سارا دانشجو

استادیار گروه نانوبیوتکنولوژی،دانشکده علوم زیستی،دانشگاه تربیت مدرس

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سوابق تحصیلی:

- **دکتری:** نانوبیوتکنولوژی دانشگاه تربیت مدرس

عنوان پایان نامه: مطالعه فعالیت- پایداری آنزیم کندروئیتیناز ABC I تثبیت شده بر نانوذره سیلیکون متخلخل

استاد راهنما: دکتر خسرو خواجه

اساتید مشاور: دکتر بهاره دبیرمنش، دکتر فرشته رحیمی

- **کارشناسی ارشد:** میکروبیولوژی دانشگاه آزاد اسلامی واحد علوم وتحقیقات

عنوان پایان نامه کارشناسی ارشد: غربالگری، جداسازی وانتخاب باکتری بومی تولید کننده آلفا آمیلاز و بررسی نقش عملکردی و ترشحی قطعه انتهای آلفا آمیلاز حاصل از باکتری بومی *Bacillus sp.HR03*

اساتید راهنما: جناب آقای دکتر خسرو خواجه ، جناب آقای دکتر عباس اخوان

اساتید مشاور: جناب آقای دکتر بیژن رنجبر ، جناب آقای دکتر رمضانعلی خاوری نژاد

(دانشجوی ممتاز دوره کارشناسی ارشد)

- **کارشناسی:** میکروبیولوژی دانشگاه آزاد اسلامی واحد تهران شمال

(دانشجوی ممتاز دوره کارشناسی)

✓ افتخارات :

- **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.

- **دانشجوی تحت حمایت بنیاد ملی نخبگان در زمان دانشجویی (معرفی شده از طرف دانشگاه تربیت مدرس)**

مقالات منتشر شده در مجلات معتبر بین المللی:

1- *Zahra Latifi Aziz1 & Sara Daneshjou**
***Bacillus Megaterium* as TiO2 Nano-Factory: Biosynthesis, Characterization, and Antibacterial Activity,** *Waste and Biomass Valorization, 2025*

2- *Fatemeh Sheikh Ansari & Sara Daneshjou**
Optimizing the green synthesis of antibacterial TiO2 - anatase phase nanoparticles derived from spinach leaf extract, *Scientific Reports, 2024*

3- *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*

4- *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*

5- *Fatemeh Afraei, Sara Daneshjou* and Bahareh Dabirmanesh*
Synthesis and evaluation of nanosystem containing chondroitinase ABCI based on hydroxyapatite, *AMB Express, 2024*

6- *Mehrbod Mehrafza, Sara Daneshjou*, Khosro Khajeh & Abbas Akhavan Sepahi*
Green Fabrication of Cobalt Oxide Nanoparticles by *Bacillus megaterium* and Their Antibacterial Activities, *BioNanoScience, 2024*

7- *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*

8- *Sajedeh Hajiali, Sara Daneshjou* , Somayeh Daneshjoo , Khosro Khajeh*
Biosynthesis Optimization of Antibacterial-Magnetic Iron Oxide Nanoparticles from Bacillus megaterium, *Biological Trace Element Research, 2024*

9- *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*

10- *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*

11- *Fereshteh Alizadeh , Sara Daneshjou**

A comprehensive review of the application of nanotechnology in agricultural, *Modares Journal of Biotechnology, 2024*

12- *Fereshteh Alizadeh , Sara Daneshjou**

Protein Nanoparticles and their applications, *Studies of Biological Sciences and Biotechnology, 2024*

13- *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*

14- *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*

15- *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, Accepted*

16- *Mehrbod Mehrafza, Sara Daneshjou *, Safoura Jabbari, Khosro Khajeh*

Immobilization of Chondroitinase Enzyme on Porous Silicon Nanoparticle: Characterization and Stability Determination, *journal of Nanomaterials, 2021*

