Hikmet Geckil

Professor of Molecular Genetics Department of Biology, Inonu University 44280 Malatya, Turkey



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EDUCATION

BS (1980-1984): Department of Biology, Firat University, Elazig, Turkey



MS (1986-1988): Molecular Biology, Inonu University, Malatya, Turkey



Intensive Language (English) Education (1988-1989, 5 months): Middle East Technical **University**, Ankara, Turkey



Intensive Language (English) Education (1989-1990, 7 months): American Language Academy, Baldwin-Wallace College, Berea, Ohio



Ph.D. (1991-1995, 1 year): Molecular Biology-Biotechnology, *Illinois Institute of* Technology, Chicago, Illinois



Post-doctorate (1999-2000, 6 months): Postdoctoral Fellow of CHE Israel, Department of Life Sciences, Ben Gurion University, Beer-Sheva, Israel



Post-doctorate (2009-2010): Fulbright Fellow at Harvard-MIT Health Sciences and *Technology*, Massachusetts Institute of Technology (MIT), Cambridge, Massachusetts and *Harvard University*, *Medical School*, Boston, Massachusetts















TEACHING and RESEARCH EXPERIENCE

- 1985-1988: Research Assistant at Inonu University, Biology Department, Malatya, Turkey
- 1992-1993: Instructor for "Women in Science and Engineering" summer program at Illinois Institute of **Technology**
- 1992-1994: Teaching Assistant, Methods in Microbial Genetics and Genetic Engineering Laboratory (BIOL 523), at Illinois Institute of Technology (practical aspects of recombinant DNA technology; growth, handling and maintenance of cultures; quantitative techniques; use of mutagens; isolation and genetic analysis of mutants in yeast, Saccharomyces cerevisiae; cloning, transformation of Escherichia coli and restriction mapping of DNA; use of Southern blotting and amplification of DNA using PCR technology).
- 1993-1995: Teaching Assistant, Biochemistry Laboratory (BIOL 519) at Illinois Institute of Technology (analytical methods for macromolecules, enzyme reactions, spectrophotometry, purification of proteins, centrifugation, chromatography, electrophoresis, pH and ion specific electrode, radioisotope tracer methodology).
- 1994-1995: Teaching Assistant, Cell Biology (BIOL 414) at Illinois Institute of Technology.
- 1996-1999: Assistant Professor, Department of Biology, Inonu University, Malatya, Turkey
- 1999-2000: Postdoctoral Fellow of the Council for Higher Education of Israel at Ben Gurion University (Israel).
- 20019-2010: Fulbright Postdoctoral Fellow and Research Associate at Harvard-MIT Health Sciences and Technology and Harvard University Medical School

Presently: Associate Professor of Molecular Genetics, Department of Biology, Inonu University.

EDITORSHIP

- **Editor Biotechnology Journal** (Wiley-VCH Publications, Weinheim, Germany)
- Technical Editor (2004-2006) American Journal of Biochemistry and Biotechnology
- **Associate Editor** (2006-present) American Journal of Biochemistry and Biotechnology Science Publications, New York, US
- **Member of Editorial Board** <u>**Journal of Applied Biological Sciences**</u> Nobel Publishing and Nobel Science Research Center Ankara, Turkey
- Member of Editorial Board FIRAT ÜNİVERSİTESİ Fen Bilimleri Dergisi The Institute of Science Firat University, Elazig, Turkey
- **Member of Editorial Board** Turkish Journal of Science and Technology The Institute of Science Firat University, Elazig, Turkey



Firat University

















Member of Editorial Board
 <u>Journal of Medical Sciences</u>
 Türkiye Klinikleri Tıp Bilimleri DergisiAnkara, Turkey



PUBLICATIONS

1. Geckil H, Stark BC, and Webster DA.

Cell growth and oxygen uptake of *Escherichia coli* and *Pseudomonas aeruginosa* are differently affected by the genetically engineered *Vitreoscilla* hemoglobin gene. *Journal of Biotechnology*, (2001); 85(1): 57-66.

