

## Curriculum Vitae



### Personal Information:

**Name** Ekrem Gurel  
**Title** Prof. Dr.  
**Date of Birth** April 09, 1966 (*registered as June 14, 1969*)  
**Place of Birth** Igdir, Karakoyunlu, Kacerdogansali  
**Marital Status** Married, one child  
**Address** Abant Izzet Baysal University, Faculty of Science, Department of Biology, 14280 Bolu, TURKEY  
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### Education and Work Experience:

**1983-1984** **Undergraduate** (1st year) – Ataturk University, Faculty of Agriculture, Erzurum, **TURKEY**  
**1984-1987** **Undergraduate** (2nd-4th years) – Ankara University, Faculty of Agriculture, Ankara, **TURKEY**  
**1988-1992** **PhD** – Leeds University, Department of Biology, Leeds, **ENGLAND**  
**1992-1995** **Research Scientist** – Sugar Institute, Plant Breeding Department, Ankara, **TURKEY**  
**1995-1998** **Assistant Professor** – Abant Izzet Baysal University, Department of Biology, Bolu, **TURKEY**  
**1997** **Postdoctoral** – Queensland University, Department of Botany, **AUSTRALIA**  
**1998-2004** **Associate Professor** – Abant Izzet Baysal University, Department of Biology, Bolu, **TURKEY**  
**2004-...** **Professor** – Abant Izzet Baysal University, Department of Biology, Bolu, **TURKEY**  
**2007-2008** **Visiting Professor** – University of California Berkeley, **USA**

### Scholarships and Awards:

1987-1988 Scholarship for Intensive English Course in Turkey, provided by The Scientific and Technological Research Council of Turkey (TUBITAK) , **TURKEY**  
1988-1991 Scholarship for PhD Study in England (Leeds University), provided by TUBITAK,, **TURKEY**  
1994 Scholarship for Joining an International Congress on Biotechnology in Jordan, provided by UN Education and Research Fund  
1997 Scholarship for Postdoctoral Study in Australia, provided by TUBITAK, **TURKEY**  
1997 Scholarship for Postdoctoral Study in Australia, provided by Queensland University, **AUSTRALIA**  
2000-2014 Promotion Awards for Publications in International SCI Journals, given by TUBITAK,, **TURKEY** (*one or more awards each year*)  
2001 Third Place Award in the Best Poster Competition at The 12th Biotechnology Congress, **TURKEY**  
2004-2014 Promotion Awards for Publications in International SCI Journals, given by Abant Izzet Baysal University, Turkey (*one or more awards each year*) , **TURKEY**  
2005 Third Place Award in the Best Poster Competition at The 14th Biotechnology Congress, **TURKEY**  
2007-2008 Scholarship for Postdoctoral Study (Visiting Professor) in USA (University of California, Berkeley), provided by TUBITAK, **TURKEY**

### **International Journals – Editor-in-Chief:**

- Turkish Journal of Biology

### **International Journals – Member of Advisory Board:**

- Turkish Journal of Botany
- Turkish Journal of Agriculture and Forestry
- Plant Cell Biotechnology and Molecular Biology
- Indian Journal of Applied and Pure Biology
- Journal of Applied Biological Sciences
- Kafkas University Journal of Faculty of Veterinary Medicine

### **International Journals – Member of Reviewers:**

- African Journal of Biotechnology
- Australian Journal of Crop Science
- Bioresource Technology
- Current Biotechnology
- Hacettepe Journal of Biology and Chemistry
- Indian Journal of Applied and Pure Biology
- Journal of Applied Biological Sciences
- Journal of Agricultural Science and Technology
- Journal of Herbs, Spices and Medicinal Plants
- Journal of Pharmacy and Pharmacology
- Molecules
- Naturwissenschaften
- Phytochemical Analysis
- Plant Biology
- Plant Cell Biotechnology and Molecular Biology
- Plant Cell Tissue and Organ Culture
- Plant Growth Regulation
- Plant Molecular Biology Reporter
- Recent Patents on Biotechnology
- Romanian Biotechnological Letters
- Scientia Horticulturae
- Turkish Journal of Biology
- Turkish Journal of Botany
- Turkish Journal of Chemistry
- World Applied Science Journal

