

Curriculum Vitae



Name: Reza

Family Name: Zolfaghari Emameh

Birth date, city, country: March 22, 1975; Tehran; Iran

Marital status: married with two children (a girl: 12 and a boy: <2 years-old)

Address: No. 3, West 198 st, Shahid Qazzaghi st, Tehranpars,
Tehran, Iran

Postal code: 1686935714

E-mails: reza.zolfam@gmail.com

Cell phone: +98-9122033774

Home phone: +98-21-77889360

Educations:

- **Ph.D. of Medical Technology and Biotechnology**, BioMediTech (Faculty of Medicine and Health Technology), Tampere University, FINLAND (December 13, 2016).

Title of Ph.D. thesis: β -carbonic anhydrases: novel targets for diagnosis and treatment of parasitic infections.

Supervisors: Prof. Markku Kulomaa and Prof. Seppo Parkkila

Opponent: Prof. Jan Andersson, Uppsala University, Sweden

Ph.D. follow-up group: Prof. Vesa P. Hytönen and Prof. Marko Pesu, BioMediTech (Faculty of Medicine and Health Technology), Tampere University, FINLAND

- **M.Sc. of virology**, Tarbiat Modares University (TMU), Tehran, Iran (January 29, 2001).

Title of M.Sc. Thesis: Evaluation of transfection efficiency by dendrosome nanoparticles method in umbilical vein endothelial cell (HUVEC) and human hepatoma-7 (Huh-7) and its comparison with calcium phosphate method.

Supervisors: Prof. Majid Sadeghizadeh (Tarbiat Modarres University) and Prof. Hoorieh

Soleimanjahi (Tarbiat Modarres University).

Advisor: Prof. Mohammad-Nabi Sarbolouki

Language proficiency:

Language	Writing	Speaking	Listening	Reading
English	Fluent	Fluent	Fluent	Fluent
Persian	Fluent (Mother tongue)	Fluent (Mother tongue)	Fluent (Mother tongue)	Fluent (Mother tongue)
Spanish	Basic	Basic	Basic	Basic
Arabic	Basic	Basic	Basic	Fluent
Finnish	Basic	Basic	Basic	Basic

Working experiences:

- Director of Scientific International Cooperation Center, National Institute of Genetic Engineering and Biotechnology (NIGEB, Tehran, Iran) (Feb 20, 2022 – Present).
- ICGEB (Trieste, Italy) Liaison Officer in Iran (NIGEB, Tehran, Iran) (Feb 20, 2022 – Present).
- Director of Bioethics & Biosafety Regional Center (NIGEB, Tehran, Iran) (May 20, 2022 – Present).
- Assistant Professor, NIGEB, Department of Energy and Environmental

Biotechnology, Tehran, Iran (November 6, 2018 – Present).

- PhD student with monthly salary, Tampere University, BioMediTech (Faculty of Medicine and Health Technology), Tampere, Finland (Jan 2013 – Dec 2016; About 3 years with tax payment and coverage by social security).
- Head of Semi-Purification in production of recombinant hepatitis B vaccine, Pasteur Institute of Iran (PII), Tehran, Iran (Oct 2004 – Oct 2012).
- Lab technician, Dr. Taghavi Medical Diagnostic Lab, Tehran, Iran (Dec 2001 – Oct 2004).
- Lab technician during military service period, Vali-e-Asr Clinic, Medical Diagnostic Lab, Tehran, Iran (Oct 2001 – May 2003).

Training:

- Familiar to national biosafety protocol and Cartagena biosafety protocol
- Familiar to applications of bioethics and ethics in research
- Familiar to green management in urbans, organizations, buildings, and academic centers
- Six months training, Downstream 1 for Hepatitis (semi-purification for production of recombinant hepatitis B vaccine), Centro de Ingeniería Genética y Biotecnología (CIGB), Havana, CUBA (Dec 2004 – June 2005).
- GMP courses in production of sterile products, Centro de Ingeniería Genética y Biotecnología (CIGB), Havana, CUBA (2005 and 2007). GMP includes: quality assurance (QA), validation, documentation, SOP writing, auditory, and production of sterile products in the clean rooms.
- Validation courses, World Health Organization (WHO) office, Tehran, Iran, 2007.
- Familiar to vaccine production methods such as fermentation, roller vessel cell culture, centrifugation, cell disruption, acid precipitation, semi-purification, and final purification until production of active pharmaceutical ingredient (API).
- Familiar to experimental laboratory techniques including: molecular biology, microbiological assays, immunoassays (ELISA), biochemical assays, cell culture, and OMICS (genomics, proteomics, metabolomics).

