Curriculum Vitae (Last updated on Dec. 27, 2019)

Mohammad Hossein Morowvat

A) Personal Information:

Name: Mohammad Hossein

Surname: Morowvat

Date and Place of Birth: March 21, 1983; in: Neyriz, Fars Province, Iran

Sex: Male

Marital Status: Married (No children)

Languages:

- Persian (Original Language),
- English (Professional),
- German (Reading, writing, speaking)
- French (Elementary)

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B) Education:

- 2008-2014: Ph.D. in Pharmaceutical Biotechnology, Department of Pharmaceutical Biotechnology, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

  Thesis Title: Study of the effects of *ack*A and *pta* inhibition by antisense RNA on acetate excretion and recombinant beta interferon expression in *Escherichia coli*, under supervision of Dr. H. Vahidi, Dr V. Babaeipour, Dr. N. Maghsoudi and Dr H. Rajabi-Memari.

- 2001-2008: Pharm. D. Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran.

  Thesis Title: PCR amplification of 18S rRNA, Single Cell Protein production and fatty acid evaluation of some naturally isolated Microalgae, under supervision of Dr. Y. Ghasemi, Dr. S. Rasoul-Amini and Dr. A. Mohagheghzadeh.

C) Publications:

C.1) Research Papers:

1. Morowvat, M.H., Goharian, S., Ghasemi, Y., 2019. Investigation of antioxidant properties of three naturally isolated microalgae: Identification and bioinformatics evaluation of the most efficient strain. Recent Patents on Biotechnology, 13(4): 277-283.

2. Esfandiari, F., Motazedian, M.H., Asgari, G., Morowvat, M.H., Molaei, M., Heli, H., 2019. Paromomycin-loaded mannosylated chitosan nanoparticles: synthesis, characterization and targeted drug delivery against leishmaniasis. Acta Tropica, 197: 105045.

3. Zarei, M., Rahbar, R., Morowvat, M.H., Nezafat, N., Negahdaripour, M., Berenjian, A., Ghasemi, Y., 2019. Arginine deiminase: Current understanding and applications. Recent Patents on Biotechnology, 13(2): 124-136.

4. Zarei, M., Nezafat, N., Rahbar, M.R., Negahdaripour, M., Sabetian, S., Morowvat, M.H., Ghasemi, Y., 2019. Decreasing the immunogenicity of arginine deaminase enzyme via structure-based computational analysis. Journal of Biomolecular Structure and Dynamics, 37(2): 523-536.

5. Zarei, M., Nezafat, N., Morowvat, M.H., Ektefaie, M., Ghasemi, Y., 2019. *In silico* analysis of different signal peptides for secretory production of arginine deiminase in *Escherichia coli*. Recent Patents on Biotechnology, 13(3): 217-227.

6. Morowvat, M.H., Ghasemi, Y., 2019. Maximizing biomass and lipid production in heterotrophic culture of *Chlamydomonas reinhardtii*: Techno-economic assessment. Recent Patents on Food, Nutrition and Agriculture, 10(2): 115-123.

7. Entezar-Almahdi, E., Morowvat, M.H., 2019. Pharmacokinetic aspects of carbon nanotubes: Improving outcomes of pegylation. Current Nanoscience, 15(5): 454-459.

8. Mohammady, M., Ghetmiri, S.I., Baharizade, M., Morowvat, M.H., Torabi, S., 2019. Expanding the biotherapeutics realm via miR-34a: "Potent clever little" agent in breast cancer therapy. Current Pharmaceutical Biotechnology, 20(8): 665-673.

9. Zarei, M., Rahbar, R., Nezafat, N., Negahdaripour, M., Morowvat, M.H., Ghasemi, Y., 2019. Computational analysis of arginine deiminase sequences to provide a guideline for protein engineering. Current Proteomics, Accepted.

10. Zarei, M., Rahbar, R., Negahdaripour, M., Morowvat, M.H., Nezafat, N., Ghasemi, Y., 2019. Cell penetrating peptide: Sequence-based computational prediction for intracellular delivery of arginine deiminase. Current Proteomics, Accepted.

11. Mohammadi, S., Mostafavi-Pour, Z., Ghasemi, Y., Barazesh, M., Kavousi Pour, S., Atapour, A., Mokarram, P., Morowvat, M.H., 2019. *In silico* analysis of different signal peptides for the excretory production of recombinant NS3-GP96 fusion protein in *Escherichia coli*. International Journal of Peptide Research and Therapeutics, 25(4): 1279-1290.

12. Mohammadi, F., Nezafat, N., Berenjian, A., Negahdaripour, M., Zamani, M., Ghoshoon, M.B. Morowvat, M.H., Hemmati, S., Ghasemi, Y., 2019. Extracellular production of a potent and chemical resistant nattokinase in immobilized *Escherichia coli* using response surface methodology. Current Pharmaceutical Biotechnology, 19(11): 856-868.

13. Negahdaripour, M., Nezafat, N., Heidari, R., Erfani, N., Hajighahramani, N., Ghoshoon, M.B., Shoolian, E., Rahbar, M.R., Najafipour, S., Dehshahri, A., Morowvat, M.H., Ghasemi, Y., 2019. Production and preliminary *in vivo* evaluations of a novel *in silico*-designed L2-based potential HPV vaccine. Current Pharmaceutical Biotechnology, Accepted.

14. Khademi, H., Morowvat, M.H., Ghasemi, Y., 2018. Effects of nitrogen and sulfur starvation on β-carotene production and lipid profile of *Dunaliella salina*. Trends in Pharmaceutical Sciences, 4(3): 187-196.

15. Morowvat, M.H., Ghasemi, Y., 2018. Cell growth, lipid production and productivity in photosynthetic microalga *Chlorella vulgaris* under different nitrogen concentrations and culture media replacement. Recent Patents on Food, Nutrition and Agriculture, 9(2): 142-151.

16. Niknezhad, S.V., Morowvat, M.H., Najafpour-Darzi, G., Iraji, A., Ghasemi, Y., 2018. Exopolysaccharide from *Pantoea* sp. BCCS 001 GH isolated from nectarine fruit: Production in submerged culture and preliminary physicochemical characterizations. Food Science and Biotechnology, 27(6): 1735-1746.

17. Niknezhad, S.V., Najafpour-Darzi, G., Morowvat, M.H., Ghasemi, Y., 2018. Exopolysaccharide from *Pantoea* sp. BCCS 001 GH: Physical characterizations, emulsification, and antioxidant activities. International Journal of Biological Macromolecules, 118(15): 1103-1111.

18. Barazesh, A., Motazedian, M.H., Sattarahmady, N., Morowvat, M.H., Rashidi, S., 2018. Preparation of meglumine antimonate loaded albumin nanoparticles and evaluation of its anti-leishmanial activity: an in vitro assay. Journal of Parasitic Disease, 42(3): 416-422.

19. Morowvat, M.H., Ghasemi, Y., 2018. Studying the effects of different phosphorous concentrations on biomass and β-carotene production in nitrogen starved *Dunaliella salina*. Research Journal of Pharmacy and Technology, 11(2): 494-498.

20. Negahdaripour, M., Nezafat, N., Eslami, M., Ghoshoon, M.B., Shoolian, E., Najafipour, S., Morowvat, M.H., Dehshahri, A., Erfani, N., Ghasemi, Y., 2018. Structural vaccinology considerations for in silico designing of a multi-epitope vaccine. Infection, Genetics and Evolution, 58: 96-109.

21. Sajadian, S.F., Morowvat, M.H., Ghasemi, Y., 2018. Investigation of autotrophic, heterotrophic and mixotrophic culture of lipid and biomass content in *Chlorella vulgaris*. National Journal of Physiology, Pharmacy and Pharmacology, 8(4): 594-599.

22. Zarei, M., Nezafat, N., Morowvat, M.H., Dehshahri, A., Ghoshoon, M.B., Berenjian, A., Ghasemi, Y., 2017. Medium optimization for recombinant soluble arginine deiminase expression in *Escherichia coli* using response surface methodology. Current Pharmaceutical Biotechnology, 18(11): 935-941.

23. Eskandarian, T., Morowvat, M.H., Zare, M., 2017. Assessment of cytotoxicity of titanium tetrafluoride on human fibroblast cell line and optimization of operational conditions using response surface methodology. Journal of Clinical and Diagnostic Research, 11(12): ZC23-ZC26.

24. Mousavi, P., Mostafavi-Pour, Z., Morowvat, M.H., Nezafat, N., Zamani, M., Berenjian, A., Ghasemi, Y., 2017. In silico analysis of several signal peptides for the excretory production of reteplase in *Escherichia coli*. Current Proteomics, 14 (4): 326-335.

25. Negahdaripour, M., Eslami, M., Nezafat, N., Hajighahramani, N., Ghoshoon, M.B., Shoolian, E., Dehshahri, A., Erfani, N., Morowvat, M.H., Ghasemi, Y., 2017. A novel HPV prophylactic peptide vaccine, designed by immunoinformatics and structural vaccinology approach. Infection, Genetics and Evolution, 54: 402-416.

26. Safarpour, H., Banadkoki, S.B., Keshavarzi, Z., Morowvat, M.H., Soleimanpour, M., Pourmolaei, S., Shirazi, F.H., 2017. Expression analysis and ATR-FTIR characterization of the secondary structure of recombinant human TNF-α from *Escherichia coli* SHuffle® T7 express and BL21 (DE3) cells. International Journal of Biological Macromolecules, 99: 173-178.

27. Negahdaripour, M., Nezafat, N., Hajighahramani, N., Rahmatabadi, S.S., Morowvat, M.H., Ghasemi, Y., 2017. In silico study of different signal peptides for secretory production of interleukin-11 in *Escherichia coli*. Current Proteomics, 14 (2): 112-121.

28. Morowvat, M.H., Ghasemi, Y., 2017. Impacts of nitrogen starvation on expression profiles of involving genes in triacylglycerol biosynthesis in *Chlamydomonas reinhardtii*: Towards microalgal systems biotechnology. Journal of Young Pharmacists, 9 (4): 496-501.

29. Roointan, A., Morowvat, M.H., 2017. Road to the future of systems biotechnology: CRISPR-Cas-mediated metabolic engineering for recombinant protein production. Biotechnology and Genetic Engineering Reviews, 32 (1-2): 74-91.

30. Shaker, S., Morowvat, M.H., Ghasemi, Y., 2017. Effects of sulfur, iron and manganese starvation on growth, β-carotene production and lipid profile of *Dunaliella salina*. Journal of Young Pharmacists, 9 (1): 43-46.

31. Morowvat, M.H., Ghasemi, Y., 2016. Developing a robust method for quantification of β-carotene in *Dunaliella salina* biomass using HPLC methods. International Journal of Pharmaceutical and Clinical Research, 8 (10): 1423-1428.

32. Morowvat, M.H., Ghasemi, Y., 2016. Spray-drying microencapsulation of β-carotene contents in powdered *Dunaliella salina* biomass. International Journal of Pharmaceutical and Clinical Research, 8 (11): 1533-1536.

33. Morowvat, M.H., Ghasemi, Y., 2016. Medium optimization by artificial neural networks for maximizing the triacylglycerides-rich lipids from biomass of *Chlorella vulgaris*. International Journal of Pharmaceutical and Clinical Research, 8 (10): 1414-1417.

