

RESUME

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YUVAL SHOHAM

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ACADEMIC DEGREES

1977 - 1980 B.Sc (with honors), Tel Aviv University, Israel, Biology.
1981 - 1982 M.Sc (with honors), Tel Aviv University, Israel, Microbiology.
1982 - 1987 Ph.D., M.I.T, Cambridge, MA, USA, Biochemical Engineering.

ACADEMIC APPOINTMENTS

1983 - 1987 Research Assistant, Massachusetts Institute of Technology, Cambridge,
1988 - 1991 Lecturer, Dept. of Biotechnology and Food Engineering, Technion
1992 - 1996 Senior Lecturer
1997 - 2000 Associate Professor
2001 - 2008 Head, The Interdepartmental Program in Biotechnology, Technion
2001 - Professor
2002 - The Erwin and Rosl Pollak Chair in Biotechnology
2002 - 2003 Deputy Dean, Faculty of Food Engineering & Biotechnology
2004 - 2007 Dean, Faculty of Biotechnology and Food Engineering
2004 - 2007 Director, The Otto Meyerhoff Minerva Center for Biotechnology
2008 - 2009 Deputy Dean, Faculty of Biotechnology and Food Engineering
2009 - 2012 Deputy Executive Vice President for Research
2010 - 2012 Director, The Lorry I. Lokey Interdisciplinary Center for Life Sciences and
Engineering
2013- Dean, Faculty of Biotechnology and Food Engineering

RESEARCH INTERESTS

Structure-function and protein-engineering of glycoside hydrolases, aminopeptidases and lipases
Molecular characterization of the cellulosome complex from *Clostridium thermocellum*
Gene regulation of hemicellulolytic and cellulolytic genes in *Geobacillus stearothermophilus* and *Clostridium thermocellum*
Biotechnology of thermophiles and thermostable enzymes
Biodegradation of lignocellulose and hemicellulose material for applications in the paper industry
Biotransformations for the production of natural flavors and fragrances

TEACHING EXPERIENCE

1981 - 1982: Teaching Assistant, Tel Aviv University, Advanced Microbiology.
1986 - 1987: Teaching Assistant, MIT, Laboratory in Applied Biology.
1988 - Dept. of Food Engineering and Biotechnology, Technion.
Undergraduate (U) and Graduate (G) courses:
1) Molecular Biotechnology I (U)

- 2) Process Biotechnology II (G/U)
- 3) Biotechnology Laboratory,(U)
- 4) Advanced Laboratory in Biochemical Engineering
- 5) Downstream Processes in Biotechnology (U,G)

TECHNION ACTIVITIES

1994 - 2001	INN member
1996-	Member of the Technion Biotechnology Committee
1996-2001	Member of the Technion Computer Committee
1997-	Scientific Director, Minerva Center for Biotechnology
2001-2008	Head, The Interdepartmental Program in Biotechnology
2002-2004	Technion's Patent Committee
2003-2004	Technion's Committee for Promotion and Tenure
2008 -	Technion's Professional Committee for Promotion and Tenure

MEMBERSHIP IN PROFESSIONAL SOCIETIES

The American Society for Microbiology (**Fellow of the Academy, 2001 -**)
 The American Chemical Society
 Israel Society for Microbiology: **Board member 2001-2005, President 09-11**
 Israel Institute of Chemical Engineering
 The Israel Chemical Society
 American Association for the Advancement of Science
 The Protein Society
 Society for General Microbiology

HONORS

1980	B.Sc (with honors), Tel Aviv University
1982	M.Sc (with honors), Tel Aviv University
1990	The Muriel and David Jacknow Award for excellence in teaching.
1995	The Henry Taub Prize for Research
1996	The Herschel Rich Technion Innovation Award
1999	The Moshe Shilo Award from the Israel Society for Microbiology
2001	Fellow-American Academy of Microbiology
2002	The Eduard Rherin Science Prize of the German Technion Society
2002	The Erwin and Rosl Pollak Chair in Biotechnology
2007	The Technion's Excellence in Teaching Award (top 5%).
2009	The Herschel and Hilda Rich Technion Innovation Award

PARTICIPATION IN ORGANIZING CONFERENCES

- 1) Bat-Seva de Rothschild Foundation symposium on "Use of Natural and Genetically Microorganisms to Combat Pollution" Kiryat Anavim, Israel, May 1992. **Member of the Scientific Committee.**
- 2) Environmental Biotechnology Workshop. Haifa, November 1995. **Organizer and Chair.**
- 3) Israel Institute of Chemical Engineering Annual Meeting. Tel Aviv, 1996. **Session Chair: Biotechnology**
- 4) Advances in Biotechnology Workshop, Haifa, February, 1997. **Session Chair.**
- 5) 14th Umbrella-Symposium on Biotechnology. Juilich, Germany November 1997. **Head of Technion's Delegation and Session Chair.**

- 6) 8th international Symposium on the Genetics of Industrial Microorganisms (GIM), Jerusalem, Israel, June 1998. **Local Organizing Committee.**
- 7) 15th Umbrella-Symposium on Biotechnology. Haifa, November 1998, **Scientific and Organizing Committee.**
- 8) International Symposium on Polysaccharide Biotechnology: An Interdisciplinary Approach. Ber Sheva, May 1998. **Scientific Program Committee.**
- 9) Israel Society for Microbiology, Annual Meeting. Rehovot February, 1998. **Session Chair: Applied Microbiology.**
- 10) The Tri-National American-Turkish-Israeli Conference in Chemical Engineering. Haifa, March 1999. **Session Chair: Biotechnology.**
- 11) Gordon Research Conference on Cellulases and Cellulosomes. Andover, New Hampshire, July 1999. **Discussion leader.**
- 12) Israel Society for Microbiology, Annual Meeting. Haifa 2000. **Head, Organizing Committee.**
- 13) Enzymillennium: from Enzyme Evolution to Industrial Biocatalysis-A Binational UK-Israeli Symposium on Biotransformation and Biosynthesis. Tel Aviv, February 2000. **Organizing Committee.**
- 14) Israel Society for Microbiology, Annual Meeting. Jerusalem February, 2002. **Session Chair: Food Microbiology and Molecular Biotechnology.**
- 15) The 68th Meeting of the Israel Chemical Society, Tel Aviv, January, 2003. **Session Chair: Structure and Function of Biomacromolecules**
- 16) Israel Society for Microbiology, Annual Meeting. Tel Aviv, February, 2003 **Session Chair: Applied and Environmental Microbiology**
- 17) Israel Society for Microbiology, Annual Meeting. Haifa, February 2004. **Head, Organizing Committee**
- 18) Israel Society for Microbiology, Annual Meeting. Tel Aviv, February, 2005 **Session Chair: Applied and Environmental Microbiology**
- 19) Half a Century of the Carbohydrate-Protein interface: An International Symposium to Celebrate the 80th Birthday of Prof. Natan Sharon. Rehovot, Nov 23-24, 2005. **Session Chair: Glycotechnology**
- 20) From biomass to biofuels, a roadmap to the energy future, Workshop, Rockville, MD December 7-9, 2005.
- 21) Gordon Research Conference on Cellulases & Cellulosomes, **Discussion Leader**, Prokaryote Genomics, Procter Academy, Andover NH , July 29 August 3, 2007.
- 22) Nano Engineering Meets Life Sciences Symposium, **Session Chair**, Hannover Convention Center, Hannover, Germany, October 8-10, 2007.
- 23) The International Conference of the Israeli Food Industries, Session Chair, Lod Avenue Center, June 23-24, 2008.

