Curriculum Vitae

Personal Details

Surname, First name: Majidiani, Hamidreza

Date of birth: 6th October 1990

Birthplace: Neyshabur, Khorasan Razavi Province, Iran

Nationality: Iranian

Marital status: Married

Address: Department of Basic Medical Sciences, Neyshabur University of Medical Sciences, Neyshabur, Iran

E-mail: H.majidiani@modares.ac.ir / Hamidreza.Majidiani@gmail.com

ResearchGate: https://www.researchgate.net/profile/Hamidreza_Majidiani

Google Scholar: https://scholar.google.com/citations?hl=en&user=HtwrQuEAAAAJ&imq=Hamidreza+Majidiani

Languages: Persian (Farsi) and English

Cellphone No.: 0098 (990) 7952252

Educational Background

1997-2002: Elementary School, Neyshabur, Khorasan Razavi, Iran

2002-2008: Junior and Senior High School education, Neyshabur, Khorasan Razavi, Iran

2008-2014: Faculty of Veterinary Medicine, Zabol University, Zabol, Iran, to be awarded **Doctor of Veterinary Medicine (D.V.M.)**

Dissertation subject: Detection of *Theileria annulata* asymptomatic carriers in different bovine breeds in Sistan region by PCR

2014-2020: Department of Parasitology, Faculty of Medical Sciences, Tarbiat Modares University, Tehran, Iran, to be awarded **Ph.D. in Medical Parasitology**

Thesis subject: Designing and evaluation of a protein vaccine candidate expressed in *Leishmania tarentolae* using epitopes derived from SAG1, ROP16, MIC4, GRA12 and M2AP antigens to elicit immunity against toxoplasmosis in BALB/c murine model

Research Focuses & Interests

Focuses: Immunoinformatics and Vaccine Research; Systematic Reviews and Meta-analysis studies

Interests: Molecular epidemiology of zoonotic parasites; Host-parasite interaction studies of *Toxoplasma* and *Neospora* as well as cystic echinococcosis

Technical and Experimental Skills

1) Bioinformatics-aided multi-epitope protein design for diagnostic and/or vaccine purposes

2) Aseptic *Leishmania* spp. (*L. major*, *L. infantum* and *L. tarentolae*) and *Toxoplasma gondii* tachyzoite culture

3) Field-based sampling and manual DNA extraction from both protozoa & helminth parasites

4) Gene Cloning & recombination of prokaryotes and eukaryotes using transformation and electroporation techniques, respectively

5) Biochemical and molecular techniques, including SDS-PAGE, Western Blotting, Affinity Chromatography, cell culture and cytokine assay, PCR and RT-PCR as well as gel electrophoresis.

6) Handling laboratory animals and the experience of working with domestic, field animals

Publications

Articles published in peer-reviewed journals:

[1] **Majidiani, H.**, Nabavi, R., Ganjali, M. and Saadati, D. "Detection of *Theileria annulata* carriers in Holstein Friesian (*Bos taurus taurus*) and Sistani (*Bos taurus indicus*) cattle breeds by polymerase chain reaction in Sistan region, Iran". *Journal of Parasitic Diseases*. (2015). 40 (4): 1184-1188.

[2] **Majidiani, H.**, Dalvand, S., Daryani, A., Galvan-Ramirez, M. D. L. and Foroutan, M. "Is chronic toxoplasmosis a risk factor for diabetes mellitus? A systematic review and meta-analysis of case-control studies". *Brazilian journal of Infectious Diseases*. (2016). 20 (6): 605-609.

[3] Foroutan, M., **Majidiani, H.**, Dalvand, S., Daryani, A., Kooti, W., Saki, J., Hedayati, F. and Ahmadpour, E. "Toxoplasmosis in blood donors: a systematic review and meta-analysis". *Transfusion Medicine Reviews*. (2016). 30 (3): 116-122.

[4] Ebrahimisadr, P., **Majidiani, H.**, Bineshian, F., Jamei, F., Ghasemi, F., and Ghaffarifar, F. "Evaluation of the cytotoxicity effect of *Chaerophyllum* extract on *Leishmania major* and J774 cell line in vitro". *Jundishapur Journal of Natural Pharmaceutical Products*. (2016). DOI: 10.17795/jjnpp-38948

[5] Foroutan, M., Khademvatan, S., **Majidiani, H.**, Aryamand, S., Rahim, F. and Malehi, A. S. "Seroprevalence of *Toxoplasma gondii* in the Iranian pregnant women: a systematic review and meta-analysis". *Acta Tropica*. (2016). 158: 160-169.

