

Biographical Sketch / Curriculum Vitae

Professor Bernard J. Van Wie

PERSONAL DATA:

Date of Birth: June 26, 1954

Married to Paige E. Van Wie; Children: Joshua, Peter, Elizabeth, Annetta

EDUCATION:

Ph.D. Oklahoma University, Norman, OK: Ch.E., July 1982

M.S. Oklahoma University, Norman, OK: Ch.E., May 1979

B.S. Oklahoma University, Norman, OK: Ch.E., May 1977

PROFESSIONAL EXPERIENCE:

8/95 – Pres. Full Professor Voiland Sch. of Chem. Engr. & Bioenr., WSU, Pullman, WA

1/17 – 5/17 Professional leave taken at Washington State Univ. & the Univ. of Kentucky Lexington and Paducah, Cell Separations & Engineering Education Research

9/07 – 7/08 Fulbright Scholar, Ahmadu Bello University, Zaria, Nigeria

8/00 – 6/01 Professional leave to the Naval Research Laboratory, Washington, DC, Chemistry Division, Biosensor Research

8/91 – 8/92 Professional leave to Michigan State University, East Lansing, MI, Chemical Engr. Dept., Biosensor Research

8/89 – 8/95 Associate Professor Chem. Engr. Dept., WSU, Pullman, WA

7/83 – 8/89 Assistant Professor Chem. Engr. Dept., WSU, Pullman, WA

5/82 – 6/83 Post Doc. Res. Assoc., Univ. of OK, Norman, OK

8/81 5/82 Guest Lecturer/Res. Assoc., Univ. of OK

Sum. 1980 Research and Development, Phillips Petroleum Co., Bartlesville, OK

1/80 – 5/80 Research Manager, SRE, Inc., Norman, OK

HONORS:

WSU Innovation in Teaching Award 2016

Marian Smith, Washington State University Outstanding Teaching Award for 2007/2008 AY – 2009

Inducted into Washington State University Teaching Academy – 2007

Outstanding Poster Award in ASEE Chemical Engineering Division – 2005

Outstanding Teacher in Chemical Engineering – 1990-1991, 1992-1993, 1993-1994

Outstanding Researcher in Chemical Engineering – 1990-1991

Outstanding Young Men in America – 1983

Captain of Big Eight and NCAA Championship Gymnastics Team – 1977

TECHNICAL PUBLICATIONS:

Refereed Publications or Publish-to-Present Conference Proceedings, ** = Co-first authors; *Undergraduate

1. Hunsu, N. J., Adesope, O., & Van Wie, B. J. (accepted). Engendering situational interest in a hands-on learning classroom: What really matters? Manuscript submitted to Instructional Science
2. Nazempour A, Quisenberry CR, Abu-Lail NI, & Van Wie BJ. Enhancing Adipose Stem Cell Chondrogenesis: A Study on the Roles of Dexamethasone, Transforming Growth Factor β 3 and Ascorbate Supplements and their Combination. J Stem Cell Ther Transplant. 1, 028-051, 2017.
3. Beheshti Pour, N, Thiessen, DB, Richards RF and Van Wie, BJ, Ultra Low-Cost Vacuum Formed Shell and Tube Heat Exchanger Learning Module, IJEE, 33(2(A)), 723-760, 2017.
4. Golter, PB, Van Wie, BJ, and Coon, L, Capabilities of Desktop Scale Heat Transfer Equipment for Classroom Instruction, International Journal of Engineering Education, IJEE, 1163–1179, 2017.
5. Burgher, JK, Finkel, DM, Adesope, OO, Van Wie, BJ, Implementing and Assessing Interactive Physical Models in the Fluid Mechanics Classroom, IJEE, 32(6), 2501-2516, 2016.

6. Golter, PB, Brown GR, Van Wie, BJ, Preliminary Validation of a Critical Thinking Rubric for Fluid Mechanics and Heat Transfer, *J STEM Ed*, 17, 4, 19-28, 2016.
7. Li, X and Van Wie, BJ, Hands-on Tabletop Units for Addressing Persistent Conceptual Difficulties in Continuity and Frictional Loss in Fluid Mechanics, *J STEM Ed.*, 17, 3, 47-54, 2016.
8. Quisenberry CR, Nazempour A, Van Wie BJ, And Abu-Lail NI, Expression of N-Cadherins Chondrogenically Differentiating Human Adipose Derived Stem Cells using Single-Molecule Force Spectroscopy. *J Nanomed Res (Open Access)* 3(1), 00045, 2016, Doi: 10.15406/jnmr.2016.03.00045
9. Nazempour, A**, Quisenberry, C**, Van Wie, BJ, and Abu-Lail, NI, "Nanomechanics of engineered articular cartilage: synergistic influences of TGF- β 3 and oscillating pressure". Nazempour A, *Journal of Nanoscience and Nanotechnology*, 16, 3, 3136-45, 2016. **Co-first authors.
10. Nazempour, A, and Van Wie, BJ, "Chondrocytes, Mesenchymal Stem Cells, and their Combination in Articular Cartilage Regenerative Medicine", *Annals of Biomedical Engineering*, 44(5):1325-54, 2016, DOI: 10.1007/s10439-016-1575-9.
11. Quisenberry CR, Nazempour A, Van Wie BJ, and Abu-Lail NI, β 1-integrin expression on chondrogenically differentiating human adipose-derived stem cells using atomic force microscopy, *J Biointerphases*, 11(2), 021005-1 – 021005-11, 2016. DOI: 10.1116/1.4947049.
12. Abdul, B, Thiessen, DB, Adesope, OO, And Van Wie, BJ, Comparing the Effects of Two Active Learning Approaches in an Engineering Education Classroom, *International Journal of Engineering Education*, 32(2(A)), 654–669, 2016.
13. Park K., K. Seo, A. Godwin, B. Vanwie, M. Gulbahar, Y. Park, W. Davis. Characterization and expression of monoclonal antibody-defined molecules on resting and activated bovine α 1, γ 8 T and NK cells. *Veterinary Immunology and Immunopathology*. 168(1–2):118-130, 2015.
14. Hunsu, N, Abdul, B, Van Wie, BJ, Adesope, O, and Brown, GR, "Exploring Students' Perceptions of an Innovative Active Learning Paradigm in a Fluid Mechanics and Heat Transfer Course", *International Journal of Engineering Education*, 31(5), 1200–1213, 2015.
15. Burgher, J. K., Finkel, D., Adesope, S., and Van Wie, B. J., "Implementation of a modular hands-on learning pedagogy: Student attitudes in a fluid mechanics and heat transfer course", *J STEM Ed*, 16(4), 40-50, October-December, 2015.
16. Brown S, Easley AP-W, Montfort DB, Adam JC, Van Wie BJ, Olusola A, Adam, Poor, C, Tobin, C, and Flatt, A, "Effectiveness of an Interactive Learning Environment Utilizing a Physical Model". *J. of Prof. Is. in Engr. Ed. & Pract.*, 140(3), 04014001-1-10, 2014, DOI: 10.1061/(ASCE)EI.1943-5541.0000197.
17. Wang, H-Y, Bluck, D, Van Wie, BJ, "Conversion of Microalgae to Jet Fuel: Process Design and Simulation", *Bioresource Technology*, 167, 349–357, 2014.
18. Golter, PB, Brown, GR, Thiessen, DB, Van Wie, BJ, Adoption of a Non-Lecture Pedagogy in Chemical Engineering: Insights Gained from Observing an Adopter, *J STEM Ed.*, 13(4), 52-61, 2012.
19. Abdul, B, Van Wie, BJ, Babauta, JT, Golter, PB, Brown, GR, Bako, RB, Ahmed, AS, Shide, EG, Anafi, FO, Olaofe, OO, "Addressing Student Learning Barriers in Developing Nations with a Novel Hands-on Active Pedagogy and Miniaturized Industrial Process Equipment: The Case for Nigeria", *International Journal of Engineering Education*, 27(2), 458–476, 2011.
20. Detzel, Christopher J. and Van Wie, Bernard J., "Use of a Centrifugal Bioreactor for Cartilaginous Tissue Formation from Isolated Chondrocytes", *Biotechnology Progress*, 27(2), 451–459, 2011.
21. Detzel, Christopher J., Bernard J. Van Wie, and Cornelius F. Ivory, "Fluid Flow through a High Cell Density Fluidized Bed Fluidized-Bed during Centrifugal Bioreactor Culture", *Biotechnology Progress*, 26(4), 1014-1023, 2010.
22. Rieck, DC, Liu, B, Park, B-J, Moffett, DF, Kidwell, DA, Cheng, GJ, Van Wie BJ, "Functionalization of Micro- and Nano- Apertures with Chromate-Selective Solvent Polymeric Membrane", *Analytica Chimica Acta* 659, 243–250, 2010. On-line version: <http://dx.doi.org/10.1016/j.aca.2009.11.030>.
23. Dewan, A, Van Wie, B, Lewandowski, B & Beyenal, H, "Microbial Fuel Cells as an Education Tool", *Chemical Engineering Education*, 44(2), 157-165, Spring 2010.
24. Detzel, CJ, *Thorson, MR, Van Wie, BJ, Ivory, CF, "A Study of the Coriolis Effect on the Fluid Flow Profile in a Centrifugal Bioreactor", *Biotechnology Progress*, 25(4), 1025-1034, 2009.
25. Detzel, CJ, Mason, DJ, Davis, WC, Van Wie, BJ, "Kinetic Simulation of a Centrifugal Bioreactor for High Population Density Hybridoma Culture", *Biotechnology Progress*, 25(6), 1650-1659, 2009.
26. Liu, B, Rieck, D, Van Wie, BJ, Cheng, GJ, Moffett, DF, Kidwell, DA, Bilayer Lipid Membrane (BLM) Based Ion Selective Electrodes at the Meso, Micro, and Nano Scales, *Biosensors & Bioelectronics*, 24, 1843–1849, 2009. On-line version: <http://dx.doi.org/10.1016/j.bios.2008.09.019>.