2. Munzuroglu O and Geckil H.

Effects of metals on seed germination, root elongation, coleoptile and hypocotyl growth in *Triticum aestivum* and *Cucumis sativus*.

Archives of Environmental Contamination and Toxicology, (2002);43(2): 203-213.

3. Munzuroglu O, Karatas F and Geckil H.

The vitamin and selenium contents of apricot fruit of different varieties cultivated in different geographical regions.

Food Chemistry, (2003);83 (2): 205-212.

4. Geckil H, Gencer S, Kahraman H, Erenler SO.

Genetic engineering of *Enterobacter aerogenes* with *Vitreoscilla* hemoglobin gene: cell growth, survival, and antioxidant enzyme status under oxidative stress.

*Research in Microbiology.(2003);154 (6): 425-431.

5. Munzuroglu O, Obek E and Geckil H.

Effects of simulated acid rain on the pollen germination and pollen tube growth of apple (*Malus sylvestris* Miller cv. Golden).

Acta Biologica Hungarica, (2003);54 (1): 95-103.

6. Yurekli F, Geckil H and Topcuoglu F.

The synthesis of indole-3-acetic acid by the industrially important white-rot fungus *Lentinus sajor-caju* under different culture conditions.

Mycological Research, (2003); 107 (3): 305-309.

7. Geckil H, Arman A, Gencer G, Ates B and Yilmaz HR.

Vitreoscilla hemoglobin renders *Enterobacter aerogenes* highly susceptible to heavy metals. *Biometals.* (2004); 17 (6): 715-723.

8. Geckil H, Barak Z, Chipman DM, Erenler SO, Webster DA and Stark BC.

Enhanced production of acetoin and butanediol in recombinant *Enterobacter aerogenes* carrying *Vitreoscilla* hemoglobin gene.

Bioprocess and Biosystems Engineering, (2004); 26 (5): 325-330.

9. Geckil H and Gencer S.

Production of L-asparaginase in *Enterobacter aerogenes* expressing *Vitreoscilla* hemoglobin for efficient oxygen uptake.

Applied Microbiology and Biotechnology, (2004);63(6):691-697.

10. Geckil H. Gencer S. Uckun M.

Vitreoscilla hemoglobin expressing *Enterobacter aerogenes* and *Pseudomonas aeruginosa* respond differently to carbon catabolite and oxygen repression for production of L-asparaginase, an enzyme used in cancer therapy.

Enzyme and Microbial Technology, (2004);35 (2-3): 182-189.













11. Ates B, Yilmaz I, Geckil H, Iraz M, Birincioglu M, Fiskin K. Protective role of melatonin given either before ischemia or prior to reperfusion on intestinal ischemia-reperfusion damage. Journal of Pineal Research, (2004);37: 149-152.

12. Erenler SO, Gencer S, Geckil H, Stark BC, and Webster DA. Cloning and expression of the *Vitreoscilla* hemoglobin gene in *Enterobacter aerogenes*: effect on cell growth an oxygen uptake. Applied Biochemistry and Microbiology, (2004); 40(3):241-248.

13. Geckil H, Ates B, Gencer S, Uckun M, and Yilmaz I. Membrane permeabilization of Gram-negative bacteria with a potassium phosphate/hexane aqueous phase system for the release of L-asparaginase: an enzyme used in cancer therapy. Process Biochemistry, (2005); 40 (2): 573-579.

14. Geckil H, Ates B, Durmaz G, Erdogan S, Yilmaz I. Antioxidant, free radical scavenging and metal chelating characteristics of propolis. American Journal of Biochemistry and Biotechnology, (2005); 1(1): 27-31.

15. Kahraman H and Geckil H. Degradation of benzene, toluene and xylene by Pseudomonas aeruginosa engineered with the Vitreoscilla hemoglobin gene. Engineering in Life Sciences, (2005); 5(4): 363-368.

