

**Leila Rezakhani**  
**Kermanshah University of Medical Science**  
*Curriculum Vitae*

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**PERSONAL INFORMATION:**

**First name:** Leila

**Surname:** Rezakhani

**Nationality:** Iranian

**Place of birth:** Kermanshah, Iran

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**EDUCATION:**

2009-2011            B.Sc. **Anesthesia Nursing**, Faculty of Paramedical, Kermanshah University of Medical Sciences

2011-2013            M.Sc. **Anatomical Sciences**, Department of Anatomy, Faculty of Medicine, Kermanshah University of Medical Sciences

2016-2020            Ph.D. **Tissue Engineering**, Department of Tissue Engineering, Faculty of Medicine, Shahrekord University of Medical Sciences

**M.Sc. Thesis subject:**

Survey of the effect of Natural Compound on breast and prostate cancer cell lines in culture model

**Ph.D. Thesis subject:**

Chitosan based delivery of crab extracellular vesicles into 3D simulated breast cancer

**HONORS:**

Top students in undergraduate and graduate courses.

**Laboratory skills:**

1. Cell Culture
2. Cell death detection
3. MTT Assay
4. Nitric Oxide Assay
5. Migration Assay
6. Antioxidant Assay
7. Histotechnique (Tissue processing, paraffin section and cryosection)
8. Scaffold fabrication
9. Three-dimensional modeling of cancer in vivo and in vitro
10. Decellularization of tissue
11. Exosome extraction
12. Isolation and culture of Rat bone marrow mesenchymal stem cells

**RESEARCH INTERESTS:**

Use of decellularized tissues for clinical treatment

Use of scaffolds for clinical treatments

Design 3D modeling in animals for cancer research and pharmacological examination

The use of 3D bioprinting in the design of various body parts

Extensive research in the field of extraction and therapeutic applications of exosomes

**Research Projects:**

2014      The effect of a natural combination on cell lines of breast and prostate cancer in culture media. Kermanshah University of Medical Sciences (91379)

2015 The effect of hydroalcoholic extract of crab shell on prostate cancer cell line in culture media, Kermanshah University of Medical Sciences (93377)

2015 Effect of Hydroalcoholic Extract of Crab shell on Pancreatic Structure and Blood Parameters in Diabetic Male Rats, Kermanshah University of medical sciences (93415)

2015 A comparative study of pulmonary valve replacement with and without cardiac arrest, Kermanshah University of medical sciences (94537)

2018 Chitosan based delivery of crab extracellular vesicles into 3D simulated breast cancer, Shahrekord University of medical sciences (2844)

2021 Mortality study of patients with Covid-19 with underlying cancer (4000025)

2021 A review of the effect of crab shell on body tissues (4000138)

2021 Decellularized tissues of the female reproductive system and its application in regenerative medicine (4000182)

## **PUBLICATIONS:**

## **FULL ARTICLES**

1. **Rezakhani L**, Rashidi Z, Mirzapur P, Khazaei M. Antiproliferatory effects of crab shell extract on breast cancer cell line (MCF7). *Journal of breast cancer*. 2014;17(3):219-25.
2. Mirzapur P, Rashidi Z, **Rezakhani L**, Khazaei M. In vitro inhibitory effect of crab shell extract on human umbilical vein endothelial cell. *In Vitro Cellular & Developmental Biology-Animal*. 2015;51(1):36-41.
3. **Rezakhani L**, Khazaei MR, Ghanbari A, Khazaei M. Crab shell extract induces prostate cancer cell line (LNCap) apoptosis and decreases nitric oxide secretion. *Cell Journal (Yakhteh)*. 2017;19(2):231.
4. **Rezakhani L**, Mirzapour P, Alizadeh A, Khazaei M, Alizadeh M, Khazaei M. An Overview on Plants and Natural Products with Anti-Cancer Effects. *Pathobiology Research*. 2018;21(3):163-71.
5. **Rezakhani L**, Alizadeh M, Alizadeh A. An Overview on Tissue Engineered Models for Cancer Study. *Journal of Applied Tissue Engineering*. 2018;5(1):1-11.

