

BRIAN S. HOOKER, Ph.D., P.E.

1127 Hancock Drive
Redding, CA 96003
Phone (509) 366-2269
Email: bhooker@simpsonu.edu

EDUCATION

Ph.D., Washington State University (Pullman, WA), Biochemical Engineering, 1990
M.S., Washington State University (Pullman, WA), Biochemical Engineering, 1988
B.S., California State Polytechnic University (Pomona, CA), Chemical Engineering, 1985

PROFESSIONAL LICENSE

Licensed Professional Engineer, Chemical Engineering, State of Washington, 1995-2021

EXPERIENCE

Children's Health Defense (Peachtree City, GA)

Chief Scientific Officer – June 2021 to present

Responsible for oversight of scientific oversight for non-profit organization focused on children's health.

Simpson University (Redding, CA)

Chair, Sciences and Mathematics Department – May 2017 to December 2020

Professor of Science – July 2019 to present

Associate Professor of Science – July 2013 to June 2019

Chair, Sciences and Mathematics Division – February 2015 to May 2016

Assistant Professor of Science – July 2010 to June 2013

Responsible for teaching biology, biotechnology, chemistry and physics coursework and laboratories.

Principle Investigator for a comprehensive research program in environmental biotechnology and medical epidemiology.

Shasta College (Redding, CA)

Adjunct Professor of Chemistry – January 2015 to present

Responsible for teaching introductory lecture and laboratory courses for chemistry and allied health sciences majors.

Brian Hooker Consulting (Redding, CA)

Principle Consultant – June 2009 to present

Currently consulting for the Environmental, Biotechnology and Chemical Process industries. Also specializing in the area of developmental disabilities. Services include:

- Technology survey and feasibility evaluation
- Market, marketability and intellectual property evaluation
- Report writing and editing
- Engineering design and review (Environmental Science, Chemical and Biological Engineering)
- Development of design, procurement and construction specifications
- Bioprocess development
- Scientific review and assessment

- Statistical analysis
- Computer programming (SAS, Fortran)

ARES Consulting (Richland, WA)

Senior Engineering Consultant – January 2010 to June 2013

Responsible for engineering design and client interface for the Environmental, Biotechnology and Chemical Process Industries. Projects included the remediation of hexavalent chromium groundwater contamination, consolidation of tank legacy waste and the bioconversion of syngas to ethanol.

Walla Walla Community College (Walla Walla, WA)

Adjunct Instructor – Biology, Chemistry and Mathematics, June 2009 to August 2013

I taught microbiology, biology, chemistry and mathematics coursework and laboratories. I was responsible for coursework development, lecture and oversight of laboratory activities. I also coordinated a math/science education program involving the Washington State Penitentiary and Coyote Ridge Correctional Center.

Battelle/Pacific Northwest National Laboratory (Richland, WA), Fundamental Science Directorate

Team Leader, High-Throughput Biology Team – November 2004 to May 2009

Staff Engineer – November 2002 to November 2004, January 1998 to January 2001

Senior Research Engineer – November 1993 to December 1997

I managed a large-scale systems biology research program focused on the characterization of *Shewanella oneidensis* and *Rhodospseudomonas palustris* interactomes. My team's specific emphasis was the development of methods to identify and describe membrane protein-protein interactions including novel cofractionation chromatography and affinity-based pull-down techniques. These efforts were completed to support bioremediation and bioenergy applications. I have also very recently completed a project pertaining to the development of plant-based biosensors for the detection of heavy metal analytes in soil, air and water. I also managed a team for the design of nuclear radiation detectors for the scanning of automotive traffic for special nuclear materials along the northern border of the United States.

In the past, my research has focused on the development and characterization of transgenic production systems for fungal and bacterial cellulases to be used in the synthesis of biofuels. In addition, transgenic plant-based systems were developed for the production of human pharmaceutical proteins, specifically including blood coagulation factors. In the past I have also managed and implemented microbial kinetic and transport modeling, design, development and support for the demonstration of in situ/ex situ biological destruction and monitored natural attenuation of chlorinated organic hydrocarbons. These efforts led to the development of the industry standard bioremediation modeling tool, RT3D, of which I am co-author.

PhytaGenics, Inc. (Richland, WA/Morgan Hill, CA)

Director of Research - July 2000 to November 2002

I managed all research and development programs focused on recombinant pharmaceutical protein production via transgenic plants as well as over pharmaceutical product development. My responsibilities included:

- Planning of research and development projects
- Direct oversight of research and development projects, including laboratory tasks, milestones and budgets
- Management of a laboratory staff of four senior researchers and technicians
- Bench laboratory tasks including sterile tissue culture and product analysis in support of molecular biology efforts
- Technology scanning for future direction and vision

- Casting of corporate vision and appropriate research agenda
- Research agenda implementation
- Process development for upstream and downstream operations associated with recombinant protein pharmaceutical production
- Commercial market analysis for product targets
- Intellectual property portfolio management and patent development
- Analysis of legal issues including intellectual freedom-to-operate and patent non-infringement
- Proposal development for commercial and government clients
- Grant proposal development

Tri-State University (Angola, IN), Department of Chemical Engineering

Assistant Professor - September 1990 to November 1993

I was responsible for formulation and teaching of undergraduate chemical engineering coursework as well as the development of a full funded biotechnology/bioremediation laboratory to provide educational and research experiences for engineering and science students.

Battelle, Pacific Northwest Laboratory (Richland, WA), Waste Technology Division

Faculty Fellow - Summer 1992, 1993 (Full-time), Fall 1992, Spring 1993, Fall 1993 (Part-Time)

I led an investigation of the kinetics and transport phenomena associated with in situ microbial chlorinated hydrocarbons degradation under anaerobic conditions. Through this investigation, my team formulated a mathematical model of carbon tetrachloride destruction in fed-batch systems.

Washington State University (Pullman, WA), Department of Chemical Engineering

Teaching Assistant - Fall 1989, I taught undergraduate Biochemical Engineering, a senior level technical elective. Fall 1986-Spring 1987, I assisted students in operating equipment and in general experimental procedures within Unit Operations laboratory.

RESEARCH GRANTS AND CONTRACTS

Francis P. Owens Distinguished Scholar, Simpson University, 2017-2021

“Analysis of the Florida Medicaid Database,” Focus For Health, Inc. 2014-2015

“Iron Mountain Mine Research and Environmental Education Program,” Rev. Charles Dale Faculty Development Grant, 2014-2015, 2017-2018, 2019-2020

"Iron Mountain Mine Research and Environmental Education Program," Long Foundation, 2014 (various proposals pending)

“Bioremediation of Chromium Contaminated Groundwater at the Hanford Site, 100-D Area,” CH2M-Hill Plateau Remediation Company, 2010.

“Center for Molecular and Cellular Systems,” U.S. Department of Energy, 2003-2009.

“Site-directed DNA Insertion into Plants,” Battelle Internal R&D Grant 2005.

“Sentinel Plants for Biomonitoring Applications,” U.S. Department of Energy, 2004-2006.

“Production of plant-based recombinant thrombin,” National Institutes of Health Phase I SBIR Grant, 2002.

“Production of plant-based IgG monoclonal antibody,” Contract with Epicyte Pharmaceuticals, 2001-2004

“Production of plant-based elastin biomaterials,” U.S. Army Institute of Surgical Research, 2001-2003

“Conversion of Starch Waste to 1,3 Propanediol,” Joint Funding Project by the Environmental Technology Initiative and the Energy Technology Initiative, Pacific Northwest National Laboratory, 1998.

“Discovery, Isolation and Characterization of Strong Plant Promoters,” Food and Agriculture Initiative, Pacific Northwest National Laboratory, 1997-2000.

“Engineered Biomaterials for Accelerated Wound Care,” Medical Technologies and Systems Initiative, Pacific Northwest National Laboratory, 1997-1998

“Enzyme Technologies,” Biomolecular Technologies Initiative, Core Technical Investment, Battelle Memorial Institute, 1997-1999.

“Production of Human Blood Coagulation Factors in Transgenic Plants,” Battelle Independent Research and Development, 1997-2000.

“Production of Cellulases in Transgenic Crop Plants,” DOE-EE, Biofuels Program, NREL Ethanol Project, 1997-1999.

“Genetically Engineered Sensors,” Level V Scientist LDRD, Pacific Northwest National Laboratory, 1996.

“Production of Foreign Protein Pharmaceuticals from Transgenic Plant Cell Culture,” Environmental Technology Division, Pacific Northwest National Laboratory, 1996.