- 24) The 6th FISEB (Federation of the Israel Societies for Experimental Biology), Eilat, February 7-10, 2011. Scientific Committee.
- 25) The Abraham Kogan Seminar on Renewable Energies, The Israel Academy of Sciences and Humanities, Jerusalem, June 13, 2012. Program Committee.
- 26) The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013. Symposium Co-Chair.
- 27) Gordon Research Conference on Cellulosomes, Cellulases & Other Carbohydrate Modifying Enzymes, Proctor Academy, Andover, NH August 4-9, 2013. Structure and function of carbohydrate-active enzymes, Discussion Leader.

GRADUATE STUDENTS

Ph.D

1. Orit Gat, D.Sc. 1996 Cloning, DNA sequence, and characterization of the xylanase gene from *Bacillus stearothermophilus* T-6.
2. Ofer Shenker, D.Sc. 1997. Regulation of xylanase production by *Bacillus stearothermophilus* T-6.
3. Eyal Shimoni, D.Sc. 1998. Bioconversion of essential oils to natural flavors and fragrances.
4. Sarah Gilead-Gropper, Ph.D. 1998. Cloning sequencing and regulation studies of L-arabinose utilizing genes from *Bacillus stearothermophilus* T-6.
5. Adva Mechaly (Zmora), Ph.D. 1998. Structure function studies on xylanase T-6.
6. Sima Yaron, Ph.D. 1999. Structure and interactions of functional domains from the cellulosome of *Clostridium thermocellum*.
7. Smadar Shulami, D.Sc. 2000. Molecular characterization of the glucuronic acid utilization operon from *Bacillus stearothermophilus* T-6.
8. Galit Meshulam, Ph.D. 2001. Isolation and characterization of lipases from thermophilic bacteria for the preparation of optically active compounds.
9. Tal Dror, D.Sc. 2003. Regulation of the cellulosome complex of *Clostridium thermocellum*.
10. Tsafrir Bravman, Ph.D. 2003. Mechanistic studies on Family 39 & 52 xylosidases.
11. Galia Zaide, Ph.D. 2004. The regulation of the xylanolytic system from *Geobacillus stearothermophilus* T-6.
12. Gennady Zolotnitsky. Ph.D. 2004. Characterization of enzyme substrate interactions in xylanase T-6.
13. Dalia Shallom, Ph.D. 2005. Structure-function studies on α -glucuronidase and α -arabinofuranosidase from *Geobacillus stearothermophilus*.
14. Tal Hendelsman. Ph.D. 2005. Protein-protein interactions in the cellulosome complex of *Clostridium thermocellum*.
15. Ifat Fondiano, Ph.D. 2007. Biochemical characterization of bacterial aminopeptidases.
16. Einat Naveh Abramovich. Ph.D. 2008. Structure-function studies on arabinanases from *Geobacillus stearothermophilus*.
17. Alon Ben-David, Ph.D. 2009. Engineering glycoside hydrolases for novel applications and properties.
18. Yakir Nataf, Ph.D. 2010. Genome-wide gene expression analysis of the cellulose degrading system in *Clostridium thermocellum*.

19. Dan Goldman, Ph.D. 2011. Biochemical characterization of *Zymomonas mobilis* levansucrase.
20. Orly Tabachnikov, Ph.D. 2012. Biochemical characterization of the arabinan degrading enzymes in *Geobacillus stearothermophilus*.
21. Onit Alalouf (Sikari), Ph.D., 2013. Biochemical characterization and structure-function studies of acetylxyylan esterases from *Geobacillus stearothermophilus*.
22. Arik Zehavi, Ph.D. 2015. Biochemical characterization of 6-phospho glucosidases CellA and Gan1D from *Geobacillus stearothermophilus*.
23. Noam Grimberg, Ph.D. 2015. Glycoside hydrolases from metagenimocs
24. Tal Zeltzer, Ph.D., 2015. Growth rate regulation in *Clostridium thermocellum*.
25. Rachel Salama, Ph.D. 2016. Structure function studies on arabinopyranosidase
26. Andy Sand, Ph.D., 2016. The regulation of cellulosomal genes by alternative sigma factors in *C. thermocellum*.

M.Sc.

1. Anat Carmi, M.Sc.1990. Isolation of lignin decomposing bacteria.
2. Alex Khasin, M.Sc. 1991. Purification and characterization of a xylan-degrading enzyme from *Bacillus stearothermophilus* T-6.
3. Ronen Neutra, M.Sc. 1992. Optimization of the production of recombinant protein using baculovirus expression system in insect cell culture. (Additional supervisor: Dr. Ben Zion Levi).
4. Zeev Schwartz, M.Sc. 1992. Production of xylanases from thermophiles.
5. Cecilia Regueros, M.Sc.1992. Cloning and expression of the *Bacillus stearothermophilus* T-6 xylosidase gene.
6. Tal Hendelsman, M.Sc. 1992. The isolation and characterization of lipases from thermophiles.
7. Ayelet Melnik (Fishman), M.Sc. 1993. Continuous production and purification of xylanase T-6. (Additional supervisor: Prof. Z. Berk).
8. Tsvia Erlich, M.Sc. 1993. The thermoinactivation mechanisms of xylanase T-6.
9. Eilat Ezra, M.Sc. 1993. Extraction and purification of lycopene from *Phycomyces blakesleeanus*. (Additional supervisor: Prof. Z. Berk).
10. Sarah Gilead, M.Sc. 1993. Purification and characterization of an α -L-arabinofuranosidase from *Bacillus stearothermophilus* T-6.
11. Adva Zmora, M.Sc. 1995. Overexpression of the *Bacillus stearothermophilus* T-6 xylanase.
12. Smadar Herzog, M.Sc. 1995. DNA sequencing and characterization of the β -xylosidase operon from *Bacillus stearothermophilus* T-6.
13. Galia Yarma, M.Sc. 1997. Protein production in a hollow fiber reactor (Primary supervisor: Prof. M. Sheintuch).
14. Iris Raz, M.Sc. 1999. Methyltransferases involved in the formation of methyl-chavicol and methyl eugenol in sweet basil (Additional supervisor: Dr. E. Lewinsohn).
15. Galia Zaide, M.Sc. 1999. Biochemical characterization of α -glucuronidase from *Bacillus stearothermophilus* T-6.
16. Gennady Zolotnitsky, M.Sc. 1999. Cloning and characterization of the xylan-utilization genes from *Bacillus stearothermophilus* T-6.
17. Gilad Rachel, M.Sc. 2000. Characterization of the non cellulosomal cellulase Cell from *Clostridium thermocellum*.

