

January, 2014

## **CURRICULUM VITAE AND LIST OF PUBLICATIONS**

### **1. Personal Details**

Name: **EITAN BEN-DOV**  
Regular Military Service: Feb 1983 - Feb 1985  
Address at work: Achva Academic College, M.P. Shikmim, 79800 and  
The National Institute for Biotechnology in the Negev,  
Ben-Gurion University of the Negev, P.O. Box 653,  
Be'er-Sheva, Israel 84105  
E-mail: etn@bgu.ac.il

### **2. Education**

Post-Doctoral Training 1998 – 2000:

Ben-Gurion University of the Negev, Department of Life Sciences.  
Transgenic cyanobacteria expressing combinations of genes for  $\delta$ -endotoxin  
and trypsin modulating oostatic hormone as pesticide-free alternatives  
for biological control of mosquitoes.  
Supervisors: Prof. Arie Zaritsky and Prof. Sammy Boussiba.

Post-Doctoral Training 1996 – 1998:

Ben-Gurion University of the Negev, Department of Life Sciences.  
PCR screening for *cry*-group genes from field-collected strains of BT.  
Supervisors: Prof. Yoel Margalith and Prof. Arie Zaritsky.

Ph.D. 1990 – 1995: Ben-Gurion University of the Negev, Department of Life Sciences.

Thesis: Mosquito larvicidal activity of *Escherichia coli* with combinations of  
genes from *B. thuringiensis* subsp. *israelensis*.  
Supervisors: Prof. Arie Zaritsky and Prof. Sammy Boussiba.

M.Sc. 1987 – 1990: Ben-Gurion University of the Negev Department of Life Sciences.

Thesis: Bioencapsulation of *Bacillus thuringiensis* subsp. *israelensis* (BTI) in  
*Tetrahymena pyriformis* and in BTI-killed pupae of *Aedes aegypti*.  
Supervisors: Prof. Ze'ev Barak and Prof. Arie Zaritsky.

B.Sc. 1976 – 1980: The Institute of Veterinary Medicine Tbilisi, Georgia.

### **3. Employment History**

2012-present Associate Professor, Ahva Academic College  
2003-2012 Senior lecturer, Ahva Academic College  
2003-present Adjunct Research Scientist, National Institute for Biotechnology and Department of  
Biotechnology Engineering, Ben-Gurion University of the Negev, Beer-Sheva, Israel

- 2007-2010 Adjunct Senior Lecturer, Department of Life Sciences, Faculty of Natural Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel
- 2004/5 Adjunct Lecturer, Department of Biotechnology Engineering, Faculty of Engineering Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel
- 2003/4 Adjunct Lecturer, The College of Judea and Samaria, Ariel
- 1998-2003 Adjunct Lecturer, Department of Life Sciences, Faculty of Natural Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel
- 1997-1998 Instructor in Cell Biology; Ahva Academic College
- 1987-1995 Instructor in Biochemistry and Cell Biology; Department of Life Sciences, Faculty of Natural Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel
- 1986-1987 Technician in Ecology research laboratory; Department of Life Sciences, Faculty of Natural Sciences, Ben-Gurion University of the Negev, Beer-Sheva, Israel

#### 4. Professional Activities

##### (a) Professional functions outside universities/institutions

- 2000-2002 Co-Initiator and Research Program Leader, Start-Up Enterprise, Bio San Ltd. (venture capital; \$350,000)

##### (b) Professional consulting

- 2000-2005 Zohar Dalia (unit Bio Dalia) Ltd., Kibbutz Dalia, Israel.  
Subject - Bacterial growth of *B. thuringiensis* subsp. *israelensis*
- 2004-2008 Ramat-Hovav Industrial Council. Subject - Quantification and inhibition of sulphate-reducing bacteria growth in industrial wastewater

##### (c) Membership in scientific societies

- 1992- Israel Society of Microbiology
- 1994- The Entomological Society of Israel
- 2006- International Society for Microbial Ecology

##### (d) Editorial board in scientific periodicals

- 2008- The Open Toxinology Journal
- 2009-2010 **Guest Editor** of the Special issue "Entomopathogenic bacterial toxins as biological control agents" *The Open Toxinology Journal*, 2010, **3**: 82-171.

##### (e) Refereeing manuscripts for international peer-reviewed periodicals

*Environmental Microbiology; Microbial Ecology; Journal of Invertebrate Pathology; Peptides; Gene; BMC Microbiology; Journal of Applied Microbiology; Antonie van Leeuwenhoek Journal of Microbiology; Microbial Biotechnology; FEMS Microbiology Letters; Acta Tropica; Letters in Applied Microbiology; Entomologia Experimentalis et Applicata; World Journal of Microbiology and Biotechnology; Ecotoxicology and Environmental Safety; The Protein Journal; BMC Research Notes; Recent Patents on DNA and Gene Sequence; The Open Toxinology Journal; Pest Technology; New Zealand Journal of Crop and Horticultural Science; African Journal of Biotechnology*

#### 5. Educational Activities

(a) Courses taught:

General Microbiology	second year students, Ahva Academic College (2004-present)
Microbiology Laboratory	third year students, Ahva Academic College (2011-present)
Introduction to Biotechnology	third year students, Ahva Academic College (2011-present)
Genetic Engineering	third year students, Ahva Academic College (2010-present)
Bioweapon and Bioterrorism	second year students, Ahva Academic College (2005-present)
Microbial Control of Pests	third year students, Ahva Academic College (2007-present)
General Microbiology	second year students, Departments of Life Sciences, Ben-Gurion University of the Negev (2007-2010)
Microbial Control of Pests	four year students, Department of Biotechnology Engineering, Ben-Gurion University of the Negev (2004)
Genetic Engineering	Biotechnology program for professional training, The College of Judea and Samaria, Ariel (2002)
Microbial Control of Pests	third year and Graduate students, Departments of Life Sciences, Ben-Gurion University of the Negev (1998-2003)
Biological weapons	teenagers, Accessibility to Higher Education, Ben-Gurion University of the Negev (2008)

(b) Collaborative Research students (with either Prof. Arieh Zaritsky or Dr. Ariel Kushmaro):

1. Gal Nissan

1996-1998 M.Sc. "Organization of the large plasmid of *B. thuringiensis* subsp. *israelensis*"

2. Rachel Zarbiv

1997-1998 B.Sc. project student. "Mosquito larvicidal activity of *Escherichia coli* with combination of genes from *B. thuringiensis* subsp. *israelensis*"

3. Michal Meir

1997-1998 B.Sc. project student. "Dependence of *B. thuringiensis* subsp. *israelensis* toxicity on feeding behavior of mosquito larvae"

4. Deepak Saxena

1997-1999 Post-doc. "Biological control of insects by combinations of genes from *Bacillus thuringiensis* and Trypsin Modulating Oogenesis Factor (TMOF) in heterologous organisms"

