

Selected Publications (since 2000)

- Sela, S., R. Neeman, N. Keller, A. Barzilai. (2000). Relationship between asymptomatic carriage of *Streptococcus pyogenes* and ability of the strains to adhere and internalise cultured epithelial cells. *Med Microbiol* 49:499-502.
- Jadoun, J., S. Sela. (2000). Mutation in *csrR* global regulator reduces *Streptococcus pyogenes* internalization. *Microb Path* 29:311-317.
- Sahly H, R. Podschun, T.A. Oelschlaeger, M. Greiwe, H. Parolis, D. Hasty, J. Keko, U. Ullmann, I. Ofek , S. Sela. (2000). Capsule impedes adhesion and invasion of epithelial cells by *Klebsiella pneumoniae*. *Infect Immun* 68:6744-6749.
- Sela, S., M. Marouni, R. Perry, A. Barzilai. (2000). Effect of Lipoteichoic acid on *Streptococcus pyogenes* uptake by HEp-2 cells. *FEMS Microbiol letters* 193:187-193.
- Barzilai, A., D. Miron, S. Sela. (2001). Etiology and management of acute and recurrent group A streptococcal tonsillitis. *Curr Infect Dis Rep* 3:217-223.
- Jadoun, J., O. Eyal, S. Sela. (2002). Role of CsrR, hyaluronic acid, and SpeB in the internalization of *Streptococcus pyogenes* M type 3 by epithelial cells. *Infect Immun* 70:462-469.
- Marouni, M. J., , E. Ziomek, S. Sela. (2003). Influence of group A streptococcal acid glycoprotein on expression of major virulence factors and internalization by epithelial cells. *Microbial Path* 35:63-72.
- Eyal O., J. Jadoun, A. Bitler, E. Skutelski, S. Sela. (2003). Role of M3 protein in the adherence and internalization of an invasive *Streptococcus pyogenes* strain by epithelial cells. *FEMS Immunol Med Microbiol* 38:205-213.
- Marouni, M. J., S. Sela. (2003). The *luxS* gene of *Streptococcus pyogenes* regulates expression of genes affecting internalization by epithelial cells. *Infect Immun* 71:5633-5639.
- Sela, S., R. Pinto, U. Merin, B. Rosen. (2003). Thermal Inactivation of *Escherichia coli* in Camel Milk. *J Food Protect* 66:1708-1711.
- Marouni, M. J., S. Sela. (2004). Fate of *Streptococcus pyogenes* and epithelial cells following internalization. *J Med Microbiol* 53:1-7.
- Marouni, M. J., A. Barzilai, N. Keller, E. Rubinstein, S. Sela. (2004). Intracellular survival of persistent group A streptococci in cultured epithelial cells. *Int J Med Microbiol* 294:27-33.
- Weinberg, Z. G., G. Ashbell, Y. Chen, M. Gamburg, S. Sela. (2004). The effect of sewage irrigation on forage crops and silage safety and hygiene. *Animal Feed Sci Technol* 116:271-280.