### **Courses Thought:**

<b><u>Name of the Course</u></b>	<b><u>Teaching Language</u></b>	<b><u>Level</u></b>
Introduction to Biology	Turkish	BSc
Introduction to Botany	Turkish	BSc
Introduction to Plant Anatomy	English	BSc
Introduction to Plant Physiology	English	BSc
Plant Tissue Cultures	English	BSc
Biotechnology	English	BSc
Plant Biotechnology	English	MSc
Biotechnology Applications	English	MSc
Advance Topics in Plant Tissue Cultures	English	PhD
Transgenic Plants	English	PhD
<i>In Vitro</i> Production of Plant Secondary Metabolites	English	PhD
Advance Plant Physiology	English	PhD
Plant Stress Physiology	English	PhD

### **Postgraduate Studies Supervised:**

- An In Vitro Culture Protocol, Analysis of Saponins and Bioassay of Biological Activity of *Verbascum thapsus* L., A Medicinal Plant, PhD Thesis completed by Arzu Turker in June 2002
- The Effect of the Composition of Germination Medium on In Vitro Regeneration of Sugar Beet (*Beta vulgaris* L.) Breeding Lines, MSc Thesis completed by Emel Topal in August 2002
- How Replacement of the Five Highly Conserved Amino Acids of Subunit-I Affects Assembly and Enzymatic Activity of the *Rhodobacter capsulatus* cbb<sub>3</sub>-type Oxidase, PhD Thesis completed by Mehmet Ozturk in December 2005
- In Vitro Propagation of Some Endemic Medicinal Plant Species of the Bolu Region, MSc Thesis completed by Bahtiyar Buhara Yucesan in August 2005
- In Vitro Regeneration and Analysis of Phenolics in *Digitalis ferruginea* L. subsp. *schischkinii* (Ivan), MSc Thesis completed by Nevin Sahbaz in January 2012
- In Vitro Propagation and Cardiac Glycoside Production in Endemic *Digitalis* Species of Anatolia, PhD Thesis completed by Bahtiyar Buhara Yucesan in December 2011
- Investigation of Relationship between Stress Factors and Plant Metabolites in Some Endemic Turkish *Digitalis* Species, PhD Thesis completed by Gunce Sahin in January 2012
- Investigation of Cardenolide Synthase Metabolism via Molecular Techniques and Comparative Analysis of Cardenolide Contents in *Digitalis ferruginea* L. Species, PhD Thesis continuing by Özge Kaya since September 2012
- Clonal Propagation of Sweet Herb (*Stevia rebaudiana*) and Investigation of Its Large Scale Production in Turkey, PhD Thesis continuing by Refik Buyukgocmen since February 2012.
- Clonal Propagation of Rhizomania-resistant Cytoplasmic Male Sterile (CMS) and O-type Sugar Beet (*Beta vulgaris* L.) Plants and Production of Dihaploid O-type Plants in Turkey, PhD Thesis continuing by Arman Pazuki since February 2014
- In Vitro Vernalization of Sugar Beet (*Beta vulgaris* L.) and Shortening the Duration of Seed Development, PhD Thesis continuing by Fatemeh Aflaki since February 2014

