

In the name of God

## Curriculum Vitae

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### **Languages:**

-Persian (Original Language),

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### **Current positions:**

December 2019-now: Research deputy of Center for Nanotechnology in Drug Delivery

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## **Education:**

### **PhD. in Pharmaceutical Biotechnology (2013-2018)**

-Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran.

### **Pharm.D. (2004-2010)**

-Department of Pharmaceutical Biotechnology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, Iran.

### **Subject of Pharm.D Thesis:**

Cloning and expression of streptokinase in *Escherichia coli*

Supervisor: Dr. Younes Ghasemi

### **Subject of PhD Thesis:**

Magnetic immobilization of recombinant *E.coli* by iron oxide nanoparticles and evaluation of plasmid stability and excretion of L.asparaginase II

Supervisors: Dr. Younes Ghasemi, Dr Alireza Ebrahiminezhad.

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## **Publications:**

### **Research Papers:**

1) Ghasemi Y, Rasoul-amini S, Morowvat MH, Moasavi-Azam SB, Shokravi S, Mohagheghzadeh A, Ghoshoon MB, **Rae MJ** (2008) Bioconversion of hydrocortisone by unicellular microalga *Oocystis pusilla*. **Biotechnology**, 7 (2): 293-298.

2) Ghasemi Y, Rasoul-amini S, Morowvat MH, , Ghoshoon MB, **Rae MJ**, Nouri F, Negintaji N, Parvizi R, Mosavi-Azam SB (2008) Characterization of hydrocortisone biometabolites and 18S rRNA gene in *Chlamydomonas reinhardtii* cultures. **Molecules**, 13 (10): 2416-2425.

- 3) Ghasemi Y, Ebrahiminezhad A, Rasoul-Amini S, Zarrini G, Ghoshoon MB, **Raee MJ**, Morowvat MH, 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.
- 4) Ghasemi, Y, Rasoul-Amini S, Morowvat M H, **Raee MJ**, Ghoshoon M B, Nouri F, Negintaji N, Parvizi R, Mosavi Azam S, Shokravi S (2008) Dehydrogenation, C-20 ketone reduction and side-chain cleavage of hydrocortisone in *Chlamydomonas reinhardtii* cultures. **Molecules**, 13 (10), 2416-2425.
- 5) Ghasemi Y, Mohagheghzadeh A, Moshavash M, Ostovan Z, Rasoul-Amini S, Morowvat MH, Ghoshoon MB, **Raee MJ**, Mosavi-Azam SB (2009) Biotransformation of monoterpenes by *Oocystis pusilla*. **World Journal of Microbiology and Biotechnology**, 25: 1301-1304.
- 6) Rasoul-Amini S, Ghasemi Y, Morowvat MH, Ghoshoon MB, **Raee MJ**, Moasavi-Azam MB, Shokravi S, Montazeri-Najafabady N, Nouri F, Parvizi R, Negintaji N, Khoubani S (2010) Characterization of hydrocortisone bioconversion and 16S rRNA gene in *Synechococcus nidulans* cultures. **Applied Biochemistry and Microbiology**, 46 (2): 191-197.
- 7) Ghasemi Y, Rasoul-Amini S, Ebrahiminezhad A, Zarrini G, Kazemi A, Mousavi-Khorshidi S, Ghoshoon M.B and **Raee MJ** (2010) Halotolerant Amylase Production by a Novel Bacterial Strain, *Rheinheimera aquimaris*. **Research Journal of Microbiology**, 5 (2): 144-149.
- 8) Ghasemi Y, Rasoul-amini S, Morowvat MH, , Ghoshoon MB, **Raee MJ**, Khoubani S, Negintaji N, Nouri F, Shokravi S (2009) C-20 Ketone Reduction of Hydrocortisone by a rice field microalga *Chlorella vulgaris* MCCS 013. **Chemistry of Natural Compounds**, 45(6): 824-828
- 9) **Raee MJ**, Ghasemi Y , Ghasemian A, Ghoshoon MB, Maghami S (2013) Cloning, purification and enzymatic assay of streptokinase gene from *Streptococcus pyogenes* in *Escherichia coli*. **Minerva Biotechnologica**, 29(1): 8-13
- 10) **Raee MJ**, Maghami S, Ghoshoon MB, Zamani M, Mohkam M, Rasoul-Amini S, Ghasemi Y (2013) Characterization, bioinformatics analysis and cloning of CYP152A1 gene from *Bacillus subtilis* in *Escherichia coli*. **Minerva Biotechnologica**, 28(1): 12-18
- 11) Ghasemi Y, Afrasiabi N, Ebrahimi N, Ghoshoon MB, Nezafat N, Zamani M and **Raee MJ** (2016) Cloning, expression and characterization of CYP109B1 gene from *Bacillus subtilis*, **Minerva Biotechnologica**, 28(2): 81-85