5. Qingfeng Wang

1997-1998 Ph.D. "Enfluence of ingested particles on susceptibility of insect larvae to *Bacillus thuringiensis* toxicity"

6. Vadim Khasdan

1998-2002 Ph.D. "Toxicity and synergism in transgenic *Escherichia coli* expressing four genes from *Bacillus thuringiensis* subsp. *israelensis*"

7. \* Maria Menin

2003-2005 M.Sc. "Larvicidal activity of transgenic *Escherichia coli* expressing combinations of toxin genes from *Bacillus thuringiensis* to susceptible Lepidoptera"

8. Nadin Baranes

- 2003-2005 M.Sc. "An attempt to improve mosquito larvicidal activity of *Bacillus thuringiensis* subsp. *israelensis*"
9. Moshe Harel  
2003-2005 M.Sc. "Novel marine *Thraustochytrids* isolated from mucus of the coral *Fungia granulosa*"
10. Netta Kooperman  
2004-2006 M.Sc. "Coral mucus-associated bacterial communities from natural and aquarium environments"
11. Ronen Gruber  
2004-2006 M.Sc. "Changes in microbial diversity in industrial wastewater evaporation ponds following artificial salination"
12. Gilat Moran  
2004-2005 B.Sc. project student. "Growth of desert microorganisms by novel technique"
13. Hadas Artzi  
2005-2006 B.Sc. project student. "Extraction of novel antibiotics produced by field bacteria found in the Negev desert"
14. Shmuel Cohen  
2002-2006 Ph.D. "Targeted delivery of genetically conjugated Cyt1Aa from *Bacillus thuringiensis israelensis* into myeloma model cells"
15. \* Zacharia Ngalo Otieno-Ayayo  
2002-2008 Ph.D. "Expression of *cry11Aa* from *Bacillus thuringiensis* subsp. *israelensis* in protease deficient *Escherichia coli* mutants"
16. Orit Barneah  
2006-2008 PostDoc "Characterization of Black Band Disease in Red Sea stony corals"
17. Dafna Zeevi Ben Yosef  
2006-08 PostDoc "*Amorphus coralli* gen. nov., sp. nov., a marine bacterium isolated from coral mucus, belonging to the order *Rhizobiales*"
18. Rasoulouniriana Diana  
2007-2009 M.Sc. "Identification and characterization of a novel cyanobacterium isolated from Red Sea coral Black Band Disease"
19. Eyal Ben-David  
2007-2009 M.Sc. "Removal of organic matter and microbial characterization in pretreatment MBR system for RO sea water desalination"
20. Nachshon Siboni  
2005-2010 Ph.D. "Global distribution and diversity of coral-associated Archaea and their possible role in the coral holobiont nitrogen cycle"
21. Marina Krivorot  
2007-2010 Ph.D. "Biofilm formation and seasonal fluctuation of microbial diversity in membrane distillation desalination systems"
22. Ophir Zisman  
2009-2010 B.Sc. project student. "Correlation between sulfide production and Sulfate Reducing Bacteria using qPCR"
23. Nithyanand Paramasivam

- 2010-2011 PostDoc “Bacterial consortium of *Millepora* sp. exhibiting White pox like syndrome from the Gulf of Eilat”
24. Itay Bar-Or  
2008-present Integrated route M.Sc.-Ph.D. “Anaerobic methane oxidation in Lake Kinneret”
25. Luba Arotsker  
2008-present Integrated route M.Sc.-Ph.D. “Black Band Disease associated cyanobacteria in Red Sea *Favia* sp. corals”
26. Moran Zangi  
2009-2013 Ph.D. “Biodegradation of brominated flame retardants by microbial consortium”
27. Nir Zilberberg  
2010-2011 B.Sc. project student. “Biocides to control sulfide production by Sulfate Reducing Bacteria”
28. Ophir Zisman  
2010-2013 M.Sc. “Synergistic interactions between different biocides to inhibit sulfide production of Sulfate Reducing Bacteria”
29. Amatzia Wilk  
2012-present M.Sc. “Characterization of indicator organisms and pathogens in domestic greywater”
30. Tal Levi  
2012-present M.Sc. “Isolation and identification of Cry8Ra delta-endotoxin as potential insecticide against *Capnodis* Beetles
31. Pradeep Kumar  
2012-present PostDoc “Isolation and identification of *Bacillus thuringiensis* genes encoding Cry toxins against pest beetle *Capnodis tenebrionis*”
32. Bella Levitin  
2012-present PostDoc “*Arabidopsis thaliana* as a model system to combat *Capnodis tenebrionis* – coleopteran pest of mediterranean-stricken stone fruit trees”

**\*, Formal, Scientific consultant (#s 7 & 15)**

## **6. Awards, Honors, Research Fellowships**

### (a) Honors, Citation Awards

- Manfred Ashner Prize from the Israel Society of Microbiology for research on bioencapsulation of BTI for biological control (1994).
- Award for distinction from Ben-Gurion University of the Negev (1994).

### (b) Fellowships

- Ben-Gurion Scholarship from Ministry of Science and Technology (1993-1994; 36,000 NIS).
- Eshkol-Scholarship from Ministry of Science and Technology (1998-2000; 180,000 NIS).

## Session Chairman

- At the 18<sup>th</sup> Conference of the Israel Society of Entomology, held on May 18, 2000, in Beit Dagan, Israel.
- At the 25<sup>th</sup> Conference of the Israel Society of Entomology, held on October 18, 2006, in Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem, Revovot, Israel.