### **Research Projects:**

- 15. Development of *Rhizomania*-resistant Parental Lines in Sugar Beet and Identification of Resistant Genotypes in Wild Beet Populations**  
*Financed:* Scientific and Technological Research Council of Turkey; *Position:* Researcher; *Status:* Continues
- 14. Investigation of Cardenolide Synthase Metabolism via Molecular Techniques and Comparative Analysis of Cardenolide Contents in *Digitalis ferruginea* L. Species**  
*Financed:* Scientific and Technological Research Council of Turkey; *Position:* Project Coordinator; *Status:* Continues
- 13. The genus *Digitalis*: Molecular taxonomy, preservation, active constituents and therapeutic applications**  
*Financed:* European Union (Project No: PIRSES-295251) University; *Position:* Project Coordinator; *Status:* Continues
- 12. Clonal Propagation of Wolfberry (*Lycium barbarum* L.) and Its Adaptation to Climate Condition in the Bolu Region**  
*Financed:* Scientific and Technological Research Council of Turkey; *Position:* Project Coordinator; *Status:* Completed
- 11. In Vitro Regeneration and Analysis of Total Phenolics and Rosmarinic Acid in *Ocimum basilicum* L.**  
*Financed:* Scientific and Technological Research Council of Turkey; *Position:* Project Coordinator; *Status:* Completed
- 10. In Vitro Regeneration and Cardenolide Production in Endemic *Digitalis* Species (*Scrophulariaceae*) of Turkey**  
*Financed:* Scientific and Technological Research Council of Turkey; *Position:* Project Coordinator; *Status:* Completed
- 9. Genetic Transformation of Sorghum (*Sorghum bicolor* L.) to Improve Its Nutrient Quality and Digestibility of Starch and Protein Contents**  
*Financed:* Melinda and Bill Gates Foundation, University of California Berkeley, and Scientific and Technological Research Council of Turkey; *Position:* Researcher; *Status:* Completed
- 8. Propagation of Some Medicinal Plant Species of Bolu Region (Turkey) via Tissue Cultures**  
*Financed:* Scientific and Technological Research Council of Turkey; *Position:* Researcher; *Status:* Completed
- 7. In Vitro Propagation of *Asplenium nidus* and *Anthurium andreanum*, Two Ornamental Species**  
*Financed:* Abant Izzet Baysal University; *Position:* Project Coordinator; *Status:* Completed
- 6. Establishment of Resistance to Fungal Pathogens in Sunflower (*Helianthus annuus*) Using Noval Anti-microbial Peptides**

*Financed:* Queensland University (Australia) and Scientific and Technological Research Council of Turkey; *Position:* Researcher; *Status:* Completed

**5. Clonal Propagation of *Juniperus foetidissima* Willd. and *Juniperus excelsa* Bieb.**

*Financed:* Abant Izzet Baysal University; *Position:* Project Coordinator; *Status:* Completed

**4. Genetic Transformation of Sugar Beet (*Beta vulgaris* L.) via *Agrobacterium tumefaciens* and Microprojectile Bombardment**

*Financed:* Scientific and Technological Research Council of Turkey; *Position:* Researcher; *Status:* Completed

**3. Protoplast Culture and Somatic Hybridization in Sugar Beet (*Beta vulgaris* L.)**

*Financed:* Turkish Sugar Factories Co.; *Position:* Researcher; *Status:* Completed

**2. Haploid Plant Production in Sugar Beet (*Beta vulgaris* L.)**

*Financed:* Turkish Sugar Factories Co.; *Position:* Researcher; *Status:* Completed

**1. In Vitro Regeneration of Some Sugar Beet (*Beta vulgaris* L.) Varieties Grown in Turkey**

*Financed:* Turkish Sugar Factories Co.; *Position:* Project Coordinator; *Status:* Completed

