Curriculum Vitae

HAMED ESMAEIL LASHGARIAN

Ph.D of Molecular genetics (Associate professor of LUMS)

I. PERSONAL INFORMATION

Name: Hamed Esmaeil LashgarianDate of Birth: 01/09/1969

Place of Birth: Khorram Abad, IranMarital status: Married, 1 child

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II. EDUCATIONAL RECORDS:

Degree:	Institution	Field	Date
Diploma	High School, Amir Kabir,	Natural Sciences	1986
B.Sc	Medical University of Kashan	Laboratory sciences	1999
M.Sc	Medical University of Esfahan	Medical Microbiology	2003
Ph.D	National Institute Of Genetic Engineering And Biotechnology (NIGEB-Tehran)	Molecular Genetics	2004-2010

III. PROFESSIONAL AND ACADEMIC/SCIENTIFIC EXPERIENCES:

2003-2006 **Faculty member**, Department of Microbiology, Medical University of Lorestan

2004-Present **Research Fellow,** Center for research of IBTO

IV. MEMBERSHIP OF SCIENTIFIC SOCIETIES/BOARDS:

2004-present Iranian Biotechnology Society

V. TECHNICAL SKILLS:

1) Gene cloning and expression vector construct
2) Single and double digestion with restriction enzymes
3) Bacterial transformation methods
4) Mini and Maxi preparation of plasmids with or without commercial kits
5) Cell culture methods
6) Cellular transfection by Calcium phosphate
7) Gel agarose electrophoresis and SDS-PAGE
9) Immunobloting (EIA) and Western Blot
10) Dot blot and Southern blot
11) Primer / probe designing
12) Monocyte and lymphocyte isolation from whole blood by Ficol
13 Bacterial /Genomic/ Viral DNA and RNA extraction
14) PCR techniques
15) Real-time RT-PCR with or without specific probes (SYBR Green, TaqMan, Hybprobe)
16) Standardization and validation of NAT assays especially in real-time PCR

VI. Work experience:

1) Cloning of CHO gene into a plasmid for expression.

2) Cholesterol affinity chromatography for purification of recombinant cholesterol oxidase gene(Cho 501).

3) Development of a Real Time RT-PCR assay based SYBR Green for detection of Hepatitis C infected patients with low viral load.

4) Isolation and purification of Cholesterol oxidase gene from Native Rhodococcus sp. 501 and its cloning into cloning and expression vectors.

VII.ARTICLES:

1. Shakib, P., Mirzaei, S.Z., Lashgarian, H.E., (...), Marzban, A., Cheraghipour, K. Preparation of zinc oxide nanoparticles assisted by okra mucilage and evaluation of its biological activities. Current Drug Discovery Technologies, 2023, 20(2):53-62
2. Moradipour, A., Dariushnejad, H., Ahmadizadeh, C., Lashgarian, H.E. Dietary flavonoid carvacrol triggers the apoptosis of human breast cancer MCF-7 cells via the p53/Bax/Bcl-2 axis. 2023, Medical Oncology, 40(1):
3. Manouchehri, A., Marzban, A., Lashgarian, H.E., Alhameedawi, A.K., Shakib, P. A Systematic Review Study on the Effectiveness of Medicinal Plants Against Acinetobacter baumannii. 2023, Current Chemical Biology, 17(1):26-33
4. Cheraghipour, K., Rouzbahani, A.K., Fallahi, S., (...), Lashgarian, H.E., Marzban, A. Recent Advances in Therapeutic Strategies against Hydatid Cysts using Nanomaterials: A Systematic Review. 2023, Letters in Drug Design and Discovery, 20(9):1185-1193.
5. Ramazanzadeh, R., Marzban, A., Ardali, J.K.F., (...), Lashgarian, H.E., Shakib, P. Anti-Mycobacterium tuberculosis Effects of Folk Medicinal Plants in Iran: A Mini-Systematic Review. 2023, Iranian Journal of Medical Microbiology, 17(1):1-6.
6. Shahzamani, K., Lashgarian, H.E., Karkhane, M., (...), Ghotekar, S., Marzban, A. Bioactivity

assessments of phyco-assisted synthesized selenium nanoparticles by aqueous extract of green seaweed, Ulva fasciata. 2022, Emergent Materials, 5(6):1689-1698.

