

ITAMAR GLAZER

Update: **June 22, 2021**

CURRICULUM VITAE

University Education and Additional Training

1977-1980 B.Sc. degree in Agriculture at the Faculty of Agriculture of the Hebrew University in Rehovot, Israel.

1980-1981 M.Sc. Agriculture, Faculty of Agriculture, Hebrew University, Rehovot, Israel.

1981-1985 Ph.D. Agriculture. Faculty of Agriculture, Hebrew University Rehovot, Israel.

1993-1994 Sabbatical leave at Department of Entomology, Rutgers University, New Brunswick, NJ, USA, at the laboratory of Dr. Randy Gaugler.

2000-2004- Director of "Kidum" the Technology Transfer Office of Agricultural Research Organization (ARO).

2004-2005- Sabbatical leave Molecular Microbiology Laboratory of Dr. David Clarke at the Department of Biology and Biochemistry, University of Bath, U.K. (5 months). At the laboratory of Dr. Ralf-Udo Ehlers, in the Dept. Biotechnology & Biol. Control, Institute for Phytopathology, Christian-Albrechts-University, Kiel, Germany (7 months).

2005-2007- Director of "Kidum" the Technology Transfer Office of ARO

2007-2013- Head of Plant Science Institute, ARO.

2014-2015- Sabbatical leave at the lab of Prof. Martin Chalfie, Biology and Genetics Department, Columbia Univ., New York, USA.

2015- August 2019- ARO Deputy Director, Director for Research and Development.

Sept. 2019- Dec. 2020- Sabbatical leave at the lab of Prof. Andrea Battisti, DAFNAE, University of Padova. Italy.

Positions held and Academic Status

1985-1987 Senior Scientist at Biosys Inc. Palo-Alto Ca. U.S.A.

1987 to date: Research Scientist at the Dept. of Entomology and Nematology, ARO, Volcani Center, Bet Dagan, Israel.

1989 to date- External member of the Plant Protection Division at the Faculty of Agriculture, Hebrew University.

1990- Promoted to B level Scientist.

1994-1999- Head Department of Nematology.

1995- Promoted to A level Scientist

1998- Promoted to A+ level Scientist (eq. Full Professor).

Areas of interest and research activity

Insect parasitic nematodes and fungi- use against pests, genetics and molecular mechanisms, ecology (mainly survival strategies under stress conditions) and biodiversity. Development of microbial control agents against economically important pests.

Teaching Experience

1989: Appointed external teacher in Nematology at the Faculty of Agriculture, Hebrew University. In the courses "Nematology" (#71522), until 1994, and "Insect Pathology" (#71127), to date.

Publications- Total publications – over 292, of which:

Reviewed publications- 126

Book Chapters and invited reviews- 19

Books editing- 2

Patents- 3

Abstracts and oral presentations-130

Articles of non-reviewed journals - 12

SELECTED PUBLICATIONS

Samish, M., Ginsberg, H. and Glazer, I. 2005. Biological control of ticks. *Parasitology* 129: S389-S403

Alekseev, E., Glazer, I., and Samish, M. 2005. Effect of soil texture and moisture on the activity of entomopathogenic nematodes against female *Boophilus annulatus* ticks. *Biocontrol* 51: 507-518.