**Publications:**

**A. International Journals:**

44. Verma SK, Yucesan B, Sahin G, Gurel E (2014) Embryogenesis, plant regeneration and cardiac glycoside determination in *Digitalis ferruginea* subsp. *ferruginea* L. **Plant Cell Tissue and Organ Culture**, (*in press*)
43. Sahin G, Verma SK, Gurel E (2014) Hydrogen peroxide-induced antioxidant activities and cardiotoxic glycoside accumulation in callus cultures of endemic *Digitalis* species. **Plant Physiology and Biochemistry**, 82: 89-94.
42. Yucesan B, Cicek F, Gurel E (2014) Somatic embryogenesis and encapsulation of immature bulblets of an ornamental species, grape hyacinths (*Muscari armeniacum* Leichtlin ex Baker). **Turkish Journal of Agriculture and Forestry**, 38: 716-722.
41. Yucesan B, Muller-Uri F, Kreis W, Gurel E (2014) Cardenolide estimation in callus-mediated regenerants of *Digitalis lamarckii* Ivanina (dwarf foxglove). **In Vitro Cellular & Developmental Biology - Plant**, 50: 137-142.
40. Sahin G, Verma SK, Gurel E (2013) Calcium and magnesium elimination enhances accumulation of cardenolides in callus cultures of endemic *Digitalis* species of Turkey. **Plant Physiology and Biochemistry**, 73: 139-143.
39. Verma SK, Sahin G, Yucesan B, Eker I, Sahbaz N, Gurel S, Gurel E (2012) Direct somatic embryogenesis from hypocotyl segments of *Digitalis trojana* Ivan and subsequent plant regeneration. **Industrial Crops and Products**, 40: 76-80.
38. Sahbaz N, Sahin G, Yucesan B, Verma SK, Gürel E (2011). *In vitro* regeneration and analysis of total phenolics in *Ocimum basilicum* L. (sweet basil). **Planta Medica** 77 (12): PB13, DOI: 10.1055/s-0031-1282267.
37. Sahin G, Verma SK, Gurel E (2011). Effects of nutrient media strength on cardiotoxic glycoside accumulation in *Digitalis lamarckii* Ivan, an endemic medicinal species. **Planta Medica** 77 (12): SL64, DOI: 10.1055/s-0031-1282187.
36. Verma SK, Yucesan B, Sahin G, Gurel S, Gurel E (2011) Direct shoot regeneration from leaf explants of *Digitalis lamarckii* Ivan (dwarf foxglove), an endemic medicinal species. **Turkish Journal of Botany**, 35: 689-695.
35. Verma SK, Yucesan B, Gurel S, Gurel E (2011) Indirect somatic embryogenesis and shoot organogenesis from cotyledonary leaf segments of *Digitalis lamarckii* Ivan (dwarf foxglove), an endemic medicinal species. **Turkish Journal of Biology**, 35: 743-750.
34. Gurel S, Baloglu MC, Gurel E, Oktem HA, Yucel M (2011) A two-stage pretreatment of seedlings improves adventitious shoot regeneration in sugar beet (*Beta vulgaris* L.). **Plant Cell Tissue and Organ Culture**, 106(2): 261-168.
33. Gurel E, Yucesan B, Aglıç E, Gurel S, Verma SK, Sokmen M, Sokmen A (2011) Regeneration and cardiotoxic glycoside production in *Digitalis davisiana* Heywood (Alanya foxglove). **Plant Cell Tissue and Organ Culture**, 104(2): 217-225.
32. Verma SK, Yucesan B, Sahin G, Gurel E (2010) High-frequency plant regeneration via direct and indirect somatic embryogenesis and cardiotoxic glycoside production in *Digitalis ferruginea*. **In Vitro Cellular and Developmental Biology - Animal**, 46:S173.