27. *Harvey F. Doty, Bernard J. Van Wie, Gregory Hooks, Janet E. Ebaugh, Sarah J. Haarsma, Hajime Fuchida, Gary J. Cheng, Bingwen Liu, David A. Kidwell, Irene R. Beattie, Burton D. Schmuck, "Enhancing Educational Motivation among Native High Schoolers: Cutting Edge Nanoscience Placed in an Environmental Water Quality Context," *Innovations* 2007, W. Aung, et al. (eds.), iNEER, Arlington, VA, Chapter 44, pp. 484-493, 2007.
28. Metallo, C.M., Mohr, J.C., *Detzel*, C.J., Van Wie, Bernard J. & Palecek, S.P., "Engineering the Stem Cell Microenvironment", *Biotechnology Progress*, 23, 18-23, 2007.
29. Golter, P, Van Wie, B, Held, G, Windsor, J, "Practical Considerations for Miniaturized Hands-on Learning Stations", *Proceedings of the American Society for Engineering Education*, Chicago, IL, June 19 – 22, 2006.
30. Plesha, MA, Van Wie, BJ, Mullin, JK & Kidwell, DA, "Measuring Quaternary Ammonium Cleaning Agents with Ion Selective Electrodes", *Analytica Chimica Acta*, 570, 186-194, 2006.
31. Golter, P.B., Van Wie, B.J., Scuderi, P.V., Henderson, T.W., Dueben, R.M., Brown, G.R., Thomson, W.J., "Combining Modern Learning Pedagogies in Fluid Mechanics and Heat Transfer" *Annals of Research in Engineering Education*, 2006 Summer Issue, Vol. 2, No. 2, <http://www.reeonline.org/> 2006.
32. Golter, P.B., Van Wie, B.J., Scuderi, P.V., Henderson, T.W., Dueben, R.M., Brown, G.R., Thomson, W.J., "Combining Modern Learning Pedagogies in Fluid Mechanics and Heat Transfer" *Chemical Engineering Education*, 39, 280-287, 2005.
33. Wu, X, Van Wie, BJ and Kidwell, DA, "An Enzyme Electrode for Amperometric Measurement of *d*-Amino Acid", *Biosensors & Bioelectronics*, 20, 878-885, 2004.
34. Wu, X, Detzel, CJ, Van Wie, BJ, Haarsma, SJ, and Kidwell, DA, "Model Based Optimization of Carbon Paste Enzyme Electrode", *Biotechnology & Bioengineering*, 88, 204-213, 2004.
35. Leatzow, D.M., Van Wie, B.J., Weyrauch, B.N., and Tiffany, T.O., "Design Optimization and Characterization of a Small-Scale Centrifugal Cell Separator," *Analytica Chimica Acta*, 435, 299-307, 2001.
36. Liu, G., Van Wie, B.J., Leatzow, D.M., Weyrauch, B.N., and Tiffany, T.O., "Experimental Design and Modeling of Carryover to Optimize Air-Segmented Continuous Flow Analysis, *Analytica Chimica Acta*, 408, 21-31, 2000.
37. Erickson, B.H., Van Wie, B.J., Leatzow, D.M., Liu, G., Thayer, P.C. and Tiffany, T.O., "Charge Coupled Device Optics System of Simultaneous Measurement of Multiple Reactions in a Microplate", *Clinical Chemistry*, 44, 2046-2049, 1998.
38. Yu, Y.-Y., Van Wie, B.J., Koch, A.R., Moffett, D.F., and Davis, W.C., "Real Time Analysis of Immunogen Complex Reactions Kinetics Using Surface Plasmon Resonance", *Analytical Biochemistry*, 263, 158-168, 1998.
39. Yu, Y.-Y., Van Wie, B.J., Koch, A.R., Moffett, D.F., and Davis, W.C., "Preparation and Characterization of Bifunctional Biopolymers for Receptor-Based Liposomal Immunosensing", *Biotechnology Progress*, 14, 310-317, 1998.
40. Parab, S., Van Wie, B.J., Byrnes, I., Robles, E.J., Weyrauch, B.N. and Tiffany, T.O., "Modeling & Optimization Studies for a Sequential Flow Based Bio-Analytical Module", *Analytica Chimica Acta*, 359, 157-171, 1998.
41. Yu, Y.-Y., Van Wie, B.J., Koch, A.R., Moffett, D.F., Davis, W.C., "Kinetic Modeling and Analysis of a Vesicle System for Immunosensor Development", *Biosensors & Bioelectronics*, 12, 135-144, 1997.
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43. Eray, M., Dogan, N.S., Reiken, S.R., Sutisna, H., Van Wie, B.J., Koch, A.R., Moffett, D.F., Silber, M., and Davis, W.C., A Highly Stable and Selective Biosensor Using Modified Nicotinic Acetylcholine Receptor (nAChR), *BioSystems*, 35, 183-188, 1995.
44. Van Wie, B.J., Poshusta, J.C., *Greenlee, R.D. and *Brereton, R.A., "Fun Ways to Learn Fluid Mechanics and Heat Transfer", *Chemical Engineering Education*, 28, 188-192, 1994.
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47. Skeen, R.S., Kurdikar, D.L. and Van Wie, B.J., "Modeling the Kinetics of Neuron-Based Chemical Sensing: Interactions Between Observable States", *Biosensors and Bioelectronics*, 9, 265-274, 1994.
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49. Skeen, R.S., Van Wie, B.J., Fung, S.J. and Barnes, C.D., "Effects of Temperature and Analyte Application Technique on Neuron-Based Chemical Sensing", *Biosensors and Bioelectronics*, 7, 91, 1992.
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51. Kurdikar, D.L., Skeen, R.S., Van Wie, B.J., Barnes, C.D. and Fung, S.J., "Whole Cell Biosensors: A Brief Overview and Presentation of A Novel Neuron-based Approach", In: *Frontiers in Bioprocessing II*, eds. Todd, P., Sikdar, S.K., and Bier, M., pp. 126-137, 1992.
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53. Van Wie, B.J., Brouns, T.M., Elliott, M.L. and Davis, W.C., "A Novel Continuous Centrifugal Bioreactor for High Density Cultivation of Mammalian and Microbial Cells", *Biotechnology and Bioengineering*, 38, 1190-1202, 1991.
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55. Skeen, R.S., Kisaalita, W.S., Van Wie, B.J., Fung, S.J. and Barnes, C.D., "Evaluation of a Neuron-Based Sensing with Neurotransmitter Serotonin," *Biosensors and Bioelectronics*, 5, 491-510, 1990.
56. Skeen, R.S., Kisaalita, W.S., Van Wie, B.J., Fung, S.J., and Barnes, C. D., "Serotonin Sensing Properties of Identified Invertebrate Neurons," *Biosensor Technology Fundamentals and Applications*, eds: Buck, R.P., Hatfield, W.E., Umana, M. and Bowden, E.F., Marcel Dekker, Inc., New York and Basel, pp 63-69, 1990.
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59. Oxford, R.J., Petersen, J.N., Van Wie, B.J., Wooten, S.L. and Schneider, G.W., "Interface Dynamics in a COBE 2997 Centrifugal Cell Separator", *Transfusion*, 28, 588-592, 1988.
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61. *Drumheller, P.D., Van Wie, B.J., Petersen, J.N., Oxford, R.J. and Schneider, G.W., "The Effects of RPM and Recycle on Separation Efficiency in a Clinical Blood Cell Centrifuge", *Journal of Biomechanical Engineering*, 109, 324-329, 1987.
62. Hustvedt, E.L. and Van Wie, B.J., "The Effect of Hematocrit and Recycle on Cell Separations", *Plasma Therapy and Transfusion Technology*, 7, 373-388, 1986.
63. Van Wie, B.J., Elliott, M.L. and Lee, J.M., "Development and Characterization of a Continuous Centrifugal Bio-Reactor", *Biotechnology and Bioengineering Symposium*, 17, 335-344, 1986.
64. Van Wie, B.J. and Sofer, S.S., "Experimental Considerations for the Centrifugal Separation of Blood Cell Components", *The International Journal of Artificial Organs*, 9, 49-58, 1986.
65. Van Wie, B.J. and Sofer, S.S., "The Effect of Recycle on the Continuous Processing of Blood Cells", *The International Journal of Artificial Organs (IJA)*, 8, 43-48, 1985.
66. Van Wie, B.J. and Sofer, S.S., "Stagewise Separations to Improve Continuous Centrifugal Blood Cell Separators", *IJA*, 8, 49-54, 1985.
67. Van Wie, B.J. and Sofer, S.S., "Sedimentation Theory and Practical Considerations for the Design of Centrifugal Blood Cell Processes", *IJA*, 8, 215-222, 1984.
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69. Behestipour, N, Thiessen, DB, and Van Wie, BJ, Implementation of an Ultra-Low Cost Heat Exchanger Learning Module to Address Energy Balance Concepts, American Society for Engineering Education, New Orleans, LA, June 26-29, 2016.
70. Burgher, J.K., Pitts, S.A., Reinkens, K.A., and Van Wie, B.J., Impacts of engineering engagement activities for first year students, American Society for Engineering Education, New Orleans, LA, June 26-29, 2016.
71. Golter, PB, Adesope, OO, and Van Wie, BJ, Using Time More Efficiently: Converting an Interview Protocol to a Survey, American Society for Engineering Education, New Orleans, LA, June 26-29, 2016.
72. Graviat, A, Burgher, JK, Golter, PB, and Van Wie, BJ, "Pyrolysis of Biomass to Bio-Oil in the Classroom: The Fabrication and Optimization of a Miniaturized Biomass Conversion Module", American Society for Engineering Education, Seattle, WA June 14 – 17, 2015.
73. Nazempour, A, Golter, PB, Richards, CD, Richards, RF, and Van Wie, BJ, "Assessments of Ultra-Low-Cost Venturi Nozzle in Undergraduate Engineering Classes", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
74. Richards, RF, Meng, F, Golter, PB, and Van Wie, BJ, MAKER: Very Low Cost Experiments via 3-D Printing and Vacuum Forming, American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
75. Adesope, OO, Hunsu, N, and Van Wie, BJ, "Work in Progress: The Effects of Using Desktop Learning Modules on Engineering Students' Motivation", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
76. Golter, PB, Nazempour, A, and Van Wie, BJ, "The Effectiveness of In-Class, Hands-On Learning vs. Lecture for Teaching About Extended Area Heat Exchangers", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
77. Njau, SW, Van Wie, BJ, Burgher, JK, Golter, PB, Richards, RF, Richards, CD, Meng, F, Adesope, OO, Hunsu, N, Beheshtipour, N, Dutta, P, Graviat, AD, and Nazempour, A, "Multi-Disciplinary Hands-on Desktop Learning Modules and Modern Pedagogies", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
78. Li, X, and Van Wie, BJ, "Hands-on Tabletop Units for Addressing Persistent Conceptual Difficulties in Continuity and Fictional Loss in Fluid Mechanics", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
79. Richards, CD, Richards, RF, Golter, PB, Nazempour, A, and Van Wie, BJ, "Implementation of Very Low-Cost Fluids Experiments to Facilitate Transformation in Undergraduate Engineering Classes", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
80. Burgher, JK, and Van Wie, BJ, Lessons Learned in an International Collaboration on Biofuels Desktop Learning Modules, International American Society for Engineering Education, Seattle, WA, June 14 - 17, 2015.
81. Burgher, JK, Finkel D, Van Wie, BJ, and Adesope, OO, "Comparing Misconceptions in Fluid Mechanics Using Interview Analysis Pre and Post Hands-on Learning Module Treatment", American Society for Engineering Education, Indianapolis, IN, June 15-18, 2014.
82. Burgher, JK, Finkel D, Van Wie, BJ, Adesope, O, Brown, SA, and Atkinson, JW, "New Hands-on Fluid Mechanics Cartridges and Pedagogical Assessment", American Society for Engineering Education, Atlanta, GA, June 23-26, 2013.
83. Arasteh, A, Clark, CM, Van Wie, BJ, Abu-Lail, NI, Adesope, O, and Brown, SA, "Work in Progress: Development of Hands-on Desktop Learning Modules for Bioengineering Courses", American Society for Engineering Education, Atlanta, GA, June 23-26, 2013.
84. Andrew Easley, Jennifer Adam, Shane Brown, Devlin Montfort, Bernard Van Wie, "Open Channel Flow Misconceptions and Ontological Categories", Frontiers in Education Conference, Seattle, WA, Oct. 3-6, 2012.
85. Bernard J. Van Wie, David B. Thiessen, Marc Compere, Ximena Toro, *Benjamin Garrett, Jennifer C Adam, Shane A. Brown, Andrew P Easley, Xuesong Li, *Kevin Lee, Mert Colpan, Kevin Tyler Gray, *Shane Riley Reynolds, Paul B. Golter, Olusola Adesope, "AC 2012-5271: Multi-Disciplinary Hands-On Desktop Learning Modules and Modern Pedagogies", Proceedings of the American Society of Engineering Education, San Antonio, TX, June 10-13, 2012.
86. Baba Abdul, David B. Thiessen, Bernard J. Van Wie, Gary R. Brown, Olusola O. Adesope, "AC 2012-3947: Development and Deployment of a Rubric Based on Fink's Cognitive Dimensions in a