- Sela, S., D. Nestel, R. Pinto, E. Nemny-Lavy, M. Bar-Josef (2005). The Mediterranean fruit fly is a potential vector for transmitting foodborne pathogens to fruits. *Appl Environ Microbiol* 71:4052-4056.
- Chen, Y., S. Sela, M. Gamburg, R. Pinto, Z. G. Weinberg. (2005). The fate of *Escherichia coli* during ensiling of wheat and corn. *Appl Environ Microbiol* 71:5163-5170.
- Pinto, R., A. Lichter, A. Danshin, S. Sela. (2005). Effect of an ethanol dip of table grapes on populations of *Escherichia coli*. *Postharvest Biol Technol* 39:308-313.
- Sela, S., S. Frank, E. Belausov, and R. Pinto. (2006). A mutation in the *luxS* gene influences *Listeria monocytogenes* biofilm formation. *Appl Environ Microbiol* 72:5653-5658.
- Bernstein N., S. Sela, R. Pinto, and M. Ioffe. (2007). Evidence for internalization of *Escherichia coli* into the aerial parts of maize via the root system. *J Food Protect.* 70:471-475.
- Weinberg, Z., Y. Chen, R. Pinto, and S. Sela. (2007). Fate of Inoculated *Escherichia coli* in hay. *J Appl Microbiol.* 102:1537–1543.
- Bernstein, S., S. Sela, S. Neder-Lavon. (2007). Effect of irrigation regimes on persistence of *Salmonella enterica* serovar Newport in small experimental pots designed for plant cultivation. *Irrig Sci.* 70:471-475.
- Bernstein, S., S. Sela, S. Neder-Lavon. (2007). Assessment of contamination potential of lettuce by *Salmonella enterica* serovar Newport added to the plant growing medium. *J Food Protect.* 70:1717-1722.
- Sela, S., O. Hammer-Muntz, O. Krifucks, R. Pinto, L. Weisblit and G. Leitner. (2007) Phenotypic and genotypic characterization of *Pseudomonas aeruginosa* strains isolated from mastitis outbreaks in dairy herds. *J Dairy Res.* 744:426-430.
- Fallik, E., V. Rodov, B. Horev, S. Sela, S. Alkalai-Tuvia and Y. Vinokur (2007). Rinsing and Brushing Technology for the Fresh-cut Industry. *Acta Hort.* 746:229-235.
- Nahary, L., A. Tamarkin, N. Kayam, S. Sela, L. Fry, B. Baker, A. Powles, S. Rogers, and I. Benhar. (2008). An Investigation of Anti Streptococcal Antibody Responses in Guttate Psoriasis. *Archives Dermatol Res.* 300:441-449.
- Lublin, A., and S. Sela. (2008). The Impact of Temperature during the Storage of Table Eggs on the Viability of *Salmonella enterica*, Serovars Enteritidis and Virchow, in the Eggs. *Poultry Sci.* 87:2208-2214.
- Maghodia, A. B., Y. Spiegel and S. Sela. (2008). Interactions between *Escherichia coli* and the plant-parasitic nematode *Meloidogyne javanica*. *J Appl Microbiol.* 105:810-816.

- Leitner, G., S. Sela, O. Hammer-Muntz, D. Zivotofsky L. Weisblit, M. Chaffer, and S. Zamir. (2008). Outbreak of subclinical mastitis in a flock of dairy goats associated with atypical *Staphylococcus haemolyticus*. *J Dairy Sci.* 16:1-5.
- Blum, S., E. D. Heller, O. Krifucks, S. Sela, O. Hammer-Muntz, G. Leitner. (2008). Identification of a bovine mastitis *E. coli* subset. *Vet Microbiol.* 132:135-148.
- Kroupitski, Y., R. Pinto, M. T. Brandl, E. Belausov, and S. Sela. (2009). Interactions of *Salmonella enterica* with lettuce leaves. *J Appl Microbiol.* 106:1876-1885.
- Kroupitski, Y., D. Golberg, E. Belausov, R. Pinto, D. Swartzberg, D. Granot, and S. Sela. (2009). Internalization of Salmonella in leaves is induced by light and involves chemotaxis and penetration through open stomata. *Appl Environ Microbiol.* 75:6076-6086.
- Weiss-Muszkat, M., Shakh, D., Zhou, Y., Pinto, R., Belausov, E., Chapman, M.R., and Sela, S. (2010). Biofilm formation and multicellular behavior in *E. coli* O55:H7, an atypical enteropathogenic strain. *Appl Environ Microbiol.* 76:1545-1554.
- Kurzbaum, E., Kirzhner, F., Sela, S., Zimels, Y., and Armon, R. (2010). Efficiency of phenol biodegradation by planktonic *Pseudomonas pseudoalcaligenes* (a constructed wetland isolate) vs. root and gravel biofilm. *Water Res* 44:5021-5031.
- Weinberg, Z., Chen, Y., Khanal, P., Pinto, R., Zakin, V., and Sela, S. (2011). The effect of cattle manure cultivation on moisture content and survival of *E. coli*. *J. Animal Sci.* 89:874-881.
- Golberg, D., Kroupitski, Y., Belausov, E., Pinto, R., and Sela, S. (2011). *Salmonella* Typhimurium internalization is variable in leafy vegetables and fresh herbs. *Int. J. Food Microbiol.* 145:250-257
- Gruzdev, N., Pinto, R., and Sela, S. (2011). Effect of desiccation on tolerance to multiple stresses in *Salmonella* Typhimurium. *Appl. Environ. Microbiol.* 77: 1667-1673.
- Kroupitski, Y., Pinto, R., Belausov, E., and Sela, S. (2011). Distribution of *Salmonella* Typhimurium in Romaine lettuce leaves. *Food Microbiol.* 28:990-997.
- Horev, B., Sela, S., Vinokur, Y., Gorbatshevich, E., Pinto, P., and Rodov, V. (2012). The effects of active and passive modified atmosphere packaging on the survival of *Salmonella enterica* serotype Typhimurium on washed romaine lettuce leaves. *Food Res. Int.* 45:1129-1132.
- Blum, S., Sela, N., Heller, E. D., Sela, S., and Leitner, G. (2012). Genome analysis of bovine-mastitis-associated *Escherichia coli* O32:H37 strain P4. *J. Bacteriol.* 94:3732.

