

In The Name of God

I. Personal Information:

Full Name: Marzieh Dehghan Shasaltaneh

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Associate professor, Department of Biology, Faculty of Science. University of Zanjan, Zanjan-Iran (2018-so far). <https://www.znu.ac.ir/en>

II. Education Records:

2010-2016: PhD in Biochemistry, University of Tehran (IBB), Tehran-Iran.

Thesis: Experimental and theoretical survey on the effect of glucose and boswellic acid in diabetic brain of rat by *ex vivo* and *in vivo*

2006-2009: M.Sc in Biochemistry, Alzahra University, Tehran-Iran.

Thesis: L-tryptophan production by *Escherichia coli* in the presence of Iranian cane molasses as C-source

2001-2005 B.Sc. in Microbiology, Islamic Azad University, Fars-Iran

PhD average: 19.15

M.Sc average: 19.45

B.Sc average: 18.13

h Index		Citation	
Google Scholar	Scopus	Google Scholar	Scopus
17	14	710	503

III. Books:

English

1. Saber Imani, Jingliang Cheng, **Marzieh Dehghan Shasaltaneh**. Insights into Genetic Retinal Diseases: A Collection (2, 5, 9, 16 and 17 chapters). *Cambridge Scholars Pub.* 2024.
2. Saber Imani, **Marzieh Dehghan Shasaltaneh**, and Junjiang Fu, Epigenetics in Cancer, *Alpha Science International Ltd Pub*, 2018.

Persian

1. Parinaz Ghadam and **Marzieh Dehghan Shasaltaneh**, Metabolism of biological molecules, *Ideh Mandegar Pub.* Tehran–Iran. 2022.
2. Vahab Jafarian and **Marzieh Dehghan Shasaltaneh**, Principles and applied lab techniques in biochemistry, *University of Zanjan Pub.* 2022.
3. Maryam Salami, Maryam Moslehi, **Marzieh Dehghan Shasaltaneh** and Ali Akbar Moosavi-Movahedi, Chemistry of Milk Proteins and its Application, *Tehran University Pub.* 2013.
4. **Marzieh Dehghan Shasaltaneh**, Ali Akbar Moosavi-Movahedi and Zahra Moosavi-nejad, Smoke of Cigarette: scientific of subject in the decreasing their charges. *Amir Kabir Pub.* 2010.

IV. Research Publications:

Full Papers:

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- 1- **Marzieh Dehghan Shasaltaneh**, Vahid Tohidgigloo, Morteza Ahmadi Paskohani, Sadrollah Ramezani, Computational Prediction and Evaluation of Epitope-Based Peptides Derived from FZD7 and HNF4A as Risk Factors for Gastric Cancer Towards Vaccine Design. *Int J Basic Sci Med.* 2026, 11(1):9-17.
- 2- Mohaddeseh Kharazmi, Tayyebbeh Khalili, **Marzieh Dehghan-Shasaltaneh**, Abbas Bahari, Mohaddeseh Ebrahimi-Ghiri. Resveratrol prevents arsenic-induced depression-like phenotypes via modulation of BDNF signaling. *Behavioural Brain Research.* 2026, 115988-115996.
- 3- **Marzieh Dehghan Shasaltaneh**, Fariba Arbouni. Elucidating the Structural stability of Human Estrogen Receptor Alpha Variants in Breast Cancer: A Computational Analysis via Molecular Dynamics Simulations. *Bioinformatics and Biology Insights.* Accepted.

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- 4- Akram Molamohammadi, **Marzieh Dehghan Shasaltaneh**, Nasser Naghdi, Rasool Hemayattalab, Hassan Gharayagh Zandi, Citalopram and physical Exercise for the Prevention of Stress-Induced Dysfunction in Male Wistar Rats, *Acta Biochimica Iranica*, 2025, 3(3): 162-170.
- 5- Somayeh Farahmand, Marzieh Dehghan Shasaltaneh, Faezeh Fatemi, Mahnaz Shojapour. Identification of a novel Cyc2 mutation (F312Y) to predict the stability of protein structure by molecular dynamic. *Acta Cell Biologica*. 2025, 1(1): 17-31.

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- 6- **Marzieh Dehghan Shasaltaneh**, Elmira Naghdi, Zahra Moosavi-Nejad. Mechanistic Studies on Substrate Inhibition and Substrate Activation of Ribonuclease A: Experimental and *In Silico* Investigation, *Biomolecular Structure and Dynamics*. 2024. 1-18.
- 7- Wenqiong Ma, Zexiu Wu, Mazaher Maghsoudloo, Iqra Ijaz, **Marzieh Dehghan Shasaltaneh**, Yuqin Zhang, Qiao Weng, Junjiang Fu, Saber Imani and QingLian Wen. Dermokine mutations contribute to epithelial-mesenchymal transition and advanced melanoma through ERK/MAPK pathways. *PLOS ONE*, 2024. 1-32.