- Fluid Mechanics and Heat Transfer Class with Potential Applications in a Variety of Engineering Classes”, Proceedings of the American Society of Engineering Education, San Antonio, TX, June 10-13, 2012.
87. Kirsten L. Peterson, Marc D. Compere, Yosef S. Allam, Bernard J. Van Wie, “A Fluid Flow Characterization Device for an Educational Desktop Learning Module”, Proceedings of the ASME 2012 International Mechanical Engineering Conference & Exposition, Nov. 9-15, Houston, TX, 2012.
 88. Ximena Toro, Marc Compere, Bernard Van Wie, Birce Dikici, “A Solar-Powered Direct Steam Generation Boiler for an Educational Desktop Rankine Cycle”, Proceedings of the ASME 2011 International Mechanical Engineering Congress & Exposition, IMECE 2011/MECH-63699, Denver, CO, Nov. 11-17, 2011.
 89. Baba Abdul, Paul Golter, Ed O’Rear, Gary Brown, Bernard Van Wie, “AC 2011-1787: Experience with an Intensive, Hands-on Pre-transport Course”, Proceedings of the American Society of Engineering Education, Vancouver, BC, June 26-30, 2011.
 90. Bernie Van Wie, Paul Golter, Denny Davis, Team Building in a Project-based Learning Fluid Mechanics and Heat Transfer Course, Proceedings of the American Society of Engineering Education, Vancouver, BC, June 26-30, 2011.
 91. *Laura Coon, *Derek Cline, Paul Golter, Ashley Ater-Kranov, David Thiessen, Bernard J. Van Wie, AC 2011-2301: Unit Operations Lab Bazaar: Assessment of Miniature Industrial Equipment, Proceedings of the American Society of Engineering Education, Vancouver, BC, June 26-30, 2011.
 92. *William Schlecht, Bernie Van Wie, Paul Golter, Dave Thiessen, Jennifer Adam, Bob Richards, Marc Compere, Edwin Maurer, Denny Davis, Olusola Adesope, AC 2011-878: Multi-Disciplinary Project-Based Paradigm that Uses Hands-on Desktop Learning Modules and Modern Learning Pedagogies, Proceedings of the American Society of Engineering Education, Vancouver, BC, June 26-30, 2011.
 93. Paul B. Golter, Gary R. Brown, David B. Thiessen, Baba Abdul, Bernard J. Van Wie, "Shifting Gears: Moving Away from the Controlled Experimental Model while Improving Rigor in Engineering Education Research", Proceedings of the American Society of Engineering Education, Louisville, KY, June 20-23, 2010.
 94. Baba Abdul, Gary R. Brown, David B. Thiessen, Paul B. Golter, Bernard J. Van Wie, "Bringing Research into the Classroom: Conceptually New Heat-Exchanger", Proceedings of the American Society of Engineering Education, Louisville, KY, June 20-23, 2010.
 95. Golter, P. B; Van Wie, B.J; Brown, G; Babauta, J; Abdul, A; Ahmed, A; Shide, E; Anafi, F, Implementing New Learning Pedagogies in Engineering Education using Desktop Learning Modules (DLMs) in Ahmadu Bello University, Zaria. African Engineering Education Association (AEEA)-China Seminar on Engineering Education and Project Management for African Countries. November 26 – December 16, 2009 at Tsinghua University, Beijing, China.
 96. Golter, P.B., Van Wie, B.J., Brown, G., AC 2009-2320: “Aligning Assessment Tools with Course Subject and Goals”, Proceedings of ASEE, Austin, TX, June 14 - 17, 2009.
 97. Abdul, B., Van Wie, B.J., Shide, E.G., Anafi, F.O., Ahmed, A.S., Brown, G., AC 2009-1122: “An Evaluation of Pedagogical Gains in a Fluid Flow Class When Using Desktop Learning Modules in an African University”, Proceedings of ASEE, Austin, TX, June 14 - 17, 2009.
 98. Yurt-Beyenal, N., Poor, C., Van Wie, B.J., Brown, G., Golter, P.B., Thiessen, D., AC 2009-2338: Miniature Open Channel-Weir for the Standard Classroom-Implementation and Assessment, Proceedings of ASEE, Austin, TX, June 14 - 17, 2009.

Refereed Shorter Conference Proceedings

1. Golter, PB, Van Wie, BJ, Brown, GR, Babauta, JT, Bako, RB, Abdul, B, Ahmed, AS, Shide, EG, Anafi, FO, "Internationalizing Modern Pedagogies with the Aid of Desktop Learning Modules in Engineering Classrooms", Proceedings of the 7th ASEE Global Colloquium on Engineering Education, Oct. 19-23, 2008, Cape Town, South Africa.
2. Golter, P.B., Jiang, Y., Thiessen, D., Van Wie, B.J., Brown, G., Yurt-Beyenal, N., "Developing, Implementing and Assessing Desktop Scale Engineering Laboratory Apparatus", Proceedings of the 7th ASEE Global Colloquium on Engineering Education, Cape Town, South Africa, Oct. 19-23, 2008, Cape Town, South Africa.

- Barnes, C.D., Skeen, R.S., Van Wie, B.J. and Fung, S.J., "Dual Actions of n-Butanol on Electrical Excitability of the Molluscan Neurons", Proc. West. Pharmacol. Soc., 31, 13-15, 1988.
- Oxford, R.J., Drumheller, P.D., Petersen, J.N., Van Wie, B.J. and Schneider, G.W., Jr., "Monitoring and Automated Optimization of a Cell Centrifuge", Proceedings of the Eighth Annual Conference of the IEEE Engineering in Medicine and Biology Society (Editors: Kondraske, G.V. and Robinson, C.J.), 2, 925-927, 1986.

