



Curriculum Vitae

Name: Hamid

Surname: Madanchi

Birth date: 4, December, 1982

Place of birth: Mashhad

Nationality: Iranian

Ph.D. of pharmaceutical biotechnology in Pasteur institute of Iran

Assistant Professor of Pharmaceutical Biotechnology

Contact info:

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Field of research

- Pharmaceutical biotechnology
- Molecular and medical biotechnology
- Protein engineering
- Computational Biology, Bioinformatics and Chemoinformatics
- Immunoinformatics and vaccine design
- Drug discovery, *in silico* designing
- Targeted Drug Delivery
- Immunology and Immunogenetic
- Anticancer and antimicrobial peptides
- Antibiotic discovery

- Electrophoresis** (Agarose gel electrophoresis, SDS-PAGE, 2D electrophoresis, capillary electrophoresis...)
- DNA sequencing**
- Southern blotting**
- Fusion protein technique**
- Protein expression:** Bacterial, yeast, fungi, plant and animals cell hosts

2- Protein purification

- Centrifuge techniques**
 - o Sucrose-Density-Gradient-Centrifugation
 - o CsCl₂ gradient centrifugation
- Mineral and organic precipitation techniques**
- Chromatography** (gel filtration chromatography, column affinity and Ion exchange chromatography, zonal or gradient chromatography)
- Ultrafiltration techniques and dialysis**
- Ultrasonic degradation**

3- Analysis and validation techniques:

- HPLC, GC, FPLC
- UV – Vis spectrophotometry
- Nano drop & Pico drop
- Circular Dichroism (CD)

4- Mammalian cell techniques

- Animal cell culture
- Gene transfer and transfection,
- Cloning and protein production in mammalian hosts
- Apoptosis studies
- Biocompatibility test: MTT assay
- Cytotoxicity test
- Hemolytic test

5- Extraction and purification of plants

DNA and protein extraction of plants

6- Immunologic tests

- Immunization and serum study
- ELISA and RIA
- Western blotting
- Flow cytometry
- SRID
- Human and medical Serological test by kits
- Antibodies production
- Vaccine Challenge
- Adjuvant usage and Study
- Ig purification by column
- Pathologic serology

7 – Monoclonal Antibody production

- Hybridoma technique
- Phage display & gene library methods
- Peptide library methods

8- Bioinformatics, Computational Biology and Chemoinformatics

9- immunoinformatics

10 – Drug Designing and Discovery

- Molecular docking method
- Anticancer and Antimicrobial Peptides
 - o Discovery, identity, purification
 - o Challenge for expression in bacterial cell
 - o Artificial synthesis
 - o Challenge for study of antiseptics and anticancer feature
- Molecular Dynamics
- Machine learning algorithm

11- Genetic techniques: SNP, RFLP, STR, Karyotyping, probe assay, FISH, genetic engineering methods, site directed mutation

12- Cytology techniques

- Microscopy technique (classic and electronic microscopy (TEM), AFM)
- Cell culture
- animal & plant tissue and fungial cell fixing and sectioning
- Virus culture in egg and animal cells, pock assay, plaque assay
- immunohistochemistry

13- Microbiology techniques

- Culture and media preparation
- Bacterial staining (gram- acid fast)
- Anti-bio gram test & well assay, disk – gel diffusion assay.
- Genome and plasmid extraction
- Gene transfer to microbial hosts
- Antibiotics screening and study of antibiotic resistance
- Isolation and identification
- MIC, MBC and MFC Measurement
- Live-dead staining
- Bacterial Viability by CFU test

14- Hematological teste

- Hematocrit test
- ESR
- ZSR
- Diff and CBC (cytometry & Cell counter)
- Coagulation test (BT, PT, PTT)

15 – Virology methods

- plaque assay

- Pock assay
- Animal cell transfection
- Plant cell transfection
- B lymphocyte Cell immortalization by EBV
- Antigen designing
- Bacterial transfection by bacteriophage

