

The University of Denver and the Rocky Mountain Consortium for Sports Research (RMCSR) are seeking Summer Interns to support a field-based movement science research project aimed at preventing ACL injuries in adolescent female soccer players. This person will contribute to the success of the project through multi-disciplinary responsibilities, but will have a primary focus on administering group exercise regimes aimed at reducing ACL injuries and collecting biomechanical data with wearable sensors to assess exercise regime efficiency. The position requires advanced knowledge of biomechanical principles and preferably independent laboratory experience in collecting/analyzing biomechanics of functional movements.

Additionally and depending on career ambition, the intern may integrate the responsibilities of the above project with one or more of the following opportunities:

Track I: Biomechanics Laboratory Research

- The Intern will be involved with several ongoing or planned advanced biomechanical projects in a state-of-the-art movement research laboratory. Musculoskeletal imaging, computational modeling and high-speed stereoradiography system will be used to collect and analyze movements of total hip, knee and shoulder patients and baseball pitchers.

Track II: Strength and Conditioning

- The Intern will be involved with exercise prescription and training in elite performance centers that focus on the strength and conditioning of collegiate and professional athletes.

Track III: Sports Medicine

- The Intern will be involved in clinical movement-based applications while working with physical therapists and orthopaedic surgeons at top sports medicine clinics in Denver, Boulder, or Vail, Colorado.

Research and Training Responsibilities:

1. Conduct field-based training and research under the direction of a certified strength and conditioning specialist or movement scientist.
2. Perform data collection using multidisciplinary instrumentation for motor performance, including motion capture, inertial measurement units (IMUs), force plates and electromyography (EMG).
3. Process and analyze experimental data through motion capture software, Visual 3D and MATLAB.
3. Coordinate all data collections and injury tracking for one or more soccer teams.
4. Project management and weekly reports on collections and outcomes.
5. Apply basic statistical knowledge; understand, interpret and describe complex data by preparing graphs and table in reports.
6. Maintain IRB documents, consent forms and injury surveillance protocols.

Knowledge, Skills and Abilities Required:

1. Ability to take computer based course in biomedical research with human subjects and attain CITI certificate within the first week of internship.
2. Experience in the biomechanics/movement science field, as well as knowledge of the theories, principles, practices and techniques of biomechanics.
3. Research experience in a gait and motion lab is highly desired.
4. Knowledge of motion analysis data acquisition and processing.
5. Must be a problem solver, have excellent critical thinking ability and great interpersonal skills.

Minimum Physical Requirements:

Standing/Walking Constantly (67-100%)
Independently Lifting/Carrying up to 15 pounds frequently
Independently Lifting/Carrying up to 50 pounds occasionally (0-33%)
Finger Dexterity Constantly (67-100%)
Kneeling Frequently
Bending/Stooping Frequently
Reaching Frequently
Talking/Hearing/Seeing Constantly
Pushing/Pulling Frequently
Applicant is required to have transportation for travel to multiple field sites.

The above list of duties is intended to describe the general nature and level of work performed by individuals assigned to this classification. It is not to be construed as an exhaustive list of duties performed by the individual so classified, nor is it intended to limit or modify the right of any supervisor to assign, direct, and control the work of employees under his/her supervision.

Contact Information:

Please send a cover letter and resume/CV to:

Michael J. Decker, Ph.D.

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The RMCSR is a tax-exempt (IRS code 501(c)3) charitable organization for the advancement of youth sports research, official participating child safety organization of STOP Sports Injuries and the Youth Sports Safety Alliance; and serves as the community outreach research arm of the University of Denver's Human Dynamics Laboratory.