

CV- Loai Basheer

Date: December 2021

Personal Details

- Full name: Loai Basheer.
- Date of birth: September 7th, 1983.
- Country of birth: Israel.
- Citizenship: Israeli.
- Family status: Married +2.
- Phone numbers- Office: +972-4-8181979
- Work address: Department of Food Sciences, Tel Hai College.
- E-mail address: Loaibasheer@telhai.ac.il

Expertise and Skills

Comprehensive knowledge in the fields of analytical chemistry, biochemistry, food sciences and natural products including the following skills:

- Analytical Chemistry: Liquid and gas chromatography, spectral methods, solid phase extraction, low-tech chromatography, separation and identification of phytochemicals and nutraceuticals.
- Food Chemistry: Food composition analysis, Olive oil chemistry, polyphenols, functional foods and compounds.
- Biochemistry: Enzymatic assays, microsomes (preparation and evaluation of microsomal enzymes activity).
- Cell Culture: Cell line maintenance, cell proliferation assay and biological activity assay.
- Chemical Synthesis: Organic synthesis of compounds and biological activity assessment.
- Computational Chemistry and Biology software (Discovery Studio, Accelrys).

Higher Education

- 2003 - 2006:
B.Sc. in Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.

- 2007 - 2009:
M.Sc. in Biochemistry and Food Sciences (Magna cum laude). The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem. Thesis title: Irrigation and extra virgin olive oil quality: chemical composition and bioactivity in the intestine.

- 2010 - 2016:
Ph.D. in Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem. Dissertation title: Characterization of the interactions between selected polyphenols and Cytochrome P450 3A4 (CYP3A4). Under the supervision of Prof. Zohar Kerem.

Academic Appointments and Academic Administrative Positions in Institutions of Higher Education

- 2006-2007: Laboratory Assistant, Lab of natural products and analytical chemistry, Department of Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.
- 2007-2013: Teaching assistant, Department of Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.
- 2011-2012: Guest Lecturer, Department of Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.
- 2011-2014: Project Manager for “Preservation of olives for oil production”, Department of Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.
- 2013-2016: Teaching Instructor, Department of Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.
- 2017-present: Lecturer, Department of Food Sciences, Faculty of Sciences and Technology, Tel Hai College.
- 2018(September)-present: Member of the Ethics Committee, Faculty of Sciences and Technology, Tel Hai College. (Completed the CITI Program course for Institutional Review Board members).
- 2018(December)-present: Member of the Steering Committee for Arab Students, Tel Hai College.

- 2019(February): Member of the Committee for Inter-faculty and Inter-Departmental Courses, Tel Hai College.
- 2019(February): Member of the "Gvanim in Academia" group in Tel Hai College (Cooperated with the Program of "Israeli Hope in Academia").
- 2020(July)-present: Member of the Steering Committee of the Entrepreneurship Center at Tel Hai College.
- 2021(January)-present: Member of the Steering Committee of the Research Authority at Tel Hai College.
- 2021(June)-present: Participation in a preparatory discussion of the committee for the Humanities Studies at Tel Hai College.

Research Activities in Tel Hai College

- Identification of functional compounds from Corn Cobs, development of their production processes and applications in foods.
- Chemical and biological characterization of phenolic compounds from *Ziziphus Spina-Christi* (Co-supervising of a M.Sc. student with Prof. Snait Tamir).
- Examining of *Broomrape spp.* as a high protein, and high essential amino acids dietary source (In collaboration with Prof. Rachel Amir).
- Species of Malvaceae as novel food crops (In collaboration with Dr. Oren Shelef, ARO)
- Chemical and sensorial qualities of Olive oil.
- Developing innovative plant-based added-value food products through the promotion of LOCAL Mediterranean NUT and LEGUME crops (EU consortium funded by PRIMA).
- Characterization of "Royal Jelly" as a health promoting agent in foods.

Teaching

- Teaching at the Department of Biochemistry and Food Sciences. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem. Courses:
 - 2007-2008: "Lab in Food Microbiology and Sanitation", undergraduate level.
 - 2008-2014: "Lab in Food Analysis", undergraduate level.
 - 2009-2016: "Lab in Methodology of Sensory Evaluation of Food", undergraduate level.
 - 2011-2012: "Chemical and Environmental Aspects of Food", undergraduate level.
- Teaching at the Department of Food Sciences. Tel Hai College. Courses:
 - 2017 (October)-present: "Lab in Food Analysis- A", undergraduate level.
 - "Lab in Food Analysis- B", undergraduate level.

