CURRICULUM VITAE

Personal Information

Name: Zahra Sharifzadeh Date of Birth: 1979 Nationality: Iranian Native Language: Persian Marital Status: Married Address: Immunology Dept., Pasteur Institute of Iran, Pasteur Ave., Tehran 1316943551, Iran. Tel: +98-21-64112114 Fax: +98-21-6465132 E.mail: z_sharifzadeh@pasteur.ac.ir zsharifzadeh@gmail.com



Education:

Ph.D., Pharmaceutical Biotechnology, Pasteur institute of Iran, Tehran, Iran, 2006-2012Pharm.D., Kerman University of Medical Science, Kerman, Iran, 1997-2002.

Professional Experience:

2013-onwards, Assistant Professor, Immunology Department, Pasteur Institute, Tehran, Iran.

Awards and Honors:

1- First rank among the participants in the national entrance exam for Pharmaceutical Biotechnology Ph.D. program, 2006.

2- First rank among the Ph.D. graduates of Pharmaceutical Biotechnology, Pasteur Institute of Iran, 2012.

3- First rank in pharmacy basic sciences comprehensive exam, Kerman university of Medical

Sciences, 2000.

- 4- Second rank in the national pharmacy basic sciences comprehensive exam, 2000.
- 5- Second rank among the Pharmacy graduates, Kerman university of Medical Sciences, 2002.

6- The winner of best paper award for the paper "Construction of a Chimeric Antigen Containing

TAG72-Specific Nanobody for Cancer Therapy", 12th Iranian Pharmaceutical Science Congress

(IPSC), Zanjan, Iran, 2010.

Research Skills:

1- Phage display techniques including library construction, panning and selection of monoclonal antibodies.

- 2- CAR-T cell development
- 3- Lentiviral vector production
- 4- Mammalian cell culture techniques (adherent and suspension)
- 5- Stable and transient transfection of mammalian cells
- 6- Basic molecular biology and recombinant DNA technology (DNA/RNA extraction, cloning,

PCR, RT-PCR, SOE-PCR).

- 7- Recombinant protein expression in bacteria and mammalian cells
- 8- Western-blot analysis and Electrophoresis including PAGE and SDS-PAGE
- 9- Humoral immune response analysis (ELISA, Cell-ELISA, ...)
- 10- Cellular immune response analysis (in vitro cytotoxicity assay, proliferation assay)

11- Different tests including MTT assay, affinity determination,...

Research Projects:

1- Principal Investigator in "Cloning and expression of single-chain variable fragment antibody (scFv) against leukemia stem cell antigen CD123 from a murine monoclonal hybridoma", Supported by Pasteur institute of Iran, No 674.

2- Co-investigator in "Development of a chimeric T-cell receptor using nanobody against prostate specific membrane antigen (PSMA) for targeting prostate cancer", Supported by Pasteur Institute of Iran, No 755.

3- Co-investigator in "Cell therapy of breast cancer using T cells containing chimeric antigen receptors against HER2, TAG72 and MUC1", Supported by Tarbiat Modarres University.

4- Principal Investigator in "Selection and characterization of an agonistic single-chain variable fragment antibody against 4-1BB T cell costimulation molecule from a human phage library ", Supported by Pasteur institute of Iran, No 818.

5- Principal Investigator in "Isolation and characterization of anti-human PD-1 single-chain variable fragment antibody from a human phage", Supported by Pasteur institute of Iran, No 782.

6- Principal Investigator in "Production of diagnosis kit based on ELISA, with murine monoclonal antibody against hematopoietic stem cell CD45 antigen", Supported by Pasteur institute of Iran, No 15-F.

7- Co-investigator in "Isolation and Characterization of Fully Human Antibodies Targeting Staphylococcus aureus by Antibody-Phage Library", Supported by Pasteur Institute of Iran, No 843.

8- Principal Investigator in "Generation of chimeric antigen receptor-engineered T cells with anti-PSMA nanobody for prostate cancer therapy", Supported by Pasteur institute of Iran, No 1674.

9- Principal Investigator in "Construction and characterization of engineered T cells harboring universal chimeric antigen receptors and targeting them against CD22-expressing hematologic malignancies", Supported by Nimad National Institute of Medical Sciences Research, No 4000399.

