



Sina Raeisi

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SUMMARY

Clinical Biochemist (PhD)

I am a researcher focused on innovative methods for diagnosing and treating challenging neurological disorders and exploring their underlying mechanisms.

WORK EXPERIENCE

- **Researcher** at Pediatric Health Research Center of Tabriz University of Medical Sciences (TUMS), Tabriz, Iran. **Since 2017**
Responsibilities: Proposal writing; designing and executing experiments; data analyzing; manuscript writing; teaching as a lecturer (Biochemistry); mentoring medical, MSc, and PhD students.
- **Lab Analyst** at Division of Clinical Laboratory, Tabriz Children Hospital, TUMS, Tabriz, Iran **2009-2012**
Responsibilities: Phlebotomy; preparing of samples; running of routine tests; recording test data and results; reporting results.
- **Lab Analyst** at Tabriz Genetic Analysis Center, Tabriz, Iran **2008-2009**
Responsibilities: Running molecular diagnostic tests; setting up new molecular tests; reporting results.

EDUCATION

- **Clinical Biochemistry**, Ph.D., TUMS, Tabriz, Iran. **2012 – 2017**
- **Clinical Biochemistry**, M.Sc., Urmia University of Medical Sciences, Urmia, Iran. **2006 – 2010**
- **Medical Laboratory Sciences**, Bachelor's Degree, TUMS, Tabriz, Iran. **2004 – 2006**
- **Medical Laboratory Sciences**, Associate Degree, TUMS, Tabriz, Iran. **2002 – 2004**

ACHIEVEMENTS and HONORS

- Distinguished Student Award winner, TUMS. **2016**
- Distinguished Student Award winner, TUMS. **2004**
- The member of the Talented Students Office, TUMS. **2014 – 2017**
- The award winner for the best scientific paper at "15th International Congress of Nephrology, Dialysis, and Transplantation-Mashhad-Iran". **2015**
- International Basic Science Mentee-Mentor Award (1000 USD) winner for the excellence of our abstract at "14th Transplantation Science Symposium-Lorne-Australia". **2015**

SKILLS

Phlebotomy; routine lab tests (CBC, WBC Diff., CSF analysis, Biochemistry Auto-Analyser, ...); cell culture, animal models (mouse and rat); DNA and RNA extraction (Blood, Tissue); Spectrophotometry; ELISA; PCR; Real-Time PCR; LAMP, Electrophoresis (Agarose, SDS-PAGE); Protein purification; Western Blotting; Southern Blotting; Immunohistochemistry; Flowcytometry; HPLC. Microsoft Office; SPSS; EndNote Reference Manager.

INTERESTS

The roles of the ketogenic diet, Klotho, neurotransmitters, epigenetic modifications, gene regulation, biomarkers, and innovative approaches in diagnosing and treating human diseases, particularly neurological and aging-related disorders, as well as elucidating the underlying mechanisms.

GOOGLE SCHOLAR Link

https://scholar.google.com/citations?hl=en&user=YweS_NkAAAAJ&view_op=list_works&gmla=AJsNF5AaBZZcZPpSVBr_prRNZaEH15GtAWnx7OWcMlcVTeYCC1iLNDKNXDmGKCIHsQACtExohhF1kmyYW6I0Ox8uuuDwIrJQ

