

Elliot Altman

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EDUCATION Ph.D. in Biology, California Institute of
Technology
B.S. in Chemistry, Texas A&M University
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**RESEARCH
INTERESTS** Bioenergy, Biofuels, Bioproducts, Bioethanol



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SUMMARY OF RESEARCH DIRECTIONS

Dr. Elliot Altman is the Director of the Center for Molecular BioEngineering at the University of Georgia. He has worked in research, outreach, and teaching related to bioengineering for over 15 years focusing on new products and process enhancement for fermentation processes. Focus areas of his work include enhancing the production of recombinant therapeutic and industrial enzymes and

developing new fermentation approaches for commodity biochemicals such as ethanol, lactic acid, pyruvic acid succinic acid.

Through his research, he has authored or coauthored 30 peer reviewed journal articles and 2 book chapters and he has participated as Principal Investigator (PI) or Co-PI in 23 federal, state, or industry funded projects (totaling \$3,394,312). Dr. Altman has 4 issued U.S. patents and 7 pending U.S. patent applications. He teaches senior and graduate level courses on metabolic engineering and recombinant DNA in the Department of Biological and Agricultural Engineering. Dr. Altman's research group currently has collaborative links with many UGA researchers as well as a variety of industrial partners.

SELECTED PUBLICATIONS

Zhu, Y., Eiteman, M. A., DeWitt, K. and Altman, E. 2007. Homolactate fermentation by metabolically engineered *Escherichia coli*. Applied and Environmental Microbiology. 73:456-464. [Graduate student paper]

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Vemuri, G. N., Altman, E., Sangurdekar, D. P., Khodursky, A. B., and Eiteman, M. A. 2006. Overflow metabolism in *Escherichia coli* during steady-state growth: transcriptional regulation and the effect of redox. Applied and Environmental Microbiology. 72: 3652-3661. [Graduate student paper]

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Lee, M., Smith, G. M., Eiteman, M. A., and Altman, E. 2004. Aerobic production of alanine by *Escherichia coli aceF IdhA* mutants expressing the *Bacillus sphaericus alaD* gene. Applied Microbiology and Biotechnology. 65:56-60. [Graduate student paper]

Tomar, A. C., Eiteman, M. A., and Altman, E. 2003. The effects of acetate pathway mutants on the production of pyruvate in *Escherichia coli*. Applied Microbiology and Biotechnology. 62:76-82. [Graduate student paper]

Xie, L., Hall, D., Eiteman, M. A., and Altman, E. 2003. Optimization of aminolevulinate synthase production in *Escherichia coli* using factorial design. *Applied Microbiology and Biotechnology*. 63:267-273. [Graduate student paper]

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Vemuri, G. N., Eiteman, M. A., and Altman, E. 2002. Succinate production in dual-phase *Escherichia coli* fermentations depends on the time of transition from aerobic to anaerobic conditions. *J. Industrial Microbiology and Biotechnology*. 28:325-332. [Graduate student paper]