“Remediation Technology Development Forum,” Department of Energy, Office of Technology Development, Plumes Focus Area, 1996-1998.

"VOC Arid/Integrated Demonstration of Carbon Tetrachloride and Nitrate Destruction," Department of Energy, Office of Technology Development, 1993-1996.

"Mixed Waste Treatment Using Iron Reducing Bacteria," Microbial Biotechnology Initiative, Pacific Northwest National Laboratory 1996-1997.

"Characterization of Efficient Dechlorinators: Destruction of NAPL," Microbial Biotechnology Initiative, Pacific Northwest National Laboratory, 1995-1997.

"Formulation and Evaluation of Simusolv Chemical Engineering Applications Guide," Dow Chemical Company, 1993-1995.

"Techniques for remediation of Industrial Waste Substances II," Lilly Faculty Development Grant, 1993.

"Application of Structured Kinetic Modeling to the Microbial Destruction of CCl₄ in Hanford Groundwater," Battelle Pacific Northwest Laboratory, 1992-1993.

"Plant Tissue Cultivation and In Situ Bioremediation Equipment," Olive B. Cole Foundation, 1992-1993.

"Techniques for Remediation of Industrial Waste Substances," Lilly Faculty Development Grant, 1992-1993.

"Development and Implementation of a Biochemical Engineering Laboratory at Tri-State University," National Science Foundation, 1991-1994.

"Development of an Experiment in Enzymatic Cellulose Hydrolysis," Tri-State University Faculty Small Grants Program, 1991.

AWARDS/HONORS/AFFILIATIONS

- Francis Owen Distinguished Professorship recipient 2016-2021
- Board member – Children’s Health Defense (formerly World Mercury Project), 2017-2020
- AutismOne Courage in Medicine Award, May 2014
- Rev. Charles Dale Scholarship recipient, 2014-15, 2017-18, 2019-20
- Advisory Board Member – Focus For Health, Inc., (charitable organization), 2012-2020
- Scientific Advisor – Generation Rescue Autism Foundation, 2008-2010
- Technical Reviewer – RD100 Awards, R&D Magazine
- Technical Reviewer – NSF Integrative Graduate Education and Research Traineeship Program, National Science Foundation CBET Division
- Technical Reviewer – Department of Energy SBIR Program
- Key Contributor Award, Battelle, 2004
- Patent Awards, Battelle, 2002-2004
- Entrepreneurial Award, Battelle, 2001
- Invited Presentation, “Phytobiotechnology: Prospects and Promise,” Western Association of Food and Drug Officials Annual Meeting, 2001
- Federal Laboratory Consortium Recognition Award, “Reactive Transport in 3-Dimensions,” 1999
- Outstanding Performance Award, Pacific Northwest National Laboratory “Reactive Transport in 3-Dimensions,” 1999
- Outstanding Performance Award, Pacific Northwest National Laboratory, “Demonstration of In Situ Bioremediation of Carbon Tetrachloride,” 1997
- Invited Presentation, “Technology and IP Development in an Integrated Business Model,” Battelle Strategic Leadership Conference, November, 1997
- Recipient, McKetta-Smith Teaching Excellence Award, 1993

PATENTS

1. Gao J, Skeen RS, Hooker BS, Anderson, DB. US Patent **6,551,798** Method for Using a Yeast alpha-Amylase Promoter. Issued: April 22, 2003 Filed August 2001.
2. Gao J, Skeen RS, Hooker BS, Anderson, DB. US Patent **6,541,622** Cloning of a Yeast alpha-Amylase Promoter and Its Regulated Heterologous Expression. Issued: April 1, 2003 Filed May 2000.

3. Gao J, Skeen RS, Hooker BS, Anderson, DB. US Patent **6,900,305** An Isolated Yeast Promoter Sequence and a Method of Regulated Heterologous Expression. Issued: May 31, 2005. Filed Aug. 2001. (glucoamylase)
4. Shi L, Hooker BS, Dai Z, Gao J. US Patent **6,783,978** Tobacco Ribosomal Protein L-25 Promoter, Issued: August 31, 2004; filed December 1999.
5. Shi L, Dai Z, Gao J, Hooker BS, Anderson DB. US Patent **6,355,864** Versatile rpL34 elements and use thereof. Issued: March 12, 2002; filed October 12, 1999.

SCIENTIFIC PUBLICATIONS

1. Hooker BS, Miller NZ, 2021. Health effects in vaccinated versus unvaccinated children, with covariates for breastfeeding status and type of birth. *J Transl Sci* 7:1.
2. Hooker BS, Miller NZ, 2020. Analysis of Health Outcomes in Vaccinated and Unvaccinated Children: Developmental Delays, Asthma, Ear Infections and Gastrointestinal Disorders. *SAGE Open Medicine*. 8:1. <https://doi.org/10.1177/2050312120925344> PMID 32537156
3. Hooker BS, 2018. Reanalysis of the U.S. CDC Data on the Timing of the First MMR Vaccine and Autism Incidence. *J Am Phys Surg*. 23:105.
4. Hooker BS, 2017. CDC Data Manipulation Exposed: Four Years Later. *J Am Phys Surg*. 22:119.
5. Hooker BS. 2017. Inappropriate adjustment for type I error in Zerbo et al. 2017. *JAMA Pediatrics*. 171:600. PMID 28437533.
6. Geier DA, Kern JK, Hooker BS, Sykes LK, Geier MR. 2016. Thimerosal Preserved Hepatitis B Vaccine and Hyperkinetic Syndrome in Children. *Brain Sci* 15:6. PMID 26999226.
7. Geier DA, Kern JK, Hooker BS, King PG, Sykes LK, Geier MR. 2016. A Longitudinal Cohort Study on the Relationship Between Thimerosal-containing Hepatitis B Vaccination and Specific Delays in Development in the United States: Assessment of Attributable Risk and Lifetime Care Costs. *J Epidemiol Global Health*. PMID 26166425.
8. Geier DA, Kern JK, Hooker BS, Sykes LK, Geier MR. A Prospective Longitudinal Assessment of Medical Records for Diagnostic Substitution among Subjects Diagnosed with a Pervasive Developmental Disorder in the United States. *Front Pediatr*. 2015 3:85. PMID 26528457.
9. Kern JK, Geier DA, Deth RC, Sykes LK, Hooker BS, Love JM, Bjørklund G, Chaigneau CG, Haley BE, Geier R. Systematic Assessment of Research on Autism Spectrum Disorder and Mercury Reveals Conflicts of Interest and the Need for Transparency in Autism Research. *Sci Eng Ethics*. 2015. PMID 26507205.
10. Geier DA, Kern JK, Hooker BS, King PG, Sykes LK, Homme KG, Geier MR. Thimerosal exposure and increased risk for diagnosed tic disorder in the United States: a case-control study. *Interdiscip Toxicol*. 2015 8(2):68-76. PMID 27486363.
11. Geier DA, King PG, Hooker BS, Dorea J, Kern JK, Sykes LK, Geier MR. 2015. Thimerosal: Clinical, Epidemiologic and Biochemical Studies. *Clin Chim Acta*. PMID 25708367.