- Gruzdev, N., Herzberg, S., Pinto, R., and Sela, S. (2012). Persistence of *Salmonella enterica* during dehydration and subsequent cold storage. *Food Microbiol.* 32: 415–422.
- Gruzdev, N., McClelland, M., Porwollik, S., Ofaim, S., Pinto, R., and Sela-Saldinger, S. (2012). Global transcriptional analysis of dehydrated *Salmonella enterica* serovar Typhimurium. *App. Env. Microbiol.* 78:7866-7875.
- Goudeau, D., Parker, C., Zhou, Y., Sela, S., Kroupitski, Y., and Brandl, M. (2013). The *Salmonella* transcriptome in lettuce and cilantro soft rot reveals a niche overlap with the animal host intestine. *App. Env. Microbiol.* 79:250-262.
- Gorbatsevich, E., Sela (Saldinger), S., Pinto, R., & Bernstein, N. (2013). Root internalization, transport and in-planta survival of *Salmonella enterica* serovar Newport in sweet-basil. *Env. Microbiol. Rep.* 5:151–159.
- Kroupitski, Y., Brandl, M. T., Pinto, R., Belausov, E., Tamir-Ariel, D., Burdman, S., and Sela (Saldinger), S. 2013. Identification of *Salmonella enterica* genes with a role in persistence on lettuce leaves during cold-storage by Recombinase-based In Vivo Expression Technology. *Phytopathology.* .103:362-372

Articles in Hebrew

- Weinberg, Z. G., G. Ashbell, Y. Chen, M. Gamburg, S. Sela. (2005). *Salmonella* and *E. coli* in sewage irrigated forage crops. *Meshek Habakar Vehachalav* 316:33-35.
- Sela, S. (2006). Biofilms and microbial safety of fresh-produce. *Haklae Israel* 26:54-58.
- Sela., S., N. Bernstein, R. Pinto, S. Lavon-Neder (2006). Effluent irrigation safety of fresh produce. Proceedings of the Annual meeting of the Israeli Society of Soil Science. Interactions between effluents, soil, plant, water and environment. pp. 14-17.
- Sela., S., N. Bernstein, R. Pinto (2007). Can foodborne pathogen enter from soil solution into the plant via the root system? *Maim Vehashkaya* 493:26-31.
- Sela., S., N. Bernstein, R. Pinto (2008). New insight into microbial safety of fresh produce. *Alon Hanotea* 62:695-698.
- Sela, S. (2009). *Salmonella* in vegetables. *Sade-Vayerek* (Field & Vegetables) 9:15-20.

