



Department of Recombinant Technology,
Nanobiotechnology Research Center, Avicenna
Research Institute, Shahid Beheshti University,
Evin, Tehran, Iran., P.O.BOX 19615-1177

Date of Birth: 2 Mar 1977

Phone: +98 02122432020

E-mails: mrnejadmoghaddam@gmail.com,
moghaddam@avicenna.ac.ir and
m-nejadmoghaddam@alumnus.tums.ac.ir

Mohammad-Reza Nejadmoghaddam

Education

2012-2018

Ph.D. in Nanomedicine, From Nanotechnology Research Center, School of Pharmacy, Tehran university of Medical Sciences (TUMS),

PhD Thesis: "Targeted Drug Delivery Nanomedicine against Prostate Cancer Cell Lines Based on PLAC1 Antibody Drug Conjugate (ADC)", under the supervision of Dr. Rassoul Dinarvand, Dr. Amir-Hassan Zamani, and Dr. Ramin Ghahremanzadeh (Professor of Department of Pharmaceutics, Faculty of Pharmacy, Tehran University of Medical Sciences, Tehran, Iran., Professor of Reproductive Immunology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran., and Associate Professor of Nanobiotechnology Research Center, Avicenna Research Institute, ACECR, Tehran, Iran., respectively)

2003-2006

MSc in Molecular Microbiology, From Azad University¹, Jahrom Branch.,

MSc Thesis: "Extraction, Molecular Cloning and small-scale expression of streptokinase gene from *Streptococcus equisimilis H46A*", under the supervision of Dr. Mohammad Hossein Modarressi and Dr. Mohammad Babashamsi (Professor of Medical Genetics Department of Tehran University of Medical Sciences, Tehran, Iran. and assistant professor of Department of Antigen and Antibody Engineering, Monoclonal Antibody Research center, Avicenna Research Institute, ACECR, Tehran, Iran., respectively)

1995-1999

BSc in Microbiology, From Azad University, Tonekabon Branch.,

1990-1994

Diploma in Experimental Sciences, GPA: 15.75/20.0., From Kosar High school in Tonekabon City, Mazandaran Province.,

Research Interests

- **Nanomedicine in diagnosis and treatment of Hard-to-Treat Diseases including, but not limited to:**
 - Nano-assemblies of antibody-drug-conjugates (ADC) for cancer immunotherapy.
 - Biopolymer-based nano-formulations for wound care and skin dressing.
 - Molecular Biology and nanotechnology dramatic advances in biomolecule purification.
 - Nanomedicine in reproductive biology and ART.

Scopus Author ID

45661623000

ORCID

<https://orcid.org/0000-0002-8559-6805>

Google Scholar

<https://scholar.google.com/citations?hl=en&user=PzQyICIAAAAJ>

Awards and Honors

2023

Grant for the applied project entitled, "Technical knowledge of Altrazeal® wound dressing based on Nanoflex transforming methacrylate dressing (TMD) technology", received from

- ACECR,
- 2020 **Grant for the applied project entitled, “Production of alginate-based sponge dressing suitable for high exudate wounds”**, received from ACECR, <http://istp.research.acecr.ac.ir/login>
- 2018 **Iranian Nanotechnology Society annual prize** for the best research paper that was published in top cited journal
- 2018 **Distinguished Researcher** of Avicenna Research Institute (ARI) for the Annual Award in National Doctors' Day
- 2018 **Research Project Grant** received from Avicenna Research Institute (ARI) for the research proposal: *Production of Anti-SN38 antibody and development of ELISA for characterization of conjugation efficacy and pharmacokinetic properties of SN38-containing antibody-drug conjugate (ADC) biotherapeutics*. (Proposal Code: 97-025)
- 2017 **Scientific Reports Top 100 in Oncology**: <https://www.nature.com/collections/vxkjqngxfw/content/26-50> for the paper entitled “*Placenta-specific1 (PLAC1) is a potential target for antibody-drug conjugate-based prostate cancer immunotherapy*” *Scientific Reports*, volume 7, Article number: 13373 (2017)
- 2015-present **The founder and manager of** Central Labs & Core Facilities in Avicenna Research Institute
- 2014 **Research Project Grant** received from Tehran University Medical Sciences (TUMS) for the research proposal: *Targeted Delivery Nanomedicine against Prostate Cancer Cell Lines Based on PLAC1 Antibody Drug Conjugate*. (Grant No: 92-03-159-25467)
- 2013 **Research Project Grant** received from Avicenna Research Institute (ARI) for the research proposal: *Antibody-drug Nanoconjugates for Targeting Prostate Cancer cell line*. (Proposal Code: 92-035)
- 2008-present **Faculty Member** of Nanobiotechnology Research Center, Avicenna Research Institute, (ACECR), Iran
- 2011 **Research Project Grant** received from Avicenna Research Institute (ARI) for the research proposal: *Synthesis, Functionalization and Surface Modification of Nano Magnetic Composite Particles for high-performance protein purification*. (Proposal Code: 89-36)
- 2007 **Research Project Grant** received from Avicenna Research Institute (ARI) for the research proposal: *Extraction and Purification of Nanomagnetic Particles from Magnetotactic Bacteria*. (Proposal Code: 85-17)
- 2007 **Four days Fellowship** from International Centre for Genetic Engineering and Biotechnology, ICGEB, for attending in *EMBO Conference Series "pre mRNA processing and disease" 14-17 January 2007 Cortina d' Ampezzo, Italy*
- 2006 **Research Project Grant** received from Iranian Academic Center for Education, Culture & Research (ACECR) for the research proposal: *Developing a rapid E.coli transformation kit with high efficiency for speedup in recombinant protein production*. (Proposal Code: 1233-10)

