

# Anvar Soleimani

Ph.D. in Clinical Biochemistry

Department of Medical microbiology, College of Health Sciences, Cihan University - Sulaimaniya, Kurdistan Region, Iraq.

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## Education

### ○ Mashhad University of Medical Sciences – Mashhad, Iran

- *Ph.D. in Clinical Biochemistry, 02/2020*

**Thesis Title:** Preparation, characterization, and evaluation of antitumor effect of EGFR- Targeted liposome's containing CD73 siRNA in combination therapy with liposomal doxorubicin

**Supervisor:** *Dr.Mahmoud Reza Jaafari, E-mail: jafarimr@mums.ac.ir*

### ○ Mashhad University of Medical Sciences – Mashhad, Iran

- *MSc in Clinical Biochemistry, 05/2014*

**Thesis Title:** Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand Gene Polymorphisms and Hepatitis B Virus Infection

**Supervisor:** *Dr. Houshang Rafatpanah, E-mail: Rafatpanah@mums.ac.ir*

### ○ Kharazmi University of Tehran – Tehran, Iran

- *BSc in Biology, 03/2011*

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## Work Experiences

- Head of Medical Microbiology Department – College of Health Sciences, Cihan University-Sulaimaniya, Kurdistan Region, Iraq (September 2022- Present).
- International Lecturer at National Institute of Technology- Sulaimaniya, Kurdistan Region, Iraq (2020-2022).

## ✚ Teaching & Research Experiences

### ✚ Research Experiences

- **National Institute of Technology, Sulaymaniyah, Kurdistan Region, Iraq**
  - Supervised research projects of undergraduate pharmacy students – 09/2020-07/2022
- **Nanotechnology Research Center, Pharmaceutical Technology Institute, Mashhad University of Medical Sciences, Iran - 2017 -2020** graduated student with Dr. Mahmoud Reza jaafari
  - Preparation and characterization of liposomes
  - Peptide targeting of liposomes to delivery of drugs into solid tumors
  - Studied the immunosuppressant role of adenosine in the tumor microenvironment
  - Enhanced antitumor immune response in melanoma tumor model by anti-PD-1 small interference RNA encapsulated in nanoliposomes
  - Improved the activity of infiltrated immune cells in the tumor microenvironment following downregulation of CD73 via EGFR-targeted liposomal CD73 siRNA formulation
  - Investigated the potential role of adenosine on the chemoresistance of tumor cells to the doxorubicin
  - Trained new students and employees
- **Department of Medical Biochemistry, Faculty of Medicine, Mashhad University of Medical Sciences - 04/2012 to 10/2016** graduate student with Dr. Mohammad Soukhtanloo  
Participated as research assistant alongside my MSc and PhD Studies in the following projects:
  - Antioxidant effect of hydro-alcoholic extracts of chicory in heart tissue of diabetic rats
  - The effects of weight loss through calorie-restricted diet on levels of cytokeratin 18-apoptotic factors and factors of liver function in patients with NASH
  - Prooxidant-antioxidant stress in patient with HBV infection
  - Measurement of serum PAPP-A level in patients with breast cancer

### ✚ Teaching Experiences

- **Expert Lecturer based on novel pedagogical Methods**

#### **1. Mashhad University of Medical Sciences**

- **Module 1/Students:** General Biochemistry Lab/ Medical Lab
- **Module 2/Students:** General Biochemistry Lab/ Medical Students
- **Module 3/Students:** General Biochemistry Lab/Dentistry Students

#### **Semester/Year**

*Fall, 2016*  
*Fall, 2017*  
*Fall, 2017*

- **Module 4/Students:** Biochemistry and Organic Chemistry/Nursing Students *Fall, 2017*

## 2. National Institute of Technology

Semester/Year

- **Module 1/Students:** Clinical Biochemistry (1)/ MLS Students Spring, 2020
- **Module 2/Students:** Clinical Biochemistry (2)/ MLS Students Fall, 2020
- **Module 3/Students:** Biochemistry/ Pharmacy students Spring, 2020
- **Module 4/Students:** Research methods/ Pharmacy students Fall, 2020
- **Module 5/Students:** Pharmaceutical Biotechnology/ Pharmacy students Spring, 2021
- **Module 6/Students:** Biochemistry/ Pharmacy Students Spring, 2021

## 3. Cihan University-Sulaimaniya

Semester/Year

- **Module 1/Students:** Biochemistry / MLS Students Fall, 2022
- **Module 2/Students:** Clinical Biochemistry / MLS Students Spring, 2023

## ✚ Reviewer of International ISI Journals

- Cancer Gene Therapy
- Biological Trace Element Research

## ✚ Publications: Google Scholar Profile:

<https://scholar.google.com/citations?user=c9oq6a0AAAAJ&hl=en>

### ✓ Selected Publications:

1. **Soleimani A**, Mirzavi F, Nikoofal-Sahlabadi S, Nikpoor AR, Taghizadeh B, Barati M, Soukhtanloo M, Jaafari MR. **CD73 downregulation by EGFR-targeted liposomal CD73 siRNA potentiates antitumor effect of liposomal doxorubicin in 4T1 tumor-bearing mice.** *Scientific Reports.* 2022 Jun 21;12(1):10423. (IF: 4.9)
2. Barati M, Mirzavi F, Nikpoor AR, Sankian M, Namdar Ahmadabad H, **Soleimani A**, Mashreghi M, Tavakol Afshar J, Mohammadi M, Jaafari MR. **Enhanced antitumor immune response in melanoma tumor model by anti-PD-1 small interference RNA encapsulated in nanoliposomes.** *Cancer Gene Ther* (2021). <https://doi.org/10.1038/s41417-021-00367-9>. (IF: 5.987)
3. Mirzavi F, Barati M, **Soleimani A**, Vakili-Ghartavol R, Jaafari MR, Soukhtanloo M. **A review on liposome-based therapeutic approaches against malignant melanoma.** *International Journal of pharmaceutics.* 2021 Mar 2; 599:120413. (IF: 5.8)
4. **Soleimani A**, Farshchi HK, Mirzavi F, Zamani P, Ghaderi A, Amini Y, Khorrami S, Mashayekhi K, Jaafari MR. **The therapeutic potential of targeting CD73 and CD73-derived adenosine in melanoma.** *Biochimie.* 2020 Jun 22; S0300-9084(20)30133-4. (IF:4.07)