31. Miller T, Linden K, Hoffman G, Schubert M, **Gurel E**, Gurel S, Lemaux PG (2010). Improving *Agrobacterium tumefaciens*-mediated gene delivery in *Sorghum bicolor*. **In Vitro Cellular and Developmental Biology - Animal**, 46:S143.
30. Yucesan B, **Gurel E** (2010) Cardiotoxic glycoside determination in in vitro and ex vitro samples of *Digitalis lamarckii* Ivan, an endemic species to Anatolia. **Planta Medica**, 76(12): 1188-1188 (DOI: 10.1055/s-0030-1264280).
29. Verma SK, Yucesan B, **Gurel E** (2010) Effects of exogenous auxin and auxin transport inhibitor on somatic embryogenesis and analysis of cardenolides in *Digitalis lamarckii* Ivan. **Planta Medica**, 76(12): 1381-1381 (DOI: 10.1055/s-0030-1265856).
28. Turker AU, Yucesan B, **Gurel E** (2010) Adventitious shoot regeneration from stem internode explants of *Verbena officinalis* L., a medicinal plant. **Turkish Journal of Biology**, 34: 297-304.
27. Gurel S, **Gurel E**, Kaur R, Wong J, Meng L, Tan HQ, Lemaux PG (2009). Efficient, reproducible *Agrobacterium*-mediated transformation of sorghum using heat treatment of immature embryos. **Plant Cell Reports**, 28(3): 429-444.
26. **Turker AU, Yucesan B, Gurel E** (2009) Plant regeneration via adventitious shoot development from cultured leaf explants of purple loosestrife (*Lythrum salicaria* L.): A medicinal wetland plant. **Biologia Plantarum**, 53(4): 750-754.
25. Turker AU, Yucesan B, **Gurel E** (2009) Effect of phytohormones on micropropagation of self-heal (*Prunella vulgaris* L.), a medicinal plant. **Journal of Herbs, Spices and Medicinal Plants**, 15: 293–302.
24. **Turker AU, Yucesan B, Gurel E** (2008) *In vitro* regeneration of *Achillea millefolium* L. from shoot-tips and root segments of seedlings. **Journal of Plant Biochemistry and Biotechnology**, 18(1): 61-69.
23. **Gurel E, Gurel S, Lemaux PG** (2008). Biotechnology applications for sugar beet. **Critical Reviews in Plant Sciences**, 27: 1-33.
22. Yucesan B, Turker AU, **Gurel E** (2007) TDZ-induced high frequency plant regeneration through multiple shoot formation in witloof chicory (*Cichorium intybus* L.). **Plant Cell Tissue and Organ Culture**, 91(3): 243-250.
21. Ozturk M, **Gurel E**, Mandacı S (2007). Site-Directed Mutagenesis of Five Conserved Residues of Subunit I of the Cytochrome *cbb<sub>3</sub>* Oxidase in *Rhodobacter capsulatus*. **Journal of Biochemistry and Molecular Biology**, 40(5): 697-707.
20. Ozturk M, Mandacı S, **Gurel E** (2006). Effects of mutations on conserved residues of cytochrome *cbb*(3) oxidase in *R. capsulatus*. **FEBS Journal**, 273: 74.
19. Turker AU, **Gurel E** (2005) Common mullein (*Verbascum thapsus* L): Recent advances in research. **Phytotherapy Research**, 19(9): 733-739.
18. Turker AU, Camper ND, **Gurel E** (2004) High-performance liquid chromatographic determination of a saponin from *Verbascum thapsus* L. **Biotechnology and Biotechnological Equipment**, 18(1): 54-59.
17. Gurel S, **Gurel E**, Kaya Z, Erdal M, Guler E (2003) Effects of antimetabolic agents on haploid plant production from unpollinated ovules of sugar beet (*Beta vulgaris* L.). **Biotechnology and Biotechnological Equipment**, 17(2): 97-101
16. **Gurel E, Topal E, Gurel S** (2003) The effect of pretreating seedlings with BAP on direct shoot regeneration from petiole explants of sugar beet (*Beta vulgaris* L.). **Biotechnology and Biotechnological Equipment**, 17(2): 89-96.
15. Oluk EA, Demiray H, **Gurel E** (2003) Alkaloid production from cell suspension cultures obtained from osmotic-stressed callus lines of *Catharanthus roseus* (Apocynaceae). **Plant Cell Biotechnology and Molecular Biology**, 4(1-2): 91-94.
14. Gurel S, Topal E, **Gurel E** (2003) The effect of pretreating seedlings with TDZ on direct shoot regeneration from petiole explants of sugar beet (*Beta vulgaris* L.). **Asia Pacific Journal of Molecular Biology and Biotechnology**, 11(1): 57-62.
13. **Gurel E, Gurel S, Kaya Z** (2002) Protoplast isolation and culture in sugar beet (*Beta vulgaris* L.). **Plant Cell Biotechnology and Molecular Biology**, 3&4: 11-20.
12. Gurel S, **Gurel E, Kaya Z** (2002) Protoplast fusion in sugar beet (*Beta vulgaris* L.). **Turkish Journal of Biology**,

26: 163-170.

