

## CURRICULUM VITAE



Name and Surname: Mustafa Gül

Date of birth: 1964

### Address:

Mustafa Gül, M.D., Ph.D.,  
Professor,  
Department of Physiology,  
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### Education:

- 1980 Graduated from high school as the first degree student. Cine Lisesi, Çine, Aydın, Turkey,
- 1981-87 **Faculty of Medicine, Ege University, Izmir, Turkey.** Graduated as a doctor of medicine (M.D.).
- 1988-91 **Specialization in physiology**, thesis: Research on the relationship between the acetylcholinesterase activity of human lymphocytes and active E-rosette formation. Supervised by Professor Sevgen Aydar, **Department of Physiology, Faculty of Medicine, Ege University, Izmir, Turkey.**
- 1997-2005 **Doctor of Philosophy in Physiology**, thesis: Cytotoxic and antifungal acetophenone-derived Mannich bases: effects on redox thiols and heat shock proteins. Supervisors: Professor (Emeritus) Osmo Hanninen and Docent Mustafa Atalay, **Department of Physiology, Faculty of Medicine, University of Kuopio, Kuopio, Finland.**

### Positions held:

- 1987-88 Practiced at the Ministry of Health, Hanak, Kars, Turkey as a staff doctor for compulsory service.
- 1988-91 Resident at the Department of Physiology, Faculty of Medicine, Ege University, Izmir, Turkey.
- 1991-94 Staff specialist and Assistant Professor (3-8.1994) at the Department of Physiology, Faculty of Medicine, Black Sea Technical University, Trabzon, Turkey.
- 1994- 3.2000 Assistant Professor at the Department of Physiology, Faculty of Medicine, Adnan Menderes University, Aydin, Turkey.
- 3.2000-3.2004 Assistant Professor at the Department of Physiology, Faculty of Medicine, Ataturk University, Erzurum, Turkey.
- 3.2004-2.2009, Associate Professor at the Department of Physiology, Faculty of Medicine, Ataturk University, Erzurum, Turkey.
- 2.2009-today, **Professor at the Department of Physiology, Faculty of Medicine, Ataturk University, Erzurum, Turkey.**

### **Experience in abroad:**

- 9, 1996- 12, 98 **Visiting researcher**, joined the research project on “Control of exhaustive exercise-associated oxidative stress” in the Department of Physiology, **University of Kuopio, Kuopio, Finland.** (Supported by 12 months CIMO scholarship, Helsinki Finland, which was distributed by Turkish Ministry of Education, Ankara, Turkey. He is also supported by 4 months TUBITAK scholarship, and 5 months from TULES Graduate School, Kuopio, Finland).
- 9, 2002-2, 2003 **Visiting scholar**, joined the research project on “Exercise (or ischemia-reperfusion) induced muscle damage” in the Department of Kinesiology and Physical Education, **Wilfrid Laurier University, Waterloo, Canada.**(Supported by 4 months NATO-B2 scholarship distributed by TUBITAK, Ankara, Turkey).
- September 14-19, 2009, visited as a scholar to the **Louis Pasteur Strasbourg Medical Schoool, Department of Physiology, Strasbourg, France**, supported by the **Erasmus Teaching Mobility Program** and presented a seminar titled “Ischemia-reperfusion induced muscle damage: effects of estrogen and adrenomedullin”.

Foreign Language: English (**good in both written and spoken English 85/100 KPDS 8 May 2005,**)

Military Service: Done

Marital Status: Married, two children (born in 1997 and 2005).

