

Curriculum Vitae

Pearsonal Information

Name	Fatemeh Yarian
Date of Birth	26/12/1981
Cell phone	(+98)-9173014648
E.mail	f.yarian@fums.ac.ir f.yarian@gmail.com
Nationality	Iranian
Phone number	+98(71)53102436
Marital status	Married

Education

2010-2016	PhD Degree in Medical Biotechnology , Department of Biotechnology, School of medicine, Shahid Beheshti University of Medical Science, Tehran, Iran Thesis title: Selection of specific scFv antibody against <i>Neisseria meningitidis</i> by Ribosom Display method (Grade: A ⁺) Supervisor: Dr. Mojgan Bandehpour; Advisor: Dr. Bahram Kazemi, Dr.Negar Seyyed, Dr. Shervin Shokohi
2006-2009	M.Sc. Degree in Biology Sciences (Biochemistry), Department of Biology, Faculty of Sciences, Alzahra University, Tehran, Iran. Thesis title: Assaying of HU protein in some of <i>Bacillus subtilis</i>

strains (Grade: A⁺)

Supervisor: Dr. Parinaz Ghadam, Dr Sara Gharavi; **Advisor:** Dr. Mohammad Reza So'oudi.

2001-2005

B. Sc. degree in Biology Sciences (Microbiology)

Cellular & Molecular Biology, Department of Biology, Faculty of Sciences, Tehran University, Tehran, Iran

Achievements and Awards

2008 & 2009

Exemplary Student of Alzahra University in 2008 & 2009

2007

Letter of appreciation as a member of **organization** of the "1th National Conference on Applied Microbiology, Alzahra University-Tehran-Iran."

2009

Cooperating in organization of the 10th & 11th research festival in Exemplary Researcher of Alzahra University in 2009

Skills

Laboratory Skills

- Bacterial plasmid & DNA extraction and purification;
- Bacterial transformation;
- Gel electrophoresis (DNA and Protein);
- Gene Cloning;
- Microbial culturing and screening;
- Microscopy (light, inverted, phase contrast);
- PCR;
- Real-Time PCR
- Recombinant protein expression;

- Protein extraction;
- Working with mouse and rabbit;
- Western blotting (basically);
- RT PCR (basically);
- Affinity chromatography (basically);
- Southern blotting
- Gel diffusion
- Ribosome display technique
- Antibody design
- Bioinformatics software
- Cell culture
- Sequencing PCR

Computers Skills

- Received certification from University of Tehran, 2016, for Antibody Design Education.
- Expert in the Immuno-informatics Tools (Antigen-Antibody Docking)
- Expert in the Endnote
- Mendeley
- Gene Runner
- Snap Gene
- SPSS
- Sigma Plot
- Microsoft Office Applications (Word, Excel, Power point),
- GraphPad prism
- FlowJo software programs.

Publications

*: Corresponding Author

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| 2022 | ➤ Sepideh Ghani, Niloofar Deravi, Marzieh Pirzadeh, Behnam Rafiee, Zahra R Gatabi, Mojgan Bandehpour, Fatemeh Yarian* , "Antibody fragment and targeted colorectal cancer therapy: A global systematic review," Current pharmaceutical biotechnology, Vol. 23, Issue 8, 2022. |
| 2021 | ➤ Sepideh Ghani, Fatemeh Yarian* , Mojgan Bandehpour, Bahram Kazemi, "An In-silico Approach and Experimental Analysis Combination: Two Strategies for |

Selecting the third Extracellular Domain (D-EC3) of Human CD133 Marker as a Target for Detection of Cancer Stem Cells,”Iranian Journal of Pharmaceutical Research, Vol. 20, Issue 4, 2021.