Technical skills and proficiencies

Nanotechnology:

Antibody–Drug Conjugates (ADCs): Innovative nanotherapeutics approaches that antibody functions as nanocarrier delivering highly potent cytotoxic agent, specifically to the tumor.

Novel skin substitutes and wound care dressings: biologic, synthetic, or biosynthetic materials that can provide temporary or permanent coverage of open skin wounds

In vitro cytotoxicity assay provides a crucial means of ranking compounds for nanoparticles evaluation and consideration in drug discovery

Antibacterial test means to test the inhibition action of some materials on microorganism

Nickel Coated Magnetic Beads for optimized purification of polyhistidine-tagged proteins

Familiar with Nanohydrogel: Drug Release Assay of Smart Nanohydrogel by HPLC in order to Drug Delivery

Work with Titanium oxide: Evaluation of antibacterial activity of TiO₂ Nanoparticles

Biological Nanomagnetic Particles: Extraction and Purification of Nanomagnetic Particles from *Magnetospirillum magnetotacticum* sp. AMB-1

Nano Quantum Dots: Familiar with Nano Quantum Dots synthesis and their medical diagnostic application

Biochemistry, Cell and Molecular Biology:

Work with proteins and antibody: Drug conjugation to antibody, Work with Streptokinase, Her-2, Mre11..., Protein Assay and Purification Methods (Including Affinity Chromatography, Gel Filtration, HPLC and Novel Purification Methods by Magnatisable Nanomatrices), Dialysis, Gel Electrophoresis (PAGE and 2-DE), Western Blotting, Ligand-Protein Affinity Assays, ELISA etc.

Work with DNA and Genetic Engineering : Molecular Gene cloning, DNA Extraction and Purification, Primer Design, PCR optimization, Transformation, Insert Ligation

Work with mammalian cells: Cell Culture (McCoy and Hela) for Chlamydia Cultivation, Prostate cancer cell lines (DU145, PC3, LNCaP), MDA-MB231,4T1, HT29, LS180, B16F10, CT26, SW837,

Cytotoxicity test (XTT & Calcein AM assay)

Work with Laboratory Animals: Antigen preparation, injection and bleeding in order to polyclonal antibody production, bleed,

Microbiology:

Work with Bacterial and yeast expression systems: Cultures Optimization in order to Overexpression of Recombinant Proteins

Work with some Fastidious Bacteria: Cultivation, Microscopic Detection and Stock Collection: *Magnetospirillum magnetotacticum* sp. AMB-1, *Chlamydia trachomatis*, *Mycoplasma homonis* and *Ureaplasma Urealyticum*, *Streptococcus*, *Salmonella*,

Laboratory and Diagnostic Tests: Biochemical Tests, Gram, Acid Fast, Negative, Flagellum, Capsule, Nucleolus and Spore Staining, Familiar with Methods to Study of Bacterial Cells by TEM and SEM.

Chemistry:

Small molecule therapeutic drug modification, e.g., Synthesis of SN38-NH₂, Magnetic particles e.g., Fe₃O₄, Ni/NiO Nanomagnetic particles by sol-gel coprecipitation and Thermal decomposition method, Solvent drying, solvent-nonsolvent purification, Using protecting groups for polyfunctional molecules, Buffer solutions and Various types of titration assays.

Computer Programming:

Microsoft Office software: Microsoft word, Microsoft Power point, EndNote, Statistical Analysis and Chart Drawing, Data Bank Design, Familiar with Photoshop

Biotoools: Prism software, AlphaEaseFC software, Translation of a Nucleotide (DNA/RNA) Sequence to a Protein, Primer Designing, Analyze Restriction Maps...

