Beguin, P. and J. P. Aubert (1994), "The biological degradation of cellulose," *FEMS Microbiol Rev* 13(1): 25-58.

Chakravorty, D, (1998). Cell Biology of Alginic Acid degradation by Marine Bacterium 240. College Park, University of Maryland.

Coutinho, P. M. and B. Henrissat (1999). Carbohydrate-active enzyme server. Accessed Jan. 21, 2004

Coutinho, P. M. and B. Henrissat (1999). The modular structure of cellulases and other carbohydrat-active enzymes: an integrated database approach. *Genetics, biochemistry and ecology of cellulose degradation*. T. Kimura. Tokyo, Uni Publishers Co: 15-73,

Distel, D. L., W. Morrill, et al. (2002). "Teredinibacter turnerae gen. nov., sp. nov., a dinitrogen-fixing, cellulolytic, endosymbiotic gamma-proteobacterium isolated from the gills of wood-boring molluscs (Bivalvia: Teredinidae)." *Int J Syst Evol Microbiol* 52(6): 2261-2269.

Ensor, L., S. K. Stotz, et al, (1999). "Expression of multiple insoluble complex polysaccharide degrading enzyme systems by a marine bacterium." J Ind *Microbiol Biotechnol* 23: 123-126.

Gonzalez, J. and R. M. Weiner (2000). "Phylogenetic characterization of marine bacterium strain 2-40, a degrader of complex polysaccharides." *International journal of systematic evolution microbiology* 50: 831-834.

Henrissat, B. and A. Bairoch (1993). "New families in the classification of glycosyl hydrolases based on amino acid sequence similarities." *Biochem J* 293 (Pt 3): 781-8.

Henrissat, B., T. T. Teeri, et al. (1998). "A scheme for designating enzymes that hydrolyse the polysaccharides in the cell walls of plants." *FEBS Lett* 425(2): 3524.

Jonsson, A. P., Y. Aissouni, et al. (2001). "Recovery of gel-separated proteins for in-solution digestion and mass spectrometry." *Anal Chem* 73(22): 5370-7,

Kelley, S. K., V. Coyne, et al. (1990). "Identification of a tyrosinase from a periphytic marine bacterium."*FEMS Microbiol Lett* 67: 275-280.

Kosugi, A., K. Murashima, et al. (2002), "Characterization of two noncellulosomal subunits, ArfA and BgaA, from *Clostridium* cellulovorans that cooperate with the cellulosome in plant cell wall degradation," *J Bacteriol* 184(24): 6859-65.

Laemmli, U. K. (1970). "Cleavage of structural proteins during the assembly of the head of the bacteriophage T4." *Nature* 277: 680-685.

Ljungdahl, L. G. and K. E. Eriksson (1985). Ecology of Microbial Cellulose Degradation. *Advances in Microbial Ecology*. New York, Plenum Press. 8: 237-299.

Lou, J., K. Dawson, et al. (1996). "Role of phosphorolytic cleavage in cellobiose and cellodextrin metabolism by the ruminal bacterium *Prevotella ruminicola." Appl. Environ. Microbiol.* 62(5): 1770-1773.

Lynd, L. R., P. J. Weimer, et al. (2002), "Microbial cellulose utilization: fundamentals and biotechnology." *Microbiol Mol Biol Rev* 66(3): 506-77, table of contents. Shevchenko, A.,

M. Wilm, et al. (1996). "Mass spectrometric sequencing of proteins silver-stained polyacrylamide gels." *Anal Chem* 68(5): 850-8.

Smith, R. D., J. A. Loo, et al. (1990). "New developments in biochemical mass spectrometry: electrospray ionization." *Anal Chem* 62(9): 882-99.

Stotz., S. K. (1994). an agarase system from a periphytic prokaryote. College Park. University of Maryland.

Sumner, J. B. and E. B. Sisler (1944), "A simple method for blood sugar." *Archives of Biochemistry* 4: 333-336,

Tomme, P., R. A. Warren, et al. (1995). "Cellulose hydrolysis by bacteria and fungi," *Adv Microb Physiol* 37: 1-81.

Warren, R. A. (1996), "Microbial hydrolysis of polysaccharides." *Annu Rev Microbiol* 50: 183-212.

Whitehead, L. (1997). Complex Polysaccharide Degrading Enzyme Arrays Synthesized By a Marine Bacterium. College Park, University of Maryland.

SEQUENCE LISTING

The patent contains a lengthy "Sequence Listing" section. A copy of the "Sequence Listing" is available in electronic form from the USPTO web site (http://seqdata.uspto.gov/?pageRequest=docDetail&DocID=US08541563B2). An electronic copy of the "Sequence Listing" will also be available from the USPTO upon request and payment of the fee set forth in 37 CFR 1.19(b)(3).

What is claimed is:

1. An isolated *Saccharophagus degradans* strain 2-40 polynucleotide encoding an amino acid sequence with arabinofuranosidase activity and comprising a GH43 domain.

2. An isolated *Saccharophagus degradans* strain 2-40 polypeptide with arabinofuranosidase activity and comprising a GH43 domain.

3. A vector comprising an isolated *Saccharophagus degradans* strain 2-40 polynucleotide encoding an amino acid sequence with arabinofuranosidase activity and comprising a GH43 domain.

4. A host cell comprising an isolated *Saccharophagus degradans* strain 2-40 polynucleotide encoding an amino acid sequence with arabinofuranosidase activity and comprising a GH43 domain.

5. The host cell of claim **4**, wherein the cell is an *Escherichia coli* cell.

* * * * *