Books and Book Chapters

- Bernard J. Van Wie*, David B. Thiessen*, Ryan Daut, Jacqueline K. Burgher, Ian McMorrow, Olusola O. Adesope, Paul B. Golter, DLMX - Investigations in Fluid Dynamics and Heat Transfer: High School Edition, ed. Paul B. Golter, Washington State University Publications or other Publisher, 2015. *Co-first authors.
- Burgher, Jacqueline K., David B. Thiessen, Bernard J. Van Wie, Amirhossein Arasteh, David Finkel, Baba Abdul, and Bryce E. Eaton, Desktop Learning Modules for Fluid Mechanics and Heat Transfer Classroom Workbook: User's Manual, Worksheet Exercises and Assessments. Edited by Jacqueline K. Burgher, David B. Thiessen and Bernard J. Van Wie. Pullman, WA: Washington State University Publications, 2013.
- "A Fieldable, Saliva-Testing System for Drugs Of Abuse", David A. Kidwell and Bernard J. Van Wie, Proceedings of ONDCP 2001 International Technology Symposium, San Diego, CA, June 27, 2001.
- Bohannon, J., Brinson, L., Matthews, A., Sofer, S.S., Stevens, B., Van Wie, B. and Wills, R.A., "A Model Enzymic Extracorporeal Detoxification System. Part II", Chapter in Artificial Liver Support, Brunner, G and Schmidt, FW (ed.), pp.236-246, Springer-Verlag, Berlin, 1981.

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- Van Wie, B.J., Golter, P.B., Held, GK., "Desktop Modules for Group Learning", Provisional Patent Application, June 19, 2006.
- Van Wie, B.J., Landin, T.R., and Weyrauch, B.N., "Semi-Continuous, Small Volume Centrifugal Blood Separator and Method of Using Therefor", US Patent No. 6,544,162, April 8, 2003.
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- Van Wie, B.J., Elliott, M.L. and Brouns, T.M., "Method and Apparatus for Continuous Centrifugal Bioprocessing", US Patent 4,939,087, July 1990.

CONFERENCE ACTIVITIES:

Invited Speaker, Workshop and Grant Participants Presentations (*Author Underlined and Italicized* = NIH Trainee)

- Van Wie, BJ, Neuronal Biosensors, Plenary Session, AIChE Annual Meeting, Minneapolis, MN, Oct. 29 – Nov. 3, 2017.
- Van Wie, BJ, Moderator for ASEE Chemical Engineering Division Lectureship, 2015, 2016, 2017.
- Nehal Abu-Lail, Chrystal R. Quisenberry, Arshan Nazempour, Bernard Van Wie. Engineering of articular cartilage: Challenges and prospects. Annual AIChE meeting, Salt Lake City, UT, November 2015.
- Bugaje, IM, Yusuf, N, Atta, AY, Adogbo, G, Mukhtar, B, Ibrahim, N Van Wie, BJ, Thiessen, DB, Burgher, JK, "Gasifier Desktop Learning Module for Sustainable Biofuels Production", PEER Participants' Conference 2014, Nelson Mandela African Institution of Science and Technology, Arusha, Tanzania, August 4-7, 2014.
- William Schlecht, Baba Abdul, Paul Golter, Dave Thiessen, Jenny Adam, Shane Brown, Denny Davis, Gary Brown, Ashley Ater-Kranov, Bob Richards, Prash Dutta, Bernard Van Wie, Marc

- Compere, Ed Maurer, Marvin Pitts, Joe Law, "Multi-Disciplinary Project-Based Paradigm that Uses Hands-on Desktop Learning Modules and Modern Learning Pedagogies", AAAS & NSF DUE 1023121 TUES Workshop, Washington, DC, Jan. 27 -28, 2011, <http://clicconference.org/abstracts/861>.
6. Van Wie, BJ & Abdul, B, "Collaborative Hands-on Active Project-based Learning with Application, to Developing Nations", Univ. of Ghana, May 2010.
 7. Van Wie, BJ, "Biosensors for Linamarin, Organics, Proteins & Antibodies; Hybrid Bio-component Electrodes", Univ. of Ghana, May 2010.
 8. Van Wie, BJ, Enhancing Biosensing and Cell & Tissue Culture through Continuous Flow Centrifugal Processing, Los Alamos National Lab, Aug. 26, 2010.
 9. Van Wie, BJ, "New Learning Pedagogies in Engineering Education Using Hands-on Desktop Learning Modules (DLM)", International Workshop on Hands-on Education, Ahmadu Bello University, Zaria, Nigeria, May 2009.
 10. Golter, P.B., Jiang, Y., Thiessen, D., Van Wie, B.J., Brown, G., Yurt-Beyenal, N., "Developing, Implementing and Assessing Desktop Scale Engineering Laboratory Apparatus", American Society for Engineering Education Global Colloquium on Engineering Education, Cape Town, South Africa, October 19-23, 2008 (Poster).
 11. Van Wie, B.J., Golter, P.B., Brown, G.R., Thiessen, D., Abdul, B., Ahmed, A.S., Shide, E.G., Anafi, F.O., Bako, R.B., "Assessing and Disseminating Group Learning Pedagogy in Fluid Mechanics and Heat Transfer while Using Hands-on Desktop Units with Interchangeable Cartridges", In: Inventions and Impact 2: Building Excellence in Undergraduate Science, Technology, Engineering, and Mathematics (STEM) Education, A conference of Course, Curriculum, and Laboratory Improvement (CCLI) Program, National Science Foundation, Division of Undergraduate Education, Poster, Aug. 13-15, 2008.
 12. Kidwell D.A. and Van Wie B.J. "A Fieldable Saliva Testing System", DoD Counter Drug Technology Review, Arlington, VA, May 16-17, 2001.
 13. Van Wie, B.J., Three lectures on Research and Educational Opportunities in the Universities while visiting a summer NSF/WSU Teacher from Modesto Junior College, Modsto, CA 1996.
 14. Van Wie, B.J., Panel Discussion on Infrastructure with Regard to Developing Successful Research Efforts, NIST 1993 International Society for Molecular Electronics and Biocomputing, Gaithersburg, MD, September 21-24, 1993.
 15. Van Wie, B.J., Seminar at Michigan State University on Monoclonal Antibody Production and Neuronal Antibody Sensors, Spring 1992.
 16. Van Wie, B.J., "Neuron-Based Biosensors," Gordon Research Conference on Bioanalytical Sensors, July 1991, Newport, RI.
 17. Van Wie, B.J, "Neuron-Based Biosensors," Frontiers in Bioprocessing II, June 1990, Boulder, CO.
 18. Van Wie, B.J., "Digital Solid-State Neuron-Based Biosensors," Washington State University, Electrical and Computer Engineering, Spring 1990.
 19. Skeen, R.S., Kisaalita, Van Wie, B.J., Fung, S.J., and Barnes, C.D., "Serotonin Sensing Properties of Identified Invertebrate Neurons," North Carolina ACS Symposium on Biosensors, Chapel Hill, NC, September 1989.
 20. Van Wie, B.J., "Neuronal Biosensors for Chemical Quantitation," University of Idaho Chemical Engineering Department, December 1989.
 21. Van Wie, B.J., "Neuron-Based Solid-State Chemical Sensors", Washington State University Electrical Engineering Department, Fall 1988.
 22. Van Wie, B.J., "Neuron-Based Solid-State Chemical Sensors", Washington Exhibition of Science and Technology (WEST '88), Seattle, WA, Oct.17-18, 1988.

23. Van Wie, B.J., "Conceptualization and Evaluation of Techniques for Centrifugal Separation of Blood Cells", University of Washington Chemical Engineering Department, April 1986.
24. Hustvedt, E.L. and Van Wie, B.J., "The Effect of Hematocrit and Recycle on Cell Separations", American Society for Apheresis Seventh Annual Symposium, Current Concepts - Future Trends, Chicago, IL, October 4-6, 1985.
25. Van Wie, B.J., "Conceptualization and Evaluation of Techniques for Centrifugal Separation of Blood Cells: Optimum Process Conditions, Recycle and Stagewise Processing", University of Idaho Chemical Engineering Department, Fall 1983.

Session Organization or Chair

1. Session Chairman, ASEE, Interdisciplinary Course Design Opportunities for Chemical Engineers, T412, Vancouver, BC, June 26-29, 2011
2. Session Co-chairman, with Sean Palecek, University of Wisconsin (Chair) "Emerging Technologies: Stem Cell Research", National ACS Meeting, San Francisco, CA, September 10-14, 2006.
3. Session Chairman, "Bioprocess Monitoring and Control," 227th National ACS Meeting, San Diego, CA, March 13 – 17, 2005.
4. Session Vice-Chairman, "Crossdisciplinary Research", Free Forum Session, AIChE 1988 Annual Meeting, Washington, D.C.
5. Session Chairman, "New and Creative Research in Chemical Engineering", Free Forum Session, AIChE 1989 Annual Meeting, San Francisco, CA (planned).

Papers and Posters Presented (* = Undergraduate co-author or presenter; (*Author Underlined and Italicized* = NIH Trainee)

1. Bernard J. Van Wie, Nehal I. Abu-Lail, Arda Gozen, William Davis, Juana Mendenhall, Mahmoud Amr, Alia Mallah, Arshan Nazempour, Chrystal Quisenberry, Christopher Detzel, Baran Arslan, David Kidwell, Gaber Abdellrazeq, and Mahmoud Elnaggar, Biomimicry in a High Cell Population Density Perfusion Centrifugal Bioreactor, AIChE Annual Meeting, Minneapolis, MN, Oct. 29 – Nov. 3, 2017.
2. A. Mallah, M. Amr, C. R. Quisenberry, A. Nazempour, A. Gozen, J. Mendenhall, B. J. Van Wie and N. I. Abu Lail, A Study of Using Synergistic Factors on the Mechanical Properties and Phenotype of Engineered Articular Cartilage using Atomic Force Microscopy and Immunohistochemistry, AIChE Annual Meeting, Minneapolis, MN, Oct. 29 – Nov. 3, 2017.
3. M. Amr, A. Mallah, C. R. Quisenberry, A. Nazempour, A. Gozen, J. Mendenhall, B. J. Van Wie and N. I. Abu Lail, Enhancing Cartilage Tissue Engineering through Synergistic Influences of Co-Culture, Mechano-Chemical Factors, and 3D Printed Scaffolds in a Novel Centrifugal Bioreactor, BioMedical Engineering Society, Oct. 11 – 14, Phoenix, AZ.
4. Bernard J. Van Wie, Nehal I. Abu-Lail, Arda Gozen, William Davis, Juana Mendenhall, Mahmoud Amr, Alia Mallah, Arshan Nazempour, Chrystal Quisenberry, Christopher Detzel, Baran Arslan and David Kidwell, Gaber Abdellrazeq and Mahmoud Elnaggar, Biomimicry in a High Cell Population Density Perfusion Centrifugal Bioreactor, American Institute of Chemical Engineers, Oct. 29 – Nov. 3, 2017, Minneapolis, MN.

