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Scopus h-index: 4  
Scopus Citations: 49

***Education:***

**Doctor of Dental Surgery (DDS):** **Oct 2012- Jul 2018**

Faculty of Dentistry, Tabriz University of Medical Sciences (ranked within the top 4 universities in Iran according to 2019 SCIMAGO INSTITUTIONS RANKING)

Thesis: The Osteogenic Differentiation of Mesenchymal Stem Cells Derived from Dental Pulp in Alginate-Gelatin/Nano-Hydroxyapatite Microcapsules

Supervisor: Dr. Marziyeh Aghazadeh DDS, MSC, Associate professor of Oral Medicine.

Advisor: Dr. Mohammad Samiei DDS, MSC, PhD Associate professor of Endodontics.

**Diploma in Biological sciences:** **2008- Jun 2012**

National Organization for Development of Exceptional Talents (NODET), Farzanegan high school, Tabriz, Iran. ( [Website Link](#) )

***Professional Experiences:*****-General Dentist:**

Medical License for General Practice (Iranian Medical Council):  
M.C. Number: 171719

Oct 2018

**- Private Office:**

Full time: (Jul 2018- Feb 2019)

Part-time: (Feb 2019- present)

- Asadabadi Hospital (Tabriz University of Medical Sciences): Part-time (Aug 2019-present)
- Arad Dental Clinic: Part time (Jan2020-present)

### ***Research Assistant: (Full time)***

- Dental and Periodontal Research Center, Faculty of Dentistry, Tabriz University of Medical Sciences, Tabriz, Iran Feb2019-Present

### ***Research Experiences:***

### ***Publications & Manuscripts Pending:***

#### **A. Peer-reviewed articles:**

1. **Alipour M**, Firouzi N, Aghazadeh Z, Samiei M, Montazersaheb S, Khoshfetrat AB et al. The osteogenic differentiation of human dental pulp stem cells in alginate-gelatin/Nano-hydroxyapatite microcapsules. BMC Biotechnology. 2021;21(1):6.

doi:10.1186/s12896-020-00666-3.

2. Hassanzadeh A, Ashrafihelan J, Salehi R, Rahbarghazi R, Firouzamandi M, Ahmadi M, Khaksar M, **Alipour M** (Corresponding Author), Aghazadeh M. Development and biocompatibility of injectable Collagen/nano-hydroxyapatite scaffolds as in situ forming hydrogel for bone tissue engineering application. Artificial Cells, Nanomedicine, and Biotechnology. 2021;49(1):136-46.

DOI: <https://doi.org/10.1080/21691401.2021.1877153>

3. **Alipour M**, Aghazadeh M, Akbarzadeh A, Vafajoo Z, Aghazadeh Z, Raeisdasteh Hokmabad V. Towards osteogenic differentiation of human dental pulp stem cells on PCL-PEG-PCL/zeolite nanofibrous scaffolds. Artificial cells, nanomedicine, and biotechnology. 2019;47(1):3431-7.

DOI: <https://doi.org/10.1080/21691401.2019.1652627>

4. **Alipour M**, Ashrafihelan J, Salehi R, Rezaabakhsh A, Hassanzadeh A, Firouzamandi M et al. In vivo evaluation of biocompatibility and immune modulation potential of PCL-PEG-PCL-Gelatin

hydrogels enriched with nano-hydroxyapatite in the model of mouse. (Revised in Journal of Biomaterials Applications)

5. Galeh SD, Nouri-Vaskeh M, **Alipour M**, Fakhim SA. Clinical and Demographical Characteristics of Cleft Lip and/or Palate in the Northwest of Iran: An Analysis of 1500 Patients. The Cleft Palate-Craniofacial Journal. 2020:1055665620980633.  
DOI:10.1177/1055665620980633.

6. Eftekhari A, **Alipour M**, Chodari L, Maleki Dizaj S, Ardalan MR, Samiei M, et al. A Comprehensive Review of Detection Methods for SARS-CoV-2. Microorganisms. 2021;9(2):232.

DOI: <https://doi.org/10.3390/microorganisms9020232>

7. Ahmadian E, Samiei M, Hasanzadeh A, Kavetsky T, Jafari S, **Alipour M**, et al. Monitoring of drug resistance towards reducing the toxicity of pharmaceutical compounds: Past, present and future. Journal of Pharmaceutical and Biomedical Analysis. 2020:113265.

DOI: <https://doi.org/10.1016/j.jpba.2020.113265>

8. Ghavimi MA, Ghanizadeh M, **Alipour M** (Corresponding Author). Comparison of Periodontium Reaction to Fixation of Mandibular Fractures with and Without Erich Arch Bars. Trauma Monthly. 2019;24(5):1-6.

