

Description	
Job Title	Staff Scientist
Reports to Title	Senior Director of Engineering and Quality Assurance
General Accountability	<p>Our mission is to Profoundly change the standard of care by creating a tomorrow where clinicians can confidently ablate tissue with precision; a tomorrow where patients have access to safe and effective treatment options, so they can quickly return to their daily lives. Changing the standard of care is part of our fabric. We are a group of energetic, problem-solvers focused on innovation, and looking to change the world. If you want to make a Profound impact with your career, here is your chance.</p> <p>The Staff Scientist has a deep understanding of the science of magnetic resonance and ultrasound propagation in human tissues, and a desire to advance these core technologies and realize their potential as an effective means to treat various conditions and diseases.</p> <p>The Staff Scientist researches, develops, improves and evaluates the core technologies used in Profound Medical’s products. This include algorithms for treatment and image processing, ultrasound transducer technology and design, and magnetic resonance thermometry. He or she also stays abreast of the state of the art in these fields, researches what competitors are developing, and participates in the growth of the intellectual property portfolio.</p> <p>He or she works as a liaison with external research partners.</p>
Duties and Responsibilities	<p>Primary duties are as follows:</p> <ol style="list-style-type: none"> 1. Invent, develop, improve, analyze and validate the treatment algorithms at the core of the company’s product, with the aim to maximize speed and efficiency while maintaining safety; 2. Evaluate and research improvements to Profound Medical’s core technologies (real-time MR thermometry, high-intensity therapeutic ultrasound) and identify its strengths and weaknesses against its competitors’ technology; 3. Develop, test and optimize MRI protocols for various MRI models; and 4. Establish a liaison with external research partners, contribute to their research as needed, and transfer knowledge back to Profound Medical. <p>Additional duties may be required at times, such as:</p> <ol style="list-style-type: none"> 5. Contribute to real-time thermometry image processing algorithms 6. Develop and implement data analytics to assess the technical performance of the product 7. Contribute to system validation protocols and to their execution 8. Investigate product complaints, perform root cause analysis of

	<p>failures, and propose remediation in a timely fashion</p> <p>9. Generate Intellectual Property by analyzing, inventing and documenting designs and methods</p> <p>10. Interact with the wider scientific community through publications and attending conferences</p> <p>11. Participate in the generation of system requirements and specifications</p> <p>12. Participate in risk management and usability engineering activities</p> <p>13. Assist Company in planning, development and execution of clinical trails</p> <p>14. Assist in the regulatory submissions of products; participate in regulatory strategy discussions; liaise with physicians on future clinical investigations initiated by the company and external parties</p>
Competencies	
Education	Ph. D. in Biomedical Engineering, Medical Physics or equivalent
Certifications	None
Key Attributes (experience, skills and technical knowledge)	<p>Required:</p> <ul style="list-style-type: none"> ▪ Excellent communication skills in English, verbal and written ▪ 3 years MRI experience with knowledge of MRI physics ▪ Demonstrated skills in building mathematical models of physical processes such as heat transfer and wave propagation ▪ Demonstrated skills in designing and developing algorithm ▪ Knowledge of Matlab (or other scripting language) ▪ A portfolio of scientific publications (journal articles and conferences) and demonstrated ability to relate to researchers ▪ Valid passport for travel to Canada, United States and Europe <p>Desirable:</p> <ul style="list-style-type: none"> ▪ Knowledge of high-intensity therapeutic ultrasound is an asset ▪ Experience of medical image processing and algorithms such as segmentation and registration