

Curriculum Vitae

Fatemeh Mohammadipanah

PhD in Microbiology

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Personal Information

Corresponding Address / Current position:

Assistant professor in Microbiology / Microbial Biotechnology at University of Tehran
Microbial Biotechnology Laboratory
School of Biology
College of Science

Responsibilities

Since June 2015	Advisor of international affairs at College of Science (University of Tehran)
2012 – present	Establishment and curator of UTBC (University of Tehran Biocompound Collection)
2011 – present	Teacher-Researcher at Department of Microbiology, University of Tehran
2008 – present	Establishment and curator of UTMC (University of Tehran Microorganisms Collection) (WDCM 937)
2007 – 2009	Laboratory Teaching assistant
2007 – 2009	Research assistant

Teaching Courses

Courses	Level
Scientific writing	BSc
Fundamentals of Food Biotechnology	BSc
Academic writing	BSc
Food Microbiology	BSc
Ecology	BSc
Biological Diversity of microorganisms	BSc
Environmental Microbiology	BSc
Structure and Diversity of Microorganisms Laboratory	BSc
Physiology of Microorganisms Laboratory	BSc
Industrial Microbiology	BSc
Biosafety	BSc, MSc, PhD
Methods in Biotechnology	MSc
Preservation of Microorganisms	MSc
Food Biotechnology	MSc

Microbial Biotechnology	MSc
Food Biotechnology	MSc
Pharmaceutical Biotechnology	MSc
Standards in Food Microbiology	MSc
Advanced Methods in Biotechnology	PhD
Bio-separation	PhD
Methods in Microbiology	PhD
Marine Microbiology	PhD

Publications: Research Articles

1. Dehghani M., **Mohammadipناه F.**, Guillemain G. J. Myxobacterial natural products: An under-valued source of products for drug discovery for neurological disorders, *NeuroToxicology* (2018), In Press.
2. Sajedi H., **Mohammadipناه F.**, Panahi H.K.S., An image analysis-aided redundancy reduction method for differentiation of identical Actinobacterial strains, submitted to the *Future Microbiology* (2018), In Press.
3. **Mohammadipناه F.**, Ghelichkhani F., Khajeh K., Hamed J., Alkaline protease from *Nocardopsis arvandica* UTMC 1492 isolated from saline soil with the ability in production of peptones hydrolysate. *Industrial Biotechnology* (2018), In Press.
4. **Mohammadipناه F.** and Momenilandi M., Potential of rare actinomycetes in the production of metabolites against multiple oxidant agents, *Pharmaceutical Biology* (2018), 56(1): 51-59.
5. Rahimi S. A., Sajedi H., **Mohammadipناه F.**, Differentiation of identical actinobacterial strains by wavelet transform and artificial neural network, IEEE, DOI: 10.1109/SISY.2017.8080552.
6. **Mohammadipناه F.** and Salimi F., Potential biological targets for bioassay development in drug discovery of Sturge-Weber syndrome. *Chemical Biology and Drug Design* (2017), doi: 10.1111/cbdd.13014.
7. Salimi F., Hamed J., Motevaseli E., **Mohammadipناه F.**, Isolation and screening of rare-actinobacteria, Isolation and screening of rare-actinobacteria, a new insight for finding natural products with anti-vascular calcification activity. *Journal of Applied Microbiology* (2017), 124, 254-266.

