

August 2009

The Center for Biofilm Engineering (CBE) at Montana State University (MSU) currently has a highly active research program related to geologic carbon sequestration, bioremediation, biomineralization, and subsurface biofilm technology. We currently have two openings (stipend and tuition waiver) for graduate students in the areas of

Reactive transport in porous media with emphasis on mineral-precipitating biofilms (funded by NSF, primary responsibilities: microscopic and image based quantitative and chemical analysis of calcium carbonate precipitating flow systems) and

Development of biofilm-based technologies for the sequestration of carbon dioxide (funded by DOE, primary responsibilities: evaluation and quantification of biofilm processes in high pressure environments and in the presence of supercritical CO₂)

**Chemical and
Biological
Engineering**

Required Qualifications: Bachelors degree in Chemical and Biological Engineering or a related field (e.g. environmental engineering, microbiology, chemistry, geology, geochemistry, biotechnology, or similar), strong interest in quantitative analysis of complex biological systems.

Preferred Qualifications: M.S. degree in engineering or a related field. Laboratory experience in microbiology and analytical chemistry.

The graduate student committee will be structured so that successful candidates will be accommodated in their appropriate home department.

Dr. Gerlach is an associate professor in [Chemical and Biological Engineering](#) at [Montana State University](#) and an faculty with the world-renowned [Center for Biofilm Engineering](#) (CBE), the [Thermal Biology Institute](#) (TBI), [MSU's NSF-IGERT program in Geobiological Systems](#), and the [Department of Microbiology](#) at MSU.

Dr. Cunningham is a professor in [Civil Engineering](#) and [CBE](#) faculty with a long history of interdisciplinary biofilm research and education.

[Bozeman](#) is located in the Gallatin Valley in the heart of the Rocky Mountains. Approximately 50,000 people live in the Gallatin Valley with backgrounds and cultures as diverse as the Montana landscape. From cattle ranchers to high tech engineers, the area is home to people who have come to appreciate the outdoors and an unmatched quality of life. Despite its safe small town feel, Bozeman prides itself on offering community activities and programs typically available only in larger, metropolitan areas. In addition, a wide variety of world class outdoor recreational opportunities are available right outside town and that's why it is easy to understand why Bozeman ranks as one of the nation's most livable cities.

[Bridger Bowl Ski Resort](#) is located 20 minutes drive from the university and [Big Sky Ski Resort](#) is located 45 minutes away. Bozeman is just an hour drive from [Yellowstone National Park](#) and a 6 hour drive from [Glacier National Park](#). Within minutes of the city, one has access to world class trout fishing, hunting, mountain biking, kayaking, rock climbing, cross-country skiing, downhill skiing and hiking.

Qualified candidates should e-mail a curriculum vitae (including GPA and GRE scores), letter of interest (fully detailing your interests and experiences), and names/phone number/email of three references to: Dr. Gerlach, Associate Professor, Chemical and Biological Engineering, Center for Biofilm Engineering, Room 366 EPS, Montana State University, Bozeman, MT 59717-3980, Phone: 406-994-4770, FAX: 406-994-6098, E-mail: robin_g@biofilm.montana.edu, http://www.biofilm.montana.edu/~robin_g

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