## 7. Scientific Publications

### a) Chapters in collective volumes

1. Zaritsky, A., Zalkinder, V., **Ben-Dov, E.** & Barak, Z. (1991). Bioencapsulation of the  $\delta$ -endotoxin of *Bacillus thuringiensis* var. *israelensis* and its delivery to *Aedes aegypti* larvae by the infusorian *Tetrahymena pyriformis*. **1**: pp. 39-44. Proc. The 1st Asia-Pacific Conf. Entomol. (Nov., 1989, Chiang Mai Thailand).
2. Khawaled, K., **Ben-Dov, E.**, Barak, Z. & Zaritsky, A. (1991). The fate of *Bacillus thuringiensis* var. *israelensis* (BTI) in BTI-killed pupae. **2**: pp. 522-528. Proc. The 1st Asia-Pacific Conf. Entomol. (Nov., 1989, Chiang Mai Thailand).
3. Wu, X., Vennison, J., **Ben-Dov, E.**, Zaritsky, A. & Boussiba, S. (1998). Expression of mosquitocidal *Bacillus thuringiensis* subsp. *israelensis*  $\delta$ -endotoxin genes in filamentous cyanobacterium *Anabaena* PCC 7120. pp. 176. in C. Elmerich, A. Kondorosi, and W.E. Newton, (eds.), *Biological Nitrogen Fixation for the 21st Century*. Kluwer Academic Publishers.
4. Margalith, Y. & **Ben-Dov, E.** (2000). Biological Control by *Bacillus thuringiensis* subsp. *israelensis*. Chapter **8**, pp. 243-301, in J. E. Rechcigl and N. A. Rechcigl (eds.), *Insect Pest Management: Techniques for Environmental Protection*. **CRC Press LLC**, Boca Raton, FL.
5. Margalith, Y., Zaritsky, A., Barak, Z., Manasherob, R., Schneider, B. & **Ben-Dov, E.** (2000). *Bacillus thuringiensis israelensis* (Bti) in integrated biological control (IBC) of mosquitoes and black flies – A global view. pp. 84-98. Proc. of the 13<sup>th</sup> European SOVE Meeting, Society for Vector Ecology. (Sept., 2000, Belek, Antalya Turkey).
6. Margalith, Y. & **Ben-Dov, E.** (2001). Biological methods of dipteran insect control by means *Bacillus thuringiensis* ssp. *israelensis*. pp. 246-270, in V. Glupov (ed.), *Insect Pathogens: structural and functional aspects*. Publisher House “Circle year” Moscow Russia. (in Russian).
7. Wirth, M., Walton, W. E., Manasherob, R., Khasdan, V., **Ben-Dov, E.**, Boussiba, S. & Zaritsky, A. (2004). Larvicidal activities of transgenic *Escherichia coli* against susceptible and *Bacillus thuringiensis* subsp. *israelensis*-resistant strains of *Culex quinquefasciatus*. IOBC wprs Bulletin **27**: 171-175. Proc. of the 1<sup>st</sup> meeting on Ecological Impact of Genetically Modified Organisms. (Nov., 2003, Prague, Czech Republic).
8. Zaritsky, A. & **Ben-Dov, E.** (2008). Transgenic *Escherichia coli* co-expressing *cry1Ca* and *cry1Ac*: toxicity and synergy against three agricultural pests. IOBC wprs Bulletin **33**: 139-144. Proc. of the 3<sup>rd</sup> meeting on Ecological Impact of Genetically Modified Organisms. (May., 2007, Warsaw, Poland).
9. Siboni, N., Ben-Dov, E., Sivan, A. & Kushmaro, A. (2008). Coral-associated ammonium oxidizing Crenarchaeota and their role in the coral holobiont nitrogen cycle. Proc. of the 11<sup>th</sup> International Coral Reef Symposium, (7-11 July, Ft. Lauderdale, Florida).
10. Itzko, M., **Ben-Dov, E.**, Rabinovitch, A. & Zaritsky, A. (2011). Tandem DNA Repeats: Generation and Propagation in the Microgene Polymerization Reaction and *in vivo*. Chapter **6**, pp. 175-202, in

b) Refereed articles in scientific journals

1. Khawaled, K., Zaritsky, A., **Ben-Dov, E.** & Barak, Z. (1989). Feeding behavior of *Aedes aegypti* larvae and fate of *Bacillus thuringiensis* var. *israelensis* (*B.t.i.*) in *Bti*-killed pupae. *Isr. J. Entomol.* **23**: 91-93.
2. Khawaled, K., **Ben-Dov, E.**, Zaritsky, A. & Barak, Z. (1990). The fate of *Bacillus thuringiensis* var. *israelensis* in *B. thuringiensis* var. *israelensis*-killed pupae. *J. Invertebr. Pathol.* **56**: 312-316.
3. Zaritsky, A., Zalkinder, V., **Ben-Dov, E.** & Barak, Z. (1991). Bioencapsulation and delivery to mosquito larvae of *Bacillus thuringiensis* H14 toxicity by *Tetrahymena pyriformis*. *J. Invertebr. Pathol.* **58**: 455-457.
4. Zaritsky, A., **Ben-Dov, E.**, Barak, Z. & Zalkinder, V. (1992). Digestibility by and pathogenicity of the protozoa *Tetrahymena pyriformis* to larvae of *Aedes aegypti*. *J. Invertebr. Pathol.* **59**: 332-334.
5. **Ben-Dov, E.**, Zalkinder, V., Shagan, T., Barak, Z. & Zaritsky, A. (1994). Spores of *Bacillus thuringiensis* serovar *israelensis* as tracers for ingestion rates by *Tetrahymena pyriformis*. *J. Invertebr. Pathol.* **63**: 220-222.
6. Manasherob, R., **Ben-Dov, E.**, Zaritsky, A. & Barak, Z. (1994). Protozoan-Enhanced toxicity of *Bacillus thuringiensis* var. *israelensis*  $\delta$ -endotoxin against *Aedes aegypti* larvae. *J. Invertebr. Pathol.* **63**: 244-248.
7. <sup>§</sup>**Ben-Dov, E.**, Boussiba, S. & Zaritsky, A. (1995). Mosquito larvicidal activity of *Escherichia coli* with combinations of genes from *Bacillus thuringiensis* subsp. *israelensis*. *J. Bacteriol.* **177**: 2851-2857.
8. **Ben-Dov, E.**, Einav, M., Peleg, N., Boussiba, S. & Zaritsky, A. (1996). Restriction map of the 125-kilobase of *Bacillus thuringiensis* subsp. *israelensis* carrying the genes that encode delta-endotoxins active against mosquito larvae. *Appl. Environ. Microbiol.* **62**: 3140-3145.
9. Manasherob, R., **Ben-Dov, E.**, Margalit, J., Zaritsky, A. & Barak, Z. (1996). Raising activity of *Bacillus thuringiensis* var. *israelensis* against *Anopheles stephensi* larvae by encapsulation in *Tetrahymena pyriformis* (Hymenostomatida: Tetrahymenidae). *J. Am. Mosq. Control Assoc.* **12**: 627-631.
10. Wu, X., Vennison, S.J., Liu, H., **Ben-Dov, E.**, Zaritsky, A. & Boussiba, S. (1997). Mosquito larvicidal activity of transgenic *Anabaena* strain PCC 7120 expressing combinations of genes from *Bacillus thuringiensis* subsp. *israelensis*. *Appl. Environ. Microbiol.* **63**: 4971-4975.
11. **Ben-Dov, E.**, Zaritsky, A., Dahan, E., Barak, Z., Sinai, R., Manasherob, R., Khameraev, A., Troyetskaya, A., Dubitsky, A., Berezina, N. & Margalith, Y. (1997). Extended screening by PCR for seven *cry*-group genes from field-collected strains of *Bacillus thuringiensis*. *Appl. Environ. Microbiol.* **63**: 4883-4890.
12. Manasherob, R., **Ben-Dov, E.**, Zaritsky, A. & Barak, Z. (1998). Germination, growth, and sporulation of *Bacillus thuringiensis* subsp. *israelensis* in excreted food vacuoles of the protozoan *Tetrahymena pyriformis*. *Appl. Environ. Microbiol.* **64**: 1750-1758.
13. **Ben-Dov, E.**, Dahan, E., Zaritsky, A., Barak, Z., Sinai, R., Manasherob, R., Khameraev, A., Troyetskaya, A., Dubitsky, A., Berezina, N., & Margalith, Y. (1998). Novel *cry*-type genes detected by extended PCR screening from field-collected strains of *Bacillus thuringiensis*. *Isr. J. Entomol.* **32**: 163-169.