PUBLICATIONS

1. Jahanshahi A, Niknam M, **Raeisi S**, Sadeghvand S, Azar SM, Ghassemi A, Rezazadeh K*. Comparison of Risk Factors and Outcomes in Pediatric Posterior and Anterior Circulation Arterial Ischemic Stroke: A Cross-Sectional Analysis. *Iranian Journal of Child Neurology*. 2025;19(4):73-9.
2. Ebrahimi Behnam B, **Raeisi S***, Bakhtiari N, Abbasi MM, Shanehbandi D. Neurochemical and genetic effects of the ketogenic diet: alterations in brain GABA, glutamate, and related gene. *Molecular Biology Reports*. 2025 Dec;52(1):968.
3. Rezazadeh K, Barzegar M, Nezamdoost E, Shoaran M, Abbasi MM, Ghasemi B, Madadi S, **Raeisi S***. Hepatic toll of keto: unveiling the inflammatory and structural consequences of ketogenic diet in rats. *BMC nutrition*. 2025 Apr 9;11(1):72.
4. Ranjbar, N., Ebrahimi Behnam, B., Mesgari Abbasi, M., Esmaeili, M., Jolfaei, F., Mohammadian, J., Rashtchizadeh N, Ghorbanihaghjo A, **Raeisi, S***. The possible antioxidative effects of ketogenic diet by modifying brain klotho expression: a rat model study. *Nutritional Neuroscience*, 1–7. (Published online). <https://doi.org/10.1080/1028415X.2024.2436817>.
5. Poursistany H, Azar ST, Azar MT, **Raeisi S***. The current and emerging Klotho-enhancement strategies. *Biochemical and Biophysical Research Communications*. 2023 Dec 10:149357.
6. Ranjbar N, Raeisi M, Barzegar M, Ghorbanihaghjo A, Shiva S, Sadeghvand S, Negargar S, Poursistany H, **Raeisi S***. The possible anti-seizure properties of Klotho. *Brain Research*. 2023 Aug 25:148555.
7. Poorshiri B, Barzegar M, Afghan M, Shiva S, Shahabi P, Golchinfar Z, Nodeh HR, **Raeisi S***. The effects of ketogenic diet on beta-hydroxybutyrate, arachidonic acid, and oxidative stress in pediatric epilepsy. *Epilepsy & Behavior*. 2023 Mar 1;140:109106.
8. Barzegar M, Afghan M, Tarmahi V, Behtari M, Rahimi Khamaneh S, **Raeisi S***. Ketogenic diet: overview, types, and possible anti-seizure mechanisms. *Nutritional neuroscience*. 2021 Apr 3;24(4):307-16.
9. Poorshiri B, Barzegar M, Tahmasebi S, Shiva S, **Raeisi S**, Ebadi Z. The efficacy comparison of classic ketogenic diet and modified Atkins diet in children with refractory epilepsy: a clinical trial. *Acta Neurologica Belgica*. 2021 Apr;121(2):483-7.
10. Mehdizadeh A, Barzegar M, Negargar S, Yahyavi A, **Raeisi S***. The current and emerging therapeutic approaches in drug-resistant epilepsy management. *Acta Neurologica Belgica*. 2019 Jun;119(2):155-62.
11. Danaiyan S, Mesgari Abbasi M, **Raeisi S**, Argani H, Ghorbanihaghjo A, Shanehbandi D, Roshangar L, Poursistany H, Abedi S, Mohammadian J, Bahremani M, Rashtchizadeh N*. The Effects of Remdesivir and Dexamethasone on renal function and Sirtuin-1 expression in male rats. *Applied Biochemistry and Biotechnology*. 2023 May 11:1-1.
12. Jahanshahi A, Hiradfar A, Mahboubi S, Hosseinpour Feizi A, Shakeri Bavi A, Mostafavijabbari A, Yousefi Nodeh HR*, **Raeisi S***. The Predictive Value of Abdominal Ultrasonography Compared to CT scan for the Evaluation of Pediatric Lymphoma. *Iranian Journal of Pediatric Hematology and Oncology*. 2023 Mar 10;13(2):79-86.
13. Poorshiri B, **Raeisi S**, Barzegar M. A Toddler with Acute Encephalitis Associated With COVID-19: A Case Report. *Clinical Pediatrics*. 2022 Jan 26:00099228211059347.
14. Khiabani NH, Barzegar M, **Raeisi S**, Chaleshtori MJ, Heidarabady S, Gharehgoz AB. Comparison of the Performance of Iranian Azeri-Speaking Children Based on Iran and Reference Bayley III Norms. *Iranian Journal of Child Neurology*.;16(2):39-52.
15. Barzegar M, Poorshiri B, Yousefi L, **Raeisi S**, Bakhtiary H, Milani AE, Ebadi Z. The clinical and paraclinical manifestations of tuberous sclerosis complex in children. *Acta Neurologica Belgica*. 2021 Mar 18:1-6.
16. Hosseini M, Roshangar L, **Raeisi S***, Ghahremanzadeh K, Negargar S, Tarmahi V, Hosseini V, Raeisi M, Rahimi E, Ebadi Z. The therapeutic applications of exosomes in different types of diseases: A review. *Current Molecular Medicine*. 2021 Feb 1;21(2):87-95.
17. Tarmahi V, Afghan M, **Raeisi S***, Yousefi Nodeh HR, Tamaddon M, Moahamadzadeh F, Mohammadzadeh N, Ebadi Z. The Accuracy of Enzyme-Linked Immunosorbent Assay in the Diagnosis of COVID-19 in Iranian Children. *International Journal of Pediatrics*. 2021 Jul 1;9(7):13937-45.
18. Bilan N, Amirikar F, **Raeisi S**. Diagnostic Value of Changes in Serum Calprotectin Level and Patients' Sputum in Response to Treatment of Cystic Fibrosis Exacerbation in Children. *International Journal of Pediatrics*. 2021 May 1;9(5):13569-79.
19. **Raeisi S**, Bakhtiary H, Barzegar M. A patient with tuberous sclerosis complex and spinal muscular atrophy; a case report. *International Journal of Pediatrics*. 2020 Aug 1;8(8):11855-60.
20. Hosseini M, Valizadeh E, Hosseini N, Khatibshahidi S, **Raeisi S***. The Role of Infant Sex on Human Milk Composition. *Breastfeeding Medicine*. 2020 May1;15(5):341-6.
21. Poorshiri B, Barzegar M, **Raeisi S**, Afghan M. Tay-Sachs Disease in Two Iranian Identical Male Twins; A Case Report. *International Journal of Pediatrics*. 2020 May1;8(5):11355-9.
22. Hosseini M, Azampour H, **Raeisi S***, Behtari M, Valizadeh H, Saboohi R. The effects of enteral artificial amniotic fluid-containing erythropoietin on short term outcomes of preterm infants. *The Turkish Journal of Pediatrics*. 2019;61(3), 392-398.
23. **Raeisi S**, Chavoshi H, Mohammadi M, Ghorbani M, Sabzichi M, Ramezani F. Naringenin-loaded nano-structured lipid carrier fortifies oxaliplatin-dependent apoptosis in HT-29 cell line. *Process Biochemistry*. 2019;83:168-175.