[6] Khalkhali, H., Foroutan, F., Khademvatan, S., **Majidiani, H.**, Aryamand, S., Khezri, P. and Aminpour, A. "Prevalence of cystic echinococcosis in Iran: a systematic review and meta-analysis". Journal o Helminthology. (2017). DOI: 10.1017/S0022149X17000463

[7] Foroutan, M., Dalvand, S., Daryani, A., Ahmadpour, E., **Majidiani, H.**, Khademvatan, S. and Abbasi, E. "Rolling up the pieces of a puzzle: a systematic review and meta-analysis of the prevalence of toxoplasmosis in Iran". *Alexandria journal of Medicine*. (2017). DOI: 10.1016/j.ajme.2017.06.003

[8] Maleki, B., Khorshidi, A., Gorgipour, M., Mirzapour, A., **Majidiani, H.** and Foroutan, M. "Prevalence of *Toxocara* spp. eggs in soil of public areas in Iran: a systematic review and meta-analysis". *Alexandria journal of Medicine*. (2017). DOI: 10.1016/j.ajme.2017.06.001

[9] Foroutan, F., Dalvand, S., Khademvatan, S., **Majidiani, H.**, Khalkhali, H., Masoumifard, S. and Shamsaddin, G. "A systematic review and meta-analysis of the prevalence of *Leishmania* infection in blood donors". *Transfusion and Apheresis Science*. (2017). DOI: 10.1016/j.transci.2017.07.001

[10] Foroutan, M., Khademvatan, S., **Majidiani, H.**, Khalkhali, H., Hedayati-Rad, F., Khashaveh, S. and Mohammadzadeh, H. "Prevalence of *Leishmania* species in rodents: a systematic review and meta-analysis in Iran". *Acta Tropica*. (2017). 172: 164-172.

[11] Badri, M., Vafae Eslahi, M., **Majidiani, H.** and Pirestani, M. "*Spirometra erinaceieuropaei* in a wildcat (*Felis silvestris*) in Iran". *Veterinary Parasitology: regional studies and reports*. (2017). DOI: 10.1016/j.vprsr.2017.08.004

[12] Khademvatan, S., **Majidiani, H.**, Foroutan, M., Hazrati Tappeh, K., Aryamand, S. and Khalkhali, H. "*Echinococcus granulosus* genotypes in Iran: a systematic review". *Journal of Helminthology*. (2018). DOI: 10.1017/S0022149X18000275

[13] Foroutan, M., Dalvand, S., Khademvatan, S., **Majidiani, H.**, Khalkhali, H., Masoumifard, S and Shamsaddin, G. A systematic review and meta-analysis of the prevalence of *Leishmania* infection in blood donors. *Transfusion and Apheresis Science*. (2017). DOI: 10.1016/j.transci.2017.07.001

[14] Foroutan, M., Rostami, A., **Majidiani, H.**, Riahi, S. M., Khazaei, S., Badri, M. and Yousefi, E. A systematic review and meta-analysis of the prevalence of toxoplasmosis in hemodialysis patients in Iran. Epidemiology and Health. DOI: 10.4178/epih.e2018016

[15] Foroutan, M. and **Majidiani, H**. *Toxoplasma gondii*: are there any implications for routine blood screening? International Journal of Infection. (2018). DOI: 10.5812/iji.62886

[16] Najafi, A., Abbasi Somar, E., Sayehmiri, K., **Majidiani, H.** and Mirzaei, A. Evaluation of diagnostic tests for visceral leishmaniasis in Iran: a meta-analysis. *Journal of Microbiology and Infectious Diseases*. (2019). DOI: 10.5799/jmid.xxx

[17] Khademvatan, S., **Majidiani, H.**, Khalkhali, H., Taghipour, A., Asadi, N and Yousefi, E. Prevalence of fasciolosis in livestock and humans: a systematic review and meta-analysis in Iran. *Comparative Immunology, Microbiology and Infectious Diseases*. (2019). DOI: 10.1016/j.cimid.2019.05.001

[18] Maleki, B., Dalimi, A., **Majidiani, H.**, Badri, M., Gorgipour, M. and Khorshidi, A. Parasitic infections of wild boars (*Sus scrofa*) in Iran: a literature review. *Infectious Disorders: drug targets*. (2019). DOI: 10.2174/1871526519666190716121824

[19] Najafi, A., Chaechi Nosrati, M.R., Ghasemi, E., Navi, Z., Yousefi, A., **Majidiani, H.**, Ghaneialvar, H., Sayehmiri, K., Galvan-Ramirez, M. and Fakhar, M. Is there association between *Trichomonas vaginalis* infection and prostate cancer risk?: a systematic review and meta-analysis. *Microbial Pathogenesis*. (2019). DOI: 10.1016/j.micpath.2019.103752

[20] Zibaei, M., Chaechi Nosrati, M.R., Shadnoosh, F., Houshmand, E., Fasihi Karami, M., Khorsandi Rafsanjani, M., **Majidiani, H.,** Ghaffarifar F., Cortes, H.C., Dalvand, S., Badri, M. Insights into hookworm prevalence in Asia: a systematic review and meta-analysis. *Transactions of The Royal Society of Tropical Medicine and Hygiene*. (2020). DOI: 10.1093/trstmh/trz115/5699500