16. Ates B, Gencer S, Erenler SO, Uckun M, Ozer U, Yilmaz I, and Geckil H. Production of L-asparaginase, a chemotherapeutic enzyme, in bacteria expressing Vitreoscilla haemoglobin. FEBS Journal, (2006); 273: 139-139.

17. Kahraman H, Gencer S, Geckil H. Effect of Vitreoscilla hemoglobin on L-lysine alpha-oxidase, a chemotherapeutic enzyme, from Pseudomonas aeruginosa. FEBS Journal, (2006); 273: 139-140.

18. Aydin S, Ozercan HI, Aydin S, Ozkan Y, Dagli F, Oguzoncul F, Geckil H. Biological rhythm of saliva ghrelin in humans. Biological Rhythm Research, (2006); 37(2): 169-177.

19. Aydin S, Geckil H, Zengin F, Ozercan HI, Karatas F, Aydin S, Balik DT, Ozkan Y, Dagli F, Celik V. Ghrelin in plants: What is the function of an appetite hormone in plants? Peptides, (2006); 27(7): 1597-1602.

20. Geckil H, Gencer S, Ates B, Ozer U, Uckun M, Yilmaz I. Effect of Vitreoscilla hemoglobin on production of a chemotherapeutic enzyme, L-asparaginase, by Pseudomonas aeruginosa. Biotechnology Journal. (2006); 1(2): 203-208.

21. Aydin S, Geckil H, Karatas F, Donder E, Kumru S, Kavak EC, Colak R, Ozkan Y, Sahin I. Milk and blood ghrelin level in diabetics. Nutrition, (2007); 23(11-12): 807-811.

22. Aydin S, Geckil H, Karaoglu A, and Elkiran EM. Ghrelin: A novel peptide with therapeutic effect in certain cancers? Medical Hypotheses, (2007); 69(5): 1157-1158.

23. Aydin S, Ozercan IH, Geckil H, Dagli F, Aydin S, Kumru S, Kiliç N, Sahin I, Ozercan MR. Ghrelin is present in teeth.













- 24. Aydin S, Karatas F and Geckil H. Simultaneous Quantification of Acylated and Desacylated Ghrelin in Biological Fluids. *Biomedical Chromatography*, 2008; 22(12): 1354-1359.
- 25. Aydin S, Geckil H, Kilic N, Erman F, Kilic SS and Yesilada O. Is Ghrelin a Natural Anti-Microbial Agent? *Turkish Journal of Medical Sciences*, 2008; 38(2): 187-187.
- 26. Kurt AG, Aytan E, Ozer U, Ates B and Geckil H
 Production of L-DOPA and dopamine in bacteria bearing *Vitreoscilla* hemoglobin gene.

 <u>Biotechnology Journal</u>, 2009; 4(7): 1077-1088.
- 27. Geckil H, Xu F, Xiaohui Z, Moon S-J, Demirci U. Engineering hydrogels as extracellular matrix mimics. *Nanomedicine*, 2010; 5(3): 469-484.

ARTICLES IN TURKISH JOURNALS

A-01: Aydin S*, Geckil H, Caylak E and Kilic N (2004). *Mikroorganizmalarin kanser tedavisinde kullanimi*. Firat Medical Journal, 9(2): 30-34.

A-02: Kahraman H and Geckil H* (2005). *Benzoik Asitin Vitreoscilla hemoglobin geni aktarılmış Pseudomonas aeruginosa tarafındanyıkımı*. <u>Fen ve Muhendislik Bilimleri Dergisi</u>, Firat Universitesi, 17(2); 342-348.

A-03: Geckil H (2005). İki Emekli Bilim Adaminin Hikayesi: Genetige Karsi Biyokimya. <u>Universite ve Toplum (University and Society)</u>,5(3): 1-2.