14. **Ben-Dov, E.**, Wang, Q., Zaritsky, A., Manasherob, R., Barak, Z., Schneider, B., Khameraev, A., Baizhanov, M., Glupov, V. & Margalith, Y. (1999). Multiplex PCR screening to detect *cry9* genes in *Bacillus thuringiensis* strains. *Appl. Environ. Microbiol.* **65**: 3714-3716.
15. **Ben-Dov, E.**, Nissan, G., Peleg, N., Manasherob, R., Boussiba, S. & Zaritsky, A. (1999). Refined, circular restriction map of the *Bacillus thuringiensis* subsp. *israelensis* plasmid carrying the mosquito larvicidal genes. *Plasmid* **42**: 186-191.
16. Liu, Z., Sun, M., Yu, Z., Zaritsky, A., **Ben-Dov, E.** & Manasherob, R. (1999). Preliminary study of P19 gene from *Bacillus thuringiensis* subsp. *israelensis*. *Wei Sheng Wu-Xuebao* **39**: 114-119 (in Chinese; [Abstract in English in PubMed, PMID: 12555414]).
17. Liu, Z., Sun, M., Chen, Y., Yu, Z., Manasherob, R., **Ben-Dov, E.** & Zaritsky, A. (1999). The influence of the 20 kDa protein from *Bacillus thuringiensis* subsp. *israelensis* on the cytolytic activity of CytA. *Acta Genetica Sinica* **26**: 81-86 (in Chinese; [Abstract in English in PubMed, PMID: 10375855]).
18. Boussiba, S., Wu, X., **Ben-Dov, E.**, Zarka, A. & Zaritsky, A. (2000). Nitrogen-fixing cyanobacteria as gene delivery system for expressing mosquitocidal toxins of *Bacillus thuringiensis* ssp. *israelensis*. *J. Appl. Phycol.* **12**: 461-467.
19. <sup>§</sup>**Ben-Dov, E.**, Manasherob, R., Zaritsky, A., Barak, Z. & Margalith, Y. (2001). PCR Analysis of *cry7* Genes in *Bacillus thuringiensis* by the Five Conserved Blocks of Toxins. *Curr. Microbiol.* **42**: 96-99.
20. Myasnik, M., Manasherob, R., **Ben-Dov, E.**, Zaritsky, A., Margalith, Y. & Barak, Z. (2001). Comparative Sensitivity to UV-B Radiation of two *Bacillus thuringiensis* subspecies and other *Bacillus* sp. *Curr. Microbiol.* **43**: 140-143.
21. Manasherob, R., Zaritsky, A., **Ben-Dov, E.**, Saxena, D., Barak, Z. & Einav, M. (2001). Effect of accessory proteins P19 and P20 on cytolytic activity of Cyt1Aa from *Bacillus thuringiensis* subsp. *israelensis* in *Escherichia coli*. *Curr. Microbiol.* **43**: 355-364.
22. Lluisma, A. O., Karmacharya, N., Zarka, A., **Ben-Dov, E.**, Zaritsky, A. & Boussiba, S. (2001). Suitability of *Anabaena* PCC7120 expressing mosquitocidal toxin genes from *Bacillus thuringiensis* subsp. *israelensis* for biotechnological application. *Appl. Microbiol. Biotechnol.* **57**: 161-166
23. Khasdan, V., **Ben-Dov, E.**, Manasherob, R., Boussiba, S. & Zaritsky, A. (2001). Toxicity and synergism in transgenic *Escherichia coli* expressing four genes from *Bacillus thuringiensis* subsp. *israelensis*. *Environ. Microbiol.* **3**: 798-806.
24. Saxena, D., **Ben-Dov, E.**, Manasherob, R., Boussiba, S. & Zaritsky, A. (2002). A UV tolerant mutant of *Bacillus thuringiensis* subsp. *kurstaki* producing melanin. *Curr. Microbiol.* **44**: 25-30.
25. Manasherob, R., **Ben-Dov, E.**, Boussiba, S., Wu, X.-Q., & Zaritsky, A. (2002). Protection of heterologous *Bacillus thuringiensis* subsp. *israelensis* toxin from UV-B in *Anabaena* PCC 7120. *Curr. Microbiol.* **45**: 217-220.
26. Berry, C., O'Neil, S., **Ben-Dov, E.**, Jones, A.F., Murphy, L., Quail, M.A., Holden, M.T.G., Harris, D., Zaritsky, A., & Parkhill, J. (2002). Complete sequence and organization of pBtoxis, the toxin-coding plasmid of *Bacillus thuringiensis* subsp. *israelensis*. *Appl. Environ. Microbiol.* **68**: 5082-5095.
27. <sup>§</sup>**Ben-Dov, E.**, Wang, Q., Saxena, D., Manasherob, R., Boussiba, S. & Zaritsky, A. (2003). Ingested particles reduce susceptibility of insect larvae to *Bacillus thuringiensis* toxicity. *J. Appl. Entomol.* **127**:146-152.