34. Morowvat, M.H., Ghasemi, Y., 2016. Evaluation of antioxidant properties of some naturally isolated microalgae: Identification and characterization of the most efficient strain. Biocatalysis and Agricultural Biotechnology, 8: 263-269.

35. Morowvat, M.H., Ghasemi, Y., 2016. Rapid determination of lipid accumulation under sulfur starvation in *Chlamydomonas reinhardtii* microalga using Fourier transform infrared (FTIR) spectroscopy. International Journal of Pharmaceutical and Clinical Research, 8 (9): 1356-1360.

36. Nikbakht, M., Gholami, A., Morowvat, M.H., Ghasemi, Y., Mohagheghzadeh, A., 2016. Analysis of volatiles and 18S rRNA gene of *Haplophyllum canaliculatum* in *in vitro* cultures. Research Journal of Pharmacognosy, 3 (4): 17-25.

37. Morowvat, M.H., Ghasemi, Y., 2016. Screening of some naturally isolated microalgal strains for polyunsaturated fatty acids production. Asian Journal of Pharmaceutical Research and Health Care, 8 (4): 122-130.

38. Zarei, M., Mobasher, M.A., Morowvat, M.H., Mousavi, P., Montazeri-Najafabady, N., Hajighahramani, N., Ghasemi, Y., 2016. Effects of menthone and piperitone on growth,

chlorophyll *a* and β-carotene production in *Dunaliella salina*. Journal of Applied Pharmaceutical Science, 6 (9): 215-219.

39. Mousavi, P., Morowvat, M.H., Montazeri-Najafabady, N., Abolhassanzadeh, Z., Hamidi, M., Niazi, A., Ghasemi, Y., 2016. Investigating the effects of phytohormones on growth and β-carotene production in a naturally isolates strain of *Dunaliella salina*. Journal of Applied Pharmaceutical Science, 6 (8): 164-171.

40. Montazeri-Najafabady, N., Negahdaripour, M., Salehi, M.H., Morowvat, M.H., Shaker, S., Ghasemi, Y., 2016. Effects of osmotic shock on production of β-carotene and glycerol in a naturally isolated strain of *Dunaliella salina*. Journal of Applied Pharmaceutical Science, 6 (8): 160-163.

41. Morowvat, M.H., Ghasemi, Y., 2016. Culture medium optimization for enhanced β-carotene and biomass production by *Dunaliella salina* in mixotrophic culture. Biocatalysis and Agricultural Biotechnology, 7: 217-223.

42. Mosaviazam, B., Ramezani, A., Morowvat, M.H., Niazi, A., Mousavi, P., Moghadam, A., Zarrini, G., Ghasemi, Y., 2016. HSP70 gene expression analysis in *Dunaliella salina* under salt stress. International Journal of Pharmacognosy and Phytochemical Research, 8 (5): 767-770.

43. Rafiee, B., Morowvat, M.H., Rahimi-Ghalati, N., 2016. Comparing the effectiveness of dietary vitamin C and exercise interventions on fertility parameters in normal obese men. Urology Journal, 13 (2): 2635-2639.

44. Rahmatabadi, S.S., Nezafat, N., Negahdaripour, M., Hajighahramani, N., Morowvat, M.H., Ghasemi, Y., 2016. Studying the features of 57 confirmed CRISPR loci in 29 strains of *Escherichia coli*. Journal of Basic Microbiology, 56 (6): 645-653.

45. Faridi, P., Rezaei, Z., Mohagheghzadeh, A., Hamidpour, M., Morowvat, M.H., Khalaj, A., Ghasemi, Y., 2015. Chemical composition and antimicrobial activity of volatile oil of *Phoenix dactylifera* staminate flower spikes. International Journal of Pharmacognosy and Phytochemical Research, 7 (6): 1139-1141.

46. Shaker, S., Nemati, A., Montazeri-Najafabady, N., Mobasher, M.A., Morowvat, M.H., Ghasemi, Y., 2015. Treating urban wastewater: Nutrient removal by using immobilized green algae in batch cultures. International Journal of Phytoremediation, 17: 1177-1182.

47. Azadi, A., Morowvat, M.H., Sakhteman, A. Mohagheghzadeh, A. 2015. Pharmacy of PharmNBIC: Thinking about 50 years ahead of pharmacy. Trends in Pharmaceutical Sciences, 1 (4): 191-198.

48. Ghasemi, Y., Abedtash, H., Morowvat, M.H., Mohagheghzadeh, A., Ardeshir-Rouhani-Fard, S. 2015. Essential oil composition and bioinformatic analysis of Spanish broom (*Spartium junceum* L.). Trends in Pharmaceutical Sciences, 1 (2): 97-104.

49. Morowvat, M.H., Babaeipour, V., Rajabi-Memari, H., Vahidi, H., 2015. Optimization of fermentation condition for recombinant human Interferon beta (rhINF-β) production by *Escherichia coli* using response surface methodology. Jundishapur Journal of Microbiology, 8 (4): e16236.

50. Zare, M.H., Mohkam, M., Morowvat, M.H., Nezafat, N., Ghasemi, Y., 2015. Probiotic potential of five *Lactobacillus* strains isolated from traditional Persian yoghurt in Fars province, Iran: viewing through the window of phylogenetics. Biosciences Biotechnology Research Asia, 12 (2): 1265-1272.

51. Morowvat, M.H., Babaeipour, V., Rajabi-Memari, H., Vahidi, H., 2014. Metabolic changes of recombinant *Escherichia coli* BL21 (DE3) during overexpression of recombinant human interferon beta in HCDC. International Journal of Biosciences, 4 (4): 131-138.

52. Morowvat, M.H., Babaeipour, V., Rajabi-Memari, H., Vahidi, H., Maghsoudi, N., 2014. Overexpression of recombinant human beta Interferon beta (rhINF-β) in periplasmic space of *Escherichia coli*. Iranian Journal of Pharmaceutical Research, 13 (Supplement): 155-164.

53. Ghasemi, Y., Dabbagh, F., Rasoul-Amini, S., Borhani Haghighi, A., Morowvat, M.H., 2012. The possible role of HSPs on Behçets disease: A bioinformatic approach. Computers in Biology and Medicine, 42 (11): 1079-1085.

54. Morowvat, M.H., Babaeipour, V., Rajabi Memari, H., Vahidi, H., 2012. Down-regulation of acetate pathway through antisense RNA against ACKA and PTA in *Escherichia coli*: Improved beta interferon production. Research in Pharmaceutical Sciences, 7 (5): S432.

55. Nasseri, A.T., Rasoul-Amini, S., Morowvat, M.H., Ghasemi, Y., 2011. Single cell protein: Production and process. American Journal of Food Technology, 6 (2): 103-116.

56. Ghasemi, Y., Rasoul-Amini, S., Kazemi, A., Zarrini, G., Morowvat, M.H., Kargar, M., 2011. Isolation and Characterization of some moderately halophilic bacteria with lipase activity. Microbiology, 80 (4): 483-487.

57. Mobasher, M.A., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., 2010. Fatty acid evaluation in a naturally isolated strain of *Chlorella vulgaris*. Journal of Biotechnology, 150 (1): 452-453.

58. Mosavi-Azam, S.B., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., 2010. Production of omega-3 fatty acids by unicellular cyanobacterium *Synechococcus* sp. Journal of Biotechnology, 150 (1): 386.

59. Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., 2010. *Chlamydomonas* as a new organism for biodiesel production. Bioresource Technology, 101 (6): 2059-2062.

60. Rasoul-Amini, S., Ghasemi, Y., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Mosavi Azam, S.B., Montazeri-Najafabadi, N., Nouri, F., Parvizi, R., Negintaji, N., Khoubani, S., 2010. Characterization of Hydrocortisone Bioconversion and 16S rRNA Gene in *Synechococcus nidulans* Cultures, Journal of Applied Biochemistry and Microbiology, 46 (2): 1-7.

61. Ghasemi, Y., Mohagheghzadeh, A., Ostovan, Z., Moshavash, M., Rasoul-Amini, S., Morowvat, M.H., 2010. Biotransformation of some monoterpenoid ketones *by Chlorella vulgaris* MCCS 012, Chemistry of Natural Compounds, 46 (5): 734-737.

62. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Khoubani, S., Negintaji, N., Nouri, F., Parvizi, R., 2009. C-20 Ketone Reduction of Hydrocortisone by a rice field microalga *Chlorella vulgaris* MCCS 013. Chemistry of Natural Compounds, 45 (6): 824-828.

63. Rasoul-Amini, S., Ghasemi, Y., Morowvat, M.H., Mohagheghzadeh, A., 2009. PCR amplification of 18S rRNA, Single Cell Protein production and fatty acid evaluation of some naturally isolated microalgae, Food Chemistry, 116 (1): 129-136.

64. Ghasemi, Y., Mohagheghzadeh, A., Moshavash, M., Ostovan, Z., Rasoul-Amini, S., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Mosavi-Azam, S.B., 2009. Biotransformation of monoterpenes by *Oocystis pusilla*, World Journal of Microbiology and Biotechnology, 25 (7): 1301-1304.

65. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Zarrini, G., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kafilzadeh, F., Kazemi, A., 2008. An optimized medium for screening of L-Asparaginase production by *Escherichia coli*, American Journal of Biochemistry and Biotechnology, 4 (4): 422-424.
66. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., Raee, M.J., Ghoshoon, M.B., Nouri, F., Negintaji, N., Parvizi, R., Mosavi Azam. S.B., Shokravi, Sh., 2008. Characterization of hydrocortisone biometabolites and 18S rRNA gene in *Chlamydomonas reinhardtii* cultures, Molecules, 13 (10): 2416-2425.
67. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., Mosavi Azam, S.B., Shokravi, Sh., Mohagheghzadeh, A., Ghoshoon, M.B., Raee, M.J., 2008. Bioconversion of Hydrocortisone by unicellular microalga *Oocystis pusilla*, Biotechnology, 7 (2): 293-298.
68. Zargaran, A., Mohagheghzadeh, A., Ghasemi, Y., Morowvat, M.H., 2008. Medical ethics in ancient Persia. Quarterly Journal of Medical Ethics, 2 (2): 91-121, (in Persian).
69. Ghasemi, Y., Khalaj, A., Mohagheghzadeh, A., Khosravi, A., Morowvat, M.H., 2007. *Hypericum elongatum*: Composition and in vitro antimicrobial activity. Journal of Applied Sciences, 7 (18): 2671-2675.
70. Ghasemi, Y., Faramarzi, M.A., Arjmand Inalou, M., Mohagheghzadeh, A., Shokravi, Sh., Morowvat, M.H., 2007. Side-chain cleavage and C-20 Ketone reduction of Hydrocortisone by a natural isolate of *Chroococcus dispersus*, Annals of Microbiology, 57 (4): 577-581.
71. Ghasemi, Y., Moradian, A., Mohagheghzadeh, A., Shokravi, Sh., Morowvat, M.H., 2007. Antifungal and antibacterial activity of the microalgae collected form paddy fields of Iran: characterization of antimicrobial activity of *Chroococcus dispersus*. Journal of Biological Sciences, 7 (6): 904-910.
72. Mohammadi, S., Barazesh, M., Morowvat, M.H., Karimipour, M., Kavousi Pour, S., Vosoughi, A.R., Ghavami, S., Mokarram, P., Khanaki, K., 2019. Engineering large animal models for neurodegenerative diseases using CRISPR/Cas9 technology. Current Neuropharmacology. Submitted.
73. Morowvat, M.H., 2018. Bioengineered host cells through CRISPR-Cas9 genome editing system as the next-generation of cell factories. Molecular Biotechnology. Submitted.