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- 8- Wenqiong Ma, Xingping Han, **Marzieh Dehghan Shasaltaneh**, Hossein Hosseinfard, Mazaher Maghsoudloo, Yuqin Zhang, Qiao Wenge Qingjing Wang, QingLian Wen and Saber Imani. The p110 α / Δ Np63 α complex mutations in triple-negative breast cancer: Potential targets for transcriptional-based therapies. *Tumor Biology*, 2023. 127-146.
- 9- Leili Amani, Mehran Mirabzadeh Ardakani, Nasrin Motamed, Masuomeh Malek and **Marzieh Dehghan Shasaltaneh**. Protein Profiling of *Hirudo orientalis* During Different Seasons for Obtaining Accurate Results in Leech Therapy. *Current Proteomics*, 2023. 184-191.

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- 10- Maede Poursalim, **Marzieh Dehghan shasaltaneh**, Vahab Jafarian, and Hafezeh Salehabadi. The novel anti-cancer feature of Brazzein through activating of hTLR5 by

integration of biological evaluation: molecular docking and molecular dynamics simulation. *Scientific report*, 2022, 12:21979-21992.

- 11- Rui Guo, Tian Liu, **Marzieh Dehghan Shasaltaneh**, Xuan Wang, Saber Imani and QingLian Wen. Targeting Adenylate Cyclase Family: New Concept of Targeted Cancer Therapy, *Frontiers in Oncology*, 2022, 1-15.
- 12- Zhangqiang Xiang, Xiangyu Deng, Wenfeng He, Qian Yang, Laichao Ni, **Marzieh Dehghan Shasaltaneh**, Mazaher Maghsoudloo, Gang Yang, Jingbo, Wu, Saber Imani & Qinglian Wen. Treatment of malignant pleural effusion in nonsmall cell lung cancer with VEGF-directed therapy, *Annals of Medicine*, 2022, 54(1), 1357-1371.
- 13- Mahnaz Shojapour, Somayeh Farahmand, Faezeh Fatemi, and **Marzieh Dehghan Shasaltaneh**, Evaluation of Cyc1 protein stability in *Acidithiobacillus ferrooxidans* bacterium after E121D mutation by molecular dynamics simulation to improve electron transfer, *Journal of Microbiology*, 2022, 60: 1-7.
- 14- **Marzieh Dehghan Shasaltaneh**, Nasser Naghdi, Sadrollah Ramezani, Leila Alizadeh, Gholam Hossein Riazi, Protection of beta boswellic acid against streptozotocin-induced Alzheimer's model by reduction of tau phosphorylation level and enhancement of Reelin expression. *Planta medica*, 2022, 88, 367-379.
- 15- Mohadeseh Kalari, Zeinab Abbasi, **Marzieh Dehghan Shasaltaneh**, Ali Khaleghian and Zahra Moosavi-Nejad, A Cobalt-Containing Compound as a Stronger Inhibitor than Galantamine to Inhibit Acetylcholinesterase Activity: A New Drug Candidate for Alzheimer's Disease Treatment, *Journal of Alzheimer's Disease*, 2022, 87, 1503-1516.
- 16- Roghayeh Jafarpour, Faezeh Fatemi, **Marzieh Dehghan Shasaltaneh**, Comparison stability Rusticyanin 23270 wild-type and mutant His143Leu using molecular dynamics simulation. *Journal of Nuclear Science and Applications*. 2022, 1 (2):1-8.
- 17- Bita Soltanian, **Marzieh Dehghan Shasaltaneh**, Gholamhossein Riazi, Nahid Masoudian, Protective Effect of Low Dose of Methamphetamine on The Amount of Extracellular Glutamine in Primary Fetal Human Astrocytes Induced by Amyloid Beta, *Cell Journal*. 2022; 24(3): 105-111.
- 18- Bita Soltanian, **Marzieh Dehghan Shasaltaneh**, Gholam Hossein Riazi, Nahid Masoudian. Evaluation of the effect of low dose of methamphetamine on the human astrocyte cell cycle exposed to amyloid beta, *Animal Biology Journal*, 2022, 249-261.

