

**ADDRESS**  
Shahid Beheshti University, Velenjak Avenue,  
Tehran, Iran

**CONTACT**  
+989199848578  
Maso.Mousavi@gmail.com

**DATE OF BIRTH**  
06.06.1992

## SKILLS

- ✓ Working with some medical imaging such as: PET, SPECT and Scanning Electron Microscopy (SEM) and familiar with their theoretical concepts.
- ✓ Mastered in doing the following:  
Radioisotope production of reactor or cyclotron,  
Quality control with HPLC and ITLC,  
Internal dosimetric calculations,  
Simulation with monte carlo code.
- ✓ Good team working, communication written and oral skills

## LANGUAGES

English  
● ● ● ● ● ● ●

Persian  
● ● ● ● ● ● ●

Kurdish  
● ● ● ● ● ● ●

## PERSONALITY

Creativity  
Communicative  
Punctuality  
Organized  
Energetic person

# MASOUMEH SADAT MOUSAVI-DARAMOROUDI

## EDUCATION

2010 - 2014  
**Bachelor of sciences:**  
Nuclear Physics  
Razi University of Kermanshah, Iran.  
Ranked 1st among 47 students; GPA: 15.63 out of 20

2014 - 2017  
**Master of Sciences:**  
Nuclear Engineering – Radiation Applications  
Ranked 2st among 13 students; GPA: 17.92 out of 20

The title of thesis: "Preparation, quality control, biodistribution assessment and absoebed dose estimation of radiolabelled complex: 177Lu-DOTATOC".  
Finally I defended in January 2017, with score of 20 out of 20.

## RESEARCH EXPERIENCE

**"Preparation, biodistribution assessment and absorbed dose estimation of radiolabelled complex: 177Lu-DOTATOC":**

- 1) Calculation of activity, as well as radioisotope production in the accelerator and Research Reactor in Tehran, Iran.
- 2) Checking quality control of the Radioisotope ( $^{166}\text{Ho}$  &  $^{177}\text{Lu}$ ) and radiolabeled ( $^{177}\text{Lu}$ -DOTATOC) by the HPLC and ITLC processes.
- 3) Performing the Radioisotope Labeling Process with the Pharmaceutical Carrier (peptide).
- 4) Study of the biodistribution of the labeled compound in the animal sample and its related calculations.
- 5) Modeling by Compartmental method and extraction of Radiopharmaceutical delivery Equations in each organs.
- 6) Internal Dosimetry calculations of the labeled compound in healthy and tumoral mice using the MIRD method.

**"Dosimetry of radiopharmaceutical  $^{68}\text{Ga}$ -DOTATATE the internal organs of patients with in neuroendocrine tumors with simulation".**

At first, the clinical data received from Shariati Hospital, obtained from injection of  $^{68}\text{Ga}$ -DOTATATE in patient bearing NET and segmentation the images of PET / CT for each organ using 3D-Slicer software, doing dosimetric calculations using the Monte Carlo GATE code, and finally, the results obtained are read in numerical results by the MATLAB code. This project has just begun and the resulting articles have not yet written.



## SOFTWARE SKILLS

ALICE Code



Monte Carlo GATE

Code



SRIM



XCOM



MCNP



Microsoft Office



origin



MATLAB



3D-Slicer



## SCIENTIFIC MOTIVATION

As my CV indicates, I possess more than 6 years of progressive experience in study and research of BioPhysics and BioMedical sciences. It goes without saying that apart from bio-radiation engineering techniques, I am fully acquainted with theory of ultrasonic imaging, theoretically.

I have a good team-work capability with helping other students in the team and also I am a self-motivated, self-confident student with moral beliefs.



## REFERENCES

Prof. S. M. R Aghamiri, Head of Medical Radiation Department, Shahid Beheshti University, Tehran, Iran.

Email: [smr-aghamiri@sbu.ac.ir](mailto:smr-aghamiri@sbu.ac.ir)

Phone numbers: +982129904219

H. Yousefnia, PhD., Assistant Professor of Bio-radiation Engineering, Nuclear Science and Technology Research Institute (NSTRI), Tehran, Iran.

Email: [hyousefnia@aeoi.org.ir](mailto:hyousefnia@aeoi.org.ir),

Phone numbers: +982188221103



## RESEARCH ACCOMPLISHMENTS

### • Journal publications:

1) Iranian Journal of Nuclear Medicine (published)

Title: **"Preparation and biodistribution assessment of <sup>177</sup>Lu-DOTATOC as a potential radiolabelled somatostatin analog.**

H. Yousefnia, M. S. Mousavi-Daramoroudi, F. Abbasi-Davani and S.Zolghadri.

2) Journal of radioanalytical and nuclear chemistry (Revised)

Title: **"New approach for estimation of human absorbed dose using compartmental model: <sup>177</sup>Lu-DOTATOC"**

M. S. Mousavi-Daramoroudi, Hasan Yousefnia, Fereydoon Abbasi-Davani, S.Zolghadri.

### • Attendance at conferences and workshops:

1) 17th International Conference on Radiopharmacy and Radiopharmaceuticals; London, United Kingdom; September 2015. (published in WASET book)

title: **Optimization and Evaluation of <sup>177</sup>Lu-DOTATOC as a Potential Agent for Peptide Receptor Radionuclide Therapy.**

Hasan Yousefnia, M. S. Mousavi-Daramoroudi, Fereydoon Abbasi-Davani, S.Zolghadri.

2) ICBBE 2017 :19th International Conference on Biophysical and Biomedical Engineering, Copenhagen, Denmark, August 2017.

title: **Compartmental Model Approach for Dosimetric Calculations of <sup>177</sup>Lu-DOTATOC in Adenocarcinoma Breast Cancer Based on Animal Data.**

M. S. Mousavi-Daramoroudi, H. Yousefnia, S. Zolghadri, F. Abbasi-Davani

3) Iranian nuclear medicine conference; Mazandaran , Iran , 2016 (published in conference book)

Title: **Dosimetry and biodistribution modelling of <sup>177</sup>Lu-DOTATOC, as an option for treatment of neuroendocrine tumors with PRRT method.**

M. S. Mousavi-Daramoroudi, A. Golabi-Dezfouli, Fereydoon Abbasi-Davani, Hasan Yousefnia, H.Afarideh.

4) Iranian physics conference ; Shiraz , Iran , 2016 (published in conference book)

Title: **Modeling and compare biological <sup>177</sup>Lu-DOTATOC and <sup>166</sup>Ho-DOTATOC with compartmental method.**

A. Golabi-Dezfouli, M. S. Mousavi-Daramoroudi, Fereydoon Abbasi-Davani, Hasan Yousefnia, H.Afarideh.

5) 22th Iranian Nuclear Conference; Yazd, Iran; January 2016 (published in conference book and this paper was selected as top article in the conference)

Title: **Biodistribution evaluation of the radiopharmaceutical <sup>177</sup>Lu-DOTATOC in mice with tumors of breast cancer.**

M. S. Mousavi-Daramoroudi, Fereydoon Abbasi-Davani, Hasan Yousefnia, S.Zolghadri.

- Executive Meeting of the Annual Physics Conference.
- International Seminar on Recent Development in Radiation Protection.