

Curriculum Vita

Sara Daneshjou

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EDUCATION

- 2011-2016 **PhD**: Nanobiotechnology, Tarbiat Modares University(Tehran)
Thesis title: activity-stability study of chondroitinase ABC I immobilized on porous silicon nanoparticle
- 2008-2010 **MSc**: Microbiology, Islamic Azad University Science and Research Branch (Tehran)
Thesis title: Screening, isolation and selection of indigenous bacteria producing alpha-amylase and investigating the functional and secretory role of the end fragment of alpha-amylase obtained from the indigenous bacterium Bacillus sp.HR03 , (Distinguished student)
- 2004-2008 **BSc**: Microbiology, Islamic Azad University, North Tehran Branch (Tehran),(Distinguished student)

HONORS AND AWARDS:

- Receiving invention silver medal: Ursolic acid production from apple peels and validation of anti-aging activities, Khayyam international invention and innovation festival on May 15th 2021.
- Student supported by Iran's National Elites Foundation (introduced by Tarbiat Modares University)

RESEARCH INTERESTS

- The use of nanomaterials in the direction of transfer - stabilization of drugs/pharmaceutical and industrial enzymes
- Nanoparticles with biological pattern: construction and application
- The use of nanomaterials in repairing and increasing the strength of damaged tissues: with an emphasis on bone tissues
- Design and manufacture of nanobiosensors to detect diseases and pathogenic bacteria

PUBLICATIONS

- 1- Seyed Amirhamzeh Aminisough, **Sara Daneshjou***, and Khosro Khajeh
Effects of ZnO nanoparticles on mortality and growth performance in broiler chickens,
Scientific Reports, 2025
- 2- Zahra Latifi AzizI & **Sara Daneshjou***
Bacillus Megaterium as TiO₂ Nano-Factory: Biosynthesis, Characterization, and Antibacterial Activity, *Waste and Biomass Valorization*, 2025
- 3- Fatemeh Sheikh Ansari & **Sara Daneshjou***
Optimizing the green synthesis of antibacterial TiO₂ - anatase phase nanoparticles derived from spinach leaf extract, *Scientific Reports*, 2024
- 4- Sajedeh Hajiali, Sara Daneshjou*, Khosro Khajeh , Somayeh Daneshjoo
Investigation of pH and Temperature Changes on the Biomimetic Synthesis of Iron Oxide Magnetic Nanoparticles from the Bacterial Source of Bacillus Megatrium, *Journal of Inorganic and Organometallic Polymers and Materials*, 2024
- 5- Seyed Amirhamzeh Aminisough, **Sara Daneshjou***, and Khosro Khajeh
Biosynthesis, characterization, and investigation of cytotoxic activities of selenium nanoparticles utilizing Limosilactobacillus fermentum, *Green Processing and Synthesis*, 2024
- 6- Fatemeh Afraei, **Sara Daneshjou*** and Bahareh Dabirmanesh
Synthesis and evaluation of nanosystem containing chondroitinase ABCI based On hydroxyapatite, *AMB Express*, 2024
- 7- Mehrbod Mehrafza, **Sara Daneshjou***, Khosro Khajeh & Abbas Akhavan Sepahi
Green Fabrication of Cobalt Oxide Nanoparticles by Bacillus megaterium and Their Antibacterial Activities, *BioNanoScience*, 2024
- 8- Safoura Jabbari, Bahareh Dabirmanesh, **Sara Daneshjou** & Khosro Khajeh
The potential of a novel enzyme-based surface plasmon resonance biosensor for direct detection of dopamine, *Scientific Reports journal*, 2024
- 9- Sajedeh Hajiali, **Sara Daneshjou***, Somayeh Daneshjoo , Khosro Khajeh
Biosynthesis Optimization of Antibacterial-Magnetic Iron Oxide Nanoparticles from Bacillus megaterium, *Biological Trace Element Research*, 2024
- 10- Zahra Latifi Azizi ,**Sara Daneshjou***
Bacterial nano-factories as a tool for the biosynthesis of TiO₂ nanoparticles: characterization and potential application, *applied biochemistry and biotechnology*, 2024