16-Animal studies (mouse, rabbit, Rat, chick, hamster, Guinea Pig)

- Nude mice drug delivery
- Nude mice tumor graft
- in vivo* study

Language skills: Persian (native language), English (speaking/writing and listening: good)
MSRT 52

Books

- 1- **IQB biotechnology test**, Dr Khalil publication,2017
- 2- scientific editor and translator: Hamid Madanchi **Basic immunology**, A.K. Abbas and et all. eshraghieh & baba zadeh publisher,2017
- 3- scientific editor: Hamid Madanchi, **Molecular Biotechnology**, Bernard R Glick & Jack J. Pasternak., eshraghieh & baba zadeh publisher, ISBN:978-964-6772-35-5, 2016
- 4- Translate and scientific editor: Hamid Madanchi & et al, **Immunology for Pharmacy**, Dennis Flaherty,ELSEVIR puplisher, eshraghieh & baba zadeh publisher, ISBN: 978-964-6772-35-9, 2016
- 5- Hamid Madanchi, **Immunogenetic**, eshraghieh & baba zadeh publisher, ISBN: 978-964- 6772- 41 - 0, 2015
- 6- Hamid Madanchi, **Abstract of molecular biology**, baraye farad Publisher, ISBN: 964-8169-47-0, 2007
- 7- Hamid Madanchi, biophysics test for examination,SIB books, mir publisher, 2015

Publications

- 1) Khadijeh Ahmadi, Alireza Farasat, Mosayeb Rostamian, Behrooz Johari & Hamid Madanchi (2021) Enfuvirtide, an HIV-1 fusion inhibitor peptide, can act as a potent SARS-CoV-2 fusion inhibitor: an in silico drug repurposing study, *Journal of Biomolecular Structure and Dynamics*, DOI: 10.1080/07391102.2021.1871958
- 2) Eivazzadeh-Keihan, R., Radinekiyan, F., Aliabadi, H.A.M, Madanchi, H. Chitosan hydrogel/silk fibroin/Mg(OH)₂ nanobiocomposite as a novel scaffold with antimicrobial activity and improved mechanical properties. *Sci Rep* 11, 650 (2021). <https://doi.org/10.1038/s41598-020-80133-3>
- 3) B. Johari, F. Maghsood, H. Madanchi, M. Moradi, M. Kadivar. Investigating the anti-inflammatory effects of high molecular weight secretions from *Limosilactobacillus reuteri* PTCC 1655 on LPS-stimulated PMA-differentiated THP-1 cells. *Journal of Applied Microbiology*, 2020. <https://doi.org/10.1111/jam.14984>
- 4) Zargaran, F.N., Akya, A., Rezaeian, S., Ghadiri, K., Lorestani, R.C., Madanchi, H., Safaei, S. and Rostamian, M., 2020. B Cell Epitopes of Four Fimbriae Antigens of *Klebsiella pneumoniae*: A Comprehensive In Silico Study for Vaccine Development. *International journal of peptide research and therapeutics*, pp.1-12.
- 5) Sadeghi M, Moradi M, Madanchi H, Johari B. In silico study of garlic (*Allium sativum* L.)-derived compounds molecular interactions with α -glucosidase. *In Silico Pharmacology*. 2021 Dec;9(1):1-8.
- 6) Mirzababaei M, Larijani K, Hashemi-Moghaddam H, Mirjafary Z, Madanchi H. In Vitro Targeting of NL2 Peptide Bounded on Poly L-DOPA Coated Graphene Quantum Dot. *Journal of Fluorescence*.2021:1-0.
- 7) Madanchi H, Kiasari RE, Mousavi SJ, Johari B, Shabani AA, Sardari S. Design and Synthesis of Lipopolysaccharide-Binding Antimicrobial Peptides Based on Truncated Rabbit and Human CAP18 Peptides and Evaluation of Their Action Mechanism. *Probiotics and Antimicrobial Proteins*. 2020 May 22.
- 8) Eivazzadeh-Keihan R, Radinekiyan F, Madanchi H, Aliabadi HA, Maleki A. Graphene oxide/alginate/silk fibroin composite as a novel bionanostructure with improved blood compatibility, less toxicity and enhanced mechanical properties. *Carbohydrate Polymers*. 2020 Jul 24:116802.
- 9) Eivazzadeh-Keihan R, Khalili F, Aliabadi HA, Maleki A, Madanchi H, Ziabari EZ, Bani MS. Alginate hydrogel-polyvinyl alcohol/silk fibroin/magnesium hydroxide nanorods: A novel scaffold with biological and antibacterial activity and improved mechanical properties. *International Journal of Biological Macromolecules*. 2020 Aug 16.

