



1. PERSONAL INFORMATION:

Name: Tahmasebi Enferadi Sattar

Present Position:

Associate Professor: Tahmasebi Enferadi Sattar

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Address: National Institute of Genetic Engineering and Biotechnology (NIGEB), Shahrak-e- Pajooresh, 15th Km, Tehran -Karaj Highway, Tehran, Iran.

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Web Page: www.nrcgeb.ac.ir, www.nigeb.ac.ir, <http://www.disa.uniud.it/>

2. EDUCATION:

1992-96

Doctor of Philosophy: Productivity of the cultivated plants
Faculty of Agriculture, University of Udine, Italy.

Thesis:

The Biochemical markers as tool to evaluate *Helianthus annuus* L. tolerance to *Sclerotinia sclerotiorum* (Lib) de Bary.

1985-92

Master of Science: Biochemistry
Cathedral of Agricultural Vegetal Biochemistry, Faculty of Agriculture,
University of Udine, Italy.

Thesis:

Identification of a H⁺ - PPasi of pea (*Pisum sativum*) stalk mitochondria.

3. EMPLOYMENT (Present & Previous Positions):

Assistant Professor

National Institute for Genetic Engineering and Biotechnology, Tehran, Iran.

2003- 2008

Assistant Professor

Department of Agriculture and Environmental Sciences (DISA), Faculty of Agriculture, University of Udine, Italy.

4. ACTIVE RESEARCH PROJECTS:

Fatty acid desaturases in sunflower seed and plant.

Identification and measuring of Micotoxins in Maize .

New sunflower varieties for ecological bio-fuel production.

Industrial use of oil seed, Oleochemical, Biodiesel production

Anti-oxidant and anti-nutritional factors in oil seed

Study of Shikimate dehydrogenase activity in *Sclerotinia sclerotiorum* tolerance (esp. in Sunflower)

5. INTERNATIONAL/NATIONAL GRANTS:

1991-1994

Project CEE ECLAIR / FLAIR Contract No. AGRE - CT 90 - 0039 "Seed Oil for New Technical

Applications, SONCA" - Area II Sunflower Other Participants: University of Pisa (Italy); University of Udine (Italy); University of Giessen (Germany); Semund Company (Germany); Baslini Company (Italy); Agrotec Spain, <http://www.biomatnet.org/secure/Eclair/F136.htm>

Project EEC " CAMAR" DGVI FII.3 Contract No CT91 - 0118 " Improving Water Valorisation in Sunflower Crops by the Creation of Drought Tolerant Varieties"

Other participants: INRA - Montpellier (France); University of Giessen (Germany); CNRS-Strasbourg (France); Rustica Semences (France); Arlesa Semillas (Spain); University of Udine (Italy)

Agreed Project EEC AIR" Contract No3-CT94-2231 "Research for the adaptation of oilseeds crops management to the new requirements of the Common Agricultural Policy: crop competitively, seed quality, environment

1996 – 1999

MAE Project (ministry of external affair) "Sunflower Project" a corporation with Mozambique funded by MAE <http://www.esteri.it/MAE/IT>

1996 – 2000

Project entitled "Constitution of new high oleic sunflower hybrids" funded by Province of Udine

1999-2001

Project MURST (Ministry of Science, Research and technology, " Inulin crops: environmental models and crop management techniques"<http://www.mb-international.com/murst/murst.htm>

2002-2004

Project MIUR (ministero dell Istruzione, dell Università dei Ministri) and MIRAF (Ministero delle Risorse Agricole e Forestali), "Risk reduction of mycotoxin contamination in food" the three-year Italian Research project

<http://www.politicheagricole.it/default.html>,<http://www.miur.it/DefaultDesktop.aspx>

2005-2008

Project ASOB, "Increasing the oxidative stability of biodiesel", ref: RAF/9/7.15/103893, University of Udine, Italy <http://www.regione.fvg.it> .

