



Mohammad Sadegh Soltani-Zangbar



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Educations:

Sep 2018 – Jun 2022

- **Ph.D. in Medical Immunology**, School of Medicine, Tabriz University of Medical Sciences, Tabriz, Iran.
Ph.D. Thesis: Comparison of lymphocyte changes as well as the antiviral study of IFNs-I and the presence of autoantibodies against IFNs-I in severe and mild COVID-19 patients.

Sep 2010 – January 2014

- **M.Sc. in Medical Immunology**, School of Medicine, Shiraz University of Medical Sciences, Shiraz, Iran.
M.Sc. Thesis: Investigation of Sperm Immune Proteome to find Anti-Sperm Antibodies Targeted Antigens in Azoospermia men.

Sep 2005 – Jul 2009

- **B.Sc. in Molecular Cell Biology**, Shahid Madani University, Tabriz, Azarshahr, Iran.

Honors during education

- Ranking the 3rd in Ph.D entrance exam of Medical Immunology (2018).

Work experiences

- Laboratory Assistant at Immunology Department of Tabriz University of Medical Sciences, Tabriz, Iran.

Teaching Experiences

Workshops:

- Workshop on western blot and 2-Dimentional Electrophoresis (2DE) (2013), Shiraz University of Medical Sciences, Shiraz, Iran.

Theoretical:

- **Immunology: Theoretical and Practical to:**

- Undergraduate students in Medical Laboratory Sciences, Nursing, Surgery Technology, and Anesthesia (**Tabriz** University of Medical Sciences).
- Pharmacy students (**Tabriz** University of Medical Sciences).

Research Outputs

Link of Published Articles

- Scopus: <https://www.scopus.com/authid/detail.uri?authorId=57189099987>
- Google Scholar: https://scholar.google.com/citations?hl=en&user=Va_FxaQAAAAJ

H index

- Google Scholar: 24
- Scopus: 22

Skills and Experience

Laboratory skills:

- PAGE and SDS-PAGE
- Real time PCR
- DNA and RNA extraction
- cDNA synthesis
- Protein preparation for proteomics
- Biochemistry and proteomics techniques: **Western blotting and 2-dimentional electrophoresis (2DE)**
- Flow cytometry (BD FACS Calibur)
- ELISA
- Cell culture.
- Animal handling; **Developing mouse model of cancer, stroke (familiar)**
- Isolation of lymphoid organs of mouse (Lymph nodes, Bone marrow and Spleen) and (PBMC) isolation.
- Isolation of immune cells from different lymphoid organs (Lymph nodes, Bone marrow and Spleen).
- Expert in different medical laboratory tests.
- Microbiology techniques including culture of bacteria.
- Familiar with CRISPR/Cas9 system and ChIP assay.

Computer skills:

- Statistical software including SPSS, Graphpad Prism, R, ImageJ, AlleleID: Real-Time PCR Assay Design Software, Primer designing, Primer blast, Flow cytometry analysis using CellQuest and Flowjo, EndNote.
- Scanning the blots using GS-800 Calibrated Densitometer (Bio-Rad), Analysis of the digital images using Prodigy SameSpots software, ImageJ, and Image Lab.
- Proficient in using electronic databanks including PubMed, My NCBI, ISI, Elsevier, and etc.

Languages:

- **Azerbaijani Turkish:** Native language
- **Persian:** National language
- **English:** Fluent

Community Membership:

- Iranian Society for Immunology & Allergy.
- Cooperation with several scientific journals as a peer reviewer and final reviewer.

Scientific fields of interest

- Interested in Th17 and Treg cell biology and function in immune system related diseases
- Reproductive Immunology specially RPL, RIF and PE (role of immune system in infertility)
- Autoimmune diseases
- Cancer Immunology and Immunotherapy
- Infectious diseases (Immune system response in COVID-19 and IFN-Is signaling pathway)

Conference activity/participation

- Poster presentation in 13th Iranian Congress of Biochemistry & 5th International Congress of Biochemistry and Molecular Biology, 16-19 April 2013, Yazd, Iran.
- **Oral and poster presentation** in several international congresses (2012,2014, 2018, and 2023).
- Poster presentation in 3rd national congress of integrative oncology, 3rd national seminar of sarcoma. 23-25 October 2019, Tehran, Iran.
- **Member of organizing committee** at first national workshop on computational nanobiotechnology and application in drug design in Tabriz University (2009).
- **Member of executive committee** at the 13th Congress on immunology in Tabriz University of Medical Sciences (2016).