- Glazer I., Eliyau M., Salame L., Nakash Y., Blumberg D. 2006. Evaluation of the Efficacy of the Entomopathogenic Nematodes *Heterorhabditis* sp. Against Sap Beetles (Coleoptera: Nitidulidae) *Biocontrol* 52: 259-270
- Gindin, G., Levski, S., Glazer, I. and Soroker V. 2006. Evaluation of the entomopathogenic fungi *Metarhizium anisopliae* and *Beauveria bassiana* against the red palm weevil, *Rhynchophorus ferrugineus*, (Coleoptera: Curculionidae). *Phytoparasitica* 34: 370-379
- Somvanshi V., S., Koltai, H. and Glazer I. 2008. Expression of different desiccation tolerance related genes in various species of entomopathogenic nematodes. *Molecular Biochemical Parasitology* 158: 65-71
- Joyce A., J., Brachman, O., A., Glazer I., Lango L., Schwär, G., Clarke J. D. and Bode H., B. 2008. Bacterial biosynthesis of a multipotent stilbene. *Angewandte Chemie* 47: 1942-1945.
- Gindin, G., Glazer, I., Mishoutchenko, A. and Samish, M. 2009. Entomopathogenic fungi as a potential control agent against the lesser mealworm, *Alphitobius diaperinus* in broiler houses. *BioControl* 54:549–558
- Gindin, G., Ment, D., Rot, A., Glazer, I., and Samish, M. 2009. Pathogenicity of *Metarhizium anisopliae* (Hypocreales: Cladocypitaceae) to tick eggs and the effect of egg cuticular lipids on conidia development. *Journal Medical Entomology* 46: 531-538.
- Ment, D., Gindin, V., Glazer, I., Perl, S., Dani, E. and Samish, M. 2010. The effect of temperature and relative humidity on the formation of *Metarhizium anisopliae* chlamydospores in tick eggs. *Fungal Biology (former Mycological Research)* 114: 49-56
- Salame, L., Glazer, I., Miqaiia, N. and Chkhubianishvili, T. 2010. Characterization of new populations of entomopathogenic nematodes isolated at diverse sites across Israel. *Phytoparasitica* 37: 39-52.
- Salame, I. Glazer, M. T. Chubinishvili and T. Chkhubianishvili 2010. Genetic improvement of the desiccation tolerance and host-seeking ability of the entomopathogenic nematode *Steinernema feltiae*. *Phytoparasitica* 38: accepted.
- Ment, D., Gindin, G., Rot, A., Soroker., V., Glazer, I., Barel, S. and Samish, M. 2010. A novel technique for evaluating the adhesion of *Metarhizium anisopliae* conidia to tick cuticle. *Biological Control*: accepted.
- Ment, D., Gindin, G., Rot, A., Soroker., V., Glazer, I., Barel, S. and Samish, M. 2009. Novel technique for quantifying adhesion of *Metarhizium anisopliae* conidia to the tick cuticle. *Applied and Environmental Microbiology* 76: 3521–3528
- Ment, D., Gindin, G., Soroker., V., Glazer, I., Rot, A. and Samish, M. 2010. *Metarhizium anisopliae* conidial responses to lipids from ticks cuticle and tick mammalian host surface. *Journal of invertebrate Pathology*: 103: 132-139
- Ment, D., Gindin, V., Glazer, I., Perl, S., Dani, E. and Samish, M. 2010. The effect of temperature and relative humidity on the formation of *Metarhizium anisopliae* chlamydospores in tick eggs. *Fungal Biology (former Mycological Research)* 114: 49-56

- Salame, L., Glazer, I., Miqaiia, N. and Chkhubianishvili, T. 2010. Characterization of new populations of entomopathogenic nematodes isolated at diverse sites across Israel. *Phytoparasitica* 38: 39-52.
- Salame, L. and Glazer, I., Chubinishvili M.T. and Chkhubianishvili T. 2010. Genetic improvement of the desiccation tolerance and host-seeking ability of the entomopathogenic nematode *Steinernema feltiae*. *Phytoparasitica* 38: 359-368
- Kaaya, G. P., Samish, M., Hedimbi, M., Gindin G. and Glazer, I. 2011. Control of tick populations by spraying *Metarhizium anisopliae* conidia on cattle under field conditions. *Experimental and Applied Acarology* 55: 273-281.
- Ment, D., Belausov, E., Churchill, A. C. L., Donzelli B. G. G., Gindin, G., Glazer, I., Rot, A., S. A. Rehner, and Samish M. 2012. Resistant ticks inhibit *Metarhizium* infection prior to hemocoel invasion by reducing fungal viability on the cuticle surface. *Environmental Microbiology* 14: 1570-1583
- Wilson, J. M., Ehlers, R-U and Glazer, I. 2012. Entomopathogenic nematode foraging strategies – is *Steinernema carpocapsae* really an ambush forager? *Nematology*, 14: 389-394
- Perry, N. R., Ehlers, R-U., and Glazer, I. 2012. A realistic appraisal of methods to enhance desiccation tolerance of entomopathogenic nematodes. *J. Nematology* 44:185-190.
- Rot, A. Gindin, G., Ment, D., Mishoutchenko, A. Glazer, I. and Samish, M. 2013. On-host control of the brown dog tick *Rhipicephalus sanguineus* Latreille (Acari: Ixodidae) by *Metarhizium brunneum* (Hypocreales: Clavicipitaceae). *Veterinary Parasitology* 193: 229-237.
- Ment, D., Gindin, G., Rot, A., Eshel, D., Teper-Bamnolker, P., Ben-Ze'ev I., Glazer, I., and Samish, M. 2013. Cuticular lipids and proteins role in tick susceptibility to *Metarhizium* infection. *Biocontrol Science and Technology* 23: 956-967
- Moshayov A, Koltai, H., and Glazer, I. 2013. Molecular characterization of the recovery process in the entomopathogenic nematode *Heterorhabditis bacteriophora*. *International Journal of Parasitology* 43: 843-852.
- Samish, M. Rot, A. Ment, D., Barel, S., Glazer I. and Gindin G. 2014. Efficacy of the entomopathogenic fungus, *Metarhizium brunneum* in controlling the tick *Rhipicephalus annulatus* under field conditions. *Veterinary Parasitology* 206: 258-266.
- Glazer, I., Salame, L., Dvash, L., Muklada, H., Azaizeh H., Mreny, R., Markovics, A., Muklada, H., and Landau, S. Y. 2015. Effects of Tannin-Rich Host Plants on the Infection and Establishment of the Entomopathogenic Nematode *Heterorhabditis bacteriophora*. *Journal of Invertebrate Pathology* 128:31-36.
- Santhi, V S., Salame, L., Nakache Y., Koltai, H., Soroker V., Glazer, I. 2015. Attraction of entomopathogenic nematodes *Steinernema carpocapsae* and *Heterorhabditis bacteriophora* to the Red Palm Weevil *Rhynchophorus ferrugineus*. *Biological Control* 83: 75–81.
- Glazer, I., Salame, L., Dvash, L., Muklada, H., Azaizeh H., Mreny, R., Markovics, A., Muklada, H., and Landau, S. Y. 2015. Effects of tannin-rich host plants on the infection and