6. Mehri A, Shojaeian A, **Rezakhani L**. A Review on Inner Ear Tissue Engineering. *Journal of Applied Tissue Engineering*. 2018;5(3):1-9.
7. Alizadeh M, **Rezakhani L**, Soleimannejad M, Sharifi E, Anjomshoa M, Alizadeh A. Evaluation of vacuum washing in the removal of SDS from decellularized bovine pericardium: method and device description. *Heliyon*. 2019;5(8):e02253.
8. Motamedi M, Razmkhah F, **Rezakhani L**, Ghasemi S. Altered Expression of CD44, SIRT1, CXCR4, miR-21, miR-34a, and miR-451 Genes in MKN-45 Cell Line After Docetaxel Treatment. *Journal of gastrointestinal cancer*. 2019:1-7.
9. Alizadeh A, **Rezakhani L**, Shoa MA, Ghasemi S. Frequency of CD44 positive cells in MKN45 cell line after treatment with docetaxel in two and three-dimensional cell cultures. *Tissue and Cell*. 2020;63:101324.
10. **Rezakhani L**, Kelishadrokh AF, Soleimanizadeh A. Mesenchymal stem cell (MSC)-derived exosomes as a cell-free therapy for Patients Infected with COVID-19: Real Opportunities and Range of Promises. *Chemistry and physics of lipids*. 2020:105009.
11. Alizadeh M, **Rezakhani L**, Khodaei M, Soleimannejad M, Alizadeh A. Evaluating the effects of vacuum on the microstructure and biocompatibility of bovine decellularized pericardium. *Journal of tissue engineering and regenerative medicine*. 2020.
12. **Rezakhani L**, Alizadeh M, Alizadeh A. A three dimensional in vivo model of breast cancer using a thermosensitive chitosan-based hydrogel and 4 T1 cell line in Balb/c. *Journal of Biomedical Materials Research Part A*. 2020.
13. **L Rezakhani M** Alizadeh, E Sharifi, M Soleimannejad, A Alizadeh. Isolation and characterization of crab hemolymph exosomes and its effects on breast cancer cells (4T1). *Cell Journal (Yakhteh)*. 2022;Inpress.
14. Rahmati S, Sanaei M-J, Alizadeh M, **Rezakhani L**. A Study on COVID-19 Recurrence in Patients Discharged from Hospital: Narrative Review. *Journal of Fasa University of Medical Sciences*.0-
15. Rahmati S, Shojaei F, Shojaeian A, **Rezakhani L**, Dehkordi MB. An overview of current knowledge in biological functions and potential theragnostic applications of exosomes. *Chemistry and physics of lipids*. 2020;226:104836.
16. Alizadeh M, **Rezakhani L**, Alizadeh A. Characterization of the decellularized ovine pericardium for skin tissue engineering. *Journal of Shahrekord University of Medical Sciences*. 2020;22(4):173-80.
17. **Rezakhani L**, Alizadeh M, Sharifi E, Soleimannejad M, Alizadeh A. Antiproliferative effects of fresh water crab hemolymph and meat extract on breast cancer cell line. *Journal of Shahrekord University of Medical Sciences*. 2021;23(1):20-6.
18. Alizadeh M, **Rezakhani L**, Nooshabadi VT, Alizadeh A. The effect of *Scrophularia striata* on cell attachment and biocompatibility of decellularized bovine pericardia. *Cell and Tissue Banking*. 2021:1-9.

