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A. Education

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
University of Regensburg, Regensburg, Germany	Ph.D.	2006	Microbiology
Montana State University, Bozeman, MT	M.S.	1999	Environmental Science
Montana State University, Bozeman, MT	B.S.	1995	Microbiology

B. Professional activities

Positions and employment

2015- Joint Associate Professor, Univ. of Tennessee, Knoxville, Dept. of Microbiology
 2007- Staff Scientist, Oak Ridge National Laboratory, Biosciences Division
 2006-07 Postdoctoral Researcher, University of California, San Diego, Systems Biology Group, Advisor: Dr. Bernhard Ø. Palsson
 2002-06 Graduate Fellow, University of Regensburg/Diversa (Verenium) Corporation, Advisor: Dr. Karl O. Stetter
 2001-02 Associate Staff Scientist, Microbiology, Diversa Corporation, San Diego, CA
 1999-01 Sr. Research Associate, Microbiology, Diversa Corporation, San Diego, CA
 1996-99 Graduate Res. Asst., Center for Biofilm Engineering/LRES, Montana State University, Bozeman, MT
 1994-95 Undergraduate work-study, Dept. of Land Resources and Environmental Sciences (LRES), Montana State University, Bozeman, MT

Teaching and mentoring

2016 Mentor for Gabriela M. Garcia, Summer Fellow for the National Consortium for Graduate Degrees for Minorities in Engineering and Sciences, Inc. (GEM program).
 2014- Dissertation committee for Nannan Jiang, UTK; Punita Manga, UTK
 2012- Robertsville Middle School Science Mentor, Oak Ridge, TN
 2011 Lecturer, Graduate Synthetic Biology Course, Univ. Tenn. at Knoxville
 2009- Undergraduate mentor for SULI students Angela Pack, Vincent Alessi, Yiru (Lily) Gu, Jessica Stewart, Justin Plummer, Nicolletta Cuthbert, and Karissa Cross.
 2008 Graduate student mentor for Adriane Lochner
 2008- Postdoctoral mentor for Scott Hamilton-Brehm, Zhi-Wu Wang, Rishi Jain, Sonya Clarkson, Tobin Verbeke
 2000 Supervised three direct reports, Diversa Corporation, San Diego, CA.
 2000 Lecturer and Lab TA, International Training Workshop on Advances in Molecular Techniques to Assess Microbial Biodiversity, Bogor, Indonesia
 1997 NSF Research Experience for Undergraduates Mentor (2 students)

Honors

Significant Event Award, (2008, 2015) Biosciences Division, Oak Ridge National Laboratory
Summa Cum Laude, University of Regensburg, Regensburg, Germany
 Service Award, Diversa Corporation, San Diego, CA
 Graduate Fellowship, co-sponsored by the Univ. of Regensburg and Diversa Corp.
 Graduate Research Assistantship, Center for Biofilm Engineering
 First Place award, Undergraduate Scholars Conference, Montana State University

Montanans on a New Track for Science (MONTS) scholarship

Service and memberships

2014 JGI-EMSL Collaborative Science Initiative proposal review panelist
 Institutional Biosafety Committee member, Oak Ridge National Laboratory
 Scientific Advisory Board Member (former), Nutrinsic, Inc.
 DOE-JGI Community Sequencing Program annual and quarterly proposal review panelist
 Editorial Board Member for *Advances in Biology* (journal)
 NASA Exobiology Review Panelist
 DOE SBIR/STTR Proposal Review Panelist
 Reviewer for (peer reviewed journals): Geomicrobiology, Environmental Science and
 Technology, Nature Biotechnology, Biotechnology for Biofuels, Applied and Environmental
 Microbiology, PLoS One, Enzyme and Microbial Technology.
 Poster Session Chair, 32nd Symposium on Biotechnology for Fuels and Chemicals
 ORNL Commercialization Committee 2009-2011
 Reviewer for USDA SBIR proposals
 Reviewer for ORNL Lab Directed Research & Development and SEED proposals
 Member of the American Society for Microbiology
 Member of the Society for Industrial Microbiology and Biotechnology