List of publications

1. Nouri N, Aghebati-Maleki L, **Soltani-Zangbar MS**, Kamrani A, Mehdizadeh A, Danaii S, Heris JA, Chakeri-Khiavi F, Yousefi M. Analysis of Th17 cell population and expression of microRNA and factors related to Th17 in patients with premature ovarian failure. *Journal of Reproductive Immunology*. 2024 Sep 1;165:104290.
2. Iranzad R, Hosseini M, Bagheri M, **Soltani-Zangbar MS**, Pirouzpanah M, Biglari N, Zolfaghari M, Khaki A, Aghebati-Maleki L, Roshangar L, Badihi E. The effectiveness of ruxolitinib and cyclophosphamide combination on T helper 17 and regulatory T cells in rat experimental membranous glomerulonephritis. *Molecular and Cellular Probes*. 2024 Aug 1;76:101969.
3. Hassanzadeh A, Shomali N, Kamrani A, **Soltani-Zangbar MS**, Nasiri H, Akbari M. Cancer therapy by cyclin-dependent kinase inhibitors (CDKIs): bench to bedside. *EXCLI Journal*. 2024 Jun 4;23:862-82.
4. Gharehbagh FJ, **Soltani-Zangbar MS**, Yousefzadeh Y. Immunological mechanisms in preeclampsia: a narrative review. *Journal of Reproductive Immunology*. 2024 Jun 17:104282.
5. Shekarchi AA, Hosseini L, Kamrani A, Alipourfard I, **Soltani-Zangbar MS**, Akbari M, Roshangar L, Aghebati-Maleki L, Chakari-Khiavi F, Chakari-Khiavi A, Motlagh Asghari K. Evaluation of changes in exhausted T lymphocytes and miRNAs expression in the different trimesters of pregnancy in pregnant women. *Molecular Biology Reports*. 2024 Dec;51(1):1-1.
6. Maralbashi S, Aslan C, Kahroba H, Asadi M, **Soltani-Zangbar MS**, Haghnava N, Jadidi F, Salari F, Kazemi T. Docosahexaenoic acid (DHA) impairs hypoxia-induced cellular and exosomal overexpression of immune-checkpoints and immunomodulatory molecules in different subtypes of breast cancer cells. *BMC Nutrition*. 2024 Dec;10(1):1-4.