74. Morowvat, M.H., Ghasemi, Y., 2018. Effects of sulfur starvation on growth rates, biomass and lipid contents in the green microalga *Scenedesmus obliquus*. Current Chemical Biology, Submitted.

75. Abdollahi, S., Morowvat, M.H., Savardashtaki, A., Irajie, C., Najafipour, S., Zarei, M., Ghasemi, Y., 2019. Amino acids sequence based analysis of arginine deiminase from different prokaryotic organisms: An *in silico* approach. The Protein Journal. Submitted.

76. Morowvat, M.H., Ghasemi, Y., 2016. Enhancement of recombinant human interferon-β production in high cell density cultivation of *Escherichia coli*. Current Pharmaceutical Biotechnology. Submitted.

C.2) GenBank Insertions:

1. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Scenedesmus* sp. VN 001 18S ribosomal RNA gene, partial sequence. NCBI, MG653564.1, GI: 1476493962.
2. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Chlorophyta* sp. VN 002 18S ribosomal RNA gene, partial sequence. NCBI, MG653565.1, GI: 1476493963.
3. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Scenedesmus* sp. VN 003 18S ribosomal RNA gene, partial sequence. NCBI, MG653566.1, GI: 1476493964.
4. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Desmodesmus* sp. VN 004 18S ribosomal RNA gene, partial sequence. NCBI, MG653567.1, GI: 1476493965.
5. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Scenedesmus* sp. VN 005 18S ribosomal RNA gene, partial sequence. NCBI, MG653568.1, GI: 1476493966.
6. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Scenedesmus* sp. VN 006 18S ribosomal RNA gene, partial sequence. NCBI, MG653569.1, GI: 1476493967.

7. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Desmodesmus* sp. VN 007 18S ribosomal RNA gene, partial sequence. NCBI, MG653570.1, GI: 1476493968.
8. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Tetradesmus* sp. VN 008 18S ribosomal RNA gene, partial sequence. NCBI, MG653571.1, GI: 1476493969.
9. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Scenedesmus* sp. VN 009 18S ribosomal RNA gene, partial sequence. NCBI, MG653572.1, GI: 1476493970.
10. Ghasemi, Y., Niknezhad, S.V., Najafpour Darzi, G., Morowvat, M.H, Mousavi, P., Kazemi, A. 2018. *Scenedesmus* sp. VN 010 18S ribosomal RNA gene, partial sequence. NCBI, MG653573.1, GI: 1476493971.
11. Fadaei, F., Odooli, S., Niknezhad, S.V., Dinpazhooh, Z., Shaker, S., Mobasher, M.A., Morowvat, M.H. Ghasemi, Y., 2018. *Dunaliella* sp. strain FF-001 small subunit ribosomal RNA gene, partial sequence. NCBI, MH734604.1, GI: 1446043104.
12. Dinpazhooh, Z., Niknezhad, S.V., Fadaei, F., Odooli, S., Ektefaie, M., Morowvat, M.H. Ghasemi, Y., 2018. *Desmodesmus* sp. ZD-01 small subunit ribosomal RNA gene, partial sequence. NCBI, MH714466.1, GI: 1441495772.
13. Niknezhad, S.V., Odooli, S., Morowvat, M.H., Najafpour D, G. Ghasemi, Y., 2018. *Pantoea* sp. strain BCCS 001 GH 16S ribosomal RNA gene. NCBI, MH026116.1, GI: 1354639088.
14. Morowvat, M.H., Ghasemi, Y., 2017. Evaluation of antioxidant properties of some naturally isolated microalgae: Identification and characterization of the most efficient strain. NCBI, KX774416.1, GI: 1167633038.
15. Morowvat, M.H., Ghasemi, Y., 2017. Evaluation of antioxidant properties of some naturally isolated microalgae: Identification and characterization of the most efficient strain. NCBI, KX774417.1, GI: 1167633039.
16. Morowvat, M.H., Ghasemi, Y., 2017. Evaluation of antioxidant properties of some naturally isolated microalgae: Identification and characterization of the most efficient strain. NCBI, KX774418.1, GI: 1167633040.
17. Morowvat, M.H., Ghasemi, Y., 2017. Evaluation of antioxidant properties of some naturally isolated microalgae: Identification and characterization of the most efficient strain. NCBI, KX774419.1, GI: 1167633041.

18. Morowvat, M.H., Ghasemi, Y., 2017. Evaluation of antioxidant properties of some naturally isolated microalgae: Identification and characterization of the most efficient strain. NCBI, KX774420.1, GI: 1167633042.

19. Ghasemi, Y., Ghoshoon, M.B., Ghasemian, A., Raee, M.J., Morowvat, M.H., Maghami, S., Ebrahiminezhad, A., 2009. Molecular cloning, expression and characterization of L-asparaginase II from *Escherichia coli* YG 001. NCBI, GQ901077.1, GI: 260181616.

20. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Isolation and identification of PHA-producing bacterium, *Bacillus* sp. BCCS 061. NCBI, GQ352452.1, GI: 255661921.

21. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Characterization of 16S rRNA gene of *Bacillus* sp. BCCS 060. NCBI, GQ352451.1, GI: 255661920.

22. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Characterization of PHA-production of *Bacillus* sp. BCCS 059. NCBI, GQ352450.1, GI: 255661919.

23. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Isolation and identification of halophilic bacterium, *Aeromonas* sp. BCCS 058, from the Maharlu salt lake in the south of Iran. NCBI, GQ352449.1, GI: 255661918.

24. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Isolation and identification of PHA-producing bacterium, *Bacillus* sp. BCCS 057. NCBI, GQ352448.1, GI: 255661917.

25. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Isolation and identification of halophilic bacterium, *Aeromonas* sp. BCCS 056, from the Maharlu salt lake in the south of Iran. NCBI, GQ352447.1, GI: 255661916.

26. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Isolation and

identification of PHA-producing bacterium, *Escherichia coli* BCCS 055. NCBI, GQ352446.1, GI: 255661915.

27. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. PCR amplification and characterization of 16S rRNA gene of *Escherichia coli* BCCS 054. NCBI, GQ352445.1, GI: 255661914.
28. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Production of polyhydroxyalkanoates by *Pantoea* sp. BCCS 053. NCBI, GQ352444.1, GI: 255661913.
29. Ghasemi, Y., Parsaei-Ghaderabadi, K., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Kazemi, A., Kafilzadeh, F., 2009. Screening of polyhydroxyalkanoates-producing bacteria from different environments, *Lysobacter* sp. BCCS 052. NCBI, GQ352443.1, GI: 255661912.
30. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Kafilzadeh, F., 2009. Characterization of asparaginase activity and 16S ribosomal RNA gene of *Escherichia coli* BCCS 051. NCBI, GQ325248.1, GI: 254733512.
31. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Kafilzadeh, F., 2009. PCR amplification of the 16S rRNA gene of *Escherichia coli* BCCS 050. NCBI, GQ325247.1, GI: 254733511.
32. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Kafilzadeh, F., 2009. PCR amplification of 16S rRNA gene of *Escherichia coli* BCCS 049. NCBI, GQ325246.1, GI: 254733510.
33. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Kafilzadeh, F., 2009. Isolation and identification of asparaginase-producing bacterium, *Escherichia coli* BCCS 048. NCBI, GQ325245.1, GI: 254733509.
34. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Kafilzadeh, F., 2009. PCR amplification of 16S small subunit rRNA of *Escherichia coli* BCCS 047. NCBI, GQ325244.1, GI: 254733508.
35. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Kafilzadeh, F., 2009. PCR amplification of 16S small subunit rRNA of *Escherichia coli* BCCS 046. NCBI, GQ305123.1, GI: 254596803.
36. Ghasemi, Y., Ebrahiminezhad, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Kafilzadeh, F., 2009. PCR amplification of 16S rRNA gene of *Escherichia coli* BCCS 045. NCBI, GQ305122.1, GI: 254596802.

37. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., 2009. Characterization of 18S rRNA gene of *Chlamydomonas* sp. MCCS 027 isolated from paddy field of Shiraz. NCBI, FJ864687.1, GI: 227810184.
38. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., 2009. Biodiesel production by *Chlamydomonas* sp. MCCS 026 isolated from southern Iran, NCBI, FJ864686.1, GI: 227810183.
39. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., 2009. Biodiesel production by *Chlorella vulgaris* MCCS 025 isolated from southern Iran, NCBI, FJ864686.1, GI: 227810182.
40. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., 2009. PCR amplification of 18S rRNA gene of microalga *Chlorella vulgaris* MCCS 024 isolated from southern Iran, NCBI, FJ864684.1, GI: 227810181.
41. Ghasemi, Y., Rasoul-Amini, S., Ebrahiminezhad, A., Raee, M.J., Ghoshoon, M.B., Kazemi, A. Morowvat, M.H., 2009. PCR amplification of the 16S small subunit rRNA of *Paenibacillus polymyxa* BCCS 042, isolated from the Maharlu Salt Lake in south of Iran, NCBI, FJ645733.1, GI: 224177784.
42. Ghasemi, Y., Rasoul-Amini, S., Ebrahiminezhad, A., Raee, M.J., Ghoshoon, M.B., Kazemi, A. Morowvat, M.H., 2009. Characterization of protease activity of *Bacillus* sp. BCCS 043, NCBI, FJ645732.1, GI: 224177783.
43. Ghasemi, Y., Rasoul-Amini, S., Ebrahiminezhad, A., Raee, M.J., Ghoshoon, M.B., Kazemi, A. Morowvat, M.H., 2009. Characterization of 16S small subunit rRNA of a halophilic bacterium, *Bacillus* sp. BCCS 041, NCBI, FJ645731.1, GI: 224177782.
44. Ghasemi, Y., Rasoul-Amini, S., Ebrahiminezhad, A., Raee, M.J., Ghoshoon, M.B., Kazemi, A. Morowvat, M.H., 2009. PCR amplification of 16S rRNA gene of *Bacillus* sp. BCCS 040, isolated from the Lake Maharlu, NCBI, FJ645730.1, GI: 224177781.
45. Ghasemi, Y., Rasoul-Amini, S., Ebrahiminezhad, A., Raee, M.J., Ghoshoon, M.B., Kazemi, A. Morowvat, M.H., 2009. PCR amplification of 16S small subunit rRNA of a halophilic bacterium, *Halobacterium* sp. BCCS 039, NCBI, FJ645729.1, GI: 224177780.
46. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2009. Characterization of 16S rRNA gene of *Aeromonas* sp. BCCS 037, NCBI, FJ619745.1, GI: 223551527.
47. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2009. PCR amplification of 16S small subunit rRNA of a halophilic bacterium, *Bacillus* sp. BCCS 036, NCBI, FJ619744.1, GI: 223551526.

48. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2009. Isolation and identification of halophilic amylase-producing bacterium, *Rheinheimera* sp. BCCS 035, NCBI, FJ619743.1, GI: 223551525.
49. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Ebrahiminezhad, A., Morowvat, M.H., Kazemi, A., 2009. Characterization of starch-digesting activity of *Bacillus* sp. BCCS 034, NCBI, FJ607328.1, GI: 223049406.
50. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Ebrahiminezhad, A., Morowvat, M.H., Kazemi, A., 2009. Isolation and identification of halophilic amylase-producing bacterium, *Bacillus* sp. BCCS 033, NCBI, FJ607327.1, GI: 223049405.
51. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2009. PCR amplification of 16S rRNA gene of *Bacillus thuringiensis* BCCS 038, NCBI, FJ624483.1, GI: 222876025.
52. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2009. Isolation and Identification of Halophilic Bacterium, *Bacillus* sp. BCCS 032 from the Maharlu Salt Lake in South of Iran, NCBI, FJ605152.1, GI: 222457933.
53. Ghasemi, Y., Rasoul-Amini, S., Raee, M.J., Ghoshoon, M.B., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., Montazeri-Najafabady, N., 2009. Characterization of amylase activity and 16S rRNA gene of *Halobacterium* sp. BCCS 030, NCBI, FJ529204.1, GI: 220682809.
54. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2009. Isolation and identification of halophilic amylase-producing bacterium, *Bacillus subtilis* BCCS 031, NCBI, FJ554670.1, GI: 220681818.
55. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Ebrahiminezhad, A., Montazeri-Najafabady, N., 2009. PCR amplification of 16S rRNA gene of *Bacillus* sp. BCCS 029 isolated from the Lake Maharlu, NCBI, FJ517540.1, GI: 220681817.
56. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Ebrahiminezhad, A., Montazeri-Najafabady, N., 2009. Characterization of 16S small subunit rRNA of a halophilic bacterium, *Bacillus subtilis* BCCS 028, NCBI, FJ517539.1, GI: 220681816.
57. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Kazemi, A., Ebrahiminezhad, A., Montazeri-Najafabady, N., 2009. PCR amplification of the 16S rRNA gene of *Bacillus subtilis* BCCS 027, NCBI, FJ517538.1, GI: 220681815.
58. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Mousavi-Khorshidi, S., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2008. PCR amplification of the 16S rRNA gene of *Rheinheimera aquimaris* BCCS 023, NCBI, FJ422581.1, GI: 213389859.

59. Ghasemi, Y., Rasoul-Amini, S., Raee, M.J., Ghoshoon, M.B., Mousavi-Khorshidi, S., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2008. Characterization of 16S rRNA gene of *Bacillus endophyticus* BCCS 022, a halophilic amylase-producing bacterium isolated from the Maharlu Salt Lake in south of Iran, NCBI, FJ422580.1, GI: 213389858.
60. Ghasemi, Y., Rasoul-Amini, S., Raee, M.J., Ghoshoon, M.B., Mousavi-Khorshidi, S., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., 2008. Characterization of starch-digesting activity and 16S ribosomal RNA gene of *Bacillus muralis* BCCS 021, NCBI, FJ422579.1, GI: 213389857.
61. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Mousavi-Khorshidi, S., Morowvat, M.H., Ebrahiminezhad, A., 2008. Characterization of 16S rRNA gene of *Bacillus endophyticus* BCCS 020, NCBI, FJ422578.1, GI: 213389856.
62. Ghasemi, Y., Rasoul-Amini, S., Mousavi-Khorshidi, S., Kazemi, A., Zarrini, G., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., 2008. PCR amplification of the 16S rRNA gene of *Rheinheimera aquimaris* BCCS 019 isolated from the Maharlu Salt Lake in south of Iran, NCBI, FJ422577.1, GI: 213389855.
63. Ghasemi, Y., Rasoul-Amini, S., Kazemi, A., Mousavi-Khorshidi, S., Zarrini, G., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., 2008. Characterization of 16S small subunit rRNA of a halophilic bacterium, *Staphylococcus pasteuri* BCCS 018, NCBI, FJ422576.1, GI: 213389854.
64. Ghasemi, Y., Rasoul-Amini, S., Kazemi, A., Mousavi-Khorshidi, S., Zarrini, G., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., 2008. Characterization of amylase activity and 16S rRNA gene of *Halomonas aquamarina* BCCS 017, NCBI, FJ422575.1, GI: 213389853.
65. Ghasemi, Y., Kazemi, A., Rasoul-Amini, Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., 2008. PCR amplification of the 16S rRNA gene of *Chryseobacterium taeanense* BCCS 016 isolated from the Maharlu Salt Lake in south of Iran, NCBI, FJ422574.1, GI: 213389852.
66. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Phylogenetic diversity of cultural bacteria from the Maharlu Salt Lake in south of Iran, *Staphylococcus epidermidis* strain BCCS 015, NCBI, FJ422573.1, GI: 213389851.
67. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008.

Characterization of 16S rRNA gene and lipase activity of *Bacillus pumilus* BCCS 014, NCBI, FJ422572.1, GI: 213389850.

68. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Bacterial diversity of sediment of the Maharlu Salt Lake in south of Iran, *Bacillus pumilus* strain BCCS 013, NCBI, FJ422571.1, GI: 213389849.
69. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Characterization of 16S small subunit rRNA of a halophilic bacterium, *Bacillus subtilis* BCCS 012, NCBI, FJ422570.1, GI: 213389848.
70. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Isolation and identification of a halophilic lipase-producing bacterium, *Aeromonas veronii* BCCS 010, from the Maharlu Salt Lake in south of Iran, NCBI, FJ422569.1, GI: 213389847.
71. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. PCR amplification of 16S rRNA gene of *Staphylococcus epidermidis* BCCS 009, isolated from the Lake Maharlu, NCBI, FJ422568.1, GI: 213389846.
72. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Characterization of lipase activity of *Bacillus endophyticus* BCCS 011, NCBI, FJ422567.1, GI: 213389845.
73. Ghasemi, Y., Kazemi, A., Rasoul-Amini, S., Zarrini, G., Kargar, M., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Characterization of the 16S small subunit rRNA and lipase activity of *Bacillus aquimaris* BCCS 008, NCBI, FJ422566.1, GI: 213389844.
74. Ghasemi, Y., Kazemi, A., Zarrini, G., Kargar, M., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., Kafilzadeh, F., Masoudi, M., Kamyab, A., 2008. PCR amplification of 16S small subunit rRNA of a halophilic bacterium, *Bacillus vallismortis* BCCS 007, NCBI, FJ422565.1, GI: 213389843.
75. Ghasemi, Y., Kazemi, A., Zarrini, G., Kargar, M., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., Sadeghi, M., Abbaszadeh, S., Hemayatkhah-Jahromi, V., 2008. Characterization of 16S rRNA gene of *Bacillus amyloliquefaciens* BCCS 006, NCBI, FJ422564.1, GI: 213389842.

76. Ghasemi, Y., Kazemi, A., Zarrini, G., Kargar, M., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., 2008. Characterization of lipase activity and 16S rRNA gene of *Bacillus subtilis* BCCS 005, NCBI, FJ422563.1, GI: 213389841.
77. Ghasemi, Y., Kazemi, A., Zarrini, G., Kargar, M., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., 2008. PCR amplification of the 16S small subunit rRNA of *Bacillus simplex* BCCS 004, isolated from the Maharlu Salt Lake in south of Iran, NCBI, FJ422562.1, GI: 213389840.
78. Ghasemi, Y., Rasoul-Amini, S., Raee, M.J., Ghoshoon, M.B., Mousavi-Khorshidi, S., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Isolation and identification of halophilic amylase-producing bacteria from the Maharlu Salt Lake in southern Iran, *Rheinheimera aquimaris* strain BCCS 026, NCBI, FJ429321.1, GI: 214010929.
79. Ghasemi, Y., Rasoul-Amini, S., Raee, M.J., Ghoshoon, M.B., Mousavi-Khorshidi, S., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Isolation and identification of halophilic amylase-producing bacteria from the Maharlu Salt Lake in southern Iran, *Aeromonas veronii* strain BCCS 025**,** NCBI, FJ429320.1, GI: 214010928.
80. Ghasemi, Y., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Mousavi-Khorshidi, S., Kazemi, A., Morowvat, M.H., Ebrahiminezhad, A., Parsaei-Ghaderabadi, K., 2008. Isolation and identification of halophilic amylase-producing bacteria from the Maharlu Salt Lake in southern Iran, *Bacillus endophyticus* strain BCCS 024, NCBI, FJ426405.1, GI: 213990443.
81. Ghasemi, Y., Kazemi, A., Zarrini, G., Kargar, M., Rasoul-Amini, S., Ghoshoon, M.B., Morowvat, M.H., Raee, M.J., Ebrahiminezhad, A., 2008. Isolation and identification of halophilic lipase producing bacteria from the Maharlu Salt Lake in south of Iran. *Bacillus endophyticus* strain BCCS 003, NCBI, FJ411178.1, GI: 213495443.
82. Ghasemi, Y., Kazemi, A., Zarrini, G., Kargar, M., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., 2008. Isolation and identification of halophilic lipase producing bacteria from the Maharlu Salt Lake in south of Iran. *Bacillus pumilus* strain BCCS 002, NCBI, FJ392547.1, GI: 212725356.
83. Ghasemi, Y., Siahbalaei, R., Soltani, N., Shokravi, S., Morowvat, M.H., 2008. Characterization of antibacterial activity and 16S rRNA gene of *Fischerella ambigua* strain MCCS 023, NCBI, FJ392546.1, GI: 212725355.
84. Ghasemi, Y., Kazemi, A., Ghoshoon, M.B., Raee, M.J., Morowvat, M.H., Ebrahiminezhad, A., 2008. Characterization of antibacterial activity and 16S rRNA gene of *Oscillatoria spongeliae* MCCS 022, NCBI, FJ392545.1, GI: 212725354.

85. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Mosavi-Azam, S.B., 2008. Microalgal metabolism of pinene by immobilized cells of *Oscillatoria amphibia* MCCS 021. NCBI, FJ210469.1, GI:208436383.
86. Ghasemi, Y., Ghoshoon, M.B., Raee, M.J., Ebrahiminezhad, A., Zarrini, G., Rasoul-Amini, S., Morowvat, M.H., Kazemi, A., 2008. Cloning, expression and characterization of *Escherichia coli* strain BCCS 001 L-asparaginase II. NCBI, EU999160.1, GI: 198042457.
87. Ghasemi, Y., Morowvat, M.H., Moshavash, M., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., 2008. PCR amplification of 18S small subunit rRNA of *Chlorella vulgaris* MCCS 012, isolated from Iran. NCBI, EU374170.2, GI: 195975929.
88. Morowvat, M.H., Ghasemi, Y., Moshavash, M., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., 2008. Characterization of 18S rRNA gene of fresh water microalga *Chlorella vulgaris* MCCS 014 isolated from south of Iran. NCBI, EU375837.2, GI: 195975928.
89. Ghasemi, Y., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Shokravi, Sh., Characterization of 16S rRNA gene of *Nostoc corneum* MCCS 020, isolated from soil sample in the Fars province of Iran. NCBI, EU621366.1, GI: 186695432.
90. Ghasemi, Y., Morowvat, M.H., Raee, M.J., Ghoshoon, M.B., Shokravi, Sh., PCR amplification of 16S rRNA gene of *Oscillatoria splendida* MCCS 019 isolated from soil sample in the Fars province of Iran. NCBI, EU621365.1, GI: 186695431.
91. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Ghoshoon, M.B., Raee, M.J., Shokravi, Sh., 2008. PCR amplification of 18S rRNA gene from fresh water microalga, *Scenedesmus rubescens* MCCS 018, isolated from south of Iran. NCBI, EU621364.1, GI: 186695430.
92. Ghasemi, Y., Morowvat, M.H., Abedtash, H., Mohagheghzadeh, A., Ardeshir Rouhani Fard, Sh., 2008. PCR amplification of 18S rRNA gene of *Spartium junceum* HPSUMS 280. NCBI, EU605787.1, GI: 184133134.
93. Ghasemi, Y., Morowvat, M.H., Mohagheghzadeh, A., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Shokravi, Sh., Soltani, N., 2008. PCR amplification of 18S small subunit rRNA of *Scenedesmus obliquus* strain 019 isolated from paddy fields of Fars province. NCBI, EF564131.2, GI: 171982148.
94. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Abolhassanzadeh, Z., Hamidi, M., Raee, M.J., Ghoshoon, M.B., Shokravi, Sh., 2007. PCR amplification of the 18S rRNA gene of *Dunaliella salina* MCCS 001 isolated from Maharlu Salt Lake of Iran. NCBI, EF682841.2, GI: 171920073.

95. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., 2008. PCR amplification of 18S rRNA gene of fresh water microalga *Chlorella vulgaris* MCCS 015, isolated from south of Iran. NCBI, EU379938.1, GI: 166203431.
96. Ghasemi, Y., Nikbakht, M., Mohagheghzadeh, A., Morowvat, M.H., Gholami, A., Faridi, P., Khalaj, A., Abolhassanzadeh, Z., 2008. Analysis of volatiles and 18S rRNA gene of callus and shoot cultures of *Haplophyllum canaliculatum* strain PTCS 001, NCBI, EU379937.1, GI: 166203430.
97. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., 2008. Characterization of 18S rRNA gene of naturally isolated *Chlorella vulgaris* MCCS 013, NCBI, EU374171.1, GI: 166079105.
98. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Mohagheghzadeh, A., Shokravi, Sh., 2008. Characterization of 18S rRNA gene of *Chlorella vulgaris* MCCS 011 isolated from paddy fields of Fars Province. NCBI, EU374169.1, GI: 166079103.
99. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Moshavash, M., Ghoshoon, M.B., Raee, M.J., Mohagheghzadeh, A., Shokravi, Sh., 2008. Characterization of 18S rRNA gene of *Chlorococcum* sp. MCCS 009 isolated from paddy field of Shiraz. NCBI, EU374168.1, GI: 166079102.
100. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Ghoshoon, M.B., Raee, M.J., Shokravi, Sh., Ostovan, Z., Moshavash, M., 2007. PCR amplification of the 18S small subunit rRNA of *Chlamydomonas reinhardtii* MCCS 002 isolated from paddy fields of Fars province. NCBI, EF682842.2, GI: 164665428.
101. Ghasemi, Y., Morowvat, M.H., Mohagheghzadeh, A., Rasoul-Amini, S., Raee, M.J., Ghoshoon, M.B., Shokravi, Sh., 2007. PCR amplification of 18S small subunit rRNA of *Desmodesmus communis* MCCS 010 isolated from south of Iran. NCBI, EF564130.1, GI: 148251190.
102. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Mohagheghzadeh, A., Shokravi, Sh., Negintaji, N., Mosavi Azam, S.B., Nouri, F., Parvizi, R., Khoubani, S., 2007. Characterization of antimicrobial activity and the 16S rDNA gene of *Synechococcus nidulans* MCCS 008, isolated from paddy fields in southern Iran. NCBI, EU285584.1, GI: 161898487.
103. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Ghoshoon, M.B., Raee, M.J., Mohagheghzadeh, A., Abolhassanzadeh, Z., Shokravi, Sh., Niknahad, H., Characterization of

the 16S rRNA gene of unicellular cyanobacterium *Chroococcus dispersus* MCCS 006 isolated from paddy fields in South of Iran. NCBI, EU192147.1, GI: 158634616.

104. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., Ghoshoon, M.B., Raee, M.J., Mohagheghzadeh, A., Shokravi, Sh., Soltani, N., Niknahad, H., 2007. Characterization of the 16S rRNA gene of *Nostoc ellipsosporum* MCCS 005 isolated from paddy fields in South of Iran. NCBI, EU192146.1, GI: 158634615.
105. Ghasemi, Y., Raee, M.J., Morowvat, M.H., Rasoul-Amini, S., Ghoshoon, M.B., Mohagheghzadeh, A., Shokravi, Sh., Soltani, N., 2007. Characterization of antimicrobial activity and 16S rRNA gene of *Fischerella ambigua* MCCS 004 isolated from paddy fields of Fars Province. NCBI, EU192145.1, GI: 158634614.
106. Ghasemi, Y., Ghoshoon, M.B., Morowvat, M.H., Rasoul-Amini, S., Raee, M.J., Mohagheghzadeh, A., Shokravi, Sh., Khalaj, A., 2007. Characterization of antimicrobial activity and 16S rRNA gene of *Nostoc muscorum* MCCS 003 isolated from paddy fields of Fars Province. NCBI, EU192144.1, GI: 158634613.
107. Ghasemi, Y., Abolhassanzadeh, Z., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Hamidi, M., Ghoshoon, M.B., Raee, M.J., 2007. PCR amplification of the 18S rRNA gene of *Dunaliella salina* CCAP 19/18. NCBI, EF682843.1, GI: 151549022.

C.3) Book Chapters:

1. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., 2011. Algae for the Production of SCP, Chapter VII, in Bioprocess Science and engineering, Liong, M.T., ed. New York: NOVA Science Publishers.

C.4) Abstracts and Congress Presentations:

1. Morowvat, M.H., Nucleic acid-based therapeutics, The 16th Iranian Pharmaceutical Sciences Congress (IPSC 2019), November 6-8, 2019, Kermanshah, Iran, (Oral Presentation).
2. Shayestehfard, K., Morowvat, M.H., Scale up production of an immunotoxin against vascular endothelial growth factor, The 16th Iranian Pharmaceutical Sciences Congress (IPSC 2019), November 6-8, 2019, Kermanshah, Iran, (Oral Presentation).

3. Abdollahi, S Morowvat, M.H., Ghasemi, Y., Evaluation of arginine deiminase expression in various *Escherichia coli* host strains, The 16th Iranian Pharmaceutical Sciences Congress (IPSC 2019), November 6-8, 2019, Kermanshah, Iran, (Oral Presentation).
4. Abbasi, M., Morowvat, M.H., Cloning, expression and production of recombinant human teriparatide protein in *Escherichia coli*, The 16th Iranian Pharmaceutical Sciences Congress (IPSC 2019), November 6-8, 2019, Kermanshah, Iran, (Oral Presentation).
5. Honarpishehfard, Z., Morowvat, M.H., Decreasing the immunogenicity of glucarpidase enzyme via immunoinformatic analysis, The 3rd International and 11th National Biotechnology Congress of Islamic Republic of Iran, September 1-3, 2019, Tehran. Iran (Poster Presentation).
6. Shahisavandi, M., Morowvat, M.H., Decreasing the immunogenicity of pegylated uricase using *in silico* structure based computational approach, The 2nd International Congress on Pharmacy Updates, February 6-8, 2019, Tehran. Iran (Poster Presentation).
7. Amiri Ardakani, E., Morowvat, M.H., Gholami, A., Tabei, S.Z., Mohagheghzadeh, A., Human endoceuticals: A new source of drug research and development. 22nd Iranian Pharmacy Students seminar, April 15-19, 2019. Zanjan, Iran (Poster Presentation).
8. Amiri Ardakani, E., Tabei, S.Z., Morowvat, M.H., Gholami, A., Mohagheghzadeh, A., A conceptual view on human as pharmaceutical production factory. Congress of Biomedical Anthropology and Medical Anthropology, April 25-26, 2018, Mashhad, Iran (Poster Presentation).
9. Mohammadi, F., Nezafat, N., Morowvat, M.H., Negahdaripour, M., Ghasemi, Y., Comparison of production of recombinant Nattokinase in *E. coli* DE3 (BL21) and E. coli DE3 Rosetta-gammi, Research Day of Pharmacy Students, December 31, 2017, Shiraz, Iran, (Poster Presentation).
10. Negahdaripour, M., Nezafat, N., Eslami, M., Ghoshoon, M.B., Shoolian, E., Dehshahri, A., Erfani, N., Morowvat, M.H., Ghasemi, Y., A novel HPV prophylactic peptide vaccine, designed through immunoinformatics and structural vaccinology approach, Research Day of Pharmacy Students, December 31, 2017, Shiraz, Iran, (Poster Presentation).
11. Zarei, M., Nezafat, N., Morowvat, M.H., Dehshahri, A., Ghoshoon, M.B., Berenjian, A., Ghasemi, Y., Medium optimization for recombinant soluble arginine deiminase expression in *Escherichia coli* using response surface methodology, Research Day of Pharmacy Students, December 31, 2017, Shiraz, Iran, (Poster Presentation).
12. Mohseni, P., Morowvat, M.H., Exploiting RNA interference technology to enhance recombinant protein production, the 1st National Congress of Paramedical Students, March 3-4, 2016, Sari, Iran, (poster presentation).