5. Behesti Pour, N, Thiessen, DB and Van Wie, BJ, Work-in-Progress: Visualization and Simulation of the Thermal Boundary Layer around a Cylinder as a Classroom Demonstration, Proceedings of the American Society for Engineering Education, Columbus, OH, June 25-28, 2017.
6. Richards, RF, Meng, F, Van Wie, BJ, Examining Student Misconceptions of Conservation of Mass and Energy in Pipe Flow Using Very Low Cost Experiments, Proceedings of the American Society for Engineering Education, Columbus, OH, June 25-28, 2017.
7. Golter, PB, Laube, JE, Van Wie, BJ, Developing a Working 2-Year/4-Year Research Program: Experiences from the First Year of a Collaborative ATE Grant, Proceedings of the American Society for Engineering Education, Columbus, OH, June 25-28, 2017.
8. Hunsu, N, Adesope, OO, Van Wie, BJ, WIP: Assessing Engineering Students' Motivation and Learning Strategies - A Psychometric Analysis of the Motivated Strategies for Learning Questionnaire, Proceedings of the American Society for Engineering Education, Columbus, OH, June 25-28, 2017.
9. Olivia M. Ranft, and Bernard Van Wie. Design of a Rapid, Inexpensive Sensor for Biomarker Molecules. Showcase for Undergraduate Research and Creative Activities, Pullman, WA, March 2017.
10. Chrystal R. Quisenberry, Arshan Nazempour, Bernard Van Wie, and Nehal Abu-Lail. β 1-integrin surface expression on adipose stem cells cultured in a centrifugal bioreactor with TGF- β 3 and cyclic hydrostatic pressure. Annual AIChE meeting, Salt Lake City, UT, November 2015.
11. Behestipour, N, Thiessen, DB, and Van Wie, BJ, Implementation of an Ultra-Low Cost Heat Exchanger Learning Module to Address Energy Balance Concepts, American Society for Engineering Education, New Orleans, LA, June 26-29, 2016.
12. Burgher, J.K., Pitts, S.A., Reinkens, K.A., and Van Wie, B.J., Impacts of engineering engagement activities for first year students, American Society for Engineering Education, New Orleans, LA, June 26-29, 2016.
13. Golter, PB, Adesope, OO, and Van Wie, BJ, Using Time More Efficiently: Converting an Interview Protocol to a Survey, American Society for Engineering Education, New Orleans, LA, June 26-29, 2016.
14. Graviet, A, Burgher, JK, Golter, PB, and Van Wie, BJ, "Pyrolysis of Biomass to Bio-Oil in the Classroom: The Fabrication and Optimization of a Miniaturized Biomass Conversion Module", American Society for Engineering Education, Seattle, WA June 14 – 17, 2015.
15. Nazempour, A, Golter, PB, Richards, CD, Richards, RF, and Van Wie, BJ, "Assessments of Ultra-Low-Cost Venturi Nozzle in Undergraduate Engineering Classes", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
16. Richards, RF, Meng, F, Golter, PB, and Van Wie, BJ, MAKER: Very Low Cost Experiments via 3-D Printing and Vacuum Forming, American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
17. Adesope, OO, Hunsu, N, and Van Wie, BJ, "Work in Progress: The Effects of Using Desktop Learning Modules on Engineering Students' Motivation", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
18. Golter, PB, Nazempour, A, and Van Wie, BJ, "The Effectiveness of In-Class, Hands-On Learning vs. Lecture for Teaching About Extended Area Heat Exchangers", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
19. Li, X, and Van Wie, BJ, "Hands-on Tabletop Units for Addressing Persistent Conceptual Difficulties in Continuity and Fictional Loss in Fluid Mechanics", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
20. Richards, CD, Richards, RF, Golter, PB, Nazempour, A, and Van Wie, BJ, "Implementation of Very Low-Cost Fluids Experiments to Facilitate Transformation in Undergraduate Engineering Classes", American Society for Engineering Education, Seattle, WA, June 14 – 17, 2015.
21. Burgher, JK, and Van Wie, BJ, Lessons Learned in an International Collaboration on Biofuels Desktop Learning Modules, International American Society for Engineering Education, Seattle, WA, June 14 - 17, 2015.
22. *Njau, SW, Van Wie, BJ, Burgher, JK, Golter, PB, Richards, RF, Richards, CD, Meng, F, Adesope, OO, Hunsu, N, Behestipour, N, Dutta, P, Graviet, AD, Nazempour, A, "Multi-Disciplinary Hands-on Desktop Learning Modules and Modern Pedagogies", ASEE, Seattle, WA, June 14 – 17, 2015.

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24. Nazempour, A, Quisenberry, Abu-Lail, N, Van Wie, B, "Expression of extracellular matrix and cell-adhesion molecules in chondrogenesis of human MSCs", Biomedical Engineering Society Annual Meeting, Abstract & Poster Presentation, P-Fri-A-114, San Antonio, TX, October 22 – 25, 2014.
25. Quisenberry, C, Nazempour, A, Van Wie, B, Abu-Lail, N, "Nanomechanics of human adipose stem cells in micromass during chondrogenesis", Biomedical Engineering Society Annual Meeting, Abstract & Poster Presentation, P-Fri-A-645, San Antonio, TX, October 22 – 25, 2014.
26. Li, X, Berkman, C, Geruntho, J, Van Wie, B, Kidwell, D, "Novel Immunosensor: Dual Ionophore Concept Based on an Ion Selective Electrode", P-Fri-A-191, San Antonio, TX, October 22 – 25, 2014.
27. Burgher, JK, Finkel D, Van Wie, BJ, Adesope, "Comparing Misconceptions in Fluid Mechanics Using Interview Analysis Pre and Post Hands-on Learning Module Treatment", Proceedings of the American Society of Engineering Education, Indianapolis, IN, June 15-18, 2014.
28. Li, X, Berkman, C, Geruntho, J, Kidwell, DA, Van Wie, BJ, "Novel Immunosensor Dual Ionophore Concept Based on an Ion Selective Electrode", 2014 Wiley Research Exposition, Washington State University, Pullman, WA, February 21, 2014.
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30. Nazempour, A, Quisenberry, C, Hyon, Abu-Lail, NA, Idone, V, Van Wie, BJ, "Synergistic Influences of Mechanical and Bioactive Factors on Chondrogenesis in a Novel Centrifugal Bioreactor", Biomedical Engineering Society Annual Meeting, Abstract & Poster Presentation, P-Fri-A-276, Seattle, WA, September 26 – 28, 2013, [BMES2013-000573.pdf](#).
31. Quisenberry, C, Nazempour, A, Van Wie, B, Abu-Lail, N, "Nanomechanics of Engineered, Native and Pellet Cartilage Tissues", Biomedical Engineering Society Annual Meeting, Abstract & Poster Presentation, P-Sat-A-17, September 26 – 28, 2013, [BMES2013-000518.pdf](#).
32. Quisenberry, C.R., Nazempour, A., Van Wie, B., Idone, V., Abu-Lail, N., "Mechanical characterization of cartilage tissue grown in a continuous centrifugal bioreactor in response to biochemical and mechanical stimuli", A poster presentation for the Wiley Research Exposition, Pullman, WA, February 1, 2013 and Washington State University Academic Showcase, Pullman, WA, March 29, 2013.
33. Quisenberry, C., Nazempour, A., Van Wie, B., Abu-Lail, N., "Nanomechanics of Engineered, Native and Pellet Cartilage Tissues" Podium Presentation at the Northwest Biomechanics Symposium, Moscow, ID, March 31, 2013.
34. Quisenberry, C.R., Nazempour, A., Van Wie, B., Abu-Lail, N., "Nanomechanics of Engineered, Native and Pellet Cartilage Tissues" Presentation at the WSU Academic Showcase", Pullman, WA, March 28, 2013.
35. Andrew Easley, Jennifer Adam, Shane Brown, Devlin Montfort, Bernard Van Wie, "Open Channel Flow Misconceptions and Ontological Categories", Frontiers in Education Conference, Seattle, WA, Oct. 3-6, 2012.
36. Bernard J. Van Wie, David B. Thiessen, Marc Compere, Ximena Toro, Benjamin Garrett, Jennifer C Adam, Shane A. Brown, Andrew P Easley, Xuesong Li, Kevin Lee, Mert Colpan, Kevin Tyler *Gray*, Shane Riley Reynolds, Paul B. Golter, Olusola Adesope, "AC 2012-5271: Multi-Disciplinary Hands-On Desktop Learning Modules and Modern Pedagogies", Proceedings of the American Society of Engineering Education, San Antonio, TX, June 10-13, 2012.

