Overall Description of Responsibility or Nature of Work
This position reports directly to Dr. Angelo D'Alessandro, responsible for directing and performing research focused on metabolic reprogramming in health and disease, including but not limited to red blood cell metabolic adaptations to inflammatory responses, hypoxia and aging.

Red blood cells are by far the most abundant host cell in the human body, accounting for ~25 out of 30 trillion total host cells in the human body of a reference man (75 kg weight, 175 cm height). Omics technologies, especially metabolomics and proteomics, have helped the D'Alessandro Lab revealing emerging patterns in systemic and red blood cell-specific responses to acute or chronic hypoxia. By focusing on cancer metabolism and (red) blood cell biology, we are increasingly appreciating shared molecular mechanisms driving systemic responses to trauma/hemorrhagic shock, ischemia/reperfusion injury, sickle cell disease, ageing and inflammation, mammalian hibernation, sports physiology, Down syndrome and pulmonary hypertension. The candidate will expand on these lines of research by contributing to advance technology and understanding of these systems.

For additional information on the laboratory’s research and recent publications, see http://www.ucdenver.edu/academics/colleges/medicalschool/departments/biochemistry/Faculty/PrimaryFaculty/Pages/dalessandro.aspx

Candidate is expected to design and carry out independent research, write fellowship applications, and publish.

We seek a bright, energetic, motivated individual to contribute to our research program. The candidate will be responsible for carrying out independent experiments. Candidates must be self-motivated, have a strong aptitude for research, and the ability to quickly learn new areas of research and carry out complex experiments. The candidate’s primary responsibility will be to conduct independent experiments. Good organizational and computer skills and the ability to work independently as well as part of a research team are necessary.

Specific Position Duties with Percentages of Time
100%
Experiments have to be designed to improve our understanding of red blood cell biology in health and disease, including but not limited to ageing, inflammation, hypoxia, hematopoiesis and routine storage in the blood bank. Mass spectrometry-based technologies will be used to interrogate these systems in vitro, ex vivo and in vivo.

Qualifications
Successful candidate is expected to be a curious, highly motivated individual, with a positive attitude, and strong interpersonal skills. Post-doctoral fellows are expected to direct independent projects, assist in mentoring junior lab members, and apply for independent fellowship funding.

Minimum Requirements:

- PhD degree in Biological Sciences, Chemistry, Biochemistry, Molecular Biology, Genetics, Cell Biology, or a related field within the last three years.
- Record of outstanding productivity supported by peer-reviewed publications in internationally recognized English language journals
- Excellent communication skills using the English language.
- Experience in mass spectrometry-based metabolomics
Applicants with significant experience in at least one or more of the following will be given priority:

1. Mass spectrometry
2. Ultra-high pressure liquid chromatography
3. Tracing experiments
4. Computational analysis
5. Multivariate analysis and statistics
6. Targeted (mass spectrometry-based) quantitative methods
7. Enzymatic assays
8. Quantitative proteomics
9. Proteomics technologies

**Research Positions must list description of research being performed.**
Candidate will contribute to research involving one or the following

1. Mass spectrometry-based metabolomics
2. Quantitative metabolic flux analysis
3. Systems biology
4. Redox or quantitative Proteomics

**Salary Range**
Salary is commensurate with skills and experience. The University of Colorado offers a full benefits package. Information on University benefits programs, including eligibility, is located at www.cu.edu/employeeservices.

**Applications must contain and should be sent to angelo.dalessandro@ucdenver.edu:**

1. A letter of application including a short description of previous research experience, goals, and a statement of your interest in metabolic reprogramming in health and disease
2. Curriculum Vitae
3. Contact information for three references
4. Start date availability

**Special Notices to Applicants:**
The University of Colorado at Denver is committed to providing a safe and productive learning and living community. To achieve that goal, we conduct background investigations for all final applicants being considered for employment. Background investigations include a criminal history record check, and when appropriate, a financial and/or motor vehicle history. The Immigration Reform and Control Act requires that verification of employment eligibility be documented for all new employees by the end of the third day of work. The University of Colorado strongly supports the principle of diversity. We encourage applications from women, ethnic minorities, persons with disabilities and all veterans. Alternative formats of this ad are available upon request for persons with disabilities. Please be advised that the University does check references as part of the employment process, and selection committee members may choose to contact work references during the search process other than those listed in your application.

The University of Colorado is committed to diversity and equality in education and employment.