

CURRICULUM VITAE



Mahmoud Hassani

**Current Position: Assistant Professor of Molecular Medicine
Medical Biotechnology Department, School of Advanced Technologies in Medicine
Shahid Beheshti University of Medical Sciences, Tehran, Iran**

Personal Information

Date of Birth: *August 11th 1987*

Nationality: *Iranian*

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EDUCATIONS

- ✓ PhD in Molecular Medicine, 2013-2019, Tehran University of Medical Science, Tehran, Iran.
- ✓ MSc in Cellular and Molecular Biology, 2010-2012, National institute of genetic Engineering and Biotechnology, Tehran, Iran.
- ✓ BSc in Animal Science, university of Tehran, 2005-2009, Tehran, Iran.

Title of thesis:

- ✓ Generation and characterization of engineered T cells expressing chimeric antigen receptors against PSMA in prostate cancer cells (Ph.D. Thesis)
Supervisors: Dr. Mohammad Hossein Modarressi, Dr. Mohsen Abolhassani and Dr. Zahra Sharifzadeh

- ✓ Anti-inflammatory effect of Migri-Heal(R) in an in vitro inflammatory model of primary mixed glial cells (M. S. Thesis)
Supervisors: Dr. Farzaneh Sabouni and Dr. Mohammad Ansari

Research Skills:

- ✓ **Computer Sciences and Biologic and Genetic engineering software:**
 - Microsoft Windows, Microsoft Office, Data search engines.
 - Reference manager software (Mendeley and Endnote)
 - CLC Genomics Workbench, SnapGene, Oligo,
- ✓ **Research Knowledge:**
 - Biomedical literature mining, Bioinformatics (Nucleic acid and protein sequence retrieval and alignment, Primer design) and Statistical analysis for immune response assays.
- ✓ **Laboratory Techniques:**
 - Gene amplification, detection, and manipulation (Protein, DNA and RNA extraction methods, PCR, real-time PCR, DNA cloning),
 - Mammalian cell culture techniques (adherent and suspension), Glial cell purification and culture, PBMC isolation from buffy coats or whole blood cell and T cell expansion.
 - Animal studies (mouse, rabbit),
 - Detection of Host Cell Protein, Host cell DNA, potency assay Identification and protein concentration methods (Spectrophotometry, Bradford, Lowry and BCA) on biotechnology products.
 - Immunological, biochemical and microbiological techniques (ELISA, Western blotting, in vitro cytotoxicity assay LDH release assay, MTT and XTT assay
 - Flow cytometry-based tests like immunophenotyping, electrophoresis,
 - Recombinant protein expression in bacteria and mammalian cells,
 - Gene transfer to bacterial and mammalian cells,
 - Lentiviral production and transduction.

Workshops

- Flow cytometry
- Primer Design methods
- CLC software for gene manipulation
- GDP and GLP in biotechnology production
- Principles of work in clean room
- Calibration and metrology

Work experience:

- **Shahid Beheshti University of Medical Sciences**, Tehran, Iran.
Jan 2021 – present **Assistant Professor**,
- **Persisgen Par** Tehran, Iran
Dec 2018 – dec 2020 **Quality control master** HPV production vaccine project in

Fields of interest:

Cancer biology, Cancer gene therapy
Immunotherapy
CAR-T cell and CAR-NK cell therapy

Published Articles:

- 1- **Mahmoud Hassani**, Fatemeh Hajari Taheri, Zahra Sharifzadeh, Arash Arashkia, Jamshid Hadjati, Wytske M. van Weerden, Shahriyar Abdoli, Mohammad Hossein Modarressi, Mohsen Abolhassani, Engineered Jurkat cells for targeting Prostate Specific Membrane Antigen on prostate cancer cells by nanobody based Chimeric Antigen Receptor”, Iranian Biomedical Journal (IBJ) DOI: 10.29252/ibj.24.2.81.
- 2- Fatemeh Hajari Taheri, **Mahmoud Hassani**, Zahra Sharifzadeh, Mehdi Behdani, Arash Arashkia, Mohsen Abolhassani, T cell engineered with a novel nanobody-based chimeric antigen receptor against VEGFR2 as a candidate for tumor immunotherapy, IUBMB Life. 2019 Feb 6. doi: 10.1002/iub.2019.
- 3- **Mahmoud Hassani**, Fatemeh Hajari Taheri, Zahra Sharifzadeh, Arash Arashkia, Jamshid Hadjati, Wytske M. van Weerden, Mohammad Hossein Modarressi, Mohsen Abolhassani, Construction of Chimeric Antigen Receptor bearing Nanobody against Prostate Specific Membrane Antigen in Prostate Cancer, J Cell Biochem. 2019 Jan;
- 4- Bagheri Salman, Yasemi Maryam, Safaie-Qamsari Elmira, Rashidiani Jamal, Abkar Morteza, **Hassani Mahmoud**, Mirhosseini Seyed Ali, Kooshki Hamid, Using gold nanoparticles in diagnosis and treatment of melanoma cancer, Artificial Cells, Nanomedicine, and Biotechnology, 2018,
- 5- Sajjadian Maryam, Ragerdi Kashani Iraj , Pasbakhsh Parichehr, **Hassani Mahmoud**, Omidi Ameneh, Takzare Nasrin, Clarner Tim, Cordian Beyer, Zendedel Adib, Protective

effects of cannabidiol on cuprizone-induced demyelination in C57BL/6 mice, *Journal Of Contemporary Medical Sciences*, 2017, 3(11), 278-283.