37. Baba Abdul, David B. Thiessen, Bernard J. Van Wie, Gary R. Brown, Olusola O. Adesope, "AC 2012-3947: Development and Deployment of a Rubric Based on Fink's Cognitive Dimensions in a Fluid Mechanics and Heat Transfer Class with Potential Applications in a Variety of Engineering Classes", Proceedings of the American Society of Engineering Education, San Antonio, TX, June 10-13, 2012.
38. Kirsten L. Peterson, Marc D. Compere, Yosef S. Allam, Bernard J. Van Wie, "A Fluid Flow Characterization Device for an Educational Desktop Learning Module", Proceedings of the ASME 2012 International Mechanical Engineering Conference & Exposition, Nov. 9-15, Houston, TX, 2012.
39. Ahmed, A.S., Bako, R.B., Anafi, F.O., Shide, E.G., Van Wie, B.J., Abdul, B. and Abdullahi, B., "Application of Hands-on Pedagogical Device in Engineering Education in Nigeria", National Conference on Teaching and Research Innovation in Nigerian Universities, National Conference on Teaching and Research Innovation in Nigerian Universities, Redeemer's University, Mowe, Ogun State, Nigeria, April 18-19, 2012.
40. *Schlecht*, W., Abdul, B., Golter, P., Thiessen, D., Adam, J., Brown, S., Davis, D., Brown, G., Ater-Kranov, A., Richards, R., Dutta, P., Van Wie, B., Compere, M., Maurer, E., Pitts, M. and Law, J., Multi-Disciplinary Project-Based Paradigm that Uses Hands-on Desktop Learning Modules and Modern Learning Pedagogies, NSF DUE Transformative Undergraduate Education in STEM (TUES) Workshop, Washington, DC, Jan. 27 -28, 2011
41. Golter, P.B., Van Wie, B.J., Brown, G., AC 2009-2320: "Aligning Assessment Tools with Course Subject and Goals", ASEE, Austin, TX, June 14 - 17, 2009.
42. Abdul, B., Van Wie, B.J., Shide, E.G., Anafi, F.O., Ahmed, A.S., Brown, G., AC 2009-1122: "An Evaluation of Pedagogical Gains in a Fluid Flow Class When Using Desktop Learning Modules in an African University", ASEE, Austin, TX, June 14 - 17, 2009.
43. Yurt-Beyenal, N., Poor, C., Van Wie, B.J., Brown, G., Golter, P.B., Thiessen, D., AC 2009-2338: Miniature Open Channel-Weir for the Standard Classroom-Implementation and Assessment, ASEE, Austin, TX, June 14 - 17, 2009.
44. *Haarsma*, SJ, Van Wie, Moffett, DF, Kidwell, DA, "Biosensors Using Immunoaffinity Constructs for Detection of Noncharged Organic Species and Proteins", Micro Nano Breakthrough Conference, Vancouver, WA, Sept. 8-10, 2009.
45. Colin D. Paul, Melinda B. O'Neil, W. Roy Penney, Bernard J. Van Wie, Paul B. Golter, Robert R. Beitle & Edgar C. Clausen, "Desktop Learning Module Heat Exchanger Performance", Proceedings of the 2009 Midwest Section Conference of the American Society for Engineering Education,
46. Golter, P.B., Van Wie, B.J., Brown, G., Babauta, J., Bako, R., Abdul, B., Ahmed, A., Shide, E., Anafi, F., "Internationalizing Modern Pedagogies with the Aid of Desktop Learning Modules in Engineering Classrooms", American Society for Engineering Education Global Colloquium on Engineering Education, Cape Town, South Africa, October 19-23, 2008.
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48. Yurt-Beyenal, N., Golter, P.B., Van Wie, B.J., Thiessen, D., "Extending Desktop Learning Modules beyond Traditional Chemical Engineering", American Society for Engineering Education, Pittsburg, PA, June 22-25, 2008.
49. Golter, P.B., Van Wie, B.J., Thiessen, D., Yurt-Beyenal, N. and Brown, G., "Adapting Novel Pedagogies to Your Classroom", American Society for Engineering Education, Pittsburg, PA, June 22-25, 2008.

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51. Golter, P.B. & Van Wie, B.J., "Desktop Learning Module Implementation", American Society for Engineering Education Conference Proceedings, Honolulu, HI, June 24 – 27, 2007.
52. Golter, P.B., Van Wie, B.J. & Brown, G.R., "Comparing Student Experiences in a Cooperative, Hands-on, Active, Problem Based Learning Environment (CHAPL) to Cooperative, Problem Based Environment (CPBE)", American Society for Engineering Education Conference Proceedings, Honolulu, HI, June 24 – 27, 2007.
53. Liu, B, Van Wie, BJ, Cheng, G, Moffett, DF, Kidwell, DA, "Fabrication of nano apertures and their application in biomimetic sensing", Abstracts of Papers, 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006.
54. Haarsma, SJ, Van Wie, BJ, Cheng, J, Moffett, DF, Kidwell, DA, "Biosensors using molecular immunoaffinity constructs for detection of noncharged organic species and proteins", Abstracts of Papers, 232nd ACS National Meeting, San Francisco, CA, United States, Sept. 10-14, 2006.
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62. Golter, P., Van Wie, B., Held, G., Windsor, J., Practical Considerations for Miniaturized Hands-on Learning Stations", Proceedings of the ASEE Conference, Chicago, IL, 1886, June 2006.
63. Golter, P.B., Van Wie, B.J., Scuderi, P.V., Henderson, T.W., Dueben, R.M., Brown, G.R. & Thomson, W.J. "Combining Modern Learning Pedagogies in Fluid Mechanics and Heat Transfer", American Society for Engineering Education, Poster Presentation, Portland, OR, June 12-15, 2005; 1st Place Poster Award ChE Division.
64. Detzel, C.J., Van Wie, B.J., Davis W.C., "Bioprocess Monitoring and Control of Medium Conditions in a Continuous Bioreactor", 229th National American Chemical Society Meeting, San Diego, CA, March 13 – 17, 2005.
65. Mason, D.J., Detzel, C.J., Van Wie, B.J., Davis W.C., Kidwell D.A., "Integrating Process Monitoring Into a Novel Continuous Centrifugal Bioreactor", 227th National American Chemical Society Meeting, Anaheim, CA, March 28 – April 1, 2004.

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69. Kidwell, D.A. and Van Wie, B.J., "A Fieldable, Saliva-Testing System for Drugs Of Abuse", National Law Enforcement Conference, Dallas, TX, May 21-22, 2001.
70. Kidwell, D.A. and Van Wie, B.J., "A Fieldable Saliva Testing System of Drugs of Abuse", Tri-Service Forensic Drug Testing laboratory Managers' Meeting, Ellicott City, MD, Oct. 23-27, 2000.
71. Seidl, J.A., Liu, G., Leatzow, D.M., Moffett, D.F., Van Wie, B.J., Tiffany, T.O. and Weyrauch, B.N., "Point-of-Care-Testing Flow Injection Analysis Module and Centrifugal Plasma Separator", Oak Ridge Conference, San Jose, CA, April 1999.
72. Erickson, B.H., Van Wie, B.J., Leatzow, D.M., Liu, G., Thayer, P.C. and Tiffany, T.O., "Charge Coupled Device Optics System of Simultaneous Measurement of Multiple Reactions in a Microplate", Oak Ridge Conference, Raleigh, NC, April 1998.
73. Leatzow, D., Yu, Y., Prabhugaonkar, B., Erickson, B., Van Wie, D., Moffett, A., Koch, M., Silber, W., Davis, "Rapid Format Liposomal Assay for Cardiac Proteins", presentation at the American Institute of Chemical Engineers Annual Meeting, Los Angeles, CA, November 1997.
74. Yu, Y., Phares, D.J., Van Wie, B.J., Reiken, S.R., Sutisna, H., Moffett, D.F., Koch, A.R., Silber, M., Davis, W.C., "Sensing Assessment by Novel Optical Means," Annual AIChE Meeting, San Francisco, 1995.
75. Yu, Y., Phares, D.J., Van Wie, B.J., Reiken, S.R., Koch, A.R., Moffett, D. F., Silber, M., Davis, W.C., "Rapid and Sensitive Biosensing Using Modified Receptor Immunogen Complexes," Annual AIChE Meeting, San Francisco, 1994.
76. Eray, M., Dogan, N.S., Van Wie, B.J., Koch, A. R. and Moffett, D.F., Silber, M., Paper on Biosensor Applications for Bilayer Lipid Membranes on Polyimide Apertures, 15th Annual IEEE Engineering in Medicine and Biology Society Meeting, San Diego, CA Oct. 28-31, 1993.
77. Eray, M., Dogan, N.S., Koch, A.R., Moffett, D. F., Reiken, S.R., Sutisna, H., Van Wie, B.J., Davis, W.C., "A Highly Stable and Selective Biosensor Using Modified Nicotinic Acetylcholine Receptors (nAChR), NIST Conference on Molecular Sensing and Biocomputing, Gaithersburg, MD, Sept. 21-23, 1993.
78. Eray, M., Dogan, N.S., Koch, A. R., Moffett, D. F., Silber, M., and Van Wie, B.J., "A Micromachined Polyimide Aperture for Bilayer Lipid Membrane (BLM)-Based Biosensors," 51st Annual Device Research Conference, Santa Barbara, CA , June 23-26.
79. Kurdikar, D.L., Skeen, R. S., Sutisna, H., Reiken, S.R., Moffett, D. F., Koch, A. R., Silber, M., Davis, W.C., Dogan, N.S., Eray, M., Liu, L., "Neuronal membrane Solid-State Biosensors," Annual AIChE Meeting, Miami, FL, Nov. 1993.
80. Skeen, R.S., Kurdikar, D.L., and Van Wie, B.J., "Modeling of Neuronal Biosensing: Interactions Between Observable States," Annual AIChE Meeting, Miami, FL, Nov. 1993.
81. Skeen, R.S., Van Wie, B.J., Fung, S.J., and Barnes, C.D., "Advances in Neuron-Based Chemical Sensing,: National American Chemical Society Meeting, Washington D.C., Aug. 26-31, 1990.
82. Kisaalita, W.S., Skeen, R.S., Van Wie, B.J., Barnes, C.D., Fung, S.J., and Davis, W.C., "Neuron-Based Sensors for Biochemical Quantitation," Annual International Conference, IEEE Engineering. Med. & Biology Society., Seattle, WA Nov. 9-12, 1989.
83. Skeen, R.S., Kisaalita, W.S., Van Wie, B.J., Davis, W.C., Fung, S.J., and Barnes, C.D., "Development of Neuron-Based Biosensors," AIChE 1989 Annual Meeting, Nov. 5-10, San Francisco.