12. Geier DA, Hooker BS, Kern JK, King PG, Sykes LK, Geier MR. A dose-response relationship between organic mercury exposure from thimerosal-containing vaccines and neurodevelopmental disorders. *Int J Environ Res Public Health*. 2014 11(9):9156 PMID 25198681.
13. Geier DA, Hooker BS, Kern J, King PG, Sykes L, Geier MR. 2014. An Evaluation of the Effect of Increasing Parental Age on the Phenotypic Severity of Autism Spectrum Disorder. *Journal of Child Neurology*. PMID 25163730.
14. Hooker BS, Kern J, Geier DA, Haley BE, Sykes L, King PG, Geier MR. 2014. Methodological Issues and Evidence of Malfeasance in Research Purporting to Show Thimerosal in Vaccines is Safe. *BioMed Research International*. PMID 2499527.
15. Geier DA, Kern J, Hooker BS, King PG, Sykes L, Geier MR. 2014. Thimerosal-containing Hepatitis B Vaccination and the Risk for Diagnosed Specific Delays in Development in the United States: A Case-Control Study in the Vaccine Safety Datalink. *N Am J Med Sci*.6:519-31. PMID 25489565.
16. Geier DA, Hooker BS, Kern J, King PG, Sykes L, Geier MR. 2013. A Two-Phase Study Evaluating the Relationship between Thimerosal-containing Vaccine Administration and the Risk for an Autistic Disorder Diagnosis in the United States. *Translational Neurodegeneration*. 2:25. PMID 24354891.
17. Taylor RC, Singhal M, Daly DS, Gilmore J, Cannon WR, Domico K, White AM, Auberry DL, Auberry KJ, Hooker BS, Hurst G, McDermott JE, McDonald WH, Pelletier DA, Schmoyer D, Wiley HS. 2009. An analysis pipeline for the inference of protein-protein interaction networks. *Int J Data Min Bioinform*. 3:409-430.
18. Pelletier DA, Hurst GB, Foote LJ, Lankford PK, McKeown CK, Lu TY, Schmoyer DD, Shah MB, Hervey WJ 4th, McDonald WH, Hooker BS, Cannon WR, Daly DS, Gilmore JM, Wiley HS, Auberry DL, Wang Y, Larimer FW, Kennel SJ, Doktycz MJ, Morrell-Falvey JL, Owens ET, Buchanan MV. 2008. A general system for studying protein-protein interactions in Gram-negative bacteria. *J Proteome Res* 7:3319-28.
19. Anderson MP, Hooker BS, Herbert MR. 2008. Bridging from Cells to Cognition in Autism Pathophysiology: Biological Pathways to Defective Brain Function and Plasticity. *Am J Biochem Biotechnol*.4:167-176.
20. Hooker BS, Bigelow DJ, Lin CT. 2007. Methods for Mapping of Interaction Networks Involving Membrane Proteins. *Biochem Biophys Res Commun*. 363:457-461.
21. Sharp JL, Anderson KK, Daly DS, Pelletier DA, Cannon WR, Auberry DL, White AM, Hurst GB, Schmoyer DD, McDonald WH, Hooker BS, Victry KD, Wiley HS, Buchanan MV, Kery V. 2007. Inferring protein-protein associations with pull-down LC-MS/MS assay experiments. *J Proteome Res*. 6:3788-3795.
22. Dai Z, Hooker BS, Quesenberry RD, Thomas SR. 2005 Expression of *Acidothermus cellulolyticus* endoglucanase (E1) in transgenic tobacco: Effects of promoters, 5'-untranslated leaders, and transit peptides on E1 protein production. *Transgenic Res*. 5:627-643.
23. Markillie LM, Lin CT, Adkins JN, Auberry DL, Hill EA, Hooker BS, Moore PA, Moore RJ, Shi L, Wiley HS, Kery V. 2005 A simple protein complex purification and identification method for high throughput mapping of protein interaction networks. *J. Proteome Res*. 4: 268–274.

24. Lin CT, Markillie LM, Squier TC, Hooker BS, Shi L. 2005 Expression of recombinant decaheme cytochrome MtrA in *Shewanella oneidensis* MR-1 by a directional TOPO® cloning-based system. *Biotechniques* 38:297-299.
25. Trelka JA, Hooker BS. 2004. More on Madsen's Analysis. *J Am Physicians Surgeons*. 9(4):101
26. Gao J, Hooker BS, Anderson, DB. 2004. Expression of Functional Human Coagulation Factor XIII A-domain in Plant Cell Suspensions and Whole Plants. *Prot Expr Purif*. 37:89-96.
27. Miller KD, Gao JG, Hooker BS. 2004. Initial clarification by aqueous two phase partitioning of leaf extracts from *Solanum tuberosum* plants expressing recombinant therapeutic proteins. *Bioprocessing Journal* 3(2):47-51.
28. Gao J, Hooker BS, Skeen RS, Anderson DB. 2002. Development of a flexible system for the simultaneous conversion of biomass to industrial chemicals and the production of industrial biocatalysts. In: *Advancing sustainability through green chemistry and engineering*. ACS Symposium Series. 823:145-161
29. Dai Z, Hooker BS, Anderson, DB, Thomas SR. 2000. Improved plant-based production of E1 endoglucanase using potato:expression optimization and tissue targeting. *Mol Breeding* 6:277-285.
30. Hooker BS, Dai Z, Anderson DB, Quesenberry RD, Ruth MF, Thomas SR. 2000. Production of Microbial Cellulases in Transgenic Crop Plants. In: *Glycosyl Hydrolases for Biomass Conversion*. Himmel ME, Baker JO, Saddler JN, Eds. ACS Symposium Series 769:55-90.
31. Dai Z, Hooker BS, Anderson DB, Thomas SR. 2000. Expression of *Acidothermus cellulolyticus* endoglucanase (E1) and its biochemical characteristics in transgenic tobacco. *Transgenic Res*. 9:43-54.
32. Hooker BS. 1999. Two crops, one plant. Lab uses plants to produce recombinant human proteins and industrial enzymes. *Biopharm*. 12:29-30.
33. Gao J, Hooker BS, Skeen RS, Anderson DB. 1999. Transgenic fungal-based conversion of waste starch to industrial enzymes. *Proceedings of the 4th Biomass Conference of the Americas*, pp. 895-901.
34. Hooker BS, Skeen RS. 1999. Transgenic phytoremediation blasts onto the scene. *Nat Biotechnol*. 17:428.
35. Dai Z, Hooker BS, Quesenberry RD, Gao J. 1999. Expression of *Trichoderma reesei* exo-cellobiohydrolase I (CBH I) in transgenic tobacco leaves and calli. *Appl Biochem Biotechnol* 77-79:689-699.
36. Sun Y, Petersen JN, Bear J, Clement TP, Hooker BS. 1999. Modeling microbial transport and biodegradation in a dual-porosity system, *TIPM* 35(1):49-65.
37. Hooker BS, Skeen RS, Truex MJ, Johnson CD, Peyton BM, Anderson DB. 1998. In situ bioremediation of carbon tetrachloride: field test results. *Bioremediation*. 1:181-193.
38. Clement TP, Sun Y, Hooker BS, Petersen JN. 1998. Modeling multi-species reactive transport in groundwater aquifers, *Groundwater Monitoring and Remediation Journal* 18:79-92.

39. Sun Y, Petersen JN, Clement TP, Hooker BS. 1998. Effect of reaction kinetics on predicted concentration profiles during subsurface bioremediation, *J Contam Hydrol* 31:359-372.
40. Franzen MEL, Petersen JN, Clement TP, Hooker BS, Skeen RS. 1997. Pulsing of multiple nutrients as a strategy to achieve large biologically active zones during in situ carbon tetrachloride remediation. *Computational Geosciences*, 1:271-288.
41. Gao J, Skeen RS, Hooker BS, Quesenberry RD. 1997. Effects of several electron donors on tetrachloroethylene dechlorination in anaerobic soil microcosms. *Water Res* 31:2479-2486.
42. Clement, T. P., Y. Sun, B. S. Hooker, and J. N. Petersen. 1997. Modeling Natural Attenuation of Contaminants in Saturated Groundwater. *Proc. 4rd International Symposium on In Situ and On Site Bioremediation*. 1:37-42.
43. Clement, T. P., M. J. Truex, and B. S. Hooker. 1997. A Two-Well, Steady-State Testing Method for Determining Hydraulic Properties of Confined and Unconfined Aquifers. *Ground Water* 35:698-703.
44. Clement, T. P., B. S. Hooker, and R. S. Skeen. 1996. Macroscopic Models for Predicting Changes in Saturated Porous Media Properties Caused by Microbial Growth. *Ground Water* 34:934-942.
45. Clement, T. P., B. S. Hooker, and R. S. Skeen. 1996. Numerical Simulation of Biologically Reactive Transport From a Nutrient Injection Well. *ASCE J. Env. Eng.* 122:833-839.
46. Hooker, B. S. and R. S. Skeen. 1996. Intrinsic Remediation: An Environmental Restoration Technology. *Curr. Opin. Biotechnol.* 7:317-320.
47. Skeen, R. S., J. Gao, and B. S. Hooker. 1995. Kinetics of Chlorinated Ethylene Dehalogenation under Methanogenic Conditions. *Biotechnol. Bioeng.* 48:659-666.
48. Gao, J., R. S. Skeen, B. S. Hooker. 1995. Effects of Temperature on Perchloroethylene Dechlorination by a Methanogenic Consortium. *Proc. 3rd International Symposium on In Situ and On Site Bioreclamation*. 4:53-59.
49. Jennings, D. A., J. N. Petersen, R. S. Skeen, B. M. Peyton, B. S. Hooker, T. P. Clement, D. L. Johnstone, and D. R. Yonge. 1995. An Experimental Study of Microbial Transport in Porous Media. *Proc. 3rd International Symposium on In Situ and On Site Bioreclamation*. 3:97-103.
50. Sherwood, J. L., J. N. Petersen, R. S. Skeen, and B. S. Hooker. 1995. Effect of Nitrate Availability on Chloroform Production During Carbon Tetrachloride Destruction. *Proc. 3rd International Symposium on In Situ and On Site Bioreclamation*. 4:85-89.
51. Peyton, B. M., M. J. Truex, R. S. Skeen, and B. S. Hooker. 1995. The Use of Bench and Field-Scale Data for the Design of an In Situ Carbon Tetrachloride Bioremediation System. *Proc. 3rd International Symposium on In Situ and On Site Bioreclamation*. 4:111-116.
52. Clement, T. P., B. S. Hooker, and R. S. Skeen. 1995. Modeling Biologically Reactive Transport in Porous Media. *Proceedings of the International Conference on Mathematics and Computations, Reactor Physics, and Environmental Analyses*, Portland, Oregon. 192-201.