Citizenship: Turkish

### **Publications**

*Articles in international journals [1-54]*

1. Kucukoglu, K., H.I. Gul, M. Gul, R. Cetin-Atalay, Y. Baratli, and B. Geny, *Cytotoxicity of hydrazones of morpholine bearing Mannich bases towards huh7 and t47d cell lines and their effects on mitochondrial respiration.* Letters in Drug Design & Discovery, 2016. 13(8): p. 734-741.
2. Gursul, C., F.N. Ekinci Akdemir, T. Akkoyun, I. Can, M. Gul, and I. Gulcin, *Protective effect of naringin on experimental hindlimb ischemia/reperfusion injury in rats.* J Enzyme Inhib Med Chem, 2016: p. 1-6.
3. Can, S., G. Cigsar, F. Gur Ozabacigil, S. Aksak Karamese, J. Sell, G. Bacak, S. Gedikli, G.Z. Sahin, S. Yigit, I. Can, and M. Gul, *Hepatoprotective effect of 17beta-estradiol as antioxidant modulators against stress damage.* Hepat Mon, 2015. 15(2): p. e22633.
4. Kucukoglu, K., H.I. Gul, R. Cetin-Atalay, Y. Baratli, A.L. Charles, M. Sukuroglu, M. Gul, and B. Geny, *Synthesis of new n,n'-bis[1-aryl-3-(piperidine-1-yl)propylidene]hydrazine dihydrochlorides and evaluation of their cytotoxicity against human hepatoma and breast cancer cells.* J Enzyme Inhib Med Chem, 2014. 29(3): p. 420-426.
5. Badr, G., D. Sayed, D. Maximous, A.O. Mohamed, and M. Gul, *Increased susceptibility to apoptosis and growth arrest of human breast cancer cells treated by a snake venom-loaded silica nanoparticles.* Cell Physiol Biochem, 2014. 34(5): p. 1640-1651.
6. Mete, E., H.I. Gul, R. Cetin-Atalay, U. Das, E. Sahin, M. Gul, C. Kazaz, and J.R. Dimmock, *The design and cytotoxic evaluation of some 1-aryl-3-isopropylamino-1-propanone hydrochlorides towards human huh-7 hepatoma cells.* Archiv Der Pharmazie, 2011. 344(5): p. 333-339.
7. Kucukoglu, K., M. Gul, M. Atalay, E. Mete, C. Kazaz, O. Hanninen, and H.I. Gul, *Synthesis of some Mannich bases with dimethylamine and their hydrazones and evaluation of their cytotoxicity against Jurkat cells.* Arzneimittel-Forschung-Drug Research, 2011. 61(6): p. 366-371.
8. Taysi, S., K. Gumustekin, B. Demircan, O. Aktas, N. Oztasan, F. Akcay, H. Suleyman, S. Akar, S. Dane, and M. Gul, *Hippophae rhamnoides attenuates nicotine-induced oxidative stress in rat liver.* Pharmaceutical Biology, 2010. 48(5): p. 488-493.
9. Mete, E., H.I. Gul, P. Canturk, Z. Topcu, B. Pandit, M. Gul, and P.K. Li, *Biological activity of 1-aryl-3-phenethylamino-1-propanone hydrochlorides and 3-aryloyl-4-aryl-1-phenethyl-4-*

