

Mohsen Vaez



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M-6769-2017



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IR-0000-RG-FFCA5D56

Current Positions

- Assistant Professor, IROST, Iran.
- Executive Manager of the journal of Microbiology, Metabolites and Biotechnology (MMB)
- IROST Faculty Recruitment Center Member

Education

PhD, Molecular Genetics	2010
University of Sheffield, Sheffield, UK.	
MSc, Microbiology	1999
University of Isfahan, Isfahan, Iran.	
BSc, Microbiology	1996
University of Isfahan, Isfahan, Iran.	

Previous Positions

Biosafety Committee Member Appointed by <u>Vice- President</u> of IR of Iran	2015-2018
Lecturer: Department of Genetic Engineering	2000-2002

Research Fields

Biotechnology, Molecular Detection of Microorganisms, Microbiology, Microbial Pigments, Microbial Carotenoids, Biosafety, Genetic Engineering, Recombinant Proteins, Population Genetics, Evolutionary Genetics.

Research Projects (Principal Investigator)

- 1) Molecular Detection of Coronavirus:** **2020-2021**
 - Application of RT-LAMP to detect SARS-CoV-2 via artificial target gene synthesis approach for designing a sample kit model.
- 2) Biosafety (National Project):** **2015-2018**
 - Formulating the National Guidelines for Environmental Risk Assessment of Genetically Modified Organisms in the form of Paragraph (c) of Article 4 of the Biosafety Law of I.R. of Iran.
- 3) Biosafety (Portal Design):** **2015-2018**
 - Design and launching a national portal system for applying a permit for the liberation, import, export, and transit of internal and transboundary movements of all living modified organisms (in both Persian and English).

CONTACT

Biotechnology Department,
Iranian Research Organization
for Science and Technology
(IROST) , Sh. Ehsani Rad St.,
Enqelab St., Ahmadabad
Mostoufi Rd., Azadegan
Highway, P. O. Box 33535-
111, Tehran 3313193685, I. R.
Iran.

Tel: 02157416807

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Emails : mvaez@irost.ir,

vaez_m@yahoo.com

Research Projects (Co- Investigator)

- Monoclonal Antibody Production against Granulocyte Colony Stimulating Factor (G-CSF).
- Cloning and Expression of Human Granulocyte Colony-Stimulating Factor (huG-CSF) in *E.coli*.
- Bioassay of human Granulocyte Colony-Stimulating Factor (huG-CSF) by HL-60 cell line treated with retinoic acid and dimethylsulfoxide

Current PhD Students

- F. Ajorloo
- A. Emadi

Selected Publications

- 1) Bakhtiari N, **Vaez M.** *Escherichia Coli*: the most useful host for production of recombinant proteins. JMBS **2024**; 15 (2). 67-78.
- 2) **Vaez, M.**, Kazemimejad, N., Fallah Mehrabadi, J. Rapid SARS-CoV-2 RT-LAMP assay setup using gene construct design approach. Iranian Journal of Medical Microbiology, **2023** 17(3), 329-338.
- 3) Mirgeloybayat M, Mazaheri Assadi M, Ahmadi N, Danaee S, **Vaez M.** Identification of a strain of Auricularia and Taguchi optimization of petroleum-polluted soil mycoremediation. Bioremediation Journal. **2023** Jan 13:1-0.
- 4) Diba, H., Hemmat, J., **Vaez, M.** Optimization of Bacillus sp. AGh1 culture medium for production of Endo-1,4- β -D-glucanase and the enzyme characterization. *Cellular and Molecular Research* (Iranian Journal of Biology), **2023**; (): -.
- 5) **Vaez M**, Davarpanah S.J. New Insights into the Biological Activity of Lichens: Bioavailable Secondary Metabolites of *Umbilicaria decussata* as Potential Anticoagulants. *Chemistry & Biodiversity*. **2021** May;18(5):e2100080.
- 6) Ajorloo, F., **Vaez, M.**, Hemmat, J. Molecular screening of astaxanthin-producing yeasts of birch sap-flows in Alborz Province of Iran. *Journal of Microbial World*, **2021**; 13(4): 349-359.
- 7) Ajorloo, F., **Vaez, M.**, Hemmat, J. Isolation and molecular identification of the carotenoid producing yeasts in the exudation sap from birch trees (*Betula pendula* Roth.) at Marmisho region of Northwest Iran. *Journal of Microbial World*, **2019**; 12(2): 139-149.

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Selected Publications (Continue)

8) Pooryousef H, Hemmat J, **Vaez M**. A comparison between molecular and morphological methods in evaluation of vesicular-arbuscularmycorrhizal fungi colonization with *Crocus sativus* L (saffron). *Biological Journal of Microorganism*. **2018** Jun 22;7(26):1-0.

9) Bakhtiari N, Bayat ZA, Sagharidouz S, **Vaez M**. Overexpression of recombinant human teriparatide, rhPTH (1–34) in *Escherichia coli*: an innovative gene fusion approach. *Avicenna Journal of Medical Biotechnology*. **2017** Jan;9(1):19.

10) **Vaez M**, Karami-Rad S, Tavakkoli S, Diba H. Microbial fuel cells, features and developments. *Current World Environment*. **2015**;10(Special Issue):637.

11) Bed'hom B, **Vaez M**, Coville JL, Gourichon D, Chastel O, Follett S, Burke T, Minvielle F. The lavender plumage colour in Japanese quail is associated with a complex mutation in the region of MLPH that is related to differences in growth, feed consumption and body temperature. *BMC Genomics*. **2012** Dec;13(1):1-0.