- Familiar to *in silico* methods including: bioinformatics, computational biology, systems biology, structural biology, DNA and protein sequences analysis, and big data mining.

Teaching:

- “Environmental Biotechnology”, 2 ECTs (Since 2017)
- “Bioinformatics”, 1 ECT (Since 2018)
- “Seminar”, 1 ECT (Since 2018)

Supervision:

Three M.Sc. students:

- 1- *MSc. Farzaneh Shalileh*, Study of beta and zeta carbonic anhydrases from environmental eukaryotic and prokaryotic microorganisms based on their evolutionary relationship and cellular localization, September 19, 2021.
 - 2- *MSc. Mohammad Sadegh Gheibzadeh*, Evolutionary study of alpha, beta, and gamma carbonic anhydrases from microbiome of marine hydrothermal vents, September 19, 2021.
 - 3- *MSc. Forough Basari Attar*, Investigation on some genetic and biochemical characteristics of an indigenous *Bacillus cereus* and comparison with *Bacillus licheniformis* ATCC 14580 in direction to the Bacillus strain development, May 18, 2021.
- **One Ph.D. student :**
Rezavan Abtahi Nasiri, (Not defended yet).

Awards:

- Two 3-years grants were awarded by the ministry of science, research, and technology (MSRT) of Iran for two collaborative projects with South African Universities starting from 01.01.2018:

- 1- **First project:** Evolutionary relationship of CO₂-hydrating enzymes, carbonic anhydrases, between thermophilic microbiome of marine hydrothermal vents and other sub-marine symbiont organisms, collaborator: *Dr. Ozlem Tastan Bishop*, Rhodes University, South Africa.
- 2- **Second project:** Identification, production, and characterization of ζ -carbonic anhydrases from marine organisms for enzymatic bioremediation of cadmium-contaminated water resources. Collaborator: *Dr. Susanne Fietz*, Stellenbosch University, South Africa.
- Awarded by the minister of health and medical education of Iran for active role in production of recombinant biopharmaceuticals (March, 2005).
- The top graduated student in M.Sc. degree in virology with average grade of 18.72/20.00 from Tarbiat Modares University (Academic year 2000 – 2001).
- 2nd position in biotechnology prize through collaboration with Prof. Mohammad-Nabi Sarbolouki, Title: "***Application of dendrosomes in gene therapy***", First national biotechnology congress, Tarbiat Modares University (TMU) (February 2000).

Current Projects:

- Application of CAs as biomarkers in identification of microbial contamination of water (March 2022 – Present).
- Application of CA for Balancing the Carbon Dioxide (CO₂) Concentration in Soil (International Collaboration with China, Under primary evaluation).

Editorial Board of Journals:

- Executive manager of the Iranian Journal of Biotechnology (IJB) (<http://www.ijbiotech.com/>), Impact Factor: 1.67 (June 2019 – June 2021).gas

Reviewer:

Reviewer of:

- Journals from Springer-Nature, Elsevier, Taylor & Francis, and Dove Press.
- Iranian Journal of Biotechnology (IJB)
- Applied Food Biotechnology (AFB)
- Three research, development, and technology projects at the National Institute of Genetic Engineering and Biotechnology (NIGEB), Tehran, Iran (2020-2021).
- 4th international student biotechnology congress, University of Tehran, Iran (February 2019).
- Bioinformatics in 3rd international biotechnology congress of Iran (February 2019).
- Microbial biotechnology in 4th international biotechnology congress of Iran (August 2021).

Research Interests:

- Bioinformatics, computational biology, systems biology, molecular biology, and OMICs (genomics, proteomics, and transcriptomics) studies of carbonic anhydrase (CA) enzyme families from prokaryotes and eukaryotes.
- Inhibition studies of CAs from bacterial, fungal, and parasitic species as novel targets by CA inhibitors as new generation of anti-infective agents.
- Sequestration of air and soil CO₂ using CAs.