[21] Vafae Eslahi, A., Badri, M., Khorshidi, A., **Majidiani, H.**, Hooshmand, E., Hosseini, H., Taghipour, A., Foroutan, M., Pestehchian, N., Firoozeh, F., Riahi, S.M., Zibaei, M. Prevalence of *Toxocara* and *Toxascaris* infection among human and animals in Iran with meta-analysis approach. *BMC Infectious Diseases*. (2020). DOI: 10.1186/s12879-020-4759-8

[22] Ghasemi, E., Shamsinia, S., Taghipour, A., Anvari, D., Bahadory, S., Shariatzadeh, S.A., Kordi, B., **Majidiani, H.**, Borji, H., Chaechi Nosrati, M., Yousefi, A. Filarial worms: a systematic review and meta-analysis of diversity in animals from Iran with emphasis on human cases. *Parasitology*. (2020). DOI: https://doi.org/10.1017/S003118202000058X

[23] **Majidiani, H.**, Dalimi, A., Ghaffarifar, F., Pirestani, M. and Dalir Ghaffari, A. Computational probing of Toxoplasma gondii major surface antigen 1 (SAG1) for enhanced vaccine design against toxoplasmosis. *Microbial Pathogenesis*. (2020). DOI: 10.1016/j.micpath.2020.104386

[24] **Majidiani, H.**, Soltani, S., Sabaghan, M., Taghipour, A., Dalir Ghaffari, A. and Foroutan, M. In-depth computational analysis of calcium-dependent protein kinase 3 (CDPK3) of *Toxoplasma gondii* provides promising targets for vaccination. *Clinical and Experimental Vaccine Research*. (2020). DOI: 10.7774/cevr.2020.9.2.146

[25] Anvari, D., Rezaei, F., Ashouri, A., Rezaei, S., **Majidiani, H.**, Pagheh, A., Shariatzadeh, S.A., Fotovati, A., Siyadatpanah, A., Gholami, S. and Ahmadpour, E. Current situation and future prospects of *Echinococcus granulosus* vaccine candidates: a systematic review. *Transboundary and Emerging Diseases*. (2020). DOI: 10.1111/tbed.13772

[26] Chaechi Nosrati, M., Ghasemi, E., Shams, M., Shamsinia, S., Yousefi, A., Nourmohammadi, H., Javanmardi, E., Kordi, B., **Majidiani, H.**, Dalir Ghaffari, A, Shakarami, F. *Toxoplasma gondii* ROP38 protein: bioinformatics analysis for vaccine design improvement against toxoplasmosis. *Microbial Pathogenesis*. (2020). DOI: 10.1016/j.micpath.2020.104488

[27] Nourmohammadi, H., Javanmardi, E., Shams, M., Shamsinia, S., Chaechi-Nosrati, M., Yousefi, A., Nemati, T., Fatollahzadeh, M., Ghasemi, E., Kordi, B., **Majidiani, H.,** Hamid Irannejad. Multi-epitope vaccine against cystic echinococcosis using immunodominant epitopes from EgA31 and EgG1Y162 antigens. *Informatics in Medicine Unlocked* (2020). DOI: 10.1016/j.imu.2020.100464

[28] Javanmardi, E., **Majidiani, H.,** Shariatzadeh, S. A., Anvari, D., Shamsinia, S., Ghasemi, E., Kordi, B., Shams, M. Global seroprevalence of *Neospora* spp. in horses and donkeys: a systematic review and meta-analysis. *Veterinary Parasitology* (2020). DOI: 10.1016/j.vetpar.2020.109299

[29] **Majidiani, H.**, Dalimi, A., Ghaffarifar, F. and Pirestani, M. "Multi-epitope vaccine expressed in *Leishmania tarentolae* confers protective immunity to *Toxoplasma gondii* in BALB/c mice". *Microbial Pathogenesis* (2021). DOI: 10.1016/j.micpath.2021.104925

[30] Dalir Ghaffari, A., Dalimi, A., Ghaffarifar, F., Pirestani, H. and **Majidiani, H.** Immunoinformatics analysis of immunogenic B- and T-cell epitopes of MIC4 protein to designing a vaccine candidate against *Toxoplasma gondii* through an *in silico* approach. *Clinical and Experimental Vaccine Research* (2021). DOI: 10.1016/j.micpath.2021.104925

[31] Shams, M., Javanmardi, E., Chaechi Nosrati, M., Ghasemi, E., Shamsinia, S., Yousefi, A., Kordi, B., **Majidiani, H.** and Nourmohammadi, H. Bioinformatics features and immunogenic epitopes of *Echinococcus granulosus* Myophilin as a promising target for vaccination against cystic echinococcosis. *Infection, Genetics and Evolution* (2021). DOI: 10.1016/j.meegid.2021.104714