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- 19- Ju Zhou, Saber Imani, **Marzieh Dehghan Shasaltaneh**, Shuguang Liu, Tao Lu, Junjiang Fu, PIK3CA hotspot mutations p. H1047R and p. H1047L sensitize breast cancer cells to thymoquinone treatment by regulating the PI3K/Akt1 pathway. *Molecular Biology Reports*, 2021, 1-18.
- 20- Gang Yang, Shuya Liu, Mazaher Maghsoudloo, **Marzieh Dehghan Shasaltaneh**, Parham Jabbarzadeh Kaboli, Cuiwei Zhang, Youcai Deng, Hajar Heidari, Maliheh Entezari, ShaoZhi Fu, QingLian Wen, Saber Imani. PLA1A expression as a diagnostic marker of BRAF-mutant metastasis in melanoma cancer. *Scientific Reports*, 2021, 11:6056-6069.
- 21- Mahnaz Shojapour, Faezeh Fatemi, Somayeh Farahmand, **Marzieh Dehghan Shasaltaneh**, Investigation of Cyc1 protein structure stability after H53I mutation using computational approaches to improve redox potential, *Journal of Molecular Graphics and Modelling*, 2021, 105: 107864- 107874.
- 22- Leila Najafzadeh, Mahdi Mahmoudi, Mostafa Ebadi, **Marzieh Dehghan Shasaltaneh**, Ali Masoudi-Nejad, Co-expression Network Analysis Reveals Key Genes Related to AS Arthritis Disease: Computational and Experimental Validation, *Iranian Journal of Biotechnology*. 2021; 19(1): e2630-e2642.
- 23- Bita Soltanian, **Marzieh Dehghan Shasaltaneh**, Gholam Hossein Riazi, Nahid Masoudian. Alteration of gene expression in reactive astrocytes induced by A β 1-42 using low dose of methamphetamine. *Molecular Biology Reports*, 2021, 1-10.
- 24- WenFeng He, Gang Yang, Shuya Liu, Mazaher Maghsoudloo, **Marzieh Dehghan Shasaltaneh**, Parham Jabbarzadeh Kaboli, Cuiwei Zhang, JingHeng Zhang, Maliheh Entezari, Saber Imani, QingLian Wen. Comparative mRNA/micro-RNA co-expression network drives melanomagenesis by promoting epithelial–mesenchymal transition and vasculogenic mimicry signaling. *Translational Oncology*, 2021, 14: 101237-101244.
- 25- Leili Amani, Nasrin Motamed, Mehran Mirabzadeh Ardakani, **Marzieh Dehghan Shasaltaneh**, Masuomeh Malek, Fazel Shamsa, Elnaz Fatemi and Mohsen Amin, Semi-Solid Product of Medicinal Leech Enhances Wound Healing in Rats. *Jundishapur J Nat Pharm Prod*. 2021; 16(4):e113910-e113919.

- 26- Leila Najafzadeh, Mahdi Mahmoudi, Mostafa Ebadi, **Marzieh Dehghan Shasaltaneh**, Ali Masoudinejad, Identification of key genes and pathways for differential diagnosis between rheumatoid arthritis and osteoarthritis based on systems biology approaches. *Rheumatology Research Journal*, 2021, 6 (1), 1-12.

2020

- 27- Linglin Zou¹, Saber Imani¹, Mazaher Maghsoudloo, **Marzieh Dehghan Shasaltaneh**, Lanyang Gao, Jia Zhou, Qinglian Wen, Shuya Liu, Leisheng Zhang and Gang Chen. Genome-wide copy number analysis of circulating tumor cells in breast cancer patients with liver metastasis. *Oncology Reports*. 2020, 44: 1075-1093.
- 28- Masoumeh Faramarzian, Seifollah Bahramikia, **Marzieh Dehghan Shasaltaneh**. *In vitro* investigation of the effect of mesalazine on amyloid fibril formation of hen egg-white lysozyme and defibrillation lysozyme fibrils. *European Journal of Pharmacology*, 2020. 874, 173011- 173019.
- 29- Sara Amiri, Kayhan Azadmanesh, **Marzieh Dehghan Shasaltaneh**, Vafa Mayahi, Nasser Naghdi. The Implication of Androgens in the presence of Protein kinase C to repair Alzheimer's disease- induced Cognitive Dysfunction. *Iranian Biomedical Journal*, 2020. 24(2), 64-80.

2019

- 30- Zhenhua Zhang, Saber Imani, **Marzieh Dehghan Shasaltaneh**, Hossein Hosseinfard, Linglin Zou, Yu Fan and Qinglian Wen. The role of vascular mimicry as a biomarker in malignant melanoma: a systematic review and meta-analysis. *BMC cancer*, 2019, 19:1134, 1-12.
- 31- Sara Amiri, Kayhan Azadmanesh, **Marzieh Dehghan Shasaltaneh**, Nasser Naghdi. The presence of PKC ϵ in the platelet and hippocampus tissue in Alzheimer's patients as a diagnostic biological marker. *Basic and clinical Neuroscience*. 2019, 10: 545-556.
- 32- Saber Imani, Jingliang Cheng, Jiewen Fu, Abdolkarim Mobasher-Jannat, Chunli Wei, Saman Mohazzab-Torabi, Khosrow Jadidi, Mohammad Hossein Khosravi, **Marzieh Dehghan Shasaltaneh**, Lisha Yang, Md. Asaduzzaman Khan and Junjiang Fu. Novel

