



Research Officer – Grade 7

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| <p>Advert Text</p> <p>Applications are invited for the above fixed-term (40 month), full-time post working in the College of Natural Sciences (School of Biological Sciences) under the direction of Professor Barrie Johnson.</p> <p>Duties will include carrying out prescribed laboratory-based experimental work, writing full reports of work carried out, liaising with other groups and individuals involved in the NERC-funded project <i>Cobalt: Geology, Geomicrobiology and Geometallurgy (COG³)</i>, attending and presenting at meetings arranged as part of the COG³ project.</p> <p>Candidates should be educated to doctoral (PhD) standard (or equivalent) and have previous experience in geomicrobiology, biohydrometallurgy or environmental biotechnology relating to mineral processing.</p> <p>The successful candidate will be expected to commence on August 1st 2015, or as soon as possible thereafter.</p> <p>The ability to communicate in Welsh is not necessary for this post.</p> <p>Applications will only be accepted via our on-line recruitment website, jobs.bangor.ac.uk. However, in cases of access issues due to disability, paper application forms are available by telephoning 01248 383865.</p> <p>Closing date for applications: May 31st, 2015</p> <p>Committed To Equal Opportunities</p> |
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| <p>Overview</p> <p>College/Service College of Natural Sciences</p> <p>School/Unit School of Biological Sciences/Bangor Acidophile Research Team (BART)</p> |
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| <p>The Project</p> <p><i>Provide brief overview of the project if applicable</i></p> |
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The COG³ project aims to understand the natural behaviour and biogeochemistry of cobalt in order to develop and apply novel bioprocessing strategies for cobalt extraction, recovery and the synthesis of targeted products using an integrated multi-institute and multidisciplinary approach.

Specific research is to be delivered through a series of work packages which will address: (1) Geology and mineralogy of cobalt in natural systems; (2) Natural biogeochemistry of cobalt; (3) Bioprocessing of cobalt and development of new products; (4) Improving the cobalt supply chain through integrated studies and dialogue with stakeholders representing the supply chain.

Partner organisations involved in the COG³ project are based at the Natural History Museum (London), and the Universities of Manchester, Exeter, Dundee, Southampton and Loughborough. There will be regular meetings of these and industrial partners throughout the 4-year period of the project which will involve the full participation of all researchers involved.

The research team at Bangor University will be mostly involved in one Work Package in the COG³ project: *Bioprocessing: Abiotic and Biotic Leaching and Production of New Biomineral Products*. This will involve combining bioleaching of oxidised and reduced cobalt ores with selective removal of the solubilised metal from mineral leachates using microbial sulfidogenesis.

Purpose of the job

The post is part of an established research group (the *Bangor Acidophile Research Team*) working in the area of biohydrometallurgy and geomicrobiology. The project involves carrying out and reporting on experimental work that will involve the disciplines of microbiology, molecular biology, mineralogy and analytical chemistry. The research outcomes will be incorporated into the key objectives of the COG³ project. The post holder will be responsible for conducting, analysing and publishing a series of laboratory based studies and liaising with all partner groups involved in the COG³ project.

Main Duties and Responsibilities

Gathering and analysis of data. Setting up and analysing laboratory-based experiments aimed at gathering fresh insight into microbially-accelerated mineral breakdown and metal solubilisation under the specific conditions envisaged for bioleaching both oxidised and reduced mineral ores containing cobalt. The primary objectives are to develop and demonstrate modified, novel environmentally-benign biological strategies for extracting cobalt from primary ores, for recovering cobalt from the process liquors, and for biomineralization of cobalt to synthesise targeted products. These biological strategies for metal recovery will be compared with existing (abiotic) for extracting and recovering this strategic and critical metal;