53. Peyton, B. M., R. S. Skeen, B. S. Hooker, R. W. Lundman, and A. B. Cunningham. 1995. Evaluation of Bacterial Detachment Rates In Porous Media. *Applied Biochem. Biotechnol.* **51**:785-797.
54. Jennings, D. A., J. N. Petersen, R. S. Skeen, B. S. Hooker, B. M. Peyton, D. J. Johnstone, and D. R. Yonge. 1995. Effects of Slight Variations in Nutrient Loadings on Pore Plugging in Soil Columns. *Applied Biochem. Biotechnol.* **51**:727-734.
55. Skeen, R. S., N. B. Valentine, B. S. Hooker, and J. N. Petersen. 1995. Kinetics of Nitrate Inhibition of Biological Transformation of Carbon Tetrachloride. *Biotechnol. Bioeng.* **45**:279-284.
56. Hooker, B.S., R.S. Skeen, M.J. Truex, and B.M. Peyton. 1994. A Demonstration of *In Situ* Bioremediation of CCl₄ at the Hanford Site. pp. 281-292 in: *In Situ Remediation: Scientific Basis for Current and Future Technologies, Part 1*, G. W. Gee and N. R. Wing, eds., Battelle Press, Columbus.
57. Truex, M. J., C. D. Johnson, D. R. Newcomer, L. A. Doremus, B. S. Hooker, B. M. Peyton, R. S. Skeen, and A. Chilikapati. 1994. Deploying *In Situ* Bioremediation at the Hanford Site. pp. 209-231 in: *In Situ Remediation: Scientific Basis for Current and Future Technologies, Part 1*, G. W. Gee and N. R. Wing, eds., Battelle Press, Columbus.
58. Shouche, M. A., J. N. Petersen, R. S. Skeen and B. S. Hooker. 1994. Alternating Extraction/Injection Well Interactions for In Situ Bioremediation. *Appl. Micro. Biotechnol.* **45**:775-85.
59. Hooker, B. S., R. S. Skeen and J. N. Petersen. 1994. Biological Destruction of CCl₄, Part II: Kinetic Modeling. *Biotechnol. Bioeng.* **44**:211-218.
60. Hooker, B. S. 1994. A Project Oriented Approach to an Undergraduate Biochemical Engineering Laboratory. *Chem. Eng. Educ.* **28**:98-102.
61. Petersen, J. N., R. S. Skeen, K. M. Amos, and B. S. Hooker. 1994. Biological Destruction of CCl₄: Part 1. Experimental Design and Data. *Biotechnol. Bioeng.* **43**:521-528.
62. Hooker, B. S., R. S. Skeen, and J. N. Petersen. 1994. Application of a Structured Kinetic Model to the Bioremediation of Hanford Groundwater, pp. 387-392. In: *Bioremediation for Chlorinated and Polycyclic Aromatic Hydrocarbon Compounds*. R.E. Hinchee *et al.*, eds. Lewis, Boca Raton, FL.
63. Skeen, R. S., S. P. Luttrell, T. M. Brouns, B. S. Hooker, M. Shouche, and J. N. Petersen. 1993. In Situ Bioremediation of Hanford Groundwater. *Remediation*, **3**:353-367.
64. Hooker, B. S. and J. M. Lee. 1992. Application of a New Structured Model to Tobacco Cell Cultures. *Biotechnol. Bioeng.*, **39**:765-774.
65. Hooker, B.S., J. M. Lee and G. An. 1990. Cultivation of Plant Cells in a Stirred Vessel: Effect of Impeller Design. *Biotechnol. Bioeng.*, **35**:296-304.
66. Hooker, B. S. and J. M. Lee. 1990. Cultivation of Plant Cells in Aqueous Two-Phase Polymer Systems. *Plant Cell Reports*, **8**:546-549.
67. Hooker, B. S., J. M. Lee and G. An. 1989. The Response of Plant Tissue Culture to a High Shear Environment. *Enzy. Microb. Technol.*, **11**:484-490.

PRESENTATIONS

1. Hooker BS, "The Latest and Greatest in Vaccine Safety Science" AutismOne Conference, Chicago, IL, May 2020.
2. Hooker BS, "How to Use the FOIA to Effectively Investigate Government Agencies" AutismOne Conference, Chicago, IL, May 2020.
3. Hooker BS, "The Scorched Earth Landscape of Vaccine Safety" Informed Choice Iowa, Des Moines, IA, November 2019.
4. Hooker BS, "Navigating the Jungle of Vaccine Safety" Trinity Conference, Chicago, IL, October 2019.
5. Hooker BS. "Measles or Autism" AutismOne Conference, Chicago, IL, May 2019.
6. Hooker BS. "FOIA 201: How to continue to investigate your government and get people to listen to the results of your investigation" AutismOne Conference, Chicago, IL, May 2019.
7. Hooker BS, "Foibles and Fables: How the CDC and Other Federal Agencies Cover up the Relationship between Vaccines and Neurodevelopmental Disorders," AutismOne Conference, Chicago, IL, May 2018.
8. Hooker BS, "FOIA 101: How to Investigate your Government and get People to Listen to the Results of your Investigation," AutismOne Conference, Chicago, IL, May 2018.
9. Gilson J, Last R, Schali C, Hooker BS (faculty advisor), "Results of Microcosm Studies Using Native Cultures from Acid Mine Drainage," National Council for Undergraduate Research, Oklahoma City, OK, April 2018.
10. Last R, Gilson J, Schali C, Hooker BS (faculty advisor), "Metagenomics of Microbial Communities in Acid Mine Drainage," National Council for Undergraduate Research, Oklahoma City, OK, April 2018.
11. Schali, C, Smith, M, Hooker BS (faculty advisor), "Health Outcomes of Children Using Delayed and Selective Vaccination Schedules," National Council for Undergraduate Research, Oklahoma City, OK, April 2018.
12. Hooker BS, "High Times at the CDC: Sex, Lies and Audio Tape," AutismOne Conference, Colorado Springs, CO, May 2017.
13. Stetler D, Hooker BS (faculty advisor), "Extremophilic Bacteria in Acid Mine Drainage," Simpson University Student Research Symposium, Redding, CA, March 2017
14. Paradis K, Paradis C, Hooker BS (faculty advisor), "Effects of Dog's Socialization on Behavior and Adoption in Haven Humane Society: A Case Study," Simpson University Student Research Symposium, Redding, CA, March 2017