## ABSTRACTS ORAL PRESENTATION IN CONGRESSES

1. **Leila Rezakhani**, Pegah Mirzapur, Mozafar Khazaei, Mohammad Rasool Khazaei, Effect of Crab Shell Extract on The Viability and Morphology of Breast Cancer Cells in Vitro, 10<sup>th</sup> International Breast Cancer Congress 2015 Tehran-Iran

2. **Leila Rezakhani**, Pegah Mirzapour, Mohammad Rasool Khazaei, Mozafar Khazaei, Compare of The Survival and Apoptosis of Breast Cancer Cells Under the Influence of Crab Shell Extract, 11<sup>th</sup> international breast cancer congress, Tehran-Iran 2016
3. **Leila Rezakhani**, Morteza Alizadeh, elham ghanbari, Role of Bioprinting for Cardiovascular Tissue Engineering, The First International Iranian Tissue Ngeeneering and Regenerative Medicine Congress (Itermc) 2018- Tehran-Iran
4. Akram Alizadeh, **Leila Rezakhani**, Sorayya Ghasemi, A Novel 3d Model of Gastric Cancer, The First International Iranian Tissue Ngeeneering and Regenerative Medicine Congress (Itermc) 2018- Tehran-Iran (oral Presentation)
5. Akram Alizadeh, Morteza Alizadeh, **Leila Rezakhani**, Tissue Engineering Approaches in Diagnosis and Treatment of Neurological Diseases, The First International Iranian Tissue Ngeeneering and Regenerative Medicine Congress (Itermc) 2018- Tehran-Iran (oral Presentation)
6. Morteza Alizadeh, Akram Alizadeh, Mostafa Soleimannejad, **Leila Rezakhani**, Method and Approaches in Tissue Engineering for Long-Term Electrodes, The First International Iranian Tissue Ngeeneering and Regenerative Medicine Congress (Itermc) 2018- Tehran-Iran

### **ABSTRACTS POSTER PRESENTATION IN CONGRESSES**

1. **Leila Rezakhani**, Morteza Alizadeh, Esmaeel Sharifi, Akram Alizadeh, Properties and Application (Chitin - Chitosan) In Tissue Engineering and Others, 3<sup>rd</sup> International Conference On Researches in Science & Engineering, 2017, Kasem Bundit University, **Bangkok, Thailand**
- 2- **Leila Rezakhani**, Morteza Alizadeh, Akram Alizadeh, Esmaeel Sharifi, Cancer and Tissue Engineering, 3<sup>nd</sup> International Congress On Engineering Sciences and Technology, 2017-**Kuala Lumpur- Malaysia**
- 3- **Leila Rezakhani**, Akram Alizadeh, Esmaeel Sharifi, Morteza Alizadeh, The Role of Biomechanics in Tissue Engineering, 2<sup>nd</sup> International Stem Cell and Regenerative Medicine Congress 2017-Mashhad- Iran
- 4- **Leila Rezakhani**, Pegah Mirzapour, Mozafar Khazaei, Skin Tissue Engineering, Iranian Congress On Progress in Tissue Engineering and Regenerative Medicine 2016-Tehran-Iran
- 5- **Leila Rezakhani**, Morteza Alizadeh, Akram Alizadeh, Tissue Engineered Cells in Breast Cancer, 2th international personalized medicine congress 2018-Tehran-Iran
- 6- **Leila Rezakhani**, Akram Alizadeh, Morteza Alizadeh, Application of Extracellular Vesicles in Tissue Engineering and Regeneration Medicine, The First International Iranian Tissue Ngeeneering and Regenerative Medicine Congress (Itermc) 2018- Tehran-Iran
- 7- Elham Ghanbari, Mozafar Khazaei, **Leila Rezakhani**, Stem Cell: Implications for Urological Tissue Engineering, The First International Iranian Tissue Ngeeneering and Regenerative Medicine Congress (Itermc) 2018- Tehran-Iran (poster Presentation)

