Job Title:	Principal Engineer, R&D (Minnesota)
Reports To:	TBD
Location:	900 Long Lake Road, Suite 300, New Brighton, MN 55112
Date:	2021 January 27

Purpose/Role

A brief description of the primary responsibilities for which the employee is accountable

The Principal Engineer will participate in selection of an overall concept and development of a full product development cycle as it relates to the Tiara Transeptal (TS) program. This individual will be responsible for a portion of test method development and coordination of testing within internal and external testing labs.

Position Description

A listing of the deliverables to be accomplished, including specific duties/activities that make up the job

- Maintain and implement compliance for the MN R&D Test Lab as it relates to official testing
- Develop test methods, protocols and reports to verify and validate Neovasc programs (Primarily Tiara TS)
- Develop internal Design of Experiments (DOE) methodology and overall approach for exploring device design space and process windows for the various Neovasc programs (Tiara)
- Participate in the design and development approach of the Tiara TS a Transcatheter Mitral Valve program (System Approach – Implant + Delivery System Integration)
- Actively participate in Project Planning for early and full product development cycle activity for Tiara TS
- Provide guidance, mentoring and learning opportunity for engineers across Neovasc based on previous experience and new areas related to Tiara development (i.e., new material or processing approaches)
- Work directly with vendors for components, sub-assemblies as related to Neovasc programs (Primarily Tiara)
- Coordinate activity with consultants and physicians as related to new product development
- Assist Quality Assurance as defined by the Neovasc quality function (i.e., following the design control system)
- Other related duties as may be required

Qualifications

Represents the desired qualifications but may not reflect the employee's existing qualifications

Education:

- Minimum 4 years of post-secondary education in the field of Applied Science (Engineering preferred) in a related discipline or equivalent combination of education and experience

Experience:

- Working experience (≥ 10 years) in an ISO setting, and/or aware of general ISO requirements

Skills:

- Strong understanding of Design Controls methodology
- Strong DOE and Statistical Skill Set a must have
- Strong analytical and problem-solving skills
- Strong understanding of best practices for Design for Manufacturability
- Strong understanding of variability analysis and variability control/ reduction methods
- Strong understanding of Risk Analyses (DFMEA, PFMEA)
- Strong understanding of Design Validation

- Ability to handle ambiguity
- Strong computer skills (e.g., Microsoft Software, Adobe, etc.)
- Ability to prioritize and handle numerous tasks on multiple projects
- Project management tools a plus
- Experience with animal anatomy and how animal studies work
- The ability to review various imaging modalities as related to exploring the cardiovascular system (i.e., CT, ECHO)
- Strong communication and organizational skills (upward/downward through the organization and cross functionally)
- Knowledge of CAD software programs such as Solidworks
- Finite Element Analysis (FEA) and/or Computational Fluid Dynamics (CFD) a plus
- Hands on experience with machines, tools and metrology/test equipment
- General Mechanical Aptitude
- Proven ability to provide leadership and mentoring to fellow engineers