5. Mostafa Karimi Roshan, Arash Soltani, **Anvar Soleimani**, Amir Hossein Afshari, Mohammad Soukhtanloo. **Role of AKT and mTOR signaling in the induction of Epithelial-mesenchymal transition (EMT) process.** *Biochemie Journal.* 2019 Oct; 165:229-234. (IF=4.07)
6. **Anvar Soleimani**, Amirhossein Bahreyni, Mostafa K Roshan, Arash Soltani, Mikhail Ryzhikov, Mojtaba Shafiee, Mohammad Soukhtanloo, Mahmoud R Jaafari, Baratali Mashkani, Seyed M Hassanian. **Therapeutic potency of pharmacological adenosine receptors agonist/antagonist on cancer cell apoptosis in tumor microenvironment, current status, and perspectives.** *Journal of cellular physiology.* 2019 Mar; 234(3):2329-2336. (IF=6.38)
7. **Anvar Soleimani**, Eskandar Taghizadeh, Shirin Shahsavari, Yousef Amini, Hatam Rashidpour, Esmael Azadian, Arash Jafari, Mohammad Reza Parizadeh, Kazem Mashayekhi, Mohammad Soukhtanloo, Mahmoud Reza Jaafari. **CD73; a key ectonucleotidase in development of breast cancer: recent advances and perspectives.** *Journal of cellular physiology.* 2019 Jan 28. (IF=6.38)
8. Arash Soltani, Arash Salmaninejad, Mohammad Jalili - Nik, **Anvar Soleimani**, Hossein Javid, Seyed Isaac Hashemy, Amirhossein Sahebkar. **5' - Adenosine monophosphate - activated protein kinase: A potential target for disease prevention by curcumin.** *J Cell Physiol.* 2019 Mar; 234(3):2241-2251. (IF=6.38)
9. Reza Khayami, Younes Toroghian, Amirhossein Bahreyni, Afsane Bahrami, Majid Khazaei, Gordon A Ferns, Safieh Ebrahimi, **Anvar Soleimani**, Hamid Fiuji, Amir Avan, Seyed Mahdi Hassanian. **Role of adenosine signaling in the pathogenesis of head and neck cancer.** *J Cell Biochem.* 2018 Nov; 119(10):7905-7912. (IF=4.4)

#### Presented & Published Abstracts in the local and international Conferences:

1. **Anvar Soleimani**, Mohammad Soukhtanloo, Shadi Khorrami, Mahmoud Reza Jaafari. **Preparation and cellular uptake evaluation of CD73 siRNA loaded nanoliposomes for cancer therapy.** Presented in 27<sup>th</sup> FAOBMB Conference & 44<sup>th</sup> Annual Conference of the MSBMB in conjunction with IUBMB Special symposia, **Kuala Lumpur, Malaysia**, 19-22 August 2019. (Oral presentation)
2. Majid Dehghan, Sudabeh Shahid Sales, **Anvar Soleimani**, Mohammad Soukhtanloo. Measurement of PAPP-A level in serum of patient with breast cancer. Presented in 12<sup>th</sup> International Breast Cancer Congress, Tehran, Iran, 22-24 Feb, 2017, (Poster).
3. **Anvar Soleimani**, Mohammad Soukhtanloo. The role of adenosine in Tumor microenvironment. Presented in Nastaran Symposium 2017, Mashhad, Iran, 29/11/2017, (Poster).

#### Skills

##### • Lab Techniques:

- ✓ Flow Cytometry
- ✓ Cell Culture
- ✓ Real time PCR
- ✓ RFLP-PCR
- ✓ Western Blotting
- ✓ Zymography
- ✓ ELISA
- ✓ Animal handling, Tumor modeling in mice, Biodistribution assay
- ✓ Drug delivery

✓ siRNA mediated knockdown in human and mouse cells

- **Computer Skills:** GraphPad Prism, SPSS, Chem Draw, Image J, flow Jo.

**✚ Languages:**

- Kurdish (Mother Tongue), Persian (Fluent), English (Fluent)

**✚ Membership of Scientific Societies:**

- Biochemical Society of Iran

**✚ Research interests:**

- Molecular Biology, Cancer, Cancer Immunotherapy, Drug Delivery

**✚ References**

1. **Mahmoud Reza Jaafari, Pharm.D., Ph.D.,**

Email: [jafarimr@mums.ac.ir](mailto:jafarimr@mums.ac.ir)

*Professor of pharmaceutics and Pharmaceutical Nanotechnology, Head of Pharmaceutical Nanotechnology Department, School of Pharmacy, Head of Nanotechnology Research Center, Mashhad University of Medical Sciences*

2. **Seyed Mahdi Hassanian, Ph.D.**

Email: [hasanianmehrm@mums.ac.ir](mailto:hasanianmehrm@mums.ac.ir)

*Assistant Professor of Clinical Biochemistry, Department of Clinical Biochemistry, Faculty of Medicine, Mashhad University of Medical Sciences.*