- 8- **Leila Rezakhani**, Morteza Alizadeh, Akram Alizadeh, Cancer and Stem Cell, 4th Iranian congress on progress in tissue engineering and regenerative medicine, 2018-tehran-iran
- 9- **Leila Rezakhani**, Morteza Alizadeh, Akram Alizadeh, The Biology of Tissue Engineering and Cancer, 4th Iranian congress on progress in tissue engineering and regenerative medicine, 2018-tehran-iran
- 10- **Leila Rezakhani**, Morteza Alizadeh, Akram Alizadeh, The Use of Chitosan Nanoparticle in The Treatment of Cancer, 4th Iranian congress on progress in tissue engineering and regenerative medicine, 2018-tehran-iran
- 11- Morteza Alizadeh, **Leila Rezakhani**, Akram Alizadeh, Biodegradable Polymers Beside the Conductive Biodegradable Polymers Are Suitable Combination for Nerve Tissue Engineering, 4th Iranian congress on progress in tissue engineering and regenerative medicine, 2018-tehran-iran
- 12-**Leila Rezakhani**, Pegah Mirzapur, Mozafar Khazaei, Mohammad Rasool Khazaei, The Role of Homeobox Gene in Implantation, International Congress on reproduction –ISERB 2015 Tehran- Iran
- 13- **Leila Rezakhani**, Pegah Mirzapur, Mohammad Rasool Khazaei, Ebrahim Shakiba, The Role of Oxidative Stress on Female Fertility, International Congress on reproduction –ISERB 2015 Tehran- Iran
- 14- **Leila Rezakhani**, Pegah Mirzapur, Mozafar Khazaei, Mohammad Rasool Khazaei, Effect of Crab Shell Extract On Nitric Oxide Release in Cultured Breast Cancer Cells, International Congress On Reproduction –ISERB 2015 Tehran- Iran
- 15-Mozafar Khazaei, **Leila Rezakhani**, Pegah Mirzapur, The Effect of Saffron on Abortion, International Congress On Reproduction –ISERB 2015 Tehran- Iran
- 16-Pegah Mirzapur, Mohammad Rasool Khazaei, Mozafar Khazaei, **Leila Rezakhani**, Sirenomelia-Case Report, International Congress On Reproduction –ISERB 2015 Tehran- Iran
- 17- **Leila Rezakhani**, Pegah Mirzapur, mohammad rasool khazaei, Mozafar Khazaei, Traditional medicine and anti-cancer compounds treatments, international conference on research in science and technology, kualalumpur-malaysia 2015
- 18- **Leila Rezakhani**, Pegah Mirzapur, Mohamad Rasool Khazaei, Mozafar Khazaei, Toxic Roles of Cadmium on Reproductive System, 8<sup>th</sup> IRHRC Annual Meeting Reproductive and Infertility Updates, Tehran-Iran 2015
- 19- **Leila Rezakhani**, Pegah Mirzapur, Mozafar Khazaei, Effects of Heavy Metal Poisoning on Reproductive, 8<sup>th</sup> IRHRC Annual Meeting Reproductive and Infertility Updates, Tehran-Iran 2015
- 20- **Leila Rezakhani**, Pegah Mirzapur, Mozafar Khazaei, The Role of Nutrition on Male Fertility, International Congress on reproduction –ISERB 2015 Tehran- Iran