- splicing variant c. 208+ 2T>C in BBS5 segregates with Bardet–Biedl syndrome in an Iranian family by targeted exome sequencing. *Bioscience reports*, 2019. 39(3): p. 1-9.
- 33- Somayeh Farahmand¹, Faezeh Fatemi, **Marzieh Dehghan Shasaltaneh**, Reza Haji Hosseini, Shahriar Saeedyan, Study the effect of H230M mutation on CoxB gene in *Acidithiobacillus ferrooxidans* using molecular dynamic Simulation, *Journal of Experimental Animal Biology*, 2019, 37-47.
- 34- Mahnaz Shojapour, Faezeh Fatemi, Reza Haji Hosseini, **Marzieh Dehghan Shasaltaneh**. A comparative study of point mutations on Cyc1 gene in *Acidithiobacillus ferrooxidans* and its effect on the bioleaching process using bioinformatics studies. *Journal of Experimental Animal Biology*, 2019, 135-146.
- 35- Somayeh Farahmand, Faezeh Fatemi, **Marzieh Dehghan Shasaltaneh**. Study the effect of H230M mutation on CoxB gene in *Acidithiobacillus ferrooxidans* using molecular dynamic Simulation. *Biology Quarterly*. 2019.

2018

- 36- Lotfia, Safa and **Marzieh Dehghan Shasaltaneh**, *In silico* investigation of extracellular domain of RAGE receptor interaction with A-box and B-box of HMGB1 protein. *Acta Biologica Slovenica*, 2018. 61(2): p. 3-13.
- 37- Saber Imani, Jingliang Cheng, **Marzieh Dehghan Shasaltaneh**, Chunli Wei, Lisha Yang, Shangyi Fu, Hui Zou, Md. Asaduzzaman Khan, Xianqin Zhang, Hanchun Chen, Dianzheng Zhang, Chengxia Duan, Hongbin Lv, Yumei Li, Rui Chen and Junjiang Fu. Genetic identification and molecular modeling characterization reveal a novel PROM1 mutation in Stargardt4-like Macular Dystrophy. *Oncotarget*, 2018, 9(1): p. 122-141.
- 38- Saber Imani, Iqra Ijaz, **Marzieh Dehghan Shasaltaneh**, Shangyi Fu, Jingliang Cheng and Junjiang Fu. Molecular Genetics Characterization and Homology Modeling of the Mutation of CHM Gene: Association Studies with Choroideremia. *Mutation Research-Reviews*. 2018, 775: p. 39–50.
- 39- Saber Imani, Iqra Ijaz, **Marzieh Dehghan Shasaltaneh**, Shangyi Fu, Jingliang Cheng and Junjiang Fu. *In silico* data analyses of the hotspot mutations of CHM gene in choroideremia disease. *Data in brief*, 2018, 18: p. 1217-1223.

- 40- Saber Imani, Jingliang Chen, Abdolkarim Mobasher-Jannat, Chunli Wei, Shangyi Fu, Lisa Yang, Khosrow Jadidi, Mohammad Hossein Khosravi, Saman Mohazzab-Torabi, **Marzieh Dehghan Shasaltaneh**, Yumei Li, Rui Chen & Junjiang Fu. Identification of a Novel RPGRIP1 Mutation in an Iranian Family with Leber Congenital Amaurosis by Exome Sequencing. *Journal of cellular and molecular medicine*. 2018, 22(3): p. 1733-1742.
- 41- Shaghayegh Modaberi, Mehdi Shahbazi, **Marzieh Dehghan-Shasaltaneh**, Nasser Naghdi. The role of mild treadmill exercise on cognition in animal models of ibotenic acid induced striatum lesion. *Sport Sciences for Health*. 2018, 14(3): p. 587-596.

2017

- 42- Shahnaz Hajizadeh, Mahmud Sheikh, **Marzieh Dehghan-Shasaltaneh**, Samira Chopani, Nasser Naghdi. The Association between Effective Dose of Magnesium and Mild Compulsive Exercise on Spatial Learning, Memory, and Motor Activity of Adult Male Rats. *Biological Trace Element Research*, 2017, 178(2): p.235-245.
- 43- Tahereh Naderi Joloudar, Ali Akbar Saboury, **Marzieh dehghan Shasaltaneh**, Seifollah Bahramikia, Mohammad Ali Ebrahimi, Atiyeh Ghasemi. Inhibitory effect of Safranal and Crocin, two principle compounds of *Crocus sativus*, on fibrillation of lysozyme. *Journal of the Iranian Chemical Society*, 2017, 14(11): p. 2407-2416.
- 44- Esmat Fathi, Fatemeh Hedayati Katouli , Gholamhossein Riazi, **Marzieh Dehghan Shasaltaneh**, Ali Afrasiabi, Elham Parandavar, Samaneh Bayati, Reza Nazari. The Effects of Alpha Boswellic Acid on Reelin Expression and Tau Phosphorylation in Human Astrocytes. *Neuromolecular Medicine*, 2017, 19(1): p. 136-146.
- 45- Niloofar Bazazzadegan, **Marzieh Dehghan Shasaltaneh**, Kioomars Saliminejad, Koorosh Kamali, Mehdi Banan, and Hamid Reza Khorram Khorshid. The Effects of Melilotus officinalis Extract on Expression of Daxx, Nfkb and Vegf Genes in the Streptozotocin-Induced Rat Model of Sporadic Alzheimer's Disease. *Avicenna Journal of Medical Biotechnology*. 2017; 9(3): 133-137.
- 46- Niloofar Bazazzadegan, **Marzieh Dehghan Shasaltaneh**, Kioomars Saliminejad, Koorosh Kamali, Mehdi Banan, Reza Nazari, Gholam Hossein Riazi, Hamid Reza Khorram Khorshid. Effects of Ectoine on Behavior and Candidate Genes Expression in ICV-STZ Rat

Model of Sporadic Alzheimer's Disease. *Advanced Pharmaceutical Bulletin*, 2017, 7(4): p. 629-636.

