

Charles D. Miller
Utah State University
(435) 797-2593
Email: charles.miller@usu.edu

Education

PhD, North Carolina State University, 1994.

BS, University of Wisconsin-Madison, 1988.

ACADEMIC INSTRUCTION

Teaching Experience

Utah State University

BENG 4880, Senior Design, 1 course.

BENG 5630,6630, Synthetic Biological Engineering, 1 course.

BENG 5630/6630, Synthetic Biological Engineering, 1 course.

Directed Student Learning

Master's Committee Member, Biological Engineering. (August 2013 - Present).
Advised: Elizabeth Martinez

Master's Committee Member, Biological Engineering. (January 2013 - Present).
Advised: Sarah Allred

Directed Individual/Independent Study, Biological Engineering. (August 2012 - Present).
Advised: Andrea Halling

Doctoral Advisory Committee Member, Biological Engineering. (August 2012 - Present).
Advised: Richard Decker

Master's Committee Member, Biological Engineering. (August 2012 - Present).
Advised: Yssica Castro

Undergraduate Honors Thesis/Project, "Optimizing spider silk production in bacteria," Biological Engineering. (January 2012 - Present).
Advised: Ryan Putman

Doctoral Advisory Committee Member, Biological Engineering. (July 2011 - Present).
Advised: Katerine Napan

Undergraduate Honors Thesis/Project, Biological Engineering. (January 2011 - Present).
Advised: Neal Hengge

Doctoral Advisory Committee Member, Biological Engineering. (August 2011 - December 2014).
Advised: Maureen Kesaano

Master's Committee Member, Biological Engineering. (August 2011 - 2014).
Advised: Terrance Smith

Doctoral Advisory Committee Member, Biological Engineering. (August 2010 - December 2014).
Advised: Cameron Copeland

Doctoral Advisory Committee Member, Biological Engineering. (August 2010 - December 2014).
Advised: Yousef Soboh

Dissertation Committee Member, Biological Engineering. (June 2009 - December 2014).
Advised: Katerine Napan

Doctoral Advisory Committee Chair, Biological Engineering. (August 2010 - June 2014).
Advised: Asif Rahman

Doctoral Advisory Committee Chair, Biological Engineering. (August 2010 - June 2014).
Advised: Cody Tramp

RESEARCH & OTHER CREATIVE ACTIVITIES

Published Intellectual Contributions

Refereed Journal Articles

Journal Article, Academic Journal (Accepted)

Sathish, A., Glaittli, K., Sims, R. C., Miller, C. D. (in press). Algae biomass based media for poly(3-Hydroxybutyrate) (PHB) production by *Escherichia coli*. *To appear in Journal of Polymers and the Environment*.

Journal Article, Academic Journal (Accepted)

Rahman, A., Anthony, R. J., Sathish, A., Sims, R. C., Miller, C. D. (in press). Effects of wastewater microalgae harvesting methods on polyhydroxybutyrate production. *To appear in Bioresource Technology*.

Journal Article, Academic Journal (Accepted)

Ellis, J. T., Hengge, N., Sims, R. C., Miller, C. D. (in press). Microbial bioproducts from cheese whey through fermentation with wastewater sludge isolates. *To appear in Canadian Journal of Microbiology*.

Journal Article, Academic Journal (Accepted)

Bernstein, H. C., Kesano, M., Moll, K., Smith, T., Gerlach, R., Carlson, R. P., Miller, C. D., Peyton, B. P., Cooksey, K. E., Gardner, R. D., Sims, R. C. (in press). Direct measurement and characterization of active photosynthesis zones inside biofuel producing and waste-water remediating algal biofilms. *To appear in Bioresource Technology*.

Contracts, Grants and Sponsored Research

Grant

Li, Lejun (Principal), Britt, David, Jacobson, A, Shervais, John, Shen, TC, Miller, Charles D (Supporting), "MRI: Acquisition of a Field-Emission Scanning Electron Microscope to Catalyze Campus-Wide Research in Bio/Nano and Advanced Energy Materials," Sponsored by National Science Foundation, Federal, \$529,387.00. (June 2013 - May 2016).

Miller, Charles D (Co-Principal), Sims, Ronald C (Principal), "Monitoring Support to Assess Phosphorus Loads in Logan City Sewer and Wastewater Reuse Systems," Sponsored by City of Logan, UT, Local, \$48,616.00. (August 2012 - June 2014).

Winstead, Chris J, Miller, Charles D, "Supplemental Request for synthetic biology research," Sponsored by NSF, \$34,114.00. (June 15, 2010 - June 14, 2014).

Miller, Charles D (Principal), Lewis, Randy (Co-Principal), "Spider silk expression," Sponsored by Synthetic Biomanufacturing Institute, \$60,000.00. (April 2013 - March 2014).

Intellectual Contributions in Submission

Refereed Journal Articles

Miller, C. D., Putman, R. J., Rahman, A., Barentine, C., Hengge, N., Halling, A., Miller, K. M., Smith, B. R., Rodriguez, F. C., Martinez, E., Gladwin, T., Copeland, C. G., Ellis, J. T., Tramp, C. A. Using BioBrick compatible 10x-histidine tags for protein purification. *ACS Synthetic Biology*.

SERVICE

General Service

College

Faculty Host, Engineering State, 2009.

Mentor, USU iGEM, 2008.

Department

Committee Member, Biological Engineering Curriculum Committee, 2010.

Committee Member, Biological Engineering Student Recruitment Committee, 2009.

Professional/Public

Board Member, Institute of Biological Engineering

Reviewer, Journal Article, ACS Synthetic Biology

Editorial Review Board Member, Current Genetics

Reviewer, Journal Article, Nature Communications

Poster Judge, International Genetically Engineered Machine Competiton

Editorial Review Board Member, Journal of Bioremediation and Biodegradation

Poster Judge, Institute of Biological Engineering

Grant Proposal Reviewer, External, Department of Energy

Grant Proposal Reviewer, External, Environmental Protection Agency's National Center for Environmental Research (NCER)

Editorial Review Board Member, Journal of Biosensors and Bioelectronics

Grant Proposal Reviewer, External, The Netherlands Organization for Scientific Research

Reviewer, Journal Article, Biodegradation

Reviewer, Journal Article, Environmental Science and Technology

Reviewer, Journal Article, International Society of Microbial Ecology Journal

Reviewer, Journal Article, Journal of Biological Engineering

Reviewer, Journal Article, PLoS Genomics

Reviewer, Journal Article, Biotechnology Progress

Reviewer, Journal Article, Canadian Journal of Microbiology

Reviewer, Journal Article, Microbial Ecology

Reviewer, Journal Article, Molecular Ecology

Utah State University

Advisor, USU Microscopy Core Facility Advisory Board, September 2013.

Committee Member, USU Research Fellows selection committee, April 2013.

URCO proposal reviewer, September 2012.

Promotion and Tenure Committees

Other

Tenure Review

Zhou, A. (Committee Chair), Britt, D. (Committee Member), Takemoto, J. (Committee Member), McNeill, L. (Committee Member), Grossl, P. (Outside Member), Wu, W. (Ombudsperson).