



## **JAVAD RANJBARI**

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Sex: Male

Date of birth: September 20th, 1984

Nationality: Iranian

Marital status: single

Ph. D in Pharmaceutical Biotechnology, M.Sc. in Medical Biotechnology, Iran

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## **EMPLOYMENT HISTORY**

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- **Assistant professor, Department of Medical Biotechnology, School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran**  
*Since January 2017*
- **Executive director of Regenerative Medicine & Stem Cell Research Incubation Center, Shahid Beheshti University of Medical Sciences, Tehran, Iran.** *Since January 2017*
- **Responsible for commercialization and communication with the industry, Shahid Beheshti University of Medical Sciences, Tehran, Iran.** *Since January 2017*

## **EDUCATION**

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### **School of Pharmacy, Shahid Beheshti University of Medical Sciences- Tehran- Iran**

*Pharmaceutical biotechnology- PhD*

*Oct 2009 to April 2015*

### **School of Medicine, Tabriz University of Medical Sciences- Tabriz - Iran**

*Medical biotechnology- MSc*

*Oct 2007 to Aug 2009*

### **School of Para medicine, Iran University of Medical Sciences- Tehran- Iran**

*Lab sciences – BSc*

*Oct 2003 to Jul 2007*

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## **Achievements and Awards**

2014- Top student in Shahid Motahari educational festival, Shahid Beheshti University of Medical Sciences, Tehran, Iran.

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## PUBLICATIONS

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### Journals

- Effect of Acyl Homoserine Lactone on Recombinant Production of Human Insulin-like Growth Factor-1 in Batch Culture of Escherichia coli (Protein and peptide letters- 2018)
- Engineered Recombinant Protein Production Systems Originated from Escherichia coli (Trends in Peptide and Protein Sciences- 2018)
- Targeted cancer therapy through antibody fragments-decorated Nano medicines (Journal of Controlled Release- 2017)
- Nanobodies As Novel Agents for Targeting Angiogenesis in Solid Cancers (Frontiers in Immunology- 2017)
- Nano-delivery system targeting to cancer stem cell cluster of differentiation Biomarkers (Journal of Controlled Release- 2017)
- Anti-cancer drug delivery using carbohydrate-based polymers (Current Pharmaceutical Design -2017)
- Aptamers as smart ligands for nano-carriers targeting (TrAC- trends in analyticalchemistry-2016)
- An Update on Phytochemicals Substances in Molecular Target Therapy of Cancer: Potential Inhibitory Effect on Telomerase Activity (Current Medicinal Chemistry – 2016)
- Direct Immobilization of Coagulation Factor VIII on Au/Fe<sub>3</sub>O<sub>4</sub> Shell/Core Magnetic Nanoparticles for Analytical Application (trends in peptide and protein sciences-2016)

- Enhanced Production of Insulin-Like Growth Factor I Protein in *Escherichia coli* by optimization of five key factors. (Iranian Journal of Pharmaceutical Sciences, 2014)
- Effect of Chitosan on production of Insulin- Like growth factor-I protein in *Escherichia coli*(International Journal of Biosciences, 2015)
- Effects of *Curcuma longa* Extract on Telomerase Activity in Lung and Breast Cancer Cells (Zahedan Journal of Research in Medical Sciences vol(16), 2014)
- Lectin coated MgO nanoparticle: its toxicity, anti Leishmanial activity and macrophage activation. (Drug and Chemical Toxicology, 2013)
- The inhibitory effect of *Curcuma Longa* on telomerase activity in A549 cell line (African journal of biotechnology vol (23), 1 December, 2010)
- Incidence of Human T-Lymphotropic Virus Type 1(HTLV-1) among blood donors from Ilam, Iran (Iranian journal of virology 2008)
- Study role of age in contact dependent transmission of *Mycobacterium Tuberculosis* in northwest of Iran by IS6110-RFLP method (Modares Journal of Medical Sciences (Pathobiology) 2009)

## Congress

- Effect of homoserine lactone on production of recombinant insulin-like growth factor I protein in *Escherichia coli* (6th International Conference on Biotechnology and Bioengineering ICABBE & 6th ICBB, September 26-28, 2017 Offenbug, Germany)
- In vitro cytotoxic effect of *Curcuma Longa* n-hexane extract on None-Small Cell of Lung Cancer (6<sup>th</sup> National Biotechnology Congress of Iran 13-15 Aug, 2009)
- Determination of IC50 of *Curcuma Longa* total extract in epithelial like cell line of breast cancer T47D (Iranian congress of biochemistry and molecular biology, November 2009)

- Tuberculosis transmission in different age group in northwest of Iran by RFLP-PCR (2<sup>nd</sup> Iranian Congress of Clinical Microbiology 7-9 October 2008)
- Correlation between Mannose Binding Lectin gene variants and Host-Pathogen interactions by SSP-PCR (2<sup>nd</sup> Iranian Congress of Clinical Microbiology 7-9 October 2008)
- Estimation of the residual risk for the transmission of HIV from blood donors in the Ilam (2<sup>nd</sup>, laboratory & medicine congress)
- Correlation between serological level of zinc and copper with telomerase expression in patient with lung cancer by TRAP assay method. (6<sup>th</sup> Iranian congress of biotechnology)

## **Research Projects**

- Production and purification of recombinant human Bone Morphogenetic Protein 2.  
*School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*
- Enhanced Production of Insulin-Like Growth Factor I Protein in Escherichia coli by optimization of key factors.  
*School of Pharmacy, Shahid Beheshti University of Medical Sciences Tehran, Iran*
- Effect of Chitosan on production of Insulin- Like growth factor-I protein in Escherichia coli.  
*School of Pharmacy, Shahid Beheshti University of Medical Sciences Tehran, Iran*

- Effect of hemoserinlacton on production of Insulin- Like growth factor-I protein in *Escherichia coli*.