A-04: Geckil H (2006). *Molekuler Yasam Bilimlerinde Ph.D. Derecesi Icin Standartlar*" (translated from "*Standards for the Ph.D. Degree In the Molecular Biosciences*", by the International Union of Biochemistry and Molecular Biology, UBMB). This copyright free study has been published or publicized in:

- Inonu Universitesi Tip Fakultesi Dergisi (Journal of Inonu University Medical Faculty), 13(3): 203-219
- *Inonu University, Faculty of Art and Sciences*
- Turkish Academy of Sciences
- Turkish Biochemical Society
- International Union of Biochemistry and Molecular Biology, IUBMB

OTHER ARTICLES (Articles translated from "Science in School", The EU Sci. Journal for High School Students)

- Geckil H. Genomlarla Eğlence: Mikoçiğner DNA Bulmacası. Science in School, 2007: 1(5); 28-31.
- Geckil H. Gözler Ufukta, ayaklar yerde: Tim Hunt'la söylesi. Science in School, 2007: 1(6); 9-13.
- Geckil H. Romalılara ait vollar, tren istasyonları ve kontrolörler: RNA arastırmalarında son buluşlar.
- Science in School, 2007: 1(6);20-24.
- Geckil H. Uygunsuz Gerçek. Science in School, 2008: 1 (9); 75
- Aytan E and Geckil H. Folik asit: okul öğrencileri neden bu konuyu bilmeli. Science in School, 2009: Issue 13, 59-64.
- Kurt AG and Geckil H. Proteini kristallere büyütme. Science in School, 2009: Issue 11, 30-36.

TECHNICAL REPORTS

Geckil H, Gencer S, Ates B, and Uckun M.

"Permeabilization of gram-negative bacteria with KPi/hexane for the release of L-asparaginase",

ProtocolOnline: Molecular Biology-Recombinant Proteins.













BOOKS CITING OUR WORKS

- **Melatonin: Present and Future** Pedro Montilla López, Pedro Montilla, Isaac Túnez.2006, 371 pp, ISBN 1-60021-374-XNova Publishers
- Functional Food Ingredients and Nutraceuticals: Processing and Technologies John Shi, Jerry W. King. 2006, 427 pp, ISBN 0849324416, Taylor & Francis
- **Environmental Microbiology: Methods and Protocols** John F. T. Spencer, Alicia L. Ragout de Spencer. 2004, 448 pp. ISBN 978-1-58829-116-5, Springer
- **Dictionary of Nutraceuticals and Functional Foods** Neason Akiyah, Michael Eskin, Tamir Snait, Snait Tamir. 2006, 507 pp, ISBN 0849315727, CRC Press
- **Aging and Age-related Diseases** Michal Karasek, 2006, 537 pp, Nova Science Publishers
- Globins and other nitric oxide-reactive proteins Robert K. Poole (Academic Press, 2008)
- **Biosystems: Webster's Facts and Phrases** Editor: Philip M. Parker, Icon Group International, Inc. 2008
- Mycorrhiza: State of the Art, Genetics and Molecular Biology, Eco-Function Editor: Ajit Varma, Springer-Verlag, 2008

BOOKS and BOOK CHAPTER

- Biochemistry, Hikmet Geckil (~500 pages yearly updated lecture notes given only to students enrolled for the BIOL 301/BIOL 302, Biochemistry, in our Department). Now only in Turkish, these bound notes can be purchased C.O.D. (Price: 20 YTL).
- BROCK MİKROORGANİZMALARIN BİYOLOJİSİ, (Translation Editor: Cumhur Cokmus, 2010, Palme Publishing, Ankara, Turkey). Chapters translated:
 - Chapter 9- Essentials of Virology
 - Chapter 11- Eukaryotic Cell Biology and Eukaryotic Microorganisms

(Orginal book: Brock's Biology of Microorganisms, by Madigan, Martinkoand Parker, 11th Edition (2002), Prentice-Hall, Inc.)

