Biomedical Engineer

Full time, permanent, based at MediCity, Nottingham

22/09/2021

Job description

Your primary role of the Biomedical Engineer (BE) will be to drive the design and development of novel implantable medical devices (IMDs) with tissue engineering functionality in collaboration with senior management, fellow team members, clinicians and other external partners. The role offers the successful candidate excellent career prospects and the opportunity to thrive in a fast growing, team-oriented business.

Specific duties:

- Conduct detailed research into clinical requirements using surveys, interviews and group workshops to inform the design and development of IMDs.
- Play a leading role in the design, development and manufacture of IMDs made from our unique 3D printing resins. This will involve using computer software and mathematical models to create new designs from scratch, as well as developing and optimising existing designs.
- Develop and optimise 3D printing production processes to deliver the required product specification(s) at maximum efficiency (with support from our 3D printing consultant and colleagues).
- Support our team of chemists in the development and optimisation of a range of 3D printing resins with properties tuned to the particular requirements of specific devices (physical, biocompatible, degradation, resorption etc)
- Proactive liaison with patent attorneys in the drafting of new patent applications for emerging IP.
- Help to plan, arrange and manage clinical trials of IMDs.
- Participate in the development of collaborative relationships with relevant third-party organisations and working closely with other professionals, including medical practitioners, patients and colleagues from partnering businesses.
- Contribute to the development and operation of an appropriate health and safety regime for the company and ensure that all operational activities under your control comply with the relevant health and safety regulations and legislation.
- Assist in the development and operation of a GMP quality control system that provides solid foundations for future product/company certifications and/or approvals by third party agencies and regulatory bodies.
- Trouble-shoot product performance/quality issues in collaboration with colleagues.
- Participate in all production operations including procurement and storage of input materials, running R+D batch production, quality control testing, packaging and storage of finished product.
- Carry out analysis, testing and characterisation of 3D printed products to generate sound scientific evidence of product performance and compliance with quality requirements.
- Ensure accurate records are kept of all operational activities and write clear technical and operational reports and presentations tailored to the specific needs of internal and external audiences.
- Support colleagues in sales and marketing activities including promotion of our products online and at trade shows, conferences and meetings with clinicians and other customers.
- Develop and deliver high quality training programmes for internal colleagues and external colleagues, including clinicians.
- Respond to technical enquiries from clinicians and other customers.
- Ensure that all equipment within your area of responsibility is properly maintained and cleaned after use, and that your working area is kept clean and tidy.
- Any other duties reasonably required by the company.

Person specification

The successful applicant will be a qualified Biomedical Engineer with experience in 3D printing and tissue scaffold engineering.

A self-motivated, highly driven person with excellent teamworking, communication and presentation skills, you will also be well practiced in computer-aided design, have great attention to detail, strong problem-solving abilities, and the resilience to maintain high working standards under pressure.

Essential requirements:

- BSc or equivalent in Biomedical Engineering or another relevant subject.
- Experience in 3D printing and tissue engineering product development.
- Experience in performance testing of such products (mechanical, toxicological, useability etc).
- Experience of working with a quality management systems and good manufacturing practice in a related industry.
- Eligible to work permanently in the UK.
- Valid UK driving license.

Desirable requirements:

- PhD in relevant subject.
- 5 years+ experience in the fields listed above.
- Membership of a relevant professional body.
- Experience in preparing new IMDs for clinical trials.
- Experience of taking such products through clinical trials.

Reporting and collaboration lines

You will report to the Head of R+D Operations (line manager).

You will also work in collaboration with the senior management team, business development/marketing colleagues and external consultants, customers and collaborators.

Primary location

You will be based at MediCity, Building D6 Thane Road, Nottingham NG90 6BH. From time to time, you might also be required to work in other locations across the UK and overseas as the business develops.

Working conditions

You will be working in the special conditions of a chemical/engineering laboratory and local safety regulations must be observed at all times including the appropriate use of personal protective equipment.

Physical Requirements

You will be required to regularly stand for extended periods of time in a lab environment, and to lift heavy objects from time to time.

Specific training required

Relevant safety training will be provided in accordance with the company's Health and Safety policy.