2004-2008

Project Cargi2, RAF.9/7.0/20744, Agricultural University Farm of A. Servadei Universitaria - University of Udine, Italy <http://www.regione.fvg.it>

2006-2007

D4 Project, <http://www.progettod4.fvg.it/>, financed by "Regione Friuli Venezia Giulia"; and managed by some universities and organs of AREA Science Park.

2008 – 2011

Project for specific international cooperation actions (SICA) "New feedstock and innovative transformation process for a more sustainable development and production of lignocellulosic ethanol" page 54-55

<http://cgse.epfl.ch/webdav/site/cgse/shared/Research%20Funding/071119Presentation-2ndEnergyCall-Euresearch.pdf>

2009-2010

Project (NIGEB), Institute of Genetic Engineering and Biotechnology.

The use of protein profile to characterize and classify Iranian olive (*Olea europaea* L.) germplasm resources.

PhD., 1992-96, Scholarship from "Ministry of Education and Scientific Research of Italy.

M.Sc., 1985-92 Scholarship from "University of Udine Italy.

6. AWARDS / MEMBERSHIPS:

2007-2017, Expert in International Olive Oil Council (IOC), Chemical analysis.

<https://1.oliveoiltimes.com/library/ioc-australia.pdf>

Start cup 2005, the 4th winner of the pre-selection for the innovative idea of "Biosun" through 800 novel idea, awarded by the University of Udine Italy.

1994-1997 Permanent member of FAO Working Group, Evaluation of wild helianthus species. Group leader: Gerald J.Seiler Fargo, North Dakota USA.

7. WORKSHOPS ORGANIZED/ Participated:

IOC International workshop on chromatogram interpretation
Instituto de la grassa, Seville (Spain), 25-29 May 2015

1st symposium on Sunflower Industrial Uses, September 11-14, 2006 Udine, Italy
<http://www.isa.cetiom.fr/prestot.htm>

Chairman of the Seminar presented in the ministry of Jihad-e-Agriculture, on the Use of Molecular Markers to authenticate of olive oil, Appreciated by Tahmasebi Mohammad Ali, Vice Ministry in Horticulture. Second advanced workshop on Mass-Spectrophotometry, March 15-20, 1998.

8. PATENTS/REGISTRATION:

International publication date:13 September 2007

International publication number: WO2007/102122

Supported by the university of Udine, Italy with collaboration of, Rabiei Zohreh, Vannozzi Gian Paolo
Use of Unsaponifiable Matter of Grape Seed Oil as Antioxidant additive for Biodiesel

9. PUBLICATIONS:

5- Book (chapter)

Challenges for Genetic Identification of Olive Oil by Sattar Tahmasebi Enferadi and Zohreh Rabiei in the book The Mediterranean Genetic Code - Grapevine and Olive Edited by Danijela Poljuha and Barbara Sladonja, ISBN 978-953-51-1067-5, DOI: 10.5772/3442, Publisher: InTech, April 10, 2013.

4- Book (chapter)

Agro-Energy Systems and local Adaptation : Biofuel development from the agricultural sector , Franco Rosa (eds.) 2008, Forum Editrice Universitaria Udinese S.r.l. ISBN: 978-88-8420-518-6 pp:153-159.

3- Book

Il Girasole: Sattar Tahmasebi Enferadi, Gian Paolo Vannozzi, Claudio Ferfuia, Maurizio Turi, 2013, Publisher: National Institute of Genetic Engineering and Biotechnology, Tehran, Iran. ISBN: 978-964-8516-25-8

2- Book (chapter)

Traceability of Origin and Authenticity of Olive Oil by Zohreh Rabiei and Sattar Tahmasebi Enferadi in the book "Olive Oil - Constituents, Quality, Health Properties and Bioconversions" edited by Boskou Dimitrios, ISBN 978-953-307-921-9, InTech, February 2, 2012

1- Book (chapter)

Current advances in the Biochemistry and cell Biology of Plant Lipids, Benning C. & Ohlrogge J (eds.) 2007 Aardvak Global Publishing Company, LLC; Salt Lake City, UT ISBN: 978-1-4276-1965-5 PP: 199-202

Journals

Maryam Monazzah, Mehdi Nasr Esfahani, Sattar Tahmasebi Enferadi* (2022)

Impact Factor 2.74.