- 21- **Leila Rezakhani**, Pegah Mirzapur, Mozafar Khazaei, effect of obesity on cancer, International Congress of Maternal and Childhood Obesity 2015 Urmia- Iran
- 22- **Leila Rezakhani**, Pegah Mirzapur, Mohammad Rasool Khazaei, Relationship between obesity and infertility, International Congress of Maternal and Childhood Obesity 2015 Urmia-Iran
- 23- **Leila Rezakhani**, Pegah Mirzapur, Shokooh Sadeghi, Sedentary lifestyle and its impact on health, 2<sup>nd</sup> International and 6<sup>th</sup> National Iranian Congress On Health Education and Promotion, 2015 Kermanshah-Iran
- 24- Pegah Mirzapur, **Leila Rezakhani**, Mozafar Khazaei, Zahra Rashidi, Effect of crab shell extract on nitric oxide production and migration of human umbilical vein endothelial cells, 10<sup>th</sup> Royan International Congress On Stem Cell Biology and Technology, 2014 Tehran-Iran
- 25- **Leila Rezakhani**, Pegah Mirzapur, Mozafar Khazaei, Zahra Rashidi, Effect of crab shell Hydroalcoholic Extract Induced Apoptosis in Prostate Cancer Cell Line, 15<sup>th</sup> Royan International Congress on Reproductive Biomedicine, 2014 Tehran-Iran
- 26- Pegah Mirzapur, **Leila Rezakhani**, Mozafar Khazaei, Zahra Rashidi, Effect of crab shell extract on cell viability and apoptosis of human umbilical vein endothelial cells, 20<sup>th</sup> National Congress On Infertility and Reproduction, IJRM Indexed in Pub Med 2014(Poster Presentation)
- 27- Mozafar Khazaei, **Leila Rezakhani**, Pegah Mirzapur, Zahra Rashidi, in vitro effect of crab shell hydroalcoholic extract on apoptosis in breast cancer cell line, 20<sup>th</sup> National Congress On Infertility and Reproduction, IJRM Indexed in Pub Med 2014(Poster Presentation)
- 28- **Leila rezakhani**, Pegah Mirzapur, Mozafar Khazaei, Zahra Rashidi, Evaluation of shell extract on nitric oxide production in prostate cancer cells in vitro, 20<sup>th</sup> National Congress On Infertility and Reproduction, IJRM Indexed in Pub Med 2014(Poster Presentation)
29. **Leila Rezakhani**, Morteza Alizadeh, Akram Alizadeh, A new source of exosomes for breast cancer treatment: Isolation and characterization of crab hemolymph exosomes, International Congress On Veterinary Anatomical Sciences, 2021 Tehran-Iran (Poster Presentation)

## **BOOKS:**

1. Regenerative medicine inner ear by Juichi Ito (Translated book, 2017, Royan Pazhouh Publisher; Tehran, Iran. ISBN: 978-600-408-299-0)
2. Principles of tissue engineering by Robert Lanza, Robert Langer, Joseph Vacanti (Volume 1, Translated book, 2018, Royan Pazhouh Publisher; Tehran, Iran. ISBN: 978-600-408-428-4)
3. Principles of tissue engineering by Robert Lanza, Robert Langer, Joseph Vacanti (Volume 2, Translated book, 2018, Royan Pazhouh Publisher; Tehran, Iran. ISBN: 978-600-408-523-6)

4. Principles of tissue engineering by Robert Lanza, Robert Langer, Joseph Vacanti (Volume 3, Translated book, 2018, Royan Pazhouh Publisher; Tehran, Iran. ISBN: 978-600-408-482-6)
5. Principles of tissue engineering by Robert Lanza, Robert Langer, Joseph Vacanti (Volume 4, Translated book, 2018, Royan Pazhouh Publisher; Tehran, Iran. ISBN: 978-600-408-506-9)
6. Principles of tissue engineering by Robert Lanza, Robert Langer, Joseph Vacanti (Volume 5, Translated book, 2018, Royan Pazhouh Publisher; Tehran, Iran. ISBN: 978-600-408-381-2)
7. Mouse Models of Cancer, Methods and Protocols by Eferl, Robert (Translated book, 2019, Royan Pazhouh Publisher; Tehran, Iran. ISBN: 978-600-408-505-2)
8. Orientation and skills to work with laboratory animals mouse and rat by Akrm Alizadeh, Mansooreh Soleimani, Majid Katebi, Leila Rezakhani (2017, Royan Pazhouh Publisher; Tehran, Iran. ISBN:978-600-408-413-0)
9. Introduction to cellular and molecular causes of cancer and new therapies by V Thaghdiri, A Alizadeh, S Ghasemi, L Rezakhani, P Mirzapour (2020, Royan Pazhouh Publisher; Tehran, Iran. ISBN:978-600-408780-3)