Mona Mosayebnia

Department of Pharmaceutical Chemistry and radiopharmacy

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Education

Ph.D., Radiopharmacy, Tehran University of Medical Sciences, 2013- 2018

Concentrations: Radiopharmacy

Dissertation: Design, molecular modeling, synthesis, radiolabeling & biological evaluation of new peptides as PSMA imaging agents in prostate cancer

Dissertation Advisors: Davood Beiki, Ph.D., Soraya Shahhosseini, Ph.D., Zahra Hajimahdi, Ph.D.

Pharm. D., Pharmacy, Tehran University of Medical Sciences, 2006-2013

Concentrations: Pharmaceutical chemistry

Thesis: Production & preliminary assessment of DTPA-DG as an anti-iron-overload new complex

Thesis Advisor: Massoud Amanlou, Ph.D., Mehdi Shafiee Ardestani, Ph.D.

Teaching Experience

Instructor, Shahid Beheshti University of Medical Sciences, 2020-2022

Courses: Radiopharmacy, Medicinal chemistry (Radiopaque, radiolabeling of pharmaceuticals with different radioisotopes)

Publications

Full Papers

1. Ahmadia M, Ayyoubzadeh SM, Ghorbani-Bidkorbeh F, Shahhosseini S, Dadashzadeh S, Asadiand E, ***Mosayebnia M***, Siavashy S. An investigation of affecting factors on MOF

characteristics for biomedical applications: A systematic review. Heliyon. 2021; 7 (4): e06914.
2. ***Mosayebnia M***, Hajiagha Bozorgi A, Rezaeianpour M, Kobarfard F. In silico prediction of SARS-CoV-2 main protease and polymerase inhibitors: 3D-Pharmacophore modelling. Journal of Biomolecular Structure and Dynamics. 2021; 18: 1-18.
3. ***Mosayebnia M***, Hajiramezanali M, Shahhosseini S. Radiolabeled peptides for molecular imaging of apoptosis: Review article. Current Medicinal Chemistry. 2020; 27 (41): 7064-7089.
4. ***Mosayebnia M***, Hajimahdi Z, Beiki D, Rezaeianpour S, Hajiramezanali M, Geramifar P, Sabzevari O, Amini M, Hatamabadi D, Shahhosseini S. Design, synthesis, radiolabeling and biological evaluation of a new urea-based peptide targeting prostate specific membrane antigen. Bioorganic Chemistry. 2020; 99: 103743.
5. Hajiramezanali M, Atyabi F, ***Mosayebnia M***, Akhlaghi M, Geramifar P, Jalilian AR, Mazidi SM, Yousefnia H, Shahhosseini S, Beiki D. ^{68}Ga-radiolabeled bombesinconjugated to trimethyl chitosan-coated superparamagnetic nanoparticles for molecular imaging: preparation, characterization and biological evaluation. Int. J. Nanomed. 2019; 14: 2591—2605.
6. Rezaeianpour S, ***Mosayebnia M***, Moghimi A, Amidi S, Geramifar P, Kobarfard F, Shahhosseini S. [^{18}F]FDG-labeled CGPRPPC peptide serving as a small thrombotic lesions probe including a comparison with [^{99m}Tc]-labeled form. Cancer Biotherapy and Radiopharmaceuticals. 2018; 33 (10): 438-444.
7. ***Mosayebnia M***, Rezaeianpour S, Rikhtechi P, Hajimahdi Z, Beiki D, Kobarfard F, Sabzevari O, Amini M, Abdi Kh, Shahhosseini S. Novel and efficient method for solid phase synthesis of urea-containing peptides targeting prostate specific membrane antigen (PSMA) in comparison with current methods. IJPR. 2018; 17(3): 917-926.
8. ***Mosayebnia M***, Shahhosseini S, Hajiagha Bozorgi A, Kobarfard F, Rezaeianpour S. Docking, Synthesis, in-vitro evaluation and optimization of reaction conditions for direct radiolabeling of CGPRPPC with ^{99m}Tc via GAGG sequence. Nucl. Med. Commun. 2018; 39: 976-982.
9. ***Mosayebnia M***, Shafiee-Ardestani M, Pasalar P, Mashayekhi M, Amanlou M. Diethylentriamine pentaacetic acid glucose conjugates as a cell permeable iron chelator. J Pharmacol Pharmacother. 2014; 5(1): 27-32.
10. Mashayekhi M, Amanlou M, Sadeghi K, ***Mosayebnia M***, Ardestani MS. Diethylentriaminepentaacetic Acid-deoxyglucoseamine (DTPA-DG): Novel Nanosized Anti-Wilson's Disease Cell Model. Am. J. Biomed. Sci. 2013; 5(1): 34-46.
11. Shafiee Ardestani M, Jabbari Arabzadeh A, Heidari Z, Hosseinzadeh A, Ebrahimi H, Hashemi E, ***Mosayebnia M***, Shafiee-Alavidjeh M, Alavi A, Babaei MH, Rahmim A, Sadat Ebrahimi E, Amanlou M. Novel and facile methods for the synthesis of DTPA-mono-amide: a new completely revised strategy in radiopharmaceutical chemistry. J Radioanal Nucl Chem. 2010; 283: 447–455.