Awards and Fellowships

- 2008: Berman Scholarship for Excellent M.Sc. student, The Hebrew University of Jerusalem.
- 2010-2012: Robert H. Smith fellowship for Excellent Doctoral Students. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.
- 2012-2015: The Council for Higher Education Fellowship for Outstanding Arab Doctoral Students.
- 2014: Teaching Excellence. The Robert H. Smith Faculty of Agriculture, Food and Environment. The Hebrew University of Jerusalem.
- 2015: Young Investigator Award of the journal "Archives of Biochemistry and Biophysics", at the 7th International Conference on Polyphenols and Health (ICPH), Tours, France, October 2015.
- 2018-2021: Ma'of Fellowship for Outstanding Lecturers from the Arab Society in Israeli Academic Institutions. The Council for Higher Education, Israel.
- 2019: Teaching Excellence. The Faculty of Sciences and Technology, Tel Hai College.

Funded Grants

Competitive Funds:

- 2017: Grant of the "Magnetron" Program of the Israeli Innovation Authority. Research on "Functional compounds from Corn Cobs- 1st year", in collaboration with Sanlakol LTD. (Total: 1.3M NIS/year).
- 2018: Ma'of Grant for Outstanding Lecturers from the Arab Society in Israeli Academic Institutions. The Council for Higher Education, within Tel Hai College. (100K NIS).
- 2018: Grant of "The Office of the Chief Scientist", Ministry of Agriculture and Rural Development. Research on "Broomrape - An enemy or a friend? Examining of broomrape spp. as a high protein, and high essential amino acids dietary source", in collaboration with Prof. Rachel Amir, Migal, Israel. (Total: 600K NIS/3 years).
- 2019: Grant of the "Magnetron" Program of the Israeli Innovation Authority. Research on "Functional compounds from Corn Cobs- 2nd year", in collaboration with Sanlakol LTD. (Total: 1.6M NIS/year).
- 2020: Grant of the "Magnetron" Program of the Israeli Innovation Authority. Research on "Functional compounds from Corn Cobs- 3rd year", in collaboration with Sanlakol LTD. (Total: 140K NIS/year).
- 2021: Grant of the "PRIMA-EU" foundation (Partnership on Research and Innovation in the Mediterranean Area). Research on "Developing innovative plant-based added-value food products through the promotion of LOCAL

Mediterranean NUT and LEGUME crops", in collaboration with EU-consortium, (Total for consortium: 2M euro €4 years).

2021: Grant for research collaboration between Tel Hai College and Shamir Research Institute (Katzrin). Research on " Characterization of "Royal Jelly" as a health promoting agent in foods". (Total: 20K NIS/year).

Supervising Graduate Students

2018-2020: Safi Khalaila- Biotechnology M.Sc. program, co-supervision with Prof. Snait Tamir.

2020(November)-present: Dean Shlomi- Biotechnology M.Sc. program, in collaboration with Prof. Segula Masaphy.

Supervising undergraduate Students

2020-2021: Tomer Ashkenazi- student for Food Sciences B.Sc. (Research Project).

2021(June)-present: Nicole Kaufman- student for Nutrition Sciences B.Sc. (Research Project).

2021(June)-present: Shaked Avitan- student for Nutrition Sciences B.Sc. (Research Project).

2021(August): Tomer Hatzir- student for Food Sciences B.Sc. (Research Project).

2021(October): Ofir Giladi- student for Food Sciences B.Sc. (Research Project).

Active Participation in Conferences

- Training course on Chemical Olive Oil Testing Methods. Instituto de la Grasa, Seville, Spain, June 2007.
- Basheer Loai. Interactions of polyphenolics from Olive oil with drugs through their interactions with Cytochrome P450 3A4 (CYP3A4). The annual symposium of The Otto Warburg Center for Agricultural Biotechnology. Max Planck Institute of Molecular Plant Physiology, Golm, Germany, April 2011 (*Lecture*).
- Basheer Loai. Characterization of the interactions between selected polyphenols and Cytochrome P450 3A4. Terra Olivo, Tel-Aviv, Israel, June, 2012 (*Lecture*).
- Basheer Loai. Computer modelling in predicting efficacy and safety of food components that interact with Cytochrome P450 3A. 12th NuGO week, Mechanism of a long-life health. Barcelona, Spain, September 2015 (*Poster presentation*).
- Basheer Loai. Computer modelling in predicting food-drug interactions of dietary polyphenols through inhibition of Cytochrome P450 3A. 1st COST-POSITIVE

Scientific workshop and The 7th International Conference on Polyphenols and Health (ICPH). Tours, France, October 2015 (*Poster presentation*).

- **Basheer Loai**. Prediction of the interaction between food constituents and drugs. Conference on Food Innovations, Tel Hai College, Kiryat Shmona, Israel, June 2017 (*Lecture*).
- **Basheer Loai**. Wild Plants and Agricultural Residues for Food Valorization. Conference on Food Innovations, Tel Hai College, Kiryat Shmona, Israel, June 2021 (*Lecture*).