10- Principal Investigator in "Generation of T cells engineered with anti-PSMA chimeric antigen receptor and evaluation of their synergistic effect with oncolytic Newcastle disease virus for specific targeting of prostate cancer cells", Supported by Iran National Science Foundation (INSF), No 98002975.

11. Principal Investigator in "Design and construction of leucine zipper-based universal chimeric antigen receptor T cells and retargeting them against PSMA-expressing tumor cells", Supported by Pasteur institute of Iran, No 1795.

12. Co-investigator in "Design and Construction of Recombinant Marek Disease vaccine using HVT", Supported by Iran National Science Foundation (INSF), No 4001786.

13. Co-investigator in "Functional Evaluation of fully human scFv Antibodies against Acinetobacter baumannii", Supported by Pasteur Institute of Iran, No 1537.

14. Co-investigator in "Evaluation of therapeutic efficacy of anti-Staphylococcus aureus scFv antibodies in a mouse model of S. aureus dermonecrosis", Supported by Pasteur Institute of Iran, No 1956.

15. Co-investigator in "Preparation and evaluation of PLGA nanoparticles containing TLR7/8 agonist coated with M1 macrophages and Cyclic dinucleotide (CDN) agonist on selective uptake by tumor-associated macrophages, and their polarization into M1 macrophages in vitro", Supported by Pasteur Institute of Iran, No 2093.

Supervisor of M.Sc. Theses:

 "Generation of a recombinant anti-CD123 single-chain antibody fragment by phage display technology", Microbial Biotechnology M.Sc. Thesis, Islamic Azad University, Damghan Branch, 2014-2016.

2- "Isolation and characterization of Anti 4-1BB scFv fragment by Phage display technique", Immunology M.Sc. Thesis, Tabriz University of Medical Sciences. 2015- 2017.

3- "Isolation and characterization of Anti c-Met scFv fragment by Phage display technique",Immunology M.Sc. Thesis, Tabriz University of Medical Sciences. 2015- 2017.

4- "Isolation and characterization of anti-human PD-1 single-chain variable fragment antibody from a human phage", Biotechnology M.Sc. Thesis, Islamic Azad University, Tehran Branch, 2015-2018.

Supervisor of Ph.D. Theses:

1- "Construction and characterization of engineered T cells with chimeric antigen receptors against PSMA in prostate cancer cells", Molecular medicine Ph.D. Thesis, Tehran University of Medical Sciences. 2015-2019.

2- "Generation of T cells engineered with anti-PSMA chimeric antigen receptor and evaluation of their synergistic effect with oncolytic Newcastle disease virus for specific targeting of prostate cancer cells", Pharmaceutical biotechnology Ph.D. Thesis, Pasteur Institute of Iran, 2019-onwards.

3- "Engineering T cells with anti-TGF- β chimeric antigen receptor and evaluation of its effect on the anti-PSMA CAR-T cells' function", Medical biotechnology Ph.D. Thesis, Pasteur Institute of Iran, 2019-onwards.

4- "Generation and characterization of engineered Universal T cell expressing chimeric antigen receptors against Prostate specific membrane antigen (PSMA)" Molecular genetics Ph.D. Thesis, Islamic Azad University, Science and Research branch, 2019-onwards.

5- " Construction and characterization of engineered T cells with chimeric antigen receptors against CD22 in blood cancer cells", Medical biotechnology Ph.D. Thesis, Tabriz University of Medical Sciences, 2020-onwards.

6- "Design and Construction of SpyTag/SpyCatcher-based Universal Chimeric Antigen receptor T cells and Retargeting Against CD22-expressing Leukemia Cells", Medical biotechnology Ph.D. Thesis, Pasteur Institute of Iran, 2021-onwards.

7- "Generation and characterization of anti-PSMA CAR T cells expressing PD-1-CD28 switch receptor". Pharmaceutical biotechnology Ph.D. Thesis, Pasteur Institute of Iran, 2021-onwards.

8- "Design, construction and characterization of a cellular platform with a chimeric receptor to neutralize interleukin-1 beta", Pharmaceutical biotechnology Ph.D. Thesis, Pasteur Institute of Iran, 2022-onwards.

Advisor of Ph.D. Theses:

1-"Development and characterization of engineered T cells harboring chimeric antigen receptor against vascular endothelial growth factor receptor-2", Medical Biotechnology Ph.D. Thesis, Pasteur Institute of Iran. 2014- 2019. 2- "Design and Synthesis of C-myc Oligonucleotide Decoys to Inhibit Stemness in Embryonic Stem Cells", Medical Bacteriology Ph.D. Thesis, Pasteur Institute of Iran. 2014- 2019.