15. Hooker BS, "Scientific Corruption at the CDC," AutismOne Conference, Chicago, IL, May 2016.
16. Hooker BS, "CDC Whistleblower," Key Note Presentation, AutismOne Conference, Chicago, IL, May 2015.
17. Hooker BS, Invited Presentation, "Malfeasance at the CDC," AutismOne Conference, Chicago, IL, May 23, 2014
18. Sabu SA, Hooker BS, Polk T, Smith T, "Phylogeny of Soil Microorganisms in Runoff at an Extreme Acid Mine Drainage Site," National Council for Undergraduate Research Annual Meeting, Lexington, KY, April, 2014
19. Sabu SA, Polk T, Hooker BS (faculty advisor), "Iron Mountain Mine Metagenomics and Microcosm Study," Simpson University Student Research Symposium, Redding, CA, March 2014
20. Putras C, Hooker BS (faculty advisor), "Phage Isolation Experiment," Simpson University Student Research Symposium, Redding, CA, March 2014
21. Aaronson B, Hooker BS (faculty advisor), "Determination of the Presence of Giardia Lamblia at Specific Locations on the Campus of Simpson University," Simpson University Student Research Symposium, Redding, CA, March 2014
22. Hooker BS, Invited Presentation, "More Lies of the CDC," AutismOne Conference, Chicago, IL, May 25, 2013
23. Ward A, Hooker BS (faculty advisor), "Microbial Characterization of Simpson University Pond," Simpson University Student Research Symposium, Redding, CA, March 2013
24. Hooker BS, Reeves RE, Bolen T, Invited Presentation, "FOIA Exposes CDC Lied Claiming Mercury in Vaccines is Safe," AutismOne Conference, Chicago, IL, May 25, 2012.
25. Hooker BS, Invited Presentation, "Is the FOIA Really Free?" Health Freedom Expo, Long Beach, CA, March 4, 2012.
26. Cannon WR, Daly DS, Singhal M, McCue LA, Taylor RC, Pelletier DA, Hurst GB, Schmoyer DD, Morrell-Falvey JL, Hooker BS, Pan C, McDonald WH, Buchanan MV, Wiley HS. An integrative strategy for the determination of the modular structure of functional networks of *Rhodopseudomonas palustris*. GTL Annual Contractors Meeting, Washington, DC, February, 2009.
27. Pelletier DA, Anderson KK, Cannon WR, Daly DS, Hooker BS, Wiley HS, McCue LA, Pan C, Shah MB, McDonald WH, Asano KG, Hurst GB, Schmoyer DD, Morrell-Falvey JL, Doktycz MJ, Martin SA, Singhal M, Taylor RC, Buchanan MV. Protein-protein interactions in *Rhodopseudomonas palustris* at the Genomics:GTL Center for Molecular and Cellular Systems. GTL Annual Contractors Meeting, Washington, DC, February, 2009.
28. Hooker BS, Lin, CT, Victry KD, Chen B, Wiley HS, Pelletier DA. Identification of Membrane Protein Interaction Networks Using Orthogonal Methods. International Conference on Biological Engineering. Santa Barbara, CA, January, 2009.
29. Pelletier DA, Heiniger E, Hurst GB, Lankford TK, McKeown CK, Lu TS, Owens ET, Schmoyer DD,

Morrell-Falvey JL, Hooker BS, McDonald WH, Doktycz MJ, Cannon WR, Harwood CS, Buchanan MV. Protein-protein interactions involved in electron transfer to nitrogenase for hydrogen production in *Rhodopseudomonas palustris*. GTL Annual Contractors Meeting, Washington DC, February, 2008.

30. Buchanan MV, Pelletier DA, Hurst GB, McDonald WH, Schmoyer DD, Morrell-Falvey JL, Doktycz MJ, Hooker BS, Cannon WR, Wiley HS, Samatova NF, Karpinets T, Singhal M, Lin CT, Taylor RC, Daly DS, Anderson KK, McDermott JE. The Center for Molecular and Cellular Systems: Biological insights from large scale protein-protein interaction studies. GTL Annual Contractors Meeting, Washington DC, February, 2008.
31. Anderson KK, Cannon WR, Daly DS, Hooker BS, McDermott JE, Hurst GB, McDonald WH, Pelletier DA, Schmoyer DD, Morrell-Falvey JL, Doktycz MJ, Martin SA, Singhal M, Taylor RC, Wiley HS, Buchanan MV. Advanced data analysis pipeline for determination of protein complexes and interaction networks at the Genomics:GTL Center for Molecular and Cellular Systems. GTL Annual Contractors Meeting, Washington DC, February 2008.
32. Cannon WR, Singhal M, Taylor RC, Daly DS, Pelletier DA, Hurst GB, Schmoyer DD, Morrell-Falvey JL, Hooker BS, McDonald WH, Buchanan MV, Wiley HS. Analysis of the dynamic modular structure of *Rhodopseudomonas palustris* based on global analysis of protein-protein interactions. GTL Annual Contractors Meeting, Washington DC, February 2008.
33. Allen MS, Pelletier DA, Hurst GB, Foote LJ, Lankford TK, McKeown CK, Lu TS, Owens ET, Schmoyer DD, Morrell-Falvey JL, McDonald WH, Doktycz MJ, Hooker BS, Cannon WR, Buchanan MV. Characterization of a stress response pathway in the anoxygenic phototrophic bacterium *Rhodopseudomonas palustris*. GTL Annual Contractors Meeting, Washington DC, February 2008.
34. Taylor RC, Singhal M, Daly DS, Domico K, White AM, Auberry DL, Auberry KJ, Hooker BS, Hurst GB, McDermott J, McDonald WH, Pelletier DA, Schmoyer DD, Cannon WR. SEBINI-CABIN: An analysis pipeline for biological network inference, with a case study in protein-protein interaction network reconstruction. Workshop on Machine Learning in Biomedicine and Bioinformatics of the Sixth International Conference on Machine Learning and Applications, Cincinnati, OH, December, 2007.
35. Hooker BS, Lin CT, Victry KD, Bigelow DJ, Pelletier DA, Wiley HS. A protocol for the identification of membrane protein interaction networks. Eighth Annual International Conference on Systems Biology, Long Beach, CA, October 2007.
36. Lin CT, Victry KD, Bigelow DJ, Pelletier DA, Wiley HS, Hooker BS. Identification and extraction of the ATP synthase complex from solubilized *Rhodopseudomonas palustris* using tandem affinity tags, Northwest Regional Meeting of the American Chemical Society, Boise, ID, June 2007.
37. Pelletier DA, Hurst GB, Foote LJ, Lankford TK, McKeown CK, Lu TS, Owens ET, Schmoyer DD, Shah MB, Morrell-Falvey JL, Hooker BS, Kennel SJ, McDonald WH, Doktycz MJ, Auberry DL, Cannon WR, Auberry KJ, Wiley HS, Buchanan MV. Global Survey of Protein-Protein Interactions in *Rhodopseudomonas palustris*. GTL Annual Contractors Meeting, Washington, DC, February, 2007.
38. Morrell-Falvey JL, Doktycz MJ, Pelletier DA, Foote LJ, Owens ET, Venkatraman S, McDonald WH, Hooker BS, Lin CT, Victry KD, Auberry DL, Livesay EA, Orton DJ, Wiley HS, Buchanan MV. Advances in Coverage and Quality for High-Throughput Protein-Protein Interaction Measurements. GTL Annual Contractors Meeting, Washington, DC, February, 2007.