Genetic structure and proteomic analysis associated in potato to Rhizoctonia solani AG-3PT-stem canker and black scurf Physiological and Molecular Plant Pathology Volume 122, 101905

Maryam Monazzah, Sattar Tahmasebi Enferadi*, Zohreh Rabiei, Maria De Nobili (2021)

Impact Factor 1.59.

Proteome Changes in Stem Tissues of Sunflower Lines Inoculated with Culture Filtrate of *Sclerotinia sclerotiorum*
Iranian Journal of Biotechnology 11(3): 175-81 DOI: 10.30498/ijb.2021.223625.2722

Newsha Mortazavi, Mahboobeh Heidari, Zohreh Rabiei, Sattar Tahmasebi *, Maryam Monazzah (2021) Impact Factor 2.33.

Loading harmine on nanographene changes the inhibitory effects of free harmine against MCF-7 and fibroblast cells. *Med Chem Res* 30, 1108–1116 DOI:10.1007/s00044-021-02714-9

Sayed Saeed Moosavia, Fatemeh Abdia, Mohammad Reza Abdollahia, Sattar Tahmasebi, Enferadi, Mahmood Malekic (2020) Impact Factor 4.25

Phenological, morpho-physiological and proteomic responses of *Triticum boeoticum* to drought stress *Plant Physiology and Biochemistry* Volume 156, November 2020, Pages 95-104
DOI: 10.1016/j.plaphy.2020.08.016

39- Soolmaz Ahmadian, Sattar Tahmasebi Enferadi* and Abbas Alemzadeh (2019) Impact Factor 0.59

Effect of continents on wild sunflower in terms of oil content, fatty acid compositions and seed traits
EurAsian Journal of BioSciences Eurasia J Biosci 13, 1-10

38- Soolmaz Ahmadian, Sattar Tahmasebi Enferadi* and Abbas Alemzadeh (2019) Impact Factor 0.39

Assessment of Genetic Diversity of Cultivated Sunflower in Terms of Oil Content, Fatty Acid Compositions and Seed Traits 1-19. *Heali*

<https://doi.org/10.1515/helia-2019-0009>

M Monazzah, S Tahmasebi Enferadi, Z Rabiei (2019) Impact Factor 4.42

Enzymatic activities and pathogenesis-related genes expression in sunflower inbred lines affected by *Sclerotinia sclerotiorum* culture filtrate *Journal of applied microbiology* 125 (1), 227-242
doi: 10.1111/jam.13766

37- Nesa Jafari, Sonbol Nazeri, Sattar Tahmasebi Enferadi (2018) Impact Factor 3.52

Parthenolide reduces metastasis by inhibition of vimentin expression and induces apoptosis by suppression elongation factor α -1 expression *Phytomedicine* 41 67-73

<https://doi.org/10.1016/j.phymed.2018.01.022>

36- Monazzah, M., Soleimani, M.J., Tahmasebi Enferadi, S. and Rabiei, Z. (2017) Impact Factor 1.22

Effects of oxalic acid and culture filtrate of *Sclerotinia sclerotiorum* on metabolic changes in sunflower evaluated using FT-IR spectroscopy. *J Gen Plant Pathol*

<https://doi.org/10.1007/s10327-017-0755-2>.

35- An unspecific phytotoxin oxalic acid and its effect on sunflower proteome (2016) Impact Factor 1.86

Maryam Monazzah, Sattar Tahmasebi Enferadi, Mohammad J. Soleimani and Zohreh Rabiei *Australian Journal of Botany*, 2016, 64, 219–226 <http://dx.doi.org/10.1071/BT15143>.

