

1. Personal details:

- **Name:** Azam Rahimpour
- **Address:** Work address: School of Advanced Technologies in Medicine, Taleghani Hospital, Velenjak, Tehran, Iran.
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- **E-mail address:** rahimpour@sbmu.ac.ir
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2. Employment history:

- Assistant Professor, School of Advanced Technologies in Medicine, Shahid Beheshti University of medical sciences, Sep 2014-present.
- Postdoctoral Researcher, Biotechnology Research Center, Pasteur Institute of Iran, February 2014-July 2015.
- Research fellow, Stem cell technology research center, 2006-2008 (part time).

3. Education and qualifications:

- Ph.D.: Biological Products (Medical Biotechnology), Pasteur Institute of Iran, 2007-2013.
- M.Sc.: Medical Biotechnology, Tarbiat Modares University, faculty of Medicine, 2003-2006.
- B.Sc.: Cell and Molecular Biology, Faculty of Basic Science, Shiraz University, 1999-2003

4. Any other skills, achievements, or training:

- Internship, Participated in project "High throughput isolation of monoclonal antibody producing CHO clones from optimized stable cell line platform" under supervision of Dr. Trent Munro, Australian Institute for Bioengineering and Nanotechnology, University of Queensland, Brisbane, Australia, July-December 2012.
- Executive member of different workshops on Recombinant Protein Expression.
- Familiar with regular nucleic acid and protein analysis software
- Having excellent English Language speaking and writing skills

5. Research Interests:

- Development of stable CHO cells for the expression of complex bio-therapeutics.
- Cell line engineering for enhancement of CHO cell protein productivity and cell performance.
- Plasmid and viral vector design and engineering for improving recombinant protein expression in mammalian/stem cells.
- Development and optimization of transient gene expression systems for rapid production of proteins.
- Optimization of recombinant protein expression in prokaryotic hosts.
- Application of CRISPR/Cas genome editing system for mammalian/stem cell line engineering.
- Gene expression profiling of stem cells during differentiation.
- Expression and characterization of the recombinant fusion proteins as new scaffolds in tissue engineering.
- Expression and characterization of the engineered growth factors with improved performance in stem cell differentiation.

6. Full articles:

- Bayat H, Omid M, Rajabibazl M, Sabri S, **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.
- **Rahimpour A**, Yazdian F, Akbari Jonoush Z, Rajabibazl M, Omid O. Design and Manufacturing of Electromechanical Chip for Rapid Measurement of IgG1 Antibody in Cell-Culture Supernatant. *Biology and Medicine*. 8(7).
- **Rahimpour A**, Najaei A, Adeli A, Mahboudi F. Development of the Genetically Modified Chinese Hamster Ovary Host Cells for the Enhancement of Recombinant Tissue Plasminogen Activator Expression. 2016, *Malaysian Journal of Medical Sciences*, accepted for publication in March 2016.

- **Rahimpour A**, Najaei A, Mahboudi F. Efficiency of translation and post-translation regulatory genes in optimization of tissue plasminogen activator gene expression. 2015. 2015, 17(1): 196-202.
- **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. *Journal of Microbiology and Biotechnology*, 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 (in Persian). *Modares Journal of Medical Sciences*, 2013, 16(1), 11-23.
- 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.
- 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.
- Rajabi M, Rasaee MJ, Foruzandeh M, **Rahimpour A**, Kiani J. et al. Production of single domain antibody green fluorescent protein 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 augoti related protein expression in male trained rat skeletal muscle. *Research in Sport Science*, 2006, 16: 69-79.

7. Abstracts:

- **Rahimpour A**, Barkhordari F, Adeli A, Mahboudi F. Optimization of the expression vector for enhancement of human tissue plasminogen activator expression level, presented in the 9th Biotechnology congress, Tehran (2015).
- **Rahimpour A**, Vaziri B, Barkhordari F, Mahboudi F. Enhancement of transient gene expression in CHO cells by overexpression of ceramide transfer protein, presented in the 7th Biotechnology congress, Tehran (2012).

