Job Specification

Title: **(Senior) Polymer Component Development Engineer**

Reports to: **R&D Manager/Director**

Date created: **March 2023**

About CardiacBooster:

CardiacBooster is a medical device company developing a new and innovative device to support the heart. Heart support devices are used by interventional cardiologists to stabilize patients in times of cardiogenic shock and acute heart failure. We are an enthusiastic team with diverse backgrounds and expertise, located in Galway, Ireland, and Nijmegen, Netherlands. CardiacBooster is an equal opportunity employer.

Job Description:

The (Senior) Polymer Component Development Engineer will be an experienced engineer with intimate knowledge of thin film polymer processing. The key responsibility will be the development and optimization of one of the company's core technology components. The (Senior) Polymer Component Development Engineer, will be responsible for the development and ultimately manufacturing of thin film polymer components as well as their assembly and integration into the final device. The Senior Engineer, Polymer Processing, will work closely with his/her counterparts responsible for catheter development and device characterization. He/She will share the responsibility of realizing the CardiacBooster's full potential. The successful candidate will have entrepreneurial spirit, the required persistence to succeed in a start-up environment, and the ability to work in a self-directed manner with minimal direction and supervision. He/She will have hands-on knowledge and experience in the development of cardiovascular devices. The (Senior) Process Engineer will be a team player and have excellent communication skills as well as in-depth industry knowledge. The successful candidate will have a minimum of five years of medical device development experience. The (Senior) Polymer Component Development Engineer will work on the company's premises in Ireland, and be able to travel occasionally.

Key Responsibilities

- Design and development of polymer components and specification of polymer materials/formulations to achieve required functional & mechanical performance.
- Develop processes and work instructions for the manufacturing of proprietary polymer components in the company's catheter device
- Develop and maintain the polymer processing manufacturing environment
- Ensure good communication with peers and management in the continuous feedback loop between device design, design characterization and manufacturing processes
- Develop test methods and protocols for design verification testing of the polymer component
- Anticipate risks and challenges; proactively ensure availability of adequate mitigation plans
- Ensure adequate IP generation to protect novel developments and findings
- Manage relationships with third party development and manufacturing vendors

Skills, Qualifications & Experience

- Either a primary degree or Master's Degree in a relevant engineering discipline such as polymer, mechanical, biomaterials or biomedical engineering, or equivalent experience
- Primary or Master's Degree in a relevant engineering discipline, or equivalent experience
- Experience in medical device GMP and compliance to ISO 13485
- Familiarity with statistical analysis techniques and DOE
- Experience in equipment specification, design and qualification
- Competency in Solidworks or equivalent 3D CAD system
- Self-directed engineer with entrepreneurial drive
- Have an established vendor network relevant to the device development
- Experience with creation and processing of thin polymer films, in particular biocompatible elastomers.
- Experience with creation of thin film polymer 3D shapes.
- Experience with bonding of thin film polymer layers
- Excellent communication skills in English

The above statements are intended to describe the general nature and level of work being performed by people assigned to this classification. They are not intended to be construed as an exhaustive list of all responsibilities, duties, and skills required of personnel so classified.