- 12) Ebrahiminezhad A, **Raee MJ**, Manafi Z, Sotoodeh Jahromi A and Ghasemi Y (2016) Ancient and novel forms of silver in medicine and biomedicine (review). **Journal of Advanced Medical Sciences and Applied Technologies (JAMSAT)**, 2(1): 122-128
- 13) Hajimonfarednejad M, Nimrouzi M, Heydari M, Zarshenas M M, Raee M J, Jahromi B N (2018) Insulin resistance improvement by cinnamon powder in polycystic ovary syndrome: A randomized double-blind placebo controlled clinical trial. **Phytotherapy Research**, 32 (2): 276-283
- 14) Hajimonfarednejad M, Ostovar M, **Raee M J**, Hashempur M H, Mayer J G, Heydari M (2018) Cinnamon: A systematic review of adverse events. **Clinical Nutrition**, 38(2), 594-602.
- 15) **Raee MJ**, Ebrahiminezhad A, Gholami A, Ghoshoon M B and Ghasemi Y (2018) Magnetic immobilization of recombinant *E.coli* producing extracellular asparaginase: An effective way to intensify downstream process, **Separation Science and Technology**, 53(9): 1397–1404
- 16) **Raee MJ**, Ebrahiminezhad A, Gholami A, Ghoshoon M B and Ghasemi Y (2018) Synthesis and Characterization of L-Lysin Coated Iron Oxide Nanoparticles as Appropriate Choices for Cell Immobilization and Magnetic Separation, **Nanoscience & Nanotechnology-Asia**, 9(4), 462-466.
- 17) Kianpour, S, Ebrahiminezhad, A, Deyhimi, M, Negahdaripour, M, **Raee, MJ**, Mohkam, M. and Ghasemi, Y. (2019). Structural characterization of polysaccharide-coated iron oxide nanoparticles produced by *Staphylococcus warneri*, isolated from a thermal spring. **Journal of basic microbiology**, 59(6), 569-578.
- 18) Mortazavi, M, Nezafat, N, Negahdaripour, M, **Raee, MJ**, Torkzadeh-Mahani, M, Riahi-Madvar, A & Ghasemi, Y. (2020). In silico Evaluation of Substrate Binding Site and Rare Codons in the Structure of CYP152A1. **Current Proteomics**, 17(1), 10-22.
- 19) Taghizadeh, SM, Berenjian, A, Chew, KW, Show, PL, Mohd Zaid, HF, Ramezani, H, Ghasemi Y, **Raee MJ** & Ebrahiminezhad, A. (2020). Impact of magnetic immobilization on the cell physiology of green unicellular algae Chlorella vulgaris. **Bioengineered**, 11(1), 141-153.
- 20) Taghizadeh, SM., Jafari, S, Ahmad-Kiadaliri, T, Mobasher, MA, Lal, N, **Raee, MJ** & Ebrahiminezhad, A. (2020). Magnetic immobilisation as a promising approach against bacteriophage infection. **Materials Research Express**, 6 (12), 1250a8.

21) Firoozi FA, **Rae MJ**, Ebrahiminezhad A, Ghasemi Y. (2021).The effect of magnetic immobilization on ethanol producing from *Saccharomyces cerevisiae*. **Separation Science and Technology**, 1-11.