- BIYOKIMYA (Translation Editors: Hikmet Geckil, Yusuf Tutar and Prof. Mehmet Karatas; 2010, Nobel Publishing, ISBN: 978-605-395-288-6). Chapter translated:
 - Chapter K: Lipid Metabolism

(Orginal book: Instant Notes in Biochemistry, by David Hames and Nigel Hooper, 2007, 3rd Edition, Taylor & Francis)

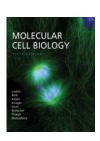
- MOLEKÜLER HÜCRE BİYOLOJİSİ, Translation Editors: Hikmet Geçkil, Murat Özmen ve Özfer Yeşilada (Palme Yayıncılık, Ankara (In Press)) Chapters translated:
 - Chapter 1- Life Begins with Cells
 - **Chapter 2- Chemical Foundations**

(Original book: MOLECULAR CELL BILOGY by Harvey Lodish, Arnold Berk, Chris A. Kaiser, Monty Krieger, Matthew P. Scott, Anthony Bretscher, Hide Ploegh and Paul Matsudiara, 2008, 6th edition, W.H. Freeman & Company, New York)





















THE JOURNALS I REFEREE FOR

- Biotechnology Journal (A publication of Wiley-VCH, Weinheim, Germany)
- Molecular and Cellular Biochemistry (A Springer-Verlag Publication, Heidelberg, Germany)
- Chemical and Biochemical Engineering Quarterly (The Official Journal of Croatian Society of Chemical Engineers and Austrian Association of Bioprocess Technology)
- Microbial Ecology (A Springer Publication, New York)
- Journal of Biotechnology (A publication of Elsevier Science, New York)
- Microbiology (A publication of The Society of General Microbiology, SGM, UK)
- Applied Microbiology and Biotechnology (A Springer-Verlag Publication, Münster, Germany)
- Biotechnology and Applied Biochemistry (A Portland Press publication on behalf of International Union of Biochemistry and Molecular Biology)
- Archives of Environmental Contamination and Toxicology (A publication of Springer, New York)
- Biotechnology Progress (A joint publication of The American Chemical Society and The American Institute of Chemical Engineers)
- Process Biochemistry (A publication of Elsevier Science, Oxford)
- Peptides (A publication of Elsevier Science, New York)
- Chemosphere (A publication of Elsevier Science, Oxford)
- <u>Iournal of Applied Microbiology</u> (The Official Journal of the Society for Applied Microbiology, Blackwell Publishing)
- Letters in Applied Microbiology (The Official Journal of the Society for Applied Microbiology, Blackwell Publishing)
- Enzyme and Microbial Technology (A publication of Elsevier Science, Oxford)
- World Journal of Gastroenterology (A joint publication of Elsevier Science and The WJG Press)
- Arabian Journal for Science and Engineering (A publication of King Fahd University of Petroleum and Minerals)
- Fen ve Mühendislik Bilimleri Dergisi, A publication of Firat University, Elazig, Turkey
- Current Pharmaceutical Biotechnology, Invited Guest Editor for a theme issue (2003) (A Publication of Bentham Press)
- Journal of Basic Microbiology, (A publication of Wiley-VCH, Weinheim, Germany)
- <u>Journal of Agricultural and Food Chemistry</u>, (A publication of The American Chemical Society)

RESEARCH IN OUR LABORATORY

Genetic Engineering of Vitreoscilla Hemoglobin Gene

- Cloning, expression and effect of *Vitreoscilla* hemoglobin gene in industrially important microorganisms
- Oxidative stress and antioxidant properties of bacteria genetically engineered with Vitreoscilla hemoglobin gene©
- Potential use of *Vitreoscilla* hemoglobin in bioremediation
- Production of industrially important fermantative solvents through the use of Vitreoscilla hemoglobin©
- Use of Vitreoscilla hemoglobin for the enhancement of production of L-asparaginase: an enzyme used in cancer therapy©
- Metabolic engineering: secondary metabolite flux distribution in *Erwinia herbicola* expressing Vitreoscilla hemoglobin gene

Natural and Synthetic (artificial) Antioxidants and Oxidants

- Effect of melatonin in bacteria and higher animals
- Antioxidative and metal chelating characteristics of propolis and CAPE (caffeic acid phenethyl ester)















7/12

Bioprocess Engineering

- Development of methods for bioprocessing of products with high therapeutic value
- Bacterial synthesis of L-DOPA and DOPAMINE [(Cloning, isolation, expression of the genes (*Tyrosine phenol lyase* and *dopaminedecarboxylase*) for L-DOPA and DOPAMINE production in bacteria)].