7. Ahmadi H, **Soltani-Zangbar MS**, Yousefi M, Baradaran B, Szekeres-Bartho J. The evaluation of PD-1 and Tim-3 expression besides their related miRNAs in PBMCs of women with recurrent pregnancy loss. *Immunology Letters*. 2024 Jan 23;106837.
8. Aminsobahni E, Hosseini M, Gholizadeh N, **Soltani-Zangbar MS**, Savari G, Motlagh Asghari K, Pourlak T, Zolfaghari M, Chakari-Khiavi F, Motavalli R, Chakari-Khiavi A. T Lymphocyte Characteristic Changes Under Serum Cytokine Deviations and Prognostic Factors of COVID-19 in Pregnant Women. *Applied Biochemistry and Biotechnology*. 2023 Nov 10:1-6.
9. Niafar M, Samaie V, **Soltani-Zangbar MS**, Motavalli R, Dolati S, Danaei S, Mehdizadeh A, Yousefi M. The association of Treg and Th17 cells development factors and anti-TPO autoantibodies in patients with recurrent pregnancy loss. *BMC Research Notes*. 2023 Oct 31;16(1):302.
10. Black RJ, Cross M, Haile LM, Culbreth GT, Steinmetz JD, Hagins H, Kopec JA, Brooks PM, Woolf AD, Ong KL, Kopansky-Giles DR. Global, regional, and national burden of rheumatoid arthritis, 1990–2020, and projections to 2050: a systematic analysis of the Global Burden of Disease Study 2021. *The Lancet Rheumatology*. 2023 Oct 1;5(10):e594-610.
11. Samadzadeh S. The unfinished agenda of communicable diseases among children and adolescents before the COVID-19 pandemic, 1990-2019: A systematic analysis of the Global Burden of Disease study 2019. *Lancet*. 2023 Jul 22;402(10398):313-35.
12. Aryannejad A, Saeedi Moghaddam S, Mashinchi B, Tabary M, Rezaei N, Shahin S, Rezaei N, Naghavi M, Larijani B, Farzadfar F. National and subnational burden of female and male breast cancer and risk factors in Iran from 1990 to 2019: results from the Global Burden of Disease study 2019. *Breast Cancer Research*. 2023 Dec;25(1):1-26.
13. Wu D, Jin Y, Xing Y, Abate MD, Abbasian M, Abbasi-Kangevari M, Abbasi-Kangevari Z, Abd-Allah F, Abdelmasseh M, Abdollahifar MA, Abdulah DM. Global, regional, and national incidence of six major immune-mediated inflammatory diseases: findings from the global burden of disease study 2019. *eClinicalMedicine*. 2023 Oct 1;64.
14. Fayyazpour P, Fayyazpour A, Abbasi K, Vaez-Gharamaleki Y, **Zangbar MS**, Raeisi M, Mehdizadeh A. The role of exosomes in cancer biology by shedding light on their lipid contents. *Pathology-Research and Practice*. 2023 Sep 12:154813.
15. Steinmetz JD, Culbreth GT, Haile LM, Rafferty Q, Lo J, Fukutaki KG, Cruz JA, Smith AE, Vollset SE, Brooks PM, Cross M. Global, regional, and national burden of osteoarthritis, 1990–2020 and projections to 2050: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet Rheumatology*. 2023 Sep 1;5(9):e508-22.
16. **Soltani-Zangbar MS**, Hajivalili M, Daneshdoust D, Ghadir S, Savari G, Zolfaghari M, Aghebati-Maleki L, Oloufi S, Nouri N, Amini N, Mehdizadeh A. SARS-CoV2 infection induce miR-155 expression and skewed Th17/Treg balance by changing SOCS1 level: A clinical study. *Cytokine*. 2023 Sep 1;169:156248.
17. Biglari N, **Soltani-Zangbar MS**, Mohammadian J, Mehdizadeh A, Abbasi K. ctDNA as a novel and promising approach for cancer diagnosis: a focus on hepatocellular carcinoma. *EXCLI Journal*. 2023 Aug 3;22:752-80.
18. Azadnajafabad S, Saeedi Moghaddam S, Mohammadi E, Rezaei N, Rashidi MM, Rezaei N, Mokdad AH, Naghavi M, Murray CJ, Larijani B, Farzadfar F. Burden of breast cancer and attributable risk factors in the North Africa and Middle East region, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *Frontiers in Oncology*. 2023 Aug 1;13:1132816.
19. Aslanian-Kalkhoran, L., Kamrani, A., Alipourfard, I., Chakari-Khiavi, F., Chakari-Khiavi, A., Aghebati-Maleki, L., ..., **Soltani-Zangbar MS** & Yousefi, M. (2023). The effect of lymphocyte immunotherapy (LIT) in modulating immune responses in patients with recurrent pregnancy loss (RPL). *International Immunopharmacology*, 121, 110326.
20. Mafi, S., Ahmadi, E., Meehan, E., Chiari, C., Mansoori, B., Sadeghi, H., ..., **Soltani-Zangbar MS** & Rostamzadeh, D. (2023). The mTOR Signaling Pathway Interacts with the ER Stress Response and the Unfolded Protein Response in Cancer. *Cancer Research*, 83(15), 2450-2460.
21. Hosseini S, **Soltani-Zangbar MS**, Zamani M, Yaghoubi Y, Rikhtegar Ghiasi R, Motavalli R, Ghassabi A, Iranzad R, Mehdizadeh A, Shakouri SK, Pishgahi A. Comparative evaluation of autologous platelet-rich plasma and platelet lysate in patients with knee osteoarthritis. *Growth Factors*. 2023 Jun 22:1-3.
22. Ong KL, Stafford LK, McLaughlin SA, Boyko EJ, Vollset SE, Smith AE, Dalton BE, Duprey J, Cruz JA, Hagins H, Lindstedt PA. Global, regional, and national burden of