11. Gurel S, **Gurel E**, Kaya Z (2002) Establishment of cell suspension cultures and plant regeneration in sugar beet (*Beta vulgaris* L.). **Turkish Journal of Botany**, 26: 197-205.
10. **Gurel E** (2001) Insertion of an antimicrobial gene into *Agrobacterium* and its further use in transforming tobacco. **Turkish Journal of Botany**, 25: 169-175.
09. Gurel S, **Gurel E**, Kaya Z (2001) Callus development and indirect shoot regeneration from seedling explants of sugar beet (*Beta vulgaris* L.) cultured *in vitro*. **Turkish Journal of Botany**, 25: 25-33.
08. Turker AU, Camper ND, **Gurel E** (2001) *In vitro* regeneration of common mullein (*Verbascum thapsus* L.) from leaf and petiole explants. **In Vitro Cellular and Developmental Biology – Plant**, 37: 40-43.
07. Gurel S, **Gurel E**, Kaya Z (2000) Doubled haploid plant production from unpollinated ovules of sugar beet (*Beta vulgaris* L.). **Plant Cell Reports**, 19: 1155-1159.
06. **Gurel E**, Kazan K (1999) Evaluation of various sunflower (*Helianthus annuus* L.) genotypes for *Agrobacterium tumefaciens*-mediated gene transfer. **Turkish Journal of Botany**, 23: 171-177.
05. **Gurel E**, Kazan K (1998) Development of an efficient plant regeneration system in sunflower (*Helianthus annuus* L.). **Turkish Journal of Botany**, 22: 381-387.
04. **Gurel E**, Gurel S (1998) Plant regeneration from unfertilized ovaries of sugar beet (*Beta vulgaris* L.) cultured *in vitro*. **Turkish Journal of Botany**, 22: 233-238.
03. Erdal M, **Gurel E** (1997) Use of commercial hybrids as a genetic resource for breeding monogerm sugar beet (*Beta vulgaris* L.) varieties. **Turkish Journal of Agriculture and Forestry**, 21: 397-402.
02. **Gurel E** (1997) Callus and root development from leaf explants of sugar beet (*Beta vulgaris* L.): Variability at variety, plant and organ level. **Turkish Journal of Botany**, 21: 131-136.
01. **Gurel E**, Wren MJ (1995) *In vitro* development from leaf explants of sugar beet (*Beta vulgaris* L.): Rhizogenesis and the effect of sequential exposure to auxin and cytokinin. **Annals of Botany**, 75: 31-38.

#### **B. National Journals:**

04. **Gurel E** (2000) Ovary and ovule culture of some breeding lines in sugar beet (*Beta vulgaris* L.). **Biyoteknoloj Dergisi**, 24: 63-68.
03. Gurel S, **Gurel E**, Kaya Z (2000) Direct root and shoot development from seedling explants of sugar beet (*Beta vulgaris* L.). **Biyoteknoloj Dergisi**, 24: 99-106.
02. **Gurel E** (1997) Plant tissue culture studies in sugar beet (*Beta vulgaris* L.). **Kukem Dergisi**, 20: 1-13.
01. **Gurel E**, Gurel S (1996) Plant regeneration from leaf explants of sugar beet (*Beta vulgaris* L.) cultured *in vitro*. **Kukem Dergisi**, 19: 29-37.