C. Publications (Google Scholar profile: James G. Elkins)

Peer-reviewed literature

1. Clarkson SM, Giannone RJ, Kridelbaugh DM, **Elkins JG**, Guss AM, Michener JK. 2017. Construction and optimization of a heterologous pathway for protocatechuate catabolism in *Escherichia coli* enables rapid bioconversion of model lignin monomers. *Appl. Environ. Microbiol.* (in press)
2. Nickels JD, Chatterjee S, Stanley CB, Qian S, Cheng X, Myles DAA, Standaert RF*, **Elkins JG***, Katsaras J*. 2017. The in vivo structure of biological membranes and evidence for lipid domains. *PLoS Biol.* **15**:e2002214. <https://doi.org/10.1371/journal.pbio.2002214>. *Corr. authors
3. Kim S-K, Groom J, Chung D, **Elkins J**, Westpheling J. 2017. Expression of a heat-stable NADPH-dependent alcohol dehydrogenase from *Thermoanaerobacter pseudethanolicus* 39E in *Clostridium thermocellum* 1313 results in increased hydroxymethylfurfural resistance. *Biotechnol. Biofuels.* **10**:66. DOI: 10.1186/s13068-017-0750-z
4. Verbeke TJ, Giannone RJ, Klingeman DM, Engle NL, Rydzak T, Guss AM, Tschaplinski TJ, Brown SD, Hettich RL, **Elkins JG**. 2017. Pentose sugars inhibit metabolism and increase expression of an AgrD-type cyclic pentapeptide in *Clostridium thermocellum*. *Scientific Reports.* **7**:43355. doi:10.1038/srep43355
5. Moon J-W, Phelps TJ, Fitzgerald CL, Lind RF, Jang GG, Joshi PC, Kidder M, **Elkins JG**, Armstrong BL, Watkins TR, Graham DE. 2016. Manufacturing demonstration of microbially mediated zinc sulfide nanoparticles in pilot-plant scale reactors. *Appl. Microbiol. Biotechnol.* DOI 10.1007/s00253-016-7556-y.
6. Chung D, Cha M, Snyder E, **Elkins JG**; Guss AM, Westpheling J. 2015. Cellulosic ethanol production via consolidated bioprocessing at 75 °C by engineered *Caldicellulosiruptor bescii*. *Biotechnol. Biofuels.* **8**:163. DOI: 10.1186/s13068-015-0346-4
7. Yee KL, Rodriguez M, Hamilton CY, Hamilton-Brehm SD, Thompson OA, **Elkins JG**, Davison BH, Mielenz JR. 2015. Fermentation of dilute acid pretreated *Populus* by