- diabetes from 1990 to 2021, with projections of prevalence to 2050: a systematic analysis for the Global Burden of Disease Study 2021. *The Lancet*. 2023 Jun 22.
23. Malekpour MR, Abbasi-Kangevari M, Ghamari SH, Khanali J, Heidari-Foroosan M, Moghaddam SS, Azangou-Khyavy M, Rezazadeh-Khadem S, Rezaei N, Shobeiri P, Esfahani Z. The burden of metabolic risk factors in North Africa and the Middle East, 1990–2019: findings from the Global Burden of Disease Study. *EClinicalMedicine*. 2023 Jun 1;60.
 24. Motavalli R, Hosseini M, Soltani-Zangbar MS, Karimi A, Sadeghi M, Dolati S, Yousefi M, Etemadi J. Evaluation of the immune checkpoint factors in idiopathic membranous nephropathy. *Molecular and Cellular Probes*. 2023 Jun 1;69:101914.
 25. Biglari N, Mehdizadeh A, Mastanabad MV, Gharaeikhezri MH, Afrakoti LG, Pourbala H, Yousefi M, Soltani-Zangbar MS. Application of mesenchymal stem cells (MSCs) in neurodegenerative disorders: history, findings, and prospective challenges. *Pathology-Research and Practice*. 2023 May 18:154541.
 26. Momtazmanesh S, Moghaddam SS, Ghamari SH, Rad EM, Rezaei N, Shobeiri P, Aali A, Abbasi-Kangevari M, Abbasi-Kangevari Z, Abdelmasseh M, Abdoun M. Global burden of chronic respiratory diseases and risk factors, 1990–2019: an update from the Global Burden of Disease Study 2019. *EClinicalMedicine*. 2023 Apr 25.
 27. Motavalli R, Soltani-Zangbar MS, Fereydoonzadeh K, Hajivalili M, Ahmadian Heris J, Kahroba H, Niknafs B, Motavalli Khiavi F, Dolati S, Sadeghi M, Yousefi M. Evaluation of T helper17 as skeletal homeostasis factor in peripheral blood mononuclear cells and T helper cells of end-stage renal disease cases with impaired parathyroid hormone. *Molecular Biology Reports*. 2023 Mar 6:1-8.
 28. Pourakbari R, Parhizkar F, Soltani-Zangbar MS, Samadi P, Zamani M, Aghebati-Maleki L, Motavalli R, Mahmoodpoor A, Jadidi-Niaragh F, Yousefi B, Kafil HS. Preeclampsia-Derived Exosomes Imbalance the Activity of Th17 and Treg in PBMCs from Healthy Pregnant Women. *Reproductive Sciences*. 2023 Apr;30(4):1186-97.
 29. Etemadi J, Motavalli R, Mirghaffari SA, Soltani-Zangbar MS, Hajivalili M, Ahmadian Heris J, Niknafs B, Zununi S, Sadeghi M, Rasi Hashemi S, Tayebi Khosroshahi H. Potent SARS-CoV2-specific T-cell response in asymptomatic hemodialysis patients with hidden COVID-19 infection history. *Journal of Clinical Laboratory Analysis*. 2023 Mar;37(5):e24863.
 30. Sarkesh A, Sorkhabi AD, Parhizkar F, Soltani-Zangbar MS, Yousefi M, Aghebati-Maleki L. The immunomodulatory effect of intradermal allogeneic PBMC therapy in patients with recurrent spontaneous abortion. *Journal of Reproductive Immunology*. 2023 Jan 31:103818.
 31. Parhizkar, F., Kiani, A., Darzi, S., Motavalli, R., Dolama, F. N., Yousefzadeh, Y., ... & Soltani-Zangbar, M. S. (2023). The evaluation of CD39, CD73, and HIF-1 α expression besides their related miRNAs in PBMCs of women with recurrent pregnancy loss. *Journal of Reproductive Immunology*, 156, 103820.
 32. Ahangari Maleki M, Malek Mahdavi A, Soltani-Zangbar MS, Yousefi M, Khabbazi A. Randomized double-blinded controlled trial on the effect of synbiotic supplementation on IL-17/IL-23 pathway and disease activity in patients with axial spondyloarthritis. *Immunopharmacology and Immunotoxicology*. 2023 Jan 2;45(1):43-51.
 33. Parhizkar F, Yousefi M, Soltani-Zangbar MS, Parhizkar Z, Aghebati-Maleki L, Abbaspour-Ravasjani S, Motavalli R, Alizadegan A, Mojahedi M, Baharaghdam S, Kamrani A. Sirolimus-and cyclosporine-loaded nanostructured lipid carriers: Development, characterization, and in vitro evaluation in T-cell profiles of patients with a history of recurrent pregnancy loss. *Reproductive Medicine and Biology*. 2023 Jan;22(1):e12509.
 34. Nouri, N., Shareghi-Oskoue, O., Aghebati-Maleki, L, Shahla Danaii, Javad Ahmadian Heris, Mohammad Sadegh Soltani-Zangbar, Amin Kamrani & Mehdi Yousefi. Role of miRNAs interference on ovarian functions and premature ovarian failure. *Cell Commun Signal* 20, 198 (2022).
 35. Ghasempour M, Hosseini M, Soltani-Zangbar MS, Motavalli R, Aghebati-Maleki L, Dolati S, Mehdizadeh A, Yousefi M, Ahmadian Heris J. The impact of Hyssop (*Hyssopus officinalis*) extract on activation of endosomal toll like receptors and their downstream signaling pathways. *BMC Research Notes*. 2022 Dec;15(1):1-7.
 36. Soltani-Zangbar MS, Parhizkar F, Abdollahi M, Shomali N, Aghebati-Maleki L, Shahmohammadi Farid S, Roshangar L, Mahmoodpoor A, Yousefi M. Immune system-related soluble mediators and COVID-19: basic mechanisms and clinical perspectives. *Cell Communication and Signaling*. 2022 Dec;20(1):1-2.