Conferences:

- 1- **Reza Zolfaghari Emameh**, The targeting of beta carbonic anhydrase from *Ascaris lumbricoides* for treatment of ascariasis. 15th International Conference of the Lithuanian Biochemical Society, Dubingiai, Lithuania (June 26 – 29, 2018).
- 2- **Reza Zolfaghari Emameh**, Role of mobile genetic elements in horizontal transfer of beta carbonic anhydrase genes from prokaryotic endosymbionts to protozoan hosts. 12th European Multicolloquium of Parasitology, Turku, Finland (July 20 – 24, 2016).

- 3- **Reza Zolfaghari Emameh**, 10th International Conference on Carbonic Anhydrases, Maastricht, the Netherlands (April 20 – 22, 2015).
- 4- **Reza Zolfaghari Emameh**, 4th Zing Drug Discovery Conference, Parador de Nerja, Spain (February 17 – 20, 2014).
- 5- **Reza Zolfaghari Emameh**, 1st International Congress on Health Genomics and Biotechnology, Pasteur Institute of Iran, Tehran, Iran (November 24 – 26, 2007).
- 6- **Reza Zolfaghari Emameh**, 3rd Iranian Conference of Novel Drug Delivery Systems, Tehran University of Medical Sciences, Tehran, Iran (June 20 – 21, 2007).
- 7- **Reza Zolfaghari Emameh**, Application of various filtration methods. 10th Iranian Pharmaceutical Sciences Conference (IPSC), Shahid Beheshti University of Medical Sciences, Tehran, Iran, 2006.
- 8- **Reza Zolfaghari Emameh**, Comparison of different cell disruption methods. 10th Iranian Pharmaceutical Sciences Conference (IPSC), Shahid Beheshti University of Medical Sciences, Tehran, Iran, 2006.
- 9- **Reza Zolfaghari Emameh**, Dendrosomes as novel gene porters-II. New Approaches in Molecular Biotechnology for Biomedicine. Vienna, Austria (22-25 November, 2003).
- 10- **Reza Zolfaghari Emameh**, *In vitro* DNA transfer into mammalian cells by dendrosomes. 1st Iranian Biochemistry and Biophysics Conference, University of Tehran, Tehran, Iran, 2000.

List of Carbonic Anhydrase (CA) Publications

- Including 17 CA publications:

<https://pubmed.ncbi.nlm.nih.gov/?term=reza+zolfaghari+emameh+carbonic+anhydrase&sort=date>

List of All Publications:

- 1- Seyed-Khorrami SM, Soleimanjahi H, Łos MJ, Zandi K, **Emameh RZ**. Oncolytic viruses as emerging therapy against cancers including Oncovirus-induced cancers. Eur J Pharmacol. 2022 Nov 23;175393. doi: 10.1016/j.ejphar.2022.175393.
- 2- Wang Z, Zhao Y, Wu Z, Zhang J, Zhang B, Wang H, **Reza ZE**, Shi J. Hierarchically Structured CA@ZIF-8 Biohybrids for Carbon Dioxide Mineralization. Appl Biochem Biotechnol. 2022 Nov 23. doi: 10.1007/s12010-022-04250-7.
- 3- **Zolfaghari Emameh R**, Barker HR, Turpeinen H, Parkkila S, Hytönen VP. A reverse vaccinology approach on transmembrane carbonic anhydrases from Plasmodium species as vaccine candidates for malaria prevention. Malar J. 2022 Jun 15;21(1):189. doi: 10.1186/s12936-022-04186-7.
- 4- Urbański LJ, Bua S, Angeli A, **Emameh RZ**, Barker HR, Kuuslahti M, Hytönen VP, Parkkila S, Supuran CT. The production and biochemical characterization of α -carbonic anhydrase from Lactobacillus rhamnosus GG. Appl Microbiol Biotechnol. 2022 Jun;106(11):4065-4074. doi: 10.1007/s00253-022-11990-3.
- 5- Abtahi R, Karimzadeh P, Aryani O, Akbarzadeh D, Salehpour S, Rezayi A, Tonekaboni SH, **Emameh RZ**, Houshmand M. Identification of novel mutations among Iranian NPC1 patients: a bioinformatics approach to predict pathogenic mutations. Hereditas. 2022 Jan 27;159(1):8. doi: 10.1186/s41065-022-00224-1.
- 6- Soosaraei M, Hezarjaribi HZ, Fakhar M, Akhtari J, **Emameh RZ**. An overview on liposomal delivery and adjuvant development for leishmaniasis vaccines. Ann Parasitol. 2021;67(3):367-386. doi: 10.17420/ap6703.352.
- 7- Taheri RA, Bahramifar A, Jaafari MR, Fasihi-Ramandi M, **Emameh RZ**, Mohammadian Haftcheshmeh S, Ebrahimi Nik M. Designing new nanoliposomal formulations and evaluating their effects on myeloid-derived suppressor cells and regulatory T cells in a colon cancer model aiming to develop an efficient delivery system for cancer treatment; an in vitro and in vivo study. Biotechnol Appl Biochem. 2021 Oct 26. doi: 10.1002/bab.2275.
- 8- Abtahi R, Karimzadeh P, Rezayi A, Salehpour S, Akbarzadeh D, Tonekaboni SH,