- 47- Niloofar Bazazzadegan, **Marzieh Dehghan Shasaltaneh**, Kioomars Saliminejad, Koorosh Kamali, Mehdi Banan, and Hamid Reza Khorram Khorshid. Effects of Herbal Compound (IMOD) on Behavior and Expression of Alzheimer's Disease Related Genes in Streptozotocin-Rat Model of Sporadic Alzheimer's Disease. *Advanced Pharmaceutical Bulletin*, 2017, 7(3): p. 491-494.

2016

- 48- **Marzieh Dehghan-Shasaltaneh**, Nasser Naghdi, Samira Choopani, Leila Alizadeh, Bahram Bolouri, Ali Masoudi-Nejad, Gholam Hossein Riazi, Determination of the Best Concentration of Streptozotocin to Create a Diabetic Brain using Histological Techniques, *Journal of Molecular Neuroscience*, 2016, 59(1): p. 24-35.
- 49- Parvaneh Daneshmand, Kioomars Saliminejad, **Marzieh Dehghan Shasaltaneh**, Koorosh Kamali, Gholam Hossein Riazi, Reza Nazari, Pedram Azimzadeh, Hamid Reza Khorram Khorshid. Neuroprotective Effects of Herbal Extract (R. Canina, T. Vulgare and U. Dioica) on Rat Model of Sporadic Alzheimer's Disease. *Avicenna Journal of Medical Biotechnology*, 2016, 8(3): p.120-125.

2015

- 50- Bent-ol-Hoda Shafiei, **Marzie Dehghan Shasaltaneh**, Seyed Mahmood Ghaffari, Shahin Ahmadian, Maryam Kamareyi, Gholam Hossein Riazi. Biochemical study on the effect of Pistacia atlantica extract on microtubule proteins: an in vitro study. *International Journal of Pharmaceutical Sciences and Research*, 2015, 6(12): p. 5029-5039.

2013

- 51- **Marzieh Dehghan Shasaltaneh**, Jamshid Fooladi, Seyedeh Zahra Moosavi-Nejad, Cane molasses as a source of precursors in the bioproduction of tryptophan by *Bacillus subtilis*, . *Iranian Journal of Microbiology*, 2013, 5(3): p. 285–292.

2011

- 52- Masoumeh Tayari, S. Zahra Moosavi-Nejad, Ashraf Shabani, Mostafa Rezaei-Tavirani, **Marzieh Dehghan Shasaltaneh**. Heterotropic Effect of β -lactam Antibiotics on Antioxidant Property of Haptoglobin (2-2)-Hemoglobin Complex. *Iranian Journal of Pharmaceutical Research*, 2011, 10(2): p. 313–320.

2010

- 53- **Marzieh Dehghan Shasaltaneh**, Jamshid Fooladi, Seyedeh Zahra Moosavi-Nejad. L-tryptophan production by *Escherichia coli* in the presence of Iranian cane molasses. *Journal of Paramedical Sciences*. 2010, 1(2): p. 25-32.

2009

- 54- **Marzieh Dehghan Shasaltaneh**, M. Seifi-abolhasani, S.Z. Moosavi-Nejad, A. Moosavi-Movahedi. Role of nourishing enzymatic activity and its importance in the elimination nicotine from blood. In magazine Razi pharmaceutical. March 2009. 17-24.
- 55- **Marzieh Dehghan Shasaltaneh**. (2009). "White biotechnology and tryptophan production". Magazine scientific and biology of society (DNA), Alzahra University.

2008

- 56- S.Z. Moosavi-Nejad, M. Seifi-abolhasani, **Marzieh Dehghan Shasaltaneh**, F. Rahmati, R. Youefi, M. Slami, A. Moosavi-Movahedi. "Absorbance Quality and diffusion of Nicotine in products and Nicotine of drugs and also the affect its on the body". Journal of Razi pharmaceutical. July 2008. 26-35.
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V. Published Abstracts:

1. **Marzieh Dehghan Shasaltaneh**, Jamshid Fooladi, Seyedeh Zahra Moosavi-Nejad, (2009).

Optimization of the condition for tryptophan production by *E. coli* in the presence of Iranian cane molasses. J. Iran. Chem. Soc., 2009, 6: p. S230-S237.

3. **Marzieh Dehghan Shasaltaneh**, J. Fooladi, S.Z. Moosavi-Nejad. Investigation of tryptophan production from *Bacillus subtilis* strain in the presence of indole and Iranian cane molass. Biospektrum | Tagungsband. Germany. 2009.