- 11- Hamed Mirshekari, Bahareh Dabirmanesh, **Sara Daneshjou**, Khosro Khajeh
Fabrication and evaluation of a plasmonic biosensor based on silica-coated gold nanorods for highly-sensitive detection of anti-Müllerian hormone, *Colloid and Interface Science Communications*, 2024
- 12- Fereshteh Alizadeh , **Sara Daneshjou***
A comprehensive review of the application of nanotechnology in agricultural, *Modares Journal of Biotechnology*, 2024
- 13- Fereshteh Alizadeh , **Sara Daneshjou***
Protein Nanoparticles and their applications, *Studies of Biological Sciences and Biotechnology*, 2024
- 14- Atefeh Hassanli, **Sara Dahnesjou***, Bahareh Dabirmanesh , Khosro Khajeh
Improvement of thermal-stability of chondroitinase ABCI immobilized on graphene oxide for the repair of spinal cord injury, *Scientific Reports journal*, 2023
- 15- SajedeH Hajiali, **Sara Daneshjou*** , Somayeh Daneshjoo
Biomimetic synthesis of iron oxide nanoparticles from Bacillus megaterium to be used in hyperthermia therapy, *AMB Express journal*, 2022
- 16- Fatemeh Afraei, **Sara Daneshjou***, Bahareh Dabirmanesh
Examination of the effect of pH and temperature on the activity of nanosystem containing chondroitinase ABCI based on hydroxyapatite, *Modares Journal of Biotechnology*, 2023
- 17- Mehrbod Mehrafza, **Sara Daneshjou*** , Safoura Jabbari, Khosro Khajeh
Immobilization of Chondroitinase Enzyme on Porous Silicon Nanoparticle: Characterization and Stability Determination, *journal of Nanomaterials*, 2021
- 18- Hoda Dashtipour, Ali Noras , **Sara Daneshjou*** , Sohamah Mohebi , Neda Mousavi Niri
Recent progress in (nano) biosensors: AI application, *Modares Journal of Biotechnology*, 2022
- 19- **Sara Daneshjou***, Bahareh Dabirmanesh, Fereshteh Rahimi, safoura jabbari and Khosro Khajeh
Catalytic parameters and thermal stability of chondroitinase ABCI on red porous silicon nanoparticles, *Journal of Biotechnology*, 2020
- 20- **Sara Daneshjou**, Bahareh Dabirmanesh, Fereshteh Rahimi and Khosro Khajeh
Porous silicon nanoparticle as a stabilizing support for chondroitinase, *International Journal of Biological Macromolecules*, 2017

- 21- Sara Daneshjou, Shima Khodaverdian, Bahareh Dabirmanesh, Fereshteh Rahimi, Somayeh Daneshjoo, Farideh Ghazi and Khosro Khajeh
Improvement of chondroitinases ABCI stability in natural deep eutectic solvents, *Journal of Molecular Liquids*, 2017
- 22- Safoura Jabbari, Bahareh Dabirmanesh, Seyed Shahriar Arab, Massoud Amanlou, Sara Daneshjou, Somayeh Gholami, Khosro Khajeh
A novel enzyme based SPR-biosensor to detect bromocriptine as an ergoline derivative drug, *Sensors and Actuators B: Chemical*, 2017
- 23- Bahareh Dabirmanesh*, Sara Daneshjou*, Abbas Akhavan Sepahi, Bijan Ranjbar, Ramazan Ali Khavari-Nejad, Pooria Gill, Akbar Heydari, Khosro Khajeh
Effect of ionic liquids on the structure, stability and activity of two related α -amylases, *International Journal of Biological Macromolecules*, 2011
- 24- Ali Salimi, Khosro Khajeh, Fatemeh Yousefi, Marzieh Ghollasi, Sara Daneshjou, Hesam Tavoli, Sirous Ghabadi. **Investigation on possible roles of C-terminal propeptide of a calcium-independent α -amylases from *Bacillus***, *J. Microbiol. Biotechnol.*, 2012

CONFERENCE PRESENTATIONS

- 1- Fereshteh Alizadeh, Sara Daneshjou*

Quantum dots in cancer cell imaging, *1st International Congress on Cancer Prevention*, 2024, Iran