- Samaneh Tokhanbigli, Gilda Parsamanesh, Kaveh Baghaei, **Fatemeh Yarian**, Ali Asadirad, Seyed Mahmoud Hashemi, Bahareh Mohebbi, Hamid Asadzadeh Aghdaei, Mohammad Reza Zali ,”Antigenic Potency of LY6E in Stimulating Dendritic Cells to Elicit Tumor-Specific Responses Against Human Colorectal and Gastric Cancer Cell Lines,” International Journal of Peptide Research and Therapeutics, Vol.27, issue 2, 2021.
- Abbas Alibakhshi, Mohammad Mehdi Ranjbar, Shaghayegh Haghjooy Javanmard, **Fatemeh Yarian**, Shahrzad Ahangarzadeh, “Virtual screening for the identification of potential candidate molecules against envelope (e) and membrane (m) proteins of SARS-CoV-2, “ Journal of Computational Biophysics and Chemistry, vol. 20, Issue 3, 2021.
- Sepideh Ghani, Samira Bahrami, Behnam Rafiee, Shirin Eyvazi, **Fatemeh Yarian***, Shahrzad Ahangarzadeh, Saeed Khalili, Kiana Shahzamani, Moslem Jafarisani, Mojgan Bandehpour, Bahram Kazemi, “Recent developments in antibody derivatives against colorectal cancer; A review,” Life Sciences Journal, Vlo 265.
- Farshid Zandsalimi, Sam Talaei, Mehdi Noormohammad Ahari, Shahin Aghamiri, Pourya Raei, Soheil Roshanzamiri, **Fatemeh Yarian**, Mojgan Bandehpour, Zeinab Zohrab Zadeh, “Antimicrobial peptides: a promising strategy for lung cancer drug discovery,” Expert Opinion on Drug Discovery, Vol. 15, Issue 11, 2020.
- Zeinab Dehghan, Arezu Lari, **Fatemeh Yarian***, Shahrzad Ahangarzadeh, Zarrin Sharifnia, Kiana Shahzamani, Solmaz Shahidi, “Development of polyepitopic immunogenic contrast against hepatitis C virus 1a-6a genotype by in silico approach,” Biomedical and Biotechnology Research Journal (BBRJ), Vol. 4, Issue 4, 2020.
- Shahrzad Ahangarzadeh, Zahra Payandeh, Roghaye Arezumand, Kiana Shahzamani, **Fatemeh Yarian***,

2020

- Abbas Alibakhshi, "An update on antiviral antibody-based biopharmaceuticals," *International immunopharmacology*, Vol. 86, 2020.
- Hediye Rafighdoust, Shahrzad Ahangarzadeh, **Fatemeh Yarian***, Ramezan Ali Taheri, Arezou Lari, Mojgan Bandehpour, Mona Salahshoor Dahr , "Bioinformatics prediction and experimental validation of VH antibody fragment interacting with *Neisseria meningitidis* factor H binding protein," *Iranian Journal of Basic Medical Sciences*, Vol. 23, Issue 8, 2020.
 - Samaneh Tokhanbigli, Ali Asadirad, Kaveh Baghaei, Andrea Piccin, **Fatemeh Yarian**, Gilda Parsamanesh, Seyed Mahmoud Hashemi, Hamid Asadzadeh Aghdaei, Mohammad Reza Zali, "Dendritic Cell-Based Therapy Using LY6E Peptide with a Putative Role Against Colorectal Cancer," *Immuno Targets and Therapy*, Vol. 9, 2020.
 - Zary Nokhodian, Mohammad Mehdi Ranjbar, Parto Nasri, Nazila Kassaian, Parisa Shoaie, Bahareh Vakili, Soodabeh Rostami, Shahrzad Ahangarzadeh, Abbas Alibakhshi, **Fatemeh Yarian**, Shaghayegh Haghjooy Javanmard, Behrooz Ataei, "Current status of COVID-19 pandemic; characteristics, diagnosis, prevention, and treatment," *Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences*, Vol. 25, 2020.
- 2019**
- **Fatemeh Yarian**, Abbas Alibakhshi, Shirin Eyvazi, Roghaye Arezumand, Shahrzad Ahangarzadeh, "Antibody-drug therapeutic conjugates: Potential of antibody-siRNAs in cancer therapy," *Journal of cellular physiology*, Vol. 234, Issue 10, 2019.
- 2018**
- **Fatemeh Yarian***, Mojgan Bandpour, Bahram Kazemi, "Identification and characterization of a novel single-chain variable fragment (scFv) antibody against *Neisseria meningitidis* factor H-binding protein (fHbp)," *Journal of medical microbiology*, Vol. 67, Issue 6, 2018.
- 2017**
- Mojgan Bandehpour, Shahrzad Ahangarzadeh, **Fatemeh**

Yarian, Arezou Lari, Poopak Farnia, “ In silico evaluation of the interactions among two selected single chain variable fragments (scFvs) and ESAT-6 antigen of *Mycobacterium tuberculosis*, “ Journal of Theoretical and Computational Chemistry, 2017

- Abbas Alibakhshi, Fatemeh Abarghooi Kahaki, Shahrzad Ahangarzadeh, Hajar Yaghoobi, **Fatemeh Yarian**, Roghaye Arezumand, Javad Ranjbari, Ahad Mokhtarzadeh, Miguel de la Guardia, “ Targeted cancer therapy through antibody fragments-decorated nanomedicines, “ Journal of Controlled Release, 2017.
- Hadiyah Rafighdoust, Shahrzad Ahangarzadeh, **Fatemeh Yarian***, Ramezan Ali Taheri, Arezou Lari, Mojgan Bandehpour, Mona Salahshoor Dahr, “Bioinformatics Prediction and Experimental Validation of VH Antibody Fragment interacting with *Neisseria meningitidis* Factor H Binding Protein,” Iranian Journal of Basic Medical Science.
- S. Korani, M. Kaszadeh, **F Yarian**, M. Bandehpour , ”The Expression of Human Tumor Necrosis Factor Receptor (Htnfr) in the CHO Cell Line,” International Journal of Molecule Biology, Vol. 2, Issue 3, 2017.