84. Van Wie, B.J., Muller, T.J., Brouns, T.M., Elliott, M.L. and Davis, W.C., "A New Continuous Centrifugal Bioreactor (CCBR) for Cultivation and Study of Dense Culture Systems", Washington Exhibition of Science and Technology (WEST '88), Seattle, WA, Oct.17-18, 1988.
85. Skeen, R.S., Van Wie, B.J., Barnes, C.D., Fung, S.J. and Kisaalita, W.S., "Neuron Based Chemical Sensors for Biotechnology and Biomedical Applications", AIChE 1988 Annual Mtg, Nov.27-Dec.2, Washington, DC.
86. Kisaalita, W.S., Van Wie, B.J., Skeen, R.S., Barnes, C.D., Fung, S.J. and Chun, K., "Crossdisciplinary Biotechnology Research/Biosensor Development", AIChE 1988 Annual Mtg, Nov.27-Dec.2, Washington, DC.
87. Barnes, C.D., Skeen, R.S., Van Wie, B.J. and Fung, S.J., "Dual Actions of n-Butanol on Electrical Excitability of the Molluscan Neurons", Western Pharmacology Society Meeting, Tuscon, AZ, Jan.11-15, 1988.
88. Van Wie, B.J., Brouns, T.M., Elliott, M.L. and Davis, W.C., "A Novel Continuous Centrifugal Bioreactor for High Density Cultivation of Mammalian and Microbial Cells", AIChE Annual Meeting, Nov.15-20, New York, N.Y., 1987.
89. Van Wie, B.J., "Implementation of Basic Discoveries in Molecular Biology", AIChE Annual Meeting, Nov.15-20, New York, N.Y., 1987.
90. Davis, W.C., Patel, M.R., Brouns, T.M. and Van Wie, B.J., "Characterization of Monoclonal Antibodies (MoAbs) Specific for Bovine Leukocyte Antigens and Class I and II Antigens of the Major Histocompatibility Complex (MHC)", The 67th Conference of Research Workers in Animal Disease, Nov.17 & 18, 1986.
91. Oxford, R.J., Drumheller, P.D., Petersen, J.N., Van Wie, B.J. and Schneider, G.W., Jr., "Monitoring and Automated Optimization of a Cell Centrifuge", IEEE Conf. on Engr. in Medicine and Biology, Fort Worth, TX, 1986.
92. Van Wie, B.J., Elliott, M.L. and Lee, J.M., "Development and Characterization of a Continuous Centrifugal Bio-Reactor", Eighth Symposium on Biotechnology for Fuels and Chemicals, Gatlinburg, TN, 1986.
93. Van Wie, B.J. and Hustvedt, E.L., "Particle Interaction Effects on Blood Cell Sedimentation and Separation", AIChE Meeting, Chicago, IL, November 10-15, 1985.
94. Ivie, J., Mansell, M. and Van Wie, B.J., "Enhanced Leukocyte Recoveries Through Centrifugal Separation of Blood at Low Hematocrits", Oklahoma Academy of Science, Chickasha, OK, November, 1982.
95. Bohannon, J., Brinson, L., Matthews, A., Sofer, S.S., Stevens, B., Van Wie, B. and Wills, R.A., "A Model Enzymic Extracorporeal Detoxification System. Part II", The 2nd Hemoperfusion, Dialysate and Diafiltrate Purification Symposium, Tutzing, Germany, 1979.
96. Sofer, S.S., Wills, R.A. and Van Wie, B.J., "A Model Enzymic Extracorporeal Detoxification System", Hemoperfusion, Dialysate and Diafiltrate Purification Symposium, Tutzing, Germany, 1978.

WEBSITES:

1. Wang, H-Y, Bluck, D, Van Wie, BJ, Algae to Jet B Biofuel Tutorial – Pro II, Posted on Prof. BJ Van Wie's website: Algae to Jet B Biofuel Tutorial – Pro II, 2013, <http://www.voiland.wsu.edu/Faculty/BVanWie.html>.

RESEARCH GRANTS:

Van Wie, BJ (PI), Abu-Lail, NI, Gozen, A, Idone, V, Mendenhall, J, GOALI: Enhancing Cartilage Tissue Engineering through Synergistic Influence of Co-Culture, Mechano-Chemical Factors, and 3D Printed Scaffolds in a Novel Centrifugal Bioreactor, ~9/01/16 – 8/31/19, NSF (Recommended), (I anticipate requesting no-cost extensions to support NIH Trainees up to 8/31/21), \$475,000.

Van Wie, BJ (PI), Davis, WC, EAGER: Biomanufacturing: Polymer Protective Effector T-Cell Isolation and Centrifugal Bioreactor Expansion for a Parasitic Disease Model with Relevance in Human Cancer Treatment, NSF (Recommended), ~9/01/16 – 8/31/18 (I anticipate requesting no-cost extension to potentially support an NIH Trainee up to 8/31/20), \$300,000.

Van Wie, BJ (PI), Golter, PB, Laube, J, Collaborative Research: Enhancing Hands-on Interactive Learning in Process Technology Programs with New Low-Cost Miniature Industrial Equipment, NSF, 7/01/16 – 5/31/18.

J.N. Petersen (PI), Y. Wang, S. Ha, H. Beyenal, and B.J. Van Wie, Fundamental and Applied Chemical and Biological Catalysts to Minimize Climate Change, Create a Sustainable Energy Future, and Provide a Safer Food Supply, w/, USDA NIFA Hatch Project #WNP00807, 07/31/12 – 07/30/17.

Van Wie BJ (PI), and Golter, PB, I-Corps L: Hands-on Modules for Fluid Mechanics and Heat Transfer, A Market Transition, w/ P.G. Golter and H.P. Davis, NSF, 7/1/15 – 12/31/15.

Van Wie, BJ (PI),, Richards, P.B. Golter, P. Dutta, D.B. Thiessen, D.B., Affordable Desktop Learning Modules (DLMs) to Facilitate Transformation of Undergraduate Engineering Classes, High School Recruitment & Retention, NSF, w/ C.F. Richards, P.B. Golter, P. Dutta, D.B. Thiessen, D.B., 09/01/14 – 08/31/17.

Van Wie, BJ (PI), C.F. Richards, P.B. Golter, Dutta, P., Thiessen, D.B. Developing Affordable Desktop Learning Modules to Facilitate a Transformation in Undergraduate Engineering Classes, Norcliffe Foundation, 05/16/14 - 12/15/14.

Van Wie, BJ, D.B. Thiessen, O.O. Adesope, Desktop Learning Module for Sustainable Biofuels Production; an International Collaboration with Nigeria, NSF DUE CCLI Supplement, 08/15/13 – 11/31/18.

Van Wie, BJ (US NSF Collaborator) Bugaje, I (PI), N Yusuf, A Atta, G Adogbo; Renewable Energy: Desktop Learning Module for Gasification Processes, w/ I US Partner: BJ Van Wie, USAID/NSF PEER, 11/01/13 – 10/31/15.

Van Wie, BJ (PI), Pro II Simulation Comparison with Plant Data for Biomass Conversion to Biofuels, Invensys, 06/01/2012 – 08/15/2013.

Van Wie, BJ (PI), N Abu-Lail and V Idone, EAGER: Synergistic Influences of Oscillating Pressure and Growth Factor on Chondrogenesis in a Novel Centrifugal Bioreactor, NSF, plus a Graduates Research Diversity Supplement, 06/01/2012 – 05/31/2014.

Van Wie, BJ (PI), Collaborative Active Learning Demonstration with Real Engineering Equipment in Large Classes, Samuel and Patricia Smith Teaching and Learning Grant, Washington State Univ., 7/1/2011 – 12/31/2011.

Van Wie, BJ (PI), Ion Selective Electrodes for Proteins with Application in Monitoring Food Borne Diseases, WSU ARC, Support for 1/3 of a research assistant, 8/16/2011 – 8/15/2012, renewable.

Van Wie, BJ (PI), JC Adam, RF Richards, DB Thiessen, GR Brown, Multi-Disciplinary Project-Based Paradigm that Uses Hands-on Desktop Learning Modules and Modern Learning Pedagogies, NSF, 10/01/2010 – 10/31/2017.

Van Wie, BJ, AS Ahmed (PI), G Babagana, B Abdul, RB Bako, EG Shide, F Anafi and Collaborators at Six Other Nigerian Universities, New Learning Pedagogies in Engineering Process Transport Phenomena Implemented while Using Hands-on Desktop Units,, World Bank STEPB Program, 09/15/08 – 09/14/12.

Fulbright Scholar Exchange Grant: Cooperative Hands-on Learning and Bioconversion Research in the Nigerian Ahmadu Bello University Chemical Engineering Department, Council for International Exchange Scholars, 09/03/07 – 07/05/08.

Assessing and Disseminating Group Learning Pedagogy in Fluid Mechanics and Heat Transfer while Using Hands-on Desktop Units with Interchangeable Cartridges, NSF, OISE and CCLI International Supplement, (with G. Brown co-PI), 9/01/06 – 8/31/10.

Curriculum Development: Biorefinery Process Analysis and Design, USDA, (with B. Brian He (PI), Charles L. Peterson, Kerry C. Huber, Gülhan U. Yüksel, Shulin Chen, R. Mark Worden, Grant No. 2004-38411-14743, 09/1/04 – 08/31/08.

"NER: Nanoscale Environmental Sensors and Societal and Educational Implications for Native Americans and Hispanics", (w/ J.G. Cheng, B.M. Peyton, Montana State Univ., R.S. Skeen, CTUIR, D.A. Kidwell, NRL), National Science Foundation (NSF), 08/16/05 – 08/15/07.