- piperidinols on pc-3 cells and DNA topoisomerase i enzyme.* Zeitschrift Fur Naturforschung Section C-a Journal of Biosciences, 2010. 65(11-12): p. 647-652.
10. Gumustekin, K., S. Taysi, H.H. Alp, O. Aktas, N. Oztasan, F. Akcay, H. Suleyman, S. Akar, S. Dane, and M. Gul, *Vitamin e and hippophea rhamnoides l. Extract reduce nicotine-induced oxidative stress in rat heart.* Cell Biochemistry and Function, 2010. 28(4): p. 329-333.
  11. Gul, M., E. Mete, M. Atalay, M. Arik, and H.I. Gul, *Cytotoxicity of 1-aryl-3-butylamino-1-propanone hydrochlorides against jurkat and l6 cells.* Arzneimittel-Forschung-Drug Research, 2009. 59(7): p. 364-369.
  12. Gul, H.I., H. Suleyman, and M. Gul, *Evaluation of the anti-inflammatory activity of n,n '-bis(3-dimethylamino-1-phenyl-propylidene) hydrazine dihydrochloride.* Pharmaceutical Biology, 2009. 47(10): p. 968-972.
  13. Gul, H.I., M. Cizmecioglu, S. Zencir, M. Gul, P. Canturk, M. Atalay, and Z. Topcu, *Cytotoxic activity of 4 '-hydroxychalcone derivatives against jurkat cells and their effects on mammalian DNA topoisomerase i.* Journal of Enzyme Inhibition and Medicinal Chemistry, 2009. 24(3): p. 804-807.
  14. Borekci, B., M. Gulaboglu, and M. Gul, *Iodine and magnesium levels in maternal and umbilical cord blood of preeclamptic and normal pregnant women.* Biological Trace Element Research, 2009. 129(1-3): p. 1-8.
  15. Taysi, S., N. Oztasan, H. Efe, M.F. Polat, K. Gumustekin, E. Siktar, E. Canakci, F. Akcay, S. Dane, and M. Gul, *Endurance training attenuates the oxidative stress due to acute exhaustive exercise in rat liver.* Acta Physiol Hung, 2008. 95(4): p. 337-347.
  16. Gul, H.I., K.O. Yerdelen, U. Das, M. Gul, B. Pandit, P.K. Li, and J.R. Dimmock, *Synthesis and cytotoxicity of novel 3-aryl-1-(3 '-dibenzylaminomethyl-4 '-hydroxyphenyl)-propenones and related compounds.* Chemical & Pharmaceutical Bulletin, 2008. 56(12): p. 1675-1681.
  17. Dane, S., S. Taysi, M. Gul, F. Akcay, and A. Gunal, *Acute exercise induced oxidative stress is prevented in erythrocytes of male long distance athletes.* Biology of Sport, 2008. 25(2): p. 115-124.
  18. Ciftci, M., H. Yilmaz, T.A. Coban, M. Gul, K. Gumustekin, and S. Dane, *Effects of nicotine and vitamin e on 6-phosphogluconate dehydrogenase activity in some rat tissues in vivo and in vitro.* Journal of Enzyme Inhibition and Medicinal Chemistry, 2008. 23(2): p. 261-265.
  19. Canturk, P., K. Kucukoglu, Z. Topicu, M. Gul, and H.I. Gul, *Effect of some bis mannich bases and corresponding piperidinols on DNA topoisomerase i.* Arzneimittel-Forschung-Drug Research, 2008. 58(12): p. 686-691.
  20. Suleyman, H., H.I. Gul, M. Gul, M. Alkan, and F. Gocer, *Anti-inflammatory activity of bis(3-aryl-3-oxo-propyl)methylamine hydrochloride in rat.* Biological & Pharmaceutical Bulletin, 2007. 30(1): p. 63-67.
  21. Oztasan, N., H. Timur, E. Siktar, K. Gumustekin, S. Akar, S. Dane, and M. Gul, *Effects of endurance training on gonadal fat pad and ventricular mass in rat.* Biology of Sport, 2007. 24(3): p. 265-273.
  22. Gul, H.I., K.O. Yerdelen, M. Gul, U. Das, B. Pandit, P.K. Li, H. Secen, and F. Sahin, *Synthesis of 4 '-hydroxy-3 '-piperidinomethylchalcone derivatives and their cytotoxicity against pc-3 cell lines.* Archiv Der Pharmazie, 2007. 340(4): p. 195-201.
  23. Erat, M., M. Ciftci, K. Gumustekin, and M. Gul, *Effects of nicotine and vitamin e on glutathione reductase activity in some rat tissues in vivo and in vitro.* European Journal of Pharmacology, 2007. 554(2-3): p. 92-97.
  24. Gulaboglu, M., L. Yildiz, M. Gul, F. Celebi, and K. Peker, *Blood and urine iodine levels in patients with gastric cancer.* Biological Trace Element Research, 2006. 113(3): p. 261-271.
  25. Gul, M., B. Demircan, S. Taysi, N. Oztasan, K. Gumustekin, E. Siktar, M.F. Polat, S. Akar, F. Akcay, and S. Dane, *Effects of endurance training and acute exhaustive exercise on antioxidant defense mechanisms in rat heart.* Comp Biochem Physiol A Mol Integr Physiol, 2006. 143(2): p. 239-245.
  26. Tiidus, P.M., M. Deller, E. Bombardier, M. Gul, and X.L. Liu, *Estrogen supplementation failed to attenuate biochemical indices of neutrophil infiltration or damage in rat skeletal muscles following ischemia.* Biol Res, 2005. 38(2-3): p. 213-223.

