



Job Title:	Principal Engineer – R&D
Reports To:	Vice-President, Product Development & Manufacturing Engineering
Location:	900 Long Lake Road, Suite 300, New Brighton, MN 55112
Date:	2018 August 20

Purpose/Role

The Principal Engineer will work collectively with Product Development, Manufacturing Engineering and Quality groups to gather data to support design verification and validation for both Reducer & Tiara using internal and external testing labs. This role includes extensive focus on FEA/CFD.

Position Description

- Responsible for assisting in the coordination of project deliverables specific to collecting and documenting submission data for the Reducer & Tiara programs.
- Simulated manufacturing and anatomical inputs for assessing FEA and/or CFD for cardiac implants
- Creation of test methods capable of representing patient populations along with repeatable data collection using guidance documents
- Ability to prioritize tasks and manage a varied workload, exhibit strong written and verbal skills and interface effectively with project teams, management and physicians.
- FEA and/or CFD for the Reducer & Tiara program.
- Primary communicator and logistics with outside test facilities and co-developers of simulations and/or testing.
- Develop and carryout test plans to prove a concept, write reports concluding the findings.
- Coordinate logistics for product testing (in-house and/or out-of-house) and communicate with contractors.
- Participate on cross functional teams to communicate project deliverables across multiple project phases.
- Familiar with medical device guidance documents (i.e., ISO 5840).
- Mentor other team members on FEA and/or CFD.
- Develop internal Design of Experiments (DOE) methodology and overall approach for exploring device design space and process windows for the various Neovasc programs (Reducer & Tiara)

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:

- Subject Matter Expert with a FEA software package (Abaqus, Ansys)
- Experience with metallic, polymeric or biomaterials and/or sterile product related to catheter based medical devices
- Experience utilizing computer aided design (CAD) to develop medical devices (i.e., Solidworks preferred)
- Understanding of human anatomy (primarily the cardiovascular system)
- Proven technical writing skills to develop protocols and reports
- Understanding of various types of mechanisms, materials, proper tolerancing, drafting standards
- Background in developing creative solutions to solve design problems
- Successful track record of working within a cross functional team bringing products through the various project phases
- Ability to provide leadership and mentoring to other engineers and to work well in a team environment

PLEASE NOTE THAT ONLY CANDIDATES LOCAL TO THE NEW BRIGHTON, MN AREA WILL BE CONSIDERED.