VI. Conferences:

1. **Marzieh Dehghan Shasaltaneh**, Nasser Naghdi, Sadrollah Ramezani, Gholam Hossein Riazi. Beta Boswellic Acid enhances spatial learning and memory by reduction of tau phosphorylation level in the hippocampus regions of Alzheimer's model. 24th Iranian and 3th international Congress of Physiology and Pharmacology. 2019, 30 October- 1 November. University of Shahed. Iran.
2. Bita Soltanian, **Marzieh Dehghan Shasaltaneh**, Gholam Hossein Riazi, Nahid Masoudiyan, Evaluation of low dose of methamphetamine in the Astrocyte Model of Alzheimer's Disease Induced by A β 1-42. 24th Iranian and 3th international Congress of Physiology and Pharmacology. 2019, 30 October- 1 November. University of Shahed. Iran.
3. B. Soltanian, **Marzieh Dehghan Shasaltaneh**, Gh. Riazi, N. Masoudian, Investigation of the effective dose of Methamphetamine on the astrocyte model of Alzheimer's disease through cell cycle arrest. 2019, February 25-27, University of Tehran. 4th International student biotechnology congress.
4. N. Bazazzadegan, **Marzieh Deghan Shasaltaneh**, K. Saliminejad, K. Kamali, M. Banan, H. Khoram Khoeshid. Effect of ectoine herbal compound (*Rosa canino*, *Tonoetum vulgare* and *Urtico dioica*) on behavior and expression of Alzheimer's disease. European Human Genetics conference 2017, May, Copenhagen, Denmark, 27-30. European human genetics. 13th anniversary meeting.
5. N. Bazazzadegan, P. Daneshmand, **Marzieh Deghan Shasaltaneh**, K. Saliminejad, K. Kamali, M. Banan, H. Khoram Khoeshid. Study of the effect of *Melilotus officinalis* extract on expression of Daxx, Nfkb, Vegf, Syp, Psen1, Mapk3, Mtap2 and Tnf genes in the streptozotocin model of sporadic Alzheimer's disease. European Human Genetics Conference, Barcelona, Spain. May 21-24, 2016. 12th anniversary meeting.

6. F. Davoodi Roodbordeii, M. Afshar, S. Choopani, F. Haji Abbas Tabrizi, **Marzieh Dehghan Shasaltaneh**, M. Salimi. Evaluation of *In Vivo* Wound Healing Activity of *Fumaria Vaillantii* Total Extract on Different Wound Models in Rats. The 1st international and 3rd national congress of wound and tissue repair. Iran. October 26-28, 2016.
7. Seyedeh Zohreh Hosseini. **Marzieh Dehghan Shasaltaneh**. Seyedeh Zahra Moosavi-Nejad. Investigation of the effect of spermine on the interaction between ADA and its substrate using computational methods. (27-28 April 2016). The 2nd conference on protein and peptide sciences, Isfahan University.
8. Seyedeh Zohreh Hosseini. **Marzieh Dehghan Shasaltaneh**. Seyedeh Zahra Moosavi-Nejad. Investigation of the role of putrescine as an angiogenin inhibitor in turmeric cells using computational methods. 4th biochemistry congress in Beheshti University- Iran- 2016
9. Tahereh Naderi Jelodara, **Marzihe Dehghan Shasaltaneh**, Ali Akbar Saboury, Mohamad Ali Ebrahimi, Atiyeh Ghasemi. The survey of the effect of crocin and saffranal in terms of the inhibition of the formation beta sheets in neurodegenerative diseases in vitro and in silico. (27-28 April 2016). The 2nd conference on protein and peptide sciences, Isfahan University.
10. **Marzieh Dehghan Shasaltaneh**, N. Naghdi. S. Choopani. L. Alizadeh. B. Bolouri. A. Masoudi-Nejad. Gh. Riazi. Evaluation of i.c.v administration of beta boswellic acid on spatial memory retention and the level of tau phosphorylation in male rats. (23-25 December 2015). 4th neuroscience congress, Iran University.
11. **Marzieh Dehghan Shasaltaneh**, J. Fooladi, S.Z. Moosavi-Nejad. The comparison of optimum tryptophan production by *Bacillus subtilis* and *Escherichia coli*. 2^{sd} national conference of applied microbiology. (16-17 February 2011). University of Tehran.
12. **Marzieh Dehghan Shasaltaneh**, S.Z. Moosavi-Nejad, M. Tayari. The effect of heterotrophic β -lactam on antioxidani characteristic Hp-Hb complex. (8-10 Feb 2011). Ghazvin University.
13. **Marzieh Dehghan Shasaltaneh**, J. Fooladi, S.Z. Moosavi-Nejad. Investigation of optimization tryptophan production from *B. subtilis* in the semi industrial scale in the presence of Iranian beet molasses. 11th Iranian congress microbiology and 1th eastern Mediterranean congress, Langrood of University. Langrood-Iran. (10-13 May 2010).
14. **Marzieh Dehghan Shasaltaneh**, S.Z. Moosavi-Nejad, J. Fooladi. " The effect of Iranian Beet Molasses and Ammonium sulfate on the Optimization Tryptophan Production by *B.*