Teaching Experiences:

1- Lecturer (with the title of "Phage Display") in Immunology course for M.Sc. students of Immunology, Tehran University of Medical Sciences, from 2014.

2- Lecturer (with the title of "Monoclonal antibody") in Immunochemistry course for Ph.D. students of Medical Biotechnology, Pasteur institute of Iran, from 2014.

3- Lecturer (with the title of "Phage display") in Immunochemistry course for Ph.D. students of Medical Biotechnology, Pasteur institute of Iran, from 2014.

4- Lecturer (with the title of "Immunopharmacology") in Immunology course for Ph.D. students of Pharmaceutical Biotechnology, Pasteur institute of Iran, from 2014.

5- Lecturer (with the title of "Immunopharmacology") in Immunology course for Ph.D. students of Pharmaceutical Biotechnology, Pasteur institute of Iran, from 2014.

6- Lecturer (8 hrs, with the title of "Biochemistry of Vitamins and Mineral Elements") inBiochemistry course for M.Sc. students of Physiology, Tarbiat Modarres University, December2011.

7- Lecturer (4 hrs, with the title of "T Cell Therapy") in New Topics course for Ph.D. students of Medical Biotechnology, Tarbiat Modarres University, December 2012.

8- Lecturer in workshop on "Bioinformatics and Primer Design", 14th International Iranian Congress of Microbiology, Tehran, Iran, August 2013.

9- Lecture in workshop on "Principles & Applications of PCR in Biology and Medicine", Pasteur Institute of Iran, November 2014.

Training and workshops attended:

1- How to Write an International Article by Elsevier Publishing Campus, Tehran University of Medical Sciences, 29 October 2014.

2- Culture of murine spleen cells, bone marrow and peritoneal macrophages, Tehran University,12-13 October 2011.

3- Application of Nanotechnology in Drug Delivery, Tehran University of Medical Sciences, 21June 2007.

4- The electronic (2 weeks) coursework training Bioinformatics, Tarbiat Modarres University, November 2006.

5- The First Workshop on New Generation Vaccines against Tuberculosis: Developing Countries in Post-BCG World, Pasteur Institute of Iran, Research and Production Complex, 27- 28 December 2006.

Academic Society Memberships:

1-2009-present Iranian Biotechnology Society

2-2009-present Iranian Genetics Society

Peer-reviewed Publications:

1- Jafari1 M, Kadkhodazadeh M, Bahrololoumi Shapourabadi M, Hashemi Goradel, Shokrgozar MA, Arashkia A, Abdoli S, **Sharifzadeh Z**. Immunovirotherapy: The role of antibody based therapeutics combination with oncolytic viruses. Front. Immunol., 13 October 2022, doi.org/10.3389/fimmu.2022.1012806.

2- Basardeh E, Piri-Gavgani S, Soltanmohammadi B, Ghanei M, Omrani MD, Soezi M, Shokrgozar MA, Azizi M, Fateh A, Vaziri F, Siadat SD, **Sharifzadeh Z**, Rahimi-Jamnani F. Anti-Acinetobacter baumannii single-chain variable fragments show direct bactericidal activity. Iran J Basic Med Sci. 2022 Sep;25(9):1141-1149.

3- Ghorbani F, Fathi F, Aghebati-Maleki L, Abolhasan R, Rikhtegar R, Dolatabadi JEN, Babaloo Z, Khalilzadeh B, Ebrahimi-Warkiani M, **Sharifzadeh Z**, Rashidi MR, Yousefi M. Kinetic and thermodynamic study of c-Met interaction with single chain fragment variable (scFv) antibodies using phage based surface plasmon resonance. Eur J Pharm Sci. 2020 Jul 1;150:105362.

4- Soltanmohammadi B, Piri-Gavgani S, Basardeh E, Ghanei M, Azizi M, Khaksar Z, **Sharifzadeh Z**, Badmasti F, Soezi M, Fateh A, Azimi P, Siadat SD, Shooraj F, Bouzari S, Omrani MD, Rahimi-Jamnani F. Bactericidal fully human single-chain fragment variable antibodies protect mice against methicillin-resistant Staphylococcus aureus bacteraemia. Clin Transl Immunology. 2021 Jun 29;10(7):e1302.