- Clostridium thermocellum*, *Caldicellulosiruptor bescii*, and *Caldicellulosiruptor obsidiansis*. Bioenergy Research. DOI: 10.1007/s12155-015-9659-1.
8. Chung D, Verbeke TJ, Cross KL, Westpheling J, **Elkins JG**. 2015. Expression of a heat-stable NADPH-dependent alcohol dehydrogenase in *Caldicellulosiruptor bescii* results in furan aldehyde detoxification. Biotechnol. Biofuels. **8**:102. DOI: 10.1186/s13068-015-0287-y
 9. Wang ZW, **Elkins JG**, Morrell-Falvey JL. 2015. Localization of the cellulase activity distribution in *Clostridium thermocellum* and *Caldicellulosiruptor obsidiansis* cultures using fluorescent substrates. J. Environ. Sci. **34**:212-218.
 10. Vishnivetskaya TA, Hamilton-Brehm SD, Podar M, Mosher JJ, Palumbo AV, Phelps TJ, Keller M, **Elkins JG**. 2015. Community analysis of plant biomass-degrading microorganisms from Obsidian Pool, Yellowstone National Park. Microbial Ecol. **69**:333-345. DOI: 10.1007/s00248-014-0500-8.
 11. Clarkson SM, Hamilton-Brehm SD, Giannone RJ, Engle NL, Tschaplinski TJ, Hettich RL, **Elkins JG**. 2014. A comparative multidimensional LC-MS proteomic analysis reveals mechanisms for furan aldehyde detoxification in *Thermoanaerobacter pseudethanolicus* 39E. Biotechnol. Biofuels **7**:165. DOI: 10.1186/s13068-014-0165-z.
 12. Cha M, Chung DW, **Elkins JG**, Guss AM, Westpheling J. 2013. Metabolic engineering of *Caldicellulosiruptor bescii* yields increased hydrogen production from lignocellulosic biomass. Biotechnol. Biofuels **6**. DOI: 10.1186/1754-6834-6-85.
 13. **Elkins JG**, Hamilton-Brehm SD, Lucas S, Han J, Lapidus A, Cheng J-F, Goodwin LA, Pitluck S, Peters L, Mikhailova N, Davenport KW, Detter JC, Han CS, Tapia R, Land ML, Hauser L, Kyrpides NC, Ivanova NN, Pagani I, Bruce D, Woyke T, Cottingham RW. 2013. Complete genome sequence of the hyperthermophilic sulfate-reducing bacterium *Thermodesulfobacterium geofontis* OPF15^T. Genome Announc. **1**. DOI: 10.1128/genomeA.00162-13.
 14. Hamilton-Brehm SD, Gibson RA, Green SJ, Hopmans EC, Schouten S, van der Meer MTJ, Shields JP, Damsté JSS, **Elkins JG**. 2013. *Thermodesulfobacterium geofontis* sp. nov., a hyperthermophilic, sulfate-reducing bacterium isolated from Obsidian Pool, Yellowstone National Park. Extremophiles **17**:251-263.
 15. Qiu Y, Nagarajan H, Embree M, Shieu W, Abate E, Juarez K, Cho BK, **Elkins JG**, Nevin KP, Barrett CL, Lovley DR, Palsson BO, Zengler K. 2013. Characterizing the interplay between multiple levels of organization within bacterial sigma factor regulatory networks. Nat. Comm. **4**. DOI: 10.1038/ncomms2743.
 16. Wang ZW, Lee SH, **Elkins JG**, Li Y, Hamilton-Brehm S, Morrell-Falvey JL. 2013. Continuous live cell imaging of cellulose attachment by microbes under anaerobic and thermophilic conditions using confocal microscopy. J. Environ. Sci. **25**:849-856.
 17. Blumer-Schuetz SE, Giannone RJ, Zurawski JV, Ozdemir I, Ma Q, Yin YB, Xu Y, Kataeva I, Poole FL, Adams MWW, Hamilton-Brehm SD, **Elkins JG**, Larimer FW, Land ML, Hauser LJ, Cottingham RW, Hettich RL, Kelly RM. 2012. *Caldicellulosiruptor* core and pangenomes reveal determinants for noncellulosomal thermophilic deconstruction of plant biomass. J. Bacteriol. **194**:4015-4028.
 18. Wang Z-W, Hamilton-Brehm SD, Lochner A, **Elkins JG**, Morrell-Falvey JL. 2011. Mathematical modeling of hydrolysate diffusion and utilization in cellulolytic biofilms of the extreme thermophile *Caldicellulosiruptor obsidiansis*. Bioresource Technol. **102**:3155-3162.

