**Ofer Stein, PhD**

**Rehovot, Israel oferstein@gmail.com 972-584135796**

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Highly motivated molecular biologist with specialization in plant metabolism. Proficient in the fields of plant tissue culture and transgenic plants. Experienced in development of large scale high throughput screening methods.

**EXPERIENCE**

**Agricultural Research Organization, the Volcani Center, Bet Dagan, Israel 2019-**

**Project manager –** discovering bacterial secondary metabolites associated with plant growth promotion and for combating plant pathogens*(Laboratories of Dror Minz and Eddie Cytryn)*

**Agricultural Research Organization, the Volcani Center, Bet Dagan, Israel 2017-2019**

**Postdoctoral Research Fellow** *(Laboratory of David Granot)*

**Agricultural Research Organization, the Volcani Center, Bet Dagan, Israel 2010-2016**

**Graduate Student** *(Laboratory of David Granot)*

* Designing and conducting research projects.
* Generating transgenic plants using tissue culture techniques
* Training undergraduate and research project students.
* Analyzing data and writing scientific papers.
* Managing lab stocks and orders.

**Agricultural Research Organization, the Volcani Center, Bet Dagan, Israel 2006-2010**

**Undergraduate Student** *(Laboratory of David Granot)*

* Designing and conducting experiments.
* Studying response of transgenic Arabidopsis plants to abiotic stresses, mainly salt and heat.
* Expression of plant proteins in bacteria and yeast.
* Protein purification and enzymatic activity assays.

**MIGAL, Qiryat Shemona, Israel 2005**

**Immunology Research Project Student** *(Laboratory of Jacob Pitkovski)*

* Cloning, expression and purification the β subunit of MHC II from poultry to create antibodies for purifying poultry MHC class II and identifying repetitive motifs on MHC II presented peptides.

**EDUCATION**

**The Hebrew University of Jerusalem, Faculty of Agriculture, Rehovot, Israel 2010-2016**

* PhD in plant sciences, Thesis: “The role of fructokinases in vascular and seed development in tomato and Arabidopsis". Advisors: PhD David Granot, Prof. Oded Shoseyov.

**The Hebrew University of Jerusalem, Faculty of Agriculture, Rehovot, Israel 2006-2010**

* MSc in plant sciences. Thesis: “GASA genes and antioxidant activity: An attempt to understand the biochemical activity of the GASA genes ". Advisors: PhD David Granot, Prof. Oded Shoseyov.

**Tel-Hai Academic College, Tel-Hai, Israel 2002-2005**

* BSc in biotechnology

**SKILLS**

**Molecular Biology:**

* Plant CRISPR/Cas9 for genome editing, gene cloning, DNA/RNA extraction from plants and bacteria, restriction enzymes, PCR, qPCR (SYBR and Taqman), DNA sequence analysis, protein extraction, HIS-tag protein purification, SDS-PAGE, western blot.

**Bioinformatics:**

* Basic bioinformatics software for sequence analysis (DNAMAN, BioEdit). GENEVESTIGATOR and eFP browser for gene expression analysis. Integrated Genome Browser (IGB) for genomic search and RNA-seq data.

**Plant Models:**

* Arabidopsis, tomato and tobacco growth and maintenance. Crossing between different genotypes and analyzing genotype and trait segregations.

**Microscopy:**

* Analyzing plant tissues using microscope and dissecting microscope. Making free-hand cross sections or fixation and microtome cross sections. Tissue staining and analysis.

**Computer Skills:**

* Word, Excel, PowerPoint, Photoshop, JMP, SPSS, Endnote.

**LANGUAGES**

Hebrew: Mother tongue English: Excellent Spanish: Basic

**FELLOWSHIPS AND AWARDS**

* 2013, 2014: “Haorganizem Hashalem” Scholarship for Excellence, the Robert H. Smith Faculty of Agriculture, the Hebrew University.

**PUBLICATIONS**

* Granot D, Kelly G, **Stein O**, David-Schwartz R. 2014. Substantial roles of hexokinase and fructokinase in the effects of sugars on plant physiology and development. *Journal of Experimental Botany* **65**(3): 809-819.
* **Stein O**, Damari-Weissler H, Secchi F, Rachamilevitch S, German MA, Yeselson Y, Amir R, Schaffer A, Holbrook NM, Aloni R, Zwieniecki MA, Granot D. 2016. The tomato plastidic fructokinase SlFRK3 plays a role in xylem development. *New Phytologist* **209**(4): 1484–1495.
* **Stein O**, Avin-Wittenberg T, Krahnert I, Zemach H, Bogol V, Daron O, Aloni R, Fernie A, Granot D. 2017**.** Arabidopsis fructokinases are important for seed oil accumulation and vascular development. *Frontiers in Plant Science* (doi: 10.3389/fpls.2016.02047).
* **Stein O**, Secchi F, German MA, Damari-Weissler H, Aloni R, Holbrook NM, Zwieniecki MA, Granot D. 2017. Tomato cytosolic fructokinase FRK1 is important for phloem fiber development. *Biologia Plantarum*. 2017. doi: 10.1007/s10535-017-0762-3
* Goren S, Lugassi N, **Stein O**, Yeselson Y, Schaffer A, David-Schwartz R, Granot D. 2017. Suppression of sucrose synthase affects auxin signaling and leaf morphology in tomato. *PLoS ONE*. 12(8): e0182334. (doi: 10.1371/journal.pone.0182334)
* **Stein O**, Granot D. 2018**.** Plant Fructokinases: Evolutionary, Developmental, and Metabolic Aspects in Sink Tissues. *Frontiers in Plant Science* (doi: 10.3389/fpls. 2018.00339).
* **Stein O**, Granot D. 2019**.** An Overview of Sucrose Synthases in Plants. *Frontiers in Plant Science* **10**: 95 (doi: 10.3389/fpls.2019.00095).

**PATENTS**

Granot D, **Stein O** (2016) Methods for modifying oil content in plants and plants produced thereby. US Provisional Patent Application No. 62/427,301 Filed on 29 November 2016.