- 10) Madanchi H, Sardari S, Shajiee H, Taherian S, Ashkar M, Johari B, Shabani AA, Sharafi S. Design of new truncated derivatives based on direct and reverse mirror repeats of first six residues of Caerin 4 antimicrobial peptide and evaluation of their activity and cytotoxicity. *Chemical Biology & Drug Design*. 2020 Apr 7.
- 11) Maghsood F, Johari B, Rohani M, Madanchi H, Saltanatpour Z, Kadivar M. Anti-proliferative and Anti-metastatic Potential of High Molecular Weight Secretory Molecules from Probiotic *Lactobacillus Reuteri* Cell-Free Supernatant Against Human Colon Cancer Stem-Like Cells (HT29-ShE). *International Journal of Peptide Research and Therapeutics*. 2020 Feb 22:1-3.
- 12) Madanchi H, Shoushtari M, Kashani HH, Sardari S. Antimicrobial peptides of the vaginal innate immunity and their role in the fight against sexually transmitted diseases. *New Microbes and New Infections*. 2020 Mar 1;34:100627.
- 13) Hamid Madanchi, Vahid Khalaj, Soojin Jang, Ali Akbar Shabani, RaminEbrahimiKiasari, Seyed Javad SeyedMousavi, Shima Kazemi Sealani, SoroushSardari. AurH1, a new heptapeptide derived from Aurein1.2 antimicrobial peptide with specific and exclusive fungicidal activity. *Journal of Peptide Science*, 2019 May 7
- 14) Madanchi, H., & Sardari, S. (2019). The role of antimicrobial peptides in the prevention of sexually transmitted infection (STI). *MOJ Womens Health*, 8(2), 192-194.
- 15) Madanchi, H., Akbari, S., Shabani, A. A., Sardari, S., FarmahiniFarahani, Y., Ghavami, G., &EbrahimiKiasari, R. (2019). Alignment-based design and synthesis of new antimicrobial Aurein-derived peptides with improved activity against Gram-negative bacteria and evaluation of their toxicity on human cells. *Drug development research*, 80(1), 162-170.
- 16) Nazemian, M., Hojati, V., Zavareh, S., Madanchi, H., & Hashemi-Moghaddam, H. (2019). Immobilized Peptide on the Surface of Poly l-DOPA/Silica for Targeted Delivery of 5-Fluorouracil to Breast Tumor. *International Journal of Peptide Research and Therapeutics*, 1-11.
- 17) Johari B, Asadi Z, Rismani E, Maghsood F, Rezaei ZS, Farahani S, Madanchi H, Kadivar M. Inhibition of transcription factor T-cell-factor 3 (TCF3) using oligodeoxynucleotide strategy increases embryonic stem cell stemness: The possible application in regenerative medicine. *Cell biology international*. 2019 Apr 2
- 18) Hashemi-Moghaddam H, Zavareh S, Karimpour S, Madanchi H. Evaluation of molecularly imprinted polymer based on HER2 epitope for targeted drug delivery in ovarian cancer mouse model. *Reactive and Functional Polymers*. 2017 Dec 1;121:82-90.