7. Mirzaei, S.Z., Lashgarian, H.E., Karkhane, M., (...), Alhameedawi, A.K., Marzban, A. Bio-inspired silver selenide nano-chalcogens using aqueous extract of Melilotus officinalis with biological activities. 2021, Bioresources and Bioprocessing, 8(1):-
8. Lashgarian, H.E., Valibeik, A., Marzban, A., Karkhane, M., Shahzamani, K. The Relationship Between HCV-NS5A Gene Mutations and Resistance to Combination Therapy in Patients with HCV- Genotype 1-B. 2021, Reports of Biochemistry and Molecular Biology, 10(2):234-243
9. Lashgarian, H.E., Karkhane, M., Mirzaei, S.Z., Marzban, A. Isolation and anti-leukemic characterization of extracellular l-asparaginase from endophytic bacterium, Brevibacterium sp. M-R21 isolated Glycyrrhiza glabra root, 2021, Biointerface Research in Applied Chemistry, 11(2):9113-9125
10. Mirzaei, S.Z., Ahmadi Somaghian, S., Lashgarian, H.E., (...), Cheraghipour, K., Marzban, A. Phyco-fabrication of bimetallic nanoparticles (zinc-selenium) using aqueous extract of Gracilaria corticata and its biological activity potentials, 2021, Ceramics International, 47(4):5580-5586
11. Gilavand, F., Saki, R., Mirzaei, S.Z., (...), Karkhane, M., Marzban, A. Green synthesis of zinc nanoparticles using aqueous extract of magnoliae officinalis and assessment of its bioactivity potentials, 2021, Biointerface Research in Applied Chemistry, 11(1):7765-7774
12. Lashgarian, H.E., Karkhane, M., Alhameedawi, A.K., Marzban, A. Phyco-mediated synthesis of Ag/AgCl nanoparticles using ethanol extract of a marine green algae, Ulva Fasciata delile with biological activity, 2021, Biointerface Research in Applied Chemistry, 11(6):14545-14554
13. Lashgarian, H.E., Valibeik, A., Marzban, A., Karkhane, M., Shahzamani, K. The Relationship Between HCV-NS5A Gene Mutations and Resistance to Combination Therapy in Patients with HCV-Genotype 1-B. 2021, Reports of Biochemistry and Molecular Biology, 10(2):233-242
14. Karkhane, M., Lashgarian, H.E., Mirzaei, S.Z., (...), Sepahvand, A., Marzban, A. Antifungal, antioxidant and photocatalytic activities of zinc nanoparticles synthesized by Sargassum vulgare extract. 2020, Biocatalysis and Agricultural Biotechnology, 29:-

15. Lashgarian, H.E., Adamii, V., Ghorbanzadeh, V., (...), Akbari, S., Dariushnejad, H. Silibinin Inhibit Cell Migration through Downregulation of RAC1 Gene Expression in Highly Metastatic Breast Cancer Cell Line, 2020, Drug Research, 70(10):478-483
16. Hashemzadeh, P., Ghorbanzadeh, V., Lashgarian, H.E., Kheirandish, F., Dariushnejad, H. Harnessing Bioinformatic Approaches to Design Novel Multi-epitope Subunit Vaccine Against Leishmania infantum, 2020, International Journal of Peptide Research and Therapeutics, 26(3):1417-1428
17. Lashgarian, H.E., Karkhane, M., Marzban, A., Yazdi, M., Shahzamani, K. Emerging Involvement of long non-coding RNAs in gastrointestinal associated inflammatory disorders. 2020, Comparative Immunology, Microbiology and Infectious Diseases, 69:-
18. Heidary, F., Lashgarian, H.E., Karkhane, M., Peerayeh, S.N. Molecular detection of isoniazid and rifampin resistance in Mycobacterium tuberculosis isolates from Lorestan Province, Iran from 2014 to 2017. 2020. Archives of Clinical Infectious Diseases, 15(1):-
19. Basati, G., Khaksarian, M., Abbaszadeh, S., Lashgarian, H.E., Marzban, A. Cancer stem cells and nanotechnological approaches for eradication, 2019, Stem Cell Investigation, 6:-
20. Khanizadeh, S., Hasanvand, B., Nikoo, H.R., (...), Shirkhani, S., Lashgarian, H.E. Association between miRNA-146a rs2910164 (G/C) polymorphism with the susceptibility to chronic HBV infection and spontaneous viral clearance in an Iranian population, 2019, Journal of Medical Virology, 91(6):1063-1068
21. Lashgarian, H.E., Karkhane, M., Marzban, A. Biological solubilization of some metals by a new acidithiobacillus species isolated from a moderate sulfur hot spring. 2019, Journal of Microbiology, Biotechnology and Food Sciences, 9(3):585-589
22. Gholami, M., Shahzamani, K., Marzban, A., Lashgarian, H.E. Evaluation of antimicrobial activity of synthesised silver nanoparticles using thymus kotschyanus aqueous extract. 2018, IET Nanobiotechnology, 12(8):1114-1117
23. Khanizadeh, S., Hasanvand, B., Esmail Lashgarin, H., Almasian, M., Goudarzi, G. Interaction of viral oncogenic proteins with the Wnt signaling pathway, 2018, Iranian Journal of Basic Medical Sciences, 21(7):651-659
24. Lashgarian, H.E., Marzban, A., Estaji, M., (...), Masoumi Asl, H., Raheb, J. Multiple locus variable number tandem repeat analysis (MLVA) for typing pseudomonas aeruginosa isolated from urine samples of different patients. 2018, Journal of Babol University of Medical Sciences, 20(2):56-63