39. Anderson KK, Auberry DL, Cannon WR, Daly DS, Hooker BS, Hurst GB, McDermott JE, McDonald WH, Pelletier DA, Schmoyer DD, Sharp JL, Singhal M, Taylor RC, Buchanan MV. Advanced Data Analysis Pipeline for Determination of Protein Complexes and Interaction Networks at the Genomics:GTL Center for Molecular and Cellular Systems. GTL Annual Contractors Meeting, Washington, DC, February, 2007.
40. Hooker BS, Auberry DL, Auberry KJ, Cannon WR, Gorby YA, Hill EA, Kery V, Lin CT, Livesay EA, Moore PA, Moore RJ, Smith RD, Victry KD, Wiley HS, D. Pelletier, M. Buchanan, L. Foote, G. Hurst, S. Kennel, T. Lankford, T. Lu, W. McDonald, C. McKeown, D. Schmoyer. Determination of Protein Interaction Subnetworks in *Shewanella oneidensis* Using Endogenous and Exogenous Affinity Isolation Methods. Presented at the 2007 Society for Biological Engineers International Conference on Biomolecular Engineering. San Diego, CA, January 2007.
41. Lin CT, Hooker BS, Pelletier DA, Victry KD, Livesay EA, Wiley HS. Application of Co-fractionation in High Throughput Proteomics for Mapping Cellular Protein Networks. American Society for Cell Biology Annual Meeting, San Diego, CA, December 2006.
42. Hurst GB, Pelletier DA, Schmoyer DD, Shah MB, McDonald WH, Baldwin NE, Samatova NF, Gorin A, Hooker BS, Kery V, Cannon WR, Auberry DL, Auberry KJ, Victry KD, Saripalli R, Wiley HS, Kennel SJ, Buchanan MV. Center for Molecular and Cellular Systems: The Microbial Interactome Database – An Online System for Identifying Interactions between Proteins of Microbial Species. GTL Annual Contractors Meeting, Washington, DC, February, 2006.
43. Hettich R, Hurst GB, McDonald WH, Connelly H, Pelletier DA, Pan C, Samatova N, Kora G, Kertesz V, Gaucher S, Iqbal T, Hadi M, Young M, Orr G, Romine M, Panther D, Reed SB, Hu D, Livesay E, Hooker BS, Wiley HS, Kennel SJ, Buchanan MV. Advanced Technologies for Identifying Protein-Protein Interactions. GTL Annual Contractors Meeting, Washington, DC, February, 2006.
44. Pelletier DA, Hurst GB, Kennel SJ, Foote L, Lankford P, Lu T, McDonald WH, McKeown C, Morrell-Falvey J, Schmoyer DD, Livesay E, Collart F, Auberry DL, Auberry KJ, Gorby YA, Hooker BS, Hill E, Lin CT, Moore PA, Moore R, Saripalli R, Victry KD, Kery V, Wiley HS, Buchanan MV. Comparison of Conserved Protein Complexes across Multiple Microbial Species to Evaluate High-Throughput Approaches for Mapping the Microbial Interactome. GTL Annual Contractors Meeting, Washington, DC, February, 2006.
45. Cannon WR, McDonald WH, Daly DS, Schmoyer DD, Hurst GB, Shah MB, Hooker BS, Kery V, Kennel SJ, Wiley HS, Buchanan MV. Computational Approaches for Aggregating and Scoring Protein-Protein Interaction Data. GTL Annual Contractors Meeting, Washington, DC, February, 2006.
46. Pefaur, NB, Engelmann HE, Hooker BS, Miller KD. Yeast display of transcription factors: Initial characterization of a novel flow cytometric assay of DNA-protein interactions. Protein Engineering, IBC USA, San Diego, CA, Dec. 2005.
47. Hooker BS, Pefaur NB, Miller KD, Engelmann H. Invited Presentation. Sentinel Plants for National Security Applications. MASINT 2005, Chantilly, VA, Sept. 2005.
48. Auberry DL, V Kery, BS Hooker, WR Cannon, and HS Wiley. 2005. "Using Nautilus to capture metadata for identification of protein interactions." Presented by Deanna Auberry at Thermo Informatics World, Bonita Springs, FL on September 20, 2005. PNNL-SA-46394.

49. Kery V, JN Adkins, DL Auberry, KJ Auberry, WR Cannon, FR Collart, DS Daly, YA Gorby, EA Hill, BS Hooker, GR Kiebel, LM Markillie, EA Livesay, PA Moore, RJ Moore, ES Peterson, RD Smith, HJ Sofia, KD Victry, and HS Wiley. 2005. "Automated protein and protein complex purification pipeline for systems biology." Presented by Vladimir Kery at The 2005 Northwest Symposium for Systems Biology, Richland, WA on June 20, 2005.
50. Hooker BS. Expression and Scale Up of Recombinant Proteins in Plants. Invited Presentation. Williamsburg Bioprocessing Conference, Bal Harbour, FL, May 2005.
51. Hooker BS, Pefaur N, Miller KD, Engelmann H. Poster Presentation. Sentinel Plants for National Security Applications. NNSA-DOE Technical Information Exchange, Albuquerque, NM, April, 2005.
52. Kery V, JN Adkins, GA Anderson, DL Auberry, KJ Auberry, WR Cannon, DS Daly, YA Gorby, EA Hill, BS Hooker, JT Lin, EA Livesay, LM Markillie, PA Moore, RJ Moore, ES Peterson, RD Smith, HJ Sofia, KD Victry, and HS Wiley. 2005. "Automated process for high-throughput mapping of protein interaction networks." Presented by Vladimir Kery at Keystone Symposia in Proteomics and Bioinformatics, Keystone, CO on April 10, 2005.
53. Kery V, Pelletier DA, Adkins JN, Auberry DL, Collart FR, Foote LJ, Hooker BS, Hoyt P, Hurst GB, Kennel SJ, Lankford TK, Lin C, Livesay E, Lu TS, McKeown CK, Moore PA, Moore RJ, Victry KD. High-throughput analysis of protein complexes in the Center for Molecular and Cellular Systems. GTL Contractors Annual Meeting, Washington DC February 2005.
54. Hooker BS. Expression and Scale Up of Transgenic Plant Made Pharmaceuticals. Invited Presentation. Conference for Plant Made Pharmaceuticals, Montreal, QE, Canada, February 2005.
55. Hooker BS. Production of Therapeutic Proteins in Transgenic Plants. Invited Presentation. Williamsburg Bioprocessing. Beverly Hills, CA, May 2004.
56. Hooker BS, Shi L, Lin CT, Markillie LM, Mayer-Cumblidge MU, Squier TC, Pelletier DA, Hurst GB, Hettich RL, VerBerkmoes NC, Strader MB, Lankford P, Kennel SJ. Isolation and Characterization of Protein Complexes from *Shewanella oneidensis* and *Rhodopseudomonas palustris*. GtL Contractors Annual Meeting, Washington, DC, April 2004.
57. Pelletier DA, Kennel SJ, Hoyt P, Foote L, Lu TY, Markillie LM, Lin CT, Shi L, Kery V, Hooker BS. High-throughput cloning, expression and purification of *Rhodopseudomonas palustris* and *Shewanella oneidensis* affinity tagged fusion proteins for protein complex isolation. GtL Contractors Annual Meeting, Washington, DC, April 2004.

58. Gao J, Hooker BS, Panisko EA, Miller KD, Anderson DB. Production of Human Blood Clotting Factors in Transgenic Plants. American Institute of Chemical Engineers Annual Meeting, San Francisco, CA, November, 2003.
59. Hooker BS, Adkins JN, Anderson GA, Bruckner-Lea C, Feldhaus M, Lin CT, Markille LM, Mayer MU, Miller KD, Negash S, Shi L, Siegel RW, Sofia HJ, Smith RD, Springer DL, Squier TC, Rodland KD, Wiley HS. High-Throughput Approaches for the Identification and Characterization of Protein Complexes. Shewanella Federation Annual Meeting, Richland, WA, August, 2003.
60. Hooker BS, Gao, J, Panisko EA, Johnson BL, Miller KM. Human Tropoelastin Expression in Transgenic Plants. Advanced Technology Applications for Combat Casualty Care, Tampa, FL, September 2002.
61. Hooker BS, Gao, J, Panisko EA, Johnson BL, Miller KM. Engineering Protein Production in Plants, Northwest Regional Meeting of the American Chemical Society, Spokane, WA, June 2007.
62. Hooker BS, Gao, J, Panisko EA, Johnson BL, Miller KM. BSA and Human Transferrin Produced in Transgenic Plants. Williamsburg Bioprocessing Conference, Savannah, GA, May 2002.
63. Hooker BS, Gao, J. Recombinant Human Proteins Produced in Transgenic Plants for Battlefield Hemostasis, BIO-Defense Conference, Washington, DC, April 2002.
64. Gao J, Hooker BS, Anderson DB. Production of Human Blood Coagulation Factor XIII in Both Plant Cell Culture and Whole Plants, American Institute of Chemical Engineers Annual Meeting, November 2001.
65. Hooker BS, Gao J, Anderson DB, Lombardo NJ. A Novel Source of Tissue Engineering Materials: Production of Tropoelastin Using Transgenic Plants. Advanced Technology Applications for Combat Casualty Care, Ft. Walton Beach, FL, September 2001.
66. Hooker BS. Phytobiotechnology: Prospects and Promise. Invited Presentation at the 2000 Western Association of Food and Drug Officials Annual Meeting, Seattle, WA, September 2000.
67. Dai Z, Hooker BS, Anderson DB, Thomas SR. Improved Production of Plant-Based E1 Endoglucanase Using Potato: Expression Optimization and Tissue Targeting, International Society of Plant Molecular Biology, June 2000.
68. Hooker BS, Anderson DB, Gao J. Plant bioreactors for recombinant human blood factors production. Presented at the Annual Biotechnology Industry Organization Meeting, Boston, MA, March 2000.
69. Hooker BS, Anderson DB, Dai Z. Plant promoter technology program at Battelle. Presented at the Annual Biotechnology Industry Organization Meeting, Boston, MA, March 2000.
70. Shi L, Hooker BS, Quesenberry RD, An G, Dai Z. Functional analysis of promoter elements controlling developmental and environmental regulation of a tobacco ribosomal protein gene *L34*. Presented at the 1999 American Society of Plant Physiologists Annual Meeting, Baltimore, MD, July, 1999.
71. Dai Z, Hooker BS, Thomas SR. Expression of *Acidothermus cellulolyticus* endoglucanase (E1) and its biochemical characteristics in transgenic tobacco. Presented at the 1999 American Society of Plant Physiologists Annual Meeting, Baltimore, MD, July, 1999.
72. Hooker BS, Gao J, Dai Z, Anderson DB, Quesenberry RD. Plant-based recombinant human blood factors. Presented at the International Business Communications AgBiotech World Forum, Las