13. Khademi, H., Morowvat, M.H., Ghasemi, Y., Exploitation of *Dunaliella salina* microalga for ß-carotene and biomass production under sulfur starvation, The 14th Iranian Pharmaceutical Sciences congress (IPSC 2015), December 21-24, 2015, Tehran, Iran, (poster presentation).
14. Sajadian, S.F., Morowvat, M.H., Ghasemi, Y., Studying the biomass and lipid production in *Chlorella vulgaris* under three different culture conditions, The 14th Iranian Pharmaceutical Sciences congress (IPSC 2015), December 21-24, 2015, Tehran, Iran, (poster presentation).
15. Sobhanian, N., Morowvat, M.H., Stem cell therapy of vitiligo: Prospects and challenges, 1st Research Day of Pharmacy Students, International Branch, December, 16, 2015, Shiraz, Iran, (Poster Presentation).
16. Aghaleh, M., Morowvat, M.H., Ashrafi, H., Potential applications of microalgae in cosmetics, 1st Research Day of Pharmacy Students, International Branch, December, 16, 2015, Shiraz, Iran, (Poster Presentation).
17. Goharian, S., Morowvat, M.H., Ghasemi, Y., Phylogenetics analysis and investigation of antioxidant properties in three naturally isolated microalgae, 1st Research Day of Pharmacy Students, International Branch, December, 16, 2015, Shiraz, Iran, (Poster Presentation).
18. Khademi, H., Morowvat, M.H., Ghasemi, Y., Exploitation of *Dunaliella salina* microalgae for ß-carotene and biomass production under sulfur starvation, 1st Research Day of Pharmacy Students, International Branch, December, 16, 2015, Shiraz, Iran, (Poster Presentation).
19. Sajadian, S.F., Morowvat, M.H., Ghasemi, Y., Studying the biomass and lipid production in *Chlorella vulgaris* under three different culture conditions, 1st Research Day of Pharmacy Students, International Branch, December, 16, 2015, Shiraz, Iran, (Poster Presentation).
20. Fereidooni, A., Morowvat, M.H., Elahi, A., Ghasemi, Y., Investigation of antimicrobial effects of some probiotic strains in common vaginal infections, 19th Iranian Pharmacy Students Seminar, October 6-9, 2015, Shiraz, Iran, 43 (Poster presentation).
21. Elahi, A., Morowvat, M.H., Fereidooni, A., Mohkam, M., Ghasemi, Y., Investigating the healing effects of two *Lactobacillus* strains in burn-induced topical infections, 19th Iranian Pharmacy Students Seminar, October 6-9, 2015, Shiraz, Iran, 43 (Poster presentation).
22. Mousavi, P., Mostafavi-pour, Z., Morowvat, M.H., Nezafat, N., Zamani, M., Berenjian, A., Ghasemi, Y., Computational analysis of several signal peptides for the excretory production of Reteplase in *E. coli*, 19th Iranian Pharmacy Students Seminar, October 6-9, 2015, Shiraz, Iran, 21 (Poster presentation).
23. Negahdaripour, M., Nezafat, N., Hajighahramani, N., Rahmatabady, S.S., Morowvat, M.H., Ghasemi, Y., In silico investigation of different signal peptides for secretory production of

Interleukin-11 in *Escherichia coli*, 19th Iranian Pharmacy Students Seminar, October 6-9, 2015, Shiraz, Iran, 21 (Poster presentation).

24. Hajighahramani, N., Nezafat, N., Rahmatabady, S.S., Negahdaripour, M., Morowvat, M.H., Ghasemi, Y., In silico subunit-vaccine design against Staphylococcus aureus based on α-enolase and two surface antigenes, 19th Iranian Pharmacy Students Seminar, October 6-9, 2015, Shiraz, Iran, 26 (Poster presentation).
25. Rahmatabady, S.S., Nezafat, N., Negahdaripour, M., Hajighahramani, N., Morowvat, M.H., Ghasemi, Y., In silico survey of catalytic domains of Cas9 enzyme in different bacterial species, 19th Iranian Pharmacy Students Seminar, October 6-9, 2015, Shiraz, Iran, 26 (Poster presentation).
26. Navabzadeh Esmaeili, N., Morowvat, M.H., Ghasemi, Y., Studying the effects of phosphorus concentration on enhancing the biomass and β-carotene production in *Dunaliella salina* under nitrogen limitation, 19th Iranian Pharmacy Students Seminar, October 6-9, 2015, Shiraz, Iran, 36 (Poster presentation).
27. Entezar-Almahdi, E., Dehshahri, A., Sadeghpour, H., Morowvat, M.H., Preparation and characterization of double domain Polyethyleneimine nanoparticle conjugated with Levothyroxine as a gene carrier for HepG2 cell line, Asian Nano Forum Conference, March 8-11, 2015, Kish Island, Iran, 130 (Poster Presentation).
28. Zarei, M., Morowvat, M.H., Nezafat, N., Ghoshoon, M.B., Ghasemi, Y., Arginine deiminase: Production and purification, Research Day of Pharmacy Students, January 2015, Shiraz, Iran, 15 (Poster Presentation).
29. Shaker, S., Nemati, A., Montazeri-Najafabady, N., Mobasher, M.A., Morowvat, M.H., Ghasemi, Y., Phytoremediation of urban immobilized green algae in batch cultures, Research Day of Pharmacy Students, January 2015, Shiraz, Iran, 26 (Poster Presentation).
30. Entezar-Almahdi, E., Dehshahri, A., Sadeghpour, H., Morowvat, M.H., Preparation and characterization of double-domain Polyethyleneimine nanoparticle conjugated with Levothyroxine as a gene carrier, Research Day of Pharmacy Students, January 2015, Shiraz, Iran, 27 (Poster Presentation).
31. Morowvat, M.H., Babaeipour, V., Rajabi-Memari, H., Vahidi, H., Down-regulation of acetate pathway in *Escherichia coli* during recombinant protein production through simultaneous different engineering strategies, The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), February 24-27, 2012, Kish, Iran, 08233, Oral presentation.
32. Morowvat, M.H., Babaeipour, V., Rajabi-Memari, H., Vahidi, H., Application of Box-Behnken design in the optimization of fermentation conditions for *Escherichia coli* during recombinant

human Interferon beta (rhINF-β) production, The 8th International Chemical Engineering Congress & Exhibition (IChEC 2014), February 24-27, 2012, Kish, Iran, 08237, poster presentation.

33. Morowvat, M.H., Babaeipour, V., Rajabi-Memari, H., Vahidi, H., Down-regulation of acetate pathway through antisense RNA against *ackA* and *pta* in *Escherichia coli*: Improved beta interferon production, The 13th Iranian Pharmaceutical Sciences congress (IPSC 2012), September 4-7, 2012, Isfahan, Iran, P4-032, poster presentation.
34. Morowvat, M.H., Application of Systems Biology in Stem Cell Research, The 12th Iranian Pharmaceutical Sciences congress (IPSC 2010), August 2-5, 2010, Zanjan, Iran, poster presentation.
35. Morowvat, M.H., Nafissi-Varcheh, N., Quality by Design for Biopharmaceuticals, The 12th Iranian Pharmaceutical Sciences congress (IPSC 2010), August 2-5, 2010, Zanjan, Iran, poster presentation.
36. Morowvat, M.H., Nafissi-Varcheh, N., Application of Supercritical Fluids in Biopharmaceutical Production, The 12th Iranian Pharmaceutical Sciences congress (IPSC 2010), August 2-5, 2010, Zanjan, Iran, poster presentation.
37. Raee, M.J., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Ghoshoon, M.B., Kazemi, A., Ebrahiminezhad, A.R., Cloning and expression of L-asparaginase gene of *Shigella dysenteriae* in *Escherichia coli*. The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 85, poster presentation.
38. Jani, M., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Ghoshoon, M.B., Kazemi, A., Biodiesel production from a naturally isolated strain of *Chlorella vulgaris*, The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 84, poster presentation.
39. Ghoshoon, M.B., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Ebrahiminezhad, A.R., Kazemi, A., Cloning, expression and characterization of *Escherichia coli* BCCS 001 L-asparaginase II, The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 83, poster presentation.
40. Yavari, F., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Ghoshoon, M.B., Khoubani, S., Parvizi, R., Mardani, Z., PCR amplification of the molecular black box, 16S rRNA from three Cyanobacterial species, The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 79, poster presentation.
41. Khoubani, S., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Mosavi-Azam, S.B., Yavari, F., Ghoshoon, M.B., Fatty acid evaluation in a natural isolate of *Chlorella vulgaris*, The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 78, poster presentation.

42. Mardani, Z., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Raee, M.J., Ghoshoon, M.B., Parvizi, R., Nouri, F., Microalgal metabolisms of some monoterpenoids ketones by immobilized cells of *Chlorella vulgaris*, The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 77, poster presentation.
43. Chalangaran, Sh., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Raee, M.J., The first report of using *Desmodesmus* as a source of SCP, The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 76, poster presentation.
44. Parvizi, R., Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Ghoshoon, M.B., Mardani, Z., Negintaji, N., Production of long chain omega-3 fatty acids by *Scenedesmus rubescens*, The 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran, 75, poster presentation.
45. Azimi, M., Tavallaei, O., Morowvat, M.H., Vahidi, H., The *Dictyostelium discoideum*, a model organism with great potential applications, The 1st student conference of pharmaceutical biotechnology students, December 17, 2008, Tehran, Iran.
46. Parasaei-Ghaderabadi, Kh., Ebrahiminezhad, A.R., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Morowvat, M.H., Kafilzadeh, F., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., Screening of polyhydroxyalkanoates-producing bacteria from different environments, The 2nd International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
47. Ebrahiminezhad, A.R., Ghoshoon, M.B., Raee, M.J., Kazemi, A., Parasaei-Ghaderabadi, Kh., Morowvat, M.H., Kafilzadeh, F., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., An Optimized Medium for Screening L-Asparaginase Producing *Escherichia coli*, The 2nd International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
48. Kazemi, A., Ghoshoon, M.B., Raee, M.J., Ebrahiminezhad, A.R., Parasaei-Ghaderabadi, Kh., Morowvat, M.H., Kargar, M., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., Isolation and Molecular Identification of Lipase Producing *Bacillus* spp. from the Maharlu Salt Lake in South of Iran, The 2nd International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
49. Ghasemi, Y., Rasoul-Amini, S., Morowvat, M.H., Fatty acid evaluation of some naturally isolated microalgae, The 2nd International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
50. Morowvat, M.H., Rasoul-Amini, S., Ghasemi, Y., Bioinformatic analysis of some naturally isolated microalgae, the 2nd Bioinformatic Conference of Iran, October 8-9, 2008, Tehran, Iran, (poster presentation).

51. Ardeshir Rouhani Fard, Sh., Abedtash, H., Morowvat, M.H., Mohagheghzadeh, A., Ghasemi, Y., Analysis of the essential oil and 18S rRNA gene of a new chemotype of *Spartium junceum* L. 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 224 (poster presentation).
52. Kazemi, A., Kargar, M., Raee, M.J., Morowvat, M.H., Zarrini, G.R., Ghasemi, Y., Isolation and identification of halophilic lipase producing bacteria from The Maharlu Salt Lake in south of Iran, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 86, (poster presentation).
53. Mardani, Z., Raee, M.J., Morowvat, M.H., Mohagheghzadeh, A., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., Characterization of antimicrobial activity and 16S rRNA gene of *Synechococcus nidulans* MCCS 008, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 85, (poster presentation).
54. Talebnia, N., Kazemi, A., Mousavi-Khorshidi, Sh., Morowvat, M.H., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., Screening, isolation and characterization of protease producing microorganisms from soil of The Fars province, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 85, (poster presentation).
55. Negintaji, N., Raee, M.J., Morowvat, M.H., Mohagheghzadeh, A., Rasoul-Amini, S., Ghasemi, Y., Microalgal metabolism of pinene by *Oscillatoria splendida* MCCS 019, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 84, (poster presentation).
56. Chalangaran, Sh., Raee, M.J., Morowvat, M.H., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., Characterization of antimicrobial activity and 16S rRNA gene of *Nostoc muscorum* MCCS 003, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 84, (poster presentation).
57. Mousavi-Khorshidi, Sh., Kazemi, A., Ghoshoon, M.B., Morowvat, M.H., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., Characterization of halophilic amylase producing bacteria from the Maharlu Salt Lake, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 83, (poster presentation).
58. Nouri, F., Raee, M.J., Morowvat, M.H., Shokravi, Sh., Rasoul-Amini, S., Ghasemi, Y., Metabolism of pulegone and characterization of 18S rRNA gene in *Scenedesmus rubescens* MCCS 018, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 82, (poster presentation).
59. Yavari, F., Ghoshoon, M.B., Morowvat, M.H., Mohagheghzadeh, A., Zarrini, G.R., Rasoul-Amini, S., Ghasemi, Y., Characterization of antibacterial activity and 16S rRNA gene of

Chroococcus dispersus MCCS 006, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 82, (poster presentation).