- 2- Fereshteh Alizadeh, Sara Daneshjou*

A review on biosynthesis of metal nanoparticles and their medical applications, *The second international conference of biology and laboratory sciences*, 2024, Iran

- 3- Fereshteh Alizadeh, Sara Daneshjou*

Nanoflowers and their applications, *seventh International Conference on Interdisciplinary Studies in Nanotechnology*, 2024, Iran

- 4- Hoda Hoseini, Sara Daneshjou*, Mohammad Aminjafari, Aboulfazl Mirzapoor, Mahdi Fakoor

The development of a biocompatible nanocomposite patch to relieve stress on cracked bone tissue, *3rd Intl. Conference on Researches in Nanotechnology & Nanoscience*, 26 April, 2023, Iran

- 5- Fatemeh Sheikh Ansari, Sara Daneshjou*

Green Synthesis of TiO₂NPs by Spinach Extract, *6th International Conference on interdisciplinary studies in Nanotechnology*, 20 May, 2023, Iran

6- Fatemeh Afraei, **Sara Daneshjou***, Bahareh Dabirmanesh

Examination the effect of pH on the activity of nanosystem containing chondroitinase ABCI based on hydroxyapatite, 3rd Intl. Conference on Researches in Nanotechnology & Nanoscience, 26 April, 2023, Iran

7- Fereshteh Alizadeh, **Sara Daneshjou***

An overview of the role of nanotechnology in agriculture to improve food safety, National conference of applied research on food security, food safety and health, 16 October, 2023, Iran

8-Shima Shahrivar, **Sara Daneshjou***, Aboulfazl Mirzapoor, Mahdi Fakoor

Design and synthesis of nanocomposite patch based on Hydroxyapatite/PVA in order to repair and strengthen cracks on bone tissue, 6 th International Conference on interdisciplinary studies in Nanotechnology, 20 May, 2023, Iran

9- Seyed Amirhamze Aminisough, **Sara Daneshjou***, Khosro Khajeh, Abbas Akhavan Sepahy

Biosynthesis of selenium nanoparticles by *Limosilactobacillus fermentum*, 3rd Intl. Conference on Researches in Nanotechnology & Nanoscience, 26 April, 2023, Iran

10- **Sara Daneshjou***, Sajedeh Hajiali and Somayeh Daneshjoo

Investigation of antibacterial effect of biomimetic iron oxide nanoparticles by disk method International Conference on recent advances in engineering, innovation and technology, 20 may, 2022, Square conference center, Brussels, Belgium

11- **Sara Daneshjou***, Fatemeh Afraei, Bahareh Dabirmanesh

Investigating the stability of nanosystem containing chondroitinase ABCI enzyme based on hydroxyapatite, the 3rd national conference on Micro/Nanotechnology, 20 July, 2022, Iran

12- Safoura Jabbari, Bahareh Dabirmanesh, **Sara Daneshjou**, Khosro Khajeh

Monitoring of dopamine as a biomarker candidate in neurodegenerative diseases using surface plasmon resonance based on laccase enzyme, International Conference of biomarkers, 22-24 February, 2023, Iran

13- **Sara Daneshjou***, Mehrbod Mehrafza, Khosrow Khajeh, Abbas Akhavan sepahi

Investigation of antibacterial effect of cobalt oxide bionanoparticles, International Conference on new research and achievements in science, engineering and technologies, 12 December, 2021, Seoul, South Korea

14- **Sara Daneshjou***, Sajedeh Hajiali and Somayeh Daneshjoo

Biomimetic synthesis of iron nanoparticles from *Bacillus Megatrium* bacterial and investigation of its antimicrobial effect, 5th International Congress on global studies in technology and engineering sciences, 25 January, 2022, Iran

15- **Sara Daneshjou***, Mehrbod Mehrafza and Khosro Khajeh

Synthesis of cobalt oxide particles using Bacillus megatrium and optimization of the produced concentration. *2nd International Conference on Nanotechnology and Nanoscience, 7th August, 2021, University of Tehran, Iran*