Vegas, NV, June, 1999

73. Hooker BS, Anderson, DB. Plant bioreactors for recombinant protein production: technical and economical analysis. Presented at the Annual Biotechnology Industry Organization Meeting, Seattle, WA, May 1999.
74. Dai Z, Hooker BS, Quesenberry RD, Thomas SR. Expression of *Acidothermus cellulolyticus* endoglucanase (E1) in transgenic tobacco plants is enhanced by post-transcriptional modification. Presented at the 21th Symposium on Biotechnology of Fuels and Chemicals, Fort Collins, CO, May, 1999.
75. Dai Z, Hooker BS, Quesenberry RD, Thomas SR. Expression of *Acidothermus cellulolyticus* endoglucanase (E1) and its biochemical characteristics in transgenic tobacco. Presented at the 21th Symposium on Biotechnology of Fuels and Chemicals, Fort Collins, CO, May, 1999.
76. Ruth MF, Howard JA, Nikolov ZL, Hooker BS, Himmel ME, Thomas SR. Preliminary economic analysis of agricultural enzyme production for use in cellulose hydrolysis. Presented at the 21th Symposium on Biotechnology of Fuels and Chemicals, Fort Collins, CO, May, 1999.
77. Gao J, Skeen RS, Hooker BS, Anderson DB. Transgenic fungal-based conversion of waste starch to industrial enzymes. Presented at the 21th Symposium on Biotechnology of Fuels and Chemicals, Fort Collins, CO, May, 1999.
78. Hooker BS, Z Dai, RD Quesenberry, SR Thomas. Production of Cellulases in Transgenic Tobacco Whole Plants: Production Optimization at the Molecular Level. Presented at the 20th Symposium on Biotechnology of Fuels and Chemicals, Gatlinburg, TN, May, 1998.
79. Dai Z, J Gao, BS Hooker. Expression of *Trichoderma reesei* exocellobiohydrolase I in transgenic tobacco plants. Presented at the Quadrennial Joint Annual Meetings of The American Society of Plant Physiologists and Canadian Society of Plant Physiologists with the participation of the Japanese Society of Plant Physiologists and The Australian Society of Plant Physiologists, Inc, Vancouver, BC, Canada, August 1997.
80. Hooker BS, Z Dai, J Gao. Production of Cellulases in Transgenic Tobacco Whole Plants and Cell Culture. Presented at the 19th Symposium on Biotechnology of Fuels and Chemicals, Colorado Springs, CO, May, 1997.
81. Clement TP, Y Sun, BS Hooker, JN Petersen. 1997. Modeling Natural Attenuation of Contaminants in Saturated Groundwater. Presented at the 4th International Symposium on In Situ and On Site Bioremediation, New Orleans, LA, April, 1997.
82. Hooker BS, MJ Truex, RS Skeen, BM Peyton, CD Johnson, DB Anderson. 1997. Field Results for In Situ Bioremediation of Carbon Tetrachloride. Presented at the 4th International Symposium on In Situ and On Site Bioremediation, New Orleans, LA, April, 1997.
83. Gao, J, RS Skeen, BS Hooker. 1997. Screening of Indigenous Potential for Complete In Situ Destruction of Tetrachloroethylene. Presented at the 4th International Symposium on In Situ and On Site Bioremediation, New Orleans, LA, April, 1997.

84. Jerger, D. E., D. B. Anderson, B. S. Hooker and R. S. Skeen. 1997. Scale-up of In Situ Bioremediation for Chloroethenes. Presented at the 4th International Symposium on In Situ and On Site Bioremediation, New Orleans, LA, April, 1997.
85. Gao, J., R. S. Skeen, and B. S. Hooker. 1997. Process Scale-Up Considerations for In Situ Reductive Dechlorination of Chloroethenes. Presented at the 4th International Symposium on In Situ and On Site Bioremediation, New Orleans, LA, April, 1997.
86. Peyton, B. M., B. S. Hooker, M. J. Truex, and M. G. Butcher. 1997. Pulsed Nutrient Injection for Improved Biomass Distribution. Presented at the 4th International Symposium on In Situ and On Site Bioremediation, New Orleans, LA, April, 1997.
87. Dai, Z., J. Gao, B. S. Hooker. Production and Characterization of Foreign Proteins in Transgenic Whole Plants and Cell Culture. Presented at the IBC Transgenic Therapeutics Conference, West Palm Beach, FL, February, 1997.
88. Sun, Y., T. P. Clement, B. S. Hooker, J. N. Petersen. A Modular Computer Model for Simulating Natural Attenuation of Chlorinated Organics in Saturated Groundwater. Presented at the IBC Environmental Monitoring Tools Conference, Annapolis, MD, December, 1996.
89. Dai, Z., J. Gao, B. S. Hooker. Production and Characterization of Foreign Protein Pharmaceuticals in Transgenic Whole Plants and Cell Culture. Presented at the 1996 AIChE Annual Meeting, Chicago, IL, November, 1996.
90. Sun, Y., T. P. Clement, B. S. Hooker, J. N. Petersen. A Modular Computer Model for Simulating Natural Attenuation of Chlorinated Organics in Saturated Groundwater. Presented at the Symposium on Natural Attenuation of Chlorinated Organics in Ground Water, Dallas, TX, September, 1996.
91. Hooker, B. S., M. J. Truex, R. S. Skeen, B. M. Peyton, and T. P. Clement. Comparison of Model Predictions to Field Data for a Demonstration of Carbon Tetrachloride Bioremediation. Presented at the 1996 World Congress of Chemical Engineering, San Diego, CA, July, 1996.
92. Hooker, B. S., M. J. Truex, T. P. Clement, and D. R. Newcomer. Preliminary Validation of Intrinsic Remediation of Carbon Tetrachloride at the Hanford Site. Presented at the Intrinsic Remediation Conference, Salt Lake City, UT, April 1996.
93. Hooker, B. S., M. J. Truex, B. M. Peyton, R. S. Skeen, and T. P. Clement. Validation of In Situ Bioremediation Using Numerical Simulation Tools. Presented at the 1995 AIChE Annual Meeting, Miami, FL, November, 1995.
94. Hooker, B. S., R. S. Skeen, J. Gao, M. M. Shah. Kinetic Characterization of a Tetrachloroethylene Utilizing Microbial Consortium. Presented at the 34th Hanford Symposium on Health and the Environment, Pasco, WA, October, 1995.
95. Shah, M. M., J. Gao, R. S. Skeen, and B. S. Hooker. Characterization of Anaerobic Perchloroethylene Dehalogenation Activity at Varying Substrate and Perchloroethylene Concentrations. Presented at the 1995 ACS National Meeting, September, 1995.
96. Gao, J., M. M. Shah, R. S. Skeen, and B. S. Hooker. Treatability Tests for Biodegradation of Perchloroethylene by Different Contaminated Site Sediments in Microcosm Cultures with Various Substrates. Presented at the 1995 ACS National Meeting, September, 1995.