#### **C. Conferences:**

23. Yucesan B, Mohammed A, Kilicsaymaz B, Aslan M, Cihangir C, Ilal T, Sameeullah M, Buyukgocmen R, **Gurel E** (2014). Seed Production in Some Economically Important Crops via Encapsulation. **Turkey 5th Seed Congress with International Participation**, page 286, 19-23 October 2014, Diyarbakir, **Turkey**.
22. Yucesan B, Mohammed A, Kilicsaymaz B, Aslan M, Cihangir C, Ilal T, Sameeullah M, Buyukgocmen R, **Gurel E** (2014). Synthetic seed production from economically important plants. **Turkey 5th Seed Congress with International Participation**, page 96, 19-23 October 2014, Diyarbakir, **Turkey**.
21. Cingoz GS, Karakas FP, Turker AU, **Gurel E** (2014). Hydrogen peroxide induced antioxidant activities in callus cultures of *Bellis perennis* L. **Balkan Agricultural Congress**, page 649, 08-11 September 2014, Edirne, **Turkey**.
20. Sahin G, Verma SK, **Gurel E** (2011). Effects of calcium and magnesium deficiency on cardenolide accumulation in callus cultures of *Digitalis lamarckii* Ivan. **1st International Symposium of Secondary Metabolites: Chemical, Biological and Biotechnological Properties (ISSMET 2011)**, 12-15 September 2011, Denizli, **Turkey**.
19. Sahbaz N, Sahin G, **Gurel E** (2011). Cardiac glycoside analysis and total phenolic contents in *in vitro* samples of *Digitalis ferruginea* L. subsp. *schischkinii* (Ivan.) Werner. **1st International Symposium on Secondary Metabolites**