8. Lotfi M., Eskandari N. and **Mohammadipناه F.**, Evaluation of Nanoparticles as Carrier for *Bacillus Stearothermophilus* Spore Preservation in Bioindicator System, ***Journal of Pharmaceutical Sciences & Emerging Drugs* (2017)**, 5:1-5.
9. **Mohammadipناه F.**, Parvizi L., Hamed J. and Azizmohseni F., Protective effects of cryoprotectants and lyoprotectants on the survival of persipeptide producing *Streptomyces zagrosensis* UTMC1154. ***Biopreservation and Biobanking* (2017)**, 15(5):1-6.
10. Luzhetskyy A., Tokovenko B., Rückert C, Kalinowski J., **Mohammadipناه F.**, Wink J., Rosenkränzer B., and Myronovskyi M., Complete draft genome sequence of the actinobacterium *Nocardiopsis sinuspersici* UTMC 102 (=DSM 45277T) producing serine protease, ***Genome Announcements* (2017)**, 5(20): e00362-17.
11. Azarakhsh Y., **Mohammadipناه F.**, Nassiri S.M., Siavashi V., Hamed J, Isolation and screening of pro-angiogenic and anti-angiogenic metabolites producing rare-actinobacteria from soil. ***Journal of Applied Microbiology* (2017)**, 122(6):1595-1602.
12. **Mohammadipناه F.**, Montero-Calasanz M. D., Schumann P., Spröer C., Rohde M. and Klenk H-P. *Promicromonospora kermanensis* sp. nov., a new actinobacterium isolated from soil. ***International Journal of Systematic and Evolutionary Microbiology* (2017)**, 67: 262-267.
13. Dehghani M. and **Mohammadipناه F.**, Evaluation of growth inhibition activity of myxobacterial extracts against multi-drug resistant *Acinetobacter baumannii*, ***Progress in Biological Sciences* (2016)**,6(2):181-187.
14. KazemiShariatPanahi H., **Mohammadipناه F.**, Dehghani M., Optimization of extraction conditions for liquid liquid extraction of persipeptides from *Streptomyces zagrosensis* fermentation broth, ***European Chemical Bulletin* (2016)**, 5(9), 408-415.
15. **Mohammadipناه F.**, Lotfi M., Eskandari N., Efficacy of Nanostructures as Preservation Carriers of *Bacillus atrophaeus* in the Preparation of Sterilization Bioindicators. ***Journal of Pharmaceutical Innovation* (2016)**, 11(36):1-8.
16. **Mohammadipناه F.**, KazemiShariatPanahi H., Imanparast F., Hamed J., Development of a Reversed-Phase Liquid Chromatographic Assay for the Quantification of Total Persipeptides in Fermentation Broth. ***Chromatographia* (2016)**, 79: 1325-1332.
17. **Mohammadipناه F.** and Wink, J., Actinobacteria from Arid and Desert Habitats: Diversity and Biological Activity. ***Frontiers in Microbiology* (2016)** 6: 1-10.
18. **Mohammadipناه F.**, Hamed J., Schumann P., Spröer C., Del Carmen Montero-Calasanz M. and Klenk H.P., *Saccharothrix ecbatanensis* sp. nov., a novel actinobacterium isolated from soil. ***International Journal of Systematic and Evolutionary Microbiology* (2015)** 65(12):4544-4549.

