Fedora Khatibi Shahidi

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Profile

Gender: female, single

Date of birth: 27-November-1989

Nationality: Iranian

Experience

Research assistant- Department of Photodynamic, Medical Laser Research Center, Yara institute, ACECR –(2016-present)

As a researcher, I am active in group projects. We could manage to set up a microbiology laboratory and microbial tests based on biofilm formation. We also started 3D cell culture in the photodynamic group.

Research assistant- Tehran University –(2014-2016)

As a research assistant, I was responsible for teaching laboratories methods to the new students, such as: sterilizing methods, cell culture, cell viability assays, staining assays, spectroscopy methods, Immunochemistry assays, Handling animals

Education

Ph.D. student in Biochemistry, Institute of Biochemistry and Biophysics, University of Tehran (2019-present)

University of Tehran - institute of biochemistry & biophysics IBB - M.Sc. in Biochemistry 2013-2016

Thesis title: Invitro & Invivo investigation of graphene and carbonenanotube

(MWCNT,SWCNT) cytotoxicity

supervisor: Dr susan kabodanian ardestani, Dr majid zeinali

Overall GPA: 18.75/20, Thesis Grade: 19.8/20

Shahed University - B.Sc. in Molecular and Cellular Biology (Biotechnology)

Overall GPA: 17.63/20

Selected Course

PhD. level: Proteomics, Advanced biochemistry of carbohydrates and nucleic acids, Enzymes mechanisms, Design of enzyme inhibitors, pharmaceutical chemistry, DNA recombination methods

M.Sc. level: Enzymology, Immunochemistry, Electron microscopy, Protein & Nucleic acid, Lipid & Carbohydrate, metabolism control, Advanced Molecular Biology, Biochemical methods.

B.Sc. level: Microbiology, Biochemistry, Immunology, Cellular Biology, Molecular Biology, Biophysics, Virology, Biotechnology, Genetic, Bioinformatics, Physiology and etc.

Practical skills

1. Biochemistry

Level of expertise: Advanced

Description: I know some DNA, RNA, Protein extraction, methods of measuring blood biochemical parameters, measurement of total antioxidant & total peroxide. I learned and did some methods such as spectroscopy, electrophoresis (agarose & SDS_PAGE), chromatography.

2. Cell culture

Level of expertise: Advanced

Description: I learned and did about the sterilizing methods and how to culture the bacterial and cancer cells. I know about 3-D cell culture.I know and did the cell viability methods such as MTT, Flow cytometry, LDH, ROS assay, staining assays including Trypan blue, AO/Et and hoechst.

3. Immunology

Level of expertise: advanced

Description: I know how to handle the animals such as mice, I learned and did the intraperitoneal injection for measurement of level of cytokines in mice body, I know the Immunochemistry methods such as ELIZA, Western Blot and etc.

4. Genetics

Level of expertise: Advanced

Description: I know genetic methods including cloning.

5. Bioinformatics

Level of expertise: basic

Description: I can work with DNA and protein software and databases. I know some

analytical software like Oligo, Gene runner, DNAsis, SPSS

Research Interest

Molecular biology

Biochemistry

Genetic engineering

Genetics

Proteomics

Cancer

Language

Persian: Native

English: advanced

Skills & Technics

Cell culture

Media and buffer preparation

Spectroscopy

Diagnostic biochemical tests

ELIZA

Electrophoresis (agarose, SDS and native page)

DNA and plasmid extraction

RNA extraction

protein extraction

primer design

transformation

cloning

PCR

chromatography (HPLC, TLC)

cell staining

bacterial staining

Optical, inverted, fluorescence microscopy

Microbiology techniques

flow cytometry

animal handling

Microsoft office

Statistical software such as Prism, SPSS

Projects

- 1. Co-worker in "Combination therapy of melanoma cancer cells using a photodynamic method and routine flavonoid composition"
- 2. Co-worker in "Investigation of antitumor effects of photodynamic therapy of bilayer zirconium phosphate nanostructures containing methylene blue on MDA-MB-231 breast cancer cell line and its corresponding normal cell line"
- 3. Co-worker in "Synthesis, characterization, and photodynamic effect of silica nanoparticles containing curcumin on A375 melanoma cancer cell line"

