



Scottish Aquaculture Research Forum
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Call For Proposals – July 2008

The Scottish Aquaculture Research Forum (SARF) is pleased to announce a call for proposals for research and development projects in the following areas:

NOTE: Applicants must ensure that they can comply with the terms and conditions of the standard SARF contract which can be downloaded from the following web address:
<http://www.sarf.org.uk/downloads/>

Where the matched funding requirement for a project is to be sourced from additional sponsors, applicants are advised to contact the SARF Secretariat on 01350 727484 for further information.

DETAILS:

Project Area 1. Differential uptake and depuration of biotoxins between oysters and mussels

Research requirement:

Research is required to provide both the industry and the regulator with data to parameterise the differences between *Mytilus edulis*, *Crassostrea edulis* and *Ostrea edulis* in the rate of uptake and depuration in the field, of named biotoxins (provisionally DSP, PSP, ASP and AZP). The project should be designed to provide robust experimental and field data to inform understanding and provide guidelines suitable for consideration by the regulator.

- Total maximum project cost: £110K (including VAT where applicable)
- The maximum SARF contribution will be £55K with the remaining contribution being sought from additional sponsors.
- Estimated timescale: 18 months

Project Area 2. Sea lice control on mainstream and organic salmon farms: the need for a new generation of treatments and novel approaches to management.

Research requirement:

In the UK there are a limited number of efficacious treatments for sea lice available. Novel compounds and approaches to the management of sea lice are required to ensure that the impact of this parasite is minimised and that treatments with different modes of action can be used in ways that minimise the development of sea lice resistance to treatment. This research requirement is an open call for research proposals which may include a review of potentially efficacious compounds, assessment of existing treatments used in other areas of animal health, optimisation of existing treatment use etc. SARF will, in principle, contribute 50% of the project cost up to a maximum of £100,000 (spread over 2 financial years).

- Estimated maximum SARF contribution: £100K (including VAT where applicable)
- Minimum matched funding requirement: £100K (in cash or in kind). Applicants will be responsible for securing matched funding.

- Estimated timescale: 18 months

Project Area 3. Vaccine development for marine finfish

Research requirement:

The elucidation and monitoring of the immune response and developing alternative models for testing the response of marine fish to vaccines are emerging as important areas of research. Significant progress has been made in identifying novel cytokines that may have the potential to serve as indicators of vaccine efficacy in gadoids such as cod and haddock. There is a need for continued investment in this area of cutting edge research to ensure that the utility of these cytokines is realised in an applied context.

- Total project cost: £150K (including VAT where applicable)
- Estimated maximum SARF contribution: £75K (including VAT where applicable)
- Matched funding requirement: £75K (in cash). Applicants will be responsible for securing the matched funding requirement.
- Estimated timescale: 24 months

Project Area 4. A systematic assessment of the environmental impact of Scottish shellfish farms, including benthos, water column and relevant special interactions.

Research requirement:

The Scottish Government recognises the potential to further develop shellfish aquaculture in Scotland. In order for the industry to realise its potential, it is important that both the industry and regulators understand the environmental impacts of suspended mussel culture, to improve our understanding of existing practices and any proposed expansion. This research project is likely to involve a combination of detailed literature review and field work at representative shellfish sites. This comprehensive two year study will be designed to provide industry and regulators with clear guidance to underpin the future development of this sector.

- Total project cost: £160K (including VAT where applicable)
- Estimated maximum SARF contribution: £80K (including VAT where applicable)
- Matched funding requirement: £80K (in cash) to be sought from additional sponsors.
- Estimated timescale: 24 months

Project Area 5. Assessment of protocols and development of best practice contingency planning guidance to improve stock containment at cage and land based sites.

Research requirement:

There is increasing concern over the number of escapes from both marine and freshwater fish farms. A comprehensive review of stock containment practices in the UK and elsewhere in the world is required to determine available best practice. Close collaboration with the relevant industry trade bodies will be required to ensure that any recommendations take in to account ongoing research, are practical and may be integrated with the wider review of the industry's code of best practice.

- Estimated maximum SARF contribution: £20K (including VAT where applicable)
- Matched funding requirement: £20K - to be sought from additional sponsors.
- Estimated timescale: 6 months

Project Area 6. Validation of OECD-model for predicted impact of freshwater cage production on in-loch total phosphorus concentration.

Research requirement:

The existing OECD model needs to be validated to ensure that it is fit for purpose to assess the impact of fish cage production in Scottish freshwater lochs. This research will also be required to characterise the physical and chemical nature of fish waste resulting from fish fed on a range of standard diets, with a view to assessing the effect of using different feed constituents on fish waste,

sedimentation and secondary uses of fish waste. It is anticipated that the results of this work may further inform EU funded work [AquaEtreat] on the application of composted fish farm waste for use as a fertiliser for land-based farming.

- Total project cost: £100K (including VAT where applicable)
- Estimated maximum SARF contribution: £70K (including VAT where applicable)
- Matched funding contribution £30K+ (in cash and in kind) - - to be sought from additional sponsors.
- Estimated timescale: 12 months

Project Area 7. Development and delivery of a funding application to re-establish, on a pilot scale, a native oyster population in Scotland, with a view to assessing the potential to derive a sustainable harvest from the re-established population.

Research requirement:

A considerable body of research has already been undertaken by Defra and others which underpins the potential to re-establish native oyster populations. Under the UK Biodiversity Action Plan, Scotland is committed to maintain and, where appropriate, expand the existing geographical distribution and abundance of the native oyster within Scottish inshore waters. In addition, there is a need to secure effective management mechanisms for exploitation and cultivation of this species.

The time has come for a significant pilot scale demonstration of feasibility, including an assessment of the economics and practicality of this endeavour, coupled to the potential for deriving a sustainable harvest of native oysters from re-established beds. A project of the scale envisaged will require significant investment over a period of three to five years. SARF proposes to invest in the development of a comprehensive funding application to appropriate organisations, with a view to securing the investment required to conduct the pilot scale feasibility study. Applicants should submit proposals to SARF detailing how they will engage with existing native oyster co-ordination groups, other stakeholders and prospective funding organisations in developing the proposed funding application. The proposed project to develop the funding application should be divided into two phases – Phase 1 should determine the most likely sources of funding. Subject to the approval of an appointed project steering group, Phase 2 should be the completion and submission of the application(s) for funding.

- Total project cost: £20K (including VAT where applicable)
- Estimated maximum SARF contribution: £10K (including VAT where applicable)
- Matched funding contribution £10K (in cash) - to be sought from additional sponsors.
- Estimated timescale: 6 months

IMPORTANT - NOTES FOR APPLICANTS

Date of publication of call: **4/7/08**

Deadline for submission of applications – 3/10/08

Expected date for announcement of outcome of applications: **1/12/08**

Application forms can be downloaded from the SARF website: <http://www.sarf.org.uk/downloads.html>

Applications should be submitted by email to: research@sarf.org.uk. A signed copy of the Declaration page of the application form only, should be sent by mail to the address provided on the application form.

All prospective applicants should refer to the Download section of the SARF website for Guidelines, Application forms and a copy of the Standard SARF Contract. **Applicants must ensure that they can meet the terms and conditions set out in the SARF contract. Variations to the contract will only be considered in exceptional circumstances and these will need to be formally agreed before an application is submitted.**

SARF does **not** accept unsolicited proposals and is not obliged to fund projects in the areas defined in this call.

Any inquiries related to this call for proposals should be directed to: Dr Mark James

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