

# Shadi Esmaeili

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<b>Personal Information</b>	<b>Shadi Esmaeili</b> <ul style="list-style-type: none"><li>• Ph.D. in Laboratory Hematology and Blood Banking</li><li>• Email Address: <a href="mailto:shadi.esmaeili@sbmu.ac.ir">shadi.esmaeili@sbmu.ac.ir</a></li><li>• Google Scholar: <a href="#">Shadi Esmaeili( shahid beheshti university)</a></li></ul>
<b>Research Interests</b>	<ul style="list-style-type: none"><li>➤ Cancer research</li><li>➤ Molecular pathogenesis of hematologic malignancies</li><li>➤ Leukemia stem cells</li><li>➤ Stem cells</li><li>➤ Cell signaling</li><li>➤ PI3K/Akt signaling pathway</li><li>➤ Therapeutic targeting</li><li>➤ Epigenetic</li><li>➤ Mesenchymal stem cell differentiation</li><li>➤ Nanoparticle based treatment</li><li>➤ Cancer immunotherapy</li></ul>
<b>Education</b>	<ul style="list-style-type: none"><li>➤ <b>Ph.D. in Laboratory Hematology and Blood Banking</b><ul style="list-style-type: none"><li>• September 2017 – December 2020</li><li>• Shahid Beheshti University of Medical Sciences, Tehran, Iran</li><li>• <b>Thesis:</b> Investigating the effect of anti-diabetic drug pioglitazone on the chemotherapy protocol of AML patients aging from 60 to 75 years old and evaluating drug's molecular mechanisms in AML cell lines</li><li>• <b>GPA:</b> 18.52 out of 20</li><li>• <b>Supervisor:</b> Dr. Davood Bashash</li></ul></li><li>➤ <b>M.Sc. in Laboratory Hematology and Blood Banking</b><ul style="list-style-type: none"><li>• September 2011 – March 2014</li><li>• Tarbiat Modarres University, Tehran, Iran</li><li>• <b>Thesis:</b> Assessment of PPAR-gamma Gene Promoter Methylation Pattern on Human Bone Marrow Mesenchymal Stem Cells Pre and Post Differentiation to Adipocyte Cells</li><li>• <b>GPA:</b> 18.52/20.00</li><li>• <b>Supervisor:</b> Dr. Saeed Kaviyani</li></ul></li></ul>

	<p>➤ <b>B.Sc. in Laboratory Science</b></p> <ul style="list-style-type: none"> <li>• September 2007 – June 2009</li> <li>• Bahonar University, Kerman, Iran</li> <li>• <b>GPA: 17.68/20.00</b></li> </ul>
<b>Research Skills</b>	<ul style="list-style-type: none"> <li>➤ Cell culture</li> <li>➤ Real-time PCR, real-time PCR-based analysis, Methylation Specific PCR</li> <li>➤ RNA extraction, cDNA synthesis, Gene expression analysis</li> <li>➤ Western blotting and Protein extraction</li> <li>➤ Mesenchymal stem cell differentiation</li> <li>➤ Flow cytometry</li> <li>➤ Nanoparticle based treatment</li> <li>➤ Primer design</li> <li>➤ Computer-based analysis and quantification (CalculusYn, graphPad, prism, Endnote)</li> <li>➤ Bioinformatics analysis</li> </ul>
<b>General Skills</b>	<ul style="list-style-type: none"> <li>➤ Academic writing and manuscript design</li> <li>➤ MS Office, Reference Manager, Photoshop</li> <li>➤ Graphpad prism</li> <li>➤ Schematic presentation &amp; video presentation</li> </ul>
<b>Laboratory Device Skills</b>	<ul style="list-style-type: none"> <li>➤ Hitachi 717</li> <li>➤ Sysmex K1000</li> <li>➤ Sysmex KX21N</li> <li>➤ ECL</li> <li>➤ Ependorf</li> <li>➤ State fax 303</li> <li>➤ LTI Genesys</li> <li>➤ Automated ESR</li> <li>➤ Coagulometer</li> </ul>
<b>Research and Work Experiences</b>	<p>➤ <b>Shahid Beheshti Research Laboratory (Tehran, Iran)</b></p> <p><b>Description:</b> Collaborated with Dr. Davood Bashash in the Research Laboratory of Shahid Beheshti University of Medical Sciences to conduct several research projects and submit four research papers.</p> <p>(2017-2020)</p> <p>➤ <b>Qods Diagnostic Laboratory (Tehran, Iran)</b></p> <p><b>Description:</b> Laboratory Associate at the Hematology and Biochemistry Diagnostic/Clinical Laboratory Departments.</p> <p>(2011-2013)</p>