37. Omidvar MH, Soltani-Zangbar MS, Zamani M, Motavalli R, Jafarpoor M, Dolati S, Ahmadi M, Mehdizadeh A, Khabbazi A, Hajjalilo M, Yousefi M. The effect of osteoporotic and non-osteoporotic individuals' T cell-derived exosomes on osteoblast cells' bone remodeling related genes expression and alkaline phosphatase activity. *BMC Research Notes*. 2022 Dec;15(1):1-7.
38. Soltani-Zangbar MS, Parhizkar F, Ghaedi E, Tarbiat A, Motavalli R, Alizadegan A, Aghebati-Maleki L, Rostamzadeh D, Yousefzadeh Y, Jadideslam G, Farid SS. A comprehensive evaluation of the immune system response and type-I Interferon signaling pathway in hospitalized COVID-19 patients. *Cell Communication and Signaling*. 2022 Dec;20(1):1-5.
39. Alizadegan A, Akbarzadeh M, Soltani-Zangbar MS, Sambrani R, Hamdi K, Ghasemzadeh A, Hakimi P, Vahabzadeh B, Dianat-Moghadam H, Mehdizadeh A, Mohammadinejad S. Isolation of cfDNA from spent culture media and its association with implantation rate and maternal immunomodulation. *BMC Research Notes*. 2022 Dec;15(1):1-7.
40. Markazi R, Soltani-Zangbar MS, Zamani M, Eghbal-Fard S, Motavalli R, Kamrani A, Dolati S, Ahmadi M, Aghebati-Maleki L, Mehdizadeh A, Eslamian F. Platelet lysate and tendon healing: comparative analysis of autologous frozen-thawed PRP and ketorolac tromethamine in the treatment of patients with rotator cuff tendinopathy. *Growth Factors*. 2022 Nov 25;40(5-6):163-74.
41. Yousefzadeh Y, Soltani-Zangbar MS, Kalafi L, Tarbiat A, Shahmohammadi Farid S, Aghebati-Maleki L, Parhizkar F, Danaii S, Taghavi S, Jadidi-Niaragh F, Samadi Kafil H. Evaluation of CD39, CD73, HIF-1 α , and their related miRNAs expression in decidua of preeclampsia cases compared to healthy pregnant women. *Molecular Biology Reports*. 2022 Nov;49(11):10183-93.
42. Kyu HH, Vongpradith A, Sirota SB, Novotney A, Troeger CE, Doxey MC, Bender RG, Ledesma JR, Biehl MH, Albertson SB, Frostad JJ. Age–sex differences in the global burden of lower respiratory infections and risk factors, 1990–2019: results from the Global Burden of Disease Study 2019. *The Lancet Infectious Diseases*. 2022 Nov 1;22(11):1626-47.
43. Shafiei SL, Movassaghpour A, Hosseini SF, Talebi M, Edalati M, Torabi Goudarzi S, Soltani-Zangbar MS, Mehdizadeh A, Yousefi M. The altered expression of homing factors in CD34+ hematopoietic stem cells following G-CSF injection and its effects on transplantation quality in ALL patients. *Cell Biology International*. 2022 Nov;46(11):1876-85.
44. Sepanlou SG, Aliabadi HR, Malekzadeh R, Naghavi M. Levels and Trends of Maternal Mortality and Morbidity by Cause in North Africa and Middle East, 1990 to 2019: An Analysis for the Global Burden of Disease Study 2019. *Archives of Iranian Medicine*. 2022 Oct 1;25(10):666-75.
45. Sepanlou SG, Aliabadi HR, Malekzadeh R, Naghavi M, GBD 2019 Iran Maternal Collaborators. Maternal mortality and morbidity by cause in provinces of Iran, 1990 to 2019: an analysis for the global burden of disease study 2019. *Archives of Iranian Medicine*. 2022 Sep 1;25(9):578.
46. Tran KB, Lang JJ, Compton K, Xu R, Acheson AR, Henrikson HJ, Kocarnik JM, Penberthy L, Aali A, Abbas Q, Abbasi B. The global burden of cancer attributable to risk factors, 2010–19: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*. 2022 Aug 20;400(10352):563-91.
47. Madadi S, Mohammadinejad S, Alizadegan A, Hojjat-Farsangi M, Dolati S, Kafil HS, Jadidi-Niaragh F, Soltani-Zangbar MS, Motavalli R, Etemadi J, Eghbal-Fard S. Expression level of immune checkpoint inhibitory factors in preeclampsia. *Human Immunology*. 2022 Aug 1;83(8-9):628-36.
48. Gholipour E, Kahroba H, Soltani N, Samadi P, Sarvarian P, Vakili-Samiani S, Hosein Pour Feizi AA, Soltani-Zangbar MS, Baghersalimi A, Darbandi B, Movassaghpour A. Paediatric pre-B acute lymphoblastic leukaemia-derived exosomes regulate immune function in human T cells. *Journal of Cellular and Molecular Medicine*. 2022 Aug;26(16):4566-76.
49. Sharma R, Abbasi-Kangevari M, Abd-Rabu R, Abidi H, Abu-Gharbieh E, Acuna JM, Adhikari S, Advani SM, Afzal MS, Meybodi MA, Ahinkorah BO. Global, regional, and national burden of colorectal cancer and its risk factors, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019. *The lancet Gastroenterology & hepatology*. 2022 Jul 1;7(7):627-47.
50. Kamrani A, Soltani-Zangbar MS, Shiri S, Yousefzadeh Y, Pourakbari R, Aghebati-Maleki