28. Manasherob, R., Ngalo Otieno-Ayayo, Z., §**Ben-Dov, E.**, Miaskovsky, R., Boussiba, S., & Zaritsky, A. (2003). Enduring toxicity of transgenic *Anabaena* PCC 7120 expressing mosquito larvicidal genes from *Bacillus thuringiensis* subsp. *israelensis*. *Environ. Microbiol.* **5**: 997-1001.
29. Khasdan, V., **Ben-Dov, E.**, Manasherob, R., Boussiba, S. & Zaritsky, A. (2003). Mosquito larvicidal activity of transgenic *Anabaena* PCC 7120 expressing toxin genes from *Bacillus thuringiensis* subsp. *israelensis*. *FEMS Microbiol. Lett.* **227**: 189-195.
30. Manasherob, R., Zaritsky, A., Metzler, Y., **Ben-Dov, E.**, Itzko, M., & Fishov, I. (2003). Compaction of the *Escherichia coli* Nucleoid by Cyt1Aa from *Bacillus thuringiensis* subsp. *israelensis*. *Microbiology* **149**: 3553-3564.
31. Nisnevitch, M., Cohen, S., **Ben-Dov, E.**, Zaritsky, A., Sofer, Y., & Cahan, R. (2006). Cyt2Ba of *Bacillus thuringiensis israelensis*: activation by putative endogenous protease. *Biochem. Biophys. Res. Commun.* **344**: 99–105.
32. Kramarsky-Winter, E., A., Harel, M., Siboni, N., **Ben Dov, E.**, Brickner, I., Loya, Y., & Kushmaro, (2006). Identification of a protist-coral association and its possible ecological role. *Mar. Ecol. Prog. Ser.* **317**: 67-73.
33. Manasherob, R., Itzko, M., Baranes-Sela, N., **Ben-Dov, E.**, Berry, C., & Zaritsky, A. (2006). Cyt1Ca from *Bacillus thuringiensis* subsp. *israelensis*: production in *Escherichia coli* and comparison of its biological activities with other Cyt-like proteins. *Microbiology* **152**: 2651-2659.
34. **Ben-Dov, E.**, Shapiro, O.H., Siboni, N., & Kushmaro, A. (2006). Advantage of using inosine at the 3'-termini of 16S rRNA gene universal primers for the study of microbial diversity. *Appl. Environ. Microbiol.* **72**: 6902-6906.
35. Wirth, M.C., Zaritsky, A., **Ben-Dov, E.**, Manasherob, R., Khasdan, V., Boussiba, S., & Walton, W.E. (2007). Cross-resistance spectra of *Culex quinquefasciatus* resistant to mosquitocidal toxins of *Bacillus thuringiensis* toward recombinant *Escherichia coli* expressing genes from *B. thuringiensis* ssp. *israelensis*. *Environ. Microbiol.* **9**: 1393-1401.
36. Barneah, O., **Ben-Dov, E.**, Kramarsky-Winter, E., & Kushmaro, A. (2007). Characterization of black band disease in red sea stony corals. *Environ. Microbiol.* **9**: 1995-2006.
37. **Ben-Dov, E.**, Brenner, A., & Kushmaro, A. (2007). Quantification of sulfate-reducing bacteria in industrial wastewater by real-time PCR using *dsrA* and *apsA* genes. *Microb. Ecol.* **54**: 439-451.
38. Cohen, S., Cahan, R., **Ben-Dov, E.**, Nisnevitch, M., Zaritsky A., & Firer, M.A. (2007). Specific targeting to murine myeloma cells of Cyt1Aa toxin from *Bacillus thuringiensis* subspecies *israelensis*. *J. Biol. Chem.* **282**: 28301-28308.
39. Kooperman, N., **Ben-Dov, E.**, Kramarsky-Winter, Barak, Z., & Kushmaro, A. (2007). Coral mucus associated bacterial communities from natural and aquarium environments. *FEMS Microbiol. Lett.* **276**: 106-113.
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51. **Ben-Dov, E.**, Zeevi Ben-Yosef, D., Pavlov V., & Kushmaro, A. (2009). *Corynebacterium maris* sp. nov., a marine bacterium isolated from the mucus of the coral *Fungia granulosa*. *Int. J. Syst. Evol. Microbiol.* **59**: 2458 - 2463.
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59. Meir, M., <sup>§</sup>**Ben-Dov, E.**, & Zaritsky, A. (2011). Modular columns to study depth-dependence behavior of mosquito larvae and toxicity of *Bacillus thuringiensis* subsp. *israelensis*. *Acta Tropica* **117**: 229-232.
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Refereed articles in scientific journals after last promotion

- \* 62. Barneah, O., **Ben-Dov, E.**, Benayahu, Y., Brickner I., & Kushmaro, A. (2012). Molecular diversity and specificity of acoel worms associated with corals in the Gulf of Eilat (Red Sea). *Aquatic Biology.* **14**: 277-281, DOI: 10.3354/ab00401.
- \* 63. Siboni, N., **Ben Dov, E.**, Sivan, A., & Kushmaro, A. (2012). Geographic specific coral-associated ammonia-oxidizing Archaea in the northern Gulf of Eilat (Red Sea). *Microb. Ecol.* **64**: 18-24, DOI: 10.1007/s00248-011-0006-6.
- \* 64. **Ben-Dov, E.**, Shapiro, O.H., & Kushmaro, A. (2012). "Next-base" effect on PCR amplification. *Environ. Microbiol. Rep.* **4**: 183-188, DOI: 10.1111/j.1758-2229.2011.00318.x
- \* 65. Paramasivam, N., **Ben-Dov, E.**, Arotsker, L., Kramarsky-Winter, E., Zvuloni, A., Loya, Y., & Kushmaro, A. (2013). Bacterial consortium of *Millepora dichotoma* exhibiting unusual multifocal lesion event in the Gulf of Eilat, Red Sea. *Microb. Ecol.* **65**: 50-59, DOI 10.1007/s00248-012-0097-8
- \* 66. Paramasivam, N., **Ben-Dov, E.**, Arotsker, L., & Kushmaro, A. (2013). *Eilatimonas milleporae* gen. nov., sp. nov., a marine bacterium isolated from *Millepora dichotoma*, a hydrocoral of the Red Sea. *Int. J. Syst. Evol. Microbiol.* **63**: 1880-1884.
- \* 67. Gindin, G., Mendel, Z., Levitin, B., Kumar, P., Levi, T., Shahi, P., Khasdan, V., Weinthal, D., Kuznetsova, T., Einav, M., Kushmaro, A., Protasov, A., Zaritsky, A., & <sup>§</sup>**Ben-Dov, E.** (2013). The basis for rootstock resilient to *Capnodis* species: screening for genes encoding  $\delta$ -endotoxins from *Bacillus thuringiensis*. *Pest Management Science*, in press.

\*, After last promotion

§, Corresponding author (#s 7, 19, 27, 28, 40, 45, 59, 60 & 67)

**Impact Factor and Ranking of journal according to the ISI**

Periodical	No of articles	Impact Factor (2010)	Ranking (2010)
Environmental Microbiology	6	5.5	Q1
Journal of Biological Chemistry	1	5.3	Q1
Applied and Environmental Microbiology	7	3.8	Q1

Journal of Bacteriology	1	3.7	<b>Q1</b>
Environmental Microbiology Reports	1	3.1	<b>Q1</b>
Microbial Ecology	4	2.9	<b>Q1</b>
Pest Management Science	1	2.6	<b>Q1</b>
Marine Ecology-Progress Series	1	2.5	<b>Q1</b>
Journal of Invertebrate Pathology	5	2.0	<b>Q1</b>
Desalination	1	1.9	<b>Q1</b>
Diseases of Aquatic Organisms	1	1.6	<b>Q1</b>
Journal of Molecular Biology	2	4.0	<b>Q2</b>
FEMS Microbiology Ecology	4	3.6	<b>Q2</b>
Applied Microbiology and Biotechnology	1	3.3	<b>Q2</b>
Microbiology-SGM	2	3.0	<b>Q2</b>
Journal of Molecular Microbiology and Biotechnology	1	2.6	<b>Q2</b>
Journal of Eukaryotic Microbiology	1	2.4	<b>Q2</b>
Acta Tropica	1	2.3	<b>Q2</b>
Aquatic Biology	1	1.6	<b>Q2</b>
Journal of Applied Phycology	1	1.4	<b>Q2</b>
Journal of Applied Entomology	1	1.3	<b>Q2</b>
Journal of the American Mosquito Control Association	1	1.1	<b>Q2</b>
Biochemical and Biophysical Research Communications	2	2.6	<b>Q3</b>
FEMS Microbiology Letters	2	2.0	<b>Q3</b>
International Journal of Systematic and Evolutionary Microbiology	3	1.9	<b>Q3</b>
Archives of Microbiology	1	1.8	<b>Q3</b>
Plasmid	1	1.8	<b>Q3</b>
Current Microbiology	5	1.5	<b>Q3</b>