Publications

2022

A novel ADC targeting cell surface fibromodulin in a mouse model of triple-negative breast cancer,

Breast Cancer (Tokyo, Japan), 18 Aug 2022,

M Simonian, A Salimi, E Mirzadegan, N Sadeghi, MR Nejadmoghaddam, N Ebrahimnezhad, G Fazli, R Fatemi, AA Bayat, M Mazloomi, H Rabbani.,

- 2019 **Antibody-Drug Conjugates: Possibilities and Challenges,**
Avicenna Journal of Medical Biotechnology, (AJMB), Vol. 11, No. 1, January-March 2019
Mohammad-Reza Nejadmoghaddam, Arash Minai-Tehrani, Ramin Ghahremanzadeh,
Morteza Mahmoudi, Rassoul Dinarvand, Amir-hassan Zarnani.,
- 2018 **Bioimaging based on the antibody-conjugated amphiphilic polymer-core@shell quantum dots,**
Emerging Materials Research, 12 December 2018, Vol. 7 No. 4, pp. 1-9
Mohammad-Reza Nejadmoghaddam, Amir-Hassan Zarnani, Mojtaba Mirhosseini
Moghaddam, Fereshteh Mohammadi, Mohammad Eskandari, Ramin Ghahremanzadeh.,
- 2017 **Placenta-specific1 (PLAC1) is a potential target for antibody-drug conjugate-based prostate cancer immunotherapy,**
Scientific reports, 17 October 2017, 7, 1, 13373.
Mohammad-Reza Nejadmoghaddam, Amir-Hassan Zarnani, Ramin Ghahremanzadeh, Roya Ghods, Jafar Mahmoudian, Maryam Yousefi, Mahboobeh Nazari, Mohammad Hossein Ghahremani, Maryam Abolhasani, Ali Anissian, Morteza Mahmoudi, Rassoul Dinarvand.,
- 2017 **Optimized protocol for soluble prokaryotic expression, purification and structural analysis of human placenta specific-1 (PLAC1),**
Protein Expression and Purification, 31 May 2017, 133, 139-151.
Mahboobeh Nazari, Amir-hassan Zarnani, Roya Ghods, Rahman Emamzadeh, Somayeh Najafzadeh, Arash Minai-Tehrani, Jafar Mahmoudian, Maryam Yousefi, Sedigheh Vafaei, Sam Massahi, Mohammad-Reza Nejadmoghaddam.,
- 2016 **Nickel-Salen supported paramagnetic nanoparticles for 6-His-target recombinant protein affinity purification,**
Journal of Chromatography A, 24 March 2017, 1490, 47-53,
Zahra Rashid, Ramin Ghahremanzadeh, Mohammad-Reza Nejadmoghaddam, Mahboobeh Nazari, Mohammad-Reza Shokri, Hossein Naeimi, Amir-Hassan Zarnani.,
- 2016 **The use of objective oriented project planning tools for nanosafety and health concerns: a case study in nanomedicine research project,**
European Journal of Nanomedicine, 6 August, 2016, 8, 4, 225-231
Mohammad-Reza Nejadmoghaddam, Abdolreza Babamahmoodi, Arash Minai-Tehrani, Amir-Hassan Zarnani and Rassoul Dinarvand.,
- 2016 **Fast and highly efficient purification of 6× histidine-tagged recombinant proteins by Ni-decorated MnFe₂O₄@ SiO₂@NH₂@2AB as novel and efficient affinity adsorbent magnetic nanoparticles,**
RSC Advances, 2016, 6(43), 36840-36848
Zahra Rashid, Hossein Naeimi, Amir-Hassan Zarnani, Mahboobeh Nazari, Mohammad-Reza Nejadmoghaddam, Ramin Ghahremanzadeh.,
- 2013 **Comparison of the Antibacterial Effects of Nanosilver with 18 Antibiotics on Multidrug Resistance Clinical Isolates of Acinetobacter baumannii,**
Jundishapur Journal of Microbiology. 2013 July ; 6(5): e8341
Sarah Niakan, Mohammad Niakan, Saeed Hesaraki, Mohammad Reza Nejadmoghaddam,
Mohammad Moradi, Mojtaba Hanafiabdar, Roya Allamezadeh, Meysam Sabouri.,
- 2011 **Profiling and Quantitative Evaluation of Three Nickel-Coated Magnetic matrices for Purification of Recombinant Proteins: Helpful Hints for the Optimized Nanomagnetisable Matrix Preparation,**
Journal of Nanobiotechnology, 8 August 2011, 9:31
Mohammad Reza Nejadmoghaddam, Mahmood Chamankhah, Saeed Zarei, Amir Hassan Zarnani.,
- 2011 **Investigation of Fibrinolytic Activity of Locally Produced Streptokinase,**
Asian Journal of Chemistry, Vol. 23, No. 1, 2011, 251-254.
Mohsina Hamid, Khalil-Ur-Rehman and Mohammad Reza Nejadmoghaddam.,