- 19) Farshadi M, Johari B, Ezadyar EE, Gholipourmalekabadi M, Azami M, Madanchi H, Haramshahi SM, Yari A, karimizade A, Nekouian R, Samadikuchaksaraei A. Nanocomposite scaffold seeded with mesenchymal stem cells for bone repair. *Cell biology international*. 2019 Feb 27.
- 20) Mozafari E, Sardari S, Madanchi H. Introducing, Report and Immunoinformatics Study of Allergic Protein Sequences in Wheat (*TriticumAestivum*) and Identification of Effective Allergen Epitopes by Epitope Mapping Method. *Iranian Journal of Allergy, Asthma & Immunology*. 2018 Jan 2;17.
- 21) Madanchi H, Honari H, Sadraeian M, Hesaraki M. Fusion of CtxB with StxB, Cloning and Expression of in *Esherichia coli*: A challenge for Improvement of Immune Response AgainstStxB. *Iranian Journal of Pharmaceutical Sciences*. 2011 Jul 1;7(3):185-90.
- 22) Sadraeian M, Honari H, Madanchi H, Hesaraki M. Extraction, Cloning and Expression of RTB, as a vaccine adjuvant/carrier, in *E. coli* and production of mouse polyclonal antibody (Anti-B chain Abs). *Iranian Journal of Pharmaceutical Sciences*. 2011 Oct 1;7(4):247-54.
- 23) Madanchi, Hamid, HosseinHonari, Mahdi Hesaraki, and Ali Sayadnanesh. "Cloning and expression of stxB Gene from *Shigelladysenteriae*Gype I in *E. coli* Rosseta DE3." (2012).
- 24) Madanchi H, Honari H, Safaei S, Sayadmanesh A. Fusion of Cholera toxin B subunit (ctxB) with *Shigelladysenteriae* type I toxin B subunit (stxB), Cloning and Expression that in *E. coli*. *Journal of Fasa University of Medical Sciences*. 2012;2(3):135-41.
- 25) Abbas Keyvani, Seyed Mohammad Atyabi, SoroushSardari, DariushNorouzian and Hamid Madanchi. Effects of cold atmospheric plasma jet on collagen structure in different treatment times. *Basic Research Journal of Medicine and Clinical Sciences*, 2017, p84-90
- 26) Mousavi SJ, Sardari S, Kiasari RE, Niabati S, Madanchi H. Design and synthesis of short antimicrobial peptide derivatives based on human cathelicidin.

Available at the following sites:

https://isid.research.ac.ir/Hamid_Madanchi

Website: http://rds1.semums.ac.ir/cv.php?cv=500&sid=1&slc_lang=fa

https://www.researchgate.net/profile/Hamid_Madanchi

Abstracts and presentations

- **Hamid Madanchi**, Hossein honari, Sadegh safaei, Cloning and expression of cholera toxin B subunit in *E. coli* and its purification, 2011, 11th Iran congress of biochemistry, ghazvin, Iran

- Sadegh safaei, Hossein honari, Sead Jafar musavi, Mahdi ghofrani, Hamid Madanchi . cloning of recin toxin B subunit(RTB) and shigella Dysenteriae N terminal IpaD gene in E.coli . 2011, 11th Iran congress of biochemistry, ghazvin, Iran

- Mahdi ghofrani, Hossein honari, Mojtaba saadati, Sadegh safaei, Aghil esmaeeli, Hamid Madanchi, cloning of CTB and N terminal IpaD from shigella dysenteriae gene in E. coli: a vaccine Challenge, 2011, 11th Iran congress of biochemistry, ghazvin, Iran

- Mojtaba saadati, Mahdi hesaraki, Hossein honari, Gholam reza olad, Mohammad heayat, Raziye khalesi, Mahdi tat, Hamid Madanchi. Proteomics analysis of N terminal IpaD gene optimize expression in pET 28 (a) vector,, 2011, 11th Iran congress of biochemistry, ghazvin, Iran