- 6- **Hassani Mahmoud**, Sabouni Farzaneh, Ansari Mohammad, Emamgholipour Solaleh, Fallah Mohammad-Sadegh, Abbasi Shah-Sanam, Ansari Majd Saeed, Antiinflammatory effect of MigriHeal(R) in an in vitro inflammatory model of primary mixed glial cells, *Molecular medicine reports*, 2018, 17(1), 1901-1906.
- 7- Kashani Iraj Ragerdi, Chavoshi Hossein, Pasbakhsh Parichehr, **Hassani Mahmoud**, Omidi Ameneh, Mahmoudi Reza, Beyer Cordian, Zendedel Adib, Protective effects of erythropoietin against cuprizone-induced oxidative stress and demyelination in the mouse corpus callosum, *Iranian journal of basic medical sciences*, 2017, 20(8), 886-893.
- 8- **Hassani Mahmoud**, Sabouni Farzaneh, Ansari Mohammad, Emamgholipour Solaleh, Fallah Mohammad-Sadegh, Abbasi Shah-Sanam, Ansari Majd Saeed, the effect of Migri-Heal® on nitric oxide production in an in vitro inflammatory model of primary microglial cells, *Archives of Medical Laboratory Sciences*, 2017, 2(2), 54-61.

Oral presentation:

- 1- **Mahmoud Hassani**, Fatemeh Hajari Taheri, Mohsen Abolhassani, Mohammad Hossein Modaresi, Zahra Sharifzadeh, Arash Arashkia. Construction of Chimeric Antigen Receptor (CAR) bearing Anti-Prostate Specific Membrane Antigen (PSMA) nanobody (VHH), 14th International Congress of Immunology and Allergy of Iran, Tehran, Iran 26-28 April, 2018
- 2- Fatemeh Hajari Taheri, **Mahmoud Hassani**, Arash Arashkia, Zahra Sharifzadeh, Mehdi Behdani, Mohsen Abolhassani. *A Nanobody-based chimeric antigen Receptor Can Function as an Anti-angiogenesis by Targeting a VEGFR2 in Solid Tumor*, 14th International Congress of Immunology and Allergy of Iran, Tehran, Iran 26-28 April, 2018

Congress Abstracts:

- 1- **Mahmoud Hassani**, Fatemeh Hajari Taheri, Mohammad Hosein Modaresi, Zahra Sharifzadeh, Arash Arashkia, Mohsen Abolhassani, “*Generation and Characterization of Engineered T Cells Expressing Chimeric Antigen Receptors (CAR) Against PSMA in Prostate Cancer Cell Line*”, The Second National Festival and International Congress on Stem Cell and Regenerative Medicine 13-15 July 2017 Tehran, Iran
- 2- Fatemeh Hajari Taheri, **Mahmoud Hassani**, Mohsen Abolhassani, Arash Arashkia, Zahra Sharifzadeh, Mehdi Behdani, “*A Chimeric T Cell Antigen Receptor (CAR) that Target VEGFR-2 Expressing Cells*”, The Second National Festival and International Congress on Stem Cell and Regenerative Medicine 13-15 July 2017 Tehran, Iran
- 3- **Hassani M**, Sabouni F, Ansari M, Ansari Majd S, and Fallah M-S. “*Evaluation of the anti-inflammatory effect Migri-Heal® on the immune cells in central nervous system (CNS)*”, 11th International Congress of Immunology and Allergy of Iran, Tehran, Iran 26-29 April, 2012
- 4- **Hassani M**, Sabouni F, Ansari M, Ansari Majd S, Fallah M-S.” *Delibration toxicity of Migri-Heal® on mix glial cells*” National Congress on Medicinal Plants, Kish Island, 16-17 May 2012

REFERENCES

1. Mohammad Hossein Modarresi, Tehran University of Medical Science, Tehran , Iran, modaresi@tums.ac.ir,
2. Jamshid Hadjati, Tehran University of Medical Science, Tehran , Iran, jamshid.hadjati@gmail.com,
3. Mohsen Abolhassani, Pasteur Institute of Iran, Tehran, Iran, mabolhassani@yahoo.com