

S. Zahra Bathaie, B.Sc., M.Sc., Ph.D.,
Perofessor of Biochemistry

RESUME

(Last update: May, 2017)

PERSONAL INFORMATION

Address: Department of Clinical Biochemistry,
Faculty of Medical Sciences,
Tarbiat Modares University,
P.O. Box. 14115-111, Tehran, I.R. Iran

Tel: (+98 21) 8288 4567 (Room), 3850 & 3851 (Labs.)

Fax: (+98 21) 88006544 or 88013030

E-mail: bathai_z@modares.ac.ir or s.z.bathaie@ucla.edu or zbatha2000@yahoo.com

Webpages: http://www.modares.ac.ir/en/Schools/med/Academic_Staff/~bathai_z

<http://www.researcherid.com/rid/D-4165-2009>

<http://www.scopus.com/authid/detail.url?authorId=33067447100>

<https://scholar.google.com/citations?hl=en&authorid=15956665564253026975&clastart=100&user=g9gfTdsAAAAJ>

[http://www.ncbi.nlm.nih.gov/pubmed?term=\(Bathaie%5BAuthor%5D\)%20OR%20Zahra%20Bathaie%5BAuthor%5D](http://www.ncbi.nlm.nih.gov/pubmed?term=(Bathaie%5BAuthor%5D)%20OR%20Zahra%20Bathaie%5BAuthor%5D)

https://www.researchgate.net/profile/S_Zahra_Bathaie/stats

<https://modares.academia.edu/SZahraBathaie>

ORCID: <http://orcid.org/0000-0002-2529-045X>

RESEARCH INTERESTS

- Structure-Function Relationship of DNA & Proteins (Under the Effect of Various Ligands).
- Signal Transduction Pathways Regulations in some Diseases such as: Cancer, Diabetes and Neural Disorders, under the effect of Small Molecules (e.g. Saffron Ingredients, Chemical Chaperones) Using Biochemical, Molecular Biology, Proteomics and Bioinformatic Techniques.
- Nano- Biosensors for Diagnostic Purposes and Mechanism of Drugs Action.

PUBLICATIONS: BOOKS

- 1) **English:** M. Ashrafi, M. Azizian, F. Tamanoi, and **S.Z. Bathaie** (2016). "*Recent Progress in Saffron and its Constituents: Crocin, Crocetin, Picrocrocin and Safranal.*" In: Recent Progress in Medicinal Plants (RPMP) Vol. 43—Phytotherapeutics II, Editors: Dr. J N Govil and Dr. Manohar Pathak. Studium Press LLC, USA. ISBN 1-62699-080-8. Under Publication.
- 2) **English:** Mechanism of the Anticancer Effect of Phytochemicals. Editors: **S.Z. Bathaie** and Fuyhiko Tamanoi, (2015). The Enzymes (The Series) Volume 37, Academic Press/ Elsevier Publisher, New York, USA.
- 3) **English:** Natural Products and Cancer Signaling Targets: Isoprenoids, Polyphenols and Favanoids. Editors: **S.Z. Bathaie** and Fuyhiko Tamanoi, (2014). The Enzymes (The Series) Volume 36, Academic Press/ Elsevier Publisher, New York, USA.
- 4) **English:** **S.Z. Bathaie**, F. Bahmani, A. Farajzade (2014). "*Role of amino acids in prevention of non-enzymatic glycation of lens proteins in senile and diabetic cataract*"; in: Preedy Handbook of Nutrition, Diet and the Eye, Edited by: Professor Victor Preedy, King's College London, Chapter 15: pp. 141-155; Academic Press/Elsevier Publisher, London, UK.
- 5) **Farsi:** **S.Z. Bathaie**, H. Tavangar, L. Nikfarjam (2014). "**The Right Approach to Scientific Writing**", Hayyan Publication, Tehran, Iran.
- 6) **Farsi:** **S.Z. Bathaie**, N.Razmi and M. Khayatian, "*The Theoretical and Experimental Basis of Biochemical Laboratory*". 2000, Dabizesh, Tehran, Iran.
- 7) **Farsi:** **S.Z. Bathaie**, et al., Dictionary of Biochemistry, Biophysics & Molecular Biology, Under Preparation.

PUBLICATIONS: JOURNAL PAPERS

a) Farsi

- 1) **S.Z. Bathaie**, E.Khoshniat, A. Mohammadi Nejad, A.Arabzadeh, B.Khojandi, G.Ataie and AA. Mousavi-Movahedi (2001). “*A hint to the method selection for binding studies of phenytoin to glycosylated albumin*”. Daneshvar, 34: 27-32.
- 2) B. Farzami, R. Sadeghi and **S.Z. Bathaie** (2002). “*Ni (II) and Pb (II) inhibit the enzymatic activity of DNA in an electron transfer reaction.*” J. Pajooresh Oloom Pezeshki Esfahan, 7(1), 73-77.
- 3) A. Bolhasani, **S.Z. Bathaie**, A.A. Moosavi-Movahedi and M. Ghaffari (2003). “*The Study of the Interaction of Monoterpen aldehydes from Iranian Saffron with DNA.*” Mdarres, Journal of Medical Sciences, 6(2), 33-42.
- 4) S. Shojaeian and **S.Z. Bathaie** (2004). “*A study on the effect of aspirin on histone H5 and H5-DNA interaction.*” Physiology & Pharmacology, 7 (2), 157-167.
- 5) S. Shahabi, Z.M. Hassan, S.M. Hashemi, S. Shahrokhi, M. Karimpour, A. Kazem Nejad, **S.Z. Bathaie** and T. Tarihi (2005). “*Hyperthermia can accelerate the heating process of 2nd degree burn wounds.*” J. Kerman Univ. Med. Sci., 12, 110-118.
- 6) H. Ghasemi, M. Salehnia and **S.Z. Bathaie** (2005). “*Evaluation of alkaline phosphatase activity alteration in mouse endometrium after ovarian hyperstimulation during early and pseudo natural pregnancy until implantation time.*” J. Iranian Anatomical Scis., 3 (3), 153-233.
- 7) M. Khayatian, B. Farzami, E. Mirzajani, B. Larijani, M. Taghikhani, **S.Z. Bathaie**, S. Vardasbi and E. Elmi Akhoni. (2006). “*The effect of glucose amine on pancreatic glucokinase and hexokinase, and its relation with Insulin secretion from langerhaouse Tissue of normal and diabetic rats.*” Diabetes & Lipid Journal of Iran, 5 (2), 99-108.
- 8) H. Ghasemi, M. Salehnia and **S.Z. Bathaie** (2006). “*Acomparative study of mouse alkaline phoslhatase activity in normal and pseudopregnancies.*” Yakhteh, 8 (1), 53-59.
- 9) A. Aghaie, A.A. Pourfayhollah, **S.Z. Bathaie**, S.M. Moazzeni, H. Khorsand Mohamad Pour, H. Rezvan, S. Banazadeh, B. Adibi, M.K. Mosavi and M.A. Jalili (2006). “*Preparation of an intermediateproduct suitable for production of IVIg.*” Blood, 3(2), 101-110.
- 10) **S.Z. Bathaie**, M. Ashrafi, A. Bolhasani, B. Etemadi Kia, A.A. Moosavi-Movahedi (2006). “*Purification of carotenoids and monoterpenaldehydes of Iranian saffron and investigation of their*

effect on DNA, histone H1 and H1-DNA complex.” Iranian Journal of Medicinal and Aromatic Plants, 22 (2), 85-97.

- 11) F. Ghasemi-Naghdi, A. Badkoobi and **S.Z. Bathaie** (2009). “*Bioremediation of petrolium hydrocarbones in emulsion and liquid phases by mixed culture.*” Modares, Engeenering, 35, 99-112.
- 12) A.H. Barati, M Mokhtari-Dizaji, H. Mozdarani, **S.Z. Bathaie**, Z.M. Hassan and KazemNejad A. (2009). “*Treatment of animal model of breast tumors using continues dual- frequency ultrasound.*” Iranian Journal of Medical Physics, 6 (1), 1-12.
- 13) R. Houshyar, **S.Z. Bathaie**, B. Etemadikia (2010). “*Quantitative and comparative analysis of major metabolites (crocin, picrocrocin and safranal) in different packages of Iranian saffron by HPLC*” Mdares, Journal of Medical Sciences, Pathology, 13 (2), 63-71.
- 14) S. Shirali, **S.Z. Bathaie**, M. Nakhjavani, M.R. Ashoori (2012). “*Effects of saffron aqueous extract on serum biochemical factors in streptozotocin-induced diabetic rats.*” Iranian Journal of Medicinal and Aromatic Plants, 28 (2), 293-308.
- 15) **S.Z. Bathaie**, N., Mokarizadeh, S. Shirali (2012). “*A review: Mechanism(s) of the effect of purified natural products on diabetes.*” Journal of Medicinal Plants. 11 (44), 1-24.
- 16) H. Hasanzade, M. Mokhtari-Dizaji, **S.Z. Bathaie** (2013). “*Decryption of acoustic cavitation using a subharmonic analysis.*” Journal of Acoustical Engineering Society of Iran. 1 (10, 20-28.
- 17) M. Karami, **S.Z. Bathaie**, T. Tiraihi, M. Habibi-Rezaei, J. ArabKheradmand, S. Faghihzadeh (2013). “*A Preliminary Study on the Effect of Crocin and the Mechanism of its Action on Chronic Pain Induced by Spinal Cord Contusion in Rat.*” Modares Journal of Medical Sciences: Pathobiology, 16(1), 63-73.
- 18) S. Mahdavifar, **S.Z. Bathaie**, M. Nakhjavani, B. Etemadikia (2014). “*Effect of one month cysteine treatment on the glycemic control, lipid profile, glycated and oxidized ldl, in the rat model of diabetes – atherosclerosis.*” Diabetes and Lipids Journal of Iran, 13(4), 279-286.
- 19) S.S. Heidary, F. Bahmani, **S.Z. Bathaie**, G.R.. Moshtaghi Kashanian (2014). “*Assessment of myoinositol and crocin effects on RAGE and TGF β gene expression in the kidney of streptozotocin induced diabetic rats.*” Scientific Journal of Hamadan University of Medical Sciences, 21(2), 122-130.

