

## CURRICULUM VITAE

**First Name** : Ismail

**Surname:** :TURKAN

**Citizenship** : Turkish

**Present Age** : 51

**Date of Birth** : January 15. 1958

**Place of Birth** : Izmir, TURKEY

**Nationality** : Turkish

**Sex** : Male

**Address** : Department of Biology, Science Faculty, Ege University, Bornova  
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**Position** : Professor, Dept. of Biology, Ege University, Bornova 35100,  
Izmir/TURKEY

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**Education** : Ph.D (1987) Biology (Botany), Ege University  
M.S. (1982) Biology (Botany), Ege University  
B.S. (1980) Biology (Botany), Ege University

**Research Areas:**

Stress Tolerance in Plants:

-Physiological, biochemical and molecular characterization of plants under drought and salt stress.

-Oxygen free radicals and antioxidants in plants under stress.

-Plant signaling under stress.

**Academic/Research Positions:**

-1994-Present : Professor, Dept. of Biology, Science Faculty, Ege University

-1989-1994 : Associate Professor, Dept. of Biology, Science Faculty, Ege University

-1985-1989 : Research Associate, Dept. of Biology, Science Faculty, Ege University

**Other Positions:**

-2004-2006 : Executive Board Member of Ege University

1999 (August)-2002 (July) : Dean of Science Faculty, Ege University

1993-1996 : Deputy Director, Center For Environmental Research, Ege University

**Fellowships/Awards:**

<b><u>Year</u></b>	<b><u>Fellowships</u></b>	<b><u>Awarded by</u></b>
2009 (November)	Visiting professor	Kumamoto University, as the lecturer of the international education of GRACIUS program.
2008 (March)	Invited Speaker,	First Int. Student Conference on Advanced Science and technology (ICAST), Kumamoto University, JAPAN
2006 (May)- 2007 (February)	Fellowship	Japan Society for the Promotion of Science (JSPS), (10 Months)
2004 (May)	Fellowship	Alltech's 20th Annual Symposium on Nutritional Biotechnology in the Feed and Food Industries (Lexington, Kentucky USA)
2001(July)	Fellowship	International Symposium on Trace Elements (Toronto, Canada)
1996 (April-December)	Scholarship	Plant Cell Technology Lab. Faculty of Horticulture, Chiba University, Matsudo, Japan (Goho Life Science Foundation) (9 months)
1995 (May)	Fellowship	International Symposium on Trace Elements (Paris France)
1993 (July)	Fellowship	European Community/Diversitas Workshop, King College, London University, (London, England)
1993 (February)	Fellowship	International Visitor Program of United States Information Service, United States of Information Agency, USA
1989-1991	Scholarship (Monbusho)	Institute of Genetic Ecology, Tohoku University, Sendai, Japan Ministry of Education, Culture and Sport of Japan

1981-1985

Scholarship  
of Turkey

Scientific and Technical Research Council

**Professional and Editorial Activities:**

**Turkish Representative of Federation of European Plant Biologists (FESPB)**

**Management Committee Member of COST FAO 605**

**Member of Editorial Board**, Environmental and Experimental Botany, Published by Elsevier, Netherland, 2009-present

**Member of Editorial Board**, Turkish Journal Agriculture and Forestry, Published by the Scientific and Research Council of Turkey (TUBİTAK), Ankara, 2008-Present

**Associate Editor**, Turkish Journal of Botany, Published by the Scientific and Research Council of Turkey (TUBİTAK), Ankara, 2001-2006.

**Member of Editorial Board**, Turkish journal of Agriculture and Forestry, Published by Scientific and Research Council of Turkey (TUBİTAK), Ankara, 2008-present

**Member of Advisory Board**, Turkish Journal of Biology, Published by the Scientific and Research Council of Turkey (TUBİTAK), Ankara, 2002-present

**Member of Advisory Board**, Turkish Journal of Botany, Published by the Scientific and Research Council of Turkey (TUBİTAK), Ankara, 1993-2000.

**Member of Advisory Board**, Journal of Cell and Molecular Biology, Published by Golden Horn University, Istanbul, Turkey, 2001-present

**Member of Advisory Board**, Advances in Molecular Biology, Published by Istanbul Kültür University. 2006-present

### **Credentials and Memberships:**

Participation as a sprinter in Turkish National Athletic Team between 1976-1988.

Vice President of Turkish Athletic Federation between January-October 2000.

*Membership in:*

1. Turkish Biological Society
2. Turkish Representative of European Plant Biological Society (FESPB)
3. Turkish National Biotechnology Society

**Reviewer of** Journal of Experimental Botany, BMC Plant Biology, Plant and Cell Physiology, Physiologia Plantarum, Plant Biology, Journal of Plant Physiology, , Scientia Horticulturae, Brazilian Journal of Plant Physiology, Journal of Agricultural and Food Chemistry, LWT Food Science and Technology, Annals of Applied Biology, Electronic Journal of Plant Biotechnology, Archives of Agronomy and Soil Sciences, Journal of Agronomy and Crop Science.