DOI: [10.5812/traumamon.87872](https://doi.org/10.5812/traumamon.87872)

9. Samiei M, Shirazi S, Azar FP, Fathifar Z, Ghojzadeh M, **Alipour M** (Corresponding Author). The Effect of Different Mixing Methods on the Properties of Calcium-enriched Mixture Cement: A Systematic Review of in Vitro Studies. Iranian Endodontic Journal. 2019;14(4):240-6.

DOI: [10.22037/iej.v14i4.25126](https://doi.org/10.22037/iej.v14i4.25126)

10. Alipour B, Farhangi MA, Dehghan P, **Alipour M**. Body image perception and its association with body mass index and nutrient intakes among female college students aged 18–

35 years from Tabriz, Iran. Eating and Weight Disorders-Studies on Anorexia, Bulimia and Obesity. 2015 Dec 1;20(4):465-71.

DOI: [10.1007/s40519-015-0184-1](https://doi.org/10.1007/s40519-015-0184-1)

### **B. Articles in progress (Under review):**

1. The Expression of Angiogenic Markers in Human Dental Pulp Stem Cells Seeded on MTA Enriched Poly ( $\epsilon$ -caprolactone)/ Chitosan Scaffolds. (First Author)
2. Basic Fibroblast Growth Factor-Loaded Scaffolds for Regenerative Endodontic Procedures. (First Author)
3. Synthesis, characterization, and evaluation of Curcumin-loaded endodontic reparative material. (First Author)

### ***Research courses and workshops:***

1. Knowledge Translational Webinar in Research Vice-Chancellor of Tabriz University of Medical Sciences, Tabriz, Iran. Autumn semester of 2020
2. Advanced Cell Culture workshop in Research Development and Coordination Center (RDCC), Tabriz University of Medical Sciences, Tabriz, Iran. Winter semester of 2020
3. Tissue engineering workshop in Royan Institute for Stem Cell Biology and Technology (RI-SCBT), Royan Institute, Tehran, Iran. February 2020.
4. Laboratory animal workshop in Research Development and Coordination Center (RDCC), Tabriz University of Medical Sciences, Tabriz, Iran. Autumn semester of 2019
5. Principles of evaluating the patents in Research Development and Coordination Center (RDCC), Tabriz University of Medical Sciences, Tabriz, Iran. Spring semester of 2019
6. Systematic review workshop in Research Development and Coordination Center (RDCC), Tabriz University of Medical Sciences, Tabriz, Iran. Autumn semester of 2017
7. Research Ethics workshop in Research Development and Coordination Center (RDCC), Tabriz University of Medical Sciences, Tabriz, Iran. Autumn semester of 2016
8. Research methodology, statistic, and proposal writing workshop in Student Research Committee, Tabriz University of Medical Sciences, Tabriz, Iran. April 2016

9. Research methodology workshop in Research Development and Coordination Center (RDCC), Tabriz University of Medical Sciences, Tabriz, Iran. Autumn semester of 2014

10. Evidence-based medicine courses in Iranian Center for Evidence Based Medicine (EBM), Tabriz University of Medical Sciences, Tabriz, Iran. September 2014

### ***Conference Proceedings:***

#### **Oral Presentation:**

- **Mahdieh Alipour.** “Towards osteogenic differentiation of human dental pulp stem cells on PCL-PEG-PCL/zeolite nanofibrous scaffolds.” presented at the 18<sup>th</sup> International Congress of Iranian Society of Oral & Maxillofacial Surgeons, Tehran, Iran. Feb 2020

#### **Poster Presentation:**

- **Mahdieh Alipour.** “Synthesis and Evaluation of Natural Active Ingredients Loaded Endodontic Reparative Materials” presented at the 19<sup>th</sup> International Congress of Iranian Association of Endodontists, New Concepts in Endodontics. Online Event. Dec 2020

### ***Activities in research centers:***

1. Stem Cell Research Center, Tabriz University of Medical Sciences. Since 2016
  - Cell Culture
  - Methods of Human, Mice and Rabbit Primary Cell Isolation (Dental Pulp-Derived Mesenchymal Stem Cells, Bone Marrow-Derived Mesenchymal Stem Cells, Adipose-Derived Mesenchymal Stem Cells, Fibroblasts from Gingiva)
  - MTT and Live-Dead assay
  - Alizarin Red S Staining
  - Alkaline Phosphatase Activity
  - Real-Time PCR
  - Flow cytometry
2. Dental and Periodontal Research Center, Tabriz University of Medical Sciences. Since 2018
  - Research Assistant
  - Teaching Assistant
  - Led fundraising efforts for the projects of our research center
  - The regular activity includes meetings and discussions about project details with students, colleagues, and other research centers
  - Designing and manufacturing scaffolds for regenerative dentistry purposes
  - Supervising research projects
  - Provided statistical and research advice to students
  - Manuscript editing, plagiarism, and revision

