



**THE POST**

<b>College:</b>	<b>CLES</b>
<b>Post:</b>	<b>Industrial Impact Fellow (Postdoctoral Research Fellow) – Agritech Cornwall and Isles of Scilly.</b>
<b>Reference No:</b>	<b>P65668</b>
<b>Grade:</b>	<b>F32</b>
<b>HERA:</b>	<b>RFEL</b>
<b>Reporting To:</b>	<b>Dr Jamie Stevens – Associate Professor in Molecular Ecology</b>
<b>Responsible For:</b>	<b>n/a</b>

The above full time post is available from 1<sup>st</sup> March 2019 until 31<sup>st</sup> December 2019 (with possible extension 31<sup>st</sup> March 2020) in the College of Life and Environmental Sciences on the Streatham Campus.

The post is part of the Agritech Cornwall and Isles of Scilly Project involving the University of Exeter, and led by the Duchy College. It is funded through the European Regional Development Fund and forms part of the European Strategic Investment Framework for Cornwall and Isle of Scilly Local Enterprise Partnership.

**Job Description**

The agricultural sector faces several critical challenges as population growth increases demand for food and animal feed; at the same time the climate is changing, agricultural land is being used for housing or infrastructure and soil quality is eroding, making it harder to produce food. Aquaculture, however, particularly the rearing and harvesting of shellfish and invertebrates, remains an area that still offers the potential for growth and 'smart' exploitation. We need innovative ways to increase both the volume of food, whilst continuing to maintain a broad diversity of food types; a focus on diversity provides the opportunity both to offer a varied diet and also reduces the risks inherent in over-reliance on a limited range of food types.

Whilst wild-caught European lobster is typically thought of as a high-end product, we envisage that, with the development of a suitable hatchery process, lobster production in Cornwall and the Isles of Scilly can be increased to provide both increased revenue to local producers within the county, whilst also playing a valuable role in making lobster more widely available to the general public without dramatically increasing costs to the consumer; critically, a move towards the exploitation of hatchery-origin individuals will play a major role in helping to safeguard wild stocks of Cornish lobsters for future generations.

The Biosciences Department, part of the College of Life and Environmental Sciences at the Streatham Campus, Exeter, is seeking a Postdoctoral Research Fellow/Industrial Impact Fellow to participate in a project looking at developing genetic tools to support an improved hatchery-rearing programme. Specifically, the successful applicant will have experience of using molecular genetic techniques to genotype lobsters and will be able to develop genetic-based methodologies to track hatchery-released individuals in the wild and through the commercial seafood supply chain, to identify the parentage of hatchery-reared individuals to assess the contribution of parent animals used as hatchery broodstock and to develop a software pipeline to analyse the genetic data generated. An understanding of the hatchery process will aid in identifying the best ways in which this research can deliver business impact within the regions agritech/aquaculture sector.

The applicant will need to work in close quarters with Cornish businesses looking for opportunities to use the research related to the project to create growth opportunities for Cornish SMEs. The post will also be required to work closely and effectively with other external project partners and wider project colleagues within the Impact, Innovation and Partnership Directorate. As the post is ERDF funded, engagement with

industrial partners, identifying new partnerships and leading on the production of evidence and information necessary to support ERDF compliance and reporting requirements will be fundamental to the role.

**Main purpose of the job:**

Undertaking genotyping of hatchery-reared lobsters and being able to analyse the genetic profiles of these animals against the background of genetic variation identified in wild European lobsters sampled from across the region; to identify the parentage of hatchery-reared animals to assess the contribution of parent lobsters used as broodstock; to develop a genetic test of suitable resolution to be able to confirm the authenticity of Cornish lobsters in the food chain; to develop a software pipeline to analyse the range of genetic data generated.

**Main duties and accountabilities:**

1. To undertake research as appropriate to the field of study. The responsibilities may include all or some of the following:
  - Acting as principal investigator on research projects;
  - Conducting individual or collaborative research projects;
  - Identifying sources of funding and contributing to the process of securing funds;
  - Extending, transforming and applying knowledge acquired from scholarship to the applied fields including collaboration with the industry
  - Writing or contributing to publications or disseminating research findings using media appropriate to the discipline;
  - Presenting research at conferences or exhibiting work in other appropriate events;
  - Assessing, interpreting and evaluating outcomes of research;
  - Developing new concepts in the field of community biology linking experimental results with the theoretical predictions;
  - Resolving problems of meeting research objectives and deadlines;
  - Developing ideas for generating income and promoting research area;
  - Developing ideas for application of research outcomes;
  - Deciding on /following research programmes and methodologies, often in collaboration with colleagues and sometimes subject to the approval of the head of the research programme on fundamental issues.
2. To contribute to teaching and learning programmes in the School and to supervise postgraduate research students.
3. To act as research team leader including:
  - Mentoring colleagues with less experience and advising on their professional development;
  - Coaching and supporting colleagues in developing their research techniques;
  - Supervising the work of others, for example in research teams or projects;
  - Developing productive working relationships with other members of staff;
  - Co-ordinating the work of colleagues to ensure equitable access to resources and facilities;
  - Dealing with standard problems and help colleagues to resolve their concerns about progress in research.
4. To routinely communicate complex and conceptual ideas to those with limited knowledge as well as to peers using high level skills and a range of media and to present the results of scientific research to sponsors and at conferences.
5. As determined by the nature of the project and at the direction of the PI, to plan, co-ordinate and implement research programme activity including:
  - Managing the use of research resources and ensuring that effective use is made of them;
  - Monitoring and reporting on the use of research budgets;
  - Helping to plan and implement commercial and consultancy activities;
  - Where appropriate, to plan and manage own consultancy assignments.

This job description summarises the main duties and accountabilities of the post and is not comprehensive: the post-holder may be required to undertake other duties of similar level and responsibility. Please visit the Human Resources website to view the Research Fellow role profiles.

### **Person Specification**

<b>Competency</b>	<b>Essential</b>	<b>Desirable</b>
Attainments/Qualifications	PhD or equivalent qualification/experience in a related field of study.	Be a nationally recognised authority in the subject area.
Skills and Understanding	Possess sufficient specialist knowledge of marine invertebrate research with a track record of publications in the field.	Knowledge of contemporary molecular methods for screening genetic variation in European lobster.
Prior Experience	Experience of managing research projects and research teams.	Experience of undergraduate / postgraduate teaching and supervision. Experience of inputting on research project design and implementation.
Behavioural Characteristics	Excellent written and verbal communication skills. Able to communicate complex and conceptual ideas to a range of groups. Evidence of the ability to collaborate actively within the Institution and externally to complete research projects and to advance thinking. Able to participate in and develop external networks, track record off collaboration with the industry. Able to balance the pressures of research, administrative demands and competing deadlines.	Able to identify sources of funding, generate income, obtain consultancy projects, or build relationships for future activities.
Circumstances		

### **Informal Enquiries**

Before submitting an application you may wish to discuss the post further by contacting Dr Jamie Stevens, telephone (01392 723775) or email [j.r.stevens@ex.ac.uk](mailto:j.r.stevens@ex.ac.uk)