- 2009 **Production and Purification of Streptokinase by Protected Affinity Chromatography,**
Avicenna Journal of Medical Biotechnology (AJMB), 2009, 1 (1): 47-51
Babashamsi M, Razavian MH and Nejadmoghaddam MR ,
- 2009 **Evaluation of Streptokinase Production Potential by Group C Streptococcal Strain H46A in Batch Culture and Bactericidal Effect of Hexyl Resorcinol,**
Journal of Babol University of Medical Sciences (JBUMS), 2009; 11 (4), 13-19,(Iranian Journal and in Persian language and an abstract in English Language)
M.R. Nejadmoghaddam, M.H. Razaviyan, M. Babashamsi.
- 2009 **Rapid and Efficient Escherichia coli Transformation Method.**
Daneshvar Medicine (Scientific-Research Journal of Shahed University), 2009; 16(80), 71-76.
(Iranian Journal and in Persian language and an abstract in English Language)
Nejadmoghaddam MR., Hadavi R., Babashamsi M., Niakan M.
- 2008 **Crystal Violet in Culture Media for Diagnosis of Neisseria Species,**
Journal of the faculty of medicine (Shaheed Beheshti University of Medical Sciences and Health Services), 2008; 32(3), 201-206,
Soleimani Rahbar AA, Niakan M, Fayaz F, Taheri S, Mahmoudian J, Nejadmoghaddam MR ,
Kolahi AA.,
- 2007 **Cloning and overexpression of active recombinant fusion streptokinase: a new approach to facilitate purification,**
Pak J Biol Sci., 2007, 10(13):2146-51, PMID: 19070173
Nejadmoghaddam MR, Modarressi MH, Babashamsi M, Chamankhah M.
- 2007 **Detection of Legionella pneumophila by PCR-ELISA method in industrial cooling tower water,**
Pak J Biol Sci., 2007., 10(22):4015-21, PMID: 19090273
Soheili M, Nejadmoghaddam MR, Babashamsi M, Ghasemi J, Jeddi Tehrani M.
- 2006 **Streptokinase: Extraction, Cloning and Active recombinant protein overexpression, with Facilitate approach in purification,**
Journal of the faculty of medicine (Shaheed Beheshti University of Medical Sciences and Health Services), 2006, Vol. 30, No.3, p. 245-252. (Iranian Journal and in Persian language and an abstract in English Language)
Nejadmoghaddam, MR; Modaresi, MH; Babashamsi, M; Chamankhah, M;
- 2005 (Book) **Topic parameters for PCR Optimization,**
Iranian Students Book agency (ISBA), Tehran. ISBA Web addresses site:
http://www.isba.ir/Book/asp/Book_Detail.asp?BID=2159 (In Persian language)
Nejadmoghaddam, MR 2005,
- 2005 **Detection the Frequency of M.hominis in Infertile Men " Abnormal Semen" with Control Group,**
Daneshvar (Scientific-Research Journal of Shahed University), 2005; 12(56), 65-70. (Iranian Journal and in Persian language and an abstract in English Language).
Niakan, M; Forotan, SK; Fallah, N; Shafee, M; Sedighi, MA; Nejadmoghaddam, MR;
Mansouri, S.

The main co-worker of the research projects

- 2018 **Research Project:** Preparation of advanced wound dressing system based on natural polymers for treating infected wounds: Invitro and Invivo evaluations (Proposal Code: 001-95)
- 2018 **Research Project:** Monitoring of carcinogenic contaminants by preconcentration and determination of them via design and preparation of smart solid phase microextraction based on switchable metal organic framework nano structure (Proposal Code: INSF-Proposal-96009284)

- 2017 **Research Project:** Design and preparation of smart solid phase microextraction based on switchable metal organic framework nano structure for preconcentration and determination of carcinogenic compounds (Proposal Code: INSF-Proposal-96008468-2)
- 2016 **Research Project:** Preparation of advanced wound dressing system based on natural polymers for treating infected wounds: *Invitro* and *Invivo* evaluations (Proposal Code: 001-95)
- 2014 Design and preparation of new solid phase microextraction base on zinc oxide-chitosan nanorods composite for trace analysis of phenol derivatives in environmental matrixes (Proposal Code: INSF-Proposal-91003905)
- 2013 **Research Project:** Design and preparation of new solid phase microextraction based on zinc phenol derivatives in environmental matrixes (Proposal Code: INSF-Proposal-91003905)
- 2012 **Research Project:** Design and preparation of new solid phase microextraction based on tin oxide nanorods for trace analysis of contaminants in environmental matrixes (Proposal Code: INSF-Proposal-90005562)
- 2011 **Research Project:** Synthesis and application of titanium dioxide nanoparticles (TiO₂) on antibiotic-resistant and antibiotic-sensitive bacteria (Proposal Code: 89-37).
- 2011 **Research Project:** Design and synthesis of smart nanohydrogel for drug delivery (Proposal Code: 88-58).
- 2004-2007 **Research Project:** Isolation of streptokinase gene, cloning, expression and purification of the recombinant protein delivery (Proposal Code: 172-10).
- 2006-2007 خالص سازی استرپتوکیناز نو ترکیب و تیتراژ آنتی بادی ضد استرپتوکیناز در بیماران تحت درمان با استرپتوکیناز (پایان نامه فوق لیسانس آقای مهدی ملکی - استاد راهنما دکتر محمد باباشمسی)
- 2003-2004 تعیین میزان فراوانی مایکوپلاسما هومینیس نزد خانم‌های نابارور در مقایسه با گروه کنترل (پایان نامه دکتری عمومی آقای کاظم قهرمان‌زاده - استاد راهنما دکتر محمد نیاکان)
- 2002-2003 استخراج و تخلیص استرپتوکیناز از استرپتوکوکوس بتا همولیتیک گروه C (پایان نامه فوق لیسانس آقای محمد حسین رضویان - استاد راهنما دکتر محمد باباشمسی)
- 2001-2003 سنتز، استخراج و تخلیص مواد اولیه دارویی پانکراتین و استرپتوکیناز (به شماره ثبت ۲۰۰۱۲ دبیرخانه شورای پژوهش‌های علمی کشور تحت عنوان برنامه تحقیقاتی ویژه توسعه کشور - پزشکی به شماره ۳۱۳۰۹۳۳۲ و به کارفرمایی معاونت دارو و غذا وزارت بهداشت، درمان و آموزش پزشکی با شماره ثبت کمیسیون: ۲۰۰۲)
- 2001-2003 تهیه آنتی سرم تشخیصی بر علیه سالمونلا های گروه D و کاربرد آن جهت شناسایی سروتیپ های این گروه (کد: ۲۱-۵۷۴)