(29 articles with Journal Ranking of **Q1**, plus 16 of **Q2**)

## 8. Lectures and Presentations at Meetings and Invited Seminars

### a) Invited plenary lectures at conferences/meetings

1. **Ben-Dov, E.** (1994). Biotechnology in integrated mosquito control. Annu. Meet. Isr. Soc. Microbiol., p. 87, (ISM's Manfred Ashner prize lecture).
2. Zaritsky, A., Boussiba, S., **Ben-Dov, E.** & Manasherob, R. (1995). Transgenic organisms for control of mosquito-borne diseases. Euroasian Symposium on Current Trends in Biotechnology:

Gene Diagnostics, Gene Therapy and Informational Immunity. (Abstract #16, p. 182-183), October 29 - November 6, Ankara, Turkey.

3. Zaritsky, A., **Ben-Dov, E.**, Manasherob, R., Zalkinder, V. & Barak, Z. (1995). Bioencapsulation for control of mosquito-borne diseases. Euroasian Symposium on Current Trends in Biotechnology: Gene Diagnostics, Gene Therapy and Informational Immunity. (Abstract #17, p. 183-184), October 29 - November 6, Ankara, Turkey.
4. Zaritsky, A., & **Ben-Dov, E.** (1997). How to exploit feeding behavior of mosquito larvae against them. 2<sup>nd</sup> International Congress of Vector Ecology. (Abstract-56, p 45), October 19-24, Orlando, U.S.A.
5. Margalith, Y. & **Ben-Dov, E.** (1998). Bti - present status and future trends. VI<sup>th</sup> Symposium on Biological Control. (Abstract-56, p 45), May 24-28, Rio de Janeiro, Brazil.
6. Margalith, Y., Zaritsky, A., Barak, Z., Manasherob, R., Schneider, B. & **Ben-Dov, E.** (2000). *Bacillus thuringiensis israelensis* (Bti) in integrated biological control (IBC) of mosquitoes and black flies – A global view. pp. 84-98. Proc. of the 13<sup>th</sup> European SOVE Meeting, Society for Vector Ecology. (Sept., 2000, Belek, Antalya Turkey).
7. **Ben-Dov, E.**, Zarka, A., Zaritsky, A., Manasherob, R. & Boussiba, S. (2000). Transgenic cyanobacteria as pesticide-free alternative to control mosquitoes. 18<sup>th</sup> Conference Isr. Soc. Entomol. (Abstract p 23), May 18, Beit Dagan, Israel. *Phytoparasitica* **29**: 1, p 63-64, 2001.
8. Zaritsky, A. & **Ben-Dov, E.** (2006). Transgenic bacteria expressing combinations of genes from *Bacillus thuringiensis*. IX International Colloquium on Invertebrate Pathology and Microbial Control (ICIPMC), XXXIX Annual Meeting of the SIP and VIII International Conference on *Bacillus thuringiensis* (ICBt). (Abstract, p 129), August 27 to September 01, Wuhan, China.
9. **Ben-Dov, E.** & Zaritsky, A. (2006). Mosquito control by transgenic bacteria expressing combinations of genes from *Bacillus thuringiensis* subsp. *israelensis*. 25<sup>th</sup> Conference Isr. Soc. Entomol., October 18, 2006, Faculty of Agricultural, Food and Environmental Quality Sciences, The Hebrew University of Jerusalem, Revovot, Israel.
10. Zaritsky, A. & **Ben-Dov, E.** (2007). Transgenic bacteria expressing combinations of genes from *Bacillus thuringiensis*. 3<sup>rd</sup> EIGMO Meeting "Ecological Impact of Genetically Modified Organisms (EIGMO)" 23-25 May 2007, Warsaw, Poland.

b) Presentations of papers at conferences/meetings (as the senior author only;

above 100 others as a co-author)

1. **Ben-Dov, E.**, Zalkinder, V., Barak, Z. & Zaritsky, A. (1989). Bioencapsulation of the  $\delta$ -endotoxin of *Bacillus thuringiensis* var. *israelensis* and its delivery to *Aedes aegypti* larvae by the infusorian *Tetrahymena pyriformis*. Annu. Meet. Isr. Soc. Protozool. and Parasitol. Book of Abstracts, p. 8.
2. **Ben-Dov, E.**, Zalkinder, V., Barak, Z. & Zaritsky, A. (1989). Bioencapsulation of the  $\delta$ -endotoxin of *Bacillus thuringiensis* var. *israelensis* and its delivery to *Aedes aegypti* larvae by the infusorian *Tetrahymena pyriformis*. Conference of the Society for Vector Ecology, August, 1989, Yugoslavia.
3. **Ben-Dov, E.**, Douek, J., Einav, M. & Zaritsky, A. (1992). A partial restriction map of the large plasmid of *Bacillus thuringiensis* var. *israelensis*. Annu. Meet. Soc. Invertebr. Pathol. (Abstract#115), Heidelberg, Germany.