- Subtilis* and *E. coli*: A Comparative study" 5th international congress on biocatalysis, Humburg Germany (29 August- 2 September 2010).
15. **Marzieh Dehghan Shasaltaneh**, J. Fooladi, S.Z. Moosavi-Nejad. "Optimization of the Condition for Tryptophan Production by *E. coli* in the Presence of Iranian Beet Molass" 10th Iranian Congress of Biochemistry and 3rd International Congress of Biochemistry and Molecular Biology (11-14 July 2009) Tehran University, Iran.
16. **Marzieh Dehghan Shasaltaneh**, J. Fooladi, S.Z. Moosavi-Nejad. "L-Tryptophan production with *Bacillus subtilis* of Iranian molasses as C-source". 15th national congress and 3th international congress of biology (20-22 September 2009) Tehran University. Iran.
17. **Marzieh Dehghan Shasaltaneh**, J. Fooladi, S.Z. Moosavi-Nejad. "L-tryptophan production using *Escherichia coli* from Iranian cane molasses as C-source". 10th Iranian congress of microbiology, Ilam of University. Ilam-Iran. (21-23 April 2009).
18. M. Tayari, **Marzieh Dehghan Shasaltaneh**, A. Shabani, S.Z. Moosavi-Nejad, M. Rezaie Tavirany. "The analysis of antioxidant activity of haptoglobin (1-1)-hemoglobin complex at physiologic and pathologic temperatures. 2th national congress of biology and molecular", (29-30 October 2008) Kerman of University, Kerman-Iran.
19. **Marzieh Dehghan Shasaltaneh**, Fooladi, J; "White biotechnology and industrial production amino acid tryptophan", (19-20 December 2007) Lahijan of University, Gilan-Iran. 1st regional seminar on new findings on microbiology.
20. M. Tayari, **Marzieh Dehghan Shasaltaneh**, A. Shabani, S.Z. Moosavi-Nejad, M. Rezaie Tavirany," The analysis of interaction between haptoglobin 2-2 phenotype and hemoglobin in the presence of Ampicillin and Coamoxiclav at physiologic and pathologic temperatures in *in vitro* condition". 9th Iranian congress of biochemistry and 2nd international congress of biochemistry and molecular biology. Shiraz University. Iran. (October 2007).
21. M. Tayari, **Marzieh Dehghan Shasaltaneh**, A. Shabani, S.Z. Moosavi-Nejad, M. Rezaie Tavirany. "The analysis of interaction between haptoglobin 1-1 phenotype and hemoglobin in the presence of Ampicillin and Coamoxiclav at physiologic and pathologic temperatures in *in vitro* condition. 9th Iranian congress of biochemistry and 2nd international congress of

biochemistry and molecular biology". Shiraz University. Iran (October 2007).

VII. International Collaboration

- Kit design for breast cancer by Next Pharma Inc (Canadian), 2016- 2017.
- Molecular dynamics simulation in several projects using the Research center for preclinical medicine, Southwest Medical University, (China), 2016- so far.

VIII. Pattern

Pattern of Shahid Ahmadi Roshan under the financial support of the National Elite Foundation of Zanjan Province (October 2024- so far).

IX. Students Supervisor or Co-Supervisor:

	Candidate name	Degree	Year/Status	University
1	S. Zohre Hosseini	M.Sc	2016	Alzahra University
2	Zeinab Malek Esfahani	M.Sc	2017	Payam-noor University
3	Masoumeh Amirlou	M.Sc	2018	Tehran University of Medical Science
4	Zahra Tajrishi	M.Sc	2018	Tehran University of Medical Science
5	Narges Amirkhan	M.Sc	2019	Alzahra University
6	Somayeh Farahmand	Ph.D	2018	Payam-noor University
7	Mahnaz Shojae-pour	Ph.D	2018	Payam-noor University
9	Leila Najaf-zadeh	Ph.D	2020	Azad University
10	Bitasoltanian	Ph.D	2020	Azad University
11	Maede Poursalim	Msc	2021	University of Zanjan
12	Shirin Tavvabi	Msc	2021	University of Zanjan
13	Yalda Jahanbakhsh	Msc	2021	University of Zanjan
14	Mohammad Amin Azadian	Msc	2021	University of Zanjan
15	Vahid Tohid Giglou	Msc	2022	University of Zanjan
16	Fatemeh Mir-Motahari	Msc	2022	University of Zanjan
17	Mortaza Ahmadi paskohani	Msc	2022	University of Zanjan

