Hillel Brukental

Curriculum vitae

# Personal Details

Date of birth: 6.3.1990

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# Higher Education

**2016-2018 B.Sc. At plant sciences,** theFaculty of Agriculture**,** The Hebrew University of Jerusalem. Dean's excellence list.

**2018-2023 Direct-Ph.D. program for excellent students at plant sciences and genetics,** the Faculty of Agriculture, The Hebrew University of Jerusalem. Advisors: Dr. Doron Holland, Dr. Tamar Azoulay-Shemer and Dr. Smadar Harpaz-Saad. Research title: The *Prunus arabica* photosynthetic stem: characterization, genetic mapping and breeding implications.

**2023- present Postdoc at Steve Knapp’s lab,** plant sciences, UC Davis University. Research project: underling the genetic nature and regulation of stolon’s (runners) production in the octoploid strawberry (*Fragaria × ananassa*).

# Participation in Scientific Meeting, Conferences, Lectures and other Activities

**2021** **Agricon, Federation of Agricultural Societies in Israel, Bar-Ilan, Israel.** **Poster presentation:** Revealing the Genetic Components Responsible for the Unique Photosynthetic Stem Capability of the Wild Almond *Prunus arabica* (Olivier) Meikle. **Award winning poster. Presenting author:** Hillel Brukental.

**2021** **Model farm for sustainable agriculture meeting, Hanadiv gardens, Israel. Title of talk:** Revealing the Genetic Components Responsible for the Unique Photosynthetic Stem Capability of the Wild Almond *Prunus arabica* (Olivier) Meikle. **Presenting author:** Hillel Brukental.

**2022 The Annual Student Conference, Faculty of Agriculture, Hebrew University of Jerusalem, Israel.** **Title of talk:** Revealing the Genetic Components Responsible for the Unique Photosynthetic Stem Capability of the Wild Almond *Prunus arabica* (Olivier) Meikle. **Presenting author:** Hillel Brukental.

**2022** **The International Horticultural Congress (IHC), Anger, France.** **Poster presentation:** Revealing the Genetic Components Responsible for the Unique Photosynthetic Stem Capability of the Wild Almond *Prunus arabica* (Olivier) Meikle. **Presenting author:** Hillel Brukental.

**2022 Israeli-Spain almond board scientific meeting, IRTA, Mas-Bove, Spain.** **Title of talk**: the importance of utilizing wild species in almond breeding. **Presenting author:** Hillel Brukental.

**2023 The Plant & Animal Genome (PAG) Conference, San Diego, CA, USA.** **Title of talk**: Genetic mapping and applicative aspects of the wild almond *Prunus arabica* photosynthetic stem unique trait. **Presenting author:** Hillel Brukental.

**2023 The Plant & Animal Genome (PAG) Conference, San Diego, CA, USA.** **Poster presentation**: Genetic mapping and applicative aspects of the wild almond *Prunus arabica* photosynthetic stem unique trait. **Presenting author:** Hillel Brukental.

**2023 ISHS Almond and Pistachio Symposium, UC Davis, CA, USA.** **Title of talk**: Exploring *Prunus arabica* ecotype as genetic source of agriculturally important traits in almond breeding. **Presenting author:** Hillel Brukental.

# Membership in academic societies

2020-2022 Membership in the International Society for Horticultural Science (ISHS).

2022- present Membership in the New York Academy of Science.

# Additional Functions

2015-2016 Research assistant, Dr. Omer Crane group. Field measurements, monitoring dormancy in stone fruit.

2015-2017 Research assistant, Mr. Eran Harcavi, Ministry of agriculture. Field measurements, characterizing fruit maturation of different grapevine clone.

2016-2018 Breeder assistant, Prof. Dani Zamir lab. Leading a pot plant-breeding program with roses and cherry tomatoes, using a marker assisted breeding.

# List of Publications

**Brukental, H.**, Doron-Faigenboim, A., Bar-Ya’akov, I., Harel-Beja, R., Attia, Z., Azoulay-Shemer, T. and Holland, D. (2021). Revealing the Genetic Components Responsible for the Unique Photosynthetic Stem Capability of the Wild Almond *Prunus arabica* (Olivier) Meikle*.* ***Frontiers in Plant Science.*** [**DOI: 10.3389/fpls.2021.779970**](https://doi.org/10.3389/fpls.2021.779970)

**Trainin, T. Brukental, H.** Shapira, O. Attia, Z., Tiwari, V. Hatib, K. Gal, S. Zemach, H. Belausov, E. Charuvi, D. Holland, D. and Azoulay-Shemer, T. (2022). Physiological characterization of the wild almond *Prunus arabica* stem photosynthetic capability*.* ***Frontiers in Plant Science.*  DOI: 10.3389/fpls.2022.941504**

**Trainin, T T., Brukental,** H S., Shapira, O PD., Attia, Z PD., Tiwari, V., Charuvi, D., Holland, D., and Azoulay-Shemer, T. (2022). Stem stomata of the wild almond, Prunus arabica, regulates stem photosynthesis in response to different environmental stimuli. ***ISHS Acta Horticulturae. (Accepted).***

**Patents**

**Brukental, H**., Bar-Ya’akov, Hatib, K. I., Harel-Beja, R., Azoulay-Shemer, T. and Holland, D. METHODS OF INCREASING YIELD OF PRUNUS DULCIS AND PLANTS PRODUCED THEREBY US Utility Patent Application No. 17/885,638, Filled on 11 August 2022, published on 03/02/2023.

# Awards, scholarships, fellowships

2016-2017 Ministry of Education Scholarship.

2016-2021 Agricultural Research Organization fellowship.

2017-2018 IDF Scholarship.

2018 ‘Mifal Hapais’ Scholarship for volunteering in the community.

2019 The Israel Fruit Growers Association Scholarship for excellent M.Sc. Students.

2023 Vaadia-BARD Postdoctoral Fellowship (Proposal No. FI-637-2023)