18. Mirit Kolog, M.Sc. 2000. Overexpression and characterization of the intracellular xylanase from *Bacillus stearothermophilus* T-6.
19. Yael Chertkow, M.Sc. 2000. Heterologous expression of cellulases from *Clostridium thermocellum*.
20. Ayelet Baumzweig, M.Sc. 2001. Probing surface residues for enhanced thermostability in xylanase T-6.
21. Adi Rolider, M.Sc. 2002. Fermentation studies on the production of the cellulosome by *Clostridium thermocellum*.
22. Larisa Rabinovitch, M.Sc. 2002. Cloning, overproduction and biochemical characterization of SGAP, an amino peptidases from and *Streptomyces griseus*.
23. Orit Gershon, M.Sc. 2002, Cloning, overexpression, and biochemical characterization of KDO8PS from *Aquifex pyrophilus*. (Primary supervisor Timor Baasov).
24. Ifat Fondiano, M.Sc. 2003. Overproduction and biochemical characterization of the *ywaD* gene product, an aminopeptidases from *Bacillus subtilis*.
25. Shira Raikin, M.Sc. 2005. Isolation and characterization of lipases with unique specificities.
26. Elinor Malul, M.Sc. 2005. Site-specific labeling of proteins *via* an *in-vitro* translation system.
27. Yulia Lipman, M.Sc. 2006. Structural elements in lipase T-6 that affect hydrolysis of triglycerides at the sn-2 position.
28. Yael Langut, M.Sc. 2006. Characterization of the repressor XylR from *Geobacillus stearothermophilus*.
29. Yael Grimpel, M.Sc. 2006. Cloning, expression and biochemical characterization of acetyl esterases from *Geobacillus stearothermophilus* T-6.
30. Ram Nechooshtan, M.Sc. 2006. Characterization of regulatory elements of the cellulase system in *Clostridium thermocellum*.
31. Maya Leon, M.Sc., 2006. Biochemical characterization of a XynB3, a beta- xylosidase from *Gebacillus stearthermophilus*.
32. Margarita Volkinshtein, M.Sc. 2008. Biochemical characterization of acetyl esterases from *Geobacillus stearothermophilus* T-6.
34. Eran Ivanir, M.Sc., 2010. Site-specific labeling of proteins.
35. Itzhak Shner, M.Sc. 2010. Identifying regulatory elements in *Geobacillus stearothermophilus*.
36. Arik Zehavi, M.Sc. 2011. Developing genetic tools for *G. stearothermophilus*.
37. Andy Sand, M.Sc. 2013. Aleternative sigma factors in *C. thermocellum*
38. Rachel Salama, M.Sc. 2013. Structure function studies on arabinopyranosidase

POST DOCTORATE FELLOWS

1. Aviva Lapidot, Ph.D (Levi Eshkol Post Doc. Scholarship) 1992-1994. Heterologous Expression of the xylanase gene in *B. subtilis* and *E. coli*.
2. Orit Gat, Ph.D 1996-1997. Heterologous expression of the cellulosome complex from *Clostridium thermocellum*.
3. Sarah Gilead-Gropper, Ph.D. 1999-2000. Structure-function relationship of KDO8P.
4. Smadar Shulami, Ph.D. 2000-2003. Structure-function relationship of KDO8P: Rational design of novel antibacterial drugs.
5. Noa Lavid, Ph.D. 2001-2004. Isolation of novel lipases for organic synthesis

6. Tali Dror. Ph.D. 2002-2003. The regulation of the cellulosome complex in *Clostridium thermocellum*.
7. Tsafirir Bravman, Ph.D., 2004. Organic synthesis with glycosynthases
8. Gennady Zolotnitsky, Ph.D., 2004-2005. The binding thermodynamic of CBD to cellulose.
9. Dan Goldman, Ph.D. 2011. Enzymatic process in milk for converting lactose to galacto-oligosaccharides.
10. Orly Tabachnikov, Ph.D. 2012. Biochemical characterization of the arabinan degrading enzymes in *Geobacillus stearothermophilus*.

RESEARCH ASSISTANT FELLOW

Iris Alchanati, M.Sc. 1989-1995.

Smadar Shulami, Ph.D, 2004-

Noa Lavid, Ph.D., 2005 -

PUBLICATIONS

Theses

M.Sc. Emulsan Depolymerase, 1982. Tel Aviv University

Ph.D. Studies on the Stability of Plasmids in *Bacillus subtilis*, 1988. M.I.T.

Refereed papers in professional journals

A. Published papers

1. **Shoham, Y.**, M. Rosenberg, and E. Rosenberg. Bacterial degradation of emulsan. *Appl. Environ. Microbiol.* **46**:573-579, 1983.
2. **Shoham, Y.**, and E. Rosenberg. Enzymatic depolymerization of emulsan. *J. Bacteriol.* **156**:161-167, 1983.
3. Pinas, O., **Y. Shoham**, E. Rosenberg, and D. Gutnick. Unmasking of surface components by removal of cell-associated emulsan from *Acinetobacter calcoaceticus* RAG-1. *Appl. Microbiol. Biotechnol.* **28**:93-99, 1988.
4. **Shoham, Y.**, and A.L. Demain. Effect of medium composition on the maintenance of a recombinant plasmid in *Bacillus subtilis*. *Enzyme Microb. Technol.* **12**:330-336, 1990.
5. **Shoham, Y.**, and A.L. Demain. Stabilization of a plasmid-encoded LacZ phenotype in *Bacillus subtilis*. *Curr. Microbiol.* **20**:373-379, 1990.
6. **Shoham, Y.**, and A.L. Demain. Kinetics of loss of a recombinant plasmid in *Bacillus subtilis*. *Biotechnol. Bioeng.* **37**:927-935, 1991.
7. **Shoham, Y.**, E. Israeli, A.L. Sonenshein, and A.L. Demain. Inhibition of growth of *Bacillus subtilis* by recombinant plasmid pCED3. *Arch. Microbiol.* **156**:204-212, 1991.