- 20) S.S. Heidary, **S.Z. Bathaie**, F. Bahmani, G.R.. Moshtaghi Kashanian (2014). “*Assessment of oral Glycine and Lysine therapy on RAGE expression in the kidney of streptozotocin induced diabetic rats in comparison with normal ones.*” *Journal of Kerman University of Medical Sciences*. 21(6), 454-468.
- 21) F. Taheri, **S.Z. Bathaie**, M.Ashrafi and E. Ghasemi (2014). “*Assesment of the liver toxicity of crocin in rat.*” *Modares Journal of Medical Sciences: Pathobiology*. 17(3), 67-79.
- 22) M. Azizian, **S.Z. Bathaie**, M. Ashrafi, R. Hoshyar (2014). “*Investigation of the p53 and p27 expression in the NMU- induced breast cancer tumors in Wistar Albino female rats*”. *Physiology and Pharmacology*, 18(3), 337-346.
- 23) R.Houshyar, S.E. Mostafavinia, **S.Z. Bathaie** (2016). "Anticancer effect of saffron (*Crocus Sativus*) stigma: A review study" *Razi Journal of Medical Sciences*. Vol. 22, No. 140, Jan-Feb 2016.

b) English

- 24) **S.Z. Bathaie**, A.A. Moosavi-Movahedi and A.A. Saboury (1999). “*Energetic and binding properties of DNA upon interaction with dodecyl trimethylammonium bromide.*” *Nucleic Acids Research*, 27(4): 1001-1005.
- 25) A. Arabzadeh, **S.Z. Bathaie**, H. Farsam, M. Amanloo, H. Shokravi and A.A. Moosavi-Movahedi (2002). “*Studies on mechanism of 8-methoxy pseuoralene-DNA interaction in the dark*”. *International Journal of Pharmaceutics*, 237: 47-55.
- 26) **S.Z. Bathaie**, A.A. Moosavi-Movahedi, B. Ranjbar and A.A. Saboury (2003). “*A mechanistic study on H1-DNA complex dissociation by sodium n-dodecyl sulfate*”. *Colloid and Surfaces. B: Biointerfaces*, 28 (1), 17-25.
- 27) B. Farzami, **S.Z. Bathaie**, R. Sadeghi and A. Shamsaie (2003). “*DNA as an enzyme: The effect of imidazole derivatives as cofactors and metal ions as activators or inhibitors*”. *Clinical Biochemistry*, 36, 353-358.
- 28) M. Motamedi, **S.Z. Bathaie**, B. Hemmateenejad and D. Adjloo (2004). "Semi- empirical quantum chemical study of the interactions between lysine, arginine and histidine with a homologue set of n-alkyl sulfates in the gas phase and aqueous solution." *Journal of Molecular Structure (THEOCHEM)*, 678: 163-169.

- 29) A.A. Moosavi-Movahedi, A.R.Golchin, K.Nazari, J.Chamani, A.A. Saboury and **S.Z. Bathaie** (2004). "Microcalorometry, energetic and binding studies of DNA- dimethyltin dichloride complexes." Thermochimica Acta, 414, 233-241.
- 30) S. Noori, G.A. Naderi, Z.M. Hassan, Z. Habibi, **S.Z. Bathaie** and S.M. Hashemi (2004). "Immunosuppressive activity of a molecule isolated from *Artemisia Annua* on DTH responses compared with Cyclosporin A". International Journal of Immunopharmacology 4, 1301-1306.
- 31) H. Heli, **S.Z. Bathaie** and M.F. Mousavi (2004). "Electrochemical Investigation of Neutral Red Binding to DNA at the Surface". Electrochemistry Communications, 6, 1114-1118.
- 32) A. Bolhasani, **S.Z. Bathaie**, I. Yavari, A.A. Moosavi-Movahedi and M.M. Ghaffari (2005). "Separation and purification of some components of Iranian saffron." Asian Journal of Chemistry, 17, 725-729.
- 33) M. Ghollasi, B. Farzami, **S.Z. Bathaie** and B. Lameh Rad (2005). "Enzymatic-like properties of dsDNA and its comparison with ssDNA". Journal of Sciences IR.Iran, 16(1), 11-14.
- 34) M. Ashrafi, **S.Z. Bathaie**, M. Taghikhani and A.A. Moosavi-Movahedi (2005). "The effect of carotenoids obtained from saffron on H1 structure and H1-DNA interaction." International Journal of Biological Macromolecules, 36, 246-252.
- 35) S. Riahi, M.F. Mousavi, **S.Z. Bathaie** and M. Shamsipur (2005). "A novel potentiometric sensor for selective determination of theophylline: Theoretical and practical investigation." Analytica Chimica Acta, 548, 192-198.
- 36) H. Heli, **S.Z. Bathaie**, M. F. Mousavi (2005). "An electrochemical study of neutral red-DNA interaction." Electrochimica Acta, 51, 1108–1116.
- 37) S. Shahabi, M. Hashemi, Z.M. Hassan, M. Javan, **S.Z. Bathaie**, T. Toraihi, Z. Zakeri, B. Ilkhanizadeh and N.H. Jazani (2006). "The effect of post-burn local hyperthermia on the reducing burn injury: The possible role of opioids. International Journal of Hyperthermia, 22, 421-431.
- 38) A.H. Barati, M. Mokhtari-Dizaji, H. Mozdarani, **S.Z. Bathaie** and Z.M. Hassan (2006). "Free hydroxy radical dosimetry by using 1 MHz Low level ultrasound waves." Iranian Journal of Radiation Research, 3(4), 163-169.
- 39) M. Yousef Elahi, H. Heli, **S.Z. Bathaie** and M. F. Mousavi (2007). "Electrocatalytic oxidation of glucose at a Ni-curcumin modified glassy carbon electrode." Journal of Solid State Electrochemistry, 11: 273–282.

- 40) M. Motamedi, **S.Z. Bathaie** and B. Hemmateenejad (2007). "Theoretical Investigation on the Binding of Lysine-Containing Peptides with Dodecyl Sulfate Ion Using Semi-Empirical Calculations." *Journal of Molecular Structure (THEOCHEM)*, 806, 205- 211.
- 41) K. Omidfar, M.J. Rasaee, S. Kashanian, M. Paknejad and **Z. Bathaie** (2007). "Studies of thermostability in *Camelus bactrianus* single domain antibody specific for the mutant epidermal growth factor receptor expressed by *Pichia*." *Biotechnology Applied Biochemistry*, 46, 41-49.
- 42) M. Ghaderi, **S.Z. Bathaie**, A.A. Saboury, H. Sharghi, S. Tangestaninejad and F. Sabouni (2007). "Interaction of an Fe Derivative of TMAP (Fe(TMAP)OAc) with DNA in Comparison with Free-base TMAP." *International Journal of Biological Macromolecules*, 41: 173-179.
- 43) A.H. Barati, M. Mokhtari-Dizaji, H. Mozdarani, **Z. Bathaie**, Z.M. Hassan (2007). "Effect of exposure parameters on cavitation induced by low-level dual-frequency ultrasound". *Ultrasonics Sonochemistry*. 14: 783-789.
- 44) **S.Z. Bathaie**, A. Bolhasani, R. Hoshyar, B. Ranjbar, F. Sabouni and A.A. Moosavi-Movahedi, (2007). "Interaction of Saffron Carotenoids as the Anti-Cancer Compounds with ctDNA, oligo (dG.dC)₁₅ and oligo (dT.dA)₁₅". *DNA and Cell Biology*, 26: 533-540.
- 45) A. Jafarnejad, **S.Z. Bathaie**, M. Nakhjavani, M. Z. Hassan, S. Banasadegh (2008). "The improvement effect of L-Lys as a Chemical Chaperone on STZ-induced diabetic rats, protein structure and function." *Diabetes-Metabolism Research and Reviews*, 24, 64-73.
- 46) A. Jafarnejad, **S.Z. Bathaie**, M. Nakhjavani, M. Z. Hassan (2008). "Effect of Spermine on Lipid Profile and HDL Functionality in the Streptozotocin-Induced Diabetic Rat Model". *Life Sciences*, 82, 301–307.
- 47) A. Aghaie, A.A. Pourfatollah, **S.Z. Bathaie**, S.M. Moazzeni, H. Khorsand Mohammad Pour, S. Banazadeh (2008). "Structural Study on Immunoglobulin G Solution after Pasteurization with and without Stabilizer." *Transfusion Medicine*, 18, 62-70.
- 48) A. Jafarnejad, **S.Z. Bathaie**, M. Nakhjavani, M. Z. Hassan (2008). "Investigation of the Mechanisms Involved in the High-Dose and Long-Term Acetyl Salicylic Acid Therapy of Type I Diabetic Rats." *Journal of Pharmacology and Experimental Therapeutics (JPET)*, 324 (2), 850-857.
- 49) A. Mehdinia; S. H. Kazemi; **S.Z. Bathaie**, A. Alizadeh, M. Shamsipur, M. F. Mousavi (2008). "Electrochemical studies of DNA immobilization onto the azide-terminated monolayers and its interaction with Taxol." *Analitical Biochemistry*, 375, 331-338.

- 50) Kh. Ghanbari, M.F. Mousavi, **S.Z. Bathaie** (2008). "Electrochemically fabricated polypyrrole nanofiber-modified electrode as a new electrochemical DNA Biosensor". Biosensor and Bioelectronics, 23 (12), 1825-1831.
- 51) A. Aghaie, A.A. Pourfatollah, **S.Z. Bathaie**, S.M. Moazzeni, H. Khorsand Mohammad Pour and Z. Sharifi (2008). "Inactivation of virus in intravenous immunoglobulin G using solvent/detergent treatment and pasteurization." Human Antibodies 17, 79–84.R.
- 52) **S.Z. Bathaie**, Sedghgoo F., Jafarnejad A., Farzami B. and Khayatian M. (2008). "Spectroscopic Studies of STZ-Induced Methylated-DNA in both in vivo and in vitro Conditions." Spectrochimica Acta, Part A: Molecular and Biomolecular Spectroscopy, 71, 803-808.
- 53) Hoshyar, **S.Z. Bathaie** and M. Ashrafi (2008). "Interaction of Safranal and Picrocrocin with ctDNA and their Preferential Mechanisms of Binding to GC and AT Rich Oligonucleotides." DNA and Cell Biology, 27 (12), 1-9.
- 54) A. Mehdinia; S. H. Kazemi; **S.Z. Bathaie**, A. Alizadeh, M. Shamsipur, M. F. Mousavi (2009). "Electrochemical DNA nano-biosensor for the study of spermidine-DNA interaction". Journal of Pharmaceutical and Biomedical Analysis". Journal of Pharmaceutical and Biomedical Analysis. 49, 587-593.
- 55) A.H. Barati, M Mokhtari-Dizaji, H. Mozdarani, **S.Z. Bathaie**, and Z.M. Hassan (2009). "Treatment of murine tumors using dual- frequency ultrasound in an experimental in vivo model" Ultrasound in Medicine and Biology, 35(5), 756-763.
- 56) A.Aghaie, A.A. Pourfatollah, **S.Z. Bathaie**, S.M. Moazzeni, H.Khorsand-Mohammad-Pour, S.Banazadeh (2010). "Preparation, purification and virus inactivation of intravenous immunoglobulin from human plasma". Human Antibodies, 19 (1), 1-6.
- 57) H. Hasanzade, M. Mokhtari-Dizaji, **S.Z. Bathaie**, Z.M. Hassan (2010). "Evaluation of correlation between chemical dosimetry and subharmonic spectrum analysis to examine the acoustic cavitation". Ultrasonics Sonochemistry, 17 (5), 863-869.
- 58) **S.Z. Bathaie**, A. Jafarnejad, S. HosseinKhani and M. Nakhjavani (2010). "Effect of Hot-tub Therapy on Serum HSP70 Level and its Benefit on Diabetic Rats." International Journal of Hyperthermia, 26(6), 577-85.
- 59) **S.Z. Bathaie** and S.Z. Mousavi (2010). "New Applications of saffron and molecular mechanism of its constituents action". Critical Review in Food Science and Nutrition, 50(8), 761 –786.