### Nucleotide sequences insertion at gene bank (NCBI):

- 1) Ghasemi Y, Morowvat MH, Mohagheghzadeh A, Rasoul Amini S, Ghoshoon MB, **Rae MJ**, Shokravi S, Soltani N, (2007), PCR amplification of 18S small subunit rRNA of *Scenedesmus obliquus*, isolated from paddy fields of Fars province, **NCBI**, EF564131.
- 2) Ghasemi Y, Morowvat MH, Mohagheghzadeh A, Rasoul Amini S, Ghoshoon MB, **Rae MJ**, Shokravi S, (2007), PCR amplification of 18S small subunit rRNA of *Chlorella vulgaris*, isolated from south of Iran, **NCBI**, EF564130.
- 3) Ghasemi Y, Morowvat MH, Rasoul Amini S, Mohagheghzadeh A, Abolhassanzadeh Z, Hamidi M, Ghoshoon MB, **Rae MJ**, Shokravi S, (2007), PCR amplification of the 18S rRNA gene of *Dunaliella salina*, isolated from Maharl salt lake of Iran, **NCBI**, EF682841.
- 4) Ghasemi Y, Abolhassanzadeh Z, Morowvat MH, Rasoul Amini S, Mohagheghzadeh A, Hamidi M, Ghoshoon MB, **Rae MJ**, (2007), PCR amplification of the 18S rRNA gene of *Dunaliella salina* CCAP 19/18, **NCBI**, EF682843.
- 5) Ghasemi Y, Morowvat MH, Rasoul Amini S, Mohagheghzadeh A, Ghoshoon MB, **Rae MJ**, Shokravi S, Ostvan Z, Moshavash M, (2007), PCR amplification of 18S small subunit rRNA of *Chlamydomonas reinhardtii*, isolated from paddy fields of Fars province, **NCBI**, EF682842.
- 6) Ghasemi Y, Ghoshoon MB, Morowvat MH, Rasoul Amini S, **Rae MJ**, Mohagheghzadeh A, Shokravi S, Khalaj A, (2007), Characterization of antimicrobial activity and 16S rRNA gene of *Nostoc muscorum* strain MCCS 003, isolated from paddy fields of Fars Province, **NCBI**, EU192144.
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- 8) Ghasemi Y, Rasoul Amini S, Morowvat MH, Ghoshoon MB, **Rae MJ**, Mohagheghzadeh A, Shokravi S, Soltani N, Niknahad H, (2007), Characterization of the 16S rRNA gene of *Nostoc ellipsosporum* strain MCCS 005, isolated from paddy fields in South of Iran, **NCBI**, EU192146.

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- 10) Ghasemi Y, Rasoul Amini S, Morowvat MH, Ghoshoon MB, **Rae MJ**, Mohagheghzadeh A, Shokravi S, Negintaji N, Mosavi Azam SB, Nouri F, Parvizi R, Khoubani S, (2007), Characterization of antimicrobial activity and the 16S rRNA gene of *Synechococcus nidulans* MCCS 008, isolated from paddy fields in Southern Iran, **NCBI**, EU285584.
- 11) Ghasemi Y, Morowvat MH, Rasoul Amini S, Moshavash M, Ghoshoon MB, **Rae MJ**, Mohagheghzadeh A, Shokravi S, (2008), Characterization of 18S rRNA gene of *Chlorococcum sp.* MCCS 009, isolated from paddy field of Shiraz, **NCBI**, EU374168.
- 12) Ghasemi Y, Morowvat MH, Rasoul Amini S, Ghoshoon MB, **Rae MJ**, Mohagheghzadeh A, Shokravi S, (2008), Characterization of 18S rRNA gene of *Chlorella vulgaris* MCCS 011, isolated from paddy fields of Fars Province, **NCBI**, EU374169.
- 13) Ghasemi Y, Morowvat MH, Rasoul Amini S, Mohagheghzadeh A, Ghoshoon MB, **Rae MJ**, Shokravi S, (2008), PCR amplification of 16S rRNA gene of *Oscillatoria splendida* MCCS 019, isolated from soil sample in the Fars province of Iran, **NCBI**, EU621365.
- 14) Ghasemi Y, Morowvat MH, **Rae MJ**, Ghoshoon MB, Shokravi S, (2008), PCR amplification of 18S rRNA gene from fresh water microalga, *Scenedesmus rubescens* MCCS 018, isolated from south of Iran, **NCBI**, EU621364.
- 15) Ghasemi Y, Morowvat MH, Ghoshoon MB, **Rae MJ**, Shokravi S, (2008), Characterization of 16S rRNA gene of *Nostoc corneum* MCCS 020, isolated from soil sample in the Fars province of Iran, **NCBI**, EU621366.
- 16) Ghasemi Y, Rasoul-Amini S, Morowvat MH, Ghoshoon MB, **Rae MJ**, Mosavi- Azam SB, (2008), Microbial metabolism of pinen by immobilized cells of *Oscillatoria amphibia* MCCS 021, **NCBI**, FJ210469.
- 17) Ghasemi Y, Kazemi A, Ghoshoon MB, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, (2008), Characterization of antibacterial activity and 16S rRNA gene of *Oscillatoria spongiae*, **NCBI**, FJ392545.