- 4. Co-worker in "Spectrophotometric study of the interaction of two light sensors of methylene blue and curcumin and comparison of their therapeutic photodynamic effect alone and ion pair nanoparticles in ethylene glycol medium"
- 5. Co-worker in "Photodynamic therapy of human breast cancer cell line using graphene oxide-methylene blue nanocomposite"

Conferences

- participated in 5th International and 7th National Congress of Wound and Tissue Repair, Tehran, Iran, 3-6 December 2020
- 2. poster presentation "Photodynamic Therapy effects on Immune Response" in 4th International and 6th National Congress of Wound and Tissue Repair, Tehran, Iran, 19-22 November 2019
- 3. poster presentation "Growth factor delivery methods based on smart biomaterials for wound healing: a Review" in 1st International Conference On recent updates in biotechnology, Islamabad, Pakistan, Department of Biotechnology Abdul Wali Khan University MARDAN, October 2019
- 4. oral presentation "Apoptotic and Cytotoxic effects of Carboxyl functionalized single- and multi-walled carbon nanotubes: an in vitro and in vivo study" in 6th International congress of Biochemistry & Molecular biology, Esfahan, Iran, August 2018
- 5. participated in 3th International and 5th National Congress of Wound and Tissue Repair, Tehran, Iran, 26-28 September 2018
- 6. oral presentation "Nanocarbons as Drug Delivery Component in Wound Healing" in 2th International and 4th National Congress of Wound and Tissue Repair, Tehran, Iran, 25-27 October 2017

Workshops

- 1. participated in "Laser and Biomedical Photonic, LBMP 2020" summer school, Tehran, Iran 6-11 july 2020
- 2. participated in "Scientific Writing Workshop" 4th International and 6th National Congress of Wound and Tissue Repair, Tehran, Iran, November 2019

- 3. Practical and theoretical workshop on SPSS software application in bio-data analysis 2012
- 4. Training course of polymers in medicine entitled: Investigation and Improvement of Cell Behavior on the surface of Tissue Engineering Scaffolds. 2010

Books

Translated:

- 1. Bioactive Polysaccharide Materials for Modern Wound Healing, 2020
 - 2. Advances in Wound Healing Materials: Science and Skin Engineering,

2018

Articles

- 1. A mechanistic perspective on targeting bacterial drug resistance with nanoparticles, Khatereh Khorsandi, Saeedeh Keyvani-Ghamsari, <u>Fedora Khatibi Shahidi</u>, Reza Hosseinzadeh & Simab Kanwal (2021), Journal of Drug Targeting, DOI: <u>10.1080/1061186X.2021.1895818</u>
- 2. Antimicrobial photodynamic and wound healing activity of curcumin encapsulated in silica nanoparticles, Mahtab Mirzahosseinipour, Khatereh Khorsandi, Reza Hosseinzadeh, Mehrgan Ghazaeian, <u>Fedora Khatibi Shahidi</u>, Photodiagnosis and Photodynamic Therapy, Volume 29,2020,101639, ISSN 1572-1000, https://doi.org/10.1016/j.pdpdt.2019.101639.
- 3. Photodynamic treatment with anionic nanoclays containing curcumin on human triple-negative breast cancer cells: Cellular and biochemical studies, Khatereh Khorsandi, Reza Hosseinzadeh, Fedora Khatibi Shahidi, October 2018 https://doi.org/10.1002/jcb.27775
- 4. Comparison on Anticancer Effects of phenolic Compounds, Gallic Acid and Para Coumaric Acid on Human Breast Cancer Cells. Khorsandi K, Hosseinzadeh R, <u>Khatibi Shahidi F</u>, Chamani E. Journal of Birjand University of Medical Sciences. 2018 Oct 15;25(3):203-12.

References

Dr. susan kabodanian ardestani

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