Seminars and Conferences

- 2023 Tahereh Zamoosheh Farahani, Nejadmoghaddam Mohammad-Reza., **Antibody production against camptothecin-derived small molecules: a tool for developing pharmacokinetic studies and dose management of chemotherapy**, The first International Congress of Cancer Genomics (CGC2023), 3-5 may 2023, Tehran, Iran.
- 2019 Nejadmoghaddam Mohammad-Reza., Yazdi Samadi Fatmeh, Najafzadeh Somayeh, Mohammadi Fatideh Fereshteh, Minai-Tehrani Arash, Yousefi Maryam, Ghahremanzadeh Ramin., **Labs and In Vtro Biocompatibility Services of the Wound Dressings: Issues and Consideration in Measurement**, 4th International and 6th National Congress of Wound and Tissue Repair, 19-22th November 2019, Tehran, Iran
- 2018 Mohammad-Reza Nejadmoghaddam., Rassoul Dinarvand, Ramin Ghahremanzadeh, Roya Ghods, Jafar Mahmoudian, MaryamYousef, Mahboobeh Nazari, Mohammad Hossein Ghahremani, Maryam Abolhasani, Ali Anissian, Morteza Mahmoudi & Amir-Hassan Zarnani., **Introduction of the First Antibody Drug Conjugate (ADC) based on anti- Placenta-specific1 (PLAC1) Antibody as a Novel Immunotherapeutic Tool for Prostate Cancer**, 14th international congress of Immunology and Allergy, 26-28 April 2018, Tehran, I.R.Iran

- 2015 Mohammad Reza Nejadmoghaddam, **The role of team thinking for success on the responsibility with the lowest authority**, *Iran High-Tech Laboratory Network Meeting, September 9, 2015.*,
- 2015 Mohammad Reza Nejadmoghaddam and Rassoul Dinarvand, **Antibody Drug Conjugates as novel tumor-targeted nanomedicine**, *Proceeding of the National Conference on Nanomedicine in Diagnosis and Treatment of Hard to Treat Diseases, 18-19 February, 2015, p 50-51 , Avicenna Research Institute, Tehran, Iran.*
- 2015 Mohammad Reza Nejadmoghaddam, Amir Hassan Zarnani, Roya Ghods, Mohammad Hossein Ghahremani, Rassoul Dinarvand, **Targeted Delivery Nanomedicine against Prostate Cancer Cell Lines Based on Antibody Drug Conjugates**, *Proceeding of the National Conference on Nanomedicine in Diagnosis and Treatment of Hard to Treat Diseases, 18-19 February, 2015, p 280-281 , Avicenna Research Institute, Tehran, Iran.*
- 2014 Nejadmoghaddam MR, **Cytotoxic agent (drug) Criteria to use in Antibody Drug Conjugates (ADCs)**, *Annual scientific lectures in Avicenna Research Institute, Shahid Beheshti University, Evin, Tehran, Iran, November 15, 2014.*,
- 2014 Nejadmoghaddam MR, **Antibody-Drug Conjugates (ADCs): Homing Cytotoxic Agents in tumor cells using Conjugation to Antibodies**, *Annual scientific lectures in Avicenna Research Institute, Shahid Beheshti University, Evin, Tehran, Iran, May 19, 2014.*,
- 2013 Nejadmoghaddam MR, **Team working for successful Project Management** , *Annual scientific lectures in Avicenna Research Institute, Shahid Beheshti University, Evin, Tehran, Iran, December 9, 2013.*,
- 2011 Nejadmoghaddam MR, **Novel Magnetisable Protein Purification Systems: Topic Parameters for Magnetisable Solid Phase Support preparation**, *Annual scientific lectures in Avicenna Research Institute, Shahid Beheshti University, Evin, Tehran, Iran, February 14, 2011,*
<http://www.avicenna.ac.ir/index.php/fa/education/cme/journal-clubs>
- 2010 M.R. Nejadmoghaddam, M. Chamankhah, **Extraction and Purification of Nanomagnetic Particles from Magnetic Bacteria**, *3rd International Congress on Nanoscience and Nanotechnology (ICNN 2010), 9-11 November 2010, Shiraz University, Shiraz, I.R.Iran*
- 2009 Nejadmoghaddam MR, **Protein Purification using magnetic particles**, *Annual scientific lectures in Avicenna Research Institute, Shahid Beheshti University, Evin, Tehran, Iran., December 28, 2009.*, <http://www.avicenna.ac.ir/index.php/fa/education/cme/journal-clubs>
- 2008 Nejadmoghaddam M.R., Chamankhah M; **Optimization of magnetic affinity separation method for highly-efficient purification of polyhistidine-tagged proteins**, *7th International Conference on the Scientific and Clinical Applications of Magnetic Carriers, 20-24 May 2008, Vancouver, Canada*
- 2008 Nejadmoghaddam MR, **Magnetotactic Bacteria: Potential Applications in Nanobiotechnology**, *Annual scientific lectures in Avicenna Research Institute, Shahid Beheshti University, Evin, Tehran, Iran, February 25, 2008.*,
<http://www.avicenna.ac.ir/index.php/fa/education/cme/journal-clubs>
- 2007 Nejadmoqaddam, M.R; Hadavi, R; Babashams, M; Niakan, M; **The Improvement of the Competent cell Preparation Method and E. coli High Efficiency Genetic Transformation**, *1st International Congress on Health Genomics and Biotechnology, 24-26 Nov, 2007, Summit meeting Conference Hall, Tehran, Iran; Iranian Biomedical Journal, Vol. 11, Supp. 1.*
- 2007 Nejadmoqaddam, M.R; Babashamsi, M; Modaresi, M.H; **Molecular Cloning and Expression Fusion Streptokinase for easy Purification**, *International Conference on Biotechnology Engineering (ICBioE '07), Proceeding of the International Conference on Biotechnology Engineering (ICBioE '07), ISBN: 978-983-43090-2-2, may 8-10, 2007, Kuala Lumpur, Malaysia, P:1-10.*
- 2006 Nejadmoghaddam MR, **herpes simplex virus, human sperm and assisted reproduction technology**, *Annual scientific lectures in Avicenna Research Institute, Shahid Beheshti University, Evin, Tehran, Iran., July 24, 2006.*,