- 18) Ghasemi Y, Kazemi A, Zarrini G, Kargar M, Rasoul-Amini S, Ghoshoon MB, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, (2008), Isolation and identification of halophilic lipase-producing bacteria from the Maharlu salt lake in south of Iran, **NCBI**, FJ392547.
- 19) Ghasemi Y, Ghoshoon MB, **Rae MJ**, Ebrahiminezhad A, Zarrini G, Rasoul-Amini S, Morowvat MH, Kazemi A, (2008), Cloning, expression and characterization of *Escherichia coli* (BCCS 001) L-asparaginase II, **NCBI**, EU999160.
- 20) Ghasemi Y, Kazemi A, Zarrini G, Kargar M, Rasoul-Amini S, Ghooshoon MB, Morowvat M H, **Rae MJ**, Ebrahiminezhad A, (2008), Isolation and identification of halophilic lipase-producing bacteria from the Maharlu salt lake in south of Iran, **NCBI**, FJ411178.
- 21) Ghasemi Y, Kazemi A, Zarrini G, Kargar M, Rasoul-Amini S, Ghoshoon M B, **Rae MJ**, 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.
- 22) Ghasemi Y, Kazemi A, Zarrini G, Kargar M, Ghoshoon MB, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, (2008), Characterization of lipase activity and 16S rRNA gene of *Bacillus subtilis* BCCS 005, **NCBI**, FJ422563.
- 23) Ghasemi Y, Kazemi A, Zarrini G, Kargar M, Ghoshoon M B, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, Sadeghi M, Abbaszadeh S, Hemayatkah-Jahromi V, (2008), Characterization of 16S rRNA gene of *Bacillus amyloliquefaciens* BCCS 006, **NCBI**, FJ422564.
- 24) Ghasemi Y, Kazemi A, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, 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.
- 25) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Characterization of the 16S small subunit rRNA and lipase activity of *Bacillus aquimaris* BCCS 008, **NCBI**, FJ422566.
- 26) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Characterization of lipase activity of *Bacillus endophyticus* BCCS 011, **NCBI**, FJ422567.
- 27) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), PCR amplification of 16S rRNA gene of *Staphylococcus epidermidis* BCCS 009, isolated from the Lake Maharlu, **NCBI**, FJ422568.

- 28) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, 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.
- 29) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH , **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Characterization of 16S small subunit rRNA of a halophilic bacterium, *Bacillus subtilis* BCCS 012, **NCBI**, FJ422570.
- 30) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Bacterial diversity of sediment of the Maharlu salt lake in south of Iran, **NCBI**, FJ422571.
- 31) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Characterization of 16S rRNA gene and lipase activity of *Bacillus pumilus* BCCS 014, **NCBI**, FJ422572.
- 32) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Bacterial diversity of sediment of the Maharlu salt lake in south of Iran, *Bacillus pumilus* BCCS 013 **NCBI**, FJ422571.
- 33) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Ghoshoon MB, Morowvat MH, **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Isolation and identification of halophilic lipase-producing bacteria from the Maharlu salt lake in south of Iran, *Bacillus pumilus* BCCS 003 **NCBI**, FJ392547.
- 34) Ghasemi Y, Kazemi A, Rasoul-Amini S, Zarrini G, Kargar M, Morowvat MH, Ghoshoon MB, **Rae MJ**, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Phylogenetic diversity of cultural bacteria from the Maharlu salt lake in south of Iran, **NCBI**, FJ422573.
- 35) Ghasemi Y, Kazemi A, Rasoul-Amini S, Ghoshoon MB, Morowvat MH, **Rae MJ**, 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.
- 36) Ghasemi Y, Rasoul-Amini S, Kazemi A, Mousavi-Khorshidi S, Zarrini G, Ghoshoon MB, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, (2008), Characterization of amylase activity and 16S rRNA gene of *Halomonas aquamarina* BCCS 017, **NCBI**, FJ422575.
- 37) Ghasemi Y, Rasoul-Amini S, Kazemi A, Mousavi-Khorshidi S, Zarrini G, Ghoshoon MB, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, (2008), Characterization of 16S small subunit rRNA of a halophilic bacterium, *Staphylococcus pasteuri* BCCS 018, **NCBI**, FJ422576.