"Training in Biotechnology: Emphasis in Protein Chemistry", NIH, (w/ M. Black (PI) & ~40 other WSU training faculty), NIH T32 GM008336-26: 5th renewal (w/ WSU match) 5th renewal 07/01/14 – 06/30/19; 07/01/09 – 06/30/14; 3rd renewal 7/01/04-6/30/09; 2nd renewal 7/1/99-6/30/04; renewal '94-'99; original grant 89-'94.

"Assessment of Pilot Program Level Reform with Curriculum Spanning CHAPL Modules", Washington State University, August 1, 2005 – July 31, 2007.

"COBE Spectra Clinical Centrifuge for Cell Culture", instrument transferred to WSU from the American Red Cross; arrangements for transfer made by Gambro BCT (formerly COBE Laboratories).

"Integrated Bioproduct Research and Graduate Education and Training Program", (with S Chen, M Wolcott), Washington State University, 8/16/04 – 12/31/05.

"Development of an Advanced Hands-On Cooperative Learning Curriculum for Chemical Engineering 332, Fluid Mechanics and Heat Transfer", Washington State University, 2003-2005.

"Ion-selective electrodes and device validation for environmental water quality monitoring", Naval Research Laboratory, Part of a larger project at NRL funded by the Technical Support Working Group (TSWG), 2001-2004.

"Miniature, multiple sensor systems for continuous detection of metals, pH, and other parameters", with David Kidwell (PI) of the Naval Research Laboratory, SERDP, 2001-2003.

"Integrated Bioproduct Research and Graduate Education and Training Program", Washington State University, 2004-2006.

Initiation of Collaboration for a Bioproduct Program at Washington State University (w/ S Chen, M Wolcott, L Xun, N Lewis), Washington State University, 2004-2007.

"Equipment for Chemical Engineering Biosensor Research Laboratory", Fluke Corporation, 2002-2005.

"Minimally Invasive Ultrasound-Based Prothrombin Time Monitoring System", Washington Technology Center (WTC), 2000-2001. Cash Matching: Sonexxus, Inc. In-Kind Matching: Sonexxus, Inc.

" 'Hands-On' Learning in Engineering Lecture Classes", 25% Release Time Washington State University Center for Teaching and Learning, 1998-1999.

"Whole Blood Separator and Point of Care Testing Analyzer", Spokane Intercollegiate Research and Technology Institute, 1998-2000. In-Kind Matching: DevTec, Inc., Spokane, WA, In-Kind Personnel, Equipment & Services.

"CCD Module for Clinical and Acute Care Diagnostics," SIRTl, 1995-97. In-Kind Matching: DevTec, Inc., Spokane, WA, In-Kind Personnel, Equipment & Services;" Rapid Format Liposomal Biosensors for Cardiac Proteins," Spectral Diagnostics, Inc., Toronto, CANADA, In-Kind Supplies & Services, 1996-98.

"Centrifugal Serum Separator & Flow Injection Analysis Device," Spectrum Technologies Group, 1995-98.

"A Flow Injection Analysis Based Bioanalytical System", WTC, with Micropump Corp., Vancouver, WA and Spectrum Systems, Inc., Spokane, WA, 1993-1995.

"Digital Neuron-Based Solid-State Biosensors", Akzo Research America, Inc., (w/ W.C. Davis, D.F. Moffett, and N.S. Dogan), 1990-1993.

"Neuron Based Chemical Sensors," The Washington Technology Center, (w/W.C. Davis, D.F. Moffett, and N.S. Dogan), 1990-91.

"A Flow Injection Analysis Based BioAnalytical System," The Washington Technology Center, 1993-1995.

"Neuron Based Chemical Sensors," The Washington Technology Center, (w/C.D. Barnes, S. J. Fung, W.C. Davis, D. F. Moffett, and N.S. Dogan), 1990-1991.

"Neuron Based Chemical Sensors," The Washington Technology Center, (w/C.D. Barnes, S. J. Fung, W.C. Davis, and N.S. Dogan), 1989-1990.

"Bioprocessing Research", The Washington Technology Center, (w/ J.M. Lee & J.N. Petersen), 1988-1989.

"Equipment for Training of Chemical Engineering Students Involved in Bioprocessing Research", Tektronix, Inc., 1988.

"Bioprocessing Research", The Washington Technology Center, (w/ J.M. Lee & J.N. Petersen), 1987-1988.

"Neuron Based Chemical Sensors", The Washington Technology Center, (w/ C.D. Barnes and Simon J. Fung), 1987-1989.

"On-Line Optimization of a Blood Centrifuge", COBE Laboratories, Inc., 1987.

"Computer Graphics Package for Thermodynamic Properties. Version II", Iowa State University, 1987.

"Sterile Connection Device for Biotechnology", E.I. du Pont de Nemours & Co., Biomedical Products Department, 1986.

"Computer Graphics Package for Thermodynamic Properties. Version I", Iowa State University, 1986.

"Instrumentation for Colloidal and Interfacial Studies", National Science Foundation, (w/ R.L. Zollars(PI) & J.M. Lee), 1986-1988.

"Development of Living Neuronal Transducers for Biochemical Sensing", National Science Foundation, (w/ C.D. Barnes and S.J. Fung), 1986-1987.

"On-line Computer Optimization of a Blood Cell Centrifuge", Whitaker Found., (w/ J.N. Petersen), 1986-1988.

"Monoclonal Antibody Research with a Continuous Centrifugal Bioreactor", Allied Corp. Found., 1985-1986.

"Development and Characterization of a Continuous Centrifugal Bio-Reactor (CCBR)", Engineering Foundation, 1985-1987.

"Instrumentation for Biotechnology and Blood Analysis", Instrumentation Laboratories, 1986-1989.

"Development of Living Neuronal Transducers for Biochemical Sensing", Washington State University College of Engineering, 1986-1987.

"Bio-Processing Research", The Washington Technology Center, (w/ J.M. Lee & J.N. Petersen), 1985-1986.

"Bio-Processing Research", The Washington Technology Center: (w/ J.M. Lee & J.N. Petersen), 1986-1987.

Permanent Loan of a Clinical Blood Cell Separator, COBE Laboratories, Inc., Market Value of 1985.

"Continuous Blood Cell Fractionation in a Clinical Centrifuge", COBE Laboratories, Inc., 1985.

"Continuous Blood Cell Fractionation in a Clinical Centrifuge", COBE Laboratories, Inc., 1986.

"Omniflo Turbine Flow Meters and Signal Amplifiers", Flow Technology, Inc., 1984.

"Improving Efficiencies and Overall Yields of Leukapheresis Products: Recycle Processing and Optimization of Process Stream Hematocrits in a Centrifugal Blood Cell Separator", Washington State University Grant-In-Aid, 1984-1985.

PROFESSIONAL SOCIETIES (For which I am currently or have been a member):

American Chemical Society
American Society for Engineering Education
American Institute of Chemical Engineers
American Association of Clinical Chemists
American Society for Apheresis
Biomedical Engineering Society
Tau Beta Pi Professional Honorary Society
Golden Key Honor Society

CONTINUING EDUCATION

Chemical Engineering Summer School, 2007, 2012, 2017

NSF and WSU/NSF Innovation Corps (I-Corp), Summer 2015 and 2017, respectively

Effective Teachers Workshop by Rich Felder and Rebecca Brent, 1997, 2006, 2015

Performance Measures Institute, Pacific Crest, Washington State University, October 2006

Grant Application Writer's Workshop, Grant Writer's Seminars & Workshops, LLC, Sept. 2005 – Aug. 2006

Assessment Institute, Pacific Crest, Univ. of Idaho, May 31 – June 3, 2005

Membrane Physiology Course, WSU Zoology Dept., Spring 1990

Advanced Neurophysiology, VPh 534, Fall 1988

Biological Separation Processes, AIChE Today Series, AIChE 1984 Meeting, San Francisco

Grant Proposal Writing Course, ED AD 596, Summer 1983

UNDERGRADUATE RESEARCHERS

	Student Name	Paper or Ref. Conf. Paper	Poster or Cong. Pres.	Award	Graduate / Research
1.	Chris Sonnichsen				
2.	Philippa Goodwin				
3.	Mike Elliott				X
4.	Tom Brouns				X
5.	Scott Wooten				
6.	Paul Drumheller				X
7.	Nick Pepper?				X
8.	Davis Bendezu				
9.	Rod Skeen				X
10.	Himiwan Sutisna				X
11.	Daniel Phares				X
12.	Trevan Landin				
13.	Michigan State Student				
14.	Jenn Seidl				X
15.	Brian Erickson				
16.	Jim Mullen				X
17.	Mike Plesha				X
18.	Chris Detzel.				X
19.	William Guckenburg				X
20.	Derek Mason				X
21.	Dan Reick				X
22.	Jerome Babauta				X
23.	Josh Van Wie				X
24.	Billy Schmuck				X
25.	Shane Reynolds				X
26.	Kevin Lee				
27.	Chrystal Quisenberry				X
28.	Serah Njau				
29.	William Schlecht				X
30.	Ryan Daut				
31.	James Colvin				
32.	Hajime Fuchida				X
33.	Kevin Eldred				
34.	Matthew ?? MS w/ Reid Miller				X
35.	Edgar Robles				X
36.	Michael Thorson				X
37.	Jonathan Windsor				
38.	Harvey Doty				
39.	Laura Coon				
40.	Derek Cline				
41.	Dave Finkel				
42.	Cory Tobin				
43.	Alicia Flatt				
44.	Amber Graviet				
45.	Amos Morara				
46.	Felix Nwanne				
47.	Sarah Njau				
48.	Alex Dunsmoor				
49.	Jeff Epperson				
50.	Michael Gerber				X

51.	Olivia Ranft				X
52.	Conner Appel				
53.	Jameshia Rice				
54.	Alex Butler				
55.	Alex Potter				
56.	Charles Ward				