

## Curriculum Vitae

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### Kaveh Baghaei

Cell & Molecular Biology, Ph.D.

Emails: [kavehbaghai@gmail.com](mailto:kavehbaghai@gmail.com)

### Bibliography:

[https://scholar.google.com/citations?hl=en&user=MsfBU1UAAAAJ&view\\_op=list\\_works&sortby=pubdat](https://scholar.google.com/citations?hl=en&user=MsfBU1UAAAAJ&view_op=list_works&sortby=pubdat)

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### EDUCATION

Ruhr Bochum University, Bochum, Germany.

PhD/Post-Doctoral Research fellow, Cellular Physiology, 2009-2014.

Dissertation: "Large scale analysis of olfactory receptors with highly genetically variations in relation with specific anosmia".

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### PROFESSIONAL EXPERIENCE

- **Assistant Prof/Lab head (December 2017–Till date):** Applied Cell Biology Department, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
  - **Project Scientist (February 2014–Till date):** Applied Cell Biology Department, Research Institute for Gastroenterology and Liver Diseases, Shahid Beheshti University of Medical Sciences, Tehran, Iran.
  - **Postdoctoral Research fellow (2013- 2014):** Ruhr Bochum University, Bochum/ Germany
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### RESEARCH INTERESTS

- Targeted therapies Based on Exosomes, EVs & Nano Particles
  - Stem Cell & Cancer Immune Cell Therapies (*Mesenchymal stem cell, Dendritic Cell, NK, Treg & CTL*)
  - Molecular Based therapies and Signaling Pathways (miRNA, siRNA, Check Point Inhibitors)
  - Metabolite Disorders (T2DM & NAFLD)
  - Drug Re-Purposing
  - Peptides for Cancer Vaccinations
  - Molecular System Biology in Term of Precision Medicine
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### Honors and Awards

2020	Granted two research funds from National science foundation
2018	Granted EU Patent, Assigned by Symrise AG Company, Germany
2016	Nominated as Superior academic knowledge and granted Membership of Exceptional Talent Development Center of Iran. Since 2016.
2016	The Annual ISCA Outstanding Research and Award for outstanding and professional contribution to the field of Cancer Stem cells
2016, 2018	3 abstracts selected as top articles in international conferences.
2012	Research school Scholarship by Ruhr-Bochum University/Germany
2011	Teaching Assistantship Scholarship by German Academic Exchange Service(DAAD)

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## RESEARCH PUBLICATIONS

International Journal Articles (ISI, PubMed, Scopus)	90
Total citation	1520
H-index (google scholar)	20
H-index (Scopus)	18
EU/US Granted Patent	1
Books	2
Invited Speaker	12
International Conferences	23
Best Abstracts Awards	4

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## SELECTED PUBLICATIONS (2020-2023)

Amir Hossein Mohammadi, Fatemeh Bagheri, Zeinab Ghazvinian, Masako Harada, **Kaveh Baghaei**. **Modification of Extracellular Vesicles Surface: An Approach for Targeted Drug Delivery.** Bio Drugs. (IF:7.74). 2023. (Corresponding Author).

Bahare Niknam, **Kaveh Baghaei**, Seyed Mahmoud Hashemi, Behzad Hatami, Mohammad Reza Zali, Davar Amani. **Human Wharton's jelly mesenchymal stem cells derived-exosomes enriched by miR-124 promote an anti-fibrotic response in an experimental model of liver fibrosis.** International immunopharmacology (IF:5.7). 2023. (Corresponding Author).

Shahin Bolori, Saina Shegefti, **Kaveh Baghaei**, Abbas Yadegar, Kyung-Mee Moon, Leonard J Foster, Mohammad Javad Nasiri, Hossein Dabiri. **The Effects of Helicobacter pylori-Derived Outer Membrane Vesicles on Hepatic Stellate Cell Activation and Liver Fibrosis In Vitro.** BioMed Research International (IF:3.2). 2023.

Zeinab Ghazvinian, Shahrokh Abdolahi, Samaneh Tokhanbigli, Shadi Tarzamani, Andrea Piccin, Mohammad Reza Zali, Javad Verdi, **Kaveh Baghaei**. **Contribution of Natural Killer Cells in Innate Immunity Against Colorectal cancer.** Frontiers Oncology (IF:6.1). 2023. (Corresponding Author).

Shahrzad Rahimi, Seyyed Abdolhamid Angaji, Ahmad Majd, Behzad Hatami, Kaveh Baghaei. **Evaluating the effect of basic fibroblast growth factor on the progression of NASH disease by inhibiting ceramide synthesis and ER stress-related pathways.** European Journal of Pharmacology (IF:5.1). 2023. (Corresponding Author).