- 60) **S.Z. Bathaie**, L. Nikfarjam, R. Rahmanpour, A.A. Moosavi-Movahedi (2010). "Spectroscopic studies of the Interaction of Aspirin and its Important Metabolite; Salicylate Ion; with DNA; A.T and G.C Rich Sequences." *Spectrochimica Acta Part A (SAA): Molecular and Biomolecular Spectroscopy*. 77, 1077-1083.
- 61) R. Rahmanpour and **S.Z. Bathaie** (2011). "Histone H1 structural changes and its interaction with DNA in the presence of high glucose concentration in vivo and in vitro." *Journal of Biomolecular Structure and Dynamics (JBSD)*, 28 (4), 575-586.
- 62) M. Yousef Elahi, **S.Z. Bathaie**, S.H. Kazemi, M.F. Mousavi (2011). "DNA immobilization on a polypyrrole nanofiber modified electrode and its interaction with salicylic acid/aspirin". *Analytical Biochemistry*. 411, 176-184.
- 63) H.R. Miri, **S.Z. Bathaie**, M.-Ali Mohagheghi, M. Mokhtari- Dizaji, A.-A. Shahbazfar (2011). "A non- invasive method for early detection of MNNG-induced gastric cancer of male wistar rat: ultrasonic study". *Ultrasound in Medicine and Biology*. 37(5), 780-787.
- 64) A. Ghahghaei, **S.Z. Bathaie**, A. Shahraki, F. Rahmany-Asgarabad. (2011). "Comparison of the chaperoning action of glycerol and beta-casein on aggregation of proteins in the presence of crowding agent". *International Journal of Peptide Research and Therapeutics*, 17, 101-111.
- 65) **S.Z. Bathaie**, F. Moghadas-Zadeh-Kermani, A. Shams (2011). "Crocin Bleaching Assay Using Di-gentiobiosyl Crocin (α -crocin) Purified from Iranian Saffron." *Iranian Journal of Basic Medical Sciences (IJBMS)*, 14(5), 399-406.
- 66) **S.Z. Bathaie**, B.F. Nobakht, H. Mirmiranpour, A. and S.Z. Moosavi-Nejad (2011). "Effect of Chemical Chaperones on Glucose-Induced Lysozyme Modifications." *The Protein Journal*, 30, 480–489.
- 67) A. Jamalian, A. Shafiee, B. Hemmateenejad, M. Khoshneviszadeh, **S.Z. Bathaie** and A.A. Moosavi-Movahedi (2011). "Novel imidazolyl derivatives of 1, 8-acridinedione as potential DNA-intercalating agents." *Journal of Iranian Chemical Society (JICS)*. 8 (4), 1098-1112.
- 68) H. Hasanzade, M. Mokhtari-Dizaji, **S.Z. Bathaie**, Z.M. Hassan, V. Nilchiani, H. Goudarzi (2011). "Enhancement and control of acoustic cavitation yield by low-level dual frequency sonication: A subharmonic analysis". *Ultrasonics Sonochemistry*, 18, 394–400.

- 69) H. Hasanzade, M. Mokhtari-Dizaji, **S.Z. Bathaie**, Z.M. Hassan, V. Nilchiani, H. Goudarzi (2011). "Effect of local dual frequency sonication on drug distribution from polymeric nanomicelles". *Ultrasonics Sonochemistry*, 18, 1165-1171.
- 70) S.Z. Mousavi, **S.Z. Bathaie** (2011). "Historical Uses of Saffron: Identifying Potential New Avenues for Modern Research". *Avicenna Journal of Phytomedicine*, 1(2), 57- 67.
- 71) R. Hoshyar, **S.Z. Bathaie**, A. Kyani and M.F. Mousavi (2012). "Is there any interaction between telomeric DNA structures, G-quadruplex and I-motif, with saffron active metabolites?" *Nucleoside, Nucleotide and Nucleic Acids*, 31 (11), 801-812.
- 72) F. Bahmani, **S.Z. Bathaie**, S.J. Aldavood, A. Ghahghaei (2012). "Glycine therapy inhibits progression of cataract in streptozotocin-induced diabetic rats." *Molecular Vision*, 18, 439-448.
- 73) M. Nakhjavani, A. Morteza, F. Asgarani, O. Khalilzadeh, Z. Ghazizadeh, **S.Z. Bathaie**, A. Esteghamati (2012). "The dual behavior of heat shock protein 70 and asymmetric dimethylarginine in relation to serum CRP levels in type 2 diabetes." *Gene*, 498, 107-111.
- 74) A. Hamzehloei, M.F. Mousavi and **S.Z. Bathaie** (2012). "In-situ synthesis of a novel quinone imine self-assembled monolayer and consideration of its reactivity with L-arginine." *Electroanalysis*, 24 (6), 1362 – 1373.
- 75) M. Ashrafi, **S.Z. Bathaie**, S. Abroun (2012). "High expression of cyclin D1 and P21 in N-Nitroso-N-Methylurea-induced breast cancer on Wistar Albino female rats." *Cell Journal (Yakhteh)*, 14(3), 193-202.
- 76) H. Mirmiranpour, **S.Z. Bathaie**, S. Khaghani, M. Nakhjavani and A. Kebrizadeh (2012). "Investigation of the mechanism(s) involved in decreasing the increased fibrinogen activity in the hyperglycemic conditions using lysine supplementation." *Thrombosis Research*, 130, e13-e19.
- 77) M. Yousef Elahi, **S.Z. Bathaie**, R. Hoshyar, Sh. Ghasemi, M. F. Mousavi (2012). "A new DNA-nanobiosensor based on G-quadruplex immobilized on carbon nanotubes modified glassy carbon electrode." *Electrochimica Acta*, 82, 143-151.
- 78) A. Ghahghaei, **S.Z. Bathaie**, E. Bahraminejad (2012). "Mechanisms of the effects of crocin on aggregation and deposition of A β 1-40 fibrils in Alzheimer disease." *International Journal of Peptide Research and Therapeutics (IJPR)*, 18, 347–351.

- 79) **S.Z. Bathaie**, H.R. Miri, M-A Mohagheghi, M. Mokhtari- Dizaji, A-A Shahbazfar (2013). "Saffron aqueous extract inhibits the chemically-induced gastric cancer progression in the Wistar Albino rat." Iran Journal of Basic Medical Sciences (IJBMS), 16 (1), 27.
- 80) R. Hoshyar, **S.Z. Bathaie**, M. Sadeghizadeh (2013). "Crocin triggers the apoptosis through increasing Bax/ Bcl-2 ratio and caspases activation in human gastric cancer AGS cells." DNA and Cell Biology, 32 (2), 50-57.
- 81) S. Shirali, **S.Z. Bathaie** and M. Nakhjavani (2013). "Effect of crocin on insulin resistance and lipid profile of streptozotocin- induced diabetic rats." Phytotherapy Research, 27(7), 1042-1047.
- 82) A. Ghahghaei, **S.Z Bathaie**, H. kheirkhah, E. Bahraminejad (2013). "The protective effect of crocin on the amyloid fibril formation of A β 42 peptide in Vitro." Cellular & Molecular Biology Letters (CMBL), 18, 328-339.
- 83) M. Abedi, **S.Z. Bathaie**, M. F. Mousavi (2013). "Interaction between DNA and some salicylic acid derivatives and characterization of their DNA targets." Electroanalysis, 25 (11), 2547 – 2556.
- 84) H. Hasanzadeh, M. Mokhtari-Dizaji, **S.Z. Bathaie**, Z.M. Hassan (2013). "Effect of fractionation on treatment outcome in local dual-frequency sonication and Dox-encapsulated nanomicelles." J Med Ultrasonics, 40: 303–308.
- 85) **S.Z. Bathaie**, R. Hoshyar, H.R. Miri, M. Sadeghizadeh (2013). "Anticancer effect of crocetin in both human adenocarcinoma gastric cancer cells and rat model of gastric cancer" Biochemistry and Cell Biology (bcb), 91(6): 397-403.
- 86) M. Karami, **S.Z. Bathaie**, T. Tiraihi, M. Habibi-Rezaei, J. ArabKheradmand, S. Faghihzadeh (2013). "Crocin improved locomotor function and mechanical behavior in the rat model of contused spinal cord injury through decreasing calcitonin gene related peptide (CGRP)." Phytomedicine, 21: 62-67.
- 87) F. Alizadeh, A. Bolhassani, A. Khavari, S.Z. Bathaie, T. Naji, S. Arbabi Bidgoli (2014). "Retinoids and their biological effects against cancer." International Immunopharmacology, 18, 43-49.
- 88) A. Bolhassani, A. Khavari, **S.Z. Bathaie** (2014). "Saffron and natural carotenoids: Biochemical activities and anti-tumor effects." Biochimica et Biophysica Acta (BBA) - Reviews on Cancer, 1845, 20-30.

- 89) H. Hasanzade, M. Mokhtari-Dizaji, **S.Z. Bathaie**, Z.M. Hassan, A.A. Shahbazfar (2014). “*Dual-frequency ultrasound activation of nanomicellar doxorubicin in targeted tumor chemotherapy.*” Journal of Medicine Ultrasonics 41, 139–150.
- 90) S. Mahdavifard, **S.Z. Bathaie**, M. Nakhjavani, H. Heidarzadeh (2014). “*L-cysteine is a potent inhibitor of protein glycation on both albumin and LDL, and prevents the diabetic complications in diabetic-Atherosclerotic rat.*” Food Research International, 96, 909-916.
- 91) J. Heard, V. Fong, **S.Z. Bathaie**, F. Tamanoi (2014). “*Recent Progress in the study of the Rheb family GTPases.*” Cellular Signaling, 26(9), 1950-1957.
- 92) F. Fadai, B. Mousavi, Z. Ashtari, N. Ali Beigi, S. Farhang, S. Hashempour, N. Shahhamzei, **S.Z. Bathaie** (2014). “*Saffron aqueous extract prevents metabolic syndrome in patients with schizophrenia on olanzapine treatment: A randomized triple blind placebo controlled study.*” Pharmacopsychiatry, 47(4-5): 156-61. DOI <http://dx.doi.org/10.1055/s-0034-1382001>.
- 93) N. Zeinalzadeh, A.H. Salmanian, G. Ahangari, M. Sadeghi, J. Amani, **S.Z. Bathaie** and M. Jafari (2014). “*Design and characterization of a chimeric multiepitope construct containing CfaB, heat-stable toxoid, CssA, CssB, and heat-labile toxin subunit B of enterotoxigenic Escherichia coli: a bioinformatic approach.*” Biotechnology and Applied Biochemistry. 61(5):517-27. DOI: 10.1002/bab.1196.
- 94) **S.Z. Bathaie**, A. Farajzade, R. Hoshyar (2014) “*A review of the chemistry and uses of crocins and crocetin — the carotenoid natural dyes present in saffron — with particular emphasis on applications as colourants, including use as biological stains.*” Biotechnic and Histochemistry, 89(6):401-11, Doi: 10.3109/10520295.2014.890741.
- 95) **S.Z. Bathaie** and F. Tamanoi (2014). “*Introduction*” In: S. Zahra Bathaie and Fuyuhiko Tamanoi, editors, The Enzymes. Natural Products and Cancer Signaling Targets: Isoprenoids, Polyphenols and Favonoids. Vol.36, Burlington: Academic Press/Elsevier, 2014, pp. 1-6.
- 96) **S.Z. Bathaie**, A. Bolhasani and F. Tamanoi (2014). “*Anticancer effect and molecular targets of saffron carotenoids.*” In: S. Zahra Bathaie and Fuyuhiko Tamanoi, editors, The Enzymes. Natural Products and Cancer Signaling Targets: Isoprenoids, Polyphenols and Favonoids. Vol.36, Burlington: Academic Press/Elsevier, 2014, pp. 57-86.
- 97) A. Khavari, A. Bolhassani , F. Alizadeh, **S.Z. Bathaie**, P. Balaram, E. Agi E, R. Vahabpour (2015). “*Chemo-immunotherapy using saffron and its ingredients followed by E7-NT (gp96) DNA*