- Hamid Madanchi, Hossein honari . Adjuvant and gene delivery, 14 th national congress of application modern war defense, 2010, Imam hossein university, Tehran, Iran

- Homa dadgarnia, Hamid Madanchi . Study of metabolism energy in Stem cells, 2014, national congress biological science, Islamic Azad university, Damghan, Iran

- Hassan noori, Hamid Madanchi, Milad mahdi, Elmira noori, Utilize of AB class bacterial toxin for drug delivery to tumor cells, 2014, 12 st Iranian seminar of knowledge and health, Shahrood University of Medical Sciences, shahrood, Iran

- Ghanbar mahmoodi, Hamid Madanchi . miRNA application in cancer, 2014, national congress biological science, Islamic Azad university, Damghan, Iran

- Ramtin khani, Hamid Madanchi, Neutrophil Extracellular Traps, 2016, national congress biological science, Islamic Azad university, Damghan, Iran

- Ashkan dehghan, Hamid Madanchi, Peptide nucleic acid(PNA) and its application, 2016, national congress biological science, Islamic Azad university, Damghan, Iran

- Parisa maleki, Hamid Madanchi, Use of cholera toxin B subunit as an adjuvant to increase the immunogenic potential of oral vaccine, 2016, national congress biological science, Islamic Azad university, Damghan, Iran

- Shayan latifi, **Hamid Madanchi**, Study of Streptococcus pneumoniae vaccine based on virus-like particles (VLP), 2016. national congress biological science, Islamic Azad university, Damghan, Iran
- Shima kazemi, **Hamid Madanchi**, Gene Regulation By riboswitches, 2016. national congress biological science, Islamic Azad university, Damghan, Iran
- Shabnam akbari, **Hamid Madanchi**, Antimicrobial peptides and its usage in 2014, national congress biological science, Islamic Azad university, Damghan, Iran
- Fateme sadat hakim, Sadaf kamaledin, **Hamid Madanchi**. Anti sense therapy in Cancer, 2016. national congress biological science, Islamic Azad university, Damghan, Iran

Workshops

- **Microscopy And Its Usage In Disease, Teach by** Dr. Daniela Quaglino, PhD, universita di Modena e Reggio Emilia. 2009, **performed by** Research Institute of Gastroenterology and Liver Diseases, Shahid Beheshti university of medical Sciences, international Cell Death Society & Cell death Society of Iran (CDSI)
- **Transgenic Mice and Its Relation To Disease. teach by** Dr. Francesco Cecconi, university of Rome .2009, **performed by** Research Institute of Gastroenterology and Liver Diseases, Shahid Beheshti university of medical Sciences, international Cell Death Society & Cell death Society of Iran (CDSI)
- **Methods In Detection Of Cell Death, teach by** Dr. Simone Fulda, PhD, University Children' s Hospital, Ulm, Germany. 2009, **performed by** Research Institute of Gastroenterology and Liver Diseases, Shahid Beheshti university of medical Sciences, international Cell Death Society & Cell death Society of Iran (CDSI)
- **Immunopathogenesis Of Inflammatory Bowel Disease. Teach by** Dr. David. B. Sachar, PhD, Mount Sinai school of medicine . 2009, **performed by** Research Institute of Gastroenterology and Liver Diseases, Shahid Beheshti university of medical Sciences, international Cell Death Society & Cell death Society of Iran (CDSI)
- **Basic Of Flow Cytometry And Its Application . teach by** Dr. Andrea Cossarizza, PhD, universita di Modena e Reggio Emilia. 2009, **performed by** Research Institute of Gastroenterology and Liver Diseases, Shahid Beheshti university of medical Sciences, international Cell Death Society & Cell death Society of Iran (CDSI)