Presentations (In Domestic Congress)

1. ***Mosayebnia M,*** Hajiramezanali M, Rezaeianpour S, Shahhosseini S. ^{18}FDG-labeled CGPRPPC peptide serving as a small thrombotic lesions probe including a comparison with ^{99m}Tc-labeled form. In 21th Annual and 6th International Congress of Nuclear Medicine and Molecular Imaging. Nov 2017. Mashhad, Iran. Winner of best paper award.
2. ***Mosayebnia M,*** Shahhosseini S, Rezaeianpour S, Hajiramezanali M. Novel and efficient method for solid phase synthesis of urea-containing peptides targeting prostate specific membrane antigen (PSMA). In 15th Iranian Pharmaceutical Science Congress (IPSC). Oct 2017. Hamadan, Iran.
3. ***Mosayebnia M*** (On behalf of Beiki D.). The global *vs.* local market for radiopharmaceuticals: Report of 2016 (oral presentation). In 21th Annual and 6th International Congress of Nuclear Medicine and Molecular Imaging. Nov 2017. Mashhad, Iran.
4. ***Mosayebnia M,*** Hajiramezanali M. Lymphoscintigraphy. In 2nd Iranian Nanomedicine Congress (INMC). Sep 2016. Zanjan, Iran.
5. ***Mosayebnia M.*** ^{68}Ga-radiopharmaceuticals as bone imaging probes (oral presentation). In 14th Iranian Pharmaceutical Science Congress (IPSC). Dec 2015. Tehran, Iran.
6. Hashemi E, ***Mosayebnia M***, Shafiee Ardestani M, Amanlou M. Synthesis and evaluation of Gd^{3+}- deoxyglucosamine-DTPA complex in MRI imaging of tumors. In 16th Iranian pharmacy students seminar (IPSS). Oct 2011. Tehran, Iran.

Books

- ✓ ***Mosayebnia M,*** Hajimahdi Z, Hajiramezanali M, Shahhosseini S, Hoshdar Tehrani MH. Radiopeptides from Designing to Clinical Usages: A Guide to Radio Pharmacists. Shahid Beheshti University of Medical Sciences Press. 2020 (ISBN 978-622-7595-05-5)

Awards and Honors

Ranked 5th in class, 2013

Ranked first on specialty's board exams, 2015

Professional Memberships

Iran Pharmacists Association

Relevant Skills

Peptide synthesis (peptides targeting tumor markers, apoptosis markers and Alzheimer disease) using solid-phase method

Molecular docking and peptide design

Radiolabeling of pharmaceuticals carriers including: small molecules, peptides, monoclonal antibodies and performing the quality control tests for prepared radiopharmaceuticals

Cell culture and binding studies

Biodistribution studies

Fluent in English

Extensive knowledge of Prism statistical program