CURRICULUM VITAE

Date of Revision: 26/07/2025

Name: Azam Rahimpour

Education:

Ph.D. Medical Biotechnology, 2007-2014
Biotechnology Research Center, Pasteur Institute of Iran, Tehran, Iran

M.Sc. Medical Biotechnology, 2003-2006
Department of Medical Biotechnology, Tarbiat Modares University, Tehran, Iran

B.Sc. Cell and Molecular Biology, 1999-2003
Faculty of Basic Science, Shiraz University, Shiraz, Iran

Career/Academic Appointments:

Assistant Professor, School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran, September 2014-present

Administrative Positions:

International Affairs Coordinator of the School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, 2016-2017

Educational Affairs Coordinator of the Department of Tissue Engineering and Applied Cell Sciences, School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, 2022-2025

Professional Honors & Recognition:

Distinguished Faculty Member, Educational Festival, Shahid Beheshti University of Medical Sciences, 2017

Grant History:

Evaluation of the effect of exosomes derived from adipose tissue mesenchymal stem cells preconditioned with resveratrol in combination with polyurethane-chitosan/gelatin-cellulose acetate scaffold on full-thickness wound healing in the rat model. School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, 2022-present

Expression of anti-CD52 monoclonal antibody using a tricitronic vector containing mutant neomycin phosphotransferase gene and IFN-beta scaffold matrix attachment region. Cell and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, 2021-present

Completed Grants:

Development of the Alemtuzumab monoclonal antibody expressing CHO cells by site specific gene integration in ribosomal DNA locus, Iran National Science Foundation (INSF), 2015-2017

Application of the RNA-guided FokI Nuclease (RFN) system for targeted genome editing in CHO cells. Medical Nanotechnology and Tissue Engineering Research Center, Shahid Beheshti University of Medical Sciences, 2015-2017

Evaluation of the effects of the insulator region containing tDNA gene on stable expression of the anti-CD52 monoclonal antibody in CHO cells. School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, 2015-2017

Evaluation of human interferon beta matrix attachment region for stable expression of Alemtuzumab monoclonal antibody in CHO cells, Medical Nanotechnology and Tissue Engineering Research Center, Shahid Beheshti University of Medical Sciences, 2015-2017

Laboratory production and characterization of the Alemtuzumab monoclonal antibody. Shahid Beheshti University of Medical Sciences, 2015-2018

Evaluation of different expression vector systems on transient and stable expression of monoclonal antibody in CHO cells. Medical Nanotechnology and Tissue Engineering Research Center, Shahid Beheshti University of Medical Sciences, 2016-2018

Optimization of the expression vector for efficient expression of the VEGF binding fusion protein in CHO cells, Shahid Beheshti University of Medical Sciences, 2016-2019

Targeted integration of the GFP reporter gene to the genome of HDF dermal fibroblast cells using the CRISPR-Cas9 system. School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, 2017-2021

Evaluation of the effects of gamma satellite insulator sequence on expression of the anti-PCSK9 monoclonal antibody in Chinese hamster ovary cells. Shahid Beheshti University of Medical Sciences, 2018-2021

Targeted integration of the VEGF 165 gene into the AAVS1 locus in human fibroblast cells. Shahid Beheshti University of Medical Sciences, 2018-2022

Development of optimized CHO host cells by manipulation of SIRT6 gene for recombinant antibody production. School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, 2019-2023

Lectures, Courses, Web-based Education:

Academic courses (2019-present):

Bioinformatics (Ph.D-level shared course)
Genetic Engineering and Gene Therapy (Ph.D-level shared course)
Advanced cell and molecular techniques (Ph.D-level shared course)
Principles of standardization and safety of cell therapy products (Ph.D-level shared course)
Cell culture (Ph.D-level shared course)
Advanced Cell Signaling (Ph.D-level shared course)
Advanced Cell Biology (Ph.D-level shared course)

PROFESSIONAL SERVICE

Peer Review Groups/Grant Study Sections:

2021: Member of the Research Committee of School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences

2022: Member of the Research Committee of School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences

Journal Service:

2019-present
Serving as Reviewer for several national and international scientific journals

Committees Memberships:

2022-present: Member of the Teaching Methods Committee, School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences

Bibliography:

Peer-Reviewed Original Research*:*

Rajabi M, Rasaee MJ, Foruzandeh M, Rahimpour A. Production of chimeric recombinant single domain antibody-green fluorescent fusion protein in Chinese hamster ovary cells, Hybridoma, 2007, 26 (1): 1-9

Hosseini Kakhak SA, Ghanbari Niaki A, Rahbarizadeh F, Rahimpour A. Exercise training enhances augotirelatedprotein expression in male trained rat skeletal muscle. Research in Sport Science, 2006, 16: 69-79

Nematollahi L, Khalaj V, Babazadeh M, Rahimpour A, Jahandar H, Davami F, Mahboudi F. Periplasmic expression of a novel human bone morphogenetic protein-7 mutant in escherichia coli. Avicenna J Med Biotech, 2012, 4(4): 178-185

Rahimpour A, Vaziri B, Moaazami R, Nematollahi L, Mahboudi F. Engineering the cellular protein secretory pathway for enhancement of recombinant human tPA expression in CHO cells. J Microbiol Biotechn, 2013, 23(8), 1116-1122.