□ **Scientific writing and thinking** . teach by Dr.Richard Lockshi, PhD, prof.of Biological Sciences St.John' University, 2009, **performed by** Research Institute of Gastroenterology and Liver Diseases,Shahid Beheshti university of medical Sciences, international Cell Death Society & Cell death Society of Iran(CDSI)

□ **Monoclonal Antibody methods** . teach by Dr.mohsen bolhassani, prof. of pasture institute of Iran, **performed by** pasture institute of Iran immunology group, 2014

Teaching experience

For Ph.D. students

- **Bioinformatics**, Semnan university of medical sciences
- **Protein engineering**, Pasture Institute of Iran and Semnan university of medical sciences
- **Protein chemistry**, Pasture Institute of Iran
- **Biosafety**, Semnan university of medical sciences

For pharmacy students (Pharm.D)

- **Molecular biology & Genetic**. For pharmacy students, **Pharmaceutical college of** of Islamic Azad university of damghan, **2 term, 2014 – yet**
- **Immunology** For pharmacy students, **Pharmaceutical college of** of Islamic Azad university of damghan, **2 term, 2014 – yet**
- **Immunologylab** For pharmacy students, **Pharmaceutical college of** of Islamic Azad university of damghan, 2 term, 2014 – yet
- **Pharmaceutical biotechnology**, For pharmacy students, **Pharmaceutical college of** of Islamic Azad university of damghan, 2 term, 2014 – yet
- **Pharmaceutical products**, For pharmacy students, **Pharmaceutical college of** of Islamic Azad university of damghan, 2 term, 2014 – yet
- **Cell Culture**, For pharmacy students, **Pharmaceutical college of** of Islamic Azad university of damghan, 2 term, 2014 – yet

For Ms.C Students

- **Metabolism control** for **Ms.c student** of biochemistry. biology group of Islamic Azad university of damghan, 2014 – yet

- **Advanced molecular biology** for **Ms.c student** of biochemistry. biology group of Islamic Azad university of damghan, 2014 – yet
- **Immunogenetic** for **Ms.c student** of genetics. biology group of Islamic Azad university of damghan, 2014 – yet
- **Computer in protein modeling and simulation** for **Ms.c student** of biochemistry. biology group of Islamic Azad university of damghan, 2014 – yet
- **Pharmaceutical biotechnology** for **Ms.c Student** of biotechnology .biology group of Islamic Azad university of damghan, 2014 – yet
- **Enzymology** for **Ms.c student** of biotechnology. biology group of Islamic Azad university of damghan, 2014 – yet
- **Advanced Topic in biotechnology** for **Ms.c Student** of biotechnology .biology group of Islamic Azad university of damghan, 2014 – yet
- **Modeling of Proteins by bioinformatics**, for **Ms.c student** of biochemistry. biology group of Islamic Azad university of damghan, 2014 – yet

For B.Sc Student

- **Microbiology and lab** for **B.Sc student**. **semnan university of medical science**, behdasht university of damghan, 2 term, 2012-2013
- **Biophysics** for **B.Sc student**. **semnan university of medical science**, behdasht university of damghan, 3 term, 2012-2015
- **Cellular and molecular biology**, for **B.Sc student**. **semnan university**, Biology group, 2 term, 2015-yet
- **molecular biology**, for **B.Sc student**. **semnan university**, Biology group, 2 term, 2015-yet
- **Laboratory of cellular and molecular biology**, for **B.Sc student**. **semnan university**, Biology group, 2 term, 2015-yet
- **Cellular and molecular biology**, for **B.Sc student**. **Semnan Farzanegan university**, Biology group, 2 term, 2016-yet
- **Laboratory of cellular and molecular biology**, for **B.Sc student**. **Semnan Farzanegan university**, Biology group, 2 term, 2016-yet
- **Immunology**, for **B.Sc student**. **Semnan Farzanegan university**, Biology group, 1 term, 2016-yet