*School of Pharmacy, Shahid Beheshti University of Medical Sciences Tehran, Iran*

- Enhanced production of recombinant GM-CSF on CHO cell by optimization of four key factors in serum free culture medium.

*School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

Enhanced production of recombinant human Albumin in *E. coli* fed-batch culture by antisense acetate gene knockdown.

*School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

- Effect of poly acrylate hydrogel conjugated with cobalt ferrite magnetic nanoparticle on dental pulp stem cell differentiation and migration.

*School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

- Optimization of topography and surface properties of PAN-clay scaffold via nonoclay concentrations and investigation of its effects on bone differentiation of human mesenchymal stem cells.

*School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

- Construction and design of a bioactive nano-composite hydrogel scaffold as a threedimensional medium to optimize the differentiation of mesenchymal stem cells to bone-like cells.

*School of Advanced Technologies in Medicine, Shahid Beheshti University of Medical Sciences, Tehran, Iran*

- The inhibitory effect of Curcuma Longa total extract on telomerase activity in T47D and MCF7 cell lines.

*Drug Applied Research Center, Tabriz University of Medical Sciences Tabriz, Iran*

## **Books**

- Application of Recombinant DNA Technology in DNA Vaccine Synthesis (compilation, in Persian)
- Application of Bacteriophages In Biological Sciences (compilation, in Persian)

## **SEMINARS IN DEPARTMEN**

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- Micro bioreactors (as presenter)
- DNA vaccine (as presenter)
- Experimental design methodology (as presenter)
- Recombinant protein production strategies (as presenter)

## **WORKSHOPS**

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- SPSS
- R
- Microarray data analysis
- Lab biosafety
- Bioinformatics databases
- Peptide synthesis
- Experimental design
- Taghuchi methodology
- Cell culture
- HLA typing by PCR method
- Diagnosis of infectious disease by FLASH method
- End Note
- Reference manager
- Research methodology
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## پایان نامه ها

- ۱- بررسی اثر هموسرین لاکتون بر میزان بیان فاکتور رشد شبه انسولینی ۱ نو ترکیب انسانی در باکتر اشرشیا کلی (شمیلا علیخانی- اتمام یافته)
- ۲- بهینه سازی توپوگرافی و بار سطحی داربست PAN-clay با تغییر غلظت nanoclay و سنجش اثر آن بر تمایز استخوانی سلول های بنیادی مزانشیم انسانی(سیده فاطمه طباطبایی)
- ۳- طراحی سامانه کنترل ریلیز برای خوراک دهی بهینه و تنظیم PH در سیستم های تولیدی باکتریایی(سعیده عابدین)
- ۴- بررسی اثر داربست هیدروژلی پلی آکریلات کاندوگه شده با نانوذرات مغناطیسی کبالت فریت بر تمایز استخوانی سلولهای بنیادی جدا شده از پالپ دندانهای دائمی انسانی در شرایط برون تنی و درون تنی (سینا فرزانه)
- ۵- بررسی تاثیر پروتئین تیوردوکسین بر تبدیل فرم غیر محلول پروتئین نو ترکیب شبه انسولینی ۱ انسانی(IGF-1) به فرم محلول در باکتری E.coli (سارا همتی)
- ۶- ساخت و بررسی کمپلکس ژن Van A و حامل دندریمریر مقاومت انتروکوک فاسیوم به ونکومایسین با استفاده از آنتی سنس تراپی (فاطمه صادقی)
- ۷- طراحی و ساخت داربست هیدروژلی نانو کامپوزیتی زیست فعال به منظور بهینه سازی تمایز سلولهای بنیادی مزانشیمی در محیط کشت سه بعدی به سلول های شبه استخوانی(سیده مریم خرمگاه)
- ۸- ایجاد میزبان بهینه شده CHO از طریق دست ورزی ژن SIRT-6(نادر هاشمی)
- ۹- تعیین میزان تمایز استخوانی سلولهای بنیادی جدا شده از پالپ دندانهای دائمی انسانی کشت داده شده بروی داربست الکتروریسی شده اکسیژن رسان (رضا سامانی پور)

## INTERESTS

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- *Therapeutic Protein and peptide engineering*
- *Metabolic engineering*
- *Recombinant protein production*
- *Optimization of fermentation process*
- *Probiotic production*



- *Tissue engineering*

## **LABORATORY SKILLS**

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- *PCR*
- *DNA extraction*
- *MTT assay*
- *Cell apoptosis assay*
- *Western blotting*
- *Gene cloning*
- *Optimization of recombinant protein production process*
- *Construct design*
- *RFLP*
- *Gel electrophoresis, SDS – PAGE*
- *Fermenter setup*
- *Animal and bacterial cell culture*