### **Achievement and Accomplishment Highlights:**

-**More than 30 original publications in reputed international journals (SCI)** like Plant Molecular Biology Reporter, Physiologia Plantarum, Journal of Plant Growth Regulation, Plant Biology, 'Plant Science', 'Journal of Plant Physiology', 'Environmental and Experimental Botany', Plant and Soil, 'Plant Growth Regulation', 'Biologia Plantarum', 'Israel Journal of Plant Sciences', 'Scientia Horticulturae'.

-Establishment of the "Molecular Biology and Genetics" and "Environmental Biology Education Program" in Department of Biology at Ege University

-Member of preparation committee of Turkish Biology Olympics Team supported by Turkish Scientific Council (TUBITAK)

-Presentations in international meetings, seminars and workshops

-Supervision of Ph. D and M. Sc Thesis students (20)

### **Teaching Experience:**

About 20 years of teaching experience in the Department of Biology of Ege University.

**Teaching areas:** Plant Physiology, Plant Stress Physiology, General Biology (Plant Biology), Plant Adaptational Mechanisms, Molecular Plant Metabolism, and Plant Signal Transduction Pathways at undergraduate, graduate and postgraduate levels.

### **RELEVANT PUBLICATIONS**

1- Bor M., Ozkur O., Ozdemir F., **Turkan I.**, 2009, Identification and characterization of the Glucosinolate-myrosinase system in Caper (*Capparis ovata* Desf), *Plant Molecular Biology Reporter*. (in press) doi: 10.1007/S11105-0117-0.

2- **Türkan I.**, Demiral T., 2009, Recent developments in understanding salinity tolerance *Environmental and Experimental Botany* (in press) doi: 10.1016/j.envexpbot.2009.05.008.

3- Ardic M, Sekmen AH, Tokur S, Ozdemir F, **Turkan I.**, 2009, Antioxidant responses of chickpea plants subjected to boron toxicity, *Plant Biology*, 11(3): 328-338.

4- Bor M., Seckin B., Ozgur R., Yilmaz O., Ozdemir F., **Turkan I.**, 2009, Comparative effects of drought, salt, heavy metals and heat stresses, on Gamma- aminobutyric acid (GABA) levels of sesame (*Sesamum indicum* L.) *Acta Physiologia Plantarum* 31(3): 655-659.

5- Ozkur O., Ozdemir F., Bor M., **Turkan I.**, 2009, Physiological and antioxidant responses of the perennial xerophyte *Capparis ovata* Desf to drought *Environmental and Experimental Botany* 66 (3): 487-492.

6- Seckin B, Sekmen AH, **Turkan I.**, 2009, An enhancing effect of exogenous mannitol on the antioxidant enzyme activities in roots of wheat under salt stress, *Journal of Plant Growth Regulation* Volume: 28 Issue: 1 Pages: 12-20

7- Ardic M, Sekmen AH, **Turkan I.**, Tokur S, Ozdemir F, 2009, The effects of boron toxicity on root antioxidant systems of two chickpea (*Cicer arietinum* L.) cultivars, *Plant and Soil* Volume: 314 Issue: 1-2 Pages: 99-108

8- Sivritepe N, Sivritepe HO, **Turkan I.**, Bor M, Ozdemir F, 2008, NaCl pre-treatments mediate salt adaptation in melon plants through antioxidative system, *Seed Science and Technology* Volume: 36 Issue: 2 Pages: 360-370

9- Sivritepe N., Erturk U., Yerlikaya C., **Turkan I.**, Bor M. and Ozdemir F., 2008, Response of the cherry rootstock to water stress induced in vitro, *Biologia Plantarum* Volume: 52 Issue: 3 Pages: 573-576

10- Sekmen AH, **Turkan I.**, Takio S, 2007, Differential responses of antioxidative enzymes and lipid peroxidation to salt stress in salt-tolerant *Plantago maritima* and salt-sensitive *Plantago media*, *Physiologia Plantarum* Volume: 131 Issue: 3 Pages: 399-411

11- Yazici I, **Turkan I**, Sekmen AH, Demiral T, 2007, Salinity tolerance of purslane (*Portulaca oleracea* L.) is achieved by enhanced antioxidative system, lower level of lipid peroxidation and proline accumulation, *Environmental and Experimental Botany* Volume: 61 Issue: 1 Pages: 49-57

12- Koca H, Bor M, Ozdemir F, **Turkan I**, 2007, The effect of salt stress on lipid peroxidation, antioxidative enzymes and proline content of sesame cultivars, *Environmental and Experimental Botany* Volume: 60 Issue: 3 Pages: 344-351

13- U. Erturk, N. Sivritepe, C. Yerlikaya, M. Bor, F. Ozdemir, **I.Turkan**, 2007, Responses of the cherry rootstock to salinity in vitro, *Biologia Plantarum* Volume: 50 Issue: 4 Pages: 745-748.

14- Koca H, Ozdemir F, **Turkan I** Effect of salt stress on lipid peroxidation and superoxide dismutase and peroxidase activities of *Lycopersicon esculentum* and *L-pennellii* *Biologia Plantarum* Volume: 50 Issue: 4 Pages: 745-748.