- Emameh RZ**, Houshmand M. Analysis of the HEXA, HEXB, ARSA, and SMPD1 Genes in 68 Iranian Patients. *J Mol Neurosci.* 2022 Mar;72(3):555-564. doi: 10.1007/s12031-021-01907-6.
- 9- Hajipour H, Nouri M, Ghorbani M, Bahramifar A, **Emameh RZ**, Taheri RA. Targeted nanostructured lipid carrier containing galangin as a promising adjuvant for improving cytotoxic effects of chemotherapeutic agents. *Naunyn Schmiedebergs Arch Pharmacol.* 2021 Sep 15. doi: 10.1007/s00210-021-02152-9. (IF: 3.0, <https://pubmed.ncbi.nlm.nih.gov/34522984/>).
- 10- Behranvand N, Nasri F, **Zolfaghari Emameh R**, Khani P, Hosseini A, Garssen J, Falak R. Chemotherapy: a double-edged sword in cancer treatment. *Cancer Immunol Immunother. Cancer Immunol Immunother.* 2021 Aug 5. doi: 10.1007/s00262-021-03013-3. (IF: 6.9, <https://pubmed.ncbi.nlm.nih.gov/34355266/>).
- 11- Khanmohammadi M, **Zolfaghari Emameh R**, Arshadi M, Razmjou E, Karimi P. Molecular Identification and Genotyping of *Babesia canis* in Dogs from Meshkin Shahr County, Northwestern Iran. *J Arthropod Borne Dis.* 2021 Mar 31;15(1):97-107.
- doi: 10.18502/jad.v15i1.6489. (IF: 0.875, <https://pubmed.ncbi.nlm.nih.gov/34277859/>).
- 12- **Zolfaghari Emameh R**, Hosseini SN, Parkkila S. Application of beta and gamma carbonic anhydrase sequences as tools for identification of bacterial contamination in the whole genome sequence of inbred Wuzhishan minipig (*Sus scrofa*) annotated in databases. *DATABASE (Oxford)*. 2021 May 18;2021:baab029 (IF: 3.4, <https://pubmed.ncbi.nlm.nih.gov/34003248/>).
- 13- Mirtaleb MS, Mirtaleb AH, Nosrati H, Heshmatnia J, Falak R, **Zolfaghari Emameh R**. Potential therapeutic agents to COVID-19: An update review on antiviral therapy, immunotherapy, and cell therapy. *Biomed Pharmacother.* 2021 Mar 16;138:111518.

- doi: 10.1016/j.biopha.2021.111518. (IF: 6.5, <https://pubmed.ncbi.nlm.nih.gov/33774315/>).
- 14- Nosrati H, Sarraf-Mamoory R, Canillas Perez M, Svend Le DQ, Zolfaghari Emameh R, Bünger CE. Characteristics of hydroxyapatite-reduced graphene oxide composite powders synthesized via hydrothermal method in the absence and presence of diethylene glycol. Open Ceramics. 2021;5:100067. DOI: <https://doi.org/10.1016/j.oceram.2021.100067>. (IF: under estimation, <https://www.sciencedirect.com/science/article/pii/S2666539521000134>).
- 15- **Zolfaghari Emameh R**, Kazokaité J, Yakhchali B. Bioinformatics analysis of extracellular subtilisin E from *Bacillus subtilis*. J Biomol Struct Dyn. 2021 Mar 4;1-8. doi: 10.1080/07391102.2021.1894979. (IF: under estimation, <https://pubmed.ncbi.nlm.nih.gov/33663355/>).
- 16- Nosrati H, Sarraf-Mamoory R, **Zolfaghari Emameh R**, Aidun A, Canillas Perez M. Enhancing mechanical properties of hydroxyapatite-reduced graphene oxide nanocomposites by increasing the spark plasma sintering temperature. Inorg. Nano-Met. Chem. Inorg Nano-Met. Chem. 2021;51(11). DOI: <https://doi.org/10.1080/24701556.2020.1852251>. (IF: 1.716, <https://www.tandfonline.com/doi/citedby/10.1080/24701556.2020.1852251?scroll=top&needAccess=true>).
- 17- **Zolfaghari Emameh R**, Eftekhari M, Nosrati H, Heshmatnia J, Falak R. Identification and characterization of a silent mutation in RNA binding domain of N protein coding gene from SARS-CoV-2. BMC Res Notes. 2021 Jan 6;14(1):10. (IF: under estimation, <https://pubmed.ncbi.nlm.nih.gov/33407800/>).
- 18- Nosrati H, Sarraf-Mamoory R, Kazemi MH, Canillas Perez M, Shokrollahi M, **Zolfaghari Emameh R**, Falak R. Characterization of hydroxyapatite-reduced graphene oxide nanocomposites consolidated via high frequency induction heat sintering method. J Asian Ceram Soc. 2020;8(4). DOI: <https://doi.org/10.1080/21870764.2020.1842119>. (IF: 3.125, <https://www.tandfonline.com/doi/full/10.1080/21870764.2020.1842119>).

