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### **EDUCATION:**

**B.S.**, Biology, Tehran University,

**B.A.**, English Language Translation

**M.Sc.**, Clinical Biochemistry, Tabriz Medical University,

**Ph.D.**, Clinical Biochemistry, Hamedan University of Medical Sciences.

### **Research projects:**

1. Assessment of homocysteine levels in different paraoxonase phenotypes in patients with exudative age related macular degeneration.
2. Relationship between homocysteine concentration and sermic Asymmetric dimethylarginine (ADMA) concentration in exudative age-related macular degeneration
3. Effect of omega 3 fatty acid supplements on serum paraoxonase activity in patients with rheumatoid arthritis
4. The comparison between Breast milk and formula feeding full term neonates in serum proportion of OPG to OPGL
5. Measuring the levels of trace elements in the dialysis fluid of dialysis patients with Atomic absorption method
6. Comparison of paraoxonase (A-192G) polymorphism and phenotype in fertile and infertile males
7. Expression and purification of recombinant asparaginase and evaluation of its stability in biodegradable nanoparticle
8. Cloning and expression determination of l- asparaginas from shigella dysantriy

9. Epidemiological study of the prevalence of hepatitis B and C virus infection in blood donors and geographical distribution of the in Alborz province
10. The effect of incubation period on the activity of factor VIII in Fresh Frozen Plasma from isolation till freezing
11. The study the effect of the spironolactone and captopril and their combined administration on miRNA-192 and miRNA-29 levels in diabetic nephropaty in animal model wistar rats
12. The study of antioxidant and anti-inflammatory effects of hydroalcoholic extract of *Securigera securidaca* in diabetic rats
13. The study of the effects of hydro-alcoholic extract of *Securigera securidaca* seeds on angiogenesis factors of vascular endothelial growth factor and Fibroblast growth factor in diabetic rats
14. The effect of *Securigera securidaca* hydroalcoholic extract on glycogen levels, Testis lactate dehydrogenase gene expression and physiological parameters of sperm in streptozotocin-diabetic rats
15. The study of serum homocysteine levels and paraoxonase phenotypes in rats treated by hydroalcoholic extract of *Securigera Securidaca* seed
16. Cloning, expression and purification of recombinant N- acetylmuramidase from *staphylococcus aureus*
17. Cloning, expression and purification of recombinant staphylokinase from *staphylococcus aureus*
18. Study of the effect of hydroalcoholic extract of *Securigera Securidaca* seed on local liver renin-angiotensin system in diabetic rats
19. The effect of hydroalcoholic extract of *Securigera Securidaca* seed on local pancreatic renin-angiotensin system in diabetic rats
20. Study the effect of hydroalcoholic extract of *Securigera Securidaca* seed on liver gene expression of NRF2 and FGF21 and their relationship with insulin secretion in hyperglycemic rats

## **PUBLICATIONS:**

1. Plasma oxidized LDL and thiol-containing molecules in patients with exudative age related macular degeneration, *Molecular Vision* 2010; 16:2578-2584. doi:10.1016/S1567-5688(10)70224-5
2. Serum paraxonase phenotype distribution in exudative age related macular degeneration and its relationship to homocysteine and oxidized low density lipoprotein. *Retina*. 2012 Apr;32(4):658-66. doi: 10.1097/IAE.0b013e31822529b1

۳. سطح سرمی هموسیستئین، لیپوپروتئین با دانسیته پایین و فعالیت آنزیم پاراکسوناز در بیماران مبتلا به دژنرسانس وابسته به

سن ماکولای مرطوب. مجله پزشکی دانشگاه علوم پزشکی تبریز - ۱۳۹۰ - دوره : ۳۳ - شماره : ۱ - صفحه: ۱۳- ۱۷