19. Jafari S., Faridbod F., Norouzi P., Shiralizadeh Dezfuli A., Ajloo D., **Mohammadipanah F.** and Ganjali M.R., Detection of *Aeromonas hydrophila* Deoxyribonucleic Acid oligonucleotide Sequence using a Biosensor Design based on Ceria Nanoparticles Decorated Reduced Graphene Oxide and Fast Fourier Transform Square Wave Voltammetry. ***Analytica Chimica Acta* (2015) 895:1 80–88.**
20. Osdaghi E., Mohsen Taghavi S., Hamed J. and **Mohammadipanah F.**, Bacterial wilt of common bean (*Phaseolus vulgaris*) caused by *Curtobacterium flaccumfaciens* pv. *flaccumfaciens* in Iran. ***Australasian Plant Dis. Notes* (2015) 10: 23.**
21. Hamed J., Imanparast S. and **Mohammadipanah F.**, Molecular, chemical and biological screening of soil actinomycete isolates in seeking bioactive peptide metabolites. ***Iranian Journal of Microbiology* (2015) 7 (1): 23-30.**
22. Tarlani A., Narimani K., **Mohammadipanah F.**, Hamed J., Tahermansouri H. and Mohammadpour Amini M., Immobilized copper (II) macrocyclic complex on MWCNTs with antibacterial activity. ***Applied Surface Science* (2015) 341: 86–91.**
23. Hamed J. and **Mohammadipanah F.**, Biotechnological application and taxonomical distribution of plant growth promoting actinobacteria. ***Journal of Industrial Microbiology and Biotechnology* (2015) 42:157–171.**
24. Hamed J., Dehghani M. and **Mohammadipanah F.**, Isolation of extremely heavy metal resistant strains of rare actinomycetes from high metal content soils in Iran. ***International Journal of Environmental Research*, (2015) 9(2): 475-480.**
25. **Mohammadipanah F.**, Hamed J., Spröer C., Rohde M., Montero-Calasanz M.D. and Klenk H.P., *Streptomyces zagrosensis* sp. nov., isolated from soil. ***International Journal of Systematic and Evolutionary Microbiology* (2014) 64(10): 3434-3440.**
26. Matselyukh B., **Mohammadipanah F.**, Laatsch H., Rohr J., Efremenkova O. and Khilya V., N-methylphenylalanyl-dehydrobutyrine diketopiperazine, an A-factor mimic that restores antibiotic biosynthesis and morphogenesis in *Streptomyces globisporus* 1912-B2 and *Streptomyces griseus* 1439. ***The Journal of Antibiotics* (2015) 68(1): 9-14.**
27. **Mohammadipanah F.**, Hamed J., Spröer C., del Carmen Montero-Calasanz M., Schumann P. and Klenk H.P., *Promicromonospora iranensis* sp. nov., an actinobacterium isolated from rhizospheric soil. ***International Journal of Systematic and Evolutionary Microbiology* (2014) 64(9): 3314-3419.**
28. Hamed J., Moghimi H., Papiran R. and **Mohammadipanah F.**, Screening of phytotoxic activity and nlp genes from rhizosphere actinomycetes. ***Annals of Microbiology* (2014) 65(1): 527-532.**
29. Goljanian Tabrizi S., Hamed J. and **Mohammadipanah F.**, Screening of soil actinomycetes against *Salmonella* serovar Typhi NCTC 5761 and characterization of the prominent active strains. ***Iranian Journal of Microbiology* (2013) 5 (4): 268-271.**

30. **Mohammadipناه F.**, Hamedi J., Goker M., Fiebig A., Puka R., Spröer C. and Klenk H.P., *Kribbella shiraziensis* sp. nov., isolated from soil of Shiraz in Iran. ***International Journal of Systematic and Evolutionary Microbiology* (2013) 63 (9): 3369-3374.**
31. Hamedi J., **Mohammadipناه F.** and Ventosa A., Systematic and biotechnological aspects of halophilic and halotolerant actinomycetes. ***Extremophiles* (2013) 17 (1): 1-13.**
32. **Mohammadipناه F.**, Matasyoh J, Hamedi J, Klenk H.P. and Laatsch H., *Persipeptides A and B*, Two Cyclic Peptides from *Streptomyces* sp. UTMC 1154. ***Bioorganic and Medicinal Chemistry* (2012) 20: 335–339.**
33. Hamedi J., **Mohammadipناه F.**, Pötter G., Spröer C., Schumann P., Göker M., and Klenk H.P., *Nocardiopsis arvandica* sp. nov., isolated from the sandy soil of Iran. ***International Journal of Systematic and Evolutionary Microbiology* (2011) 61:1189-1194.**
34. Hamedi J., **Mohammadipناه F.**, Maghsoudi N., Khodagholi F. and Klenk H.P., Inhibition of oxidative stress-induced amyloid β formation in NT2 neurons by culture filtrate of a strain of *Streptomyces antibioticus*. ***Applied Microbiology and Biotechnology* (2010) 86: 1805-11.**
35. Hamedi J., **Mohammadipناه F.**, Klenk H.P., Pötter G., Schumann P. and Kroppensted R. M., *Nocardiopsis sinuspersici* sp. nov., isolated from the sandy soil of Iran. ***International Journal of Systematic and Evolutionary Microbiology* (2010) 60: 2346–2352.**
36. Hamedi J., **Mohammadipناه F.**, Klenk H.P., Pötter G., Schumann P., Spröer C. and Kroppensted R. M., *Streptomyces iranensis* sp. nov., a novel Streptomycete isolated from soil of Iran. ***International Journal of Systematic and Evolutionary Microbiology* (2010) 60: 1504-1509.**
37. Keymanesh K., Hamedi J., Moradi S., **Mohammadipناه F.** and Sardari S., Antimicrobial, Antifungal and Toxicity of rare Iranian Plants. ***International Journal of Pharmacology* (2009) 5(1): 81-85.**
38. Hamedi J. and Mohammadipناه F., Isolation of bioactive material producer Actinobacteria against phytopathogenic fungi. ***Applied Entomology and Phytopathology* (2008) 76(2): 33-54.,**
39. Hamedi J., **Mohammadipناه F.**, Amoozegar M.A. and Dehghan S., Isolation of a new moderately halophilic broad-spectrum antibiotic producing actinobacter. ***Joundishapour Journal of Natural Pharmaceutical Products* (2007) 2(2): 94-104.**

