JOB TITLE:	Water technologist (chemist)
SECTION:	Environmental Research Institute (ERI), North Highland College-UHI
SCALE POINT RANGE:	PDRA £26,867 – 29,164 Research Fellow £31,894 – 35,810
TERM:	3 Years with potential to extend
START DATE:	Negotiable. The position is available immediately
RESPONSIBLE TO:	Theme leader 'Environmental Contamination and Ecological Health'
CLOSING DATE FOR APPLICATIONS:	28th July 2017

The University of the Highlands and Islands (UHI)

The University of the Highlands and Islands (UHI) is the only university based in the Highlands and Islands of Scotland. UHI provides access to undergraduate and postgraduate study, and research opportunities through a distinctive academic partnership of 13 colleges and research institutions. Each partner has its own character and contributes to the distinctive organisation that is the University of the Highlands and Islands. Some are relatively large colleges in the urban centres of the region such as Perth, Elgin and Inverness. Others are smaller institutions, including some whose primary focus is on research.

UHI reputation is built on our innovative approach to learning and our distinctive research and curriculum – all enriched by the people, natural environment, economy, culture and heritage of the Highlands and Islands and its communities. There are 40,000 students at the heart of the university. Curriculum provision across both further and higher education is designed to meet current and future local and regional needs and to attract other students to the Highlands and Islands to study.

Partners have their own micro-strategies and employ the majority of the research staff, make their own investments and exploit local autonomy in creating research activity within the wider university strategy. This breadth and diversity of the UHI partnership adds strength and impact to the main UHI research themes at the local level, often based on our unique regional characteristics. It permits a growing cross disciplinary approach which enriches our research and allows UHI to collaborate at the highest level. Particular research strengths as measured through the REF include environmental, marine and health sciences.

The Environmental Research Institute (ERI)

The ERI is part of the North Highland College, one of the academic partners in the UHI. The ERI has a rapidly evolving research profile and provides a high quality, vibrant research environment. We have the goal of being 'internationally recognised for innovative and distinctive environmental science'.

The ERI is located within the heart of the relatively pristine Highlands of Scotland. As elsewhere, the environment, ecosystems and species of the Highlands (and the services they provide) are susceptible to contamination. A myriad and ever-increasing range of anthropogenic contaminants are now present in our environment – even in one as attractive as the Highlands; and, natural co-stressors (such as rapid climate change) are also posing threats to biodiversity.

At the ERI, we engage in a diverse range of interdisciplinary research to assess and quantify the impact of stressors on wild biota at the molecular, individual and population level. Using state-of-the-art analytical chemistry facilities, we promote understanding of contaminants (i.e., pharmaceuticals, metals, micro-plastics) and their risks, and also consider the effects of a range of natural co-stressors (i.e., climate change, parasites). We seek to develop novel tools and techniques to both monitor and mitigate against potential impacts.

We have on-going interests in the development of remediation techniques and technology – specifically, sustainable, low cost approaches aimed at reducing contaminants in the environment – i.e., novel wastewater treatment solutions, repurposing waste material for use in water remediation, biosorption, and nutrient recovery and recycling.

We work on projects that are highly relevant within the Highlands, but also conduct a significant proportion

of our research internationally. We work to support knowledge creation within economically important local sectors whilst actively engaging in world leading research regarding issues of international concern.

Our team promotes sustainable solutions to complex problems and engages with a diverse range of stakeholders to apply fundamental research to real world challenges. We use a combination of environmental monitoring, cutting-edge analytical chemistry and advanced spatial/temporal modelling to inform policy at the local, national and international scale.

Job description

Job Objective: To develop and undertake research and associated activity within ERI's research theme 'Environmental Contamination and Ecological Health'.

Key Duties:

Research (and knowledge exchange)

General:

• To establish an independent research portfolio that contributes to the ERIs activity under the thematic priority of 'Environmental Contamination and Ecological Health'

• To generate scientific outputs of originality and scientific insight that establish international reputation.

• To make an effective and innovative contribution to the development of multi- and inter-disciplinary environmental research within the ERI and other UHI centres.

• To contribute to the income generation of the ERI through grant capture and/or commercial activity and/or knowledge exchange activity.

• To develop an effective and responsive network of academic and research organisations and where applicable commercial, stakeholder, SME or public services organisations.

Specific:

• To contribute to the ERI's participation the EU Interreg Phos4You programme. This €11 million, 4 year project (Sep 2016 to Aug 2020) led by Lippeverband, Germany aims to demonstrate that it is technically and economically feasible to recover phosphorus during wastewater treatment. ERI is specifically researching innovative solutions for P-recovery and recycling in rural areas.