**Chemical, Biological and Biotechnological Properties (ISSMET 2011)**, 12-15 September 2011, Denizli, Turkey.

18. Gurel E, Verma SK, Yucesan B, Sahin G, Sahbaz N (2011) Use of tissue cultures for the conservation of endemic and endangered Turkish *Digitalis* species and production of cardenolides. **World Congress on Biotechnology**, page 150, 21-23 March 2011, Hyderabad International Convention Centre, Hyderabad, India.
17. Sahbaz N, Sahin G, Gurel E (2011). Cardiac glycoside analysis and total phenolic contents in in vitro samples of *Digitalis ferruginea* L. subsp. schischkinii (Ivan.) Werner. **1st International Symposium on Secondary Metabolites Chemical, Biological and Biotechnological Properties (ISSMET 2011)**, 12-15 September 2011, Denizli, Turkey.
16. Sahin G, Verma SK, Gurel E (2011). Effects of calcium and magnesium deficiency on cardenolide accumulation in callus cultures of *Digitalis lamarckii* Ivan. **1st International Symposium of Secondary Metabolites: Chemical, Biological and Biotechnological Properties (ISSMET 2011)**, 12-15 September 2011, Denizli, Turkey.
15. Verma SK, Yucesan B, Sahin G, Gurel E (2010). Direct and indirect somatic embryogenesis and cardenolides contents in *Digitalis lamarckii* Ivan, an endemic species of Anatolia. **6th Conference on Aromatic and Medicinal Plants of Southeast European Countries (CMAPSEEC)**, page S169, April 18-22 2010, Antalya, Turkey.
14. Verma SK, Yucesan B, Sahin G, Gurel E (2010). Unusual patterns of direct somatic embryogenesis in *Digitalis trojana* Ivan: Effects of exogenous auxin and auxin transport inhibitor. **6th Conference on Aromatic and Medicinal Plants of Southeast European Countries (CMAPSEEC)**, page S50-51, April 18-22, 2010, Antalya, Turkey.
13. Yucesan B, Aglıç E, Aydın T, Eker İ, Verma SK, Gurel E (2010). Ecological impacts on cardenolide accumulation in different endemic *Digitalis cariensis* lines collected from Antalya region. **6th Conference on Aromatic and Medicinal Plants of Southeast European Countries (CMAPSEEC)**, page S41, April 18-22, 2010, Antalya, Turkey.
12. Yurtsevenyener I, Karakas A, Gunduz B, Yucesan B, Gurel E (2010) The effects of digoxin and digitoxin on isolated intestinal contractions. **20th National Biology Congress**, page 712-713, 21-25 June 2010, Pamukkale University, Denizli, Turkey.
11. Verma SK, Yucesan B, Sahin G, Gurel E (2010) Direct somatic embryogenesis, shoot regeneration and synthetic seed production from *Digitalis lamarckii* Ivan. **20th National Biology Congress**, page 156-157, 21-25 June 2010, Pamukkale University, Denizli, Turkey.
10. Verma SK, Gurel E (2009). Triidobenzoic acid (TIBA), an auxin polar transport inhibitor, suppresses direct somatic embryo formation in *Digitalis trojana* promoted by IAA. **5th World Congress on Cellular and Molecular Biology**, page 158-159, November 2-6, 2009, Devi Ahilya University, Indore, India.
09. Lemaux PG, Gurel S, Gurel E, Kaur R, Wong J, Miller T, Lee C, Linden K, Wu S, Buchanan BB (2009). Improving *Agrobacterium tumefaciens*-mediated gene delivery to understand and improve sorghum. **Plant Biology 2009 - ASPB**, page 315, July 18-22, 2009, Hawaii Convention Center, Honolulu, Hawaii, USA.
08. Lemaux PG, Kaur R, Wong J, Gurel S, Gurel E, Singh J, Pedersen JF, Buchanan BB (2008). Toward nutritional improvement of sorghum for Africa's poor. **2008 Joint Annual Meeting ASA-CASA-SSSA, GSA and GCAGS**, Abstract 507-4, October 5-9, 2008, Houston TX, USA.
07. Lemaux PG, Kaur R, Wong J, Singh J, Gurel S, Gurel E, Pedersen JF, Taylor J, Chikwamba R, Jung R, Zhao ZY, Anderson P, Buchanan BB (2008). Toward nutritional enhancement of sorghum for Africa. **Plant and Animal Genomes XVI Conference**, page 110, January 12-16, 2008, Town & Country Convention Center, San Diego, CA, USA.
06. Turker A, Yucesan B, Turker H, Gurel E (2006). The effects of TDZ on organogenesis in purple loosestrife (*Lythrum salicaria* L.), a medicinal plant. **11th IAPTC&B Congress - Biotechnology and Sustainable Agriculture 2006 and Beyond**, page 186, 13-18 August 2006, Beijing, China.
05. Turker A, Yucesan B, Gurel E (2006). Effects of IAA on shoot and root formation in witloof chichory (*Cichorium intybus* L.). **4th Balkan Botanical Congress**, page 151, 20-26 June 2006, Sofia, Bulgaria.
04. Turker A, Yucesan B, Turker H, Gurel E (2006). *In vitro* plant regeneration in *Lythrum salicaria* L. (purple loosestrife). **4th Balkan Botanical Congress**, page 22, 20-26 June 2006, Sofia, Bulgaria.
03. Turker A, Yucesan B, Turker H, Gurel E (2006). *In vitro* culture of vervain (*Verbena officinalis* L.). **4th Balkan**

**Botanical Congress**, page 22, 20-26 June 2006, Sofia, **Bulgaria**.

02. Turker AU, Camper ND, **Gurel E (2000)** *In vitro* regeneration of common mullein (*Verbascum thapsus* L.) from leaf and petiole explants. **5th Annual Graduate Student Research Forum**, Clemson University, Clemson, **USA**.
01. **Gurel E (1993)** Callus development and organogenesis in cultured leaf explants of sugar beet (*Beta vulgaris* L.). **The Proceedings of the Second Arab Conference on Perspectives of Modern Biotechnology**, page 314-330, 24-28 Nisan 1993, Amman, **Jordan**.

#### **D. Books Edited:**

02. Babaoglu M, **Gurel E**, Ozcan S (2001) **Plant Biotechnology**, Volume I, Tissue Culture and Its Applications, Selcuk University Press, Konya, **Turkey** (*in Turkish*).
01. Ozcan S, **Gurel E**, Babaoglu M (2001) **Plant Biotechnology**, Volume II, Genetic Engineering and Its Applications, Selcuk University Press, Konya, **Turkey** (*in Turkish*).

#### **E. Book Chapters:**

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