- 2006 Babashamsi, M; Nejadmoghaddam, M.R; Modaresi, MH; **Production, purification and assay of native and recombinant streptokinase**. *10th Iranian Pharmaceutical Sciences Conference (IPSC 2006)21-24 August 2006, Published in Iranian Journal of Pharmaceutical Sciences, 2006, Vol. 2, No. 3: 282.*
- 2006 Nejadmoghaddam MR; Niakan M; Hoseini SM., Ghahremanzadeh K, **Prevalence of mycolasma hominis and ureaplasma urealyticom in infertile females of Tehran infertility clinics**, *15th Iranian Congress on Infectious Disease and Tropical Medicine, 16-20 December 2006, Tehran in The Ministry of Foreign Affairs Instituted for Political and International Studies, Iran, pp.42.*
- 2006 Araghi, Sh; Nejadmoghaddam, MR; Modaresi, MH; Babashamsi, M; Amirmozaffari, N; **Extraction and cloning of mutant streptokinase gene in order to reduce its immunogenicity**, *14th National and 2nd International Conference of Biology, 29-31 Aug 2006, Tarbiat Modarres University, Tehran, Iran. p. 393.*
- 2005 Negadmoqaddam, MR; Moddaressi, MH; Babashamsi, M; **Extraction and cloning of streptokinase gene with simplify purification approach**, *4th national biotechnology congress Islamic Republic of Iran, 15-17 Aug 2005, Kerman, Kerman, Iran. p. 330.*
- 2005 Nejadmoghaddam, MR; Chamankhah, M; Abasiyan, F; **Designing of biological motors in Nanobiotechnology**, *The 4rd National congress of Basic Science, 7-8 Dec 2005, Dezful Azad University, Khuzestan, Iran.*
- 2005 Nejadmoghaddam, MR; Kafilzadeh, F; **Bioindicator recommendation for ecosystem assesment**, *1st Student conference of Biotechnology, 15-7 Nov 2005, Tehran University, Tehran, Iran. p. 122.*
- 2004 Nejadmoghaddam, MR; Babashamsi, MM; Razavian, H; **Optimization of streptococcus β -hemolyticus group-C batch culture and evaluation of it's potency for production of streptokinase and bacteriocidal effect of hexyl resorcinol**, *6th Iranian Congress of Microbiology I.R.Iran, 16-18 Feb 2004, Tehran, Tehran Emam Khomeini Hospital, Tehran, Iran. p. 20.*
- 2004 Babashamsi, M; Razavian MH; Nejadmoghaddam, MR; **Optimization of streptokinase secretion and its rapid purification**, *7th Iranian Congress of Biochemistry, 11-15 Sep 2004, Ahvaz, Khuzestan, Iran. pp. 112.*
- 2004 Babashamsi, M; Razavian, MH; Nejadmoghaddam, MR; **Production and purification of streptokinase by protected affinity chromatography**, *Saudi Bio-2004 International Conference, 10-11 May 2004, Jeddah, Kigdom of Saudi Arabia.*
- 2003 Razavian, MH; Babashamsi, M; Nejadmoghaddam, MR; **A single step purification of plasminogen from human plasma**, *3rd National Congress of Biotechnology, 9-11 Sep 2003, Ferdowsi University of Mashhad, Khorasan, Iran. Pp. 241-243.*
- 2003 Nejadmoghaddam, MR; Niakan, M; Babashamsi, M, **Prevalence of mycolasma hominis and ureaplasma urealyticom in infertile females of Tehran infertile**, *10th Annual scientific meeting Anniversary Middle Erast fertility saietl, 10-13 December 2003, Phoenicio Sntercontinental, Beirut, Lebanon.*