4. Fish oil supplementation decreases serum soluble receptor activator of nuclear factor-kappa B ligand/osteoprotegerin ratio in female patients with rheumatoid arthritis. *Clinical Biochemistry*, 2010 Apr;43(6):576-80. doi: 10.1016/j.clinbiochem.2009.12.011
5. Effect of fish oil supplements on serum paraoxonase activity in female patients with Rheumatoid Arthritis: A double-blind randomized controlled trail. *Archives of Iranian Medicine*, 2012 Sep;15(9):549-52. doi: 012159/AIM.007.
6. Effect of omega-3 fatty acids supplementation on circulating osteoprotegerin ligand to osteoprotegerin ratio in female patients with rheumatoid arthritis
7. An optimized protocol for over-production of recombinant protein expression in *Escherichia coli*. *Preparative biochemistry biotechnology*, 2014;44(5):510-28. doi: 10.1080/10826068.2013.833116
8. Preparation and Nanoencapsulation of L-Asparaginase II in Chitosan-Tripolyphosphate Nanoparticles and In Vitro Release Study. *Nanoscale Research Letters* 2014, **9**:340 doi:10.1186/1556-276X-9-340
9. Genotype and phenotype frequencies of paraoxonase 1 in fertile and infertile men. *Syst Biol Reprod Med*. 2014,60(6):361-6. Doi:10.3109/19396368
10. Bioinformatic Analysis of L-Asparaginase II from *Citrobacter Freundii* 1101, *Erwinia Chrysanthemi* DSM 4610, *E.coli* BL21 and *Klebsiella Pneumoniae* ATCC 10031. *International Journal of Medical Laboratory* 2017;4(2):123-134.
11. Cloning, sequencing and expression of L-Asparaginase II gene from *Citrobacter freundii* 1101. *International Journal of Biology Researc*; volume 2; Issue 2; April2017; Page No. 07-12.

۱۲. ارزیابی سطوح پروفایل لیپیدی و LDL اکسید شده در فنوتیپهای مختلف آنزیم پاراکسوناز در بیماران مبتلا به

دژنرسانس وابسته به سن ماکولای مرطوب. ۱۳۹۷، دوره ۲۵. شماره: ۱۶۹. صفحه: ۵۶-۶۵

13. Comparison of the Effect of Amino Acids and Their Derivatives on the Growth of Some Dermatophytes: An In Vitro Study. *IJML* 2018, 5(1): 66-75
14. Prevalence of chronic viral hepatitis infections in Karaj, Iran. *Pan Afr Med J*. 2017; 28: 186. doi: 10.11604/pamj.2017.28.186.10269
15. AGTR1 rs5186 variants in patients with type 2 diabetes mellitus and nephropathy. *Meta Gene*; 2018,15, 50-54. doi.org/10.1016/j.mgene.2017.11.001

16. The expression levels of miRNAs- 27a and 23a in the peripheral blood mononuclear cells (PBMCs) and their correlation with FOXO1 and some inflammatory and anti-inflammatory cytokines in the patients with coronary artery disease (CAD). *Life Science*; 2020 Jun 6;256:117898. doi: 10.1016/j.lfs.2020.117898.
17. Effect of a Peptide Construct on Differentiated Macrophage MMP-2 and MMP-9 Levels of Varicose Patients. *Current Pharmaceutical Design*; 2019, 25(40):4303-4309  
doi: 10.2174/1381612825666191029105203
18. Effects of Securigera Securidaca Seed Extract in Combination With Glibenclamide on Antioxidant Capacity, Fibroblast Growth Factor 21 and Insulin Resistance in Hyperglycemic Rats. *Journal of Ethnopharmacology*; 2020 Feb 10;248:112331. doi: 10.1016/j.jep.2019.112331.
19. Effects of Securigera securidaca (L.) Degen & Dorfl seed extract alone and in combination with glibenclamide on paraoxonase1 activity, lipid profile and peroxidation, and cardiovascular risk indices in diabetic rats; *Bioimpacts*; 2020,
20. The study of serum asymmetric dimethylarginine concentrations in different paraoxonase phenotypes in exudative age-related macular degeneration disease. *International Journal of Medical Laboratory*; 2020,
21. Application of System Biology to Explore the Association of Nephilysin, Angiotensin-Converting Enzyme 2 (ACE2), and Carbonic Anhydrase (CA) in Pathogenesis of SARS-CoV-2. *Biol Proced Online*; 2020; 22:11. doi: 10.1186/s12575-020-00124-6.
22. A comprehensive review of COVID-19 characteristics. *Biol Proced Online*; 2020
23. The expression levels of miRNAs- 27a and 23a in the peripheral blood mononuclear cells (PBMCs) and their correlation with FOXO1 and some inflammatory and anti-inflammatory cytokines in the patients with coronary artery disease (CAD)

## **GenBank MN585199**

**<https://www.ncbi.nlm.nih.gov/nuccore/MN585199>**

Staphylococcus aureus subsp. aureus strain ATCC 25923 N-acetylmuramidase gene, complete cds

## **Patent**

Peptidoglycan extraction and purification from bacteria

Patent number: 139850140003011420