25. Davoodian, P., Ravanshad, M., Hosseini, S.Y., (...), Zadeh, A.N., Lashgarian, H.E. Effect of TGF-beta/smad signaling pathway blocking on expression profiles of miR-335, miR-150, miR-194, miR-27a, and miR-199a of hepatic stellate cells (HSCs), 2017, Gastroenterology and Hepatology from Bed to Bench, 10(2):112-117
26. Shahzamani, K., Jahanbakhsh, S., Esmaeil Lashgarian, H. Qualitative detection of GB virus c and Hepatitis C Virus co-infection in cirrhotic patients using a SYBR green multiplex RT-PCR technique, 2017, Tropical Biomedicine, 34(4):822-830
27. Shahzamani, K., Marzouni, H.Z., Tarkhan, F., Lashgarian, H.E. A study of mechanism and rate of PC12 cancer cell destruction induced by lysine-coated gold nanoparticle, 2016, Journal of Babol University of Medical Sciences, 18(8):41-47
28. Shahzamani, K., Sabahi, F., Merat, S., (...), Jabbari, H., Malekzadeh, R. Rapid low-cost detection of hepatitis C virus RNA in HCV-infected patients by real-time RT-PCR using SYBR green I. 2011, Archives of Iranian Medicine, 14(6):396-400
29. Lashkarian, H., Raheb, J., Shahzamani, K., Shahbani, H., Shamsara, M. Extracellular cholesterol oxidase from Rhodococcus sp.: Isolation and molecular characterization, 2010, Iranian Biomedical Journal, 14(1-2):49-57

VIII. RESEARCH PROJECTS

Title		University	Approved Date	Finished Date	Status/Type
A systematic review of plants used in the green synthesis method of nanoparticles against Acinetobacter Baumannii	Pegah Shakib Abdolrazagh Marzban Hamed Esmaeil Lashgarian Gholamreza Goudarzi Hossein Mahmoudvand	Lorestan University of Medical Sciences	2023-2-28		**Under Supervision**
Fabrication of zinc, copper and silver oxide nanoparticles coated with salicylic acid derivatives to examine their boactivities	Abdolrazagh Marzban Maryam Khani Hamed Esmaeil Lashgarian Seyedeh Zahra Mirzaei Ameneh Marzban Pegah Shakib	Lorestan University of Medical Sciences	2023-2-28		**Accepted**
A systematic review of plants used in the green synthesis method of nanoparticles against Pseudomonas aeruginosa	Pegah Shakib Gholamreza Goudarzi Abdolrazagh Marzban Hamed Esmaeil Lashgarian	Lorestan University of Medical Sciences	2023-2-7	2023-8-27	**Finished**
Systematic review of anti-mycobacterium tuberculosis effects of medicinal plants	Pegah Shakib Abdolrazagh Marzban Hamed Esmaeil	Lorestan University of Medical	2023-1-17	2023-8-27	**Finished**