THE COURSES I TEACH

Undergraduate Level

- BIOL 301/BIOL 302 Biochemistry I and II
- BIOL 351/BIOL 352 Biochemistry Lab I and II

Graduate Level

- BIOL 581 Analytical Methods in Biological Sciences
- BIOL 582 Applications in Genetic Engineering
- BIOL 668 Genetic Engineering
- BIOL 695 Practical Applications in Molecular Biology and Biochemistry

Elective Courses (Undergraduates)

- BIOL 412 English Language for Biology Profession
- BIOL 469 Biochemical Techniques

RESEARCH GRANTS (as PI)

- October 1 2007-October 1 2009: Hikmet Geckil, Burhan Ates, Sule Bulut, Aslı Giray Kurt. Production of L-DOPA and dopamine in bacteria expressing *Vitreoscilla* hemoglobin, A project supported by The Scientific and Technical Research Council of Turkey, TUBITAK (No: 107T478), Project budget: 100,000 USD plus 1000 USD/month Ph.D. scholarship for two years.
- **2006-2008:** Birol Mutlu, Hikmet Geckil and Sukru Karakus. Some taxonomical studies on genus *Erysimum* in Turkey. A project supported by The Scientific and Technical Research Council ofTurkey (TBAG 105T126), Project budget: **100,000 USD**
- **2005-2006**: Hikmet Geckil, Burhan Ates, Sebnem O Erenler, Salih Gencer, Suleyman Aydin. Cloning, isolation and expression of L-asparaginase, an antileukemic enzyme, gene (ansB) gene in various Gram-negative bacteria, The State Planning Organization of Turkish Prime Ministry, DPT 2003/K120610, Project budget: **50,000 USD**
- **2004-2005:** The production, chemical characterization and clinical aspects of L-asparaginase of bacterial origin. A graduate research project with a **6,000 USD** budget supported by the Research Fund Unit of Inonu University, APYB 2004/93.
- **2005-2006:** Cloning, expression and isolation of L-asparaginase, an enzyme used in cancer therapy, gene (ansB) in various gram-negative bacteria. A graduate research project with a **6,000 USD** budget supported by the Research Fund Unit of Inonu University, APYB 2005/25.
- **2003-2004:** The use of *Vitreoscilla* hemoglobin in *Enterobacter aerogenes*: some industrial applications. A project supported by The Scientific and Technical Research Council of Turkey, TUBITAK (TBAG2267(102T197)), Project budget: **40,000 USD**













- 2003-2004: The degradation/removal of textile dyes from industrial effluents through the use of biotechnological methods. A collective project supported by The State Planning Organization of Turkish Prime Ministry, (DPT:2003K120610), Project budget: 175,000 USD
- 2002-2003: The industrial use of *Pseudomonas aeruginosa* engineered with the *Vitreoscilla* hemoglobin gene. A project supported by the Research Fund Unit of Inonu University. APYB 2002/05, Project budget: 12,000 USD
- **2001:** Effect of organic solvents on metabolic and physiological activities of *Enterobacter* aerogenes engineered with Vitreoscilla hemoglobin gene. A project supported by the Research Fund Unit of Inonu University, APYB 2001/16, Project budget: 5000 USD