Chapters in Books

Tsarfaty I., R.T. Altstock, L. Mittelman, H. Sandovsky-Losica, J. Jadoun, I. Fabian, E. Segal, and S. Sela. (1999).

Confocal Microscopy in the study of the interactions between microorganisms and cells. In: *Microbial ecology and infectious disease*. (E. Rosenberg, ed). pp. 75-88. Washington, D.C., American Society for Microbiology, Washington D.C.

Weinberg, Z. G., S. Sela, Y. Chen, and R. Pinto. (2007).

The safety and hygiene of sewage irrigated forage crops – summary of research in Israel. In: Current topics on Bioprocesses in Food Industry (Vol II). (A. Koutinas, A. Pandey, and C. Larroche, eds), pp. 72-77. Asiatech Publishers, Inc. New Delhi, India. Sela, S. and E. Fallik. (2009).

Microbial Quality and Safety of Fresh Produce. In: "Postharvest Handling: A Systems Approach", (Wojciech J. Florkowski, Robert L. Shewfelt, Bernhard Brueckner and Stanley E. Prussia, (eds). Elsevier. Oxford:Academic Press., pp. 351-398.

Students and Postdoctorate fellows

- **Dr. C. Edward Raja**

Period: 10/2013-

Title of Research: Salmonella stress-response; Development of biosensor for food spoilage

Academic Institution: ARO, The Volcani Center

- **Dr. Yulia Kroupitski**

Period: 2011-

Title of Research: Interactions between Salmonella and *Acrobeloides nanus*-a bacteriovorus soil nematode

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences

Former Students

PhD students and postdoctorate fellows

PhD

- **Yulia Kroupitski (PhD)**

Period: 2005-2010

Title of Thesis: Characterization of *Salmonella* genes require for persistence in the nonhost environment

Academic Institution: Tel-Aviv University (In collaboration with I. Ofek)

- **Nadia Kots (PhD)**

Period: 2006-2013

Title of Thesis: Characterization of *Salmonella* genes require for persistence during desiccation stress

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences

- **Dr. Hammer Munz, Orly (Postdoc)**

Period: 2006-2008

Title of study: Molecular identification and epidemiology of human pathogens

Academic Institution: Hebrew-University, Faculty of Agricultural, Food and Environmental Quality Sciences

- **Dr. Ajay Maghodia (Postdoc)**

Period: 2005-2007

Title of Research: Nematodes as potential vector for transmission of foodborne pathogens

In collaboration with: Prof. Y. Spiegel (ARO)

- **Dr. Mehran Marouni**

Period: 1998-2003

Title of Thesis: *Streptococcus pyogenes* genes involved in entry and intracellular survival.

Academic Institution: Tel-Aviv University

- **Dr. Osnat Eyal**

Period: 1996-2002

Title of Thesis: Characterization of group A *Streptococcus* internalization into epithelial cell.

Academic Institution: Tel-Aviv University

- **Dr. Jeries Jadoun**

Period: 1995-2000

Title of Thesis: Identification and characterization of *Streptococcus pyogenes* genes involved in epithelial cell internalization.

