,

interactions with the ocean and the manifestation of deeper geochemical or physical processes at the surface.

2. Technology Development: Proof of Concept studies for sampling, downhole sampling, downhole instrumentation and new measurements on cores.

This theme includes new approaches to core sub-sampling, new measurement capabilities, adaptation and application of existing technology for IODP (especially modification of technology for planned expeditions), evaluation of techniques for new disciplines applied to ocean drilling, and microbiological sample preparation and preservation. This theme may include development of (a) methodologies to extract and analyse low biomass samples and (b) novel technologies to detect biomarkers including devices for field use.

3. The marine record of global biogeochemical cycles.

In a world of changing environmental conditions, the need arises to predict how marine biogeochemical cycles may react in the future. In order to understand future changes, we need to better understand past biogeochemical cycles, especially the coupling of the marine carbon cycle with key climate variables such as temperature, pCO₂, and ocean circulation.

4. High resolution oceanic records of rapid environmental change.

This theme focusses on environmental (including climate) change over rapid (i.e. decadal to multi-centennial) time scales. 'Environmental' can include large-scale climatic, oceanographic, physical and biogeochemical phenomena such as, for example, rapid changes in erosional or riverine regimes, transient discharge of hydrothermal effluent affecting deep biological environments, and rapid changes in out-gassing of carbon-rich fluids affecting climate.

Further information

Any proposed project will be expected to build on existing research efforts within IODP, in particular, making use of past and newly-collected core samples. Expected outputs should include high profile scientific paper(s) and/or further drilling proposals.

Essential information for applicants is available within the [research grants](#) guidance on the NERC website. All normal small and standard grant rules and guidelines apply regarding page limits, eligibility, etc. including the submission of an Impact Plan (see below). Proposals will be reviewed by external referees and assessed by a tailored moderating panel in July 2010.

The closing date for full proposals is **16:00 on Wednesday 7 April 2010.**

To use the Je-S system, the applicant's Research Organisation must be registered as a Je-S user. Full details are available on the Je-S website.

Further information can also be obtained by contacting the Je-S Helpdesk by email at JeSHelp@rcuk.ac.uk or by telephone on 01793 44 4164.

Applicants must ensure that their application is received by NERC by 4pm on the closing date. Applicants should leave enough time for their application to pass through their organisation's Je-S submission route before this date. Any application that is incomplete, does not meet NERC's eligibility criteria or is received after the closing date will be returned to the applicant and will not be considered.

In addition to the standard Je-S proforma, applicants will be expected to provide a Case for Support and other attachments detailing the work to be undertaken. All attachments submitted through the JeS system must be completed in single-spaced typescript of minimum font size 11 point, Arial font, with margins of at least 2cm.

The following documents are required:

- Previous Track Record of the research team not exceeding 2 sides of A4
- Description of the proposed work, not exceeding 8 sides of A4 for standard grants and 2 sides of A4 for small grants (including all necessary tables, references and figures)
- For Standard grants only, a Project Management Plan, not exceeding 2 sides of A4, detailing project and data management, the costs of which should be included in the research project
- Impact Plan not exceeding 2 sides of A4. All research proposals submitted to NERC should be accompanied by an impact plan that will detail those who may benefit from, or make use of, the research; how they might benefit and/or make use of the research; and methods for disseminating data/knowledge/skills in the most effective and appropriate manner. More details at: <http://www.nerc.ac.uk/funding/application/impactplans.asp>. Costs for the Impact Plan should be included in the research grant.
- Justification of Resources up to 1 side of A4 submitted as a separate attachment in the Je-S system by each organisation. It should include justification for all Directly Incurred Costs, Investigator effort, use of pool staff resources and any access to shared facilities and equipment being sought. No justification for Directly Allocated Estates and Indirect Costs is required. It should be noted that if resources are not fully justified, they will be subject to reduction,
- Letters of support from any named Project Partners (up to 2 sides A4 each).

Assessment Process

Research grant proposals will be assessed against the following criteria:

- Scientific Excellence (primary),
- Fit to strategic science requirements (primary),
- Fit to AO (primary)
- Risk-Reward (secondary),
- Cost Effectiveness (secondary),
- Quality of Impact Plan (secondary).

Proposals will be subject to international expert peer review. Applicants will have an opportunity to respond to the comments received. Final assessment will be by a Moderating Panel comprised of independent and NERC Peer Review College Members. Feedback to applicants will be available on request.

[How to apply](#)

For further information please contact:

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