16- **Sara Daneshjou***, Mehrbod Mehrafza, Bahareh Dabirmanesh and Khosro Khajeh
Porous silicon nanoparticles as a drug carrier in the body. *International Conference on*

Nanotechnology & Nanoscience 30th December, 2020 ,Iran University of Tehran

17- **Sara Daneshjou**, Khosro Khajeh, Bahareh Dabirmanesh, Fereshteh Rahimi

Activity and stability analysis of immobilized chondroitinase on porous silicon nanoparticles . *The National Conference on Protein and Peptide Sciences*

“from Basic to Medical and Industrial Application ”Shiraz University 10 & 11 Dec 2014.

18- **Sara Daneshjou**, Bahareh Dabirmanesh , Fereshteh Rahimi, Safoura Jabbari, Somayeh Daneshjoo ,Khosro Khajeh

Chondroitinase immobilization on red porous silicon nanoparticles: Quantitative Analysis of the Kinetic Parameters. *Conference of biophysical chemistry.*

19- **Sara Daneshjou**, Bahareh Dabirmanesh , Fereshteh Rahimi, Safoura Jabbari, Khosro Khajeh
Stability enhancement of labile Chondroitinase by immobilization on red porous silicon nanoparticles. *International Conference on Nanostructures (ICNS6).*

20- **Sara Daneshjou**, Bahareh Dabirmanesh , Fereshteh Rahimi, Khosro Khajeh
Chondroitinase ABCI immobilization on green porous silicon nanoparticles (Kinetic Parameters and cytotoxicity). *6th International Congress on Nanoscience and Nanotechnology (ICNN2016).*

21- Safoura Jabbari, Bahareh Dabirmanesh, **Sara Daneshjou**, Khosro Khajeh

Investigation of enzyme activity towards ABTS by immobilization of laccase on carboxymethyl dextran (CMD) chip surface. *Conference of biophysical chemistry.*

22- jabbari, safour; Dabirmanesh, Bahareh; **daneshjou, sara**; Khajeh, Khosro

Development of a specified laccase, for detection of phenolic compounds using surface plasmon resonance technique. *International Conference on Nanostructures (ICNS6).*

23- **Sara Daneshjoo** , Bahareh Dabirmanesh , Abbas Akhavan Sepahi , Bijan ranjbar , Ramezan Ali Khavari-nejad , Khosro Khajeh

Effects of [HMIIm][Cl] and [BMIm][Cl] on the activity, stability and structure of α -amylases,

The 16th National Conference and the 4th International Conference of Iranian Biology, 2010

24- Fatemeh Yousefi, **Sara Daneshjoo** , Ali Salimi , Abolfazl Golestani

Analysis of the role of the C-terminal propeptide in BKA (Bacillus sp. KR8104 α -Amylase) secretion, The 16th National Conference and the 4th International Conference of Iranian Biology, 2010

25- Bahareh Dabirmanesh*, **Sara Daneshjoo***, Abbas Akhavan Sepahi, Bijan Ranjbar, Ramazan

Ali Khavari-Nejad, Pooria Gill, Akbar Heydari, Khosro Khajeh

Stability-structure relation and aggregation protection of two related α -amylases in ionic liquids. 4th symposium on the alpha _ amylase family Slovakia September-26-30, 2010

26- Ali Salami, Khosro Khajeh, Marzieh Gholasi, Fatemeh Yousefi, **Sara Daneshjoo**, Sirous Ghobdi.

Characterization of the C-terminal propeptide by cloning ,sequencing and expression of a

Ca –independent α -amylases from Bacillus sp. KR-8104. 4th symposium on the alpha _ amylase family Slovakia September-26-30, 2010

BOOKS

- Nanotechnology in agricultural and food industries (Author)
- Application of nanotechnology in animal biotechnology (translated)
- Biomimetic Nano engineered Materials For Advanced Drug Delivery(translated)
- Microbial Nanotechnology(translated)
- Metal nanoparticles, production and application in pharmaceutical sciences(translated)

Executive records:

- Nanobiotechnology Group Director of Tarbiat Modares University
- Adviser of Nanobiotechnology Scientific Association of Tarbiat Modares University