18	Fariba Arboni	Msc	2023	University of Zanjan
19	Aysan Heidari	Msc	2024	University of Zanjan
20	Taraneh Naghshineh	Msc	2024	Azad University
21	Fatemeh Raoofinasab	Msc	2024	Azad University
22	Zahra Emami	Msc	2024	Azad University
23	Azin Soroushpour	Msc	2024	Azad University
24	Nafiseh kordbacheh	Msc	2025	University of Zanjan
25	Zahra Bayrami	Msc	2025	University of Zanjan
26	Fatemeh Bagheri	Msc	2025	University of Zanjan
27	Ateayhe Hamedei	Msc	2026	University of Zanjan
28	Mina ordou	Msc	2027	University of Zanjan
29	Ali Omid	Msc	2027	University of Zanjan

X. Teaching experiences:

- 1- Hormone Biochemistry, Carbohydrate and Lipid, Biosafety, Biosafety Laboratory (University of Zanjan, 2018- so far).
- 2- Biochemistry, Biophysics Laboratory (Alzahra University- Tehran-Iran- 2017-2018).
- 3- Biochemistry, Biochemistry & Biophysics, Radiation Biology (Al-Taha University, Tehran-Iran- 2017-2018).
- 4- Biochemistry (Al-Taha University, Tehran-Iran- 2015-2016).
- 5- Metabolism pathways (Al Taha University, Tehran-Iran- 2016-2017).
- 6- Bioinformatics and Modeling (2015), Shahid beheshti University of Medical Sciences and Health Services, Tehran-Iran, PhD students of proteomics.
- 7- Biochemistry (Amol University of Special Modern Technologies- 2017-2018).
- 8- Protein, structure and function (Amol University of Special Modern Technologies- 2017-2018).
- 9- Instructor in molecular dynamic course (January 2013 and June, October 2014), Tehran University, Laboratory of system biology and bioinformatics (LBB).
- 10- Teacher assistant for the course entitled modeling, advance docking, protein-protein interaction and molecular dynamic (2-5 Dec 2014, 25-28 July 2014, 6-8 AGU 2014,

9-11 MAR 2016).

11- Biochemistry (Islamic Azad University, Fars-Iran- 2009-2010).

12- Biochemistry, Cellular and Molecular Biology, Hormone biochemistry, Enzymology, Cell Signaling, Acid Nucliec (University of Zanjan, Zanjan-Iran, 2011-so far).

XI. Research Projects

• International projects between Iran & Iraq

- ✓ The Effect of Gold and Silver Nanoparticles in the Presence of Quercetin for the Diagnosis and Treatment of Alzheimer's disease.
- ✓ Investigation of the Acetylcholinesterase and Butyrylcholinesterase Inhibitory Potential of Quercetin (an Active Compound of the Medicinal Plant Yarrow) and Donepezil Using Molecular Dynamics.
- ✓ The role of STAT signaling pathways in resveratrol-assisted activation of neurogenesis in Alzheimer's disease.
- ✓ Investigation of the Antibacterial Effect of Certain Medicinal Plants Common to Iran and Iraq.
- ✓ Phytochemical Investigation of Some Medicinal Plants Common to Iran and Iraq.

XII. Computational abilities:

- Structural bioinformatics
- Protein-protein interaction
- Site directed mutagenesis
- Protein-ligand interaction
- Molecular dynamics simulation
- Cell membrane simulation
- Drug design & chemoinformatics
- Primer design
- Vaccine design & immunoinformatics
- System biology (WGCNA & Meta-analysis)
- Microarray analysis

XIII. Experimental abilities:

- Chromatographic techniques
- HPLC
- Spectrophotometric, CD & Fluorescence
- Protein extraction
- Cell culture (neuronal cells)
- Western blotting
- Real time PCR
- Microbiology techniques & bacterial culture
- Animal handling
- Stereotactic surgical techniques
- i.c.v, i.p injection and gavage
- Memory spatial tests (Morris water maze test, open field apparatus)
- Immunohistochemistry
- Immunofluorescence
- Tissue staining

XIV. International Reviewers:

- Scientific Report
- Molecular Biology Report
- Journal of Ethnopharmacology
- International Ophthalmology
- Cell Biochemistry and Biophysics
- BMC Ophthalmology
- BMC Medical Genomics
- BMC Genomics
- Biomolecular Structure and Dynamics

- Biochemical Genetics
- Cell Journal (Yakhteh)
- Journal of Mental Health and Clinical Psychology

XV. Referees:

- Dr. Gholam Hossein Riazi: Laboratory of Neuro-Organic Chemistry, Institute of Biochemistry and Biophysics (IBB), University of Tehran, Tehran, Iran, ghriazi@ut.ac.ir.
- Dr. Nasser Naghdi: Department of Physiology and Pharmacology, Pasteur Institute of Iran, Tehran, Iran, naghdi@pasteur.ac.ir.
- Dr. Alexandre Bonvin: Contribution from the Department of NMR Spectroscopy, BijVoet Center for Biomolecular Research, Utrecht University, 3584CH, Utrecht, The Netherlands a.m.j.j.bonvin@uu.nl, abonvin@nmr.chem.uu.nl.