- L, Mehdizadeh A, Danaii S, Jadidi-Niaragh F, Yousefi B, Kafil HS. TIGIT and CD155 as Immune-Modulator Receptor and Ligand on CD4+ T cells in Preeclampsia Patients. *Immunological Investigations*. 2022 May 19;51(4):1023-38.
51. Yousefzadeh Y, **Soltani-Zangbar MS**, Hemmatzadeh M, Shomali N, Mahmoodpoor A, Ahmadian Heris J, Yousefi M. Fetomaternal immune tolerance: crucial mechanisms of tolerance for successful pregnancy in humans. *Immunological Investigations*. 2022 May 19;51(4):1108-25.
 52. Etemadi J, Bordbar S, **Soltani-Zangbar MS**, Hajivalili M, Aghebati-Maleki L, Motavalli R, Mahmoodpoor A, Shahmohammadi-Farid S, Abedi Azar S, Niknafs B, Roshangar L. Prevalence of SARS-CoV-2 specific antibodies in asymptomatic hemodialysis patients. *Immunological Investigations*. 2022 May 19;51(4):993-1004.
 53. Farzadfar F, Naghavi M, Sepanlou SG, Moghaddam SS, Dangel WJ, Weaver ND, Aminorroaya A, Azadnajafabad S, Koolaji S, Mohammadi E, Rezaei N. Health system performance in Iran: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet*. 2022 Apr 23;399(10335):1625-45.
 54. Farzaneh R, Khabbazi A, **Soltani-Zangbar MS**, Abbasian S, Malek Mahdavi A, Motavalli R, Yousefi M. Effects of nanocurcumin supplementation on T-helper 17 cells inflammatory response in patients with Behcet's disease: a randomized controlled trial. *Immunopharmacology and Immunotoxicology*. 2022 Mar 4;44(2):206-15.
 55. **Soltani-Zangbar MS**, Mahmoodpoor A, Dolati S, Shamekh A, Valizadeh S, Yousefi M, Sanaie S. Serum levels of vitamin D and immune system function in patients with COVID-19 admitted to intensive care unit. *Gene Reports*. 2022 Mar 1;26:101509.
 56. Jafarpour M, Omidvar MH, **Soltani-Zangbar MS**, Dolati S, Ahmadi M, Jadidi-Niaragh F, Kafil HS, Dolama FN, Ahrar SN, Ahmadi S, Hagh PS. The effects of PBMCs-derived exosomes of ankylosing spondylitis patients on T cell profiles. *Gene Reports*. 2022 Mar 1;26:101446.
 57. Khabbazi A, Maleki MA, **Soltani-Zangbar MS**, Yousefi M, Mahdavi AM. Effects of synbiotic supplementation on regulatory T cells' response in patients with axial spondyloarthritis: a randomized double-masked placebo-controlled trial. *Food & Function*. 2022;13(24):12733-41.