4. **Ben-Dov, E.,** Boussiba, S. & Zaritsky, A. (1994). Combinations of genes from *Bacillus thuringiensis* var. *israelensis* cloned for expression in *Escherichia coli*. Annu. Meet. Isr. Soc. Microbiol., p. 91.
5. **Ben-Dov, E.,** Boussiba, S. & Zaritsky, A. (1994). Mosquito larvicidal activity of *Escherichia coli* with combinations of genes from *Bacillus thuringiensis* var. *israelensis*. 7<sup>th</sup> International Congress of Bacteriology and Applied Microbiology Division. (Abstract#BS-20/21, p. 200), Prague, Czech Republic.
6. **Ben-Dov, E.,** Boussiba, S. & Zaritsky, A. (1994). Mosquito larvicidal activity of *Escherichia coli* with combinations of genes from *Bacillus thuringiensis* var. *israelensis*. VI<sup>th</sup> International Colloq. on Invertebr. Pathol. and Microbial Control, II<sup>nd</sup> International Conference on *Bacillus thuringiensis*. (Abstract PO#44, p. 382), Montpellier, France.
7. **Ben-Dov, E.,** Boussiba, S. & Zaritsky, A. (1994). Mosquito larvicidal activity of *Escherichia coli* with combinations of genes from *Bacillus thuringiensis* var. *israelensis*. Book of Abstracts, p. 32. VIII European Meet. Society for Vector Ecology. Barcelona, Spain.
8. **Ben-Dov, E.,** Boussiba, S. & Zaritsky, A. (1994). Mosquito larvicidal activity of *Escherichia coli* with combinations of genes from *Bacillus thuringiensis* var. *israelensis*. VII<sup>th</sup> Conference Isr. Soc. Entomol., p. 25-26.
9. **Ben-Dov, E.,** Dahan, E., Zaritsky, A., Sinai, R., Manasherob, R., Barak, Z., Khameraev, A., Troyetskaya, A., Dubitsky, A., Berezina, N. & Margalith, Y. (1996). Novel *cry*-type gene detected by extended PCR screening from field-collected strains of *Bacillus thuringiensis*. Second En Gedi Conference on Bacterial Control of Agricultural Insect Pests and Vectors of Human Diseases. (Abstract P#34), August 12-16, Shoshon, Israel.
10. **Ben-Dov, E.,** Nissan, G., Einav, M., Peleg, N., Boussiba, S. & Zaritsky, A. (1996). Restriction map of the 125 kb plasmid of *Bacillus thuringiensis* subsp. *israelensis* carrying the mosquito larvicidal genes. Second En Gedi Conference on Bacterial Control of Agricultural Insect Pests and Vectors of Human Diseases. (Abstract P#35), August 12-16, Shoshon, Israel.
11. **Ben-Dov, E.,** Dahan, E., Zaritsky, A., Sinai, R., Manasherob, R., Barak, Z., & Margalith, Y. (1996). Extended screening by PCR for *cryI*, *cryII*, *cryIII* and *cryIV* from field-collected strains of *Bacillus thuringiensis*. 29<sup>th</sup> Annu. Meet. Soc. Invertebr. Pathol. and III<sup>rd</sup> International Colloquium on *Bacillus thuringiensis*. (Abstract, p 8), September 1-6, Cordoba, Spain.
12. **Ben-Dov, E.,** Zaritsky, A., Manasherob, R., Barak, Z., & Margalith, Y. (1997). New *cry7*, and *cry8* from *Bacillus thuringiensis*. 30<sup>th</sup> Annu. Meet. Soc. Invertebr. Pathol. (Abstract A34, p 6), August 24-29, Banff, Canada.
13. **Ben-Dov, E.,** Zaritsky, A., Manasherob, R., Barak, Z., & Margalith, Y. (1997). New *cry7*, and *cry8* from *Bacillus thuringiensis*. 2<sup>nd</sup> International Congress of Vector Ecology. (Abstract P36, p 72), October 19-24, Orlando, U.S.A.
14. **Ben-Dov, E.,** Wang, Q., Zaritsky, A., Manasherob, R., Barak, Z. & Margalith, Y. (1998). Multiplex PCR screening for detection *cry9* genes from *Bacillus thuringiensis*. XI European Meet. Society for Vector Ecology. Book of Abstracts (Acta Parasitologia Portuguesa, Vol.5, p. 41.), October 13-17, Lisbon, Portugal.
15. **Ben-Dov, E.,** Wang, Q., Saxena, D., Manasherob, R., Boussiba, S. & Zaritsky, A. (1998). Protection by ingested particles of insect larvae from *Bacillus thuringiensis* toxicity. XI European Meet. Society for Vector Ecology. Book of Abstracts (Acta Parasitologia Portuguesa, Vol.5, p. 34.), October 13-17, Lisbon, Portugal.
16. **Ben-Dov, E.,** Wang, Q., Zaritsky, A., Manasherob, R., Barak, Z. & Margalith, Y. (1998). Multiplex PCR screening for detection *cry9* genes from *Bacillus thuringiensis*. 2<sup>nd</sup> International Symposium on Biopesticides. Book of Abstracts, p. 1-2. October 26-30, Wuhan, China.

17. **Ben-Dov, E.,** Wang, Q., Zaritsky, A., Manasherob, R., Schneider, B., Barak, Z., Khameraev, A., Baizhanov, M., Glupov, V. & Margalith, Y. (1999). Screening by PCR for detection of *cry9* genes from *Bacillus thuringiensis*. 32<sup>nd</sup> Annu. Meet. Soc. Invertebr. Pathol. (Abstract BP13, p 24), August 22-27, Irvine, USA.
18. **Ben-Dov, E.,** Wang, Q., Saxena, D., Manasherob, R., Boussiba, S. & Zaritsky, A. (1999). Ingested particles protect *Aedes aegypti* larvae from *Bacillus thuringiensis* subsps. *israelensis* toxicity. 32<sup>nd</sup> Annu. Meet. Soc. Invertebr. Pathol. (Abstract BP25, p 24-25), August 22-27, Irvine, USA.
19. **Ben-Dov, E.,** Sela, N., Manasherob, R. & Zaritsky, A. (2005). Extended PCR Screening for Novel Insecticidal *cry* and *cyt* Genes from Field-Collected *Bacillus thuringiensis* Strains. Bacterial Toxins for Insect Control, COST 862 Workshop (program of abstracts) September 15-17, Nitra, Slovakia.
20. **Ben-Dov, E.,** Wirth, M., Sela, N., Menin, M., Manasherob, R., Khasdan, V., Horowitz, R., Walton, W., Boussiba, S. & Zaritsky, A. (2005). Transgenic bacteria to raise efficacies of *Bacillus thuringiensis*. Bacterial Toxins for Insect Control, COST 862 Workshop (program of abstracts) September 15-17, Nitra, Slovakia.
21. **Ben-Dov, E.,** & Kushmaro, A. (2005). Encapsulating and growing the “uncultured” majority. Annu. Meet. Isr. Soc. Microbiol. (Abstract P-29, p 82), February 2-3, Tel-Aviv, Israel.
22. **Ben-Dov, E.,** Brenner, A., & Kushmaro, A. (2006). Real-time PCR for quantification of sulphate reducing bacteria in industrial wastewater via *dsrA* and *apsA* genes. Annu. Meet. Isr. Soc. Microbiol. (Abstract, p 81), February 21-22, Beer-Sheva, Israel.
23. **Ben-Dov, E.,** Brenner, A., & Kushmaro, A. (2006). Real-time PCR for quantification of sulphate reducing bacteria in industrial wastewater via *dsrA* and *apsA* genes. 11th International Symp. Microbial Ecol. (ISME). (Abstract, p 249), August 20-25, Vienna, Austria.
24. **Ben-Dov, E.,** Shapiro, O.H., Siboni, N., Brenner, A., & Kushmaro, A. (2006). Utility of inosine at the 3'-terminus of 16S rDNA universal primers for advanced study of microbial diversity. 11th International Symp. Microbial Ecol. (ISME). (Abstract, p 249), August 20-25, Vienna, Austria.
25. **Ben-Dov, E.,** Shapiro, O.H., Siboni, N., Brenner, A., & Kushmaro, A. (2007). Advantage of using inosine at the 3'-termini of 16S rRNA gene universal primers the study of microbial diversity. Annu. Meet. Isr. Soc. Microbiol. (Abstract, p 55), February 19-20, Tel-Aviv, Israel.
26. **Ben-Dov, E.,** Shapiro, O.H., Brenner, A., & Kushmaro, A. (2009). Changes in microbial diversity in industrial wastewater evaporation ponds following artificial salination. 3<sup>rd</sup> Congress of European Microbiologists – FEMS, June 28 - July 2, Gothenburg, Sweden.
27. **Ben-Dov, E.,** Shapiro, O.H., Brenner, A., & Kushmaro, A. (2010). Changes in microbial diversity in industrial wastewater evaporation ponds following artificial salination. Annu. Meet. Isr. Soc. Microbiol. (Abstract, p 78), February 16-17, Tel-Aviv, Israel.
28. **Ben-Dov, E.,** Shapiro, O.H., Siboni, N., Arotsker, L., & Kushmaro, A. (2011). Substitution by inosine at the 3'-ultimate and penultimate positions of 16S rRNA gene universal primers. 6<sup>th</sup> Congress of the Federation of the Israel Societies for Experimental Biology - FISEB (ILANIT), February 7-10, Eilat, Israel.
29. **Ben-Dov, E.,** Shapiro, & Kushmaro, A. (2011). Does the contiguous base of the template bias PCR amplification? Annu. Meet. Isr. Soc. Microbiol. April 12, Bar-Ilan University, Tel-Aviv, Israel.
30. **Ben-Dov, E.,** Shapiro, O.H., & Kushmaro, A. (2011). Efficacy of PCR amplification dependent on base(s) adjacent to the primers. 4<sup>th</sup> Congress of European Microbiologists – FEMS, June 26 - 30, Geneva, Switzerland.