- Study design and proposal writing
- Questionnaire design
- Working with Universal Testing Machine
- Preparing and Presenting Research Posters
- Presenting conference papers

### ***Research Interests:***

- . Tissue Engineering
- . Regenerative Dentistry
- . Oral Biology
- . Nanotechnology in Dentistry
- . Biotechnology in Dentistry
- . Reconstructive surgery

### ***Teaching experiences:***

- . Teaching assistant since Feb2020
  - Assisted professors in teaching the practical stages of scientific writing and tissue engineering courses
  - Trained and mentored new employees to take over similar projects and aid institute expansion in the Dental and Periodontal Research Center
  - Make PowerPoint for presentations
  - Provided educational advice for students
  - Correction of Students projects and exam papers
  - Providing online educational content for students during the lockdown of COVID-19

### ***Skills:***

#### **1. Laboratory skills:**

- . Cell culture and relevant techniques
- . 3D cell culture
- . Isolating, Characterizing, and Differentiation of mesenchymal stem cells
- . Cell biology and molecular biology
- . Real-Time PCR and data analysis
- . Alizarin Red staining and data analysis
- . Alkaline Phosphatase enzyme activity and data analysis
- . MTT and Live-Dead assay and data analysis
- . DAPI staining
- . Endothelial Tube Formation Assay
- . Designing and synthesizing different scaffolds with freeze-drying, electrospinning, and microcapsulation
- . *In vitro* and *in vivo* evaluation of biomaterials in bone and tooth Regeneration

- . Decellularization of dental pulp tissue and rat tail tendons
- . Scanning Electron Microscopy (SEM), TEM, swelling/degradation tests
- . Fluorescence microscopy and image analysis
- . Working with laboratory animals
- . Surgery on rabbit and rat cranial for implantation of scaffolds
- . Working with Universal Testing Machine (UTM), Tensile/Compressive tests
- . Animal handling and surgical techniques in animal models
- . Preparation of Platelet-Rich Plasma (PRP) and Platelet-Rich Fibrin (PRF)(A-PRF)(L-PRF) for the synthesis of scaffolds with sustained released characteristics
- . Transitional research in Regenerative Dentistry

## 2. Clinical skills:

- . Evidence-based dentistry
- . Effective treatment plans for patients
- . Cooperated with a multi-disciplinary team
- . Endodontics: Root canal therapy, Apicoectomy, Re-Endo, Perforation Treatments, ...
- . Periodontics: SRP, Crown lengthening, Sinus lifting, ...
- . Oral Surgery: Tooth Extraction, Impacted teeth removal, Soft and hard tissue surgery, Biopsy, ...
- . Implantology: SIC implant system
- . Prosthodontics and Restorative Dentistry: CAD/CAM, Crowns, Amalgam and Composite fillings, Complete and Partial dentures, ...
- . Pedodontics: Pulpotomy, Pulpectomy, Fissure Sealant, Fluoride therapy ...

## 3. Research Skills:

- . Scientific paper writing, review of the scientific papers, proposal writing, intellectual property
- . Reference managing and providing manuscripts for submitting
- . Graphical effects (graphical abstract, harmonizing the graphs, figures, and tables)
- . Data extraction and analysis
- . Great teamwork, cooperation, and communication abilities
- . Reviews and Systematic Reviews
- . Case reports
- . Teamwork management (including task allocation, time management, performance, and conflict management)

## 4. Computer skills:

- . CorelDRAW
- . ImageJ software
- . GraphPad Prism
- . EndNote
- . Mendeley
- . Windows, Microsoft Office including Excel, Word, PowerPoint,
- . Microsoft Windows

**5. Language skills:**

- . English: Fluent
- . Azerbaijani: Native (Mother-Tongue)
- . Persian: Native (Bilingual)
- . Turkish: Conversational

**References:**

**1. Dr. Marziyeh Aghazadeh:** Dean of Department of Oral Medicine, Associated professor of Oral Medicine, Faculty of Dentistry, Tabriz University of Medical Sciences, Tabriz, Iran

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**2. Dr. Simin Sharifi:** Assistant professor of biotechnology, Dental and Periodontal Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

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**3. Dr. Mohammad Samiei:** Vice Chancellor for Research and Technology of Tabriz University of Medical Sciences. Associated professor of Endodontics, Tabriz University of Medical Sciences

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**4. Dr. Solmaz Maleki Dizaj:** Assistant professor of biotechnology, Dental and Periodontal Research Center, Tabriz University of Medical Sciences, Tabriz, Iran

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EXTENDED CV AVAILABLE UPON REQUEST