- vaccine generates different anti-tumor effects against tumors expressing the E7 protein of human papillomavirus.”* Arch. Virol. 160: 499–508. DOI 10.1007/s00705-014-2250-9
- 98) **S.Z. Bathaie**, D. Ajloo, M. Daraie, M. Ghadamgahi (2015). “*Comparative study of the interaction of meso-tetrakis (N-para-trimethyl-anilium) porphyrin (TMAP) in its free base and Fe derivative form with oligo(dA.dT)₁₅ and oligo(dG.dC)₁₅.*” Journal of Biomolecular Structure and Dynamics (JBSD), 33(7), 1598-1611.
Online, <http://www.ncbi.nlm.nih.gov/pubmed/25273340> .
- 99) A.M. Karakani, G. Riazi, S.M. Ghaffari, S. Ahmadian, F. Mokhtari, M. Jalili Firuzi, **S.Z. Bathaie** (2015). “*Inhibitory effect of corcin on aggregation of 1N/4R human tau protein in vitro.*” Iranian Journal of Basic Medical Sciences, 18 (5), 485-492.
- 100) B. Mousavi, **S.Z. Bathaie**, F. Fadai, Z. Ashtari, N. Ali Beigi, S. Farhang, S. Hashempour, N. Shahhamzei, H. Heidarzadeh (2015). “*Safety evaluation of saffron (*Crocus sativus L.*) aqueous extract and crocin in patients with schizophrenia.*” Avicenna Journal of Phytomedicine (AJP), 5 (5), Sep-Oct, 413-419.
http://ajp.mums.ac.ir/pdf_3879_5bd632d76a4e0b74df6349757d5d2245.html .
- 101) **S.Z. Bathaie**, N. Faridi, A. Nasimian, H. Heidarzadeh, F. Tamanoi (2015). “*How Phytochemicals Prevent Chemical Carcinogens and/or Suppress Tumor Growth?*”. In: S.Zahra Bathaie and Fuyuhiko Tamanoi, editors, The Enzymes: Mechanism of the Anticancer Effect of Phytochemicals. Vol.37, Burlington: Academic Press/Elsevier, pp. 29-70.
- 102) H. Ilkhani, M. Sarparast, A. Noori, **S.Z. Bathaie**, M.F. Mousavi (2015). “*Electrochemical Aptamer/antibody based sandwich immunoassay for the detection of EGFR, a Cancer biomarker, using gold Nanoparticles as a signaling probe*”. Biosensors and Bioelectronics. 74, 491–497. doi:10.1016/j.bios.2015.06.063
- 103) A. Hamzehloei, **S.Z. Bathaie** and M.F. Mousavi (2015). “*Probing Redox Reaction of Azurin protein Immobilized on Hydroxyl-terminated Self-Assembled Monolayers with Different Lengths.*” Journal of Electroanalytical Chemistry, 755, 27–38. doi:10.1016/j.jelechem.2015.07.005
- 104) M. Ashrafi, **S.Z. Bathaie**, S. Abroun and M. Azizian (2015). “*Effect of crocin on cell cycle regulators in N-nitroso-N-methylurea(NMU)-induced breast cancer in rats*”. DNA and Cell Biology, 34(11), 684-91. doi:10.1089/dna.2015.2951.

- 105) M.R. Ashoori, **S.Z. Bathaie**, H. Heidarzadeh (2015). "Long-term, high-dose acetylsalicylic acid (ASA) administration significantly increases the specific activity of mitochondrial complex III respiratory chain in the kidney of diabetic rats." Physiology and Pharmacology, 19 (2015) 158-166.
- 106) Mirmiranpour, S. Khaghani, **S.Z. Bathaie**, M. Nakhjavani and A. Kebriaeezadeh M. Ebadi, S. Gerayesh, M. Zangooei (2016). "The preventive effect of L-Lysine on lysozyme glycation in type 2 diabetes." Acta Medica Iranica, 54(1): 24-31.
- 107) Z. Bagheryan; A. Noori, **S.Z. Bathaie**, M. Yousef-Elahi; M.F. Mousavi (2016). "Preparation of a new nanobiosensor for the determination of some biogenic polyamines and investigation of their interaction with DNA." Biosensors and Bioelectronics, 77, 767-773. doi:10.1016/j.bios.2015.10.025H.
- 108) F. Bahmani, **S.Z. Bathaie**, S.J. Aldavood, A. Ghahghaei (2016). "Inhibitory Effect of Crocin(s) on Lens α -Crystallin Glycation and Aggregation, Results in the Decrease of the Risk of Diabetic Cataract". Molecules, 21(2). doi: 10.3390/molecules21020143.
- 109) S. Mahdavifard, **S.Z. Bathaie**, M. Nakhjavani, M. Taghkhani (2016). "The synergistic effect of antiglycating agents (MB-92) on inhibition of protein glycation, misfolding and diabetic complications in diabetic-atherosclerotic rat." European Journal of Medicinal Chemistry (EJMC), 121, 892-902. Online 18 Dec., doi:10.1016/j.ejmech.2015.11.035.
- 110) M. Sarparast, A. Noori, H. Ilkhani, **S.Z. Bathaie**, L.J. Wang, H. Pham, K.L. Marsh, M.F. El-Kady, R.B. Kaner, M.F. Mousavi (2016). "Cadmium Nanoclusters in Protein Matrix: Synthesis, Characterization, and Application in Targeted Drug Delivery and Cellular Imaging." Nano Research, 9 (11), 3229–3246. Online July 4. DOI 10.1007/s12274-016-1201-z
- 111) M.F. Mousavi, S. Mirsian, A. Noori, H. Ilkhani, M. Sarparast, N. Moradi, **S.Z. Bathaie**, M.A. Mehrgardi (2016). "BSA-templated Pb nanocluster as a biocompatible signaling probe for electrochemical EGFR immunosensing" Electroanalysis, 28, 1 – 13. DOI: 10.1002/elan.201600537
- 112) **S.Z. Bathaie** and M. Sajjadi (2017). "Comparative study on preventive effect of saffron carotenoids, crocin and crocetin, in NMU-induced breast cancer in rat." Cell Journal (Yakhteh), 19 (1), 94-101.
- 113) A. Rostami, F. Goshadrou, R. Pilehchian Langroudi, **S.Z. Bathaie**, J. Amani, G. Ahmadian (2017). "Design and expression of a chimeric vaccine candidate for avian necrotic enteritis." Protein Engineering, Design, and Selection, 30 (1), 39-45.

<https://doi.org/10.1093/protein/gzw060>

- 114) M. Keshtvarz, J. Salimian, M. Yaseri, **S.Z. Bathaie**, E. Rezaie, A. Aliramezani, Z. Norouzbabaei, J. Amani and M. Douraghi (2017). “*Bioinformatic prediction and experimental validation of a PE38-based recombinant immunotoxin targeting the Fn14 receptor in cancer cells.*” Immunotherapy 9(5), 387–400.
- 115) **S.Z. Bathaie**, M. Ashrafi, M. Azizian, and F. Tamanoi (2017). “*Mevalonate Pathway and Human Cancers.*” Current Molecular Pharmacology, 10 (2), 77-85.
- 116) N. Faridi, **S.Z. Bathaie**, S. Abroun, P. Farzaneh, H. Karbasian, F. Tamanoi, M.A. Mohagheghi (2017). “*Isolation and characterization of the primary epithelial breast cancer cells and the adjacent normal epithelial cells from Iranian women's breast cancer tumors.*” Cytotechnology, Accepted For Publication.
- 117) M. Jafarisani, **S.Z. Bathaie** and M.F. Mousavi (2017). “*Saffron carotenoids (crocin and crocetin) binding to human serum albumin as investigated by different spectroscopic methods and molecular docking.*” Journal of Biomolecular Structure & Dynamics (JBSD), Accepted for publication.

PRESENTED PAPERS IN THE CONFERENCES

a) Invited Speaker/Keynote Presentations

- 1) **S.Z. Bathaie** (Sep. 2005). "Effect of different ligands on linker histone– dna interaction as a new criteria to study the mechanism of anticancer property." Clinical Biochemistry 38 (2005) 830; 8th ICB and First ICBMB, Tehran, Iran.
- 2) **S.Z. Bathaie** (Oct. 2006). "Saffron application from past to present." 2nd International Symposium on Saffron Biology & Biotechnology, Mashhad, Iran.
- 3) **S.Z. Bathaie**, S.Z. Mousavi, R. Hoshyar and M. Ashrafi (Oct. 2008). "Application of saffron and its ingredients as a known pharmacological herb from ancient time and the mechanisms of their action." 2nd World Conference on Magic Bullets (Ehrlich II), Nurnberg, Germany.
- 4) H.R. Miri and **S.Z. Bathaie** (May 2009). "Investigation of the effect of saffron extract, crocin and crocetin on the treatment of MNNG induced gastric cancer in male rats." The 3rd International Symposium on Saffron, Krokus, Kozani, Greece.
- 5) **S.Z. Bathaie** and S.-Z. Mousavi (May 2009). "Saffron applications from past to present. Part II: New applications and mechanisms of action." International Conference on Saffron, Mashhad, Iran.
- 6) **S.Z. Bathaie** (Nov. 2009). "Effect of various ligands on DNA structural transition." 10th ICB and 3rd ICBMB, Tehran, Iran. J. Iran. Chem. Soc. (JICS), 6 Sup., Nov. 2009;
- 7) **S.Z. Bathaie** (Feb. 2011). "Effect of different classes of chemical chaperones on nonenzymatic glycation of proteins as a consequence of high glucose concentration in both in vivo and in vitro" 11th Conference of Biochemistry and Molecular Biology, Qazvin, Iran.
- 8) **S.Z. Bathaie**, M.F. Mousavi (Dec. 2011). "Design and making of new DNA nano-biosensors". 18th Conference in Medical Engineering of Iran, TMU, Tehran, Iran.
- 9) **S.Z. Bathaie** (Oct. 2012). "Saffron as a functional food and a nutraceutical." 4th International Saffron Symposium. Advances in Saffron Biology, Technology and Trade, Kashmir, India.
- 10) **S.Z. Bathaie** (May 2013). "DNA Conformational Changes Induced by Natural Carotenoids and Monoterpene Aldehydes." 1st Tabriz International Life Science Conference & 12th Iran Biophysical Chemistry Conference, Tabriz, Iran.
- 11) **S.Z. Bathaie** (May 2013). "New DNA nano-biosensors for determination of drugs and detection of the mechanism of their action". The 1st National Conference of Nanodiagnostics for Diseases, Sari, Iran.