8. **Shoham, Y.**, G. Stephanopoulos, and A.L. Demain. Effects of the β -lactamase gene orientation of the kanamycin-resistance gene in plasmid pCED3 on the growth of *Bacillus subtilis*. J. Ferment. Bioeng. **72**:244-248, 1991.
9. Neutra R., B-Z. Levi and **Y. Shoham**. Optimization of protein-production by the baculovirus expression vector system in shake flasks. Appl. Microbiol. Biotechnol. **37**:74-78, 1992.
10. **Shoham, Y.**, Z. Schwartz, A. Khasin, O. Gat, Z. Zosim and E. Rosenberg. Delignification of wood pulp by a thermostable xylanase from *Bacillus stearothersophilus* strain T-6. Biodegradation. **3**:207-218, 1992.
11. Khasin, A., I. Alchanati and **Y. Shoham**. Purification and characterization of xylanase from *Bacillus stearothersophilus* T-6. Appl. Environ. Microbiol **59**:1725-1730, 1993.
12. Lundgren, K. R., L. Bergkvist, S. Hogman, H. Joves, G. Eriksson, T. Bartfai, J. van der Laan, E. Rosenberg and **Y. Shoham**. Bleaching softwood pulp with Korsnas thermostable and alkaline stable xylanase T6 and lignox. Svensk Papperstidning/nordisk cellulosa **7**:40-42, 1993.
13. **Shoham, Y.**, Z. Zosim and E. Rosenberg. Partial decolorization of Kraft pulp at high temperature and at high pH values with an extracellular xylanase from *Bacillus stearothersophilus*. J. Biotechnol. **30**:123-131, 1993.
14. Bezalel, L., **Y. Shoham** and E. Rosenberg. Characterization and delignification activity of a thermostable α -L-arabinofuranosidase from *Bacillus stearothersophilus*. Appl. Microbiol. Biotechnol. **40**:57-62, 1993.
15. Lundgren, K. R., L. Bergkvist, S. Hogman, H. Joves, G. Eriksson, T. Bartfai, J. van der Laan, E. Rosenberg and **Y. Shoham**. TCF mill trial on softwood pulp with Korsnas thermostable and alkaline stable xylanase T-6. FEMS Microbiol. Rev. **13**:365-368, 1994.
16. Gat O., A. Lapidot, I. Alchanati, C. Regueros and **Y. Shoham**. Cloning and DNA sequence of the gene coding for *Bacillus stearothersophilus* T-6 xylanase. Appl. Environ. Microbiol. **60**:1889-1896, 1994.
17. Handelsman, T., and **Y. Shoham**. Production and characterization of an extracellular thermostable lipase from a *Bacillus* sp. J. Gen. Appl. Microbiol. **40**:435-443, 1994.
18. Gilead S. and **Y. Shoham**. Purification and characterization of a α -L arabinofuranosidase from *Bacillus stearothersophilus* T-6. Appl. Environ. Microbiol. **61**:170-174, 1995.
19. Yaron, S., E. Morag, E.A. Bayer, R. Lamed and **Y. Shoham**. Expression, purification and subunit-binding properties of cohesins 2 and 3 of the *Clostridium thermocellum* cellulosome. FEBS **360**:121-124, 1995.
20. Morag E., A. Lapidot, D. Govorko, R. Lamed, M. Wilchek, E. A. Bayer and **Y. Shoham**. Expression, purification and characterization of the cellulose-binding domain of the scaffoldin subunit from the cellulosome of *Clostridium thermocellum*. Appl. Environ. Microbiol. **61**:1980-1986, 1995

21. Fishman A., Z. Berk, and **Y. Shoham**. Large scale purification of xylanase T-6. Appl. Microbiol. Biotechnol. **44**: 88-93, 1995.
22. Tormo, J., R. Lamed, A. J. Chirino, E. Morag, E. A. Bayer, **Y. Shoham**, and T. A. Steitz. Crystal structure of a bacterial family-III cellulose-binding domain: a general mechanism for attachment to cellulose. EMBO J. **15**: 5739-5751, 1996.
23. Lapidot, A., A. Mechaly, and **Y. Shoham**. Overexpression and single step purification of a thermostable xylanase from *Bacillus stearothermophilus* T-6. J. Biotechnol. **51**:259-264, 1996.
24. Morag, E., S. Yaron, R. Lamed, **Y. Shoham**, and E. A. Bayer. Dissociation of the cellulosome of *Clostridium thermocellum* under nondenaturing conditions. J. Biotechnol. **51**:235-242, 1996.
25. Yaron, S., L. J. W. Shimon, F. Frolow, R. Lamed, E. Morag, **Y. Shoham**, and E. A. Bayer. Expression, purification, and crystallization of a cohesin domain from the cellulosome of *Clostridium thermocellum*. J. Biotechnol. **51**:243-249, 1996.
26. Shimon, L. J.W., F. Frolow, S. Yaron, R. Lamed, E. Morag, E. A. Bayer, and **Y. Shoham**. Crystallization and preliminary X-ray analysis of a cohesin domain of the cellulosome from *Clostridium thermocellum*. Acta Crystallogr. D. **53**:114-115, 1997.
27. Shimon, L. J.W., E. A. Bayer, E. Morag, R. Lamed, S. Yaron, **Y. Shoham**, and F. Frolow. Three-dimensional crystal structure of a cohesin domain of the cellulosome from *Clostridium thermocellum*. Structure **5**:381-390, 1997.
28. Teplitsky, A., H. Feinberg, R. Gilboa, A. Lapidot, A. Mechaly, V. Stojanoff, M. Capel, **Y. Shoham**, and G. Shoham. Crystallization and preliminary crystallographic analysis of the thermostable, alkaline tolerant xylanase from *Bacillus stearothermophilus* T-6. Acta Crystallogr. D. **53**:608-611, 1997.
29. Pages, S., A. Belaich, J.P. Beleich, E. Morag, R. Lamed, **Y. Shoham**, and E. A. Bayer. Species-specificity of the cohesin-dockerin interaction between *Clostridium thermocellum* and *Clostridium cellulolyticum*: predication of specificity determinants of the dockerin domain. Proteins **29**:517-527, 1997.
30. Mechaly, A., V. Belakhov, **Y. Shoham**, and T. Baasov. An efficient chemical-enzymatic synthesis of 4-nitrophenyl β -xylobioside: a chromogenic substrate for xylanases. Carbohydr. Res. **304**:111-115, 1997.
31. Bayer, E. A., H. Chanzy, R. Lamed, and **Y. Shoham**. Cellulose, cellulases and cellulosomes. Curr. Opin. Struct. Biol. **8**:548-557, 1998.
32. Bayer, E. A., L.J.W. Shimon, **Y. Shoham**, and R. Lamed. Cellulosomes-structure and ultrastructure. J. Structural Biology **124**:221-234, 1998.
33. Teplitsky, A., S. Shulami, S. Moryles, G. Zaide, **Y. Shoham**, and G. Shoham. Crystallization and preliminary X-ray analysis of α -D-glucuronidase from *Bacillus stearothermophilus* T-6. Acta Crystallogr. D **55**:869-872, 1999.
34. Boisset, C., Chanzy, H., Henrissat, B., Lamed, R., **Shoham, Y.** and Bayer, E. A. Digestion of crystalline cellulose substrates by the *Clostridium thermocellum* cellulosome: Structural and morphological aspects. Biochem. J. **340**:829-835, 1999.

