

In the name of God

Personal Details

- Elaheh Kashani-Amin
- Born: 10.04.1978
- PhD by Research, Biosensors Research Center, Endocrinology and Metabolism Research Institute, Tehran University of Medical Sciences, Tehran, Iran
- **E.kashani.a@gmail.com**

Qualifications

4. PhD by Research, 2019, Biosensor Research Center, Endocrinology and Metabolism Molecular-Cellular Sciences Institute, Tehran University of Medical Sciences, Tehran, Iran. **Thesis Title:** "Developing Sweet Taste Receptor Model and Investigating the Interactions of the Receptor with Specific Ligands by Molecular Modeling Methods". *Research committee members:* Prof. Azadeh Ebrahim-Habibi (Supervisor), Dr. Amir-Hossein Sakhteman (Consultant), Prof. Bagher Larijani (Consultant)
3. MSc. (Biology-Biochemistry), 2011, Islamic Azad University, Science and Research Branch of Tehran, Tehran, Iran
2. Bachelor Degree (Laboratory Technology), 2002, Iran University of Medical Sciences, Tehran, Iran
1. Associate Degree (Laboratory Technology), 1999, Tehran University of Medical Sciences, Tehran, Iran.

Current and previous appointment(s)/position(s) – during the past 20 years

1. Full-time PhD by Research candidate, Biosensors Research Center, Endocrinology and Metabolism Research Institute, Tehran University of Medical sciences; 2014-2019
2. Research staff and supervisor (both in laboratory and group), Molecular Modeling and Simulation Research Group and Laboratory, Endocrinology and Metabolism Research Institute, Tehran University of Medical Sciences; 2011-2014
3. Laboratory technologist, Central Laboratory of Hazrat Rasoul Akram Hospital, Iran University of Medical Sciences, Tehran, Iran; 2005-2009
4. Laboratory technologist (due to the Health Ministry Staffing Plan), Central Laboratory of Hazrat Rasoul Akram Hospital, Iran University of Medical Sciences, Tehran, Iran; 2002-2004
5. Laboratory Technician (due to the Health Ministry Staffing Plan), Central Laboratory of Mirza Kouchak Khan Hospital, Tehran University of Medical Sciences, Tehran, Iran; 1998-1999

Career and Opportunities for Research over the Last 10 Years

1. November 2018: Instructor of "Basics of Protein Structure" and "Introduction to Homology Modeling" workshops of three-day workshop entitled "Introduction to Molecular Modeling",

launched by Molecular Modeling and Simulation Research Group at Endocrinology and Metabolism Research Institute of Tehran University of Medical Science.

2. May-September 2018: Instructor of “Introduction to Drug Design Basics” Workshop launched by Molecular Modeling and Simulation Research Group at Endocrinology and Metabolism Research Institute of Tehran University of Medical Science (32 hours).
 3. February 2017: Instructor of “Basics of Protein Structure” and “Introduction to Homology Modeling” workshops of three-day workshop entitled "Introduction to Molecular Modeling", launched by Molecular Modeling and Simulation Research Group at Endocrinology and Metabolism Research Institute of Tehran University of Medical Science.
 4. May-June 2016: Member of the executive board of ten-day workshop entitled "Introduction to Molecular Modeling", launched by Molecular Modeling and Simulation Research Group at Endocrinology and Metabolism Research Institute of Tehran University of Medical Science.
 5. 2011-2016: Research staff in Molecular Modeling and Simulation Research Group and Laboratory at Endocrinology and Metabolism Research Institute of Tehran University of Medical Sciences; assisting MSc. Students running enzyme kinetic related projects.
 6. 2012-2013: The main scientific and performance assistant in approved project entitled "Investigating the effect of Purine compounds on the activity of the alpha-amylase enzyme" belonging to Molecular Modeling and Simulation Research Group at Endocrinology and Metabolism Research Institute of Tehran University of Medical Science.
 7. 2011-2012: The main scientific and performance assistant in approved project entitled "Investigating the effect Chalcone compounds on the activity of alpha-amylase" belonging to Molecular Modeling and Simulation Research Group at Endocrinology and Metabolism Research Institute of Tehran University of Medical Science.
 8. 2010-2011: Acquired MSc. degree thesis entitled "Investigating the effect of Phenolic and Purine compounds on the activity of alpha-amylase, applying kinetic measurement method", Molecular Modeling and Simulation Research Group and Laboratory at Endocrinology and Metabolism Research Institute of Tehran University of Medical Sciences
9. Acquired unit courses (2016-2018):
- I. Attending in "International Spring School & Conference: Multiscale Simulation of Soft Matter"; 2018, Shiraz university of Technology, Shiraz, Iran.
 - II. Completing 2 unit courses on "Molecular Modeling: Protein MD simulation"; 2017, Institute of Biophysics and biochemistry, Tehran University, Tehran, Iran.

