



OPPORTUNITY

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Reference: 0434-24

**Salary: £37,000 depending on experience with up to £3,000
dedicated development and training budget**

Contract Type: Fixed Term (18 months)

Basis: Full Time

Job description

This 18-month project takes the form of a [Knowledge Transfer Partnership](#) (KTP), which provides you with practical and formal training and the availability of support from experienced mentors from [BG Research](#), [Aston University](#) and [Innovate UK Business Connect](#).

Job Purpose:

BG Research (BGR) is an established innovative Biotechnology company certified to ISO 13485 located in Kimbolton, Cambridgeshire. BGR's mission is to provide pioneering molecular and engineering technologies to improve access to diagnostic testing and benefit global health outcomes – but most importantly save lives.

<https://www.bgresearchltd.com/bgresearch.html>

BGR's novel CENOS medical device enables the rapid, mobile detection of a range of significant animal and human diseases. This Knowledge Transfer Partnership (KTP) project aims to advance CENOS to the required Manufacturing Readiness Level to enable scaled production. BGR view this KTP as critical to ensuring that technology leadership and advancement is maintained, and their ground-breaking invention has the best chance of commercial success and the benefits this will also deliver for global healthcare / health outcomes.

This role offers an exciting opportunity to work as Design Engineer for Medical Devices development and be part of a collaborative team between BGR and Aston to develop the knowledge that will underpin the company's future product development processes. The successful candidate will be leading the design and manufacturing pipeline for the CENOS product release. The KTP will embed new capabilities in the latest advances in integrated biomedical product design suitable for scaled manufacturing/assembly. It will facilitate robust New Product Development (NPD) processes, which ensure the commercial success of BGR's products, enabling it to develop future novel solutions within a rigorous NPD framework.

Candidate Profile: Minimum BEng (Preferred MEng/MSc) in Engineering, Industrial Design, Design for Manufacturing or related discipline at Merit or above evidencing ability in manufacturing processes, fabrication and assembly or performance design.

Skills/ experience required include:

Essential

- ▶ Knowledge of current manufacturing and assembly processes, modular and sustainable building skills
- ▶ Previous work with design software, 3D modelling, parametric design
- ▶ Good experimental skills and the ability to balance the need of technical and commercial interests of the project
- ▶ Strong problem-solving ability
- ▶ Highly self-motivated and capable of working independently as well as part of the team
- ▶ Ability to take the initiative and have a strong desire to pursue innovative design solutions to fruition
- ▶ Effective interpersonal skills across a range of stakeholders from engineering / technical staff to clients and non-experts

Desirable

- ▶ High level of design and development acumen to manage the complex integration of electronics, optical and mechanical components.
- ▶ Knowledge of AI/machine learning approaches or the desire to upskill in this area.

Main duties and Responsibilities

- ▶ User-Centric design, build and commission of a complete instrument while also considering the associated data control systems.
- ▶ Work closely with the BGR designers and engineers to produce a production scalable instrument viable for cost-constrained markets.

- ▶ Scoping and mapping the Manufacturing Readiness Levels of product.
- ▶ Final specification/list of technology/equipment capable of delivering all production phases for production of the device in collaboration with relevant suppliers and sub-contractors.
- ▶ Take ownership of all aspects of the project including liaising with engineers, potential customers and equipment providers.
- ▶ Manage production cost parameters, budget management and embedding of new skills into the company team.

Additional responsibilities

- ▶ Engage in continuous personal and professional development in line with the demands of the role, including undertaking relevant training and development activities to develop themselves and support the development of others.
- ▶ Ensure and promote the personal health, safety and wellbeing of staff and students.
- ▶ Carry out duties in a way which promotes fairness in all matters and which engenders trust.
- ▶ Promote equality of opportunity and support diversity and inclusion as well as working to support the University's environmental sustainability agenda and practices.

Person specification

	Essential	Method of assessment
Education and qualifications	BEng (or equivalent) in Engineering, Industrial Design, Design for Manufacturing or related discipline at Merit or above evidencing ability in manufacturing processes, fabrication and assembly or performance design.	Application form
Experience	<p>Knowledge of current manufacturing and assembly processes, modular and sustainable building skills.</p> <p>Previous work with design software, 3D modelling, parametric design.</p>	Application form and interview
Aptitude and skills	<p>Good experimental skills and the ability to balance the need of technical and commercial interests of the project.</p> <p>Strong problem-solving ability.</p> <p>Highly self-motivated and capable of working independently as well as part of the team.</p> <p>Ability to take the initiative and have a strong desire to pursue innovative design solutions to fruition.</p>	Application form and interview

	Desirable	Method of assessment
Education and qualifications	MEng/MSc in Engineering, Industrial Design, Design for Manufacturing or related discipline at Merit or above evidencing ability in manufacturing processes, fabrication and assembly or performance design.	Application form
Experience	<p>High level of design and development acumen to manage the complex integration of electronics, optical and mechanical components.</p> <p>Knowledge of AI/machine learning approaches or the desire to upskill in this area.</p>	Application form and interview

Contact information

Enquiries about the vacancy:

Name: Dr Patrick Geoghegan, Mechanical, Biomedical & Design Engineering Department, College of Engineering & Physical Sciences (EPS)

Job Title: Senior Lecturer

Email: p.geoghegan@aston.ac.uk

Enquiries about the application process, shortlisting or interviews:

Recruitment Team via recruitment@aston.ac.uk or 0121 204 4500.