60. Mosavi-Azam, S.B., Ghoshoon, M.B., Morowvat, M.H., Mohagheghzadeh, A., Rasoul-Amini, S., Ghasemi, Y., In Vivo bioconversion of carvone and menthone by *Desmodesmus communis* MCCS 010, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 81, (poster presentation).
61. Ghoshoon, M.B., Morowvat, M.H., Moshavash, M., Shokravi, Sh., Mohagheghzadeh, A., Rasoul-Amini, S., Ghasemi, Y., Metabolism of limonene and characterization of 18S rRNA gene in *Chlorella vulgaris* MCCS 012, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 80, (poster presentation).
62. Raee, M.J., Ostovan, Z., Morowvat, M.H., Shokravi, Sh., Mohagheghzadeh, A., Rasoul-Amini, S., Ghasemi, Y., Biotransformation of thymol, carveol and linalool by a natural isolate of *Oocystis pusilla*, 11th Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 80, (poster presentation).
63. Nikbakht, M., Gholami, A., Mohagheghzadeh, A., Faridi, P., Morowvat, M.H., Abolhassanzadeh, Z., Ghasemi, Y., Analysis of volatiles and 18S rRNA of *Haplophyllum canaliculatum* in vitro cultures, PSE Young Scientists meeting, Future Trends in Phytochemistry: Compounds-Enzymes-Genes, Bad herrenalb, Germany, Mar, 26-29, SL26, (poster presentation).
64. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Khalaj, A., Abolhassanzadeh, Z., Phylogenetic relationship among various strains of some naturally isolated microalgae from South of Iran based on 18S rRNA sequences, The first international congress on Health Genomics and Biotechnology &The 5th National Biotechnology Conference & 4th Iranian Congress of Genetic Disorders & Disabilities, Tehran, Iran, Nov, 24-26, 2007, 10042, (poster presentation).
65. Zargaran, A., Mohagheghzadeh, A., Ghasemi, Y., Morowvat, M.H., The First International Congress of Medical Law in Iran, Medical Ethics in Ancient Persia, Tehran, Iran, Nov, 14-15, 2007, (Poster Presentation).
66. Morowvat, M.H., Raee, M.J., Ghoshoon, M.B., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., *Scenedesmus*, SCP and PCR amplification of 18S rRNA, The 9th Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Iran, Oct.29-Nov, 1, 2007, p540, (poster presentation).
67. Ghasemi, Y., Morowvat, M.H., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., SCP and PCR amplification of 18S rRNA of *Dunaliella salina* isolated from Maharlu Salt Lake, The 9th

Iranian Congress of Biochemistry & the 2nd International Congress of Biochemistry and Molecular Biology, Shiraz, Iran, Oct.29-Nov, 1, 2007, p539, (poster presentation).

68. Khoubani, S., Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Bioconversion of androst-1,4-dien-3,17 dione (ADD) by *Scenedesmus obliquus*, The 13th Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, E529, (poster presentation).
69. Negintaji, N., Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Bioconversion of progesterone by the paddy field cyanobacterium *Anacystis nidulans*, The 13th Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, E527, (poster presentation).
70. Nouri, F., Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Production of prednisolone using *Chlamydomonas reinhardtii*, The 13th Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, E518, (poster presentation).
71. Parvizi, R., Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, S., Progesterone side-chain cleavage by *Oocystis pusilla*, The 13th Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, E528, (poster presentation).
72. Mosavi Azam, S.B., Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Side-chain cleavage hydrocortisone by a natural isolate of *Oocystis pusilla*, The 13th Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, E538, (poster presentation).
73. Ghoshoon, M.B., Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Characterization of antimicrobial activity and 16S rRNA gene of *Nostoc muscorum*, The 13th Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, E506, (poster presentation).
74. Morowvat, M.H., Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Single cell protein and PCR amplification of 18S rRNA gene of *Chlorella vulgaris*, The 13th Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, E505, (poster presentation).
75. Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Morowvat, M.H., Abolhassanzadeh, Z., SCP and PCR amplification of 18S rRNA of naturally isolated *Chlamydomonas reinhardtii*, the first international workshop on microalgal biotechnology, 9-10 September 2007, Tabriz, Iran, 4 (poster presentation).
76. Ghasemi, Y., Rasoul-Amini, S., Mohagheghzadeh, A., Shokravi, Sh., Morowvat, M.H., single cell protein and PCR amplification of 18S rRNA gene of *Chlorella vulgaris*, the 4th European congress of phycology, July, 23-27, 2007, Oviedo, Spain, P3C-3, (poster presentation).

77. Morowvat, M.H., Ghasemi, Y., Mohagheghzadeh, A., Rasoul-Amini, S., Microalgal toxins. The 9th Iranian congress of Toxicology, May, 15-17, 2007, Shiraz, Iran, 12, (poster presentation).
78. Zargaran, A., Rajabli, N., Faridi, P., Morowvat, M.H., Mohagheghzadeh, A., Ghasemi, Y., Some Points from Pharmaceutical Sciences in Ancient Iran. The 6th Research Day of Pharmacy Students, Jan, 2, 2007, Shiraz, Iran, 39 (Poster Presentation).
79. Afifi, S., Peymani, P., Morowvat, M.H., Mohagheghzadeh, A., Rasoul-Amini, S., Ghasemi, Y., Production and Evaluation of Single Cell Protein from Naturally Isolated *Scenedesmus* Sp. And *Chlorella vulgaris*. The 6th Research Day of Pharmacy Students, Jan, 2, 2007, Shiraz, Iran, 30 (Poster Presentation).
80. Hourangh, M., Morowvat, M.H., Shokravi, Sh., Mohagheghzadeh, A., Rasoul-Amini, S., Ghasemi, Y., Application of Microalgae in Nanobiotechnology. The 6th Research Day of Pharmacy Students, Jan, 2, 2007, Shiraz, Iran, 27 (Poster Presentation).
81. Raee, M.J., Morowvat, M.H., Ghoshoon, M.B., Ghasemi, Y., Mohagheghzadeh, A., Shokravi, Sh., PCR amplification of cyanobacterial 16S rRNA gene isolated from south of Iran. The 12th Seminar of Iranian Pharmacy Students, November, 1-3, 2006, Sari, Iran, 39 (poster presentation).
82. Moshavash, M., Ostovan, Z., Morowvat, M.H., Ghasemi, Y., Mohagheghzadeh, A., Biotransformation of thymol by *Chlorella vulgaris* isolated from paddy-fields of Fars province. The 12th Seminar of Iranian Pharmacy Students, November, 1-3, 2006, Sari, Iran, 54 (poster presentation).
83. Moradian, A., Ghasemi, Y., Mohagheghzadeh, A., Shokravi, Sh., Morowvat, M.H., Antifungal and antibacterial activity of microalgae collected from paddy-fields of Fars province. 10th Iranian Pharmaceutical Sciences Conference (IPSC). August 21-24, 2006, Tehran, Iran, 92 (poster presentation).
84. Mohagheghzadeh, A., Morowvat, M.H., Ghasemi, Y., Shams Ardekani, M.R., A survey on Iranian ancient medicine. The 11th Seminar of Iranian Pharmacy Students, November, 9-11, 2005, Shiraz, Iran, 21 (poster presentation).
85. Morowvat, M.H., Mohagheghzadeh, A., Ghasemi, Y., Abedtash, H. Research on traditional Iranian physicians. The 5th research day of pharmacy students, faculty of pharmacy, January 2, 2004, Shiraz university of medical sciences, Shiraz, Iran,14 (poster presentation).

C.5) Research Proposals

1. Morowvat, M.H., Study of the effects of *ack*A, pta and *pox*B inhibition by antisense RNA on acetate excretion and recombinant beta interferon expression in *Escherichia coli*. No. 94-01-36-10599, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
2. Morowvat, M.H., Ghasemi, Y., Vector design, construction, cloning and expression of human interleukin-1 receptor antagonist in *Escherichia coli* BL21 (DE3). No. 95-01-36-11913, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
3. Morowvat, M.H., Ghasemi, Y., Enhancement of human interleukin-1 receptor antagonist production in high cell density cultivation of *Escherichia coli* using fed-batch cultivation strategy. No. 95-01-36-11914, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
4. Morowvat, M.H., Ghasemi, Y., Culture medium optimization to maximize the human interleukin 1 receptor antagonist production and minimize the acetate excretion. No. 95-01-36-11915, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
5. Morowvat, M.H., Ghasemi, Y., Aghaleh, M., Evaluating the cytotoxicity of monolayered and multilayered carbon nanotubes as a scaffold for human chondrocyte stem cell precursors and optimizing the operating conditions. No. 1396-01-36-14521, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
6. Morowvat, M.H., Farshad, O., Evaluating the cytotoxicity of monolayered and multilayered carbon nanotubes on three different human cell lines. No. 1396-01-36-14612, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
7. Morowvat, M.H., Ghasemi, Y., Metabolic changes of recombinant *Escherichia coli* BL21 (DE3) during overexpression of recombinant human interleukin 1 receptor antagonist in HCDC. No. 95-01-36-11916, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
8. Morowvat, M.H., Cloning, expression and enhancement of recombinant human teriparatide production in *Escherichia coli*. No. 1396-01-36-16033, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
9. Morowvat, M.H., Evaluation of single chain variable fragment ranibizumab in *Escherichia coli* prokaryotic host. No. 1396-01-36-15981, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
10. Morowvat, M.H., Ghasemi, Y., Abdollahi, E., Irajie, C., Laboratory scale production of the biosimilar form of pegylated uricase (Pegloticase). No. 1396-01-106-16312, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
11. Morowvat, M.H., Culture medium optimization to maximize the recombinant human teriparatide production and minimize the acetate excretion. No. 1396-01-36-16039, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.