Academic Institution: Tel-Aviv University

M.Sc. Students

- **Kwanele Siyabonga Simelane (MSc)**

Period: 2011-2013

Title of Thesis: Application of Fluorescence Spectroscopy for Monitoring Microbial Contamination of Drinking Water

Hebrew University, Faculty of Agricultural, Food and

Academic Institution: Environmental Quality Sciences

- **Eti (Kessler) Keinan (MSc)**

Period: 2010-2013

Title of Thesis: Identification of chemo-receptors involved in the attraction of *Salmonella* to leaves

Hebrew University, Faculty of Agricultural, Food and

Academic Institution: Environmental Quality Sciences

- **Sharon Herzberg (MSc)**

Period: 2010-2013

Title of Thesis: Identification of *Salmonella* genes involved in desiccation stress tolerance

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences

- **Shani Yanai (MSc)**

- Period: 2010-2013
- Title of Thesis: Electrical permittivity as potential tool for estimating bio-clogging
- Academic Institution: Hebrew University, Faculty of Agricultural, Soil and Water Sciences
- **Tami Hazin (MSc)**

Period: 2010-2013

Title of Thesis: Tolerance of Salmonella to environmental stress

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences
 - **Alexandra Tzirkin (MSc)**

Period: 2010-2013

Title of Thesis: Interactions of pathogens with leaves

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences
 - **Elena Gorbatsevich (MSc)**

Period: 2006-2010

Title of Thesis: Interactions of Foodborne pathogens with growing vegetables

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences (In collaboration with N. Bernstein)
 - **Shani Afaim (MSc)**

Period: 2006-2010

Title of Thesis: Salmonella genes differentially-expressed during spoilage of potato

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences (In collaboration with E. Fallik)
 - **Dana Goldberg (MSc)**

Period: 2006-2010

Title of Thesis: *Salmonella* internalization in lettuce leaves

Academic Institution: Hebrew University, Faculty of Agricultural, Food and Environmental Quality Sciences
 -
 - **Inbal Carmi (MSc)**

Title of Thesis: Re-growth of waterborne pathogens in drinking water

systems

Academic Institution: Hebrew-University, Faculty of Agricultural, Food and Environmental Quality Sciences

- **Yulia Rol** (MSc)
Title of Thesis: Bacterial biofilm in unsaturated soil
Hebrew-University, Faculty of Agricultural, Food and Environmental Quality Sciences.
Academic Institution: Environmental Quality Sciences.
Co-supervisor: Dr. Shmuel Friedman, ARO
- **Udi Melamed** (MSc)
Period: 2003-2005
Title of Thesis: Bacterial biofilms in the Food Industry
Hebrew-University, Faculty of Agricultural, Food and Environmental Quality Sciences. Co-supervisor: Dr. R. Shapira
- **Dana (Roise) Shakh** (MSc)
Period: 2002-2006
Title of Thesis: Enteropathogenic *E. coli* genes involved in adhesion and biofilm formation on abiotic surfaces
Hebrew-University, Faculty of Agricultural, Food and Environmental Quality Sciences. Co-supervisor: Prof. M. Rosenberg
- **Michal Wiess-Muzhkat** (MSc)
Period: 2002-2005
Title of Thesis: *E. coli* genes involved in biofilm formation
Academic Institution: Hebrew-University, Faculty of Agricultural, Food and Environmental Quality Sciences
- **Shmulik Frank** (MSc)
Period: 2002-2005
Title of Thesis: Role of *luxS* gene in *Listeria monocytogenes* adherence to abiotic surfaces and biofilm formation
Hebrew-University, Faculty of Agricultural, Food and Environmental Quality Sciences
Academic Institution: Environmental Quality Sciences
Co-supervisor: Prof. A. Dinoor
- **Olga Sverdlov** (MSc)
Period: 2000-2005

Title of Thesis: Relationship between the presence of the *prtF1* gene and the origin of *S. pyogenes* strain.

Academic Institution: Tel-Aviv University

- **Yulia Katz** (MSc)
Period: 1999-2002
Title of Thesis: Characterization of a Tn916 mutant of *S. pyogenes* with impaired internalization capacity.
Academic Institution: Tel-Aviv University
- **Revital Neeman** (MSc)
Period: 1995-1998
Title of Thesis: Association between protein F1, internalization and the failure of antibiotic to eradicate group A streptococci from patient's throat.
Academic Institution: Tel-Aviv University