19. Wang Z-W, Lee S-H, **Elkins JG**, Morrell-Falvey J. 2011. Spatial and temporal dynamics of cellulose degradation and biofilm formation by *Caldicellulosiruptor obsidiansis* and *Clostridium thermocellum*. *AMB Express* **1**:1-10.
20. **Elkins JG**, Lochner A, Hamilton-Brehm SD, Davenport KW, Podar M, Brown SD, Land ML, Hauser LJ, Klingeman DM, Raman B, Goodwin LA, Tapia R, Meincke LJ, Detter JC, Bruce DC, Han CS, Palumbo AV, Cottingham RW, Keller M, Graham DE. 2010. Complete genome sequence of the cellulolytic thermophile *Caldicellulosiruptor obsidiansis* OB47^T. *J. Bacteriol.* **192**:6099-6100.
21. **Elkins JG**, Raman B, Keller M. 2010. Engineered microbial systems for enhanced conversion of lignocellulosic biomass. *Curr. Opin. Biotech.* **21**:657-662.
22. Hamilton-Brehm SD, Mosher JJ, Vishnivetskaya T, Podar M, Carroll S, Allman S, Phelps TJ, Keller M, **Elkins JG**. 2010. *Caldicellulosiruptor obsidiansis* sp. nov., an anaerobic, extremely thermophilic, cellulolytic bacterium isolated from Obsidian Pool, Yellowstone National Park. *Appl. Environ. Microbiol.* **76**:1014-1020.
23. Anderson IJ, Dharmarajan L, Rodriguez J, Hooper S, Porat I, Ulrich LE, **Elkins JG**, Mavromatis K, Sun H, Land M, Lapidus A, Lucas S, Barry K, Huber H, Zhulin IB, Whitman WB, Mukhopadhyay B, Woese C, Bristow J, Kyrpides N. 2009. The complete genome sequence of *Staphylothermus marinus* reveals differences in sulfur metabolism among heterotrophic Crenarchaeota. *BMC Genomics* **10**. doi: 10.1186/1471-2164-10-145.
24. Anderson I, Rodriguez J, Susanti D, Porat I, Reich C, Ulrich LE, **Elkins JG**, Mavromatis K, Lykidis A, Kim E, Thompson LS, Nolan M, Land M, Copeland A, Lapidus A, Lucas S, Detter C, Zhulin IB, Olsen GJ, Whitman W, Mukhopadhyay B, Bristow J, Kyrpides N. 2008. Genome sequence of *Thermofilum pendens* reveals an exceptional loss of biosynthetic pathways without genome reduction. *J. Bacteriol.* **190**:2957-2965.
25. **Elkins JG**, Podar M, Graham DE, Makarova KS, Wolf Y, Randau L, Hedlund BP, Brochier-Armanet C, Kunin V, Anderson I, Lapidus A, Goltsman E, Barry K, Koonin EV, Hugenholtz P, Kyrpides N, Wanner G, Richardson P, Keller M, Stetter KO. 2008. A korarchaeal genome reveals insights into the evolution of the Archaea. *P. Natl. Acad. of Sci. USA* **105**:8102-8107. *PNAS Commentary – Ken Nielson; Faculty of 1000 must read.
26. Podar M, Anderson I, Makarova KS, **Elkins JG**, Ivanova N, Wall MA, Lykidis A, Mavromatis K, Sun H, Hudson ME, Chen W, Deciu C, Hutchison D, Eads JR, Anderson A, Fernandes F, Szeto E, Lapidus A, Kyrpides NC, Saier MH, Richardson PM, Rachel R, Huber H, Eisen JA, Koonin EV, Keller M, Stetter KO. 2008. A genomic analysis of the archaeal system *Ignicoccus hospitalis*-*Nanoarchaeum equitans*. *Genome Biol.* **9**. doi: 10.1186/gb-2008-9-11-r158.
27. Koonin EV, Makarova KS, **Elkins JG**. 2007. Orthologs of the small RPB8 subunit of the eukaryotic RNA polymerases are conserved in hyperthermophilic Crenarchaeota and "Korarchaeota". *Biol. Direct* **2**. doi: 10.1186/1745-6150-2-38.
28. Zengler K, Toledo G, Rappe M, **Elkins J**, Mathur EJ, Short JM, Keller M. 2002. Cultivating the uncultured. *P. Natl. Acad. of Sci. USA* **99**:15681-15686.
29. Deng SP, **Elkins JG**, Da LH, Botero LM, McDermott TR. 2001. Cloning and characterization of a second acid phosphatase from *Sinorhizobium meliloti* strain 104A14. *Arch. Microbiol.* **176**:255-263.
30. Frederick JR, **Elkins JG**, Bollinger N, Hassett DJ, McDermott TR. 2001. Factors affecting catalase expression in *Pseudomonas aeruginosa* biofilms and planktonic cells. *Appl. Environ. Microbiol.* **67**:1375-1379.

31. Stewart PS, Roe F, Rayner J, **Elkins JG**, Lewandowski Z, Ochsner UA, Hassett DJ. 2000. Effect of catalase on hydrogen peroxide penetration into *Pseudomonas aeruginosa* biofilms. *Appl. Environ. Microbiol.* **66**:836-838.
32. **Elkins JG**, Hassett DJ, Stewart PS, Schweizer HP, McDermott TR. 1999. Protective role of catalase in *Pseudomonas aeruginosa* biofilm resistance to hydrogen peroxide. *Appl. Environ. Microbiol.* **65**:4594-4600.
33. Hassett DJ, Ma JF, **Elkins JG**, McDermott TR, Ochsner UA, West SEH, Huang CT, Fredericks J, Burnett S, Stewart PS, McFeters G, Passador L, Iglewski BH. 1999. Quorum sensing in *Pseudomonas aeruginosa* controls expression of catalase and superoxide dismutase genes and mediates biofilm susceptibility to hydrogen peroxide. *Mol. Microbiol.* **34**:1082-1093.
34. Summers ML, **Elkins JG**, Elliott BA, McDermott TR. 1998. Expression and regulation of phosphate stress inducible genes in *Sinorhizobium meliloti*. *Mol. Plant Microbe In.* **11**:1094-1101.
35. Al-Niemi TS, Summers ML, **Elkins JG**, Kahn ML, McDermott TR. 1997. Regulation of the phosphate stress response in *Rhizobium meliloti* by PhoB. *Appl. Environ. Microbiol.* **63**:4978-4981.