- abiotic leaching for recovery of metals of interest including cobalt

- Critical analysis of data, in collaboration with other groups in the COG³ project involved in the areas described above.
- Acquiring and maintaining a thorough and up to date knowledge of the scientific literature related to the research aims of the project. Actively supporting the principal investigator in developing new techniques, validating laboratory models, scheduling and testing research, and collecting and analysing data
- Delivering research outcomes. This will include: (i) contributing to the dissemination of research outputs through relevant scientific technical and public press and conferences; (ii) working with partners to disseminate results to industry and other stake holders; (iii) writing regular updates and progress reports for the project management group; (iv) collaborating with co-researchers, including preparation of joint reports and scientific articles; (v) writing of the final report of work carried out within COG³.
- Administration of the research project, to include: (i) participation in project meetings; (ii) helping to coordinate the aims and objectives of the Work Package that Bangor University has responsibility for; (iii) liaison with stakeholders (external and internal).
- Coordinating with the principal investigator to ensure that the research project is kept within budget.
- To assist and advise on other research (including undergraduate and postgraduate projects) being carried out by BART personnel, if requested by the head of the research group.

Other Duties and Responsibilities

- The post holder will be expected to participate in performance review and developmental activities.
- The post holder will be expected to comply with the University's equality policies and statements, Dignity at Work and Study Policy and the University's Welsh Language Scheme.
- The post holder has a general and legal duty of care in relation to health, safety and wellbeing and must take all reasonable steps to ensure a safe and healthy working environment for him/her self and for other members of staff, students and visitors affected by his/her actions or inactions. The post holder is also required to comply with all applicable health and safety policies, procedures and risk assessments.
- The post holder must comply with relevant legal and financial policies and procedures and be aware of their responsibilities in terms of the legal requirements of their posts.

Person Specification

Qualifications/Training

Essential

- A PhD in a relevant subject (geomicrobiology, biohydrometallurgy or environmental

biotechnology relating to mineral processing)

- Research background in relevant area

Experience/Knowledge

Essential

- The ability to undertake quantitative analysis /strong research method and skill analysis
- Proven track record of publications in quality journals
- Proven track record of conference presentations

Desirable

- Previous experience in working as a member of a large research consortium
- Previous experience of interacting with industry
- Experience of field work

Skills/Abilities

Essential

- Demonstrate good verbal and written skills
- Demonstrate good analytical skills, ability to analyse numerical data and present results appropriately
- Demonstrate the ability to prioritise work load and work to deadlines
- Demonstrated skills in microbiology

Desirable

- Demonstrated skills in molecular biology
- Demonstrated skills in mineralogy/geobiology
- Demonstrate ability to work as part of a team
- Demonstrate proven project management skills
- Demonstrate good computer skills, including MS Office, Powerpoint, Excel etc..
- Demonstrate interpersonal skills

Other

Desirable

- Driving licence

General

All members of staff have a duty to ensure their actions are in line with the overall environmental aims of the University and minimise their environmental impact.

All offers are made subject to proof of eligibility to work in the UK and receipt of satisfactory references

All candidates must meet the requirements of UK 'right to work' requirements*

** If you require Home Office permission to work in the UK, or need to switch your visa status in order to take this job, please note that following the introduction by the Government of immigration limits on skilled workers we recommend you use the following

link to information about the routes into employment and to check eligibility requirements:

<http://www.ukba.homeoffice.gov.uk/workingintheuk/>

Disclosure & Barring Service

This post is subject to a satisfactory SPECIFY: standard/enhanced Disclosure & Barring Service check.

As Bangor University meets the requirements in respect of exempted questions under the Rehabilitation of Offenders Act 1974, all applicants who are offered employment will be subject to a criminal record check from the Disclosure & Barring Service (DBS) before the appointment is confirmed. This will include details of cautions, reprimands or final warnings as well as convictions. DBS checks will be updated every 3 years.

(INTERNAL ONLY – Delete if not applicable)

Please note that, in the event of applications being received from candidates on the University's Redeployment Register with a reasonable skills match to the post specification, these applicants will be given prior consideration.

To be eligible to apply for a post advertised for internal applicants only, staff must have a contract for at least a fixed-term period.