- establishment of the entomopathogenic nematode *Heterorhabditis bacteriophora*. Journal of Invertebrate Pathology 128: 31-36.
- Azaizeh H., Mreny, R., Markovics, A., Muklada, H., Glazer, I. and Landau, S. Y., 2015. Seasonal variation in the effects of Mediterranean plant extracts on the exsheathment kinetics of goat gastrointestinal nematode larvae. Small Ruminant Research 131:130-135.
- Salame, L. and Glazer, I. 2015. Stress avoidance: Vertical movement of entomopathogenic nematodes in response to soil moisture gradient. Phytoparasitica 43:647-655
- Yaari M., Figenbaum A., Koltai H., Salame L., Glazer I. 2015. Transcriptome analysis of desiccation and heat tolerance of entomopathogenic nematodes. International J. Parasitology 10.1016/j.ijpara.2015.08.011
- Santhi, V S., Ment D., Salame, L., Soroker V., Glazer, I. 2016. Genetic improvement of the attraction and host-seeking ability of the entomopathogenic nematodes *Steinernema carpocapsae* and *Heterorhabditis bacteriophora* to the Red Palm Weevil. Biological Control 100: 29-36
- Santhi, V. S., Salame, L., Dvash, L., Muklada, H., Azaizeh H., Mreny, Awwad., S., R., Markovics, A., Landau, S. Y. and Glazer, I., 2017. Ethanolic Extracts of *Inula viscosa*, *Salix alba* and *Quercus calliprinos*, negatively affect the development of the entomopathogenic nematode, *Heterorhabditis bacteriophora*- a model to compare GINs developmental effect. Journal of Invertebrate Pathology 128: 31–36.
- Santhi, V S., Salame, L., Muklada, H., Azaizeh H., Awwad, S., Haj-Zaroubic, M., Landau, S. Y. and Glazer, I., 2019. Toxicity of phenolic compounds to entomopathogenic nematodes: A case study with *Heterorhabditis bacteriophora* exposed to lentisk (*Pistacia lentiscus*) extracts and their chemical components. Journal of Invertebrate Pathology 160: 43–53
- Landau S-Y., Santhi V S., Glazer, I., Salame, L., Muklada, Haj-Zaroubi M., Awwad, S., Markovics, A. and Aziza H., 2019. Can an entomopathogenic nematode serve, by proxy to strongyles, in assessing the anthelmintic effects of phenolic compounds? Experimental Parasitology 209: 107811
- Levy, N., Faigenboim, A., Salame, L., Molina, C., Ehlers, R-U, Glazer, I. and Ment, D. 2020. Characterization of the phenotypic and genotypic tolerance to abiotic stresses of natural populations of *Heterorhabditis bacteriophora*. Scientific Reports, <https://doi.org/10.1038/s41598-020-67097-0>
- Samish, M., Rot A., Gindin, G., Ment, D., Behar, A. and Glazer, I. 2020. Biocontrol of the cat flea, *Ctenocephalides felis*, by entomopathogenic nematodes and fungi. Biological Control 149: 104301 <https://doi.org/10.1016/j.biocontrol.2020.104301>

- Ment, D., Samish, M., Gindin, G. and Glazer, I. 2020. Comparative response of *Metarhizium brunneum* to the cuticles of susceptible and resistant hosts. *Archives of Insect Biochemistry and Physiology*: <https://doi.org/10.1002/arch.21756>
- Santhi, V. S., Faigenboim, A., Ment, D., Salame, L., Soroker, V., Hetzroni, A. and Glazer, I. 2021. Behavioral and molecular response of the insect parasitic nematode *Steinernema carpocapsae* to cues emitted by a host, the Red Palm Weevil (*Rhynchophorus ferrugineus*). *Molecular and Biochemical Parasitology* 241: 111345 <https://doi: 10.1016/j.molbiopara.2020.111345>