97. Truex, M. J., B. S. Hooker, R. S. Skeen, and B. M. Peyton. In Situ Bioremediation of Carbon Tetrachloride and Nitrate in Hanford Groundwater: A Field-Scale Demonstration. Presented at the 1995 AIChE Summer National Meeting, Boston, MA, August, 1995.
98. Clement, T. P., B. S. Hooker, and R. S. Skeen. Numerical Modeling of In Situ Biological Destruction of Carbon Tetrachloride Under Denitrifying Conditions in a Radial Flow Field. Presented at the Annual Meeting and Exhibition of the Air & Waste Management Association, San Antonio, TX, June, 1995.
99. Clement, T. P., B. S. Hooker, and R. S. Skeen. Modeling Biologically Reactive Transport in Porous Media. Presented at the International Conference on Mathematics and Computations, Reactor Physics, and Environmental Analyses, Portland, OR, May 1995.
100. Clement, T. P., B. S. Hooker, and R. S. Skeen. 1995. A Macroscopic Model for Predicting Changes in the Physical Properties of Porous Media. Presented at the Third International Symposium on In Situ and On Site Bioreclamation, San Diego, CA, April 1995.
101. Petersen, J. N., M. Franzen, B. S. Hooker, T. P. Clement, and R. S. Skeen. Determining Nutrient Addition Strategies to Minimize the Time Needed to Complete In Situ Bioremediation. Presented at the Third International Symposium on In Situ and On Site Bioreclamation, San Diego, CA, April 1995.
102. Jennings, D. A., J. N. Petersen, R. S. Skeen, B. M. Peyton, and B. S. Hooker. An Experimental Study of Microbial Transport in Porous Media. Presented at the Third International Symposium on In Situ and On Site Bioreclamation, San Diego, CA, April 1995.
103. Peyton, B. M., M. J. Truex, R. S. Skeen, and B. S. Hooker. The Use of Bench- and Field-Scale Data for Design of an In Situ Carbon Tetrachloride Bioremediation System. Presented at the Third International Symposium on In Situ and On Site Bioreclamation, San Diego, CA, April 1995.
104. Gao, J., R. S. Skeen, and B. S. Hooker. Effects of Temperature on Perchloroethylene Dechlorination by a Methanogenic Consortium. Presented at the Third International Symposium on In Situ and On Site Bioreclamation, San Diego, CA, April 1995.
105. Hooker, B. S., T. P. Clement, and B. S. Hooker. Development of Soil Column (Cartesian) and Near-Well (Radial) Simulation Design Tools for In Situ Bioremediation. Presented at the 1994 AIChE Annual Meeting, San Francisco, CA, November 1994.
106. Hooker, B.S., R.S. Skeen, M.J. Truex, and B.M. Peyton. A Demonstration of *In Situ* Bioremediation of CCl₄ at the Hanford Site. Presented at the 33rd Hanford Symposium on Health and the Environment, Richland, WA, November 1994.
107. Truex, M. J., C. D. Johnson, D. R. Newcomer, L. A. Doremus, B. S. Hooker, B. M. Peyton, R. S. Skeen, and A. Chilikapati. 1994. Deploying *In Situ* Bioremediation at the Hanford Site. Presented at the 33rd Hanford Symposium on Health and the Environment, Richland, WA November 1994.
108. Hooker, B. S., M. J. Truex, R. S. Skeen, B. M. Peyton, and A. Chilikapati. Use of Numerical Simulation Tools in the Design and Implementation of a Full-Scale In Situ Bioremediation Field Test. Presented at the 1994 AIChE Summer National Meeting, Denver, CO, August 15-17, 1994.

109. Peyton, B. M., R. S. Skeen, B. S. Hooker, and M. J. Butcher. Pulsed Nutrient Delivery for Control of Pore Plugging. Presented at the 9th Annual HSRC Conference on Hazardous Waste, Bozeman, MT, June 1994.
110. Peyton, B. M., R. S. Skeen, B. S. Hooker, R. W. Lundman, and A. B. Cunningham. Biomass Transport Processes in Porous Media. Presented at the Symposium on Biotechnology for Fuels and Chemicals, Oak Ridge, TN, May 1994.
111. Jennings, D. J., J. N. Peterson, R. S. Skeen, B. S. Hooker, B. M. Peyton, and D. J. Johnstone. Effects of Slight Variations in Nutrient Loadings on Pore Plugging in Soil Columns. Presented at the Symposium on Biotechnology for Fuels and Chemicals, Oak Ridge, TN, May 1994.
112. Hooker, B. S., R. S. Skeen, and J. N. Petersen. Kinetic Modeling of the Biological Destruction of Carbon Tetrachloride. Presented at the ACS National Meeting, San Diego, CA, March 1994.
113. Hooker, B. S. Development and Implementation of an Undergraduate Biochemical Chemical Engineering Laboratory. Presented at the 1993 ASEE Annual Meeting, Champaign, IL, June 1993.
114. Shouche, M., J. N. Petersen, R. S. Skeen and B. S. Hooker. Alternating Extraction/Injection Well Interactions for In Situ Bioremediation. Presented at the Fifteenth Symposium on Biotechnology for Fuels and Chemicals, Colorado Springs, CO, May 1993.
115. Hooker, B. S., R. S. Skeen, S. M. Cote, M. J. Truex, and J. N. Petersen. Application of a Structural Kinetic Model to In Situ Bioremediation of Hanford Groundwaters. Presented at the Second International Symposium on In Situ and On Site Bioreclamation, San Diego, CA, April 1993.
116. Petersen, J. N., M. Shouche, R. S. Skeen, and B. S. Hooker. Use of a Mathematical Model for Prediction of Optimum Feeding Strategies for In Situ Bioremediation of Hanford Groundwaters. Presented at the Second International Symposium on In Situ and On Site Bioreclamation, San Diego, CA, April 1993.
117. Hooker, B. S. A Project Oriented Approach to an Undergraduate Biochemical Engineering Laboratory. Presented at AIChE Annual Meeting, Miami, FL, November 1992.
118. Hooker, B. S. An Integrated Introductory Course Experience for Sophomore Chemical Engineering Students. Presented at ASEE Annual Meeting, Toledo, OH, June 1992.
119. Hooker, B. S. and J. M. Lee. Application of a Three-Compartment Model to Suspension Plant Tissue Culture. Presented at AIChE Annual Meeting, Chicago, IL, November 1990.
120. Hooker, B. S. and J. M. Lee. Cultivation of Plant Cells in Aqueous Two-Phase Polymer Systems. Presented at AIChE Annual Meeting, San Francisco, CA, November 1989.
121. Hooker, B. S., J. M. Lee and G. An. Cultivation of Plant Cells in a Stirred Vessel: Effect of Impeller Design. Presented at AIChE Annual Meeting, Washington, DC, November/December 1988.
122. Hooker, B. S., J. M. Lee and G. An. The Response of Plant Tissue Culture to a High Shear Environment. Presented at ACS National Meeting, Los Angeles, CA, September 1988.

MISCELLANEOUS PROFESSIONAL DEVELOPMENT ACTIVITIES

Invited Presentation to Polish Sejm (lower house of parliament), April, 2019.

Science Advisor for Mr. Robert F. Kennedy, Jr., Environmental Attorney and Child Health Advocate, 2015 to present.

Host for the Simpson University booth at the Redding Mini-Maker Faire, November, 2016

Moderator for the REU Science Bowl, 2015-2018

Session Chair at the 1st Annual Simpson Student Research Symposium, Simpson University, March, 2011

Session Chair at the 2nd International Conference on Biological Engineering, Society of Biological Engineers, Santa Barbara, CA, January, 2009.

Invited Seminar Presentation, "Production of Recombinant Protein Pharmaceuticals in Plant Bioreactors" at Oregon Medical Laser Center, Providence Hospital, Portland, OR, April, 2004.

Member of Pacific Northwest National Laboratory Institutional Biosafety Committee, 2003-2007.

Invited Seminar Presentations, "Production of Recombinant Protein Pharmaceuticals in Plant Bioreactors" at NASA, CELSS, Kennedy Space Center, September, 2002.

Business Area Leader, Transgenic Organisms, Food and Agriculture Initiative, Pacific Northwest National Laboratory, 1997.

Session Chair, "General Biotechnology Division Poster Session," AIChE Annual Meeting, Chicago, IL, November, 1996.

Session Chair, "Biological Processes Applied to Remediation and Emission Control," 5th World Congress of Chemical Engineering, San Diego, CA, July, 1996.

Session Chair, "Advances in Bioremediation of Chlorinated Organic Compounds," AIChE Annual Meeting, Miami, FL, November, 1995.

Session Co-Chair, "General Environmental Division Poster Session," AIChE Annual Meeting, Miami, FL, November, 1995.

Session Co-Chair, "Advances in Field Scale Bioremediation," AIChE Summer National Meeting, Boston, MA, August, 1995.

Invited Seminar Presentations, "Modeling of In Situ Bioremediation at Pacific Northwest Laboratory," at University of Arizona, Tucson, AZ, and Washington State University, Pullman, WA, October, 1994.

Program Chairman, New Engineering Educators Committee, American Society for Engineering Education Annual Meeting, Urbana, IL, June 1993.

Session Co-Chair, "New Engineering Educators: Tricks of the Trade-Outside of Classroom," American Society for Engineering Education Annual Meeting, Toledo, OH, June 1992.

Panel Reviewer, National Science Foundation Instrumentation and Laboratory Improvement Program, January 1992.