Teaching

- 2022 **Cellular Biology: Molecular structure of the cell membrane and cytoplasmic organs**
زیست‌شناسی سلولی و مولکولی: ساختار مولکولی غشای سلولی و اندامکهای سیتوپلاسمی
- 2020 **Advanced laboratory techniques: Drug delivery systems in Nanomedicine and Cell cytotoxicity assay** روش‌های پیشرفته آزمایشگاهی: آشنایی با سیستم‌های درورسانی در نانوفناوری پزشکی و ارزیابی سمیت سلولی
- 2018-2019 **Antibacterial Tests and Enzyme – Linked ImmunoSorbent Assay (ELISA) for two intern students in order to gain lab work experience** شماره نامه: ۹۷/۱۲۷۰ مورخ ۱۳۹۷/۰۴/۱۹
- 2007 **Teaching Laboratory Classes for Molecular Biology Laboratory** for MSc Students of Microbiology, Department of Microbiology, *College of medicine, Shahed University of Tehran.*
- 2006 **Workshop on Chlamydia and Reproduction, for Effective Cooperation in Laboratory Section of the Workshop**, *that was organized by Avicenna Research Institute and Sheffield*

Academic Supervision and Consultants Activity

- 2023 **Supervisor for PhD student**, Sara Dadras, from Avicenna Research Institute, for the thesis entitled: "Investigating the treatment of immature bovine oocytes with cAMP modulators and sustained release formulation of forskolin in the Biphasic in vitro maturation system (CAPA-IVM)"
- 2022 **Co- Supervisor for PhD Student**, Fatemeh Marofkhani, from Science and Research Branch, Islamic Azad University, for the thesis entitled "*Generation and characterization of Pan-species monoclonal antibody to stem cell markers Sox2 and Oct4 as diagnostic tools*"
- 2021 **Co- Supervisor for PhD Student**, Kamelia Fathi, from Faculty of Sports and Health Sciences, Shahid Beheshti University, for the thesis entitled "*Interaction effect of interval and continuous training with intermeal fasting on gene expretion of hypothalamic proopiomelanocortin and appetite in male wistar rats*"
- 2019-2023 **Main Supervisor for PhD Student**, Tahereh Zarnoosheh Farahani, ID No. 950, from Islamic Azad University, Tehran Medical Branch, for the project entitled "*Development of anti-small molecule, SN38, antibody and ELISA which are applicable in SN38-containing antineoplastic drugs pharmacokinetic studies*"
- 2019-2020 **Main Supervisor for MSc student**, Fatemeh Mozafari, Student ID No. 950255687, from Science and Research Branch, Islamic Azad University for the project entitled "*Antibacterial and in vitro toxicity evaluation of Graphene oxide on human skin cells*", defense date: September 4, 2019

Special Training course

- 2020 کارگاه معرفی سازمان‌های بین‌المللی ارائه دهنده گرنت به پروژه‌های علمی-پژوهشی و نحوه توجیه بودجه پیشنهادی- ۱۳۹۹/۰۵/۱۵ - معاونت علمی و فناوری ریاست جمهوری
- 2020 کارگاه اخلاق در آموزش مهارت‌های ارتباط‌های رابطه دانشجویی با رویکرد فضای مجازی- ۱۳۹۹/۰۴/۱۹- دانشگاه علوم پزشکی گلستان
- 2019 کارگاه شناسایی علائم سوء مصرف مواد مخدر و ارتباط موثر با دانشجویان مبتلا به اعتیاد- ۳۰ بهمن ۱۳۹۸- دانشگاه شهید بهشتی
- 2017 اصول و فنون مذاکره از دوره جامع MBA
- 2017 مدیریت بازاریابی از دوره جامع MBA
- 2017 مدیریت توسعه و عرضه محصول جدید از دوره جامع MBA
- 2016 اخلاق در پژوهش‌های علوم پزشکی- ۱۸ و ۱۹ / ۱۳۹۵/۰۸
- 2014 آشنایی با طراحی آزمایشات (DOE) - ۱۳۹۳/۰۲/۱۱
- 2014 پنجمین دوره توانمندسازی سرمایه‌های انسانی فناوری نانو - ۱۰-۸ اسفندماه ۱۳۹۲
- 2012-2014 مدیریت پروژه‌های تحقیقاتی بر مبنای استاندارد PMBOK - ۱۳۹۰/۱۲/۰۹ الی ۱۳۹۳/۰۹/۲۲
- 2013 تهیه کرم‌های گیاهی- توسط انجمن علمی گیاهان دارویی که در تاریخ ۱۳۹۲/۰۹/۲۷
- 2012 Iran-Korea Nanotechnology Workshop - October 2-3, 2012
- 2012 مروری بر سیستم‌های دارورسانی- بمدت ۲۰ ساعت
- 2011 کارگاه نظری پدافند غیرعامل تهدیدات زیستی- سیزدهم تیرماه ۱۳۹۰