27. Ozmen, I., O.I. Kufrevioglu, and M. Gul, *Effects of some antibiotics on activity of glucose-6-phosphate dehydrogenase from human erythrocytes in vitro and effect of isepamicin sulfate on activities of antioxidant enzymes in rat erythrocytes*. Drug and Chemical Toxicology, 2005. 28(4): p. 433-445.
28. Gumustekin, K., M. Ciftci, A. Coban, S. Altikat, O. Aktas, M. Gul, H. Timur, and S. Dane, *Effects of nicotine and vitamin e on glucose 6-phosphate dehydrogenase activity in some rat tissues in vivo and in vitro*. Journal of Enzyme Inhibition and Medicinal Chemistry, 2005. 20(5): p. 497-502.
29. Gulaboglu, M., L. Yildiz, F. Celebi, M. Gul, and K. Peker, *Comparison of iodine contents in gastric cancer and surrounding normal tissues*. Clinical Chemistry and Laboratory Medicine, 2005. 43(6): p. 581-584.
30. Gul, M., H.I. Gul, U. Das, and O. Hanninen, *Biological evaluation and structure-activity relationships of bis-(3-aryl-3-oxo-propyl)methylamine hydrochlorides and 4-aryl-3-arylcarbonyl-1-methyl-4-piperidinol hydrochlorides as potential cytotoxic agents and their alkylating ability towards cellular glutathione in human leukemic t cells*. Arzneimittelforschung-Drug Research, 2005. 55(6): p. 332-337.
31. Gul, M., M. Atalay, H.I. Gul, C. Nakao, J. Lappalainen, and O. Hanninen, *The effects of some Mannich bases on heat shock proteins hsc70 and grp75, and thioredoxin and glutaredoxin levels in Jurkat cells*. Toxicology in Vitro, 2005. 19(5): p. 573-580.
32. Gul, H.I., F. Sahin, M. Gul, S. Ozturk, and K.O. Yerdelen, *Evaluation of antimicrobial activities of several Mannich bases and their derivatives*. Archiv Der Pharmazie, 2005. 338(7): p. 335-338.
33. Ciftci, M., M. Bulbul, M. Gul, K. Gumustekin, S. Dane, and H. Suleyman, *Effects of nicotine and vitamin e on carbonic anhydrase activity in some rat tissues in vivo and in vitro*. Journal of Enzyme Inhibition and Medicinal Chemistry, 2005. 20(1): p. 103-108.
34. Oztasan, N., S. Taysi, K. Gumustekin, K. Altinkaynak, O. Aktas, H. Timur, E. Siktar, S. Keles, S. Akar, F. Akcay, S. Dane, and M. Gul, *Endurance training attenuates exercise-induced oxidative stress in erythrocytes in rat*. Eur J Appl Physiol, 2004. 91(5-6): p. 622-627.
35. Guliyev, V.B., M. Gul, and A. Yildirim, *Hippophae rhamnoides l.: Chromatographic methods to determine chemical composition, use in traditional medicine and pharmacological effects*. Journal of Chromatography B-Analytical Technologies in the Biomedical and Life Sciences, 2004. 812(1-2): p. 291-307.
36. Gumustekin, K., K. Altinkaynak, H. Timur, S. Taysi, N. Oztasan, M.F. Polat, F. Akcay, H. Suleyman, S. Dane, and M. Gul, *Vitamin e but not Hippophae rhamnoides l. Prevented nicotine-induced oxidative stress in rat brain*. Human & Experimental Toxicology, 2003. 22(8): p. 425-431.
37. Gul, M., M. Atalay, and O. Hänninen, *Endurance training and glutathione-dependent antioxidant defense mechanism in heart of the diabetic rats*. J. Sports Sci. Med. , 2003. 2: p. 52-61.
38. Gul, H.I., M. Gul, J. Vepsäläinen, E. Erciyas, and O. Hanninen, *Cytotoxicity of some azines of acetophenone derived mono-Mannich bases against Jurkat cells*. Biological & Pharmaceutical Bulletin, 2003. 26(5): p. 631-637.
39. Gul, H.I., M. Gul, and E. Erciyas, *Toxicity of some bis Mannich bases and corresponding piperidinols in the brine shrimp (Artemia salina) bioassay*. Journal of Applied Toxicology, 2003. 23(1): p. 53-57.
40. Taysi, S., F. Polat, M. Gul, R.A. Sari, and E. Bakan, *Lipid peroxidation, some extracellular antioxidants, and antioxidant enzymes in serum of patients with rheumatoid arthritis*. Rheumatology International, 2002. 21(5): p. 200-204.
41. Taysi, S., M. Gul, R.A. Sari, F. Akcay, and N. Bakan, *Serum oxidant/antioxidant status in patients with systemic lupus erythematosus*. Clinical Chemistry and Laboratory Medicine, 2002. 40(7): p. 684-688.
42. Suleyman, H., K. Gumustekin, S. Taysi, S. Keles, N. Oztasan, O. Aktas, K. Altinkaynak, H. Timur, F. Akcay, S. Akar, S. Dane, and M. Gul, *Beneficial effects of Hippophae rhamnoides l. On nicotine induced oxidative stress in rat blood compared with vitamin e*. Biological & Pharmaceutical Bulletin, 2002. 25(9): p. 1133-1136.