- 38) Ghasemi Y, Rasoul-Amini S, Mousavi-Khorshidi S, Kazemi A, Zarrini G, Ghoshoon MB, **Rae MJ**, Morowvat MH, 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.
- 39) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Rae MJ**, Kazemi A, Mousavi- Khorshidi S, Morowvat MH, Ebrahiminezhad A, (2008), Characterization of 16S Rrna gene of *Bacillus endophyticus* BCCS 020, **NCBI**, FJ422578.
- 40) Ghasemi Y, Rasoul-Amini S, **Rae MJ**, Ghoshoon MB, Mousavi-Khorshidi S, Kazemi A, Morowvat MH, Ebrahiminezhad A, (2008), Characterization of starchdigesting activity and 16S ribosomal RNA gene of *Bacillus muralis* BCCS 021, **NCBI**, FJ422579.
- 41) Ghasemi Y, Rasoul-Amini S, **Rae MJ**, Ghoshoon MB, Mousavi-Khorshidi S, Kazemi A, Morowvat MH, 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.
- 42) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Rae MJ**, Mousavi-Khorshidi S, Kazemi A, Morowvat MH, Ebrahiminezhad A, (2008), PCR amplification of the 16S rRNA gene of *Rheinheimera aquimaris* BCCS 023, **NCBI**, FJ422581.
- 43) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Rae MJ**, Mousavi-Khorshidi S, Kazemi A, Morowvat MH, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Isolation and identification of halophilic amylase-producing bacteria from the Maharlu salt lake in southern Iran, **NCBI**, FJ426405.
- 44) Ghasemi Y, Rasoul-Amini S, **Rae MJ**, Ghoshoon MB, Mousavi-Khorshidi S, Kazemi A, Morowvat MH, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Isolation and identification of halophilic amylase-producing bacteria from the Maharlu salt lake in southern Iran, **NCBI**, FJ429320.
- 45) Ghasemi Y, Rasoul-Amini S, **Rae MJ**, Ghoshoon MB, Mousavi-Khorshidi S, Kazemi A, Morowvat MH, Ebrahiminezhad A, Parsaei-Ghaderabadi K, (2008), Isolation and identification of halophilic amylase-producing bacteria from the Maharlu salt lake in southern Iran, **NCBI**, FJ429321.
- 46) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Rae MJ**, Morowvat MH, Kazemi A, Ebrahiminezhad A, Montazeri-Najafabady N, (2009), PCR amplification of the 16S rRNA gene of *Bacillus subtilis* BCCS 027, **NCBI**, FJ517538.

- 47) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Morowvat MH, Kazemi A, Ebrahimezhad A, Montazeri-Najafabady N, (2009), Characterization of 16S small subunit rRNA of a halophilic bacterium, *Bacillus subtilis* BCCS 028, **NCBI**, FJ517539.
- 48) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Morowvat MH, Kazemi A, Ebrahimezhad A, Montazeri-Najafabady N, (2009), PCR amplification of 16S rRNA gene of *Bacillus* sp. BCCS 029, isolated from the Lake Maharlu, **NCBI**, FJ517540.
- 49) Ghasemi Y, Rasoul-Amini S, **Raee MJ**, Ghoshoon MB, Kazemi A, Morowvat MH, Ebrahimezhad A, Montazeri-Najafabady N, (2009), Characterization of amylase activity and 16S rRNA gene of *Halobacterium* sp. BCCS 030, **NCBI**, FJ529204.
- 50) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Kazemi A, Morowvat M H, Ebrahimezhad A, (2009), Isolation and identification of halophilic amylase-producing bacterium, *Bacillus subtilis* BCCS 031, **NCBI**, FJ554670.
- 51) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Kazemi A , Morowvat MH, Ebrahimezhad A, (2009), Isolation and Identification of Halophilic Bacterium, *Bacillus* sp., from the Maharlu Salt Lake in South of Iran, **NCBI**, FJ605152.
- 52) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Ebrahimezhad A, Morowvat MH, Kazemi A, (2009), Isolation and identification of halophilic amylaseproducing bacterium, *Bacillus* sp BCCS 033, **NCBI**, FJ607327.
- 53) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Ebrahimezhad A, Morowvat M H, Kazemi A, (2009), Characterization of starch-digesting activity of *Bacillus* sp. BCCS 034, **NCBI**, FJ607328.
- 54) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Kazemi A, Morowvat MH, Ebrahimezhad A, (2009), Isolation and identification of halophilic amylase-producing bacterium, *Rheinheimera* sp. BCCS 035, **NCBI**, FJ619743.
- 55) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Kazemi A, Morowvat MH, Ebrahimezhad A, (2009), PCR amplification of 16S small subunit rRNA of a halophilic bacterium, *Bacillus* sp. BCCS 036, **NCBI**, FJ619744.
- 56) Ghasemi,Y., Kazemi,A., Zarrini,G., Kargar,M., Rasoul-Amini,S., Ghooshoon,M.B., Morowvat,M.H., Raee,M.J. and Ebrahimezhad,A, (2009), 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.