Sara Molaaghaee-Rouzbahani, Nastaran Asri, Anna Sapone, Kaveh Baghaei, Abbas Yadegar, Davar Amani, Mohammad Rostami-Nejad. **Akkermansia muciniphila exerts immunomodulatory and anti-inflammatory effects on gliadin-stimulated THP-1 derived macrophages.** Scientific Reports. (IF:4.9). 2023.

Tahereh Tajik, **Kaveh Baghaei**, Naser Farokhi, Vahid Erfani Moghadam, Seyed Alireza Salami. **Extracellular vesicles of cannabis with high CBD content induce anticancer signaling in human hepatocellular carcinoma.** Biomedicine & Pharmacotherapy (IF:6.7). 2022. (Corresponding Author).

Ali Malmir, Shirin Farivar, Behzad Hatami, **Kaveh Baghaei**. **The effect of mesenchymal stem cells and imatinib on macrophage polarization in rat model of liver fibrosis.** Cell Biology International (IF:4.5). 2022. (Corresponding Author).

Neda Heidari, Hajar Abbasi-Kenarsari, Saeed Namaki, **Kaveh Baghaei**, Mohammad Reza Zali, Zahra Mirsanei, Seyed Mahmoud Hashemi. **Regulation of the Th17/Treg balance by human umbilical cord mesenchymal stem cell-derived exosomes protects against acute experimental colitis.** Experimental Cell Research (IF:4.1). 2022.

Shahrokh Abdolahi, Zeinab Ghazvinian, Samad Muhammadnejad, Mahshid Saleh, Hamid Asadzadeh Aghdaei, **Kaveh Baghaei**. **Patient-derived xenograft (PDX) models, applications and challenges in cancer research.** Journal of Translational Medicine (IF: 8.5). 2022. (Corresponding Author).

Mahsa Hajivalili, Kaveh Baghaei, Nariman Mosaffa, Bahare Niknam, Davar Amani. **Engineering tumor-derived small extra cellular vesicles to encapsulate miR-34a, effectively inhibits 4T1 cell proliferation, migration, and gene expression.** Medical Oncology (IF: 3.7). 2022.

**Kaveh Baghaei**, Sogol Mazhari, Samaneh Tokhanbigli, Gilda Parsamanesh, Helia Alavifard, Dedmer Schaafsma, Saeid Ghavami. **Therapeutic potential of targeting regulatory mechanisms of hepatic stellate cell activation in liver fibrosis.** Drug discovery today (IF:7.5). 2022. (First Author).

Mohsen Rastegari-Pouyani, Hamid-Reza Mohammadi-Motlagh, Kaveh Baghaei, Kamran Mansouri, Mahsa Hajivalili, Ali Mostafaie, Davar Amani. **2-methylpyridine-1-ium-1-sulfonate modifies tumor-derived exosome mediated macrophage polarization: Relevance to the tumor microenvironment.** International immunopharmacology (IF: 4.6). 2022.

Shahrokh Abdolahi, Zeinab Ghazvinian, Samad Muhammadnejad, Mohammad Ahmadvand, Hamid Asadzadeh Aghdaei, Somayeh Ebrahimi-Barough, Jafar Ai, Mohammad Reza Zali, Javad Verdi, **Kaveh Baghaei. Adoptive NK cell therapy modulated by Anti-PD-1 antibody in gastric cancer model.** Frontiers Pharmacology (IF: 5.9). 2022. (Corresponding Author).

Ali Asadirad, **Kaveh Baghaei**, Seyed Mahmoud Hashemi, Sajad Dehnavi, Hossein Ghanbarian, Esmaeil Mortaz, Ali Anissian, Hamid Asadzadeh Aghdaei, Davar Amani. **Dendritic cell immunotherapy with miR-155 enriched tumor-derived exosome suppressed cancer growth and induced antitumor immune responses in murine model of colorectal cancer.** International immunopharmacology (IF: 4.6). 2022.

Ramazan Rezaei, **Kaveh Baghaei**, Seyed Mahmoud Hashemi, Mohammad Reza Zali, Hossein Ghanbarian, Davar Amani. **Tumor-Derived Exosomes Enriched by miRNA-124 Promote Anti-tumor Immune Response in CT-26 Tumor-Bearing Mice.** Frontiers in Medicine (IF: 5.09). 2021. (Corresponding Author).

Samaneh Tokhanbigli, Gilda Parsamanesh, **Kaveh Baghaei**, Fatemeh Yarian, Ali Asadirad, Seyed Mahmoud Hashemi, Bahareh Mohebbi, Hamid Asadzadeh Aghdaei, Mohammad Reza Zali. **antigenic Potency of LY6E in Stimulating Dendritic Cells to Elicit Tumor-Specific Responses Against Human Colorectal and Gastric Cancer Cell Lines.** International Journal of Peptide Research and Therapeutic. 2021. (Corresponding Author).