Book Chapters

1. **Mohammadipanah, F.**, Hamed, J. and Dehghani, M. ***Halophilic Bacteria: Potentials and Applications in Biotechnology*** In Halophiles Biodiversity and Sustainable Exploitation (ed by: D.K. Maheshwari, M. Saraf), **2015**, 277-322, Springer.
2. Hamed, J., **Mohammadipanah, F.** and Seyed Hamed Kazemi Shariat Panahi. ***Biotechnological Exploitation of Actinobacterial members*** In Halophiles Biodiversity and Sustainable Exploitation (ed by: D.K. Maheshwari, M. Saraf), **2015**, 57-144, Springer.
3. **Mohammadipanah, F.** and Dehghani M., ***Classification and Taxonomy of Actinobacteria*** in Biology and Biotechnology of Actinobacteria (ed by: Wink J., Mohammadipanah F., Hamed J.), **2017**, 51-78, Springer.
4. Wink J., **Mohammadipanah, F.** and Kazemi Shariat Panahi S.H., ***Practical aspects of working with Actinobacteria*** in Biology and Biotechnology of Actinobacteria (ed by: Wink J., Mohammadipanah F., Hamed J.), 329-376, **2017**, Springer.

Supervised Thesis and Dissertations

Supervisor of the MSc thesis:

1. Introduction of a suitable HPHC method for assay of Percimycins in fermentation broth, **2012**, Hamed Kazemi.
2. Isolation of bioactive peptide compound from a soil actinomycete isolates, **2012**, Somaye Imanparast.
3. Introduction of a rapid method for assessment the quality of raw and pasteurized milk, **2012**, Fahimeh Mohamadnia.
4. Isolation of heavy metal resistant actinobacteria from soil with high level of heavy metal content, **2013**, Mona Dehghani.
5. Introduction of a suitable method in long-term preservation of the producer strain of Percimycin compounds, **2012**, Leila Parvizi.
6. Optimization of persimycin purification process, **2014**, Farzaneh Rahmati.
7. Selective isolation of sporangium-producing rare actinomycetes, **2014**, Nazanin Zohorian.
8. Localization of *Geobacillus stearothermophilus* bioindicator production and its application in steam heat sterilization, **2015**, Neda ESkandari.
9. Isolation and identification of marine bacteria by the ability in production of antifouling secondary metabolites from Iran marine habitats, **2015**, Sheida Heidarian.
10. Purification and characterization of protease from *Nocardioopsis arvandica* UTMC1492, **2015**, Farid Ghelichkhani.
11. Isolation of Antioxidant Producing Rare Actinomycete genera , **2015**, Mana Momeni.
12. Investigation of indigenous Myxobacteria in production of antibiotic compounds from Iran, **2016**, Fatemeh Saadatpour.
13. Extraction and purification of bioactive secondary metabolites from *Actinophytocola* sp. UTMC 1143 (DSM 45493), **2016**, Maryam Amirahmadi.
14. Engineering screening for the optimal growth and production of bioactive metabolite from strains *Promicromonospora* sp. UTMC 2243, **2016**, Meisam Mirjalili.