15- Demiral T, **Turkan I**, 2006, Exogenous glycinebetaine affects growth and proline accumulation and retards senescence in two rice cultivars under NaCl stress, *Environmental and Experimental Botany* Volume: 56 Issue: 1 Pages: 72-79

16- Demiral T, **Turkan I**, 2005, Comparative lipid peroxidation, antioxidant defense systems and proline content in roots of two rice cultivars differing in salt tolerance, *Environmental and Experimental Botany* Volume: 53 Issue: 3 Pages: 247-257

17- **Turkan I**, Bor M, Ozdemir F, Koca H., 2005, Differential responses of lipid peroxidation and antioxidants in the leaves of drought-tolerant *P.acutifolius* Gray and drought-sensitive *P.vulgaris* L. subjected to polyethylene glycol mediated water stress, *Plant Science* Volume: 168 Issue: 1 Pages: 223-231

18- Demiral T, **Turkan I**, 2004, Does exogenous glycinebetaine affect antioxidative system of rice seedlings under NaCl treatment? *Journal of Plant Physiology* Volume: 161 Issue: 10 Pages: 1089-1100

19- Ozdemir F, Bor M, Demiral T, **Turkan I**, 2004, Effects of 24-epibrassinolide on seed germination, seedling growth, lipid peroxidation, proline content and antioxidative system of rice (*Oryza sativa* L.) under salinity stress, *Plant Growth Regulation* Volume: 42 Issue: 3 Pages: 203-211

20- Bor M, Ozdemir F, **Turkan I**, 2003. The effect of salt stress on lipid peroxidation and antioxidants in leaves of sugar beet, *Beta vulgaris* and wild beet, *B. maritima*, **Plant Science** Volume:164 Pages: 77-84.

21- Ozmen A.D. Ozdemir F, **Turkan I**, 2003. Effects of paclobutrazol on response of two barley cultivars to salt stress, **Biologia Plantarum**, Volume: 46(2) Pages: 263-268.

22- Acar O, **Turkan I.**, Ozdemir F., 2001. Superoxide dismutase and peroxidase activities in drought sensitive and resistant barley (*Hordeum vulgare* L.) varieties. **Acta Physiologia Plantarum** Volume: 23(3), Pages: 351-356.

### **Presentations in International Meetings and Seminars:**

-OZfidan C., **TURKAN I.**, SEKMEN A.H., SECKIN B., Investigation on the interactions among abscisic acid (ABA), reactive oxygen species and antioxidant defense system in transmission of drought stress signaling in ABA-deficient - Arabidopsis thaliana mutant (aba1) and wild-type Arabidopsis thaliana ecotype, Plant Abiotic Stress- from signaling to development 14th-17th May 2009 Tartu-Estonia

-OZfidan C., **TURKAN I.**, SEKMEN A.H., SECKIN B. The Interactions among ABA, ROS and Antioxidant System in Transmission of Drought Stress Signaling in Arabidopsis thaliana L.. XVI Congress of FESPB, Finland, August 17-22

-**TURKAN I.** Salinity Tolerance Mechanisms of Higher Plants from Cellular to Whole Plant Level. The First International Student Conference on Advanced Science and Technology. ICAST Kumamoto March 13-14, 2008, Kumamoto, JAPAN

-SEKMEN AH., **TURKAN I.**, TAKIO S., Physiological and biochemical studies of salt induced stress in Plantago species. Proceedings of the 70 th Annual Meeting of the Botanical Society of Japan. September 13-16, 2006, Kumamoto, JAPAN.

-**TURKAN I.**, DEMIRAL T., SEKMEN A.H., TOSUN N. AND TURKUSAY H. Salt Stress and Plant Activators. **Re-Defining Agronomy with Natural and Novel Solutions, International Agronomy Symposium of Improcrop**, Istanbul, Turkey, March 31 - April 02, 2005.

**-TURKAN I., DEMIRAL T., SEKMEN A.H., AND TOSUN N. (2004) Abiotic Stresses and Plant Activators. In: *Proceedings of Alltech's 20th Annual Symposium on Nutritional Biotechnology in the Feed and Food Industries*, Lyons T.P. and Jacques K.A. (eds.), Nottingham University Press. England. pp. 387-390.**

-OZAYDIN T., **TURKAN I.**, KUCUKAKYUZ K. Aluminum Tolerances of some Turkish Wheat Cultivars Related to pH Changes Around Their Roots and Chlorophyll Fluorescence. Poster Presentation at the Sixth ICOPTTE, University of Guelph, Guelph, Ontario, Canada, July 29-August, 2001 (Meeting Abstract).

-KUCUKAKYUZ K., RINCÓN-ZACHARY M., **TURKAN I.** Aluminum ( $Al^{3+}$ )-Calcium ( $Ca^{2+}$ ) Interactions in Roots of Aluminum-tolerant and Aluminum-sensitive Cultivars of Wheat (*Triticum aestivum* L.). Oral presentation at the Second Balkan Botanical Congress, Istanbul, Turkey, May 14-18, 2000 (Meeting Abstract).