34- Mostafa Hojati, Seyed Ali Mohammad Modarres-Sanavy, Sattar Tahmasebi Enferadi, Mohammad Majdi, Faezeh Ghanati, Soudeh Farzadfar (2015) Impact Factor 2.952

Differential deployment of parthenolide and phenylpropanoids in feverfew plants subjected to divalent heavy metals and trans-cinnamic acid *Plant Soil*, DOI 10.1007/s11104-015-2677-0

33- Zohreh Rabiei, Sattar Tahmasebi Enferadi (2015)

Using Beta-Glucan Isolated From *Helianthus annuus* Infected by *Sclerotinia sclerotiorum* in Bakery.

Journal of Medicinal Plants and By-products Journal of Medicinal Plants and By-Products Vol. 4 No. 2 pp. 201-207
ISSN 2322-1399

32- Mona Sorahinobar, Vahid Niknam, Hassan Ebrahimzadeh, Hassan Soltanloo, Mehrdad Behmanesh, Sattar Tahmasebi Enferadi (2015) Impact Factor 2.237

Central Role of Salicylic Acid in Resistance of Wheat Against *Fusarium graminearum* *J Plant Growth Regul*,
DOI 10.1007/s00344-015-9554-1

31- Parastoo Motallebi, Vahid Niknam, Hassan Ebrahimzadeh, Sattar Tahmasebi Enferadi, Majid Hashemi (2015)
impact factor 1.524

The effect of methyl jasmonate on enzyme activities in wheat genotypes infected by the crown and root rot pathogen *Fusarium culmorum* *Acta Physiol Plant* (2015) 37:237,

30- Parvini F., Zeinanloo AA., Ebrahimie E., Tahmasebi Enferadi S., Hosseini-Mazinani M. (2015) Impact Factor: 1.812

Differential expression of fatty acid desaturases in Mari and Shengeh olive cultivars during fruit development and ripening. *EUR. J. Lipid Sci. Technol.* 117: 523-531

29- Tahmasebi Enferadi S. (2015) Impact Factor: 0.699

Heat-shock protein synthesis Study by micro-chip. *J. Agr. Sci. Tech.* (2015) Vol. 17: 1629-1636

28- Somayeh Hashemi Sheikh Shabani, Sahar Seyed Hasan Tehrani, Zohreh Rabiei, Sattar Tahmasebi Enferadi,

Gian Paolo Vannozzi (2015) Elsevier

Peganum harmala L.'s anti-growth effect on a breast cancer cell line *Biotechnology Reports* 8: 138-143.

DOI: 10.1016/j.btre.2015.08.007

27- Sattar Tahmasebi Enferadi, Zohreh Rabiei, Gian Paolo Vannozzi. (2015)

Sunflower Heat-Shock Protein Synthesis Study under Water Deficit Condition *Helia*, 38(62): 53-60.

DOI: 10.1515/helia-2014-0041

26- Zohreh Rabiei, Sattar Tahmasebi Enferadi, Fatemeh Najafi (2014)

Isolation and Identification of β -glucan from Fungal Sources, *Sclerotinia sclerotiorum* and *Pleurotus florida*, *Journal of New Technologies in Environmental Engineering and Sustainable Resource*, Vol. 1, No. 1, Summer 2014: 58 – 85

25- Leila Akbari, Zohreh Rabiei, Sattar Tahmasebi Enferadi, Sakineh Vanaii (2013)

Single Base Extension and Fourier-Transform Infra-Red Spectroscopy Techniques; Further Approaches in Discriminating Hazelnut-Adulterated Olive Oil *Iranian Journal of Biotechnology* 11(3): 175-81

24- Shabani Alireza, Tahmasebi Enferadi Sattar, Zaeifizadeh Mohammad (2013).

Proteom-comparison of sunflower cytoplasmic male sterile and fertile restorer inbred lines

International Science and Investigation Journal Vol 2, No 3 pp:66-77

23- Mohammad Zaeifizadeh, Sattar Tahmasebi Enferadi, Amir Mousavi, Parviz Heidari, Mostafa Ahmadizadeh (2013)

Quick method for screening of tolerant sunflower (*Helianthus annuus L.*) genotypes to *Sclerotinia sclerotiorum* at seedling stage. *Biharean Biologist* 7 (1): pp.29-32 ©Biharean Biologist, Oradea, Romania, 2013 Article No.: 131105

22- Mohesn Mohamadnia Ahmadi, Hamid Rajabi, Sattar Tahmasebi Enferadi, Neda Khaledi, Ali Kazemi (2013)

Effect of cold and moderate water immersion during resistance exercise on plasma heat shock protein response in rats .