- 19- Manyumwa CV, **Zolfaghari Emameh R**, Bishop ÖT. Alpha-Carbonic Anhydrases from Hydrothermal Vent Sources as Potential Carbon Dioxide Sequestration Agents: *In Silico* Sequence, Structure and Dynamics Analyses. *Int J Mol Sci.* 2020 Oct 29;21(21):8066. (IF: 4.556, <https://pubmed.ncbi.nlm.nih.gov/33138066/>).
- 20- Khorramdelazad H, Kazemi MH, Najafi A, Keykhaee M, **Zolfaghari Emameh R**, Falak R. Immunopathological similarities between COVID-19 and influenza: Investigating the consequences of Co-infection. *Microb Pathog.* 2020 Nov 3;104554. doi: 10.1016/j.micpath.2020.104554. (IF: 2.914, <https://pubmed.ncbi.nlm.nih.gov/33157216/>).
- 21- **Zolfaghari Emameh R**, Masoori L, Nosrati H, Falak R, Parkkila S. Identification and characterization of the first fish parvalbumin-like protein data from a pathogenic fungal species, *Trichophyton violaceum*. *Data in Brief.* 19 October 2020. (IF: under estimation, <https://pubmed.ncbi.nlm.nih.gov/33134447/>).
- 22- Nosrati H, Sarraf-Mamoory R, Karimi Behnagh A, Zolfaghari Emameh R, Aidun A, Le DQS, Canillas Perez M, Bünger CE. Comparison of the effect of argon, hydrogen, and nitrogen gases on the reduced graphene oxide-hydroxyapatite nanocomposites characteristics. *BMC Chem.* 2020 Oct 7;14(1):59. doi: 10.1186/s13065-020-00712-3. (IF: 2.610, <https://pubmed.ncbi.nlm.nih.gov/33043299/>).
- 23- Shafiei R, Rahimi MT, **Zolfaghari Emameh R**, Mirzaei M, Perez-Cordon G, Ahmadpour E. Status of human toxocariasis, a neglected parasitic zoonosis in Iran: a systematic review from past to current. *Trop Doct.* 2020 Oct;50(4):285-291. doi: 10.1177/0049475520931545. Epub 2020 Jun 17. (IF: 0.523, <https://pubmed.ncbi.nlm.nih.gov/32998656/>).
- 24- **Zolfaghari Emameh R**, Nosrati H, Eftekhari M, Falak R, Khoshmirsafo M. Expansion of Single Cell Transcriptomics Data of SARS-CoV Infection in Human Bronchial Epithelial Cells to COVID-19. *Biol Proced Online.* 2020 Jul 23;22:16. doi: 10.1186/s12575-020-00127-3. eCollection 2020. (IF: 4.094, <https://pubmed.ncbi.nlm.nih.gov/32754004/>).