5- Ghaderi SS, Riazi-Rad F, Qamsari ES, Bagheri S, Rahimi-Jamnani F, **Sharifzadeh Z**. Development of a human phage display-derived anti-PD-1 scFv antibody: an attractive tool for immune checkpoint therapy. BMC Biotechnol. 2022 Aug 23;22(1):22.

6- Bagheri S, Safaie Qamsari E, Yousefi M, Riazi-Rad F, **Sharifzadeh Z**. Targeting the 4-1BB costimulatory molecule through single chain antibodies promotes the human T-cell response. Cell Mol Biol Lett. 2020 Apr 22;25:28.

7- Hassani M, Hajari Taheri F, **Sharifzadeh Z**, Arashkia A, Hadjati J, van Weerden WM, Abdoli S, Modarressi MH, Abolhassani M. Engineered Jurkat Cells for Targeting Prostate-Specific Membrane Antigen on Prostate Cancer Cells by Nanobody-Based Chimeric Antigen Receptor. Iran Biomed J. 2020 Mar;24(2):81-8.

8- Hassani M, Hajari Taheri F, **Sharifzadeh Z**, Arashkia A, Hadjati J, van Weerden WM, Modarressi MH, Abolhassani M. Construction of Chimeric Antigen Receptor bearing Nanobody against Prostate Specific Membrane Antigen in Prostate Cancer. Journal of Cellular Biochemistry, 2019. 9- Hajari Taheri F, Hassani M, Sharifzadeh, Z, Behdani m, Arashkia A, Abolhassani M, T cell engineered with a novel nanobody-based chimeric antigen receptor against VEGFR2 as a candidate for tumor immunotherapy. IUBMB Life, 2019, doi: 10.1002/iub.2019

10- Qamsari ES, **Sharifzadeh Z**, Bagheri S, Riazi-Rad F, Younesi V, Abolhassani M, Ghaderi SS, Baradaran B, Somi MH, Yousefi M. Isolation and characterization of anti c-met single chain fragment variable (scFv) antibodies. J Immunotoxicol. 2017 Dec;14(1):23-30. doi: 10.1080/1547691X.2016.1251512. Epub 2017 Jan 16. PubMed PMID: 28090795.

11- Johari B, Ebrahimi-Rad M, Maghsood F, Lotfinia M, Saltanatpouri Z, Teimoori-Toolabi L, **Sharifzadeh Z**, Karimipoor M, Kadivar M. Myc Decoy Oligodeoxynucleotide Inhibits Growth and Modulates Differentiation of Mouse Embryonic Stem Cells as a Model of Cancer Stem Cells. Anticancer Agents Med Chem. 2017 Apr 12. PMID: 28403778.

12- Bagheri S, Yousefi M, Safaie Qamsari E, Riazi-Rad F, Abolhassani M, Younesi V, Dorostkar R, Movassaghpour AA, **Sharifzadeh Z**. Selection of single chain antibody fragments binding to the extracellular domain of 4-1BB receptor by phage display technology. Tumour Biol. 2017 Mar;39(3):1010428317695924. PubMed PMID: 28347235.

13- Jamnani FR, Rahbarizadeh F, Shokrgozar MA, Ahmadvand D, Mahboudid F, Sharifzadeh
Z, T cells expressing VHH-directed oligoclonal chimeric HER2 antigen receptors: Towards tumor directed oligoclonal T cell therapy, Biochimica et Biophysica Acta, 2014, 1840(1): 378–386.

14- Sharifzadeh Z, Rahbarizadeh F, Shokrgozar MA, Ahmadvand D, Mahboudid F, Jamnani FR,
Moghimi SM, Genetically engineered T cells bearing chimeric nanoconstructed receptors
harboring TAG-72-specific camelid single domain antibodies as targeting agents, Cancer Letters,
2013, 334(2): 237-244.

15- Sharifzadeh Z, Rahbarizadeh F, Shokrgozar MA, Ahmadvand D, Mahboudid F, Jamnani FR, Development of Oligoclonal Nanobodies for Targeting the Tumor-associated Glycoprotein 72

Antigen, Molecular biotechnology, 2013, 54(2): 590-601.