12) **Vaez M**, Follett SA, Bed'Hom B, Gourichon D, Tixier-Boichard M, Burke T. A single point-mutation within the melanophilin gene causes the lavender plumage colour dilution phenotype in the chicken. *BMC Genetics*. **2008** Dec;9(1):1-9.

13) Fallah MJ, Akbari B, Saeedinia AR, Karimi MO, **Vaez M**, Zeinoddini M, Soleimani M, Maghsoudi N. Overexpression of recombinant human granulocyte colony-stimulating factor in *E. coli*. *Iranian Journal of Medical Sciences*. **2003** Oct 31;28(3):131-4.

14) Zeinoddini M., Soleimani M., Akbari B., Karimi M., **Vaez M**., Fallah J., Saeidinia A.R., Maghsoudi N.. G-CSF bioassay through HL-60 cell line treated with retinoic acid and DMSO. *Pathobiology Research (Modares Journal of Medical Sciences)*. **2002**;5(1):47-53.

...and more

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International Conferneces Attended

Germany:

- **Vaez M** and Burke TA (2008) From candidate genes to gene discovery, First Iranian Biology Conference in Europe, 4-5 September Hamburg, Germany.

USA:

- **Vaez M** , Johns SA and Burke TA (2007) Population genetics and molecular evolution of plumage genes, Plant and Animal Genome XV Conference, 13-17 January, San Diego, USA.

UK:

- **Vaez M**, Johns SA and Burke TA (2004) Population genetics and molecular evolution of plumage genes, The 38th annual meeting of the Population Genetics Group, 14-17 December , Reading , UK.
- **Vaez M** and Burke TA (2005) Population genetics and molecular evolution of plumage genes, the 13th multi-disciplinary conference in Europe, IRCE 2005, 2 July, Leeds, UK.

Pakistan:

- **Vaez M**. COMSATS' 3rd International Conference on Agriculture, Food Security, and Biotechnology 26-27 April 2017, Islamabad, Pakistan.

India:

- **Vaez M**. COLOMBO International Conference on COLOMBO' International Conference on Molecular Biological Techniques for Research in Agriculture and Biomedical Sciences ۲۰ Feb- 18 Mar 2015, Indian Veterinary Research Institute (ICAR-IVRI), Izatnagar, India.

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and many more international conferences held in Iran ...

Genes Submitted in GenBank

GENES WITH FIRST TIME RECORD IN THE WORLD (22):

NM_001115080.2: 3,793 bp linear mRNA (as NCBI Reference Sequence)

EU515791.1: 1,991 bp linear mRNA

EU515790.1: 1,992 bp linear mRNA

EU515789.1: 1,786 bp linear mRNA

EU515788.1: 1,785 bp linear mRNA

EU515785.1: 3,130 bp linear mRNA

EU515784.1: 3,313 bp linear mRNA

EU515783.1: 3,442 bp linear mRNA

EU515782.1: 3,526 bp linear mRNA

EU515787.1: 2,058 bp linear mRNA

EU515786.1: 2,058 bp linear mRNA

EU007440.1: 2,500 bp linear mRNA

EU007439.1: 2,284 bp linear mRNA

EU007438.1: 2,368 bp linear mRNA

EU007437.1: 2,500 bp linear mRNA

JX266438.1: 580 bp linear DNA

JX266439.1: 524 bp linear DNA

JX266437.1: 570 bp linear DNA

JX266436.1: intron 1, 619 bp linear DNA

JX266435.1: intron 1, 812 bp linear DNA

JX266433.1: Exon 8 and partial cds, 421 bp linear DNA

JX266434.1: intron 1, 530 bp linear DNA

OTHERS:

(14)

MN593334.1, MN593332.1, MN593333.1, MN593330.1, N589693.1, MN589691.1, MN589690.1, MG365640.2, MG333434.2, MG333431.1, MN602418.1, MN602417.1, MN197795.1, MG333432.1

(19)

FJ449551.1, FJ449569.1, FJ449568.1, FJ449567.1, FJ449566.1, FJ449565.1, FJ449563.1, FJ449562.1, FJ449561.1, FJ449560.1, FJ449559.1, FJ449558.1, FJ449557.1, FJ449555.1, FJ449554.1, FJ449553.1, FJ449552.1, FJ449564.1, FJ449556.1

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Membership in Scientific Societies

- **Genetics Society, UK**
- **Iranian Society of Microbiology**
- **Iranian Society of Biotechnology**
- **Iranian Society of Genetics**

Languages

- **English:** Speaking: Fluent (IELTS 8 out of 9_2003)
- **Persian:** Mother tongue
- **Arabic:** 20 out of 20 (highschool)

Honors

- **The first student in master degree courses admission countrywide examination held in 1996 in the fields of Genetics & Microbiology.**
- **-The best honour (the most distinguished and the best) student in master degree course of Biology, University of Isfahan, Iran.**

Referees

- **Dr Abbas Farazmand:**

Assistant Professor of Industrial and Environmental Biotechnology Group, Department of Biotechnology, Iranian Research Institute for Science and Technology (IROST) Tehran, Iran, P. O. Box 3353-5111, Tel +98 (0)2156276020 Ext: 2118 Fax +98 (0)2157416414, Email : farazmand2002@yahoo.com

- **Prof. Terry A Burke:**

Professor of Molecular Biology, University of Sheffield Department of Animal & Plant Sciences, The University of Sheffield Alfred Denny Building, Western Bank, Sheffield, S10 2TN, Tel: +44 (0)114 222 0096 Email: t.a.burke@sheffield.ac.uk.

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