Journal of Sport and Motor Science 2(10): 13-23 (in Persian)

21- Fatemeh Nejatizadeh-Barandozi and Sattar Tahmasebi Enferadi (2013)

Study of genetic variation of *Aloe vera* Linne population through morphological traits

New Cellular & Molecular Biotechnology Journal 3(10): 35-43 (in Persian)

20- Fatemeh Nejatizadeh-Barandozi and Sattar Tahmasebi Enferadi (2012)

FT-IR study of the polysaccharides isolated from the skin juice, gel juice, and flower of *Aloe vera* tissues affected by fertilizer treatment *Organic and Medicinal Chemistry Letters*, 2:33

<http://www.orgmedchemlett.com/content/2/1/33>

19- Fatemeh Nejatizadeh-Barandozia, Mohammad Reza Naghavib, Sattar Tahmasebi Enferadic, Amir Mousavic, Younes Mostofid, Mohammad Esmail Hassani (2012)

Genetic diversity of accessions of Iranian *Aloe vera* based on horticultural traits and RAPD markers *Industrial Crops and Products* 37: 347– 351 www.elsevier.com/locate/indcrop

18- Zaeifizadeh M, Tahmasebi Enferadi S, Mosavi A, Rabiei Z, Soltani Najafabadi M. (2012)

Different HSR genes marker expression pattern and antioxidant system change in sunflower genotypes against *Sclerotinia sclerotiorum* elicitor. *Archives Des Sciences*. Vol 65, No. 9; Sep 2012

17- Fatemeh Nejatizadeh Barandozi, Sattar Tahmasebi Enferadi, Mohammad Reza Naghavi, Younes Mostofi and Amir Mousavi (2012)

Diversity of Iranian aloe (*Aloe vera L.*) genotypes based on aloenin contents and some morphological traits

Journal of Horticultural Science & Biotechnology 87 (6) 673–677

16- Fatemeh Nejatizadeh Barandozi, Sattar Tahmasebi Enferadi, Mohammad Reza Naghavi, Younes Mostofi and Amir Mousavi (2011)

Survey of chemical manure on morphological traits in Iranian Aloe vera African Journal of Biotechnology Vol. 10(55), pp. 11515-11519, 21 <http://www.academicjournals.org>

15- Zohreh Rabiei, Hamid Rashedi, Sattar Tahmasebi Enferadi, Gholamabbas Akbarim (2011)
The use of Real-Time PCR technique for detection of transgenic potato against PVY virus compared with non transgenic ones. Journal of Food Science and Technology (JFST) Vol. 8, No. 1.29-34. (in Persian)

14- Sattar Tahmasebi Enferadi, Zohreh Rabiei, Gholam Abbas Akbari, Gian Paolo Vannozzi. (2011)
Shikimate Dehydrogenase Expression and Activity in Sunflower Genotypes Susceptible and Resistant to Sclerotinia sclerotiorum (Lib.) de Bary
Journal of Agricultural Science and Technology Vol. 13, pp.943 - 952

13- Zohreh Rabiei, Sattar Tahmasebi Enferadi, Abbas Saidi, Sonia Patui, Gian Paolo Vannozzi (2010)
Simple sequence repeats amplification: a tool to survey the genetic background of olive oils
Iranian journal of Biotechnology, Vol. 8, No. 1, pp: 24-31

12- Vannozzi Gianpaolo, Tahmasebi Enferadi Sattar, Rabiei Zohreh (2008)
Aumento della stabilita ossidazione del biodisel mediante impiego antiossidanti naturali presnti nella "Pomace"
Ersa4/2008 pp.20-26 www.ersa.fvg.it/informativa/notiziario-ersa/anno