	<p>➤ <b>Zare Diagnostic Laboratory (Tehran, Iran)</b></p> <p><b>Description:</b> Laboratory Associate at the Microbiology and Pathology (preparation of samples) Diagnostic/Clinical Laboratory Departments Department (2013-2014)</p> <p>➤ <b>Firoozgar Hospital Diagnostic Laboratory (Tehran, Iran)</b></p> <p><b>Description:</b> Laboratory Associate at the Hematology, Blood Banking, Biochemistry, and Microbiology Diagnostic/Clinical Laboratory Departments (2012-2013)</p> <p>➤ <b>Imam Khomeini Hospital Diagnostic Laboratory (Tehran, Iran)</b></p> <p><b>Description:</b> Laboratory Associate at the Hematology, Blood Banking, Biochemistry, Microbiology, and Sampling Diagnostic/Clinical Laboratory Departments (2009-2011)</p>
<p><b>Academic Experiences</b></p>	<p>➤ <b>Research Assistant</b>, Beheshti University of Medical Sciences, Paramedical School Research Center (2017-2020).</p> <p><b>Research topics:</b></p> <ul style="list-style-type: none"> <li>• Investigation of molecular mechanisms involved in inducing cytotoxic and apoptotic effects of ZnOFe<sub>3</sub>O<sub>4</sub> nanoparticles on leukemic cell lines</li> <li>• Evaluation of PPAR gamma and PTEN gene expression in AML patients at diagnosis</li> <li>• The effect of PPAR<math>\gamma</math> ligand on PTEN gene expression and its synergy with PI3K inhibitor and arsenic trioxide in acute promyelocytic leukemia cell line</li> <li>• The effect of carfilzomib on increasing cytotoxicity of ATO in acute promyelocytic leukemia cell line (NB4)</li> <li>• The effect of carfilzomib on induction of apoptosis in acute promyelocytic leukemia cell line (NB4)</li> </ul> <p>➤ <b>Research Assistant</b>, Iranian Blood Transfusion Organization (2013-2014).</p> <p><b>Research topic:</b></p> <ul style="list-style-type: none"> <li>• Evaluation of DNA methylation pattern of lipoprotein lipase gene promoter before and after differentiation of human bone marrow mesenchymal stem cells into adipocytes</li> </ul> <p>➤ <b>Teacher Assistant</b>, Practical Hematology course, Azad University (January 2017 – June 2016)</p> <p>➤ <b>Holding online courses</b> of hematology, blood banking and immunology at hypophys institute (Summer 2020 so far).</p>
<p><b>Honors and Awards</b></p>	<p>➤ Ranked first on the national PhD entrance exam</p> <p>➤ Ranked fourth on the national MSC entrance exam</p> <p>➤ Ranked first in the Iranian Blood Transfusion Organization recruitment test in 2016</p> <p>➤ Member of the intelligent community of Shahid Beheshti University of Medical Sciences</p>

	<p>➤ Awarded lab personnel of the year at Imam Khomeini Cancer Institute in 2010</p>
<p><b>Publication</b></p>	<p>➤ <b>Original Articles</b></p> <p>1. <a href="#">Esmaeili S, Safaroghli-Azar A, Pourbagheri-Sigaroodi A, Salari S, Gharehbaghian A, Bashash D. Activation of PPAR<math>\gamma</math> intensified the effects of arsenic trioxide in acute promyelocytic leukemia through the suppression of PI3K/Akt pathway: Proposing a novel anticancer effect for pioglitazone. The international journal of biochemistry &amp; cell biology. 2020;122:105739.</a></p> <p>2. <a href="#">Esmaeili S, Safaroghli-Azar A, Pourbagheri-Sigaroodi A, Salari S, Gharehbaghian A, Hamidpour M, et al. Stimulation of peroxisome proliferator-activated receptor-gamma (PPAR<math>\gamma</math>) using pioglitazone decreases the survival of acute promyelocytic leukemia cells through up-regulation of PTEN expression. Anti-Cancer Agents in Medicinal Chemistry (Formerly Current Medicinal Chemistry-Anti-Cancer Agents). 2021;21(1):108-19.</a></p> <p>3. <a href="#">Esmaeili S, Salari S, Kaveh V, Ghaffari SH, Bashash D. Alteration of PPAR-GAMMA (PPARG; PPAR<math>\gamma</math>) and PTEN gene expression in acute myeloid leukemia patients and the promising anticancer effects of PPAR<math>\gamma</math> stimulation using pioglitazone on AML cells. Molecular Genetics &amp; Genomic Medicine. 2021:e1818.</a></p> <p>4. <a href="#">Esmaeili S, Pourbagheri-Sigaroodi A, Yousefi A-M, Fakhroueian Z, Momeny M, Bashash D. ZnO Q-Dots-Induced Apoptosis Was Coupled with the Induction of PPAR<math>\gamma</math> in Acute Promyelocytic Leukemia Cells; Proposing a Novel Application of Nanoparticles in Combination with Pioglitazone. Journal of Cluster Science. 2021:1-13.</a></p> <p>5. <a href="#">Esmaeili S, Yousefi A-M, Delshad M, Bashash D. Synergistic effects of PI3K inhibition and pioglitazone against acute promyelocytic leukemia cells. Journal of Molecular Genetics &amp; Genomic Medicine.</a></p> <p>6. <a href="#">Sadeghi S, Esmaeili S, Pourbagheri-Sigaroodi A, Safaroghli-Azar A, Bashash D. PI3K Abrogation Using Pan-PI3K Inhibitor BKM120 Gives Rise to a Significant Anticancer Effect on AML-Derived KG-1 Cells by Inducing Apoptosis and G2/M Arrest. Turkish Journal of Hematology. 2020;37(3):167.</a></p> <p>7. <a href="#">Zamani-Moghaddam N, Mousavi FS, Esmaeili S, Yousefi A-M, Safaroghli-Azar A, Bashash D. Suppression of proteasome induces apoptosis in APL cells and increases chemo-sensitivity to arsenic trioxide: Proposing a perception in APL treatment. Cancer Treatment and Research Communications. 2021;26:100284.</a></p>