- Rajabi M, Rasaee MJ, Foruzandeh M, Mohammadi M, **Rahimpour A**, Naderi M. Development of transgenic chicken containing flubody. Presented in the 10th Iranian congress of biochemistry and 3th international congress of biochemistry and molecular biology, Tehran (2010).
- Rajabi M, RasaeeMJ, Foruzandeh M, Bamdad T, Mohammadi M, **Rahimpour A**, Karvandian K. Construction of recombinant retrovirus containing GFP-nanobody fusion protein with lysosyme secretion signal. Presented in the 5th national biotechnology congress, Tehran (2007).
- **Rahimpour A**, Rasaee MJ, Rahbarizadeh F, Foruzandeh M, Rajabi M. Cloning and expression of single domain camel antibody in SP2/0 myeloma cells. Presented in the 9th congress of genetics, Tehran (2006).
- **Rahimpour A**, RasaeeMJ, Rahbarizadeh F, Rajabi M. Secretary expression of single domain camel antibody in SP2/0 myeloma cells. Presented in the 7th Research congress of medical students Tehran (2006).
- **Rahimpour A**, RasaeeMJ, Rahbarizadeh F, Rajabi M, Khoddami Vishte V. Optimyzation of tansfection efficiency of myeloma cells using pcDNA-GFP repoter vector. Presented in the 14th biology congress, Tehran (2006).
- Rajabi M, Rasaee MJ, Foruzandeh M, **Rahimpour A**, KianiJ .Production of single domain antibody green fluorescent protein fusion protein in Chinese Hamster Ovary cells. Presented in the 14th biology congress, Tehran, Trabiati Modares University (2006).
- KhoddamiVishte V, Foruzadeh M, Rahbarizadeh F, Rasaee MJ, **Rahimpour A**. Marking a population of MCF-7 breast cancer cell line with EGFP using pEGFP hygro; a newly synthesized shuttle vector. Presented in the 9th congress of genetics, Tehran (2006).
- Khoddami Vishte V, Foruzandeh M, Rahbarizadeh F, RasaeeMJ, **Rahimpour A**. Construction of a new hygromycin resistance enhanced green fluorescent (EGFP) fusion vector (pEGFP-Hygro). Presented in the 4th congress of biotechnology in Kerman (2005).

8. Projects:

- Project Supervisor: Development of the glutamine synthetase knockout CHO cell line using the CRISPR/Cas system, Shahid Beheshti University of Medical Sciences, Aug 2015-present.
- Project supervisor: Evaluation of human interferon beta matrix attachment region for stable expression of Alemtuzumab monoclonal antibody in CHO cells, Medical Nano-Technology &

Tissue Engineering Research Center, Shahid Beheshti University of Medical Sciences, Aug 2015-Feb 2017.

- Project Supervisor: Development of the Alemtuzumab monoclonal antibody expressing CHO cells by site specific gene integration, INSF, Apr 2015-present.
- Project Co-Supervisor: Construction of a Multi-cistronic expression vector for the expression of Alemtuzumab monoclonal antibody, Medical Nano-Technology & Tissue Engineering Research Center, Shahid Beheshti University of Medical Sciences, Nov 2014-Apr 2015.

9. Theses: (Supervisor, Advisor)

- **Thesis Supervisor:** Evaluation of human interferon beta matrix attachment region for stable expression of Alemtuzumab monoclonal antibody in CHO cells using lentiviral vector, M.Sc. Student. Shahid Beheshti University of Medical Sciences. April 2015-Feb 2017.
- **Thesis Supervisor:** Targeted integration of the collagne 7 gene into the AAVS1 locus in fibroblast cells isolated from RDEB patients and its expression analysis. Ph.D. thesis, Shahid Beheshti University of Medical Sciences. March 2017-present.
- **Thesis Supervisor:** Evaluation of the effects of tDNA gene insulator region on stable expression of anti CD52 antibody. M.Sc. Student. Islamic Azad University. Sep 2015- present.
- **Thesis supervisor:** optimization of transient expression of anti CD52 monoclonal antibody in CHO cells. M.Sc. Student. Sep 2015- present. Islamic Azad University. Nov 2015-Feb 2017.
- **Thesis Advisor:** Ofatumumab monoclonal antibody engineering towards changing its binding affinity, Ph.D. thesis, Zanjan University of Medical Sciences, May 2015-present.
- **Thesis Advisor:** Evaluation of transcriptional and post-transcriptional regulatory elements for the enhancement of recombinant tissue plasminogen activator expression, M.Sc. Thesis, Payame Noor University, January 2015-Mar 2017.