- 57) Ghasemi,Y., Rasoul-Amini,S., Ghoshoon,M.B., Raee,M.J., Mousavi-Khorshidi,S., Kazemi,A., Morowvat,M.H., Ebrahiminezhad,A. and Parsaei-Ghaderabadi,K. (2009) Isolation and identification of halophilic amylase-producing bacteria from the Maharlu salt lake in southern Iran, *Bacillus endophyticus* strain BCCS 024, **NCBI**, FJ426405.1.
- 58) Ghasemi Y, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Kazemi A, Morowvat MH, Ebrahiminezhad A, (2009), Characterization of 16S rRNA gene of *Aeromonas* sp. BCCS 037, **NCBI**, FJ619745.
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- 60) Ghasemi Y, Rasoul-Amini S, Ebrahiminezhad A, **Raee MJ**, Ghoshoon MB, Kazemi A and Morowvat MH, ( 2009), PCR amplification of 16S small subunit rRNA of a alophilic bacterium, *Halobacterium* sp. BCCS 039, **NCBI**, FJ645729.
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- 65) Ghasemi Y, Ebrahiminezhad A, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Morowvat MH, Kazemi A and Kafilzadeh F, (2009), PCR amplification of 16S rRNA gene of *Escherichia coli* BCCS 045, **NCBI**, GQ305122.

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- 72) Ghasemi Y, Parsaei-Ghaderabadi K, Rasoul-Amini S, Ghoshoon MB, **Rae MJ**, Morowvat MH, Ebrahiminezhad A, Kazemi A And Kafilzadeh F, (2009), Screening of polyhydroxyalkanoates-producing bacteria from different environments, *Lysobacter* sp. BCCS 052, **NCBI**, GQ352443.
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bacterium, *Aeromonas* sp. BCCS 056, from the Maharlu salt lake in the south of Iran, **NCBI**, GQ352447.

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- 80) Ghasemi Y, Parsaei-Ghaderabadi K, Rasoul-Amini S, Ghoshoon MB, **Raee MJ**, Morowvat MH, Ebrahiminezhad A, Kazemi A And Kafilzadeh F, (2009), Characterization of 16S rRNA gene of *Bacillus* sp. BCCS 060, **NCBI**, GQ352451.
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- 82) Ghasemi Y, Fotooh-Abadi E, Rasoul-Amini S, Alami-Saeid K, **Raee MJ** And Ghoshoon MB, (2009), Characterization of 18S rRNA gene of *Chlorella* sp. MCCS 031, Isolated from paddy field of Shiraz, **NCBI**, GQ414514.
- 83) Ghasemi Y, Ghoshoon MB, Ghasemian A, **Raee MJ**, Morowvat MH, Maghami S, Ebrahiminezhad A, (2009), Molecular cloning, expression and characterization of L- asparaginase II from *Escherichia coli* YG 001, **NCBI**, GQ901077.