2016

- Nasrin Mohajeri, Zarrin Sharifnia, Mojgan Bandehpour, **Fatemeh Yarian**, Amaneh Koochaki, Nariman Mosaffa, Kazem Parivar, Bahram Kazemi, “An Investigation of Innate Immune Response of Human Blood Macrophage to Sense and Antisense dsRNA, “ Trends in Peptide and Protein Sciences. 2016, 1 (1), 14-19
- **Fatemeh Yarian**, Mojgan Bandehpour, Negar Seyed,

Bahram Kazemi,"Cloning, expression and purification of the factor H binding protein and its interaction with factor H," Iranian Journal of Microbiology, Vol. 8, Issue 1, 2016.

2014

- Marzieh Sadeghi, Mojgan Bandehpour, **Fatemeh Yarian**, Vahidreza Yassaee, Elham Torbati, Bahram Kazemi, "Cloning and Expression of Influenza H1N1 NS1 Protein in *Escherichia Coli* BL21, " Iran Journal of Biotechnology, 2014; 12(1)

2012

- Hossein Piri, Bahram Kazemi, Mohsen Rezaei, Mojgan Bandehpour, Iraj Khodadadi, Taghi Hassanzadeh, Jamshid Karami, **Fatemeh Yarian**, Habibillah Peirovi, Amir Hossein Tavakoli, Mohammad Taghi Goodarzi, "Construction of Plasmid Insulin Gene Vector Containing Metallothionein IIA (pcDNAMTChIns) and Carbohydrate response element(ChoRE), and Its Expression in NIH3T3 Cell Line, " Int. Journal of Endocrinol Metab.10(3):543-547, 2012.
- Mojgan Bandehpour, Zarrin Sharifni, Nasrin Mohajeri, Maryam Taherkhani, Ameneh Koochaki, **Fatemeh Yarian**, Negar Seyyed, Ramin Shirvani, Parviz Pakzad, Habibollah Saadat and Bahram Kazemi, "Comparative study of the reactivity of natural and mutated streptokinase with total antistreptokinase antibodies in human sera", Blood Coagulation and Fibrinolysis journal, 2012.

2010

- Shahriari Sh, Ghadam P, Soudi MR, **Yarian F**, Shariatian N., "Investigation of Jones and Yamada methods for extraction of HN-S protein in a native strain

of Halomonas, “ Journal of Microbial Biotechnology, 2010, 1,3,:51-57.

- Mohammadi N, Pakzad P, Bandehpour M, **Yarian F**, Yazdanfar M and Kazemi B. , “Cloning of Corynebacterium diphtheriae Toxin Gen, “ Journal of Microbiology Knowledge. Vol. 2, No.6, Spring 2010.
- Bahram kazemi, Farideh Tohidi, Mojgan Bandehpour and **Fatemeh Yrian.**, “Molecular Cloning, Expression and Enzymatic Assay of Pteridin Reductase 1 from Iranian Lizard Leishmania, “ Iranian Biomedical Journal 14 (3): 97-102 (July 2010).

2009

- **Yarian, F.**, Ghadam P, Soudi M., “ Assaying of Hbs gene in the some of *Bacillus Subtilis Strains*, “ Journal of Microbial Biotechnology. Summer 2009. Vol. 1, No.1, Serial No.1.
- P. Ghadam, S. Gharavi, **F. Yarian**, M.R. Soudi, B.Kazemi and M. bandehpour., “Non-Radioactive Labeled Probe Preparation for hbs Gene Detection, “ Pakistan Journal of Biological Sciences 12 (12): 914-918, 2009. ISSN 1028-8880

Congress

Oral presentation

2008

Fatemeh Yarian, Parinaz Ghadam , Zahra Kianmehr.

Assaying of HBsu protein in *Bacillus subtilis* ATCC 6633.

15th National & 3rd International Conference of Biology, 19-21 August 2008-University of Tehran, Tehran, Iran

Poster presentation

2008

P. Ghadam¹, S.Sadrai², R. Sharifian³, B. kazemi⁴,
Z.Kianmehr¹, **F. Yarian**. The impact of *VKORC1* genetic
polymorphisms in Iranian warfarin sensitive patients with
normal *CYP2C9*. 15th National & 3rd International
Conference of Biology, 19-21 August 2008.University of
Tehran, Tehran, Iran

2009 **Yarian F**, Ghadam P¹, Soudi M. Assaying of hbs gene in the
some of *Bacillus subtilis* strains. The 10th Iranian congress of
Microbiology 21-23 April 2009, Ilam, Iran.