Rahimpour A, Vaziri B, Nematollahi L, Barkhordari F, Adeli A, Mahboudi F. Enhancement of recombinant human tissue plasminogen activator expression in CHO cells using matrix attachment region containing vectors and promoter activation strategy. Modares Journal of Medical Sciences, 2013, 16(1), 11-23

Rajabibazl M, Rasaee MJ, Forouzandeh M, Rahimpour A. Retroviral transduction of fluonanobody and the variable domain of camelid heavy-chain antibodies to chicken embryonic cells. Iran J Immunol. 2013, 10(4):247-58

Nematollahi L, Khalaj V, Rahimpour A, Jahandar H, Mahboudi F. A novel human bone morphogenetic protein-7 variant with enriched heparin-binding site. Molecular Biology, 2013, 47(3), 399-405

Rahimpour A, Najaei A, Mahboudi F. Efficiency of translation and post-translation regulatory genes in optimization of tissue plasminogen activator gene expression. Koomesh, 2015, 17(1): 196-202

Rahimpour A, Ahani R, Najaei A, Adeli A Barkhordari F, Mahboudi F. Development of the genetically modified Chinese hamster ovary host cells for the enhancement of recombinant tissue plasminogen activator expression. MJMS, 2016, 23(2): 6-13

Bayat H, Omidi M, Rajabibazl M, Sabri S, Rahimpour A. Stable expression of anti-CD52 monoclonal antibody using a bicistronic vector system. Biology and Medicine, 2016, 8(7), 1

Bayat H, Omidi M, Peyrovan M, Mohammadian O, Naderi N, Rahimpour A. The CRISPR growth spurt: from bench to clinic on versatile small RNAs. J Microbiol Biotechnol. 2017, Feb 28;27(2):207-218

Khan AH, Bayat H, Rajabibazl M, Sabri S, Rahimpour A. Humanizing glycosylation pathways in eukaryotic expression systems. World J Microbiol Biotechnol. 2017, Jan;33(1):4

Moi IM, Roslan NN, Leow ATC, Ali MSM, Rahman RNZRA, Rahimpour A, Sabri S. The biology and the importance of Photobacterium species. Appl Microbiol Biotechnol. 2017, Jun;101(11):4371-4385

Bayat H, Hossienzadeh S, Pourmaleki E, Ahani R, Rahimpour A. Evaluation of different vector design strategies for the expression of recombinant monoclonal antibody in CHO cells. Prep Biochem Biotechnol. 2018, Feb 7;48(2):160-164

Payandeh Z, Rajabibazl M, Mortazavi Y, Rahimpour A, Taromchi AH. Ofatumumab monoclonal antibody affinity maturation through in silico modeling. Iran Biomed J. 2018, May 1;22(3):180-92

Naderi F, Hashemi M, Bayat H, Mohammadian O, Pourmaleki E, Etemadzadeh MH, Rahimpour A. The augmenting effects of the tDNA insulator on stable expression of monoclonal antibody in Chinese hamster ovary cells. Monoclon Antib Immunodiagn Immunother. 2018, Nov;37(5):200-206

Payandeh Z, Rajabibazl M, Mortazavi Y, Rahimpour A. In silico analysis for determination and validation of human CD20 antigen 3D structure. Int J Pept Res Ther. 2019, 25(1): 123–135

Pairawan SM, Bolhassani A, Rahimpour A. Enhanced transient expression of an anti-CD52 monoclonal antibody in CHO cells through utilization of miRNA sponge technology. Res Pharma Sci. 2019, 14 (4), 335-342

Mohammadian O, Rajabibazl M, Pourmaleki E, Bayat H, Ahani R, Rahimpour A. Development of an improved lentiviral based vector system for the stable expression of monoclonal antibody in CHO cells. Prep Biochem Biotechnol. 2019, 49(8):822-829

Payandeh Z, Bahrami AA, Hoseinpoor R, Mortazavi Y, Rajabibazl M, Rahimpour A. The applications of anti-CD20 antibodies to treat various B cells disorders. Biomed Pharmacother. 2019, Jan;109:2415-2426