## Abstracts and Congress presentations:

- 1) Raee MJ, Morowvat MH, Ghoshoon MB, Ghasemi Y, Mohagheghzadeh A, Shokravi S. PCR amplification of cyanobacterial 16S rRNA gene isolated from south of Iran. The 12<sup>th</sup> Seminar of Iranian Pharmacy Students, November, 1-3, 2006, Sari, Iran, 39.
- 2) Ghoshoon MB., Morowvat MH, Ghasemi Y, Rasoul Amini S, Raee MJ, Mohagheghzadeh A, Shokravi S, Characterization of antimicrobial activity and 16S rRNA gene of *Nostoc muscorum*, The 13<sup>th</sup> Seminar of Iranian Pharmacy Students, November, 1-3, 2007, Tabriz, Iran, 34.
- 3) Morowvat M H, Raee MJ., Ghoshoon MB., Ghasemi Y, Rasoul Amini S, Mohagheghzadeh A, Shokravi S. *Scenedesmus*, SCP and PCR amplification of 18S rRNA, The 9<sup>th</sup> Iranian Congress of Biochemistry & the 2<sup>nd</sup> International Congress of Biochemistry and Molecular Biology, Shiraz, Iran, Oct.29-Nov, 1, 2007, 179.
- 4) Ghoshoon MB, Morowvat MH, Raee MJ, Moshavash M, Shokravi S, Mohagheghzadeh A, Rasoul-Amini S, Ghasemi Y; Metabolism of limonen and characterization of 18s rRNA gene in *Chlorella vulgaris* MCCS 012. 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 80.
- 5) Mosavi-Azam SB, Raee MJ, Ghoshoon MB, Morowvat MH, Mohagheghzadeh A, Rasoul-Amini S, Ghasemi Y; In vivo bioconversion of carvone and menthone by *Desmodesmus communis* MCCS 010. 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 81.
- 6) Yavari F, Ghoshoon MB, Morowvat MH, Raee MJ, Mohagheghzadeh A, Zarrini G, Rasoul-Amini S, Ghasemi Y; Characterization of antibacterial activity and 16S rRNA gene of *Chroococcus dispersus* MCCS 006. 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 82.
- 7) Mosavi-Khorshidi S, Kazemi A, Ghoshoon MB, Raee MJ, Morowvat MH, Zarrini G, Rasoul-Amini S, Ghasemi Y; Charcterization of halophilic amylase-producing bacteria from the Maharlu salt lake. 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 83.
- 8) Khoubani S, Ghoshoon MB, Raee MJ, Zarrini G, Rasoul-Amini S, Ghasemi Y; Charcterization of antibacterial activity and 16S rRNA gene of *Nostoc ellipsosporum* MCCS 005. 11<sup>th</sup> Iranian Pharmaceutical Sciences Conference (IPSC). August 18-21, 2008, Kerman, Iran, 83.
- 9) Kazemi A, Ghoshoon MB, Raee MJ, Ebrahiminezhad A, Parasaei-Ghaderabadi K, Kargar M, Zarrini G, Rasoul-Amini S, Ghasemi Y, Morowvat MH; Isolation And Molecular Identification Of *Bacillus* Spp. Producing Lipase From The Maharlu Salt Lake. 2<sup>th</sup> International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
- 10) Ebrahiminezhad A, Ghoshoon MB, Raee MJ, Kazemi A, Parasaei-Ghaderabadi K, Kafilzadeh F, Zarrini G, Rasoul-Amini S, Ghasemi Y; An Optimized Medium For Screening L-Asparaginase Producing *Escherichia Coli*. 2<sup>th</sup> International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.

- 11) Parasaei-Ghaderabadi K, Ebrahiminezhad A, Ghoshoon MB, **Raee MJ**, Kazemi A, Kafilzadeh F, Rasoul-Amini S, Ghasemi Y; Screening of Polyhydroxyalkanoates-Producing Bacteria From Different Contaminated Environments. 2<sup>th</sup> International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
- 12) Ghoshoon MB, **Raee MJ**, Mosavi-Azam SB, Kazemi A, Ebrahiminezhad A, Morowvat MH, Rasoul-Amini S, Ghasemi Y; Crude Petroleum-Oil Biodegradation By Immobilized Cells Of *Chlorella Vulgaris* Mccs 011. 2<sup>th</sup> International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
- 13) **Raee MJ**, Ghoshoon MB, Mosavi-Azam SB, Kazemi A, Ebrahiminezhad A, Morowvat MH, Rasoul-Amini S, Ghasemi Y; Alkane Biodegradation In Immobilized Cells Of *Desmodesmus Communis* Mccs 010. 2<sup>th</sup> International Student Conference of Biotechnology, November 15-17, 2008, Tehran, Iran.
- 14) Ghoshoon MB, **Raee MJ**, Ebrahiminezhad A, Kazemi A, Morowvat MH, Rasoul- Amini S, Ghasemi Y; Cloning, expression and characterization of *Escherichia coli* (BCCS 001) L-asparaginase II. 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 83.
- 15) Jani M, Kazemi A, Ghoshoon MB, Morowvat MH, **Raee MJ**, Rasoul- Amini S, Ghasemi Y; Biodiesel production from a naturally isolated strain of *Chlorella vulgaris*. 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 84.
- 16) **Raee MJ**, Ghoshoon MB, Ebrahiminezhad A, Kazemi A, Morowvat MH, Rasoul- Amini S, Ghasemi Y; Cloning and expression of L-asparaginase II gene of *Shigella* in *E.coli*. 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 85.
- 17) Mosavi-Azam SB, Ebrahiminezhad A, Ghoshoon MB, Jani M, **Raee MJ**, Parvizi R, Rasoul- Amini S, Ghasemi Y; Screening and characterization of L-asparaginase production by microalgae. The 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 74.
- 18) Parvizi R, Mardani Z, Negintaji N, **Raee MJ**, Ghoshoon MB, Morowvat MH, Rasoul- Amini S, Ghasemi Y; Production of long chain omega-3 fatty acids by *Scenedesmus rubescens*. The 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 75.
- 19) Mardani Z, Parvizi R, Ghoshoon MB, **Raee MJ**, Morowvat MH, Rasoul- Amini S, Ghasemi Y; Microalgal metabolisms of some monoterpenoids ketones by immobilized cells culture of *Chlorella vulgaris*. The 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 77.
- 20) Khubani S, Yavari F, Mosavi-Azam SB, Ghoshoon MB, **Raee MJ**, Morowvat MH, Rasoul- Amini S, Ghasemi Y; Fatty acid evaluation in a natural isolate of *Chlorella vulgaris*. 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 78.
- 21) Yavari F, Khubani S, Parvizi R, Mardani Z, **Raee MJ**, Ghoshoon MB, Morowvat MH, Rasoul- Amini S, Ghasemi Y; PCR amplification of the molecular black box, 16S rRNA from three Cyanobacterial species. 14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 79.