11- Rabiei Z, Tahmasebi Enferadi S, Vannozzi GP (2007)
Regulatory of polyunsaturated fatty acids accumulation and characterization of linolenic acid after germination of sunflower seed, HELIA, 30, 47: 175-182

10- Nonis A, Ruperti B, Falchi R, Casatta E, Tahmasebi Enferadi S, Vizzotto G (2007)
Differential expression and regulation of a neutral invertase encoding gene from peach (Prunus persica): evidence for a role in fruit development. Physiologia Plantarum, 129: 436 - 446

9- Tahmasebi Enferadi S, Z. Rabiei, G.P. Vannozzi (2006)
Protection of Biodiesel Based on Sunflower Oil from Oxidative Degredation by Natural Antioxidants. HELIA, 29, 44: 25-33

8- Tahmasebi-Enferadi S, Rabiei, Z, Turi, M, Baldini, M, and Vannozzi, GP (2004)
Half-seed analysis for comparing linolenic acid synthesis between high and low oleic acid sunflower inbred lines. HELIA, 27, 40: 63-72

7- Baldini M, Giovanardi R, Tahmasebi-Enferadi S, Vannozzi GP (2002)
Effects of Water Regime on Fatty Acid Accumulation an Final Fatty Acid Composition in the Oil of Standard and High oleic Sunflower hybrids. Ital. J. Agron., 6, 2, 119-126

6- Castano F, Baldini M, Re J, Vannozzi GP, Rodriguez R, Turi M, Tahmasebi-Enferadi S (2002)
Genotypic responses and diallel analysis for an early resistance test to Sclerotinia sclerotiorum in sunflower. Oleagineux, Corp Gras, Lipides, Vol.9, n 0 6, 474-478

5- M. Turi, M. Baldini, S. Tahmasebi Enferadi, G.P. Vannozzi, A. M. Olivieri (2001)
«Friuli» e «Carnia»: nuovi ibridi di girasole ad alto contenuto di acido oleico per la pianura friulana NOTIZIARIO ERSA 2., pp: 24-27

4- Gomez D, Hernandez JL, Tahmasebi Enferadi S, Baldini M, Delle Vedove G and Vannozzi GP (1999)
Drought resistance evaluation of sunflower maintainer lines derived from inter specific crosses Helia, 22, (special issue) December, pp: 413-419

3- Tahmasebi Enferadi S, Gomez Sanchez D, Baldini M, Vannozzi GP (1998)
Effect of Sclerotinia sclerotiorum LIB. De Bary culture filtrate on sunflower morphological characters, oxalic acid content and shikimate dehydrogenase activity Helia, 21, Nr 28, pp: 81-96

2- Tahmasebi Enferadi S, Vannozzi GP, Gomez Sanchez D, Baldini M (1998)
Results of screening sunflower for resistance to toxic metabolites produced by Sclerotinia sclerotiorum (LIB). De Bary and prospects for the use of biochemical markers in breeding. Agr. Med., vol. 128, pp: 47-58

1- Gomez-Sanchez D, Vannozzi GP, Baldini M, Tahmasebi Enferadi S, Delle Vedove G (1998)
Effect of soil water availability in sunflower lines derived from interspecific crosses. Ital. J. Agron., 2, 2, 101-110

10. PROCEEDINGS/ABSTRACTS:

Standard protocols (ISIRI-Persian)

1- Tahmasebi Enferadi et al., (2015)

Sensory analysis of Olive Oil - Guide for the Selection, Training and Monitoring of Skilled Virgin Olive Oil tasters.
INSO: 1432 (Head)

2- Tahmasebi Enferadi et al., (2015)

Biotechnology-Molecular biomarker analysis -General definitions and requirements for microarray detection of specific nucleic acid sequences. INSO: 1432. (Member)

3- Tahmasebi Enferadi et al., (2014)

Olive oil- Organoleptic assessment of virgin olive oil. INSO: 18689.
(Member)