Book chapters and other publications

1. Hamilton-Brehm S, Vishnivetskaya T, Allman S, Mielenz J, **Elkins JG**. 2012. Anaerobic high-throughput cultivation method for isolation of thermophiles using biomass-derived substrates, p. 153-168. In Himmel ME (ed.), *Biomass Conversion*, vol. 908. Humana Press.
2. Vishnivetskaya TA, Raman B, Phelps TJ, Podar M, **Elkins JG**. 2012. Cellulolytic microorganisms from thermal environments p. 131-158. In Anitori R (ed), *Extremophiles: Microbiology and Biotechnology*, Caister Academic Press.
3. Kalyanaraman M, Retterer ST, McKnight TE, Ericson MN, Allman SL, **Elkins JG**, Palumbo AV, Keller M, Doktycz MJ. 2009. Controlled microfluidic production of alginate beads for *in situ* encapsulation of microbes, p. 1-4, *Biomedical Science & Engineering Conference*, 2009.
4. Hassett DJ, **Elkins JG**, Ma J-F, McDermott TR. 1999. *Pseudomonas aeruginosa* biofilm sensitivity to biocides: Use of hydrogen peroxide as model antimicrobial agent for examining resistance mechanisms, p. 599-608. In Ron JD (ed.), *Methods in Enzymology*, vol. Volume 310. Academic Press.

D. Patents (pending)

1. **James G. Elkins** & Sonya M. Clarkson. New US Utility Application, U.S. Non-Provisional Patent Application No. 61/838,961, Heat stable Fe-dependent alcohol dehydrogenase for aldehyde detoxification – Filed 6/25/2014

E. Oral presentations

1. Small-angle neutron scattering techniques for probing lateral organization of lipid membranes in live cells. American Conference on Neutron Scattering, Knoxville, TN. 06/14.
2. A proteomics approach to identify mechanisms for biotransformation of furan aldehydes in *Thermoanaerobacter pseudethanolicus* 39E. 12th International Thermophiles Meeting. Regensburg, Germany. 09/13.

3. Novel cellulolytic microorganisms from terrestrial geothermal springs. China-US 2010 Joint Symposium on Energy, Ecosystem, and Environmental Change, Beijing, China. 09/10.
4. Extreme thermophiles from Yellowstone National Park for deconstructing lignocellulosic biomass. Society for Industrial Microbiology and Biotechnology 60th Annual Meeting. San Francisco, CA. 09/10.
5. Bioenergy-relevant extreme thermophiles from Obsidian Pool, YNP. 2nd Annual Research Associates Meeting for the Thermal Biology Institute, Montana State University, Bozeman, MT. 06/10.
6. Novel extreme thermophiles from Yellowstone National Park for the conversion of lignocellulosic biomass to biofuels. MSU Dept. of Microbiology seminar. Montana State University. Bozeman, MT. 12/09.
7. A closer look at the Korarchaeota. Gordon Research Conference. Archaea: Ecology, Metabolism & Molecular Biology. Waterville Valley, NH. 07/09.
8. Cultivating new biocatalysts for enhanced conversion of lignocellulosic biomass. BESC Workshop, Chattanooga, TN. 11/08.
9. Ethanol production from cellulose and the search for better biocatalysts. UT Microbiology Departmental Seminar. Knoxville, TN. 10/09.
10. A complete korarchaeal genome sequence reveals a unique combination of signature genes. Gordon Research Conference. Archaea: Ecology, Metabolism & Molecular Biology. Proctor Academy, NH. 08/07.
11. Ecology, physiology, and genomics of deep-branching hyperthermophilic Archaea. Departmental Microbiology seminar; California State University, Northridge, CA. 2007.
12. Cultivation and genomics of a novel hyperthermophile representing the "Korarchaeota". Bioscience Day. University of Regensburg, Regensburg, Germany. 01/07.
13. The "Korarchaeota" revealed: Identification, cultivation, and genomics of a novel hyperthermophile inhabiting Obsidian Pool, YNP. Departmental seminar; Montana State University, Bozeman; Thermal Biology Institute; Bozeman, MT. 12/06.
14. First insights into a "Korarchaeal" genome. Gordon Research Conference. Archaea: Ecology, Metabolism & Molecular Biology. Oxford, UK. 08/05.
15. Enrichment, isolation, and identification of soil microorganisms. International Training Workshop on Advances in Molecular Techniques to Assess Microbial Biodiversity; Bogor, Indonesia. 2000.