 58. Dolati S, **Soltani ZM**, Etemadi KJ, Mojahedi M, Danaii S, Ahmadian HJ, Yousefi M. The Effect of Lymphocyte Therapy on the Expression of MicroRNAs in Women with Recurrent Pregnancy Loss. *Alborz University Medical Journal*. 11, 280-288.
 59. Alvarez EM, Force LM, Xu R, Compton K, Lu D, Henrikson HJ, Kocarnik JM, Harvey JD, Pennini A, Dean FE, Fu W. The global burden of adolescent and young adult cancer in 2019: a systematic analysis for the Global Burden of Disease Study 2019. *The Lancet Oncology*. 2022 Jan 1;23(1):27-52.
 60. Vahidnezhad H, Youssefian L, Saeidian AH, Ziaee V, Mahmoudi H, Parvaneh N, Ashjaei B, Shahrokh S, Hesari KK, **Zangbar MS**, Yousefi M. Homozygous MEFV Gene Variant and Pyrin-Associated Autoinflammation With Neutrophilic Dermatitis: A Family With a Novel Autosomal Recessive Mode of Inheritance. *JAMA dermatology*. 2021 Dec 1;157(12):1466-71.
 61. Abbasian S, **Soltani-Zangbar MS**, Khabbazi A, Farzaneh R, Mahdavi AM, Motavalli R, Hajjalilo M, Yousefi M. Nanocurcumin supplementation ameliorates Behcet's disease by modulating regulatory T cells: A randomized, double-blind, placebo-controlled trial. *International Immunopharmacology*. 2021 Dec 1;101:108237.
 62. Mahmoodpoor A, Hosseini M, **Soltani-Zangbar S**, Sanaie S, Aghebati-Maleki L, Saghaleini SH, Ostadi Z, Hajivalili M, Bayatmakoo Z, Haji-Fatahaliha M, Babaloo Z. Reduction and exhausted features of T lymphocytes under serological changes, and prognostic factors in COVID-19 progression. *Molecular immunology*. 2021 Oct 1;138:121-7.
 63. **Soltani-Zangbar MS**, Aghebati-Maleki L, Hajivalili M, Haji-Fatahaliha M, Motavalli R, Mahmoodpoor A, Kafil HS, Farhang S, Pourakbari R, Jadidi-Niaragh F, Roshangar L. Application of newly developed SARS-CoV2 serology test along with real-time PCR for early detection in health care workers and on-time plasma donation. *Gene Reports*. 2021 Jun 1;23:101140.
 64. Zolfaghari MA, Motavalli R, **Soltani-Zangbar MS**, Parhizkar F, Danaii S, Aghebati-Maleki L, Noori M, Dolati S, Ahmadi M, Kafil HS, Jadidi-Niaragh F. A new approach to the preeclampsia puzzle; MicroRNA-326 in CD4+ lymphocytes might be as a potential suspect. *Journal of Reproductive Immunology*. 2021 Jun 1;145:103317.
 65. Motavalli R, Etemadi J, **Soltani-Zangbar MS**, Ardalan MR, Kahroba H, Roshangar L, Nouri M, Aghebati-Maleki L, Khiavi FM, Abediazar S, Mehdizadeh A. Altered Th17/Treg