31. **Ben-Dov, E.**, Manasherob, R., Khasdan, V., Boussiba, S., & Zaritsky, A. (2011). Different approaches to overcome *Bacillus thuringiensis* subsp. *israelensis* limitations. 30<sup>th</sup> Conference Isr. Soc. Entomol., (Abstract, p 55), October 27, Ben-Gurion University of the Negev, Sde Boker Campus, Israel.
32. **Ben-Dov, E.**, Shapiro, O.H., & Kushmaro, A. (2012). "Next-base" effect on PCR amplification. 14th International Symp. Microbial Ecol. (ISME). (Abstract-266A, p 11), August 19-24, Copenhagen, Denmark.
33. **Ben-Dov, E.**, Brenner, A., & Kushmaro, A. (2013). Long-term surveillance of sulfate-reducing bacteria in industrial wastes evaporation ponds. 5<sup>th</sup> Congress of European Microbiologists – FEMS, July 21 - 25, Leipzig, Germany.
34. **Ben-Dov, E.**, Semak, L., Brenner, A., & Kushmaro, A. (2013). Long-term surveillance of sulfate-reducing bacteria in industrial wastes evaporation ponds. The 2nd Conference of the Israel Society for Biotechnology Engineering (ISBE), December 1, 2013, Dan Hotel, Tel-Aviv.

#### c) Seminars at Universities and Institutions

- 2006 - Quantification of sulfate-reducing bacteria in industrial wastewater by real-time PCR using *dsrA* and *apsA* genes. Institute of Soil, Water and Environmental Sciences, The Agricultural Research Organization.
- 2007 - Advantage of using inosine at the 3'-termini of 16S rRNA gene universal primers for the study of microbial diversity. Department of Chemical Engineering & Biotechnology, The College of Judea and Samaria.
- 2009 - Enduring toxicity of transgenic *Anabaena* PCC 7120 expressing mosquito larvicidal genes from *Bacillus thuringiensis* subsp. *israelensis*. Unit of Environmental Engineering, Faculty of Engineering Sciences, Ben-Gurion University of the Negev.
- 2011 - Biological control of vectors of human and tropical diseases. The Academic Friday, Ahva Academic College.

## 9. Patents

- i. United States Patent, No. 6,503,500 (2003). "Transgenic Cyanobacteria to Combat Mosquito-Borne Diseases".
- ii. International Application No. PCT/US2009/067180; Publication No. WO2010/077672 (2009); "Control of Mosquito Larvae with Bti Toxins and TMOF"

## 10. Research Grants (Composed and implemented in collaboration with Prof. Yoel Margalith, Prof. Arie Zaritsky or Prof. Zvi Mendel)

- 1997-1999: A grant (\$149,624) from US-AID-CDR, to study "Novel *Bacillus* Strains as Environmental Biopesticides"
- 1997-1998: A grant (ECU 60,000) from INTAS – EU, to study "New insecticidal bacteria identified by PCR"
- 1998: A grant (65,000 NIS) from the Ministry of Environment, to study "Bioencapsulation of Bti in *T. pyriformis*"
- 1998-1999: A grant (55,000 NIS) from the Ministry of Environment, to study "Synergism between



## TMOF and Cry polypeptides“

- 1998-2001: A grant (\$ 150,000) from the U.S.-Israel Binational Science Foundation, to study “Synergism between TMOF and Cry polypeptides“
- 2002-2005: A grant (\$ 144,000) from the U.S.-Israel Binational Science Foundation, to study “Synergism and cross resistance among Cry/Cyt polypeptides“
- 2003-2005: A grant (\$ 60,000) from the Ministry of Agriculture, to study “Protection from sunlight inflicted damage of Cry toxins to improve control of agricultural insect pests using transgenic microorganisms”
- 2008-2012: A grant (\$ 204,000) from the U.S.-Israel Binational Science Foundation, to study “Development of entomotoxic maize for biological control of mosquitoes for anti-malaria interventions“
- 2009-2012: A grant (160,000 NIS) from the Ministry of Agriculture, to study “Biological activity of *Bacillus thuringiensis* toxins against the apricot and peach flatheaded borers as a basis for developing immune rootstocks to these beetle pests“
- 2013-2016: A grant (360,000 NIS) from the Ministry of Agriculture, to study “*Arabidopsis* Expressing Bt Toxins as a Model to Combat *Capnodis tenebrionis* - a Basis to Prepare Resistant Transgenic Root-Stocks of Stone-Fruit Trees“

## 11. Present Academic activities:

### Research in progress:

1. Cultivating unculturable microorganisms from soil and marine environment.
2. Interactions between the corals and associated microbiota.
3. Study of microbial diversity in hypersaline industrial wastewater by molecular methods.
4. Development of a real-time PCR assay for quantification of sulphate-reducing bacteria in industrial wastewater.
5. Utility of inosine at the 3'-terminus of 16S rDNA universal primers for advanced study of microbial diversity.
6. Biological control of insects by recombinant transgenic organisms with combinations of genes from *Bacillus thuringiensis*.