F. Poster presentations

1. Elkins JG*, Nickels J, Chatterjee S, Heberle F, Standaert RS, Myles DAA, Katsaras J. *Bacillus subtilis* as a model bacterial system for probing lateral organization of lipid membranes *in vivo* using neutron scattering techniques. The American Society for Microbiology 115th General Meeting, New Orleans, LA. 06/15.
2. Verbeke TJ*, Shao X, Engle NL, Tschaplinski TJ, Lynd LR, Elkins JG. Inhibition of *Clostridium thermocellum* metabolism and growth under high-solids loading fermentation relevant conditions. 36th Symposium on Biotechnology for Fuels and Chemicals, San Diego, CA. 04/15.

3. Chung D, Verbeke TJ, Westpheling J, Elkins JG*. Phenotypic characterization of an engineered strain of *Caldicellulosiruptor bescii* with enhanced tolerance to furan aldehydes. 36th Symposium on Biotechnology for Fuels and Chemicals, San Diego, CA. 04/15
4. Elkins JG*, Chung D, Clarkson SM, Cuthbert N, Westpheling J. Furan aldehyde detoxification by a heat-stable alcohol dehydrogenase from *Thermoanaerobacter pseudethanolicus* 39E. 36th Symposium on Biotechnology for Fuels and Chemicals, Clearwater Beach, FL. 04/14.
5. Clarkson SM*, Kauffman S, Guss AM, Elkins JG. Comparing physiological responses to biomass-derived growth inhibitors between *Clostridium thermocellum* and *Thermoanaerobacter pseudethanolicus* 39E. 35th Symposium on Biotechnology for Fuels and Chemicals. Portland, OR, 04/13.
6. Elkins JG*, Giannone RJ, Hamilton-Brehm SD, Clarkson SM, Engle NL, Brown SD, Tschaplinski TJ, Hettich RL. Comparative proteomics for *Thermoanaerobacter pseudethanolicus* 39E and *Caloramator proteoclasticus* ALDO1 in response to furfural. 34th Symposium on Biotechnology for Fuels and Chemicals. New Orleans, LA, 04/12.
7. Elkins JG*, Hamilton-Brehm SD, Giannone RJ, Engle NL, Brown SD, Tschaplinski TJ, Hettich RL, Gilna P. Identifying potential detoxification mechanisms for furan and aromatic aldehydes in thermophilic, anaerobic bacteria using 2D LC-MS/MS proteomics. DOE Genomic Science Awardee Meeting X, Bethesda, MD, 02/12.
8. Blumer-Schuetz SE*, Giannone RJ, Zurawski JV, Ozdemir I, Mistry DB, Ma Q, Yin Y, Xu Y, Poole II FL, Kataeva I, Adams MWW, Hamilton-Brehm SD, Elkins JG, Larimer FW, Land MW, Hauser L, Cottingham RW, Hettich RL, Kelly RM, Gilna P. Plant biomass-degrading loci play a role as determinants for lignocellulose degradation from the extremely thermophilic genus, *Caldicellulosiruptor*. DOE Genomic Science Awardee Meeting X, Bethesda, MD, 02/12.
9. Jain R., Borole AP, Yang ZK, Hamilton-Brehm SD, Mielenz JR, Davison BH, Elkins JG*. Heterologous expression of biofuel pathways in *Rhodospirillum rubrum* during growth on carbon monoxide. 33rd Symposium on Biotechnology for Fuels and Chemicals. Seattle, WA, 05/11.
10. Hamilton-Brehm SD, Allman S, Mosher JJ, Carroll S, Elkins JG*. High throughput screening method for anaerobic thermophilic cellulolytic organisms. American Society for Microbiology (ASM) 110th General Meeting, San Diego, CA, 06/10
11. Wang Z-W*, Hamilton-Brehm SD, Elkins JG, Morrell-Falvey JL. Cellulolytic Biofilms: Imaging, Modeling and Kinetic Implications. American Society for Microbiology (ASM) 110th General Meeting, San Diego, CA, 06/10
12. Wang Z-W*, Hamilton-Brehm SD, Elkins JG, Morrell-Falvey JL. Cellulolytic Biofilms: Imaging, Modeling and Kinetic Implications. Microbial Cellulose Utilization workshop (MCU), Holderness, NH, 06/10
13. Hamilton-Brehm SD*, Wang Z-W, Morrell-Falvey JL, Elkins JG. Characterization of cellulose hydrolysis and ethanol production in the extreme thermophile *Caldicellulosiruptor obsidiansis*, 32nd Symposium on biotechnology for fuels and chemicals poster, Clearwater Beach, FL. 05/10
14. Giannone RJ*, Lochner A, Abraham PE, Hauser LJ, Keller M, Elkins JG, Hettich RL. Comparative proteomics of environmental isolate OB47 in regards to its substrate utilization for ethanol production. The American Society for Microbiology 109th General Meeting. Philadelphia, PA. 05/09.