16- Jamnani FR, Rahbarizadeh F, Shokrgozar MA, Ahmadvand D, Mahboudid F, Sharifzadeh Z, Targeting high affinity and epitope-distinct oligoclonal nanobodies to HER2 over-expressing tumor cells, Experimental Cell Research, 2012, 318(10): 1112-24.

17- Rahbarizadeh F, Ahmadvand D, Sharifzadeh Z. Nanobody, an Old Concept and New Vahicle for Immunotargeting, Immunological Investigations, 2011; 40(3):299-338.

18- Safarian F, Rahbarizadeh F, Amanpour S, Sharifzadeh Z. Construction of PEG-PAMAM dendrimer-based TAG72-targeting nanocarrier for t-Bid gene delivery to colorectal tumor cells. Modares Journal of Medical Sciences: Pathobiology, 2011; 14: 63-74.

19- Foroumadi A, Sakhteman A, Sharifzadeh Z, Mohammadhosseini N, Hemmateenejad B, Moshafi MH, Vosooghi M, Amini M, Shafiee A. Synthesis, antituberculosis activity and QSAR study of some novel 2-(nitroaryl)-5-(nitrobenzylsulfinyl and sulfonyl)-1,3,4-thiadiazole derivatives, DARU, 2007; 15(4): 218-226.

20- Foroumadi A, Kargar Z, Sakhteman A, Sharifzadeh Z, Feyzmohammadi R, Kazemi M, Shafiee A. Synthesis and antimycobacterial activity of some alkyl [5-(nitroaryl) -1,3,4-thiadiazol-2-ylthio]propionates, Bioorganic & Medicinal Chemistry Letters, 2006; 16: 1164–1167.

Congress Abstracts:

1- Bagheri S, **Sharifzadeh Z**, Yousefi M, Younesi V, Abolhassani M, Riazi-Rad F, Development of fully human single chain variable fragment antibodies against 4-1BB. 14th Iranian Pharmaceutical Sciences Congress (IPSC 2015), Tehran, Iran, 21-24 December 2015.

2- Qamsari ES, **Sharifzadeh Z**, Yousefi M, Younesi V, Abolhassani M, Riazi-Rad F, Selection of anti-c-Met single chain variable fragment antibodies from a human gene library.

14th Iranian Pharmaceutical Sciences Congress (IPSC 2015), Tehran, Iran, 21-24 December 2015.

3- Safaie S, **Sharifzadeh Z**, Bagheri S, Riazi-Rad F, Nemati F, Selection of anti-human PD-1 single-chain variable fragment antibody from a human phage library, 17th International Congress of Microbiology, Tehran, Iran, 23-25 August 2016

4- **Sharifzadeh Z**, Abolhassani M, Yasemi M, Construction of a scFv phage display library against CD123, a stem cell antigen on acute myeloid leukemia cells, The 12th International Congress of Immunology & Allergy of Iran, 29 April-2 May, 2014, Tehran, Iran.

5-Yasemi M, **Sharifzadeh Z**, Abolhassani M, Future drug therapies based on the engineered recombinant antibodies, The 1st International & 13th Iranian Genetics Congress, 24-26 May 2014, Tehran, Iran.

6- **Sharifzadeh Z**, Rahbarizadeh F, Shokrgozar MA, Mahboudi F. Cell immunotherapy in colon cancer using oligocolonal T cells with chimeric receptors harboring TAG-72-specific nanobodies as targeting agents. 7th national biotechnology congress of IR Iran, 12-14 Sept 2011, Tehran, Iran.

7- Safarian F, Rahbarizadeh F, **Sharifzadeh Z**, Ahmadvand D, Moghimi SM. Gene delivery targeted to the TAG72 overexpressing tumour cells using an nanobody conjugated polyethyleneglycol-modified polyamidoamine dendrimer. The 8th EBSA European Biophysics Congress, 23-27 August 2011, Budapest, Hungary.

8- **Sharifzadeh Z**, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D, Rahimi F. Generation of specific nanobodies against TAG-72, a tumor marker in breast cancer. The 5th international breast cancer congress, 24-26 February 2010, Tehran, Iran.

9- **Sharifzadeh Z**, Rahimi F. Applications of microarray technology in breast cancer clinical studies. The 5th international breast cancer congress, 24-26 February 2010, Tehran, Iran.