35. **Shoham, Y.**, R. Lamed, and E.A. Bayer. The cellulosome concept as an efficient microbial strategy for the degradation of insoluble polysaccharides. *Trends in Microbiol.* **7**:275-281, 1999.
36. Ding, S-Y., E.A. Bayer, D. Steiner, **Y. Shoham**, and R. Lamed. A novel cellulosomal scaffoldin from *Acetivibrio cellulolyticus* which contain a Family 9 glycosyl hydrolase. *J. Bacteriol.* **181**:6720-6729, 1999.
37. Berdichevsky, Y., R. Lamed, D. Frenkel, U. Gophna, E. A. Bayer, S. Yaron, **Y. Shoham**, and I. Benhar. Matrix-assisted refolding of single-chain F_v -cellulose binding domain fusion proteins. *Protein Express. Purif.* **17**:249-259, 1999.
38. Shulami, S., O. Gat, A.L. Sonenshein, and **Y. Shoham**. The glucuronic acid utilization gene cluster from *Bacillus stearothermophilus* T-6. *J. Bacteriol.* **181**:3695-3704, 1999
39. Teplitsky, A., S. Shulami, S. Moryles, **Y. Shoham**, and G. Shoham. Crystallization and preliminary X-ray analysis of an intracellular xylanase from *Bacillus stearothermophilus* T-6. *Acta Crystallogr.* **D56**, 181-184, 2000.
40. Kaustov, L., S. Kababya, D. Schoucheng, T. Baasov, S. Gropper, **Y. Shoham**, and A. Schmidt. Direct identification of enzyme active site residues by solid phase REDOR NMR: Application to KDO8P syntase. *J. Am. Chem. Soc* **122**:2649-2650, 2000.
41. Mechaly, A., S. Yaron, H-P. Fierobe, A. Belaich, J-P. Belaich, R. Lamed, **Y. Shoham**, and E. A. Bayer. Cohesin-dockerin recognition in cellulosome assembly: experiment versus hypothesis. *Proteins* **39**:170-177, 2000.
42. Kauffmann, C., O. Shoseyov, E. A. Bayer, R. Lamed, **Y. Shoham**, and R. T. Mandelbaum. A novel methodology for enzymatic removal of atrazine from water by CBD-fusion protein immobilized on cellulose. *Environ. Sci. Technol.* **34**:1292-1296, 2000
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207. Alon Ben-David, Tsafrir Bravman, Mirjam Czjzek, Gil Shoham and Yuval Shoham. Glycosynthetic activity of XynB2, a GH52 α -glycosidase from *G. stearothermophilus* T-6. 21st Annual Symposium of The Protein Society, Boston, Massachusetts, July 21-25, 2007.
208. Alon Ben-David, Tsafrir Bravman, Mirjam Czjzek, Gil Shoham and Yuval Shoham. Glycosynthase activity of *G. stearothermophilus* GH52 α -xylosidase: specificity, kinetics and directed evolution. Gordon Research Conference on Cellulases and Cellulosomes, Procter Academy, Handover NH, July 29 – Aug 3, 2007. Outstanding Poster Award.
209. Shulami, S., I. Shner, O. Tabachnikov, E. Naveh, N. Lavid, and Y. Shoham. The arabinan-utilization elements in *Geobacillus stearothermophilus*: regulation and functional analysis. The 5th Congress of the Federation of the Israel Societies for Experimental Biology (FISEB) (ILANIT), Eilat, February, 2008.
210. Goldman Dan, Lavid Noa, Schwartz Alon, Danino Dganit and Shoham Yuval. Two active forms of *Zymomonas mobilis* levansucrase: A unique microfibril structure of the enzyme promotes the synthesis of high molecular weight levan. The 5th Congress of the Federation of the Israel Societies for Experimental Biology (FISEB) (ILANIT), Eilat, February, 2008.
211. Yakir Nataf, Sima Yaron, Frank Stahl, Raphael Lamed, Edward A. Bayer, Thomas-Helmut Scheper, Abraham L. Sonenshein and Yuval Shoham. Identification and characterization of carbohydrate ABC transporters in *Clostridium thermocellum*. The 5th Congress of the Federation of the Israel Societies for Experimental Biology (FISEB) (ILANIT), Eilat, February, 2008.
212. Ben-David A., Shoham G and Shoham Y. Directed evolution of a mutant beta xylosidase towards improved oligosaccharides synthesis activity. The 5th congress of the Federation of Israel Societies for Experimental Biology, Eilat, January 28-31,2008.
213. Ben-David A., Shoham G and Shoham Y. Directed evolution of a mutant beta-xylosidase towards improved oligosaccharides synthesis activity. Israel Society for Microbiology, Annual Meeting. Faculty of Agriculture, Rehovot, April 15, 2008.
214. Goldman Dan, Lavid Noa, Schwartz Alon, Danino Dganit and Shoham Yuval. Two active forms of *Zymomonas mobilis* levansucrase: A unique microfibril structure of the enzyme promotes the synthesis of high molecular weight levan. Gordon Research Conference on Biocatalysis. Rhode Island, July 2008.
215. Nataf Y., Yaron S., Stahl F., Lamed R., Bayer E.A., Scheper T.H., Sonenshein A.L. and Shoham Y. DNA Microarray Analyses of *Clostridium thermocellum* Continuous and Batch Cultures Reveal the Cellulosomal Genes Regulation. Israel Society for Microbiology, Annual Meeting, Ramat-Gan, Israel, March, 2009.
216. Nataf Y., Yaron S., Stahl F., Lamed R., Bayer E.A., Scheper T.H., Sonenshein A.L. and Shoham Y. DNA Microarray Analyses of the Cellulosomal Genes in *Clostridium thermocellum* Continuous and Batch Cultures. GRC: Cellulosomes, Cellulases & Other Carbohydrate Modifying Enzymes. NH, USA, June, 2009.