15. Lochner A*, Giannone RJ, Keller M, Elkins JG, Hettich RL. Identification and localization of the cellulose-degrading enzymes from members of the genus *Caldicellulosiruptor* with multidimensional LC-MS/MS. The American Society for Microbiology 109th General Meeting. Philadelphia, PA. 05/09.
16. Vishnivetskaya TA, Podar M, Phelps TJ, Keller M, Elkins JG*. Diversity analysis and cultivation of novel cellulolytic bacteria from Obsidian Pool, Yellowstone National Park. The American Society for Microbiology 109th General Meeting. Philadelphia, PA. 05/09.
17. Giannone RJ*, Lochner A, Dykstra AB, Keller M, Elkins JG, Hettich RL. Identification of the extracellular cellulolytic enzymes in thermophilic bacteria that are important for microbial cellulose degradation to bioethanol. American Society for Mass Spectrometry - 57th Annual Meeting. Philadelphia, PA. 05/09.
18. Hamilton-Brehm SD, Lochner A, Giannone RJ, Mosher J, Hettich R, Keller M, Elkins JG*. Physiological characterization of a novel member of the genus *Caldicellulosiruptor* and identification of the extracellular cellulolytic enzymes using multi-dimensional LC-MS/MS. 31st Symposium on Biotechnology for Fuels and Chemicals, San Francisco, CA. 05/08.
19. Elkins JG*, Hamilton-Brehm SD, Locher A, Giannone R, Vishnivetskaya T, Mosher J, Podar M, Morrell-Falvey J, Allman S, Klingeman D, Carroll S, Land M, Brown S, Hettich R, Phelps T, Keller M. Isolation of novel biofuel-relevant thermophiles and the identification of extracellular cellulolytic enzymes using multi-dimensional LC-MS/MS. DOE-Genomes to Life Workshop. Bethesda, MD. 02/09.
20. Castro H*, Plecha S, Hall D, Tiquia S, Kerley MK, Carroll SL, Austin EE, Allman S, Elkins JG, Podar M, Phelps T, Schadt CW. Screening for novel bacteria able to grow on the bioenergy feedstock switchgrass. 108th General Meeting of the American Society for Microbiology, Boston, MA. 06/08.
21. Elkins JG*, Vishnivetskaya T, Podar M, Phelps TJ, Keller M. High-throughput isolation of extreme thermophiles that produce ethanol from switchgrass and *Populus*. 30th Symposium on Biotechnology for Fuels and Chemicals; New Orleans, LA. 05/08.
22. Zengler K*, Qiu Y, Cho B-K, Kagan L, Elkins JG, Lovley D, Palsson B. Towards a transcriptional regulatory network (TRN) in *Geobacter sulfurreducens*. GTL Awardee Workshop VI; Bethesda, MD. 02/08.
23. Summers Z*, Nevin K, Herring C, Glaven R, Haveman S, Elkins JG, Palsson B, Lovley D. Genome-scale analysis of adaptive evolution of *Geobacter* for improved metal reduction and electricity production. GTL Awardee Workshop V; Bethesda, MD. 02/07.
24. Elkins, JG* et al. Identification and partial characterization of acid phosphatases in *Rhizobium meliloti*. Plant Biology '98, Annual Meeting of the American Society of Plant Physiologists. Madison, Wisconsin, USA. 1998.

*Presenter