• To contribute to the development of the UHI Innovation Centre for Sustainable Rural Water Resources that seeks to undertake water research and innovation that addresses contemporary challenges associated with drinking water provision, wastewater treatment and resource management in rural and sparsely populated regions (in partnership with external agencies including NHS Highland and Highlands and Islands Enterprise).

• To provide informed, high-quality supervision for current and future postgraduate research students. Expertise regarding water quality, sustainable wastewater treatment solutions and innovative approaches to pollutant removal/nutrient recovery would be of particular benefit.

Learning and Teaching

General:

• To contribute to curriculum development and teaching/training provision at the ERI within the context of the UHI

• To provide effective and expert supervision of undergraduate and visiting research students.

Specific

• To contribute to the development of a new UHI BSc (Hons) in Environment Science - including module development, e.g., in 'water stewardship' and/or 'water treatment technologies' and the generation of suitable material for on-line delivery.

Outreach

• To contribute to the ERIs provision in outreach activities

General

• This list of duties is not intended to be exhaustive but simply highlights a number of the primary tasks of the post. The post holder may be required to undertake additional duties which might reasonably be expected of him/her and which form part of the function of the post.

Person specification

Applications are invited from motivated candidates with an emerging, or established, track-record of expertise in the environmental behaviour, fate and impacts of pollutants (i.e., nutrients, metals, pharmaceuticals, POPs) in the aquatic environment, and/or, in suitable recovery and remediation techniques and technologies. Areas of particular interest to ERI include:

• Determination of trace contaminants in aquatic media (including surface waters; groundwater; potable and/or wastewaters, etc.) or soils and sediments

• Development of novel remediation techniques for the removal of contaminants from waters and wastes

• Development of analytical methodologies for the determination of emerging contaminants and priority substances in environmental media

• Construction and operation of laboratory-scale and pilot plant systems to evaluate new approaches to water treatment and remediation

Candidates may come from backgrounds such as analytical chemistry, environmental engineering, and environmental sciences.

For further information please contact:

Professor Stuart Gibb, Director of ERI; Stuart.Gibb@uhi.ac.uk Dr Mark Taggart, theme leader 'Environmental Contamination and Ecological Health'; Mark.Taggart@uhi.ac.uk

1. Qualifications:

PhD / DPhil or equivalent experience in a relevant subject

2. Academic credibility:

Candidates should be able to able to demonstrate an emerging, or established, track-record covering:

- Research outputs (papers, presentations, etc.)
- Research grant success and/or knowledge exchange activity
- Postgraduate supervision
- Peer recognition (e.g., refereeing, reviewing, invited lectures and conference presentations)
- Academic programme development and/or delivery
- Other measures of professional recognition/esteem

3. Competencies

Candidates should be able to provide evidence to demonstrate the following competencies

Leadership: PDRA / Research Fellow (level 2)

Candidates should be able to demonstrate that they lead by example to deliver results

- Create, foster and maintain a culture that encourages innovation and creativity
- Set out clear objectives and be pro-active in communicating it to colleagues and managers.
- Motivate and inspire people to achieve results, delegating effectively to provide development opportunities, recognising strengths and weaknesses.

Communication: PDRA / Research Fellow (level 2)

Candidates should be able, strong and effective communicators

- Encourage a culture where effective communication is used as part of the daily working pattern, facilitating communication across the organisation and acting as an adviser.
- Promote good working relationships, ensuring that key messages are communicated effectively at all levels and that information and data being communicated is current, correct and complete.
- Demonstrate very strong presentational skills

Teambuilding: PDRA / Research Fellow (level 2):

Candidates should be able to demonstrate that they work well with and support colleagues inside and outside the team

- Build wide networks of relationships to support organisational goals.
- Encourage an environment where team members take responsibility for team results as well as their own results.
- Understand and explain team goals and work with others to achieve aims.
- Take active steps to build effective teams.
- Build effective teams, drawing on the diversity of others.

Resource management: PDRA / Research Fellow (level 2)

Candidates should be able to demonstrate effective management of resources.

- Make best use of business processes, information, data and tools available to deliver best results.
- Make best use of staffs' skills and abilities to deliver best results, taking into account equality and diversity needs when planning and issuing work.
- Review spending against budgets and seek best value from the resources available.

4. Other attributes

- Full driving licence

Hours of Work	A full-time working week is one of 35 hours. This may include evening and weekend work, where required.
Holidays	34 days in a full year (inclusive of 14 public/general holidays), increasing to 39 days over 5 years service.
Salary	To be negotiated within advertised range
Location	The position will be based at the ERI in Thurso although you may be required to work from other sites as appropriate to the duties.
Pension	You will be entitled to join the Local Government Pension Scheme. Further details are available on joining.
References/ Medical Assessment/ PVG Scheme.	For external candidates appointment will be subject to references, medical assessment and a PVG check all of which will be taken up after an offer has been made.

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