Payandeh Z, Rajabibazl M, Mortazavi Y, Rahimpour A, Taromchi AH, Dastmalchi S. Affinity maturation and characterization of the ofatumumab monoclonal antibody. J Cell Biochem. 2019, Jan;120(1):940-950

Rahimpour A, Pourmaleki E, Shams F, Payandeh Z, Pourzardosht N, Didehdar M, Gholami M. The effect of Ccnb1ip1 insulator on monoclonal antibody expression in Chinese hamster ovary cells. Mol Biol Rep. 2022 May;49(5):3461-3468

Shams F, Pourjabbar B, Hashemi N, Farahmandian N, Golchin A, Nuoroozi G, Rahimpour A. Current progress in engineered and nano-engineered mesenchymal stem cells for cancer: From mechanisms to therapy. Biomed Pharmacother. 2023 Nov;167:115505

Azari A, Rahimi A, Rajabibazl M, Abbaszadeh HA, Hosseinzadeh S, Rahimpour A. Evaluation of in vitro coculture of keratinocytes derived from foreskin and adipose-derived mesenchymal stem cells (AMSCs) on a multilayer oxygen-releasing electrospun scaffold based on PU/PCL.Sodium percarbonate (SPC)-gelatine/PU. Cell Biochem Funct. 2023 Jun;41(4):434-449

Hashemi N, Tabatabaee SH, Shams F, Rahimpour A, Kazemi B, Rajabibazl M, Ranjbari J. Overexpression of SIRT6 alleviates apoptosis and enhances cell viability and monoclonal antibody expression in CHO-K1 cells. Mol Biol Rep. 2023 Jul;50(7):6019-6027

Rahimpour A, Mosallaei M, Pourghazi F, Tabatabaee SH, Hoseinpoor R, Pourmaleki E, Soosanabadi M. Development of an Expression Vector Engineering Strategy Based on tDNA Insulator Element for the Stable Expression of Vascular Endothelial Growth Factor Receptor-Fc Fusion Protein. Monoclon Antib Immunodiagn Immunother. 2023 Aug;42(4):140-144

ohammadkhani N, Rahimpour A, Hoseinpoor R, Rajabibazl M. Development of Stable CHO-K1 Cell Lines Overexpressing Full-Length Human CD20 Antigen. Iran Biomed J. 2023 Sep 1;27(5):269-79

Ghorbani R, Hosseinzadeh S, Azari A, Taghipour N, Soleimani M, Rahimpour A, Abbaszadeh HA. The Current Status and Future Direction of Extracellular Nano-vesicles in the Alleviation of Skin Disorders. Curr Stem Cell Res Ther. 2024;19(3):351-366

Bayat H, Farahmand F, Tabatabaee SH, Shams F, Mohammadian O, Pourmaleki E, Rahimpour A. Evaluation of the paired-Cas9 nickase and RNA-guided FokI genome editing tools in precise integration of an anti-CD52 bicistronic monoclonal antibody expression construct at Chinese hamster ovary cells 18S rDNA locus. Protein Expr Purif. 2024 May;217:106445

Najafi S, Rahimpour A, Ahmadieh H, Rezaei Kanavi M, Maleki Tehrani M, Suri F, Ranjbari J. The effect of enhancers on the lentiviral transduction efficiency in the human RPE cells: Insights for advancing retinal gene therapies. Biochem Biophys Rep. 2025 Apr 14;42:102010.

Raigani M, Namdar P, Barkhordari F, Seyedjavadi SS, Rahimpour A, Adeli A. Development of an attenuated glutamine synthetase (GS) selection system for the stable expression of tissue plasminogen activator in CHO-K1 cells. Prep Biochem Biotechnol. 2025 Jan 21:1-7.

Ghorbani R, Abbaszadeh HA, Ramezani R, Taghipour N, Rahimpour A, Hosseinzadeh S. Encapsulation of AD-MSC- derived extracellular nanovesicles in an electrospun three-layer scaffold: characterization and controlled release analysis in vitro. Biomed Mater. 2025 Jan 7;20(1).

Chapters, Books:

Rasaee MJ and Rahimpour A, Bioethics (Book), Ro-dar-Ro publications, 2006

Soleimani M and Rahimpour A, Introduction to gene expression engineering in mammalian cells, Rahdan publications (Book), 2010

Davami F, Rahimpour A, Nematollahi L and Jahandar H, Monoclonal antibodies; a novel challenge in Biotechnology (Book), Nardis publications, 2012

Rahimpour A, Biosimilars (Book Chapter) in Quality control of biopharmaceuticals, Sepid Barg publications, 2015