Additional information

Visit our website <https://www2.aston.ac.uk/staff-public/hr> for full details of our salary scales and benefits
Aston University staff enjoy

Salary scales: <https://www2.aston.ac.uk/staff-public/hr/payroll-and-pensions/salary-scales/index>

Benefits: [Benefits and Rewards | Aston University](#)

Working in Birmingham: <https://www2.aston.ac.uk/birmingham>

Employment of Ex-Offenders: Under the Rehabilitation of Offenders Act 1974, a person with a criminal record is not required to disclose any spent convictions unless the positions they applying for is listed an exception under the act.

Eligibility to work in the UK: You should ensure that you meet the eligibility requirements, including meeting the [English language standards](#). If you do not meet the eligibility criteria, any application for a work visa would be unsuccessful. Please see UKVI guidance for further information on eligibility, knowledge of English requirements and approved test centres <https://www.gov.uk/tier-2-general>

With the end of free movement for EU/EEA/Swiss nationals from 1 January 2021, the UK's new immigration system applies to all non-UK/Irish nationals who require a visa.

Where an individual is subject to UK immigration control, they will require a visa to work in the UK.

The following individuals do not need a visa for the UK, but do still have to prove their right to work before employment can commence:

- **British Citizens or Irish Nationals**
- **EU/EEA/Swiss nationals with Settled or Pre-settled status under the EU Settlement Scheme**
- **Non-EEA nationals with Indefinite Leave to Remain/Settlement in the UK**

The main routes available for those who need a visa to work in the UK are **Skilled Worker**, **Global Talent** and the **Graduate Route**.

You can find further information about each of these visa routes on our [candidate immigration page](#).

If you will conduct research in your role, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application. Please see below for further details.

Academic Technology Approval Scheme (ATAS): If you will conduct research in your role and you apply for a Skilled Worker or Temporary Worker GAE visa, you may need to apply for and obtain ATAS clearance before Aston can issue a Certificate of Sponsorship for your visa application.

This process can take at least 6 weeks to process, and Aston will consider this when confirming your expected start date. Processing times will increase between April and September and can longer to complete.

There is no fast-track option available. ATAS certificates will be processed in order of receipt.

You can find more information about ATAS on our [candidate immigration page](#).

Before you start and Right to Work

90-day entry vignette

If you have applied for your visa outside of the UK, you will receive a vignette in your passport which is usually valid for 90 days. Please make sure to travel to the UK within the 'valid from' and 'valid to' dates on this visa. If you entered the UK before or after these dates, you would not 'activate' the visa and you would need to leave and re-enter the country.

You will also receive a decision letter confirming details about your immigration permission and where to collect your Biometric Residence Permit.

Cost of Living - Estate and Letting Agents

There are numerous Estate and Letting Agents in and around Birmingham that can help you find suitable accommodation. The [Midland Landlord Accreditation Scheme](#) provides a list of professional agencies and landlords who have applied with them for accreditation. Whilst accreditation is not a guarantee of quality, it provides some reassurance about the standard of the service they provide.

You can also use property search websites such as [Rightmove](#) or [Zoopla](#).

Equal Opportunities: Aston University promotes equality and diversity in all aspects of its work. We aim to ensure, through our admissions policies for students, and our staff recruitment and selection processes that we encourage applications from all groups represented in the wider community at a local, national and international level.

The University will endeavour not to discriminate unfairly or illegally, directly or indirectly, against student or potential students, staff or potential staff. This commitment applies to all functions of the University and to any stage of an individual's career.

An Equal Opportunities Monitoring Form is included within the application form. Data you provide on the Equal Opportunities Monitoring Form will be included in a general database, for statistical monitoring purposes, enabling the University to monitor the effectiveness of its Policy, Codes of Practice and Guidelines on Equal Opportunities in Employment. Individuals will not be identified by name.

Data Protection: Your personal data will be processed in compliance with the Data Protection Act 2018 and the General Data Protection Regulation ((EU) 2016/679) ("GDPR"). The University's Data Protection Policy and Privacy Notices, including the Job Applicant Privacy Notice can be found at <https://www2.aston.ac.uk/data-protection>. Your application will only be used to inform the selection process, unless you are successful, in which case it will form the basis of your personal record with the University which will be stored in manual and/or electronic files. Information in statistical form on present and former employees is given to appropriate outside bodies.

Full details of our terms and conditions of service and associated policies and procedures are available online at <https://www2.aston.ac.uk/staff-public/hr/policies>

Aston University
Birmingham
B4 7ET, UK.

+44 (0)121 204 3000

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