- 25- Ahmadabad HN, Shafiei R, Hatam GR, Zolfaghari Emameh R, Aspatwar A. Cytokine profile and nitric oxide levels in peritoneal macrophages of BALB/c mice exposed to the fucose-mannose ligand of *Leishmania infantum* combined with glycyrrhizin. Parasit Vectors. 2020 Jul 20;13(1):363. doi: 10.1186/s13071-020-04243-7. (IF: 2.824, <https://pubmed.ncbi.nlm.nih.gov/32690108/>).
- 26- Zolfaghari Emameh R, Falak R, Bahreini E. Application of System Biology to Explore the Association of Neprilysin, Angiotensin-Converting Enzyme 2 (ACE2), and Carbonic Anhydrase (CA) in Pathogenesis of SARS-CoV-2. Biol Proced Online. 2020 Jun 19;22:11. doi: 10.1186/s12575-020-00124-6. eCollection 2020. (IF: 4.094, <https://pubmed.ncbi.nlm.nih.gov/32572334/>).
- 27- Urbański L, Di Fiore A, Azizi L, Hytönen VP, Kuuslahti M, Buonanno M, Monti SM, Angeli A, Zolfaghari Emameh R, Supuran CT, De Simone G, Parkkila S. Biochemical and structural characterisation of a protozoan beta-carbonic anhydrase from *Trichomonas vaginalis*. J Enzyme Inhib Med Chem. 2020 Dec;35(1):1292-1299. doi: 10.1080/14756366.2020.1774572. (IF: 4.673, <https://pubmed.ncbi.nlm.nih.gov/32515610/>).
- 28- Khanmohammadi M, Akhlaghi L, Razmjou E, Falak R, Zolfaghari Emameh R, Mokhtarian K, Arshadi M, Tasbihi M, Meamar AR. Morphological Description, Phylogenetic and Molecular Analysis of *Dirofilaria immitis* Isolated from Dogs in the Northwest of Iran. Iran J Parasitol. Jan-Mar 2020;15(1):57-66. (IF: 1.018, <https://pubmed.ncbi.nlm.nih.gov/32489376/>).
- 29- Zolfaghari Emameh R, Masoori L, Taheri RA, Falak R. Identification and characterization of parvalbumin-like protein in *Trichophyton violaceum*. Fungal Biol. 2020 Jun;124(6):592-600. doi: 10.1016/j.funbio.2020.02.014. Epub 2020 Mar 6. (IF: 2.789, <https://pubmed.ncbi.nlm.nih.gov/32448450/>).
- 30- Nosrati H, Sarraf-Mamoory R, Le DQS, Zolfaghari Emameh R, Canillas Perez M, Bünger CE. Improving the mechanical behavior of reduced graphene oxide/hydroxyapatite nanocomposites using gas injection into powders synthesis autoclave. Sci Rep. 2020 May 22;10(1):8552. doi: 10.1038/s41598-020-64928-y. (IF: 3.998, <https://pubmed.ncbi.nlm.nih.gov/32444676/>).

- 31- **Zolfaghari Emameh R**, Kuuslahti M, Nosrati H, Lohi H, Parkkila S. Assessment of databases to determine the validity of β - and γ -carbonic anhydrase sequences from vertebrates. *BMC Genomics*. 2020 May 11;21(1):352. doi: 10.1186/s12864-020-6762-2. (IF: 3.594, <https://pubmed.ncbi.nlm.nih.gov/32393172/>).
- 32- **Zolfaghari Emameh R**, Nosrati H, Taheri RA. Combination of Biodata Mining and Computational Modelling in Identification and Characterization of ORF1ab Polyprotein of SARS-CoV-2 Isolated from Oronasopharynx of an Iranian Patient. *Biol Proced Online*. 2020 Apr 21;22:8. doi: 10.1186/s12575-020-00121-9. eCollection 2020. (IF: 4.094, <https://pubmed.ncbi.nlm.nih.gov/32336957/>).
- 33- Nosrati H, Sarraf-Mamoory R, **Zolfaghari Emameh R**, Svend Le DQ, Canillas Perez M, Bünger CE. Low temperature consolidation of hydroxyapatite-reduced graphene oxide nano-structured powders. *Mater. Adv.*, 2020, 1, 1337. DOI: 10.1039/d0ma00212g. (IF: under estimation, <https://pubs.rsc.org/en/content/articlelanding/2020/ma/d0ma00212g#!divAbstract>).
- 34- Nosrati H, Sarraf-Mamoory R, Svend Le DQ, Bünger CE, **Zolfaghari Emameh R**, Dabir F. Gas injection approach for synthesis of hydroxyapatite nanorods via hydrothermal method. *Mater Charact.* 2020;159:110071. Doi: <https://doi.org/10.1016/j.matchar.2019.110071>. (IF: 4.342, <https://www.sciencedirect.com/science/article/abs/pii/S1044580319316079>).
- 35- Soosaraei M, Fakhar M, Teshnizi SH, **Emameh RZ**, Hezarjaribi HZ, Asfaram S, Faridnia R, Kalani H. Status of fasciolosis among domestic ruminants in Iran based on abattoir data: a systematic review and meta-analysis. *Ann Parasitol*. 2020;66(1):77–86. doi: 10.17420/ap6601.240. (IF: 0.620, <https://pubmed.ncbi.nlm.nih.gov/32198998/>).
- 36- Mirahmadi H, Mansouri Nia M, Ebrahimzadeh A, Mehravaran A, Shafiei R, Rahimi MT, **Zolfaghari Emameh R**, Barker HR. Genotyping determination of *Acanthamoeba* strains: an original study and a systematic review in Iran. *J Water Health* wh2019048. doi: 10.2166/wh.2019.048. (IF: 1.349, <https://doi.org/10.2166/wh.2019.048>).