Ramazan Rezaei, **Kaveh Baghaei**, Davar Amani, Andrea Piccin, Seyed Mahmoud Hashemi, Hamid Asadzadeh Aghdaei, Mohammadreza Zali. **Exosome-mediated delivery of functionally active miRNA-375-3p mimic regulate epithelial mesenchymal transition (EMT) of colon cancer cells.** Life Sciences (IF:5). 2021. (Corresponding Author).

Leila Gholami, Gilda Parsamanesh, Shiva Shahabi, Marzieh Jazaeri, **Kaveh Baghaei**, Reza Fekrazad. **The Effect of Laser Photobiomodulation on Periodontal Ligament Stem Cells.** Photochemistry and Photobiology (IF: 3.5). 2021. (Corresponding Author).

Neda Heidari, Hajar Abbasi-Kenarsari, Saeed Namaki, **Kaveh Baghaei**, Mohammad Reza Zali, Sahar Ghaffari Khaligh, Seyed Mahmoud Hashemi. **Adipose-derived mesenchymal stem cell-secreted exosome alleviates dextran sulfate sodium-induced acute colitis by Treg cell induction and inflammatory cytokine reduction.** Journal of cellular physiology (IF: 6.5). 2021.

Sogol Mazhari, Atoosa Gitiara, **Kaveh Baghaei**, Behzad Hatami, Rozbeh Eslami Rad, Ali Asadirad, Khojasteh Joharchi, Samaneh Tokhanbigli, Seyed Mahmoud Hashemi, Marek J Los, Hamid Asadzadeh Aghdaei, Mohammad Reza Zali, Saeid Ghavami. **Therapeutic Potential of Bone Marrow-Derived Mesenchymal Stem Cells and Imatinib in a Rat Model of Liver Fibrosis.** European journal of pharmacology (IF:4.4). 2020. (Corresponding Author).

Maryam Moghadam, Samaneh Tokhanbigli, **Kaveh Baghaei**, Shirin Farivar, Hamid Asadzadeh Aghdaei, Mohammad Reza Zali. **Gene expression profile of immunoregulatory cytokines secreted from bone marrow and adipose derived human mesenchymal stem cells in early and late passages.** Molecular Biology Reports (IF: 2.5). 2020. (Corresponding Author).

Samaneh Tokhanbigli, Ali Asadirad, **Kaveh Baghaei**, Andrea Piccin, Fatemeh Yarian, Gilda Parsamanesh, Seyed Mahmoud Hashemi, Hamid Asadzadeh Aghdaei, Mohammad Reza Zali. **Dendritic Cell-based therapy using LY6E peptide with a putative role against Colorectal Cancer.** Immunotargets and therapy. 2020. (Corresponding Author).

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## EU/US GRANTED PATENT

European Patent Office- EP 22884280 B1 - EPO

Application number: 13197310.9

Title: Method for evaluating the scent performance of perfumes and perfume mixtures

Inventors: Hatt, Hanns 44789 Bochum (DE) • Gisselmann, Günter 58456 Witten (DE) • **Baghaei, Kaveh** 44801 Bochum (DE) • Panten, Johannes 37671 Hörter (DE)

Assignee: Symrise AG Company

## BOOKS (Compilation)

- 1- Deorphanization of human olfactory receptors by luciferase and Ca-imaging methods. **Baghaei K. Methods Mol Biol- Springer. 2013; 1003:229-38.**
- 2- Next Generation Sequencing, Technology for the genetic secrets advances, applications and statistics. **Baghaei K. Shahid Beheshti Medical University. 2017.**

## Invited speaker

- 1- 1th Congress on Innovations in the Convergence of Basic & Medical Sciences. Exosomes in GI disorders, **March 2023**
- 2- 4th International Cancer Symposium Bench to Bedside, Cancer Targeted Therapy by EVs, **Royan. Jan 2023**
- 3- 33rd International Congress of Pediatrics. Liver fibrosis and novel therapeutic approaches, **Nov 2021**
- 4- **International webinars**, Stem cell & regenerative, Cells & Beyond, **September 2020**
- 5- . 1st congress of basic sciences in inherited pediatric disorders. Cell therapy based therapeutic approach in Liver diseases **Nov 2019**
- 6- Symposium of Stem cells and cancers. Cancer Stem Cells and EMT, **April 2019**
- 7- Cell therapy, Modern Medical puls. Alzahra University Exosome as a novel cell free therapeutic tools, **Feb 2019**
- 8- The 3rd national festival and international congress on stem cell and regenerative medicine Pyrosequencing principles and applications, **Nov 2018**
- 9- Convention of stem cell sciences ambassadors. Immune cell therapy on gastrointestinal diseases, **Sep 2018**
- 10- 2nd Symposium of stem cells and regenerative medicine in gastrointestinal, pancreatic and liver diseases. Cell free therapeutic approach in Liver fibrosis **Jun 2018**
- 11- The 2nd International Personalized Medicine Congress, With Cancer Main Topics. Identification of expressional signature of Iranian Gastric cancer patients by next generation sequencing, **January 2018**