- III. Completing 2 unit courses on "Drug design Principles"; 2017, Institute of Biophysics and biochemistry, Tehran University, Tehran, Iran.
 - IV. Completing four courses (1 practical/ 3 theoretical unit courses) on "Introduction to basics of molecular modeling and structural bioinformatics and its applications in medicine"; 2016, Endocrinology and Metabolism research Institute, Tehran University of medical Sciences, Tehran, Iran.
 - V. Attending in "Understanding the molecular modeling" workshops (80 hours of theoretical and practical courses); 2016, Endocrinology and Metabolism research Institute, Tehran University of medical Sciences, Tehran, Iran.
9. Also taking part in educational programs of the Molecular Modeling and Simulation Research (EMRI/TUMS) :
- i. June 2016: Presenting lecture entitled "Overview of the specific applications of molecular modeling techniques: a case report"
 - ii. May 2016: Presenting lecture entitled "Review of GPCR homology modeling in journals indexed in PubMed, Scopus, WOS in 2015 and 2016 to examine the scopes and adopted strategies"
 - iii. December 2014: Workshop "Learning software and its applications in scientific writing EndNote" as the educator and executor.
 - iv. August 2014: Presenting lecture entitled "Sweet taste receptors: a brief review"
 - v. May 2013: Presenting lecture entitled "Understanding the social network LinkedIn"
 - vi. May 2012 : Presenting a summary of the "First Symposium on Biological print"
 - vii. January 2012: Workshop "Introducing Software EndnoteX2 " as the educator and executor.

Recent Significant Publications

Papers

- 9. **Presence of carbohydrate binding modules in extracellular region of class C G-protein coupled receptors (C GPCR): An *in silico* investigation on sweet taste receptor.** (2020) [Accepted; to be published online on December 2019] (IF: 1.82)
- 8. **Introducing a New Model of Sweet Taste Receptor, a Class C G-protein Coupled Receptor (C GPCR).** Elaheh Kashani-Amin, Amirhossein Sakhteman, Bagher Larijani, Azadeh Ebrahim-Habibi Cell biochemistry and biophysics. (2019) 77: 227-243 (IF: 2.32)
- 7. **Aurones as New Porcine Pancreatic α -Amylase Inhibitors.**

K Roshanzamir, E Kashani-Amin, A Ebrahim-Habibi, L Navidpour. Letters in Drug Design & Discovery (2019) 16 (3), 333-340 (**PubMed Indexed**)

6. A systematic review on popularity, application and characteristics of protein secondary structure prediction tools.

E Kashani-Amin, O Tabatabaei-Malazy, A Sakhteman, B Larijani, A Ebrahim-Habibi. Current Drug Discovery Technology. (2019)16(2):159-172. (**PubMed Indexed**)

5. Effect of neohesperidindihydrochalcone on the activity and stability of alpha-amylase: a comparative study on bacterial, fungal, and mammalian enzymes.