- 22) Raoufi SM, Ghoshoon MB, **Raee MJ**, Rasoul- Amini S, Ghasemi Y; Biotransformation of testosterone by immobilized cells of *Chlamydomonas reinhardtii*.14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 80.
- 23) Maghami S, Mosavi-Azam SB, Ghoshoon MB, **Raee MJ**, Rasoul- Amini S, Ghasemi Y; Oil degradation by immobilized cells of *Synechococcus nidulans*.14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 81.
- 24) Hosseini H, Kazemi A, Ebrahiminezhad A, Ghoshoon MB, **Raee MJ**, Rasoul- Amini S, Ghasemi Y; Isolation and characterization of cellulase-producing bacteria from a hot spring in the south of Iran.14<sup>th</sup> Seminar of Iranian Pharmacy Students, February, 11-14, 2009, Ahvaz, Iran, 82.

## Workshops

- 1) Molecular modeling, Shiraz University of Medical Sciences, Faculty of pharmacy, June 2008, Shiraz, Iran.
- 2) Introduction to NCBI gene bank, Shiraz University of Medical Sciences, Faculty of pharmacy May 2008, Shiraz, Iran. **(As teacher)**
- 3) Scopus Database, Shiraz University of Medical Sciences, Faculty of pharmacy, Dec 2008, Shiraz, Iran.
- 4) PCR and Gene Sequencing, Shiraz University of Medical Sciences, Faculty of pharmacy, Feb 2009, Shiraz, Iran. **(As teacher)**
- 5) Endnote software, Shiraz University of Medical Sciences, student research council, August 2010, Shiraz, Iran.
- 6) Bioinformatics and its Application in Biotechnology, Nineteenth Iranian Pharmacy Students' Seminar, Shiraz University of Medical sciences, 2015, Shiraz, Iran. **(As teacher)**
- 7) How to write a proposal, Shiraz University of Medical Sciences, Faculty of pharmacy, June 2021, Shiraz, Iran. **(As teacher)**

**Laboratory and Technical skills:**

- Escherichia coli* based expression system
- Yeast based expression system
- Gene cloning
- Protein expression and purification
- Primer Design
- FTIR
  
- UV- Vis Spectrophotometry
- Protein Assay
- Immobilization of recombinant cells
- Real Time PCR
- DNA electrophoresis
- SDS-PAGE
- Biotransformation of organic compounds by microorganisms.
- Microalgal Biotechnology
- Isolation of Microorganisms from Nature and Screening them for Production of Bioactive Compounds
- Bioinformatics
- Bioremediation
- Cell Culture (Bacteria, Microalgae, Yeast, Mamalian cells)
- 16S rRNA and 18S rRNA amplification of Microalgae, Bacteria and Plants
  
- Synthesis of nanoparticles
- Cell fixation
- Plasmid Stability studies
- Anti-microbial Tests

**Research interests:**

- Nanobiotechnology
- Magnetic nanoparticles
- Bioinformatics
- In-silico studies
- Immobilization
- Purification of recombinant proteins
- Biocatalysts
- Enzyme Technology
- Microalgal Biotechnology
- Biotransformation of Organic Compounds by Microalgae.
- Isolation and Identification of Antimicrobial-producing Microalgae from Nature.
- Extraction, Purification and Structure Elucidation of Natural Products from Plants and Microalgae.
- Single Cell Protein production from Microalgae.