Immunology, for **B.Sc student. Damghan university**, Biology group, 1 term, 2017

Molecular biology for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 - yet

Advanced Cellular biology, for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 - yet

Immunology and lab for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 - yet

Hematology and lab for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 - yet

Immunogenetic for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 - yet

Animal biotechnology for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 - yet

Molecular biotechnology for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 – yet

Radiobiology for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 – yet

Biophysics for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 – yet

Biochemistry and biophysics methods for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 – yet

Cellular and molecular biology methods and tools for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 – yet

Bioinformatics for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 – yet

Laboratory of cellular and molecular biology, for **B.Sc student**. biology group of Islamic Azad university of damghan, 2011 – yet

Research and projects (PI)

- Screening and selection of SARS-CoV2 S2 protein inhibitor drug by Drug repurposing based on in silico methods to inhibit virus entry into human cells, 2020, Semnan University of Medical Sciences and Pasture Institute of Iran.
- Design and synthesis of hybrid multi-epitopes construct based on 2019-nCoV S2 and M proteins and determination of its physicochemical properties, toxicity and immunogenicity in mice, 2020, Semnan University of Medical Sciences and Pasture Institute of Iran.
- Design and synthesis of new gliadin cleavage enzyme loaded nanoparticles and determination of their efficacy on gliadin digestion and effective immune responses in celiac autoimmune disease by in vitro and ex vivo methods, 2019, Semnan University of Medical Sciences and Pasture Institute of Iran.
- Comparison of genes expression of cathelicidin and defensin antimicrobial peptides in mother and umbilical cord bloods, design and synthesis of new peptides derived from these peptides and evaluation of antimicrobial activities and toxicity effects on cancer and human normal cells, 2019, Semnan University of Medical Sciences and Pasture Institute of Iran.
- Cloning and expression of multi-epitopes construct derived from SARS-CoV2 M and S proteins with bacterial adjuvant domain in *Pichia pastoris* and evaluation of its immunogenicity in mice, 2020, Semnan University of Medical Sciences and Pasture Institute of Iran.
- Targeted delivery and investigation of miR-559 effects on the breast cancer cell line (SKBR3), 2019, Semnan University of Medical Sciences and Pasture Institute of Iran.
- Cloning and expression of cholera toxin B subunit and its purification, nanobiotechnology group of imam hossein university, 2010, Tehran, Iran
- Cloning and expression of shigella toxin B subunit and its purification, nanobiotechnology group of imam hossein university, 2010, Tehran, Iran
- Fusion of cholera toxin B subunit gene with shigella toxin B subunits gene and expression in *E. coli* rosseta and purification . nanobiotechnology group of imam hossein university, 2010, Tehran, Iran
- Study and analysis of CtxB (Cholera toxin B subunit) adjuvant feature, nanobiotechnology group of imam hossein university, 2011, Tehran, Iran
- Production and purification of CtxB-StxB fusion protein and injection to mice and Guinea Pig for study of CtxB adjuvanticity and analysis of antibodies titer by ELISA, nanobiotechnology group of imam hossein university, 2011, Tehran, Iran
- Extraction and isolation of ricin toxin for study its toxicity . nanobiotechnology group of imam hossein university, 2011, Tehran, Iran