- 12) **S.Z. Bathaie**, M.F. Mousavi (Mar. 2016). "New DNA nano-biosensors for determination of drugs and detection of their mechanism of action". The 6th International Conference on Nanostructures (ICNS6), Kish Island, Iran.
- 13) **S.Z. Bathaie**, J. Arabkheradmand, M. Karami, A. Farajzadeh and S. Faghizadeh (Apr. 2016). "Proteomics analysis of neuropathic pain." The 5th Symposium of World Federation of Neurosurgical Societies (WFNS Symposium), Tehran – Iran.
- 14) **S.Z. Bathaie** (Aug. 2016). "Cell Signalling in Cell Fate and Treatment Approaches." 14th Biochemistry Congress of Iran, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

b) Oral or Poster Presentations in the International Conferences

- 15) **S.Z. Bathaie**, M. Taghikhani and M. Khayatian, (Sep. 1998). "The effect of steroid hormones upon arginase activity in some organs of rat". Proceeding of Australian Physiological & Pharmacological Society, 29 (2). BRISBANE'98, Australian Physiology & Pharmacological Society, Queensland, Australia.
- 16) **S.Z. Bathaie**, B. Farzami, A.A. Ziaeef, A.A. Saboury and A.A Moosavi-Movahedi (Feb. 1999). "Binding studies of aspirin with DNA, nucleotides and nucleoside". Biophysical J., 76(1), A128; 43rd Annual Meeting of Biophysical Society, Baltimore, Maryland.
- 17) **S.Z. Bathaie** and A.A. Moosavi-Movahedi (Sep. 1999). "Physico-chemical study of interaction of DNA and folded H1 by sodium dodecyl sulfate". Protein Science, 8(2), 65; 3rd European Symposium of the Protein Society, Garmisch-Partenkirchen, Germany.
- 18) **S.Z. Bathaie**, B.Ranjbar and A.A. Moosavi-Movahedi (Feb. 2000). "Study of the conformational changes of DNA, H1 and H1-DNA complex by sodium N-alkylsulfate derivatives". Biophysical J., 78(1), A302; 44th Annual Meeting of Biophysical Society, New Orleans, Louisiana.
- 19) **S.Z. Bathaie**, A.A. Moosavi-Movahedi, H. Gharibi, A.A.Ziaeef and AA.Saboury (Jun. 2000). "Investigation of the hydrophobic effect in the DNA-surfactant interaction by ion selective membrane electrode". Electroanalysis, 22, A12. ESEAC 2000, 8th International Conference on Electroanalysis, Bon, Germany.
- 20) B. Farzami, A.Shamsaie and **S.Z.Bathaee** (2000). "Catalytic role of DNA in DNA-Carnosine interaction". Metal Ions in Biology and Medicine, 6: 789-790.

- 21) **S.Z. Bathaie**, M.Motamedi, D.Adjloo, M.F.Mousavi, and M.Moosavi (Apr. 2001). “*Semiempirical calculation (PM3) of the enthalpy of interaction of some amino acids & histone H1 related peptides with n-alkylsulfate derivatives*”. Protein Science, 10 (1), 145. 4TH European Symposium of the Protein Society, Paris France.
- 22) A. Arabzadeh, **S.Z.Bathaie**, A.A.Moosavi-Movahedi, M.Amanlou, H.Farsam and A.Shockravi (Oct. 2001). “*Binding studies of the 8-methoxypsonalen-DNA interaction in the dark condition*”. AAPS Pharm. Sci., 3(3). AAPS Annual Meeting and exposition, Denver, Colorado.
- 23) **S.Z. Bathaie**, A.Bolhasani, A.A.Moosavi-Movahedi, B.Ranjbar and M. Ghafari (Jan. 2002). “*Interaction of Purified Crocin from Iranian Saffron with DNA.*” Biophysical J., 82(1), 140a. 46th Biophysical Society Annual Meeting, San Francisco, California.
- 24) A. Arabzadeh, **S.Z. Bathaie**, A.A. Moosavi-Movahedi, M. Amanlou, H. Farsam and A. Shockravi (Jan. 2002). “*Physico-Chemical Studies of 8-Methoxypsonalen and DNA Complex*”. Biophysical J., 82 (1), 141a. 46th Biophysical Society Annual Meeting, San Francisco, California.
- 25) R. Saadatmandzadeh, **S.Z. Bathaie** and A.A. Moosavi-Movahedi (May 2002). “*Histone H1 Acetylation by Aspirin.*” The 7th IUBMB Conference, Receptor-Ligand Interaction, Bergen, Norway.
- 26) A. Bolhasani, **S.Z. Bathaie**, S.M. Ghaffari and A.A. Moosavi-Movahedi (May 2002). “*Interaction of Crocetin and Dimethyl crocetin purified from Iranian Saffron with DNA.*” The 7th IUBMB Conference, Receptor-Ligand Interaction, Bergen, Norway.
- 27) B. Farzami, R. Sadeghi and **S.Z. Bathaie** (2002). “*DNA as an enzyme and effect of metal ions in activation and inhibition, a route in mechanism of carcinogenesis.*” Metal Ions in Biology and Medicine, 7: 113-115.
- 28) **S.Z. Bathaie** and A.A. Moosavi- Movahedi (Jan. 2003). “*Hofmeister anion interaction with histone H1.*” 7th International Symposium on Protein Structure Function Relationship, Karachi, Pakistan.
- 29) H. Heli, **S.Z. Bathaie** and M.F. Mousavi (Sept. 2004). “*Direct immobilization of double-stranded DNA on aluminum surface with impedimetric detection*”. 55th International Congress on Electrochemistry, Tessoloniki, Greece.

- 30) A. Jafarnejad and **S.Z. Bathaie** (Sep. 2005). "Study of the effect of some chemical chaperones (BJ-83 and l-lysine) on streptozotocine-induced Diabetic rats." Clinical Biochemistry 38 (2005) 830; 8th ICB and First ICBMB, Tehran, Iran.
- 31) M. Molaienasab, **S.Z. Bathaie** and M. F. Mousavi (Sep. 2005). "Electrochemical characteristics of the dna molecules encapsulated in sol-gel based carbon composite electrode." Clinical Biochemistry 38 (2005) 830; 8th ICB and First ICBMB, Tehran, Iran.
- 32) Sh. Shahabi, S. M. Hashemi, Z. M. Hassan, M. Javan, **S.Z. Bathaie**, Ilkhani Zadeh, N. Hosseini Jazani (Sep. 2005). "The effect of endogenous opioid response on the burn induced tissue necrosis and acute inflammation." Clinical Biochemistry 38 (2005) 830; 8th ICB and First ICBMB, Tehran, Iran.
- 33) F. Sabouni, S.H. Abbasi, K. Haghbeen and **S.Z. Bathaie**, B. Ilkhanizadeh and N. Hosseini Jazani (Sep. 2005). " Studying the apoptosis-inducing activity of shikonin." Clinical Biochemistry 38 (2005) 830; 8th ICB and First ICBMB, Tehran, Iran.
- 34) M. Yousefelihi, M.F. Mousavi, H. Heli and **S.Z. Bathaie** (Sept. 2005). *Electrochemical oxidation of glucose at Ni-Curcumin modified classy carbon electrode.*" 56th International Congress on Electrochemistry, Busan, Korea.
- 35) M. Molaienasab, **S.Z. Bathaie** and M.F. Mousavi (Nov. 2005). "Electrochemical characteristics of the DNA encapsulated in sol-gel based carbon composite electrode." 56th International Congress on Electrochemistry, Busan, Korea.
- 36) A. Chitsazan, **S.Z. Bathaie**, M.A. Mohagheghi and S. Banasadegh (Sept. 2006). "Rat mammary tumor induced by nmu and the effect of natural carotenoids." XXX1st Symposium on Hormone & Regulation: Cancer & Cell Signaling, Monte Saint Odile, France.
- 37) **S.Z. Bathaie** (Oct. 2006). "A possible molecular mechanism for saffron and its components as the anticancer compounds." 2nd International Symposium on Saffron Biology & Biotechnology, Mashhad, Iran.
- 38) A. Chitsazan, **S.Z. Bathaie** & M-A. Mohagheghi (Oct. 2006). "Effect of Saffron Extract and its Ingredients on NMU-Induced Mammary Tumor in Rats." 2nd International Symposium on Saffron Biology & Biotechnology, Mashad, Iran.
- 39) A. Jafarnejad, **S. Bathaie**, S. Banasadegh, M. Nakjavani, Z.M. Hassan (May 2007). "Effect of different classes of chemical chaperones on nonenzymatic glycation of serumproteins as a

consequence of diabetes. II: An in vivo analysis." VII European Symposium of the Protein Society, Stockholm, Sweden.

- 40) A. Jafarnejad, **S. Bathaie**, R. Rahmanpour, M. Nakhjavani, Z.M. Hassan (May 2007). "Effect of different classes of chemical chaperones on nonenzymatic glycation of serumproteins as a consequence of diabetes. I: An in vitro analysis." VII European Symposium of the Protein Society, Stockholm, Sweden.
- 41) A. Mehdinia, S.H. Kazemi, **S.Z. Bathaie**, A. Alizadeh, M. Shamsipur and M.F. Mousavi (Sep. 2007). *Electrochemical studies of DNA immobilization on the self-assembled monolayers and its interaction with anticancer agent Taxol.* 58th International Congress on Electrochemistry, Banff, Canada.
- 42) K. Ghanbari, M.F. Mousavi and **S.Z. Bathaie** (Sep. 2007). *Preparation and electrochemical characterization of immobilized DNA on the polypyrrol nanofibers.* 58th International Congress on Electrochemistry, Banff, Canada.
- 43) R. Houshyar, **S.Z. Bathaie**, M.R. Behnia, B Etemadikia (Oct. -Nov, 2007)."Quantitative HPLC analysis of monoterpenaldehydes in different sources of Iranian saffron." The 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Iran.
- 44) R. Houshyar, **S.Z. Bathaie**, M. Ashrafi, A. Jafarnejad (Oct. -Nov, 2007)." The conformational changes in dna and oligonucleotides due to interaction with saffron and its ingredients." The 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Iran.
- 45) Rahman Rahmanpour, **S.Z. Bathaie**, A. Jafarnejad, Z. Bahrami (Oct. -Nov, 2007)." Strucutre-function study of histone H1 in normal and diabetic rats." The 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Iran.
- 46) F. Nobakht Motlagh Ghochani, **S.Z. Bathaie**, A. Jafarnejad, S.Z. Moosavi-Nejad (Oct. -Nov, 2007)." Polyamines effect on glucose-induced lysozyme modifications." The 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Iran.
- 47) A. Jafarnejad, **S.Z. Bathaie**, Saman Hosseinkhani, Rahman Rahmanpour (Oct. -Nov, 2007)." Functional and quantitative analysis of heat shock protein (HSP70) in the presence of high Glc