- ratio as a possible mechanism in pathogenesis of idiopathic membranous nephropathy. *Cytokine*. 2021 May 1;141:155452.
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Collaboration in projects and theses

1. Investigation of IL-17A and IL-17F gene polymorphisms and serum level of IL-17 in Preeclamptic and Healthy pregnant women.
2. Investigation of Anti-Bip GRP-78 antibodies in Preeclamptic women using Placenta tissue.
3. Extraction and identification of Lung Cell Carcinoma Cell Line (Mehr-80) Antigen using its Monoclonal Antibody.
4. Study of Decosahexaenoic Acid (DHA) in Cellular and Exosomal Expression of HIF-1 α , TGF- β and Their Regulatory miRNAs in Metastatic Brest Cancer Cell Line (MDA-MB-231).
5. Study of Decosahexaenoic Acid (DHA) in Cellular and Exosomal Expression of CD-73, CD-39, CD-47 and Their Regulatory miRNAs in Metastatic Brest Cancer Cell Line (MDA-MB-231).
6. Determination of Talin-2, mir-106b, mir-194 and MMP2 gene expression in MDA-MB-231 Cell Line after treatment by DHA.
7. The evaluation of CD73, CD39, and HIF-1 α expression and related miRNAs in women with recurrent pregnancy loss compared to healthy pregnant women.
8. Evaluating expression of miRNA-155 and its effect on immune system profile of SARS-CoV-2 patients compared to healthy controls.
9. Evaluation of exhausted T lymphocytes and regulatory T cells changes in sepsis patients with and without septic shock.
10. The effect of probiotics on fertility in women with recurrent implantation failure based on Th1 to Th2 ratio.
11. Evaluation of changes in exhausted T lymphocytes in the first, second and third trimesters of pregnancy in pregnant women.
12. Evaluation of the expression levels of autophagy-related genes in patients with recurrent implantation failure compared to normal individuals.
13. Evaluation of the expression levels of autophagy-related genes in patients with recurrent pregnancy loss compared to normal individuals.
14. The effect of collagen scaffolds for transfer of Conditioned Media in patients with Thin Endometrium.
15. Evaluation of Th17 cell frequency and expression of microRNAs and Th17 related factors in patients with Premature ovarian failure (POF).
16. Evaluation of the frequency of Treg cells and the expression of microRNAs and

- development factors of Treg cells in patients with premature ovarian failure (POF).
17. Intradermal lymphocyte therapy in recurrent pregnancy loss patients with immunologic abnormalities.
 18. Comparison of the serological and COVID-19 specific T lymphocyte count evaluation results in hemodialysis patients referred to Imam Reza Hospital.
 19. Comparison of lymphocyte changes as well as the antiviral study of IFNs-I and the presence of autoantibodies against IFNs-I in severe and mild COVID-19 patients.
 20. Seroepidemiological investigation of SARS-CoV2 virus infection in hemodialysis patients in Tabriz.
 21. A study of subcategories of exhausted TCD4+ and TCD8+ cells in pregnant women with SARS-COV2 compared with healthy pregnant women.
 22. Evaluation of TCD4 and TCD8 lymphocyte counts and subgroups and their relationship with seroepidemiologic findings in a staff of Tabriz University of Medical Sciences hospitals after SARS-COV-2 virus epidemic.
 23. Effect of Ruxolitinib and Cyclophosphamide on Lymphocyte Inhibition and the Pathogenesis of Membrane Glomerulonephritis in Rat Model.
 24. Effect of Fedratinib and Cyclosporine on Inhibition of Th17 Lymphocytes and the Pathogenesis of Membrane Glomerulonephritis in Rat Model.
 25. The evaluation of CD73, CD39 and HIF-1 α expression in women with preeclampsia compared with healthy pregnant women.
 26. Evaluation of salivary and plasma exosome-derived apoptosis related miRNAs expression levels as diagnostic biomarker in Aging.
 27. Investigation of plasma-derived exosomes from recurrent pregnancy loss patients on T, B and NK lymphocytes in healthy people.
 28. The effects of PRP with reduced Leukocyte content therapy on chronic knee osteoarthritis.
 29. The effects of Autologous Conditioned Serum therapy on chronic knee osteoarthritis.
 30. Investigating expression level of genes involved in production of ROS and apoptosis in sperm before and after separation with MACS.
 31. Molecular analysis of magnetic activated sperm sorting in level and expression

level of apoptotic microRNA in oligospermia patients.

32. Investigating of extracellular vesicles of patients with recurrent pregnancy loss (RPL) on T lymphocytes biology and activation.