- [https://pubmed.ncbi.nlm.nih.gov/31638023/\).](https://pubmed.ncbi.nlm.nih.gov/31638023/)
- 37- Saghafi T, Taheri RA, Parkkila S, **Emameh RZ**. Phytochemicals as Modulators of Long Non-Coding RNAs and Inhibitors of Cancer-Related Carbonic Anhydrases. *Int J Mol Sci.* 2019 Jun 15;20(12). pii: E2939. doi: 10.3390/ijms20122939. (IF: 4.556, [https://pubmed.ncbi.nlm.nih.gov/31208095/\).](https://pubmed.ncbi.nlm.nih.gov/31208095/)
- 38- Hajipour H, Ghorbani M, Kahroba H, Mahmoodzadeh F, **Zolfaghari Emameh R**, Taheri RA. Arginyl-glycyl-aspartic acid (RGD) containing nanostructured lipid carrier co-loaded with doxorubicin and sildenafil citrate enhanced anti-cancer effects and overcomes drug resistance. *Process Biochem.* 2019, September 84: 172-179. doi: 10.1016/j.procbio.2019.06.013. (IF: 2.952, [https://www.sciencedirect.com/science/article/abs/pii/S1359511319305690\).](https://www.sciencedirect.com/science/article/abs/pii/S1359511319305690)
- 39- Faridnia R, Soosaraei M, Kalani H, Fakhar M, Jokelainen P, **Zolfaghari Emameh R**, Banimostafavi ES, Ziae Hezarjaribi H. Human urogenital myiasis: A systematic review of reported cases from 1975 to 2017. *Eur J Obstet Gynecol Reprod Biol.* 2019 Apr;235:57-61. doi: 10.1016/j.ejogrb.2019.02.008. (IF: 1.868, [https://pubmed.ncbi.nlm.nih.gov/30784828/\).](https://pubmed.ncbi.nlm.nih.gov/30784828/)
- 40- Mohammadi M, Falak R, **Zolfaghari Emameh R**, June SM, Kardar GA. Computational Analysis of Specific IgE epitopes Responsible for Allergy to Fish. *Curr Immunol Rev.* 2018, 14. DOI: 10.2174/1573395514666180622121750. (IF: under estimation, [https://www.eurekaselect.com/node/163178/article/computational-analysis-of-specific-ige-epitopes-responsible-for-allergy-to-fish\).](https://www.eurekaselect.com/node/163178/article/computational-analysis-of-specific-ige-epitopes-responsible-for-allergy-to-fish)
- 41- Soosaraei M, Kalani H, Fakhar M, **Zolfaghari Emameh R**. A bibliometric analysis of global research on toxoplasmosis in Web of Science. *Vet World.* 2018 Nov;11(10):1409-1415. (IF: 1.22, [https://pubmed.ncbi.nlm.nih.gov/30532494/\).](https://pubmed.ncbi.nlm.nih.gov/30532494/)
- 42- **Zolfaghari Emameh R**, Barker HR, Hytönen VP, Parkkila S. Involvement of β -carbonic anhydrase (β -CA) genes in bacterial genomic islands and horizontal transfer to protists. *Appl Environ Microbiol.* 2018 May 25, doi: 10.1128/AEM.00771-18. (IF: 4.016, [https://pubmed.ncbi.nlm.nih.gov/29802189/\).](https://pubmed.ncbi.nlm.nih.gov/29802189/)
- 43- Faraji F, Karjoo Z, Vakili Moghaddam M, Heidari S, **Emameh RZ**, Falak R. Challenges Related to the Immunogenicity of Parenteral Recombinant Proteins: Underlying