24. Rahbari Banaeian Gh, Bilan N, Pakdel S, **Raeisi S**. The Role of Inflammatory Biomarkers in the Management of Children with Asthma. *Int J Pediatr* 2018; 6(12): 8727-35. DOI: 10.22038/ijp.2018.33621.2970.
25. **Raeisi S**, Ghorbanihaghjo A, Argani H, Dastmalchi S, Seifi M, Ghasemi B, Ghazizadeh T, Abbasi MM, Karimi P. Oxidative stress-induced renal telomere shortening as a mechanism of cyclosporine-induced nephrotoxicity. *Journal of biochemical and molecular toxicology*. 2018 Aug;32(8):e22166.
26. Seifi M, Ghasemi A, **Raeisi S**, Heidarzadeh S. Application of next-generation sequencing in clinical molecular diagnostics. *Brazilian Archives of Biology and Technology*. 2017 May 18;60.
27. Ahmadi R, Hajjalilo M, Ghorbanihaghjo A, Mota A, **Raeisi S**, Bargahi N, Valilo M, Askarian F. FGF-23, Klotho and vitamin D levels in scleroderma. *Iranian journal of public health*. 2017 Apr;46(4):530.
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32. Argani H, Ghorbanihaghjo A, Vatankhahan H, Rashtchizadeh N, **Raeisi S**, Ilghami H. The effect of red grape seed extract on serum paraoxonase activity in patients with mild to moderate hyperlipidemia. *Sao paulo medical journal*. 2016 May 13;134:234-9.
33. Ghazizadeh T, Ghorbani Haghjo A, Argani H, **Raeisi S**, Safa J, Aliasgari J, Rashtchizadeh N. Evaluation of Antioxidant Activity of Klotho in Hemodialysis Patients and Renal Transplant Recipient. *Studies in Medical Sciences*. 2015 Dec 10;26(9):743-53.
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36. Ghorbanihaghjo A, Hajjalilo M, Shahidi M, Kolahi S, Nakhjavani MR, **Raeisi S**, Argani H, Rashtchizadeh N. Osteoprotegerin (OPG) and Matrix Gla protein (MGP) in rheumatoid arthritis patients: Relation to disease activity. *The Egyptian Rheumatologist*. 2014 Jul 1;36(3):111-6.
37. Hajjalilo M, Rameshknia V, Ghorbanihaghjo A, Rashtchizadeh N, Khabbazi A, Kolahi S, Jafari-Nakhjavani MR, Yousefi B, **Raeisi S**, Shahidi M, Amanifar B. Dickkopf-1 levels and serum Osteoprotegerin in women with Osteoporosis. *Journal of Research in Clinical Medicine*. 2013 Oct 1;1(2):68-74.
38. Rasmi Y, Seyed-Mohammadzad MH, **Raeisi S**. Relationship between high sensitivity C-reactive protein and CagA positive *Helicobacter Pylori* in cardiac syndrome X. *Journal of Scientific Research*. 2013 Aug 29;5(3):527-33.
39. Rasmi Y, **Raeisi S**, Mohammadzad S, Mir H. Association of Inflammation and Cytotoxin-Associated Gene A Positive Strains of *Helicobacter Pylori* in Cardiac Syndrome X. *Helicobacter*. 2012 Apr 1;17(2):116-20.
40. Rasmi Y, **Raeisi S**. Possible role of *Helicobacter pylori* infection via microvascular dysfunction in cardiac syndrome X. *Cardiology journal*. 2009;16(6):585-7.
41. Rasmi Y, Sadreddini M, Shahsavari Z, **Raeisi S**. Prevalence of *Helicobacter pylori* and cytotoxin-associated gene A in Iranian patients with non-erosive and erosive reflux disease.