Publications

1. Dag Arnon, Ben-Gal Alon, Yermiyahu Uri, **Basheer Loai**, Nir Yogev, and Kerem Zohar. "The effect of irrigation level and harvest mechanization on virgin olive oil quality in a traditional rain-fed 'Souri' olive orchard converted to irrigation." *Journal of the Science of Food and Agriculture*, 88, no. 9 (2008): 1524-1528. (72 citations, Journal IF=2.422, Ranked 43/135 in Food Science & Technology).
2. Dag Arnon, Ben-David Eric, Kerem Zohar, Ben-Gal Alon, Erel Ran, **Basheer Loai**, and Yermiyahu Uri. "Olive oil composition as a function of nitrogen, phosphorus and potassium plant nutrition." *Journal of the Science of Food and Agriculture*, 89, no. 11 (2009): 1871-1878. (37 citations, Journal IF=2.422, Ranked 43/135 in Food Science & Technology).
3. Ben-David Eric, Kerem Zohar, Zipori Isaac, Weissbein Sebastian, **Basheer Loai**, Bustan Amnon, and Dag Arnon. "Optimization of the Abencor system to extract olive oil from irrigated orchards." *European journal of lipid science and technology*, 112, no. 10 (2010): 1158-1165. (33 citations, Journal IF=2.074, Ranked 42/125 in Food Science & Technology).
4. Ben-Gal Alon, Yermiyahu Uri, Zipori Isaac, Presnov Eugene, Agam Nurit, Dag Arnon, Hanoeh Ehud, Kerem Zohar, and **Basheer Loai**. "Determining Irrigation Levels for a Modern Israeli Olive Orchard: Towards Maximum Yields of High Quality Oil." International Symposium on Olive Irrigation and Oil Quality, Acta Horticulturae, 888 (2011): 47-52. (2 citation).
5. Ben-Gal Alon, Dag Arnon, **Basheer Loai**, Yermiyahu Uri, Zipori Isaac, and Kerem Zohar. "The influence of bearing cycles on olive oil quality response to irrigation." *Journal of Agricultural and Food Chemistry*, 59, 21 (2011): 11667-11675. (29 citations, Journal IF=3.571, Ranked 20/125 in Food Science & Technology).
6. Erel Ran, Kerem Zohar, Ben-Gal Alon, Dag Arnon, Schwartz Amnon, Zipori Isaac, **Basheer Loai**, and Yermiyahu Uri. "Olive (*Olea europaea* L.) tree nitrogen status is a key factor for olive oil quality." *Journal of Agricultural and Food Chemistry*, 61, no. 47 (2013): 11261-11272. (23 citations, Journal IF=3.571, Ranked 20/125 in Food Science & Technology).
7. **Basheer Loai** and Kerem Zohar. "Interactions between CYP3A4 and dietary polyphenols." *Journal of Oxidative Medicine and Cellular Longevity*, vol. 2015,

- 15 pages, (2015): doi:10.1155/2015/854015. (86 citations, Journal IF=4.868, Ranked 53/187 in Cell Biology Sciences).
8. **Basheer Loai**, Schultz Keren, Fichman Merav, and Kerem Zohar. "Use of in vitro and predictive in silico models to study the inhibition of Cytochrome P4503A by stilbenes." *PLOS ONE* 10(10) (2015): e0141061. (4 citations, Journal IF= 3.234, Ranked 11/63 in Multidisciplinary Sciences).
 9. **Basheer Loai**, Schultz Keren, and Kerem Zohar. "Inhibition of Cytochrome P450 3A by acetylated analogues of resveratrol in in vitro and in silico models". *Scientific Reports*, 6, 31557, (2016): doi:10.1038/srep31557. (7 citations, Journal IF=5.228, Ranked 7/63 in Multidisciplinary Sciences).
 10. **Basheer Loai**, Schultz Keren, Yelena Guttman, and Kerem Zohar. "In silico and in vitro inhibition of Cytochrome P450 3A by synthetic stilbenoids". *Food Chemistry*, 237, (2017), 895-903: doi.org/10.1016/j.foodchem.2017.06.040. (6 citations, Journal IF=5.399, Ranked 6/125 in Food Science & Technology).
 11. **Basheer Loai**, Dag Arnon, Yermiyahu Uri, Ben-Gal Alon, Zipori Isaac, and Kerem Zohar. "Effects of Reclaimed Wastewater Irrigation and Fertigation Level on Olive Oil Composition and Quality". *Journal of the Science of Food and Agriculture*, 99 (14), 6342-6349, (2019): doi.org/10.1002/jsfa.9911. (3 citations, Journal IF=2.422, Ranked 43/135 in Food Science & Technology).
 12. **Basheer Loai**, Ben-Simchon Eyal, Cohen Alisa, and Shelef Oren. "From Traditional Food to Functional Food? Evaluation of Malvaceae Species as Novel Food Crops". *Agronomy*, 11, 1294, (2021): doi.org/10.3390/agronomy11071294. (Journal IF=3.417, Q1 in Plant Sciences).