- Cloning and Expression of recombinant *Bacillus anthracis* protective antigen Domain 4 fusion with cholera toxin B-subunit in *E.coli*, nanobiotechnology group of imam hossein university, 2012, Tehran, Iran
- Extraction, Cloning and Expression of RTB(Recin toxin B subunit), as a Vaccine Adjuvant/Carrier, in *E.coli* and Production of Mouse Polyclonal Antibody (Anti-B chain Abs), nanobiotechnology group of imam hossein university, 2011, Tehran, Iran
- Monoclonal Antibody module and optimization of its steps, 2014, immunology group, pasture institute of Iran, Tehran, Iran
- Study of Antimicrobial peptides and anticancer peptides: A challenge for drug discovery, 2014, pharmaceutical biotechnology group, pasture institute of Iran, Tehran, Iran
- Design and combinatorial peptide synthesis and study of its antibiotic effect, pasture institute of Iran & Islamic Azad university of Damghan 2015
- Design and synthesis of peptides derived of caerin from Australian frog *Litoria Rothii* for determine the antimicrobial activity against *P. aeruginosa* and *S. aureus*. pasture institute of Iran & Islamic Azad university of damghan . 2016
- *In silico* designing and synthesis of peptides derived of maximin from Chinese red belly toad *Bombin maxima* for determine the antimicrobial activity against *P. aeruginosa* and *S. aureus*. . pasture institute of Iran & Islamic Azad university of damghan . 2016
- Design and construction of identification kit and Purification column for LPS by LBP. pasture institute of Iran. 2016
- Design and synthesis of peptides derived of Aurein for determine the antimicrobial activity against *P. aeruginosa* and *S. aureus*. pasture institute of Iran & Islamic Azad university of damghan and **semnan university of medical science** . 2016
- Epitope imprinting for doxorubicin anti cancer drug delivery, pasture institute of Iran & Islamic Azad university of damghan . 2016
- An *in vivo* study of antimicrobial effects of three newly designed antimicrobial peptides based on Aurin, Caerin and Maximin on mouse model. pasture institute of Iran & Islamic Azad university of damghan, 2017

- Study of antimicrobial effects of *Hirudo orientalis* extract on *Staphylococcus aureus*, *Bacillus subtilis* and *Escherichia coli* bacteria to isolate fractions containing proteins and antimicrobial peptides. pasture institute of Iran & Islamic Azad university of damghan,2017
- Study of antimicrobial effects of *Ampullaria cuprina* extract on *Staphylococcus aureus*, *Bacillus subtilis* and *Escherichia coli* bacteria to isolate fractions containing proteins and antimicrobial peptides. pasture institute of Iran & Islamic Azad university of damghan,2017
- review in antimicrobial effects of dry powder and aqueous and organic extract Iranian lichens on the bacteria *Staphylococcus aureus*, *Pseudomonas aeruginosa* and *Escherichia coli*. pasture institute of Iran & Islamic Azad university of damghan,2017
- New designing and modification of antimicrobial peptides Max11 and Car5.9 for determine the antibacterial and antifungal activity against *E. coli*, *P. aeruginosa* and *C. Albicans* and evaluation of serum stability in human serum. pasture institute of Iran & Islamic Azad university of damghan,2017
- Designing, modification and synthesis of AurH peptide derived from Aurein peptide of Australian frog (*Litoria aurea*) and study of its antifungal activity on *Candida albicans* and *Aspergillus ficuum* . pasture institute of Iran & Islamic Azad university of damghan,2017
- Construction of gene constructs containing the E7 and E6 with CTxB molecular adjuvant, cloning and its expression in *E. coli* . pasture institute of Iran & Islamic Azad university of damghan,2016
- Designing and synthesis of DNA binding antimicrobial peptides (DBA) and determine the antimicrobial activity against *E. Coli*, *S. aureus* and *P. aeruginosa*. pasture institute of Iran & Islamic Azad university of Damghan, Semnan university of medical science,2016
- Study of antimicrobial effects of mucousal and dermal fractions from *Periophthalmus wltoni* fish on *E. Coli*, *S. aureus* and *P. Aeruginosa*. pasture institute of Iran & Islamic Azad university of damghan,2016
- Design and construct of gene construction to cloning and expression of LL37 antimicrobial peptide and evaluation of its expression and antimicrobial effects on *E. coli* and *Staphylococcus aureus*. pasture institute of Iran & Islamic Azad university of damghan,2015

International Collaboration Articles

Scopus



Web of Science (ISI)