- concentrations, in both in vivo and in vitro systems.*" The 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Iran.
- 48) A. Mehdinia, S.H. Kazemi, **S.Z. Bathaie**, A. Alizadeh, M. Shamsipur and M.F. Mousavi (Sep. 2008). "Electrochemical studies of DNA immobilization on the self-assembled monolayers and its interaction with spermidine". 59th Annual Meeting of International Society of Electrochemistry, Seville, Spain.
- 49) A. Aghaie, A. Pourfathollah, **Z. Bathaie** (2008). "Inactivation of virus in intravenous immunoglobulin G using solvent/detergent treatment and pasteurization". VOX Sanguinis, **95** (1), 235-236.
- 50) R. Rahmanpour, **S.Z. Bathaie** and A. Jafarnejad (May 2008). "Structure-function study of histone H1 in normal and diabetic rats." FEBS Journal **275**, Suppl. 1, 195; 33rd FEBS Congress & 11th IUBMB Conference, Athens, Greece.
- 51) R. Houshyar, **S.Z. Bathaie** (May 2008). "Different modes of interaction of safranal in comparison to picrocrocin with GC and AT rich oligonucleotides." FEBS Journal **275**, Suppl. 1, 404; 33rd FEBS Congress & 11th IUBMB Conference, Athens, Greece.
- 52) S.-Z. Mousavi and **S.Z. Bathaie** (May 2009). "Saffron application from past to present. Part I: Traditional usages of saffron according to the history. International Conference on Saffron, Mashhad, Iran.
- 53) R. Hoshyar and **S.Z. Bathaie** (May 2009). "Effect of saffron components on various DNA secondary structures." The 3rd International Symposium on Saffron, Krokus, Kozani, Greece.
- 54) R. Rahmanpour and **S. Z. Bathaie** (June 2009). "Histone H1 structural changes in diabetic rats and the effect of spermine as a chemical chaperone." VIII European Symposium of the Protein Society, Zurich, Switzerland.
- 55) H. Miri, **S.Z. Bathaie**, M. Mokhtari-Dizaj, H. Hassanzade, M.R. Ashour (Nov. 2009). "Preventing effect of saffron carotenoids (crocin and crocetin) on animal model of stomach cancer." J. Iran. Chem. Soc. (JICS), **6** Sup., Nov. 2009; 10th ICB and 3rd ICBMB, Tehran, Iran.
- 56) M.R. Ashouri, **S.Z. Bathaie** and A. Jafarnejad (Nov. 2009). "The effect of ASA on the respiratory chain complexes of type I diabetic rats." J. Iran. Chem. Soc. (JICS), **6**, Sup., Nov. 2009; 10th ICB and 3rd ICBMB, Tehran, Iran.

- 57) F. Moghadas-zadeh-kermani, **S.Z. Bathaie** and S. Shams (Nov. 2009). "Crocin bleaching assay using Iranian saffron." J. Iran. Chem. Soc. (JICS), 6 Sup.; 10th ICB and 3rd ICBMB, Tehran, Iran.
- 58) R. Houshyar and **S.Z. Bathaie** (Nov. 2009). "The saffron's molecular components effect on H1-oligonucleotide complexes in the in vitro studies." J. Iran. Chem. Soc. (JICS), 6 Sup.; 10th ICB and 3rd ICBMB, Tehran, Iran.
- 59) A.R. Rezvani, **S.Z. Bathaie**, M. Memar and J. Farzanfar (Nov. 2009). "Synthesis of new Cd (II) complexes, and study of interaction." J. Iran. Chem. Soc. (JICS), 6 Sup., 10th ICB and 3rd ICBMB, Tehran, Iran.
- 60) A.R. Rezvani, **S.Z. Bathaie**, and M. Memar (Nov. 2009). "Influence of Cadmium(II) ion on the dipicolinic acid binding to DNA." J. Iran. Chem. Soc. (JICS), 6 Sup., 10th ICB and 3rd ICBMB, Tehran, Iran.
- 61) **S.Z. Bathaie**, H. Mirmiranpour, F. Nobakht, S. Shirali and S. Khaghani (June 2010). "Comparison between the inhibitory effect of different classes of chemical chaperones on nonenzymatic glycation of lysozyme and albumin." 3rd Latin American Protein Society Meeting, Salta, Argentina.
- 62) M.F. Mousavi, A. Hamzehloei and **S.Z. Bathaie** (Sep. 2010). "In situ synthesis and electrochemical characterization of a novel catechol terminated self assembled monolayer." 61st Annual Meeting of the International Society of Electrochemistry, Nice, France.
- 63) H. Heydarzadeh, **S.Z. Bathaie**, M.-R. Ashoori, M.-A. Mohagheghi (Feb. 2011). "Different effects of picrocrocin and safranal on nmu-induced breast cancer in rat." 6th International Breast Cancer Congress, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
- 64) M. Sajjadi, **S.Z. Bathaie** and H. Heydarzade (Feb. 2011). "Preventing effect of crocetin on induced breast cancer in rat." 6th International Breast Cancer Congress, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
- 65) **S. Z. Bathaie**, A. Jafarnejad, M.R. Ashouri, H. Mirmiranpour, S. Shirali, F. Nobakht, F. Bahmani, A. Alipour, M. Nakhjavani and S. Khaghani (May 2011). "Misfolding and functional changes of proteins under high glucose concentration and the effect of chemical chaperones." IX European Symposium of the Protein Society, Stockholm, Sweden.
- 66) R. Hoshyar and **S.Z. Bathaie** (May 2011). "Effect of saffron components on histone H1 structure and H1-DNA interaction." IX European symposium of the Protein Society, Stockholm, Sweden.

- 67) **S.Z. Bathaie** (June 2011). "Decreased Histone H1-DNA Complex Formation as a Possible Mechanism of the Action of Some Anticancer Compounds." Journal of Biomolecular Structure & Dynamics (JBSD), 28 (6). Albany 2011, The 17th Conversation, State University of New York, Albany, NY, USA.
- 68) **S.Z. Bathaie** (Sep. 2011). "Mechanism of the effect of various saffron constituents in different cancer types, in both *in vivo* and *in vitro* studies." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 69) H. Heidarzadeh, **S.Z. Bathaie**, M.R. Ashoori, M. Mohagheghi (Sep. 2011). "Effect of picrocrocin on breast cancer and EDA activity in rat." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 70) A. Ghahghaei, **S.Z. Bathaie**, E. Bahraminejad (Sep. 2011). "Effect of crocin on the ordered and disordered aggregation of proteins." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 71) S. Sajjadi, **S.Z. Bathaie**, H. Heydarzade (Sep. 2011). "Effect of crocin and crocetin on EDA activity in NMU-induced breast cancer in rat." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 72) R. Hoshyar, **S.Z. Bathaie**, M. Sadeghizadeh (Sep. 2011). "Crocetin inhibits cell proliferation in gastric cancer cell line, a highly expressing Bax gene." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 73) A. Alipour, **S.Z. Bathaie**, M.R. Ashoori (Sep. 2011). "Effect of high dose and long term aspirin treatment on oxidative stress parameters in the liver, kidney and heart of type I diabetic rats." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 74) A. Farajzade and **S.Z. Bathaie** (Sep. 2011). "Effect of glycerol, as a chemical chaperone, on hemoglobin glycation by glucose or fructose." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 75) H. Mirmiranpoor and **S.Z. Bathaie**, S. Khaghani, M. Nakhjavani, M.R. Ashoori, F. Nobakht (Sep. 2011). "In vitro assessment of glycerol affection on lysozyme's structure-function at high glucose concentration." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.

- 76) H. Mirmiranpoor, **S.Z. Bathaie**, S. Khaghani, M. Nakhjavani (Sep. 2011). "The effect of L-Lysine on structure-function of fibrinogen in the presence of high glucose concentration." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 77) M. Ashrafi, **S.Z. Bathaie**, S. Abroun, S.M. Sajjadi (Sep. 2011). "Comparative study on the effects of crocin, crocetin and picrocrocin on NMU-induced breast cancer in female rats." Clinical Biochemistry, 44 (13) Sup., The 11th ICB and 4th ICBMB, Mashhad, Iran.
- 78) B. Farzami, **S.Z. Bathaie**, R Sadeghi, A Shamsaie (Sep. 2011). "DNA as an enzyme: The effect of imidazole derivatives as cofactors and metal ions as activators or inhibitors." Clinical Biochemistry, 44 (13) Sup., 11th ICB and 4th ICBMB, Mashhad, Iran.
- 79) M. Yousefelahi, **S.Z. Bathaie**, M.F. Mousavi (Sep. 2011). "G-quadruplex immobilization on carbon nanotube modified glassy carbon electrode and investigation of its interaction with spermine." The 62nd Annual Meeting of the International Society of Electrochemistry, Niigata, Japan.
- 80) M. Karami, S.Z. Bathaie, T. Tirahi, B. Forogh (May 2012). "Effects of intraperitoneal injection of crocin on contused rat spinal cord." IANRV & 9th GCNN Conference with 4th ISCITT Symposium, Xian, China.
- 81) **S. Z. Bathaie** (Jun. 2010). "Lys therapy of diabetes: from in vitro studies to the animal models of diabetes and type 2 diabetic patients." J. Iran. Chem. Soc., Vol. 9, Suppl. 1; The First International & 11th Iran Biophysical Chemistry Conference, AUMS, Ardabil, Iran.
- 82) A. Farajzade, **S. Z. Bathaie** (Jun. 2010). "Effect of glycine on human serum albumin glycation." J. Iran. Chem. Soc., Vol. 9, Suppl. 1; The First International & 11th Iran Biophysical Chemistry Conference, AUMS, Ardabil, Iran.
- 83) F. Fereshteh Bahmani, **S. Z. Bathaie**, S. J. Aldavood, A. Ghahghaei (Jun. 2010). "Effect of glycine, as chemical chaperone, on catalase glycation by glucose." J. Iran. Chem. Soc., Vol. 9, Suppl. 1; The First International & 11th Iran Biophysical Chemistry Conference, AUMS, Ardabil, Iran.
- 84) A. Hamzehloei, M.F. Mousavi, **S.Z. Bathaie** (Sep. 2012). "Immobilization of pseudomonas aeruginosa azurin protein on 6-mercaptophexanol self assembled monolayer." The 63rd Annual Meeting of the International Society of Electrochemistry, Prague, Czech Republic.