217. Ben-David A., Shoham G and Shoham Y. A universal screening assay for glycosynthases: directed evolution of glycosynthase XynB2(E335G) suggests a general path to enhance activity. Gordon Research Conference on Biocatalysis, Rhode Island, July 6-11, 2008.
218. Goldman D, Lavid N, Schwartz A, Danino D and Shoham Y. Two active forms of *Zymomonas mobilis* levansucrase: A unique microfibril structure of the enzyme promotes the synthesis of high molecular weight levan. Israel Society of Microbiology, Annual Meeting, Bar-Ilan, March 2009.
219. Goldman D, Lavid N, Shoham G, Danino D and Shoham Y. High cell density production, rapid purification and applications of the *Zymomonas mobilis* levansucrase. Carbohydrate Bioengineering Meeting, Naples, Italy, May 2009.
220. Goldman Dan (oral presentation). An enzymatic process for producing fruit juices with reduced calorie content and prebiotic fibers. Third European Workshop on Food Engineering and Technology, Naples, Italy, May 2009. (Chosen for the "Julius Maggi" Research Award).
221. Goldman D, Lavid N, Shoham G, Danino D and Shoham Y. *E. coli* high cell density culture for the production of *Zymomonas mobilis* levansucrase. Israel Society of Microbiology, Annual Meeting, Bar-Ilan, February 2010.
222. Nataf Y., Bahari L., Kahel-Raifer H., Borovok I., Lamed R., Bayer E.A., Sonenshein A.L. and Shoham Y. The Role of Extracytoplasmic Function (ECF) Sigma Factors in Regulating the Cellulosomal Genes in *Clostridium thermocellum*. Israel Society for Microbiology, Annual Meeting, Ramat-Gan, Israel, February, 2010.
223. Orly Tabachnikov, Arik Zehavi and Yuval Shoham. Functional analysis of galactan-utilization elements in *Geobacillus stearothermophilus*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, 2010.
224. O. Sikary , S. Shulami, Y. Grimpel, R. Volkinshtein, Y. Shoham. The Contribution of Acetyl Esterases to An Efficient Xylan Utilization in *Geobacillus stearothermophilus*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, 2010.
225. Nataf Y., Bahari L., Kahel-Raifer H., Borovok I., Lamed R., Bayer E.A., Sonenshein A.L. and Shoham Y. The Cellulosomal Genes in *Clostridium thermocellum* are regulated by extracytoplasmic function (ECF)-Like Sigma Factors. 11th international symposium of the Genetics of Industrial Microorganisms (GIM), Melbourne, Australia, June, 2010.
226. Goldman D, Lavid N, Shoham G, Danino D and Shoham Y. *E. coli* high cell density culture for the production of *Zymomonas mobilis* levansucrase. 14th International Biotechnology Symposium, Rimini, Italy, September 2010.
227. Vered Solomon, Orly Tabachnikov, Genady Zolotnitsky, Hadar Feinberg, Yuval Shoham, Gil Shoham. Altering substrate specificity via structure-based rational mutagenesis of GH10 xylanases from *Geobacillus stearothermophilus*. The 6th FISEB, Eilat, February 7-10, 2011.
228. Onit Alalouf, Yael Balaz, Gil Shoham, Yuval Shoham. Substrate specificity and mode of action of SGNH-hydrolase/acetilxylan esterase AXE2 from *Geobacillus stearothermophilus*. The 6th FISEB, Eilat, February 7-10, 2011.

229. Orly Tabachnikov, Vered Solomon, Hadar Feinberg, Gil Shoham, Yuval Shoham. The GH42 family β -galactosidase from *G. stearothermophilus* can function as a glycosynthase. The 6th FISEB, Eilat, February 7-10, 2011.
230. Onit Alalouf, Yael Balaz, Gil Shoham, Yuval Shoham. Substrate specificity and biochemical characterization of acetylxylan esterase/SGNH hydrolase from *Geobacillus stearothermophilus*. 9th Carbohydrate Bioengineering Meeting, Lisbon, Portugal, May 15-18, 2011.
231. Orly Tabachnikov, Vered Solomon, Hadar Feinberg, Gil Shoham, Yuval Shoham. Glycosynthetic activity and structure function analyses of GH42 β -galactosidase from *G. stearothermophilus*. 9th Carbohydrate Bioengineering Meeting, Lisbon, Portugal, May 15-18, 2011.
232. Smadar Shulami, Noa Lavid, Arik Zehavi, and Yuval Shoham. The role of XynX in cell-density regulation of the extracellular xylanase from *Geobacillus stearothermophilus*. 16th International Conference on *Bacilli*, the 6th International Conference on Gram-positive Microorganisms, Montecatini Terme, Tuscany, Italy, June 19-23, 2011.
233. Rachel Salama, Onit Alalouf, Orly Tabachnikov, and Yuval Shoam. Biochemical characterization of arabinopyranosidase from *Geobacillus stearothermophilus*. The 1st Conference of the Israel Society for Biotechnology Engineering, Leonardo City Tower Hotel, Ramat-Gan, Israel, December 25, 2011
234. Andy Sand, Yakir Nataf, Raphael Lamed, Edward A Bayer, and Yuval Shoham. Cellulose-utilization related genes are regulated by alternative σ -factors. The 1st Conference of the Israel Society for Biotechnology Engineering, Leonardo City Tower Hotel, Ramat-Gan, Israel, December 25, 2011
235. Arik Zehavi, Smadar Shulami, Noa Lavid, and Yuval Shoham. The role of XynX in quorum sensing regulation in *Geobacillus stearothermophilus*. The 1st Conference of the Israel Society for Biotechnology Engineering, Leonardo City Tower Hotel, Ramat-Gan, Israel, December 25, 2011
236. Rachel Salama, Onit Alalouf, Orly Tabachnikov, and Yuval Shoam. Biochemical analysis of GH27 β -arabinopyranosidase from *Geobacillus stearothermophilus*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, February 13-14, 2012.
237. Andy Sand, Yakir Nataf, Raphael Lamed, Edward A Bayer, and Yuval Shoham. A biomass sensing mechanism regulates cellulose utilization in *Clostridium thermocellum*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, February 13-14, 2012.
238. Noam Grimberg, Yuval Shoham, and Oded Béjà. Revealing novel glycoside hydrolases by contextual metagenomics. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, February 18-19, 2013.
239. Onit Alalouf, Hodya V. Solomon, Shifra Lansky, Gil Shoham, and Yuval Shoham. High resolution crystal structure of the acetylxylan esterase Axe2 from *Geobacillus stearothermophilus*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, February 18-19, 2013.