	<p><a href="#">8. Seifi-Najmi M, Hajivalili M, Safaralizadeh R, Sadreddini S, Esmaeili S, Razavi R, et al. SiRNA/DOX loaded chitosan based nanoparticles: Development, Characterization and in vitro evaluation on A549 lung cancer cell line. Cellular and Molecular Biology. 2016;62(11):87-94.</a></p> <p><a href="#">9. Pourgholi F, Hajivalili M, Razavi R, Esmaeili S, Baradaran B, Movasaghpour AA, et al. The role of M2000 as an anti-inflammatory agent in toll-like receptor 2/microRNA-155 pathway. Avicenna journal of medical biotechnology. 2017;9(1):8.</a></p> <p><a href="#">10. Hosseini KM, Atashi A, Oodi A, Esmaeili S. The study of LPL gene expression during differentiation of Human BM-MSC into adipocytes. Basic &amp; Clinical Cancer Research. 2014;6(1):16-21.</a></p> <p>➤ <b>Review Article</b></p> <p><a href="#">11. Rostamzadeh D, Razavi SR, Esmaeili S, Dolati S, Ahmahi M, Sadreddini S, et al. Application of nanoparticle technology in the treatment of systemic lupus erythematosus. Biomedicine &amp; Pharmacotherapy. 2016;83:1154-63.rapy. 2016;83:1154-63.</a></p> <p>۱۲. بیان ژن PPAR<math>\gamma</math> در سلول های چربی تمایز یافته از سلول های بنیادی مزانشیمی مغز استخوان انسانی (اسم اول) - مجله پی‌اورد سلامت دانشگاه تهران</p> <p>۱۳. مطالعه بیان کمی و کیفی ژن لیپوپروتئین لیپاز قبل و بعد از تمایز سلول های بنیادی مزانشیمی مغز استخوان انسانی به سلول چربی (اسم چهارم) - مجله خون سازمان انتقال خون ایران</p>
<p><b>Abstracts</b></p>	<p><b>1.Expression of PPAR<math>\gamma</math> gene in differentiated adipocytes derived from mesenchymal stem cells of human bone marrow</b></p> <p><b><u>Shadi Esmaeili</u></b>, saeid Kaviani, et al.</p> <p><u>Laboratory &amp; Diagnosis Vol.5, No 22, Supplement Issue</u></p> <p><b>2. Expression of PPAR gamma in bone marrow mesenchymal stem cell- derived adipocytes</b></p> <p><b><u>Shadi Esmaeili</u></b>, saeid Kaviani, et al.</p> <p><u>STEM CELLS CONGRESS, January 22-24,2014; Tehran, Iran</u></p>

	<p><b>3.The study of LPL gene expression during differentiation of human BM-MSC into adipocytes</b></p> <p>Rasool Razavi Babaheidari,Kamran Mousavi Hosseini,Amir Atashi,Arezo Oodi,<u>Shadi Esmaeili</u>,Tavakol Mohammadi Bastam</p> <p><u>Laboratory &amp; Diagnosis Vol.5, No 22, Supplement Issue</u></p> <p><b>4.PDX1-mediated Reprogramming of human bone marrow mesenchymal stem cells into insulin producing cells</b></p> <p>Amir Allahverdi,Arefe Jafarian,Mohammad Thaghikhani,Fateme Eskandari,<u>Shadi Esmaeili</u></p> <p><u>STEM CELLS CONGRESS, January 22-24, 2014; Tehran, Iran.</u></p>
<p><b>Poster presentations</b></p>	<ul style="list-style-type: none"> <li>➤ <b>Poster presentation: Expression of PPAR gamma in bone marrow mesenchymal stem cell-derived adipocytes</b> <u>Shadi Esmaeili</u>, saeid Kaviani, et al. <u>STEM CELLS CONGRESS, January 22-24,2014; Tehran, Iran</u></li> <li>➤ <u>Quality Improvement in Clinical Laboratory</u> 7<sup>th</sup> International &amp; 12<sup>th</sup> National Congress,17-20 April 2014,Tehran,Iran</li> <li>➤ <u>Quality Improvement in Clinical Laboratory</u> 5<sup>th</sup> International &amp; 10<sup>th</sup> National Congress,23-26 April 2012,Tehran,Iran.</li> </ul>
<p><b>Voluntary Experiences</b></p>	<ul style="list-style-type: none"> <li>➤ Secretary of the Guild Council of the School of Paramedical Sciences of Shahid Beheshti University of Medical Sciences</li> </ul>