

Biographical Sketch

William Gibbons

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EDUCATION

Ph.D.	1987	Microbiology, Agronomy	South Dakota State University
M.S.	1982	Microbiology	South Dakota State University
B.S.	1980	Microbiology, Chemistry	South Dakota State University

PROFESSIONAL EXPERIENCE

2016 – Present	Interim Director, South Dakota Agricultural Experiment Station
2012 – Present	Director, South Dakota Oilseed Initiative
2006 – Present	Associate Director, Center for Bioprocessing Research and Development, South Dakota State University, Brookings, SD
1997 – Present	Professor, Biology & Microbiology Department, South Dakota State University, Brookings, SD
1991 – 1997	Associate Professor, Biology & Microbiology Department, South Dakota State University, Brookings, SD
1987 – 1991	Assistant Professor, Biology & Microbiology Department, South Dakota State University, Brookings, SD

PROFESSIONAL ACTIVITIES

- Member, Society of Industrial Microbiology
- Member, Gamma Sigma Delta, Phi Kappa Phi, Phi Lambda Upsilon
- Member, SD Academy of Science
- Consultant for bioprocessing industry.
- Reviewer for DOE, USDA.
- President North Central Branch, American Society for Microbiology, 1991;
- Vice Chairman and Chairman, ARS-1007, The Science and Engineering for a Biobased Industry and Economy, 2002-2003.
- Chairman, NCDC227, *Brassica carinata* development committee, 2013-present

HONORS AND AWARDS

- Received 2014, FO Butler Award for Excellence in Research
- Received 2011 and 2012, Cannon Intellectual Property Award
- Received 2007 College of Agriculture and Biological Sciences Distinguished Researcher of the Year Award at South Dakota State University.
- Received 2006 ABS College Dean's Team award for developing a Center for Excellence in Bioprocessing
- 2003 Golden Key Honorary Member.

PUBLICATIONS (last 2 years)

1. Johnson, T.J., C. Halfmann, J.D. Zahler, R. Zhou, and W.R. Gibbons. 2016. Increasing the tolerance of filamentous cyanobacteria to next generation biofuels via directed evolution. *Algal Res.* 18:250-256.

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- Johnson, T.J., J.D. Zahler, R. Zhou, and W.R. Gibbons. 2016. Optimizing cyanobacteria growth conditions in a sealed environment to enable chemical inhibition tests with volatile chemicals. *J. Microb. Methods*. (In press).
- Sinn, S.M., Gibbons, W.R., Brown, M.L., DeRouchey, J.M. Levesque, C.L. 2016. Evaluation of a microbially-converted soybean meal as an alternative to fish meal in weaned pig diets. *Animal J*. (In press).
- Croat, J.R., Berhow, M., Karki, B., Muthukumarappan, K., and Gibbons, W.R. 2016. Enhancing the nutritional value of *Brassica napus* meal using a submerged fungal incubation process. *J. Food Res*. (In press).
- Croat JR, Berhow M, Karki B, Muthukumarappan K, Gibbons WR. 2016. Conversion of canola meal into a high protein feed additive via solid-state fungal incubation process. *J Am. Oil Chem. Soc.* 93:499-507 DOI 10.1007/s11746-016-2796-7.
- Chen, L., Vadlani, P., Madl, R., Gibbons, W.R. 2016. Degradation of phytic acid and soy protein in soy meal via co-fermentation of *Aspergillus oryzae* and *Aspergillus ficuum*. *J. Am. Oil Chemists Soc.* 93:45-50.
- Hughes, S.R., Cox, E.J., Bang, S.S., Pinkelman, R.J., Lopez-Nunez, J.C., Saha, B.C., Qureshi, N., Gibbons, W.R., Fry, M.R., Moser, B.R., Bishoff, K.M., Liu, S., Sterner, D.E., Butt, T.R., Biedmuller, S.B., Jones, J.A., Riano-Herrera, M. 2015. Process for assembly and transformation into *Saccharomyces cerevisiae* of a synthetic yeast artificial chromosome containing a multigene cassette to express enzymes that enhance xylose utilization designed for an automated platform. *JALA*. DOI:10.1177/221068315573188.
- Cao, Y., Wang, K, Wang, X, Gu, Z., Gibbons, W.R., Vu, H. 2015. Adsorption of butanol vapor on active carbons with nitric acid hydrothermal modification. *Biores. Technol.* 196:525-532. DOI 10.1016/j.biortech.2015.08.027.
- Chen, L., Vadlani, P., Madl, R., Wang, W., Shi, YC. Gibbons, W.R. 2015. The investigation of virginiamycin-added fungal fermentation on the size and immunoreactivity of heat-sensitive soy protein. *Int. J. Polymer Sci.* Article ID 682596, 7 pages. doi:10.1155/2015/682596.
- Cao, Y., Gu, Z., Muthukumarappan, K., Gibbons, W. 2015. Separation of glucosinolates from camelina seed meal via membrane and acidic aluminum oxide column. *J. Liquid Chromatography & Related Technologies.* 38:1273-1278.
- Wang, K., Wang, X.M., Cao, Y.H., Gu, Z.R., Fan, Q., Gibbons, W., Johnson, T., Luo, B. 2016. Pyrolytic cyanobacteria derived activated carbon as high performance electrode in symmetric supercapacitor. *Energy.* 94:666-671. <http://dx.doi.org/10.1016/j.energy.2015.10.047>.
- Karki, B., Muthukumarappan, K., Wang, Y., Dale, B., Balan, V., Gibbons, W.R., and Karunanithy, C. 2015. Physical characteristics of AFEX pretreated and densified switchgrass, prairie cord grass, and corn stover. *Biomass and Bioenergy.* 78:164-174.
- Biersbach, G., B. Rijal, S.W. Pryor, W.R. Gibbons. 2015. Effects of enzyme loading, densification, and storage on ethanol yields of AFEX pretreated biomass for ethanol production. *Appl Biochem. Biotechnol.* 177:1530-1540. DOI:10.1007/s12010-015-1833-6.
- Johnson, T.J., M.B. Hildreth, L. Gu, R. Zhou, and **W.R. Gibbons**. 2015. Testing a dual-fluorescence assay to monitor the viability of filamentous cyanobacteria. *J. Microbiol. Methods.* 113:57-64. DOI 10.1016/j.mimet.2015.04.003.