AWARDS, HONORS, FELLOWSHIPS, and DEGREES

- 1986-1987: Scholarship for master study (Molecular Biology) from "The Scientific and Technical Research Council of Turkey, (TUBITAK)"
- 1987-1988: Honor member (A Graduate Student Recognition), TUBITAK
- 1988: Secondplace in National Exam in Biological Sciences carried out by the "Turkish Ministry of Education" for postgraduate studies abroad.
- **1988:** Scholarship award from "Turkish Ministry of Education" for graduate (Ph.D.) study(Biotechnology/Genetic Engineering) in the United States of America.
- 1995: Ph.D.degree from Illinois Institute of Technology (Chicago), USA (GPA: 3.625/4.0).
- 1999-2000 (1 year): Post-doctoral fellow of "The Council for Higher Education of Israel" (Ben-Gurion University, Israel)
- 1996(November): Foreign Language Proficiency Examination for State Employees (KPDS)-(Level A, 90/100)-a gradual montly compansation for those who score 70+ is paid for a 5 year period
- 2006(November): Foreign Language Proficiency Examination for State Employees (KPDS)-(Level A, 94/100)
- **2005- present:** Serving regularly on proposal review panels for TUBITAK
- 2008- present: Instructor for Biology Olympiads, organized by TUBITAK, to prepare secondary school students for tackling biological problems, inventiveness, and creativity in an international competition held yearlyin selected centers around the world (The International Biology Olympiad (IBO), http://www.ibo-info.org).
- 2008-present: Refereeing in "Technology and Inovation Funding Programs- TEYDEB" of TUBITAK. <u>TEYDEB</u> encourages research and development activities of private companies settled in Turkey.
- 2009: Chairing and organizing the Biology Section of Secondary Education Science Project Competitions Program sponsored by TUBITAK. The activity involved students from selected high schools from 11 major cities in the region (Esatern Anatolia) and around (South Eastern Anatolia)
- 2009-2010 (6 months): Fulbright Fellow, Center for Biomedical Engineering, Department of Health Sciences and Technology of Harvard University Medical School and Massachusetts Institute of Technology, Cambridge, MA (Financial support: US Department of State)













RECOGNITIONS

- Listed in the 7th edition of "Who's Who in Science and Engineering", 2002
- Listed in the "2000 Outstanding Scientists of the 21st Century" published by the International Biographical Centere (IBC), 2004.
- Listed in the Laureate of the "Living Science Award" given by the International Biographical Centere (IBC), 2004.
- Listed in the 9th edition of "Who's Who in Science and Engineering", 2007.

PROFESSIONAL SOCIETY MEMBERSHIP

- American Society for Microbiology (ASM)
- European Federation of Biotechnology (EFB)
- Turkish Biochemical Society (A branch of "Federation European Biochemical Societies", FEBS)
- The Science Advisory Board
- <u>TEMA Foundation</u> (The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats)
- World Association of Medical Editors (WAME)

GRADUATE STUDENTS SUPERVISED

- **M.S., Sebnem O. Erenler.** Effect of the bacterial hemoglobin gene on physiological and metabolic activities of *Enterobacter aerogenes*. Department of Biology, Inonu University, 1999-2002.
- Ph.D., Huseyin Kahraman. Potential use of *Pseudomonas aeruginosa* in bioremediation using a
 genetically engineered *Vitreoscilla* hemoglobin gene. Department of Biology, Inonu University,
 1999-2004.
- M.S., Nafia C. Ates. Production of fermentative products and solvent tolerance by Enterobacter aerogenes carrying the Vitreoscilla hemoglobin gene. Department of Biology, Inonu University, 2001-2003.
- M.S., Salih Gencer. Use of the *Vitreoscilla* hemoglobin for bacterial production of L-asparaginase: en enzyme used in cancer therapy. Department of Biology, Inonu University, 2003-2004.
- **Ph.D., Burhan Ates.** (Co-advisor) Production, chemical characterization and some clinical applications of anticancerogenic L-asparaginase from various Gram-negative bacteria. Department of Chemistry, Inonu University, (09-03-2007).
- **M.S., Mirac Uckun.** Screening of random mutagenised Gram-negative bacterial strains for high level L-asparaginase production. Department of Biology, Inonu University, (20-07-2006).
- **Ph.D., Sebnem O. Erenler.** Cloning, isolation and expression of L-asparaginase gen (ansB) in Gram-negative bacteria. Department of Biology, Inonu University, 2006.
- **M.S., Ufuk Ozer.** Synthesis of dopamine in bacteria. Department of Biology, Inonu University, (10-07-2006).
- **Ph.D., Veyis Selen** (2008 -); (Co-advisor, Simultaneous biosynthesis of L-DOPA and DOPAMİN in recombinant mikroorganisms. Department of Chemical Engineering, Firat University.
- **Ph.D., Aslı Giray Kurt** (2010 -); Effect of Vitreoscilla hemoglobin on secondary metabolite flux distribution in Erwinia herbicola. Department of Biology, Inonu University.
- Ph.D., Emel Aytan; Ph.D. subject not assigned yet. Department of Biology, Inonu University.
- **Ph.D., Züleyha Türkoğlu**; Ph.D. subject not assigned yet. Department of Biology, Mus Alparslan University (my student through a collaboration of ceratin universities in Turkey, UNIP)