17- *Hoda Dashtipour, Ali Noras ,Sara Daneshjou* ,Sohameh Mohebi ,Neda Mousavi Niri*

Recent progress in (nano) biosensors: AI application, *Modares Journal of Biotechnology, 2022*

18- *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*

19- *Sara Daneshjou, Bahareh Dabirmanesh, Fereshteh Rahimi and Khosro Khajeh*

Porous silicon nanoparticle as a stabilizing support for chondroitinase,

International Journal of Biological Macromolecules,2017

20- *Sara Daneshjou, Shima Khodaverdian, Bahareh Dabirmanesh, Fereshteh Rahimi, Somayeh Daneshjoo ,Farideh Ghazi and KhosroKhajeh*

Improvement of chondroitinases ABCI stability in natural deep eutectic solvents, *Journal of Molecular Liquids, 2017*

21- *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*

22- *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*

23- *Ali Salimi,Khosro Khajeh, Fatemeh Yousefi, Marzieh Ghollasi, Sara Daneshjou, Hesam Tavoli,Sirous Ghabadi.*

Investigation on possible roles of C-terminal propeptide of a ca-independent α-amylases from Bacillus, *J. Microbiol. Biotechnol, 2012*

مقالات ارائه شده در همایش ها:

*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, *6 th 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 enginieering,innovation and technology, 20 may, 2022, Square conference center, Brusseles, Belgium*

11- Sara Daneshjou,Fatemeh Afraee, 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

Chondroitinaseimmobilization 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 [HMIm][Cl] and [BMIm][Cl] on the activity, stability and structure of α-amylases,

شانزدهمین کنفرانس سراسری و چهارمین کنفرانس بین المللی زیست شناسی ایران، دانشگاه فردوسی مشهد، شهریور۱۳۸۹

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,

شانزدهمین کنفرانس سراسری و چهارمین کنفرانس بین المللی زیست شناسی ایران، دانشگاه فردوسی مشهد، شهریور۱۳۸۹

25- Bahareh Dabirmanesh, Sara Daneshjou*, 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 Daneshjou, Sirous Ghobdi. **Characterization of the C-terminal propeptid bye 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.*

کتاب:

۱- **نانوفناوری در صنایع کشاورزی و غذایی** (سازمان انتشارات جهاد دانشگاهی)(تالیف)

۲- **کاربرد فناوری نانو در زیست فناوری حیوانات** (مرکز نشر دانشگاهی)(ترجمه)

۳- **نانومواد زیست الهام در دارورسانی پیشرفته** (انتشارات سازمان جهاد دانشگاهی علوم پزشکی تهران) (ترجمه)

۴- **نانوتکنولوژی میکروبی** (انتشارات سازمان جهاد دانشگاهی تهران) (ترجمه)

۵- **نانوذرات فلزی، ساخت و کاربرد در علوم دارویی** (انتشارات دانشگاه آزاد اسلامی واحد علوم پزشکی تهران) (ترجمه)

طرح در حال اجرا:

- طرح کلان ارتقای ژنتیکی مرغ لاین آرین-معرفی نانومکمل موثر بر رشد وسلامت مرغ لاین آرین

سوابق اجرایی:

- مدیرگروه نانوبیوتکنولوژی دانشگاه تربیت مدرس
- عضو کمیته راهبردی فناوری نانو وزارت جهاد کشاورزی
- استاد مشاور انجمن علمی نانوبیوتکنولوژی دانشگاه تربیت مدرس

زمینه های پژوهشی:

- استفاده از نانومواد در جهت انتقال _ پایدارسازی داروها /آنزیم های دارویی وصنعتی
- نانوذرات با الگوی زیستی: ساخت و کاربرد
- کاربرد نانو مواد در ترمیم و افزایش استحکام بافت های اسیب دیده: با تاکید بر بافت های استخوانی
- طراحی و ساخت نانوبیوسنسورها جهت تشخیص بیماری ها و باکتری های بیماریزا