We are looking for a Postdoctoral Research Associate to work with Profs. Keith Neeves and David Marr in the Chemical and Biological Engineering at the Colorado School of Mines on a NIH sponsored project.

The project involves the ablation of blood clots using magnetically powered microbots we call microwheels. These microwheels consist of superparamagnetic microparticles that are reversibly assembled and translated using low power magnetic fields. In previous work we have shown that microwheels can move at high speeds (>100 \( \mu \text{m/s} \)) and can lyse blood clots when functionalized with fibrinolytic drugs.

The next steps are to move this technology in vivo and improve targeting and lysis efficiencies. The responsibilities for this position include refining magnetic fields to improve speed and translation in 3D vascular environments, functionalizing microparticles with fibrinolytic and targeting peptides, and testing microwheels in zebrafish and mouse models of thrombosis and stroke.

Qualifications: Applicants must hold a Ph.D. in biomedical, chemical, mechanical, or electrical engineering, physics, chemistry, or closely related field. Prior experience with microbots, magnetic fields, drug delivery, and functionalizing surfaces with biomolecules is of particular interest. The successful candidate must have a strong publication record in high-impact journals and demonstrate the ability to conduct independent research.

The position is available immediately.

Located in the Front Range of the Rocky Mountains in Colorado, we are just minutes from Denver, offering a unique combination of mountain living coupled with large city amenities.

Applications should include a letter of interest, CV, and a list of three references.

Please email applications to:

Prof. David Marr  
Chemical and Biological Engineering  
Colorado School of Mines  
dmarr@mines.edu

Colorado School of Mines is an Affirmative Action/Equal Employment Opportunity Employer and is committed to a diverse faculty, staff and student body.