- 2011 Workshop on **Synthesis and protection of nanomagnetic particles.**, *Nanobiotechnology research center, Avicenna Research Institute, Tehran, Iran*
- 2011 Workshop on **Determination of drug purity in aqua-gel with HPLC in various conditions.**, *Nanobiotechnology research center, Avicenna Research Institute, Tehran, Iran*
- 2011 Workshop on **Synthesis of Nano Quantum Dots particles from Coordinating & Non-Coordinating Solvent.**, *Nanobiotechnology research center, Avicenna Research Institute, Tehran, Iran*
- 2010 Workshop on **New Techniques in Real Time PCR.**, *Hangzhou Bioer Co. & Faragene Pouyesh Co.*
- 2010 Workshop on **Synthesis and analysis techniques in the world of nano materials**, *Mahar Fan Abzar Co.*
- 2010 Workshop on **Foundations, description and documentation of quality management system requirements in laboratories, based on ISO/IEC17025.**, *Iranian Nanotechnology Laboratory Network (INLN)*
- 2006 & 2007 Workshops on **Method of Writing Research Papers**, *Jahad Daneshgahi- Shaheed Beheshti University of Medical Sciences & Health Services*
- 2006 Workshop on **Reproductive Biotechnology Research Center.**, *Avicenna Research Institute, Tehran, Iran*
- 2005 Workshop on **Application of Statistical Software (Microsoft office excel) in Medical Science Research.**, *Jahad Daneshgahi- Shaheed Beheshti University of Medical Sciences & Health Services, Tehran; Iran*
- 2005 Workshop on **Application of Laser Microdissection in Cancer Research.**, *cancer research center, cancer institute of Iran*
- 2005 Workshop on **Designing Cohort Study for Medical Group**, *Iranian Institute for Health Sciences Research*
- 2004 Workshop on **Access and Designing Data Banks.**, *Jahad Daneshgahi- Shaheed Beheshti University of Medical Sciences & Health Services, Tehran ; Iran*
- 2003 Workshop on **Advanced Research Method for Medical Sciences.**, *Iranian Institute for Health Sciences Research*
- 2003 Workshop on **Applied Techniques in Diagnostic Laboratories.**, *Jahad Daneshgahi- Shaheed Beheshti University of Medical Sciences & Health Services, Tehran ; Iran*

Collaboration with Scientific seminars and Journals

- 2020-present **Associate editor of Avicenna Journal of Medical Biotechnology (AJMB)**, <https://www.ajmb.org/Editorial>
- 2020-present **Member of the Scientific Committee** at Avicenna Research Institute (ARI),
- 2019-Present **Editorial Board** of Iranian Journal of Laboratory Knowledge, <http://en.ijlk.ir/page/4854>
- 2015-present **Reviewer** for the Avicenna Journal of Medical Biotechnology (AJMB), <http://www.ajmb.org/>
- 2015 **Scientific collaboration and reviewer** for National Conference on Nanomedicine in Diagnosis and Treatment of Hard to Treat Diseases, 18-19 Februar, 2015, p 50-51 , Avicenna Research Institute, Tehran, Iran.
- 2008-present **Member of the Scientific Committee** at Nanobiotechnology Research Center, Avicenna Research Institute,
- 2008-2017 **Reviewer** for the Journal of Babol University of Medical Sciences (JBUMS), an Iranian Journal in Persian language and English abstract, since 2008 until now
- 2007-2008 **Reviewer** for the Asian Network for Scientific Information and Academic Journals Inc.: “Biotechnology Journal”
- 2005-Present **Reviewer** for Research Proposals in Academic Center for Education, Culture and Research (ACECR)

Memberships

- 2018 Iranian Society of Immunology and Allergy, website: <http://isiaonline.org/>
- 2015-present Iranian Society of Nanomedicine, website: www.isnm.ir
- 2012-present Iranian Nano Technology Society, website: www.nanosociety-ir.com/
- 2005 Iran Azad University young researchers club
- 2004-present Iranian Society for Biotechnology, website: <http://www.biotechsociety.ir/>
- 2003-present Iranian Society for Microbiology, website: <http://www.ism.ir/>