	Lashgarian Hossein Mahmoudvand	Sciences			
Evaluation of antioxidant and cytotoxicity effects of selenium nanoparticles coated with tartaric acid/L-asparagine on MDA-MB-231 cell line	Khadije Salari Hamed Esmaeil Lashgarian, Abdolrazagh Marzban Farzad Ebrahimzadeh	Lorestan University of Medical Sciences	2022-1-11		**Under Supervision**
Evaluation of antimicrobial and cytotoxicity effects of ZnS nanoparticles encapsulated in arabic gum	Nasim Cheraghi Sepahvand Hamed Esmaeil Lashgarian Abdolrazagh Marzban Farzad Ebrahimzadeh	Lorestan University of Medical Sciences	2022-1-11		**Under Supervision**
investigation inhibitory effect of Carvacrol on MDR1 gene expression in Human Breast cancer Cell line (MCF-7)	Mohammadsaleh Azimi Hassan Dariushnejad Hamed Esmaeil Lashgarian Vajihe Ghorbanzadeh Ayat Moradipour	Lorestan University of Medical Science	2021-9-22	2022-11-16	**Finished**
Assessment of anti-cancer, antimicrobial and antioxidant activity of biosynthesized zink-selenium nanoparticles using aqueous extract of rosemary (Rosmarinus officinalis L.) in experimental condition	Mohammad Ebrahim Khosravi Shakib Hamed Esmaeil Lashgarian Abdolrazagh Marzban Rasool Mohammadi Shahram Ahmadi Somaghian Seyedeh Zahra Mirzaei	Lorestan University of Medical Sciences	2021-9-13	2022-6-8	**Finished**
Investigation of common mutations of phenylalanine hydroxylase gene in patients with phenylketonuria in Lorestan province	Faeze Kamali Hamidreza Khodadadi	Lorestan University of Medical Sciences	2021-2-22		**Under Supervision**
Implementation and development of a biobank for collecting, storing and analyzing of patient's Biospecimens with COVID-19	Kiana Shahzamani Abdolrazagh Marzban Hamed Alami Abbas Azadi Mohammad Reza Nikbakht Hamed Esmaeil Lashgarian	Lorestan University of Medical Sciences	2020-11-8		**Under Supervision**

VIII. LIST OF PAPERS PRESENTED IN CONGRESSES AND SEMINARS:

1- Shahzamani K., **Esmail Lashkarian H.,** Sabahi F., Abdi J. Prevalence of Hepatitis C virus in Blood Donors Referred to Lorestan Blood Transfusion Organization. Presented in Iranian Congress of Virology, 2006, Tehran, Iran

2- Shahzamani K., **Esmail Lashkarian H.,** Sabahi F., Abdi J., Sadeghi-zadeh M., Moazami

Goodarzi H.R. Improving a sensitive and specific RT-PCR method for detection of HCV RNA in First-time blood donors. Presented in 1st International Transfusion Medicine Congress 2007, Tehran, Iran.

3- Esmail Lashkarian H., Shahbani Zahiri H., Shahzamani K., Sadeghizadeh M., Raheb J., Isolation and identification of a native Rhodococcus strain producing cholesterol oxidase from soil. Oral Presentation in 6th National Biotechnology Congress 2009, Tehran, Iran.

4- Esmail Lashkarian H., Shahbani Zahiri H., Shahzamani K., Raheb J., Isolation and identification of a novel Cholesterol Oxidase gene from Iranian native Rhodococcus strain. Oral Presentation in 14th European congress on Biotechnology 2009, Barcelona, Spain.

5- Esmail Lashkarian H., Raheb J., Shahzamani K., Minuchehr Z., Bardania H. Bioinformatics analysis of Cholesterol Oxidase gene derived from a native *Rhodococcus sp. Strain 501*. Presented in3th Iranian Congress of Bioinformatics, 2010, Tehran, Iran

6- Esmail Lashkarian H., Yazdani R., Shahzamani K.Isolatin and identification of *Legionella pneumophila* from Ball specimen. Presented in 6th Iranian Congress of Microbiology, 2003, Tehran, Iran

IX. COURSES TAUGHT:

1) Microbiology techniques for B.Sc students
2) Virology course for B.Sc/Msc students
3) Cell culture techniques for M.Sc students
4) Molecular biology techniques for M.Sc and Ph.D students

RESEARCH PROJECTS: Isolation and identification of a native *Rhodococcus* strain producing cholesterol oxidase from soil.

1- Purification of Recombinant Cholesterol Oxidase enzyme .

X. COLLABORATING IN RESEARCH PROJECTS:

1. Study the prevalence of occult HBV in chronic HCV-infected patients and evaluation the effects of this infection on liver histology and response to antiviral therapyof chronic hepatitis C

2. Study of Genetic polymorphisms of interferon receptor gens (IFNAR1 and IFNAR2) in HCV infected patients and its association with combined therapy.

3. Development of a SYBR Green real time multiplex RT-PCR technique for simultaneous detection of HCV/GBV-C in HCV and HIV/HCV possitive plasma samples and examination and comparison of hepatitis C related liver disease between these patients.

XI. REGISTERATION IN GENE BANK

1. Rhodococcus sp. 501 partial 16S rRNA gene, strain 501 947 bp linear genomic FN298676.2 GI:226489016

2. Rhodococcus sp. 501 partial cho gene for cholesterol oxidase, strain 5011,600 bp linear genomic FN421337.1 GI:251821392

3. Rhodococcus sp. 502 partial 16S rRNA gene, strain 502 1,407 bp linear genomic FN430570.1 GI:254265615

NAMES AND ADDRESSES OF SEVERAL REFEREES:

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