12. Morowvat, M.H., Bioengineered host cells through CRISPR-Cas9 genome editing system as the next-generation of cell factories. No. 97-01-36-16814, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
13. Morowvat, M.H., Entezar-Almahdi, E., Functionalizing carbon nanotubes as a successful tool for promoting the pharmacokinetic aspects. No. 97-01-36-16808, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
14. Morowvat, M.H., Ghasemi, Y., Studying the effects of different phosphorous concentrations on biomass and β-carotene production in nitrogen starved *Dunaliella salina*. No. 95-01-36-11911, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
15. Morowvat, M.H., Ghasemi, Y., Effect of sulfur starvation on growth rate, biomass and lipid contents in the green microalgae *Scenedesmus obliquus*. No. 95-01-36-11912, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
16. Morowvat, M.H., Roointan, A., Road to future of systems biotechnology: CRISPR-Cas mediated metabolic engineering for recombinant protein production. No. 94-01-36-10630, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
17. Morowvat, M.H., Ghasemi, Y., Goharian, S., Investigation of antioxidant properties of three naturally isolated microalgae: Identification and bioinformatic evaluation of the most efficient strain. No. 94-01-103-10726, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
18. Morowvat, M.H., Ghasemi, Y., Khademi, H., Effect of nitrogen and sulfur starvation on beta carotene production and lipid profile of *Dunaliella salina*. 94-01-103-10728, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
19. Morowvat, M.H., Ghasemi, Y., Sajadian, S.F., Investigation of autotrophic, heterotrophic and mixotrophic culture on lipid and biomass content in *Chlorella vulgaris*. No. 94-01-103-10730, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
20. Morowvat, M.H., Enhancement of recombinant human interferon-β production in high cell density cultivation of *Escherichia coli*. No. 94-01-36-10598, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
21. Morowvat, M.H., Ghasemi, Y., Shaker, S., Effect of nutrient starvation on beta carotene production and lipid profile of *Dunaliella salina*. No. 94-01-36-9445, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
22. Morowvat, M.H., Ghasemi, Y., The impacts of nitrogen starvation on expression profiles of genes involved in triacylglycerol (TAG) biosynthesis in *Chlamydomonas reinhardtii*. No. 93-01-36-7856, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.

23. Morowvat, M.H., Ghasemi, Y., Developing a robust method for quantification of β-carotene in *Dunaliella salina* biomass using HPLC method. No. 93-01-36-7943, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
24. Morowvat, M.H., Ghasemi, Y., Fourier Transform Infrared (FTIR) spectroscopy for rapid determination of lipid accumulation under sulfur limitation in *Chlamydomonas reinhardtii* microalga. No. 93-01-36-7939, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
25. Morowvat, M.H., Ghasemi, Y., Effects of spray drying conditions on the β-carotene content of powdered *Dunaliella salina*. No. 93-01-36-7940, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
26. Morowvat, M.H., Ghasemi, Y., Evaluation of antioxidant properties of some naturally isolated microalgae Identification and characterization of the most efficient strain. No. 93-01-36-7941, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
27. Morowvat, M.H., Ghasemi, Y., Medium optimization by artificial neural networks for maximizing the triglycerides-rich lipids from biomass of *Chlorella vulgaris*. No. 93-01-36-7942, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
28. Morowvat, M.H., Ghasemi, Y., Effects of nitrogen concentration and media replacement on cell growth and lipid production in photosynthetic microalga *Chlorella vulgaris*. No. 93-01-36-7728, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
29. Morowvat, M.H., Ghasemi, Y., Maximizing biomass and lipid production in heterotrophic culture of *Chlamydomonas reinhardtii*. No. 93-01-36-7748, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
30. Morowvat, M.H., Ghasemi, Y., Optimisation of culture medium for enhanced biomass production by *Dunaliella salina*. No. 93-01-36-7749, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
31. Morowvat, M.H., Ghasemi, Y., Screening of some naturally isolated microalgal strains for poly unsaturated fatty acids (PUFA) production. No. 93-01-36-7750, Research deputy, Shiraz University of Medical Sciences, Shiraz, Iran.
32. Morowvat, M.H., Vahidi, H., Babaeipour, V., Rajabi-Memari, H., Study of the effects of *ack*A and *pta* inhibition by antisense RNA on acetate excretion and recombinant beta interferon expression in *Escherichia coli*, No. 1391-1-94-9518, Research deputy, Faculty of Pharmacy, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
33. Morowvat, M.H., Vahidi, H., Babaeipour, V., Enhancement of recombinant human interferon-β production in high cell density cultivation of *Escherichia coli* including RNA antisense of *ack*A and

pta genes, No. 1391-1-94-9557, Research deputy, Faculty of Pharmacy, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

34. Morowvat, M.H., Determination of growth kinetics of *Escherichia coli* BL21 (DE3) during interferon beta production, No. 1391-1-150-9422, Student Research Committee, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
35. Morowvat, M.H., Down regulation of acetate production using antisense RNA technology in *Escherichia coli*, No. 1391-1-150-9404, Student Research Committee, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
36. Morowvat, M.H., Enhancement of recombinant human interferon-β production in high cell density cultivation of *Escherichia coli* using metabolic engineering method, No. 1391-1-150-9413, Student Research Committee, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
37. Morowvat, M.H., Application of different methods to regulate acetate production in *Escherichia coli* during recombinant protein production, No. 1391-1-150-9415, Student Research Committee, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
38. Morowvat, M.H., No. 1391-1-150-9420, Design and construction of a general plasmid containing antisense RNA against *ack*A and *pta* in *Escherichia coli*. Student Research Committee, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

D) Workshops:

1. EndNote, July 11, 2012, Tehran, Iran.
2. Writing and Publishing a Scientific Paper, July 10, 2012, Tehran, Iran.
3. IPM-NUS Workshop on Computational Biology, April 5-7, 2011, Tehran, Iran.
4. Gene Delivery. January 29, 2009, Tehran, Iran
5. PCR amplification and electrophoresis of small subunit nuclear rRNA gene of microorganisms. December 25, 2007, Shiraz, Iran, (as lecturer).
6. Introduction to medical databases, December 14, 2007, Shiraz, Iran.
7. Two-dimensional electrophoresis and proteomics, November 27-29, 2007, Tehran, Iran.
8. Principles and Usage of Microarray technique in Molecular Biology, October 29-November 1, 2007, Shiraz, Iran.
9. Advance methods in DNA & RNA electrophoresis, October 29-November 1, 2007, Shiraz, Iran.
10. Two-Dimensional Electrophoresis and IEF, October 29-November 1, 2007, Shiraz, Iran.
11. Real Time PCR, October 29-November 1, 2007, Shiraz, Iran.

12. Bioinformatics and its Application in Biotechnology, October 23-27, 2007, Tabriz, Iran.
13. The first International workshop on Microalgal Biotechnology, September 9-10, 2007, Tabriz, Iran.

E) Laboratory and Technical skills:

- PCR, Gel electrophoresis, SDS PAGE, Gel doc.
- DNA and RNA extraction, Plasmid extraction, RFLP, Transformation, Cloning
- Cell culture of microalgae, some bacteria and some mammalian cells
- Scale-up of recombinant proteins production using bioreactor
- Medium and strain optimization for recombinant protein production
- Isolation of microorganisms from nature and screening them for production of bioactive compounds
- Gram staining of bacteria
- 16S rRNA and 18S rRNA amplification of microalgae and plants and some bacteria
- Application of bioinformatics in biotechnology
- Extraction of lipids from microalgae, esterification and detecting them using GC-MS apparatus
- Antimicrobial activity, MIC, and composition of essential oils of plants using GC/MS apparatus
- Common laboratory skills (PH meter, Spectrophotometery, Centrifuge …)
- Computer based skills (Microsoft office word, power point, publisher, Photoshop …)
- Language based skills (professional in English, expert in German, acquaintance to Old Persian languages).

F) Activities:

- Member of editorial committee of the Microbial Fuel Cell, July 2010-now.
- Member of editorial committee of the Iranian Journal of Pharmaceutical Research (IJPR), January 2010-now.

- Member of editorial committee of the Biofuel Research Journal, August 2014-now.
- Member of the referee committee of the 14th seminar of Iranian pharmacy students, February 11-14, 2009, Ahvaz, Iran.
- Member of the referee committee of the 1st global student scientific-research congress of regional cooperative committees-west division, March, 11-13, 2009, Khoram Abad, Iran.
- Member of the referee committee of 10th Students' International Conference on Biomedical and Interdisciplinary Research (SICOBAIR), May, 14-16, 2009, Tehran, Iran.
- Member of Research committee of students, Shiraz University of Medical Sciences, 2007-8.
- Member of executive committee of the 9th Iranian congress of Toxicology, May, 15-17, 2007, Shiraz, Iran.
- Member of executive committee of the 6th Research Day of Pharmacy Students, January, 2, 2007, Shiraz, Iran.
- Member of executive committee of the university cultural week, December, 1-6, 2006.
- Member of executive committee of the 11th Seminar of Iranian Pharmacy Students, November, 9-11, 2005, Shiraz, Iran.
- Member of editorial committee of Ahouraii magazine, 2004-5.

G) Awards:

- Awarded prize for the best elite researcher in 4th Congress of Iran's National Elites, Oct 2010, Tehran, Iran.
- Awarded prize for the best researcher student in 15th Razi Research Festival on Medical Sciences, Jan 2010, Tehran, Iran.
- Awarded prize for the best researcher student in Shahid Beheshti University of Medical Sciences, Dec 2008, Tehran, Iran.
- Awarded prize for the best poster presentation at the 11th Seminar of Iranian Pharmacy Students, Nov, 9-11, 2005, Shiraz, Iran.

H) Membership:

- Iran's National Elites Foundation
- Medical Council of Islamic Republic of Iran
- Iranian Society of Bioinformatics
- Iranian Society of Biotechnology

I) Research Interests:

- Metabolic and Bioprocess Engineering of *Escherichia coli*
- Systems and Synthetic Biology
- Microalgal Biotechnology
- Pharmaceutical Biotechnology
- Microalgal Biofuels
- Monoclonal Antibodies Production

J) Work Experiences:

- Technical assistant at Sina Darou Pharmaceutical Company
- Visitor researcher at CinnaGen Pharmaceutical Biotechnology Company
- Visitor researcher at Zist Darou Danesh Pharmaceutical Biotechnology Company
- Novel Technologies Advisor at Shafa Pharmed Pharmaceutical Biotechnology Company
- Scientific Advisor at Iranian Green Future (Algomed®) Pharmaceutical Company

K) Teaching Experiences:

- Pharmaceutical Biotechnology, to Pharmacy students, School of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran; 2014-now.
- Biological Products, to Pharmacy students, School of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran; 2014-now.

- Fundamentals and Principles of Engineering in Medical Biotechnology, to PhD students of Medical Biotechnology, School of Advanced Medical Sciences and Technologies, Shiraz University of Medical Sciences, Shiraz, Iran; 2014-now.
- Biosafety, to PhD students of Medical Biotechnology, School of Advanced Medical Sciences and Technologies, Shiraz University of Medical Sciences, Shiraz, Iran; 2014-now.
- Nanobiotechnology, to PhD students of Pharmaceutical Biotechnology, School of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran; 2014-now.
- Cell Culture, to PhD students of Pharmaceutical Biotechnology, School of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran; 2014-now.
- Biology and Genetic Engineering, to PhD students of Pharmaceutical Biotechnology, School of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran; 2014-now.

L) Supervised Theses and Dissertations:

- Pharm. D. students' theses, 15.
- PhD. Students, 5
- DDS Students, 2

M) References:

1. Dr. Y. Ghasemi, Professor in Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran, E-mail: Ghasemiy@sums.ac.ir
2. Dr. H. Vahidi, Professor in Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shahid Beheshti University of Medical Sciences, Tehran, Iran, E-mail: Hovahidi@yahoo.com