- 85) M. Karami, **S.Z. Bathaie**, T. Tiraihi, A. Arab-Kheradmand (Oct. 2012). "Improvement in the locomotor function and mechanical behavior of rat model of contused spinal cord injury treated with crocin." The 4th International Saffron Symposium. Advances in Saffron Biology, Technology and Trade, Kashmir, India.
- 86) F. Taheri, **S.Z. Bathaie**, M. Ashrafi (Oct. 2012). "Investigation of the possible hepatotoxicity of crocin purified from *Crocus sativus L.* (Saffron) in Rat." The 4th International Saffron Symposium. Advances in Saffron Biology, Technology and Trade, Kashmir, India.
- 87) R. Hoshyar, **S.Z. Bathaie** and M. Sadeghizadeh (Apr. 2013). "In vitro evaluation of anticancer effect of a new mixture of saffron carotenoids through induced apoptosis in human gastric cancer cell line, AGS". The 13th ICB & 5th ICBMB, Yazd, Iran.
- 88) E. Ghasemi, **S.Z. Bathaie**, F. Bahmani, M. Vessal (Apr. 2013). "Effects of lysine on the kidney's antioxidant defense system in the streptozotocin-induced diabetic rat." The 13th ICB & 5th ICBMB, Yazd, Iran.
- 89) S. Mahdavifard and **S.Z. Bathaie** (May 2013). "The effect of some anti-glycating agents on the early, intermediates and advanced glycated end products of albumin." The 1st Tabriz International Life Science Conference & 12th Iran Biophysical Chemistry Conference, Tabriz, Iran.
- 90) A. Farajzadeh and **S.Z. Bathaie** (May 2013). "Effect of glycine on hemoglobin glycation by glucose, glucose 6-phosphate or fructose". The 1st Tabriz International Life Science Conference & 12th Iran Biophysical Chemistry Conference, Tabriz, Iran.
- 91) H. Mirmiranpour, **S.Z. Bathaie**, S. Khaghani, M. Nakhjavani (May 2013). "Spermine can modulate the abnormal changes of structure and function of fibrinogen at high glucose concentration". The 1st Tabriz International Life Science Conference & 12th Iran Biophysical Chemistry Conference, Tabriz, Iran.
- 92) **S.Z. Bathaie** (Jun 2013). "Circular dichroism (CD) studies of the interaction between G-quadruplexes/I-motif with saffron secondary active metabolites." Albany 2013: The 18th Conversation, NY, USA.
- 93) **S.Z. Bathaie** (Jun 2013). "Electrochemical investigation of the interaction between G-quadruplex and some ligands using MWCNT modified carbon paste." Albany 2013: The 18th Conversation, NY, USA.

- 94) N. Faridi, **S.Z. Bathaie**, S. Abroun, M. Karbasian (2015). "Crocin effect on different isolated cells from human breast tissue." Phytopharm, Germany.
- 95) N. Faridi, **S.Z. Bathaie**, S. Abroun, M. Karbasian, P. Farzaneh and Ganjibakhsh (July 2015). "The Mechanism of the Crocin-Induced Apoptosis in Primary Epithelial Breast Cancer Cells." The 40th FEBS Congress: The Biochemical Basis of Life, Berlin Germany.
- 96) M. Jafarisani, S.Z. Bathaie, M. Sarparast, M.F. Mousavi (Mar. 2016). "Assessment of Genotoxicity and Cytotoxicity of Albumin Coated Cadmium Nano-Cluster." The 6th International Conference on Nanostructures (ICNS6), Kish Island, Iran.
- 97) N. Faridi, **S.Z. Bathaie**, S. Abroun, M. Kadivar (2016). "Mechanism of the crocetin-induced apoptosis in the primary epithelial breast cancer cells isolated from Iranian breast tumors." FEBS-IUBMB, Greece.
- 98)

c) Oral or Poster Presentations in the National Conferences

Since 1991, A lot of papers have been presented as oral or poster presentations, in the national conferences in Iran.

PATENTS (Registered in Iran)

	Topic	Patent No.	Registration Date	
1	Using the surplus sludge from municipal wastewater treatment and compost to soils clearing and purification of crude oil using a process of composting questions.	49591	Jun 22, 2008	
2	Isolation, purification and identification of crocins (carotenoids) from saffron (in particular Iranian saffron).	54958	Oct. 27, 2008	
3	Isolation, purification and identification of crocetin (carotenoids) from saffron (in particular Iranian saffron).	54960	Oct. 27, 2008	
4	Isolation, purification and identification of picrocrocin (monoterpene aldehyde) from saffron (in particular Iranian saffron).	54959	Oct. 27, 2008	
5	Isolation, purification and identification of safranal (monoterpene aldehyde) from saffron (in particular Iranian saffron).	54961	Oct. 27, 2008	
6	A multi-purpose natural compound with the sun screening, anti-UV, anti-oxidant and free radicals scavenging effects.	59715	Jun 26, 2009	
7	Centralizing magnetic field electrophoresis apparatus (CMFEA).	65813	Jun 26, 2010	
8	A continuous and pulsed ultrasonic irradiation system with frequency of 28 kHz to release the medicine from nanoparticles and to increase the topical medication in vivo.	67283	Nov., 2, 2010	
9	HB-89 a compound made from saffron components as a new drug for cancer prevention and treatment.	72555	Nov., 19, 2011	
10	Picrocrocin as a new drug for cancer prevention and treatment.	72960	Nov., 19, 2011	
11	Crocin as a new drug for cancer prevention and	72961	Nov., 19, 2011	

	treatment.			
12	Crocetin as a new drug for cancer prevention and treatment.	72962	Nov., 19, 2011	

PROFISIONAL EXPERIENCE

- Head of Clin. Biochem. Dept., Faculty of Medical Sciences, TMU (2002-2004).
- Head of Academic Staff's Office, Faculty of Medical Sciences, TMU (2002-2004).
- Board Member of Biochemical Society of Iran (BSI), Scientific Committee (2004 -2013).
- Member of the Evaluation Committee, Faculty of Medical Sciences, TMU (2002-2005).
- Head of Academic Staff's Office, Faculty of Medical Sciences, TMU (2008 to 2010).

MEMBERSHIP OF SCIENTIFIC SOCIETIES

Biochemical Society of I.R. Iran (BSI), since 1990-Continued.

Protein Society (International), 1999-2012.

Biophysical Society (International), 1999-2004.

International Society of Electrochemistry (ISE), since 1999.

Iranian Society of Biophysical Chemistry (ISOBC), since 2002.

Iranian Nanotechnology Society (INS), since 2004.

American Association for the Advancement of *Science* (AAAS), 2007-2008.

American Society of Pharmacology (ASPET), Since 2009-2010.

EDITORIAL BOARD OF THE SCIENTIFIC JOURNALS

1. **Biotechnic & Histochemistry**, Taylor & Francis Group (Previously published by Informa Healthcare), London, UK.
The official publication of the Biological Stain Commission.
2014 Impact Factor: 1.444; 5-year Impact Factor: 0.982
Ranking: 134/161 (Biotechnology & Applied Microbiology), 2016 Thomson Reuters, 2016 release of Journal Citation Reports®
ISSN: 1052-0295 (print), 1473-7760 (electronic)
URL: <http://informahealthcare.com/loi/bih>
2. **Avicenna Journal of Phytomedicine**, Mashhad University of Medical Sciences, Mashhad, Iran.
Print ISSN: 2228-7930; Online ISSN: 2228-7949
URL: <http://ajp.mums.ac.ir/>
3. **Saffron Research**, Birjand University, Birjand, Iran.

ISSN: 2345-3869

URL: <http://sj-srg.ir/>

4. **Journal of Membrane and Separation Technology**, Lifescience Global, Pakistan.

ISSN: 1929-6037

URL: <http://www.lifescienceglobal.com/pms/index.php/jmst>

5. **Karagah**, NAJA, Iran

REVIEWER FOR JOURNAL ARTICLES SUBMITTED TO

- 1) African Journal of Pharmacy & Pharmacology, USA
- 2) Avicenna J Phytomedicine (AJP), MUMS, Iran
- 3) Biochemistry and Cell Biology (bcb), NRC Research Press, Canada
- 4) Biomacromolecules, American Chemical Society (ACS)
- 5) Biosensor and Bioelectronics, Elsevier, Canada
- 6) Cell Proliferation, Wiley Online Library
- 7) Cellular Signaling, Elsevier, UK
- 8) Chinese Journal of Physiology (CJP), China
- 9) Daneshvar, Iranian J. of the Shahed University
- 10) DNA & Cell Biology, MaryAnn Librate, USA
- 11) Food Res Int, Elsevier
- 12) Internatinal Journal of Preventive Medicine, Iran
- 13) International Journal of Hydrogen Energy, Elsevier, USA
- 14) International Journal of Hyperthermia, Informa Health Care, Scholar One, USA
- 15) Iranian J Biology, University of Tehran
- 16) Iranian J. Pharmaceutical Res.(IJPR), Shahid Beheshti University of Medical Sciences
- 17) Iranian Journal of Basic Medical Ssciences, Mashad University of Medical Sciences
- 18) Iranian Journal of Biotechnology (IJB), NRCGEB, Iran
- 19) Iranian Journal of Chemistry & Chemical Engeenering (IJCCE), Jahad Daneshghahi
- 20) Iranian Journal of Chemistry and Chemical Engeneering (IJCCE), Iran
- 21) Iranian Journal of Physiology & Pharmacology, Shahid Beheshti Univ. Med. Sci., Iran
- 22) Iranian National Science Fundation (INSF)

- 23) Islamic Azad University
- 24) Jahad Daneshgahi, TMU
- 25) Journal of Agricultural and Food Chemistry, American Chemical Society (ACS)
- 26) Journal of Biology, Kermanshah University
- 27) Journal of Food Process Engineering, BlackWell Publishing, USA
- 28) Journal of Iranian Chemical Society (JICS), Springer, Iran
- 29) Journal of Medicinal Plant, Iran
- 30) Journal of Molecular Structure and dynamics (JBSD), Taylor & Francis, USA
- 31) Karagah, CID of IRIDF
- 32) Macroscopy and Microanalysis, Scholar One, USA
- 33) Modares, J. Engeenering, TMU
- 34) Modares, J. Medical Science, TMU
- 35) Molecular and Cellular Biochemistry, Springer, Germany
- 36) Molecular vision, Elsevier
- 37) National Science Fundation (NSF), USA.
- 38) Nucleosides, Nucleotides & Nucleic Acids, Taylor & Francis, USA
- 39) Phys Pharmacol, Iran
- 40) Phyt Res, Elsevier,
- 41) PLOS One, USA
- 42) Protein Journal, Springer, Germany
- 43) Research in Medical Sciences Journal, Medical Science University of Isfahan
- 44) Saffron Research, Birjand University, Iran
- 45) Scandinavian Journal of Gastroenterology, Informa Health Care, Scholar One, USA
- 46) Shahed University
- 47) Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Elsevier, USA
- 48) Spectroscopy: An International, USA
- 49) The Cell (Yakhteh), Royan Institute
- 50) The Journal of Physiological Sciences, Springer, Japan

RESEARCH PROJECT LEADER

- 1) Purification of sheep liver, kidney and heart arginase and investigation of their kinetic parameters. Shiraz University, 1991-1992.
- 2) Effect of Chemical and physical parameters on DNA structure and their effect on DNA-protein complex, University of Tehran, 1996-2000.
- 3) Study of histone H1-DNA interaction in the presence of different ligands. Tarbiat Modares University, 2001-2002.
- 4) Extraction and purification of natural components of saffron. University of Tehran, 2000-2002.
- 5) Investigation and evaluation of the molecular and cellular mechanism of some anti-cancer and anti-inflammatory drugs. Oloom Minstry, A joint project between TMU & NRCGEB, 2003-2006.
- 6) Primary analysis for comparative study of four unknown herbal extract ingrediants, A Project Requested by: Pars Rous Company, 2005.
- 7) The effect of chaperones induction on treatment or reduction of side effects on type I diabetes. Supported by: Iranian National Science Fundation (INSF), 2005-2007.
- 8) The inhibitory mechanisms of chemical chaperones on the *in vitro* protein glycation. Supported by: Iranian National Science Fundation (INSF), 2010-2012.
- 9) Comparison between the mechanism of action of saffron carotenoids (crocin/crocetin) on the apoptosis, autophagy and ER-Stress of the breast cancer cell lines. Iranian National Science Fundation (INSF), 2015- continued.