240. Rachel Salama, Hodya V. Solomon, Shifra Lansky, Gil Shoham, and Yuval Shoham. Structure-function study of GH27 β -arabinopyranosidase from *Geobacillus stearothermophilus*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, February 18-19, 2013.
241. Andy Sand, Evert K. Holwerda, Daniel G. Olson, Yakir Nataf, Ilya Borovok, Edward A. Bayer, Raphael Lamed, Lee R. Lynd, and Yuval Shoham. Regulation analysis of cellulose related genes by alternative σ factors in *Clostridium thermocellum*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, February 18-19, 2013.
242. Tal Zeltser and Yuval Shoham. Identification of growth-rate related regulatory elements of cellulosomal genes in *Clostridium thermocellum*. The Israel Society for Microbiology Annual Meeting, Bar Ilan University, February 18-19, 2013.
243. Onit Alalouf (Oral Presentation), Hodaya V. Solomon, Shifra Lansky, Gil Shoham, Yuval Shoham. High resolution crystal structure of acetylxylan esterase Axe2 from *Geobacillus stearothermophilus*. The 2013 Israel Crystallographic Association Annual Meeting. Technion, Haifa May 21, 2013.
244. Andy Sand (Oral Presentation), Evert K. Holwerda, Daniel G. Olson, Yakir Nataf, Ilya Borovok, Edward A. Bayer, Raphael Lamed, Lee R. Lynd, Yuval Shoham. Xylanase-coding genes in *Clostridium thermocellum* are up-regulated by the alternative σ -factor Sig6. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
245. Yael Balazs (Oral Presentation), Elina Lisitsin, Oshrat Carmiel, Gil Shoham, Yuval Shoham, Asher Schmidt. Quantifying and revealing critical unrecognized hydrophobic interactions in GH10 xylanases using ¹H NMR saturation transfer differences spectroscopy. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
246. Onit Alalouf (Oral Presentation), Hodaya V. Solomon, Shifra Lansky, Gil Shoham, Yuval Shoham. Structure-function studies of the acetylxylan esterase Axe2 from *Geobacillus stearothermophilus*. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
247. Tal Zeltzer (Oral Presentation), Yuval Shoham. Finding a needle in a hay stack – identifying regulatory proteins involved in cellulose and hemicellulose utilization in *Clostridium thermocellum*. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013. **Outstanding Oral Presentation Award**
248. Noam Grimberg (Oral Presentation), Oded Beja, Yuval Shoham. Detecting novel glycoside hydrolases from metagenomics libraries. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
249. Dan Goldman (Oral Presentation), Noa Lavid, Yuval Shoham. An enzymatic process for producing fruit juices with reduced calorie content and prebiotic fibers. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
250. Smadar Shulami, Noa Lavid, Arik Zehavi, Yuval Shoham. Multiple regulatory mechanisms control the expression of the xylanolytic system in *Geobacillus stearothermophilus*. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.

251. Smadar Shulami, Orly Tabachnikov, Yuval Shoham. Transporters and sensing systems for oligosaccharides in *Geobacillus stearothermophilus*. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
252. Rachel Salama, Hodaya V. Solomon, Shifra Lansky, Gil Shoham, Yuval Shoham. Structure-function study of Abp, a GH27 β -L-arabinopyranosidase. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
253. Orly Tabachnikov, Gil Shoham, Yuval Shoham. The GH42 family β -galactanase from *G. stearothermophilus* can function as a glycosynthase. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
254. Orly Tabachnikov, Hodaya V. Solomon, Hadar Feinberg, Gil Shoham, Yuval Shoham. Crystalization and structure-function studies of GH42 family β -galactosidase from *G. stearothermophilus*. The 17th European Carbohydrate Symposium (EuroCarb17), Tel Aviv, July 7-11, 2013.
255. Shulami Smadar, Orly Tabachnikov, and Yuval Shoham. Transporters and sensing systems for oligosaccharides in *Geobacillus stearothermophilus*. Gordon Research Conference on Cellulosomes, Cellulases & other carbohydrate modifying enzymes, Procter Academy, Handover NH, August 4-9, 2013. **Outstanding Poster Award.**
256. Sand Andy, Evert K. Holwerd, Daniel G. Olson, Yakir Nataf, Ilya Borovok, Edward A. Bayer, Raphael Lamed, Lee R. Lynd, and Yuval Shoham. Xylanase-coding genes in *Clostridium thermocellum* are up regulated by alternative sigma factor SigI6. Gordon Research Conference on Cellulosomes, Cellulases & other carbohydrate modifying enzymes, Procter Academy, Handover NH, August 4-9, 2013.
257. Tal Zeltzer (Oral Presentation) and Yuval Shoham. From gene regulation to consolidated bioprocessing-searching for transcriptional regulators of cellulosomal genes in *Clostridium thermocellum*. The 2nd Conference of the Israel Society for Biotechnology Engineering, Dan Hotel, Tel Aviv, Israel, December 1, 2013.
258. Andy Sand, Evert K Holwerda, Daniel G. Olson, Yakir Nataf, Ilya Borovok, Edward A. Bayer, Raphael Lamed, Lee R. Lynd, Yuval Shoham. Xylanase –coding genes in *Clostridium thermocellum* are up-regulated by the alternative σ -factor SigI6. The 2nd Conference of the Israel Society for Biotechnology Engineering, Dan Hotel, Tel Aviv, Israel, December 1, 2013.
259. Rachel Salama, Shifra Lansky, Hodaya V. Solomon, Gil Shoham, Yuval Shoham. Structure-function study of Abp, a GH27 β -L-arabinopyranosidase. The 2nd Conference of the Israel Society for Biotechnology Engineering, Dan Hotel, Tel Aviv, Israel, December 1, 2013.
260. Noam Grimberg, Oded Beja, Yuval Shoham. Detecting novel glycoside hydrolases from metagenomic libraries. The 2nd Conference of the Israel Society for Biotechnology Engineering, Dan Hotel, Tel Aviv, Israel, December 1, 2013.
261. Shifra Lansky, Onit Alalouf, Hodaya V. Solomon, Yuval Shoham, Gil Shoham. A unique octameric structure of Axe2, an intracellular acetyl-xylooligosaccharide esterase from *Geobacillus stearothermophilus*. The 7th Congress of the Federation of the Israel Societies for Experimental Biology, Eilat, February 10-13, 2014.
262. Roie Dann, Hodaya V. Solomon, Shifra Lansky, Alon Ben-David, Noa Lavid, Rachel Salama, Hay Dvir, Yuval Shoahm, Gil Shoham. Rational conversion of GH10 xylanases from glycosidases into glycosynthases. The 7th Congress of the

