MR IMAGING SPECIALIST/SCIENTIST

Company

The Company and its wholly owned subsidiary, Polarean, Inc. (together the “Company”) are revenue-generating, investigational drug-device combination companies operating in the high-resolution medical imaging research space.

The Company develops equipment that enables existing MRI systems to achieve an improved level of pulmonary function imaging and specializes in the use of hyperpolarized xenon gas ($^{129}$Xe) as an imaging agent to visualize ventilation. $^{129}$Xe gas is currently being studied for visualization of gas exchange regionally in the smallest airways of the lungs, across the alveolar tissue barrier, and into the pulmonary bloodstream.

The Company operates in an area of significant unmet medical need and its technology provides a novel investigational diagnostic approach, offering a non-invasive and radiation-free functional imaging platform. The annual economic burden of pulmonary disease in the US is estimated to be over $150 billion.

Role

MR Imaging Specialist/Scientist is responsible for developing image acquisition, reconstruction and data analysis methods, implementing said methods in appropriate software programming environments, prepare supporting technical and regulatory documents, and performing said methods on research samples and associated data to support development of medical image acquisition, analysis and interpretation tools for clinical deployment.

Responsibilities

- Perform data and image analysis using commercial software packages, e.g., Excel, Matlab, OsiriX, ImageJ and R.
- Develop custom software code for data/image acquisition, reconstruction, analysis, and to generate results in tabulated or graphical format using a variety of different programming environments, e.g., Matlab, Python and C.
- Prepare analysis results summary reports including data visualization and interpretation.
- Develop mathematical models of systems, simulate results and compare to empirical data to assist with interpretation.
- Perform literature review on historical and state of the art of relevant image acquisition, reconstruction and analysis methodology.
- Work with Quality team to develop documents and implement material to support regulatory filing and compliance of medical imaging products.
- Work with Commercial team to collect, translate and integrate product requirements, user interface and deployment needs for of medical imaging products.
Qualifications

- A doctoral degree in mathematics, computer science, physics or engineering, OR a master's degree with five (5) years of relevant work experience
- Great work ethics and enthusiasm about operating in a growing company
- Organized and systematic in conducting procedures and keeping records
- Working knowledge of image acquisition, reconstruction and analysis methods. Medical imaging experience is highly preferred.
- Working knowledge of computational and statistical computer programming languages and software packages
- Good understanding of signal processing and data analysis concepts, such as error propagation, data fitting, signal-to-noise ratio and associated statistical properties
- Clear verbal and written communication skills
- Ability to work interactively with supervisor and other team members
- Authorized to work in USA with no travel restrictions

Familiarity with the following skills is not required but highly desirable:

- NMR physics and associated mathematical models
- MR image reconstruction methods
- Hyperpolarize gas MRI acquisition methods and signal dynamics, especially with focus on dissolved phase $^{129}$Xe NMR signal

Job Type

- Full-time
- Onsite (Research Triangle Park, North Carolina, USA)
- Occasional travel to domestic/ international destinations for research collaboration

Benefits

- 401(k)
- Dental insurance
- Health insurance
- Paid time off
- Vision insurance
- Bonus pay
- Incentive stock options

Application Link

https://www.indeed.com/viewjob?from=app-tracker-saved-appcard&hl=en&jk=8b74d087938ea77d&tk=1ggc175e3nbed800