ALUMNI

- Sebnem Ozalp Erenler, Assist. Prof. at Inonu University, Department of Biology
- Burhan Ates, Assoc. Prof. at Inonu University, Department of Chemistry
- Huseyin Kahraman, Assist. Prof. at Inonu University, Department of Biology
- Salih Gencer, Senior Research Associate at Fatih University, Department of Bioengineering (presently on a 1 year sabbatical leave at Medical School of South Carolina, Department of Biochemistry and Molecular Biology)
- Ufuk Ozer, Ph.D. Student at Universty of South Carolina, Department of Biology

SOME CONFERENCES GIVEN

- Human Genome: arewe all clones? (04/2003), Inonu University-Faculty of Science and Letters
- Human Genome Project: are we haunted by our genes? (11/2003), Inonu University-Faculty
 of Science and Letters
- RNAi: new functions and horizons for RNA (03/2005), Inonu University-Faculty of Science and Letters
- **Pharmocogenomics in the post-genomic era** (05/2005), Inonu University-Faculty of Pharmacy
- **The importance of microbial biotechnology** (05/2009), 1st National Student Biotechnology Congress, Fatih University, Istanbul

SEMINARS SUPERVISED

- L-asparaginase: a bacterial enzyme used in cancer therapy, by Mr. Salih Gencer (Jan28 2004)
- Metabolic engineering and its applications, by Mrs. Sebnem O Erenler (June 25 2003)
- Bacterial hemoglobins and their application s, by Mrs. Nafia C Ates (June 19 2003)
- Hemoglobins: from bacteria to man, by Mrs. Sebnem O Erenler (June 11 2003)
- A method for production of enzymes with high industrial importance: random mutagenesis and screening, by Mirac Uckun (Feb 2 2005)
- Bacterial biosynthesis of L-DOPA and dopamine: two important neurotransmitters, by Mr. Ufuk Ozer (Jan 27 2006)
- A technology for gene silencing: RNA inteference, by Mr. Salih Gencer (Jan 25 2006)
- Individulas with identical genes but highly different characters: the hidden power of epigenetics, by Mr. Salih Gencer (July 12, 2006)
- Bacterial pigmentation. Emel Aytan (Feb 3 2009)
- Phage typing as an cloning vehicle, Asli Giray Kurt (Feb 3 2009)
- Metagenomics: study and applications of unculturable organisms, Emel Aytan (June 18 2010)













OTHERS

- 1993-1994: President of Turkish Student Association (96 members) at Illinois Institute of Technology, Chicago.
- 2003-2007: Institutional Coordinator, Socrates/Erasmus Programs.
- 2005-2007: Faculty of Arts and Sciences
- 2005-2008: Institutional Coordinator, European Sixth Framework Program; Life sciences, genomics and biotechnology for health
- 2010 ...: Director, Center for Gifted and Talented
- 2004 ...: Deputy Chairperson, Department of Biologyi
- 2010 ...: Vice director, Institute for Sciences
- Issue Editor (with Pinar Calik, METU) Biotechnology Journal: Biotech in Turkey

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