10- Rahimi F, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D, **Sharifzadeh Z**. Identification and Characterization of anti-HER2 nanobodies from immune one-humped camel nanobody gene library by phage display. The 5th international breast cancer congress, 24-26 February 2010, Tehran, Iran.

11- **Sharifzadeh** Z, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D, Rahimi F. Identification and Characterization of Novel Nanobodies Reactive With Tumor-Associated Glycoprotein-72-Expressing Tumor Cells. The 10th International Congress of Immunology and Allergy of Iran, 18-20 May 2010, Tehran, Iran.

12- Rahimi F, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D, **Sharifzadeh Z**. Isolation and characterization of targeting nanobodies against ERBB2. The 10th International Congress of Immunology and Allergy of Iran, 18-20 May 2010, Tehran, Iran.

13- **Sharifzadeh Z**, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D, Rahimi F. Genomic Microarrays and Their Aplications in Genetic Disease and Cancer. The 11th Iranian Genetics Congress, 22-24 May 2010, Tehran, Iran.

14- Rahimi F, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D, **Sharifzadeh Z**. Drugs from the deep, marine natural products as anti metastatic agents in breast cancer. The 3rd Tehran Breast Cancer Congress, 30 June- 2 July 2010, Tehran, Iran.

15- **Sharifzadeh Z**, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D. Construction Of a Chimeric Antigen Containing TAG72-Specific Nanobody for Cancer Therapy. 12th Iranian Pharmaceutical Science Congress (IPSC), 2-5 August 2010, Zanjan, Iran.

16- **Sharifzadeh Z**, Rahbarizadeh F, Shokrgozar MA, Mahboudi F. Single Domain Camel Antibodies as Future Drugs. The 12th Iranian Pharmaceutical Science Congress (IPSC), 2-5 August 2010, Zanjan, Iran.

17- **Sharifzadeh Z**, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D. Selection of Camel Nanobodies New TAG-72 Cancer Maker Epitooes, The 3th International Congress On Nanoscience and Nanotechnology (ICNN2010), 9-11 November 2010, Shiraz, Iran.

18- Rasouli NA, Rahbarizadeh F, **Sharifzadeh Z**. Targeting PEI-PEG Nanoparticle Towards TAG-72 Expressing Tumor Cells by Nanobodies, The 3th International Congress On Nanoscience and Nanotechnology (ICNN2010), 9-11 November 2010, Shiraz, Iran.

19- Safarian F, Rahbarizadeh F, **Sharifzadeh Z**. Synthesis of TAG-72 Targeting PAMAM-PEG Nanoparticle in order to Deliver t-BID, a Killer Gene, to Canceous Cells, The 3th International Congress On Nanoscience and Nanotechnology (ICNN2010), 9-11 November 2010, Shiraz, Iran.

20- **Sharifzadeh** Z, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D. Isolation of anti-TAG72 single-domain antibodies from a nanobody gene library by phage display technology. The 6th National Biotechnology of I. R. Iran, 13-15 August 2009, Tehran, Iran.

21- **Sharifzadeh Z**, Rahbarizadeh F, Shokrgozar MA, Mahboudi F, Ahmadvand D. Selection of Anti-TAG72 Single-domain Antibodies from a Camelus Dromedarius Nanobody Gene Library, The 10th Iranian Congress of Biochemistry and 3rd International Congress of Biochemistry and Molecular Biology, 16-19 November 2009, Tehran, Iran.

22- **Sharifzadeh Z**, Foroumadi A. Synthesis of a new derivative of M-16049 as an antidiabetic agent. The 8th Pharmacy Students Seminar, 13-15 March 2002, Kerman, Iran.

Patents:

1- Production process and selection of human scFv antibodies against c-Met receptor using a peptide designed from the outer membrane of this receptorand their inhibitory effect on colorectal cancer cells, patent No: 93290, 1396/06/04.

2- Production process and selection of human scFv antibodies against 4-1BB molecule using peptides designed from the extracellular domain, patent No: 93317, 1396/06/06.

References:

Dr. Mohammad Ali Shokrgozar National Cell Bank of Iran, Pasteur Institute of Iran, Tehran, I.R. Iran. Tel: +98 21 66492595 Fax: +98 21 66492595

Dr. Fatemeh Rahbarizadeh Dept. of Medical Biochemistry, School of Medical Sciences, Tarbiat Modarres University, Tehran, I.R. Iran. Tel: +98 21 82883884 Fax: +98 21 88013030