

Doctor of Physical Therapy

LAB RESEARCH ANALYST I (1888)

Michael W. Krzyzewski Human Performance Laboratory (K-Lab) Doctor of Physical Therapy Division, Department of Orthopaedic Surgery Duke University School of Medicine

The Doctor of Physical Therapy (DPT) Division, the Duke Sports Science Institute, and the Department of Orthopaedic Surgery at Duke University seek to recruit a Lab Analyst I in the area of human movement/motion analysis. This appointment is housed in Department of Orthopaedic Surgery at Duke University within the DPT Division. The ideal candidate exhibits strong collaborative skills, a diverse skillset in the area of human biomechanics research and a history of scholarship in varying areas of movement science, engineering, orthopedics, and sports medicine. The research would be based in the Michael W. Krzyzewski Human Performance Lab (K-Lab), a state of the art movement science laboratory.

Minimum Qualifications for this research analyst position include:

- 1. Candidates must have an earned bachelor's degree (Master's or PhD or equivalent doctorate e.g. Sc.D., M.D., D.V.M. preferred) in kinesiology, biomechanics, sports science, bio-engineering, or another closely related field;
- 2. A history of 2 + years of research experience.
- Experience working with a diverse professional population (e.g., MD's, physical therapists, athletic trainers). 3.

Expectations:

- Strong collaborative skills including experience coordinating or collaborating in a movement science/sports performance laboratory;
- Proficiency in performing motion capture and analysis, force plate recording and analysis and isokinetic 2. dynamometry testing and analysis;
- Interests in novel, multidisciplinary sports medicine research; 3.
- Experience working with diverse patient and student populations; 4.
- Excellent communication and organizational skills; 5.

Work Performed

- Conduct a variety of investigations in the planning, development and implementation of experimental procedures 1 and specialized laboratory techniques in the analysis of human movement.
- 2. Collect information and data through observation, experimentation and various other methods, to include operating highly technical laboratory instruments and equipment (e.g. Vicon Nexus motion capture system, Biodex System Pro dynamometer, Delsys EMG system).
- Confer with principal investigators in determining specific experiments to be included in the research protocol 3. and to discuss the interpretation of results.
- Provides intellectual contribution to the research program or shared resource, including developing and editing 4. research grant proposals and manuscripts.
- 5. Review journals, abstracts and scientific literature to keep abreast of new developments and to obtain information regarding previous experiments to aid in the design and development of original procedures and techniques.
- 6. Supervise, train and instruct residents, interns, students or lower level personnel in laboratory techniques and procedures, such as 3D biomechanical motion capture and strength assessments.
- 7. Navigates processes and people involved in Duke clinical research, demonstrates the organizational awareness, and has the interpersonal skills necessary to get work done efficiently.

Salary is commensurate with qualification and experience. Candidates selected for an interview will be asked to provide a brief synopsis of past movement science/sports oriented research. All interested candidates should send (in confidence) a cover letter and curriculum vitae by April 15, 2021 including contact information for three references by email to Dr. Lou



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