ORAL PRESENTATIONS

1. **Sina Raeisi***, Mohammad Barzegar, Bita Poorshiri, Mohammadreza Afghan, Vahid Tarmahi. The Effects of Ketogenic Diet on Beta-Hydroxy Butyrate, Arachidonic Acid, and Oxidative Stress in Pediatric Epilepsy. *17th International Child Neurology Congress (ICNC), Antalya, Turkey-2022*.
2. **Sina Raeisi***, Mohammad Barzegar, Sohrab Negargar, Elnaz Rahimi Khamaneh, Zakieh Ebadi, Hamidreza Yousefi. The Current and Emerging Therapeutic Approaches in Drug-Resistant Epilepsy Management. *2nd International Conference on Neurovascular and Neurodegenerative Diseases (NVND). Paris-France-2019*.
3. **Sina Raeisi***, Hassan Argani, Amir Ghorbani Haghjo, et al. The effects of valsartan on oxidative stress in alleviation of cyclosporine nephrotoxicity. *15th International Congress of Nephrology, Dialysis and Transplantation. Mashhad-Iran 2015. (Selected as the best paper for the award)*.

4. **Sina Raeisi***, Hassan Argani, Amir Ghorbanihaghjo, Siavoush Dastmalchi, et al. The effects of Valsartan on Klotho expression and oxidative stress in preventing of calcinurine inhibitor nephropathy. **14th Transplantation Science Symposium-2015-Lorne-Australia**. (Selected as the best paper for the award).

REFERENCES

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