- Mechanisms and New Approaches to Overcome It. Int Rev Immunol. 2018 May 31, doi: 10.1080/08830185.2018.1471139. (IF: 4.580, <https://pubmed.ncbi.nlm.nih.gov/29851534/>).
- 44- Soheilifara MH, Taheri RA, **Zolfaghari Emameh R**, Moshtaghian A, Kooshki H, Motie MR. Molecular Landscape in Alveolar Soft Part Sarcoma: Implications for Molecular Targeted Therapy. Biomed Pharmacother. 2018 Apr; 889-896. (IF: 4.545, <https://pubmed.ncbi.nlm.nih.gov/29710505/>).
- 45- **Zolfaghari Emameh R**, Purmonen S, Sukura A, Parkkila S. Surveillance and diagnosis of zoonotic foodborne parasites. Food Sci Nutr. 2017;00:1-15. (IF: 1.797, <https://pubmed.ncbi.nlm.nih.gov/29387356/>).
- 46- **Zolfaghari Emameh R**, Barker HR, Syrjänen L, Urbański L, Supuran CT, Parkkila S. Identification and inhibition of carbonic anhydrases from nematodes. J Enzyme Inhib Med Chem. 2016 Aug; 25:1-9. (IF: 4.293, <https://pubmed.ncbi.nlm.nih.gov/27557594/>).
- 47- **Zolfaghari Emameh R**, Barker H, Tolvanen ME, Parkkila S, Hytönen P Vesa. Horizontal gene transfer of beta carbonic anhydrase gene sequences from prokaryotes to protozoan and metazoan eukaryotes. Parasit Vectors. 2016 Mar 16;9(1):152. (IF: 3.080, <https://pubmed.ncbi.nlm.nih.gov/26983858/>).
- 48- **Zolfaghari Emameh R**, Kuuslahti M, Näreaho A, Sukura A, Parkkila S. Innovative molecular diagnosis of *Trichinella* species based on β-carbonic anhydrase genomic sequence. Miocrob Biotechnol. 2016 Mar;9(2):172-9. (IF: 3.513, <https://pubmed.ncbi.nlm.nih.gov/26639312/>).
- 49- **Zolfaghari Emameh R**, Kuuslahti M, Vullo D, Barker HR, Supuran CT, Parkkila S. *Ascaris lumbricoides* β carbonic anhydrase: a potential target enzyme for treatment of ascariasis. Parasit Vectors. 2015 Sep 18;8:479. (IF: 3.234, <https://pubmed.ncbi.nlm.nih.gov/26385556/>).
- 50- **Zolfaghari Emameh R**, Syrjänen L, Barker H, Supuran CT, Parkkila S. *Drosophila melanogaster*: a model organism for controlling Dipteran vectors and pests. J Enzyme Inhib Med Chem. 2015 Jun;30(3):505-13. (IF: 3.428,

[https://pubmed.ncbi.nlm.nih.gov/25198895/\).](https://pubmed.ncbi.nlm.nih.gov/25198895/)

- 51- **Zolfaghari Emameh R**, Barker H, Hytönen VP, Tolvanen ME, Parkkila S. Beta carbonic anhydrases: novel targets for pesticides and anti-parasitic agents in agriculture and livestock husbandry. Parasit Vectors. 2014 Aug 29;7(1):403. (IF: 3.430, <https://pubmed.ncbi.nlm.nih.gov/25174433/>).
- 52- **Zolfaghari Emameh R**, Barker H, Tolvanen ME, Ortutay C, Parkkila S. Bioinformatic analysis of beta carbonic anhydrase sequences from protozoans and metazoans. Parasit Vectors. 2014 Jan 21;7:38. (IF: 3.430, <https://pubmed.ncbi.nlm.nih.gov/24447594/>).

Book Chapter:

- Aspatwar, A., Barker, H., Tolvanen, M., **Emameh, R. Z.**, & Parkkila, S. (2019). Carbonic anhydrases from pathogens. Carbonic Anhydrases, 449–475. 2019 Elsevier Inc. doi:10.1016/b978-0-12-816476-1.00020-4.