GRADUATE STUDENTS SUPERVISED

	Candidate name	Degree	Year/Status	Univ./Dept.
1	Mohammad Rashtibaf	V.D.	1991	Shiraz Univ.
2	Ahmad Salimizadeh	V.D.	1992	Shiraz Univ.
3	Esmaeel Safarzadeh Poostchi	V.D.	1992	Shiraz Univ.
4	Azam Bolhasani	M.Sc.	2001	TMU/CB
5	Mohammad Motamedi	MSc.	2001	TMU/CB
6	Reza Saadatmandzadeh	M.Sc.	2001	TMU/CB
7	Ramezan Sadeghi	M.Sc.	2002	TUMS/Tox
8	Soroor Shojaian	M.Sc.	2003	TMU/CB
9	Mahboobeh Ashrafi	M.Sc.	2003	TMU/CB
10	Masoomeh Ghaderi	M.Sc.	2004	TMU/CB
11	Leila Parveneh	M.Sc.	2004	TMU/CB
12	Akbar Jafarnejad	Ph. D.	2007	TMU/CB
13	Fahimeh Sedghgoo	M.Sc.	2006	TMU/CB
14	Arash Chitsazan	M.Sc.	2006	TMU/CB
15	Reyhane Hoshyar	M.Sc.	2008	TMU/CB
16	Rahman Rahmankour	M.Sc.	2008	TMU/CB
17	Marzieh Daraie	M.Sc.	2008	Damghan Univ/Chem
18	Fateme Moghadas Zade	M.Sc.	2009	Payam Noor /Biochem
19	Mohammad Reza Ashouri	M.Sc.	2009	TMU/CB
20	Farzad Rahmani	M.Sc.	2010	Zahedan Univ./ Biol
21	Hamid Heydarzade	M.Sc.	2010	TMU/CB
22	Hamidreza Miri	Ph.D.	2010	TMU/CB
23	Saeed Shirali	Ph.D.	2011	TMU/CB
24	Meysam Sajadi	M.Sc.	2011	TMU/CB
25	AdamKhan Alipour	M.Sc.	2011	TMU/CB
26	Hossein Mirmiranpour	Ph.D.	2012	TUMS/CB

27	Mahboobe Ashrafi	Ph.D.	2012	TMU/CB
28	Fereshteh Bahmani	Ph.D.	2012	TMU/CB
29	Asghar Farajzade	M.Sc.	2012	TMU/CB
30	Najme Shojaei	M.Sc.	2012	TMU/CB
31	Elham Ghasemi	M.Sc.	2013	Islamic Azad Univ Shiraz/. Biol
32	Reyhane Hoshyar	Ph.D.	Jan., 2013	TMU/CB
33	Fateme Taheri	M.Sc.	Feb., 2013	TMU/CB
34	Masoume Karami	Ph.D.	Jun 12, 2013	TMU/CB
35	Somaye Sadat Heidari	M.Sc.	Oct. 23, 2013	Kerman Univ Med Sci
36	Mahshid Azizian	M.Sc.	Sep. 18, 2013	TMU/CB
37	Maral Ahmadvand	M.Sc.	Feb. 2014	Zahedan Univ./ Biol
38	Gangzadeh	M.Sc.	Feb. 2014	Zahedan Univ./ Biol
39	Safdar Mahdavifard	Ph.D.	Jan 2014	TMU/CB
40	Nasim Shahhamzeie	M.Sc.	Jun 2014	TMU/CB
41	Hamid Heidarzadeh	Ph.D.	Current	TMU/CB
42	Nasim Faridi	Ph.D.	Current	TMU/CB
43	Asghar Farajzadeh	Ph.D.	Current	TMU/CB
44	Moslem Jafarisani	Ph.D.	Current	TMU/CB
45	S. Mehdi Ebrahimi	Ph.D.	Current	TMU/CB
46	S. Ali Hashemi	Ph.D.	Current	TMU/CB
47	Sara Pourdashti	Ph.D.	Current	TMU/CB
48	Ahmad Nasimian	Ph.D.	Current	TMU/CB
49	Saeed Abedyanesh	Ph.D.	Current	TMU/CB
50	Nasim Abedimanesh	Ph.D.	Current	TMU/CB
51	Forouzandeh Monem-Homaei	M.Sc.	Current	Islamic Azad Univ.
52	Maryam Alaee	M.Sc.	Current	TMU/CB
53	Masoumeh Feizi	M.Sc.	Current	TMU/CB

54	Maryam Sanjari	Ph.D.	Current	TMU/CB
----	----------------	-------	---------	--------

GRADUATE STUDENTS Co-SUPERVISED

	Candidate name	Degree	Year/Status	Univ./Dept.
1	Mohsen Javaherian	V.M.D.	1991	Shiraz Univ./ V.M.
2	Mahmood Khayatian	M.Sc.	1992	TMU/ CB
3	Azadeh Arabzadeh	M.Ph.	2000	TUMS/ Pharm
4	M. YoosefiKebria	M.Sc.	2003	TMU/ Enviroment.
5	Marzieh Gholasi	M.Sc.	2004	Alzahra Univ./ Biol.
6	Forogh Gasemi Naghdi	M.Sc.	2005	TMU/ Enviroment
7	Hatef Gasem- Abadi	M.Sc.	2005	TMU/ Hist.
8	Gazaleh Ghaznavi	M.Sc.	2006	TMU/ Hist.
9	Shahram Shahabi	Ph.D.	2006	TMU/ Immun.
10	Afsaneh Aghaei	Ph.D.	2007	TMU/ Immun.
11	Amir-Hooshang Barati	Ph.D.	2007	TMU/ Med. Phys.
12	Somayeh Tajic	M.Sc.	2009	TMU/ Plant Sci.
13	Masood Memar	M.Sc.	2009	Zahedan Univ./ Chem.
14	Hadi Hassanzadeh	Ph.D.	2010	TMU/ Med. Phys.
15	Samaneh Mirsian	M.Sc.	2010	TMU/ Chem.
16	Fatemeh Beigloo	M.Sc.	2010	TMU/ Chem.
17	Mojdeh Yousef Elahi	Ph.D.	2011	TMU/ Chem.
18	Mahdi Abedi	M.Sc.	2011	TMU/ Chem.
19	Zahra Bagherian	M.Sc.	2011	TMU/ Chem.
20	Elmira Bahraminejad	M.Sc.	2012	Zahedan Univ./ Biol.
21	Ali Hamzehlouei	Ph.D.	2013	TMU/ Chem.
22	Sima Malelahi	M.Sc.	2013	TMU/ Chem.
23	Bentolhoda Mousavi	M.D., Psychiatric Specialist	2014	University of Social Welfare and Rehabilitation Sciences
24	Afshin Khavari	M.Sc.	2014	Islamic Azad Univ./Biology
25	Fateme Alizadeh	M.Sc.	2014	Islamic Azad Univ./Biology

26	Shokoufeh Mokhtari	M.Sc.	2015	TMU/ Chem
27	Marzieh Mardani	Ph.D.	Current	TMU/Anatomı

COURSE TAUGHT

A. Undergraduate (veterinary Medicine)

- 1 General Biochemistry
- 2 Metabolism
- 3 Practical Biochemistry

B. Graduate (M.Sc.)

- General biochemistry
- Metabolism
- Advanced Biochemistry
- Biochemistry of Specialized Tissues
- New Topics in Biochemistry
- Practical Biochemistry (general and clinical)
- Protein and DNA Structure
- Biochemistry of Membrane
- Biochemistry of Chromatin

C. Postgraduate (Ph.D.)

- Biophysical Chemistry
- Protein Structure and Function
- Structure and Function of Nucleic Acids
- Chromatin Remodeling
- Biosensors
- Biochemistry of Membrane
- Drug- Biomacromolecule Interaction
- Bioinformatics

WORKSHOPS HELD

- 1) Scientometry, 2008, Faculty of Medical Sciences, TMU.
- 2) Plagiarism, 2009, Faculty of Medical Sciences, TMU.
- 3) Plagiarism: Definition, Recognition, Prevention and Avoiding, 2012, Qazvin Univ. of Med. Sci., Qazvin.
- 4) Plagiarism: Definition, Recognition, Prevention and Avoiding, , 2012,
- 5) Plagiarism: Definition, Recognition, Prevention and Avoiding, 2012, Tehran Univ. of Med. Sci., Tehran.
- 6) Plagiarism: Definition, Recognition, Prevention and Avoiding, 2012, Alborz Univ. of Med. Sci., Karaj.
- 7) Intellectual Properties, National Council for Science & Technology Development of Herbal & Traditional Medicine, May 2013, Shahid Beheshti Univ., Tehran
- 8) Scientific Writing and Plagiarism, May 2013, First National Science and Nanotechnology conference and workshops, Iran Nanotechnology Initiative Council, TMU, Tehran.
- 9) Scientific Writing; Writing Summaries and Critiques, May 2013, First National Science and Nanotechnology conference and workshops, Iran Nanotechnology Initiative Council, TMU, Tehran.
- 10) Webinar: Plagiarism (Definition, Recognition, Prevention and Avoiding), 2013, Iran Nanotechnology Initiative Council, Tehran, Iran.
- 11) Oral Presentaionof a Scientific Paper, 2014, Iran Nanotechnology Initiative Council, TMU, Tehran, Iran.
- 12) Plagiarism: Definition, Recognition, Prevention and Avoiding, 2015 (Dec.), Faculty of Med. Sci., TMU, Tehran, Iran.

AWARDS

- 1) Jaberebne Haian award in 2nd Congress of Biochemistry, Tehran, Iran, 1993.
- 2) Distinguished Student, IBB, University of Tehran, 1996-1999.
- 3) IBB Grant to Papricipate in an International Workshop on: "*in vitro* gene transcription, mRNA translation and protein synthesis", National Research Center for Genetic Engineering & Biotechnology, 24 June- 4 July 1996, Tehran, Iran.
- 4) Distinguished researchers, Tarbiat Modares University, 2001.
- 5) International Grant of ICGEB to Participate in the Theoretical Course in: "RNA structure & function." 29 Mar.- 1 Apr. 2004, Trieste, Italy.
- 6) Award of the 2nd International Symposium of Saffron Biology & Biotechnology (ISSBT), Mashhad, Iran, 2006.
- 7) Distinguished researchers, Tarbiat Modares University, 2006.
- 8) First Rank in Modern Technologies, 14th Razi Festival, Iran, 2008.
- 9) Distinguished researchers, Tarbiat Modares University, 2008.
- 10) Distinguished Professor, Tarbiat Modares University, 2009.
- 11) Fifth Rank in Science, 15th Razi Festival, Iran, 2009.
- 12) The best oral presentation, 5th Saffron (Red Gold) Festival, Qaen, Iran, 2010.
- 13) Pagooheshgar Farhikhteh, Ministry of Health and Medical Education, Iran, 2015.