- Federation of the Israel Societies for Experimental Biology, Eilat, February 10-13, 2014.
263. Noam Grimberg, Oded Beja, Yuval Shoham. Detecting of novel glycoside hydrolases from metagenomic libraries. The 7th Congress of the Federation of the Israel Societies for Experimental Biology, Eilat, February 10-13, 2014.
 264. Melina Shamshoum, Sarah Morais, Yoav Barak, Jonathan Caspi, Yitzhak Hadar, Raphael Lamed, Yuval Shoham, David B. Wilson, Edward A. Bayer. Cellulase-xylanase synergy in designer cellulosomes for enhanced degradation of complex cellulolic substrate. The 7th Congress of the Federation of the Israel Societies for Experimental Biology, Eilat, February 10-13, 2014.
 265. Rachel Salama, Shifra Lansky, Gil Shoham, Yuval Shoahm. β -L-arabinofuranosidase from *Geobacillus stearothermophilus* T-6 belongs to a novel glycoside hydrolase family 127. The 7th Congress of the Federation of the Israel Societies for Experimental Biology, Eilat, February 10-13, 2014.
 266. Yuval Shoham, Rachel Salama, Shifra Lansky, Hodaya V. Solomon Gil Shoham. Strctural analysis of Abp, a GH27 β -L-arabinopyranosidase from *Geobacillus stearthremophilus*. The 7th Congress of the Federation of the Israel Societies for Experimental Biology, Eilat, February 10-13, 2014.
 267. Arik Zehavi, Noa Lavid, Shifra Lansky, Roie Dann, Gil Shoham, Yuval Shoham. Characterization or two family 1 glycoisde hydrolases from *Geobacillus stearothermophilus*. The 7th Congress of the Federation of the Israel Societies for Experimental Biology, Eilat, February 10-13, 2014.
 268. Noam Grimberg, Oded Beja, Yuval Shoham. Revealing novel glycoside hydrolases from metadata by genomic neighborhood approach based search algorithm. The Israel Society for Microbiology Annual Meeting, International Convention Center, Haifa, April 7, 2014.
 269. Rachel Salama, Shifra Lansky, Gil Shoham, Yuval Shoahm. β -L-arabinofuranosidase from *Geobacillus stearothermophilus* T-6 belongs to a novel glycoside hydrolase family 127. The Israel Society for Microbiology Annual Meeting, International Convention Center, Haifa, April 7, 2014.
 270. Arik Zehavi, Noa Lavid, Shifra Lansky, Roie Dann, Gil Shoham, Yuval Shoham. Strcture function analysis of two 6-phospho-glycosidases *Geobacillus stearothermophilus*. The Israel Society for Microbiology Annual Meeting, International Convention Center, Haifa, April 7, 2014.
 271. Tal Zeltzer, Yuval Shoham. Identifying novel regulatory proteins involved in biomass utilization gene expression in *Clostridium thermocellum*. The Israel Society for Microbiology Annual Meeting, International Convention Center, Haifa, April 7, 2014.
 272. Onit Alalouf, Rachel Salanma, Noa Lavid, Shifra Lansky, Gil Shoham, Yuval Shoham. A common octameric ancestor of a new carbohydrate esterases family. The Israel Society for Microbiology Annual Meeting, International Convention Center, Haifa, April 7, 2014. **Outstanding Poster Award**
 273. Olga Zhivin, Ilya Borovok, Ivan Munoz-Gutierrez, Tal Zeltzer, Andy Sand, Raphel Lamed, Yuval Shoham, Edward A. Bayer. Studies on the regulation mechanism of

- cellulosomal enzymes in *Clostridium thermocellum*. The Israel Society for Microbiology Annual Meeting, International Convention Center, Haifa, April 7, 2014
274. Shifra Lansky (Oral Presentation), Onit Alalouf, Hodaya V. Solomon, Yuval Shoham and Gil Shoham. A unique octameric structure of Axe2, an intracellular acetyl-xylooligosaccharide esterase from *Geobacillus stearothermophilus* The 2014 Israel Crystallographic Association Annual Meeting. Ben Gurion University, Beer Sheva, May 20, 2014. **Outstanding Presentation Award**
 275. Noam Grimberg, Yuval Shoham. Metagenome mining of novel enzymes for the bioethanol industry. The 2nd Solar Fuel Workshop, Royal Rimonim Hotel, The Dead Sea, Israel, February 16-19, 2015.
 276. Tal Zeltzer and Yuval Shoham. Revealing novel regulatory elements of cellulosomal genes in *Clostridium thermocellum*. The 2nd Solar Fuel Workshop, Royal Rimonim Hotel, The Dead Sea, Israel, February 16-19, 2015.
 277. Shifra Lansky, Onit Alalouf, Rachel Salama, Hodaya V. Solomon, Yuval Shoham and Gil Shoham. The unique oligomeric state of Axe2, an intracellular acetyl-xylan esterase from *Geobacillus stearothermophilus*. The 2nd Solar Fuel Workshop, Royal Rimonim Hotel, The Dead Sea, Israel, February 16-19, 2015.
 278. Rachel Salama, Shifra Lansky, Gil Shoham and Yuval Shoham. Characterization of a novel β -L-arabinofuranosidase in *Geobacillus stearothermophilus*. The 2nd Solar Fuel Workshop, Royal Rimonim Hotel, The Dead Sea, Israel, February 16-19, 2015.
 279. Andy Sand, Evert K. Holwerda, Daniel G. Olson, Yakir Nataf, Ilya Borovok, Edward A. Bayer, Raphael Lamed, Lee R. Lynd and Yuval Shoham. Alternative σ factors are involved in the regulation of xylanase and pectinase-coding genes in *Clostridium thermocellum*. The 2nd Solar Fuel Workshop, Royal Rimonim Hotel, The Dead Sea, Israel, February 16-19, 2015.
 280. Smadar Shulami, Abraham L. Sonenshein and Yuval Shoham. Towards isolation of a quorum-sensing factor regulating the extracellular xylanase gene from *Geobacillus stearothermophilus*. The 2nd Solar Fuel Workshop, Royal Rimonim Hotel, The Dead Sea, Israel, February 16-19, 2015.
 281. Arik Zehavi, Shifra Lansky, Gil Shoham and Yuval Shoham. Structure function analysis of bifunctional 6-phospho-glycosidase from *Geobacillus stearothermophilus*. The 2nd Solar Fuel Workshop, Royal Rimonim Hotel, The Dead Sea, Israel, February 16-19, 2015.