43. Polat, M.F., S. Taysi, M. Gul, O. Cikman, I. Yilmaz, E. Bakan, and F. Erdogan, *Oxidant/antioxidant status in blood of patients with malignant breast tumour and benign breast disease*. Cell Biochemistry and Function, 2002. 20(4): p. 327-331.
44. Gul, M., D.E. Laaksonen, M. Atalay, L. Vider, and O. Hanninen, *Effects of endurance training on tissue glutathione homeostasis and lipid peroxidation in streptozotocin-induced diabetic rats*. Scand J Med Sci Sports, 2002. 12(3): p. 163-170.
45. Gul, M., H.I. Gul, and O. Hanninen, *Effects of mannich bases on cellular glutathione and related enzymes of jurkat cells in culture conditions*. Toxicology in Vitro, 2002. 16(2): p. 107-112.
46. Gul, H.I., M. Gul, and O. Hanninen, *Cytotoxic activities of some mono and bis mannich bases derived from acetophenone in brine shrimp bioassay*. Arzneimittel-Forschung-Drug Research, 2002. 52(11): p. 840-843.
47. Gul, H.I., M. Gul, and E. Erciyas, *Syntheses and stability studies of some mannich bases of acetophenones and evaluation of their cytotoxicity against jurkat cells*. Arzneimittel-Forschung-Drug Research, 2002. 52(8): p. 628-635.
48. Gul, M., H.I. Gul, J. Vepsalainen, E. Erciyas, and O. Hanninen, *Effect of acetophenone derived mannich bases on cellular glutathione level in jurkat cells - a possible mechanism of action*. Arzneimittel-Forschung-Drug Research, 2001. 51(8): p. 679-682.
49. Gul, H.I., T. Ojanen, J. Vepsalainen, M. Gul, E. Erciyas, and O. Hanninen, *Antifungal activity of some mono, bis and quaternary mannich bases derived from acetophenone*. Arzneimittel-Forschung-Drug Research, 2001. 51(1): p. 72-75.
50. Gul, M., S. Temocin, and O. Hanninen, *Selenium supplementation sensitizes renca cells to tert-butylhydroperoxide induced loss of viability*. Indian J Exp Biol, 2000. 38(10): p. 1020-1025.
51. Gul, M., F.Z. Kutay, S. Temocin, and O. Hanninen, *Cellular and clinical implications of glutathione*. Indian J Exp Biol, 2000. 38(7): p. 625-634.
52. Gul, H.I., J. Vepsalainen, M. Gul, E. Erciyas, and O. Hanninen, *Cytotoxic activities of mono and bis mannich bases derived from acetophenone against renca and jurkat cells*. Pharm Acta Helv, 2000. 74(4): p. 393-398.
53. Khanna, S., M. Atalay, D.E. Laaksonen, M. Gul, S. Roy, and C.K. Sen, *Alpha-lipoic acid supplementation: Tissue glutathione homeostasis at rest and after exercise*. J Appl Physiol, 1999. 86(4): p. 1191-1196.
54. Beser, E., S.H. Baytan, D. Akkoyunlu, and M. Gul, *Cigarette smoking, eating behaviour, blood haematocrit level and body mass index*. Ethiop Med J, 1995. 33(3): p. 155-162.

*Chapter in Encyclopedia:*

Gul M., Hänninen O.: Physiological basis of exercise, in Hänninen O., Atalay M. (eds): Physiology and maintenance. Oxford, In Encyclopedia of Life Support Systems (EOLSS), Developed under the Auspices of the UNESCO, Eolss Publishers Co. Ltd., 2002. [www.eolss.net](http://www.eolss.net)