2009 **Fatemeh Yarian**, Parinaz Ghadam, Bahram Kazemi, Mojgan
Bandehpour, Sara Gharavi, Mohammad Reza Soudi. Non-
radioactive labeled probe preparation for detection of hu gene.
10th Iranian congress of Biochemistry & 3rd International
congress of biochemistry and molecular Biology, 16-19
November 2009, Tehran, Iran.

2010 Mahsa yazdanfar, Mojgan Bandeh Pour, Nasrin Mohammadi,
Fatemeh Yarian, Ameneh Koochaki, Bahram Kazemi. 16th
National and 4th International Conference of Biology,
Ferdowsi University of Mashhad, Mashhad, Iran 14-16
September 2010.

Mahsa yazdanfar, Mojgan Bandeh Pour, Kazem Parivar,
Nasrin Mohammadi, **Fatemeh Yarian**, Bahram Kazemi.
Cloning and expresion of VEGF. 11th Iranian Genetics
Congress, 21-23 May, 2010. Shahid Beheshti Conferences

Hall, Tehran, Iran.

2018

Mona Salahshoor, **Fatemeh Yarian**, Design and expression of a specific diabody for neisseria meningitides factor H binding protein The **14th** International Congress of Immunology, Asthma and Allergy-2018.

Hediye Rafighdoost, **Fatemeh Yarian**, Evaluation of the binding activity of a specific VH antibody fragment for neisseria meningitides factor H binding protein via ELISA, The **14th** International Congress of Immunology, Asthma and Allergy-2018

Kaveh Baghaei, Samaneh Beigli, **Fatemeh Yarian**, Invitro activation of dendritic cells by novel peptide as gastric cancer antigen-presenting cells. The **14th** International Congress of Immunology, Asthma and Allergy-2018

Research interest

- ✓ **Antibody Engineering**
- ✓ **Recombinant Proteins**
- ✓ **Cancer Stem Cells**
- ✓ **Targeted Drug Delivery**
- ✓ **Antibody production, design and use for biosensor-based applications**
- ✓ **Immune Cell Therapy**

Projects

- **Production of Diabody against *Neisseria meningitidis*' surface antigen**
(Cellular and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran)
- **Cloning, expression and binding assay of variable heavy (VH) domain antibody specific for *Neisseria meningitidis* factor H binding protein**
(Cellular and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran)
- **Antigenic assessment of recombinant human CD133 external domains in Balb/c mice expressed in prokaryotic host**
(School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences)
- **Computational study of fHbp interaction with designed scFv using immunoinformatics molecular modeling and docking**
(Cellular and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran)
- **Evaluation of the affinity binding of a specific VH antibody with a recombinant fHbp protein and *Neisseria meningitidis* bacterium using SPR biosensor**
(Cellular and Molecular Biology Research Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran)

Supervisor or co-supervisor of Ongoing Theses

- Mona salahshour, **Msc student**, Construction, cloning and expression of specific bivalent single chain variable fragments (bi-scFv) antibody against *neisseria meningitidis* factor H binding protein (fHbp)-**finished**

- Hedyeh rafighdoost, **Msc student** , Cloning and expression of variable heavy (VH) domain antibody specific for neisseria meningitidis factor H binding protein (fHbp)-**finished**
- Marjan Khajavi, **Msc student** , Design and expression of a hybrid scFv antibody specific for neisseria meningitidis factor H binding protein (fHbp)-**finished**
- Parisa lakhshai, **Msc student**, Study of apoptin'expression fused with Sumo tag in *Escherichia coli*-**finished**
- Sepideh Ghani, **PhD student**, Isolation of specific scFv antibody against the CD133 human marker using Ribosome Display method, **finished**
- Zeinab Esmailzadeh, **PhD student**, Investigating the role of Nogo-A gene in signaling pathway of regeneration in central nervous system cells using CRISPR / Cas9 technology.
- Rezvan Mohammadi, **PhD student**, Isolation of specific scFv against N-terminal domain of human CD133 Marker.

BOOKS:

-
- *What we know about influenza virus-2016-Etminan(printed in Persian)*
 - *Theoretical and practical principles of genome editing using CRISPR/CAS9 system-2017-Etminan(printed in Persian)*
 - *Introduction to Proteomics, Principles and Uses-2015-Etminan(printed in Persian)*

Taught Courses

-
- Genetic Engineering (Ph.D. Students)
 - Bioethics (Ph.D. Students)
 - Cellular and Molecular Biology (Ph.D. Students)
 - Bioinformatics (Ph.D. Students)
 - Molecular basis of disease (Ph.D. Students)

- Principles of Molecular Therapeutic (Ph.D. Students)
- GMP (Ph.D. Students)
- Protein Engineering (Ph.D. Students)
- Research Methodology (Ph.D. Students)
- Use of vaccine and antibody in biotechnology (Ph.D. Students)

Last update: May 2022