15. Screening of strains belongs to the genera of *Amycolatopsis* and *Actinokineospora* for production of new secondary metabolites, **2017**, Bahare Heidari.
16. Functional optimization of the formulation of antiseptics and biocides, **2017**, Mozhdeh Mehrparvar.
17. Discovery of new pharmaceutical activities for persimycin compounds produced by *Streptomyces zagrosensis*, **2017**, Malihe Bakhtiarizade.
18. Isolation of Myxobacteria with the capability in production of protease enzyme from natural habitats of Iran, **2017**, Nasim Roohi.
19. Secondary metabolite biosynthesis pathway analysis in the members of *Nocardioopsis*, *Streptomyces* and *Glycomyces* genera, **2017**, Zahra Zarei.
20. Evaluation of Anti-inflammation properties of the Myxobacterial extracts on gene expression pattern of PBMC, **2017**, Saman Azizi.

Advisor of the MSc thesis:

1. Screening of differentiation inducers Actinomycetes in mesenchymal stem cells, **2012**, Maryam Rezazadeh.
2. Isolation and screening of thermophilic Actinomycetes from tropical soils of Iran, **2012**, Leila Khosravani.
3. Insecticidal activities of Actinobacteria extracts against German cockroach "*Blattella germanica*" and strain identification, **2013**, Elena Valijanlian.
4. Study of bio-bleaching by Actinobacteria, **2014**, Ava Vaez.
5. Insecticidal activity investigation of Actinomycetes strains against the black bean aphid *Aphis fabae* (Hemiptera: Aphididae), **2014**, Mohsen Zarei.

Supervisor of the PhD thesis:

1. Evaluation of Myxobacterial metabolites isolated from soil of Iran against prevalent nosocomial infection agents, **2014**, Mona Dehhaghi
2. Isolation and screening of Actinobacteria from Caspian sea and Persian Gulf and determining AChE inhibitory activity of their secondary metabolites, **2014**, Faezeh Almasi
3. Diversity of toxin producing Cyanobacteria in lagoon ecosystems of Iran, **2017**, Yasaman Tavakoli

Advisor of the PhD thesis:

1. Screening of Actinobacterial extract inhibiting the calcification process in endothelial cells, **2013**, Fatemeh Salimi.
2. Isolation of Actinomycetes producing compounds that affect angiogenesis process in endothelial cells, **2013**, Yusof Azarakhsh.
3. Investigation of Actinobacterial biodiversity from Kabotaran and Sahoolan caves in Iran, **2015**, Maghsoud Kafshnouchi.

Industrial Exposure

Patent: Mehrabian M., Hamed J., Mohammadipanah F., 2008, Assay of antimicrobial activity using electric potential difference, 008022, Governmental organization of Intellectual Property, Iran.

Patent: Mohammadipanah F., Hamed J., 2013, Biosynthesis and activity of Persipeptides antibiotics, 027621, Governmental organization of Intellectual Property, Iran.

Patent: Mohammadipanah F., Hamed J., 2013, Designing a device for Ampoule preparation in microorganism preservation, 027622, Governmental organization of Intellectual Property, Iran.

Patent: Seyed Hamed Kazemi Shariat Panahi, Mohammadipanah, Hamed J. F., 2015, Assay Development of Persipeptide concentration in fermentation media. 010054, Governmental organization of Intellectual Property, Iran.

Patent: Mohammadipanah F., Neda Eskandari, 2017, Modification of bioindicators in Sterilization process using silica and gamma alumina. 008372, Governmental organization of Intellectual Property, Iran.