E Kashani-Amin, A Ebrahim-Habibi, B Larijani, AA Moosavi-Movahedi Journal of Molecular Recognition (2015) 28 (10), 605-613 (**IF:2.1**)

4. Neohesperidindihydrochalcone: Presentation of a small molecule activator of mammalian alpha-amylase as an allosteric effector.

E Kashani-Amin, B Larijani, A Ebrahim-Habibi FEBS letters (2013) 587 (6), 652-658 (**IF:3.169**)

3. Xanthine derivatives as activators of alpha-amylase: Hypothesis on a link with the hyperglycemia induced by caffeine.

E Kashani-Amin, P Yaghmaei, B Larijani, A Ebrahim-Habibi Obesity research & clinical practice(2013) 7 (6), e487-e493 (**IF:0.6**)

2. Bacillus Amyloliquefaciens Alpha-amylase Inhibition by Organic Solvents: A Study on Methanol, Ethanol and Propanol.

F Shirzadpour*, E Kashani-Amin*, A Ebrahim-Habibi Biomacromolecular Journal (2015) 1 (1), 113-121
*Equal contribution

1. Study on the effects of purine activator on alpha-amylase activity: Probable activity regulation sites on the enzyme structure (In Persian).

E Kashani-Amin, P Yaghmaei, B Larijani, A Ebrahim-Habibi Diabetes and Lipids of Iran (1390, 2011), 11(2), 131-137

Conferences

6. Introducing a new model of sweet taste receptor heterodimer: A validated model for drug design studies.

Elaheh Kashani-Amin, Amirhossein Sakhteman, Bagher Larijani, Azadeh Ebrahim-Habibi. The 15th CBC Conference on Biophysical Chemistry **October 23-24 2018**; Gorgan, Iran. [**Poster** Presentation]

5. An improved model of class C GPCR family member sweet taste receptor: contribution and dynamics.

E Kashani-Amin, A Sakhteman, B Larijani, A Ebrahim-Habibi. The 7th Conference on Bioinformatics, **3-5 January 2018**, The faculty of biological sciences , Tarbiat Modares University , Tehran, Iran. [**Poster** presentation]

4. Sweetener neohesperidindihydrochalcone activates bacterial and fungal alpha - amylases : potential application in biotechnology.

Elaheh Kashani-Amin, Bagher Larijani, Azadeh Ebrahim-Habibi * (2th international congress of physiology and pharmacology of Iran, **23 - 27 August 2013** Tabriz University of Medical Sciences) [**Poster** presentation]

3. Non carbohydrate - based small molecule inhibitors of mammalian alpha - amylase: toward rational design of novel compound

Ebrahim - Habibi A ., Navidpour L ., Hezareh N., Najafian M., Kashani - Amin E., Larijani B

Proceedings of the 3rd Strasbourg Summer School on Chemoinformatics - Strasbourg, France, **25 - 29 June 2012** [Poster presentation]

2. NeohesperidinDihydrochalcone, activator of alpha - amylase: a mechanistic study.

Kashani - Amin E., Larijani B., Ebrahim - Habibi A * . Journal of the Iranian Chemical Society,2012, 9, Suppl. 1,A11 (First International & 11th Iran Biophysical Chemistry Conference, **13 - 15 June 2012** Ardabil University of Medical Sciences) [Poster presentation]

1. Neohesperidinedihydrochalcone is an activator of mammalian alpha - amylase.

AE Kashani, AE Habibi * , P Yaghmaei, B Larijani - Clinical Biochemistry, 2011 – Elsevier (12th Iranian Congress of Biochemistry & 4th International Congress of Biochemistry & Molecular Biology, **6 - 9 September 2011**,Mashhad, Iran) [Oral presentation]

Fields of Interest

Molecular Modeling and Drug design of Proteins, especially:

- C GPCRs

- Sweeteners

- Proteins involved in metabolic disorders (e.g. Diabetes and Obesity)