[32] Vafae Eslahi, A., Mowlavi, G., Houshmand, E., Pirestani, M., **Majidiani, H.**, Hatam-Nahavandi, K., Ghanbari Johkool, M. and Badri, M. Occurrence of *Dioctophyme renale* (Goeze, 1782) in road-killed canids of Iran and its public health implication. *Veterinary Parasitology: Regional Studies and Reports* (2021). DOI: 10.1016/j.vprsr.2021.100568

[33] Badri, M., Vafae Eslahi, A., Olfatifar, M., Dalvand, S., Houshmand, E., Abdoli, A., **Majidiani, H.**, Eslami, A., Zibaei, M., Ghanbari Johkool, M., Taghipour, A. and Hashemipour, S. Keys to unlock the enigma of ocular toxocariasis: a systematic review and meta-analysis. *Ocular immunology and Inflammation* (2021). DOI: 10.1080/09273948.2021.1875007

[34] Asghari, A., Shamsinia, S., Nourmohammadi, **H., Majidiani, H.**, Fatollahzadeh, M., Nemati, T., Irannejad, H., Nouri, H.R., Ghasemi, E. and Shams, M. Development of a chimeric vaccine candidate based on *Toxoplasma gondii* major surface antigen 1 and apicoplast proteins using comprehensive immunoinformatics approaches. *European Journal of Pharmaceutical Sciences* (2021). DOI: 10.1016/j.ejps.2021.105837

[35] Foroutan, M., Dalir Ghaffari, A., Soltani, S., **Majidiani, H.**, Taghipour, A. and Sabaghan, M. Bioinformatics analysis of calcium-dependent protein kinase 4 (CDPK4) as *Toxoplasma gondii* vaccine target. *BMC Research Notes* (2021). DOI: 10.1186/s13104-021-05467-1

[36] Shams, M., Nourmohammadi, H., Asghari, Gh., Adhami, Gh. And **Majidiani, H.** Leishmanolysin gp63: bioinformatics evidences of immunogenic epitopes in *Leishmania major* as a possible vaccine target against zoonotic cutaneous leishmaniasis. Informatics in Medicine Unlocked (2021).

[37] Taghipour, A., Tavakoli, S., Sabaghan, M., Foroutan, M., **Majidiani, H.**, Soltani, S., Badri, M., Dalir Ghaffari, A., Soltani, Sh. Immunoinformatics analysis of Calcium-dependent Protein Kinase 7 (CDPK7) showed potential targets for Toxoplasma gondii vaccine. *Journal of Parasitology Research* (2021). DOI: 10.1155/2021/9974509

[38] Asghari, A., Nourmohammadi, H., **Majidiani, H.**, Shariatzadeh, S. A., Shams, M. and Montazeri, M. In silico analysis and prediction of immunogenic epitopes for pre-erythrocytic proteins of the deadly Plasmodium falciparum. *Infection, Genetics and Evolution* (2021). DOI: 10.1016/j.meegid.2021.104985

[39] Asghari, A., **Majidiani, H**., Fatollahzadeh, M., Nemati, T., Shams, M. and Azizi, E. Insights into the biochemical features and immunogenic epitopes of common bradyzoite markers of the ubiquitous *Toxoplasma gondii*. *Infection, Genetics and Evolution* (2021). DOI: 10.1016/j.meegid.2021.105037

[40] Mirzadeh, M., Olfatifar, M., Vafae Eslahi, A., Abdoli, A., Houshmand, E., **Majidiani, H.,** Ghanbari Johkool, M., Askari, S., Hashemipour, S. and Badri, M. Global prevalence of Trichomonas vaginalis among female sex workers: a systematic review and meta-analysis. *Parasitology Research* (2021). DOI: 10.1007/s00436-021-07216-6

[41] Asghari, A., Adhami, Gh., Shariatzadeh, S. A., Kordi, B., Anvari, D., Shams, M., **Majidiani, H.**, Darvishi, M. M. and Naserifar, R. Confirmed cases of human Onchocerca lupi infection: a systematic review of an emerging threat. *Parasitology Research* (2021). DOI: 10.1007/s00436-021-07309-2

[42] Asghari, A., **Majidiani, H.,** Nemati, T., Fatollahzadeh, M., Shams, M., Naserifar, R., Kordi, B. *Toxoplasma gondii* Tyrosine-rich oocyst wall protein: a closer look through an in-silico prism. *BioMed Research International* (2021). https://doi.org/10.1155/2021/1315618

[43] Asghari, A., Nourmohammadi, **H., Majidiani**, H., Shariatzadeh, S.A., Anvari, D., Shamsinia, S., Ghasemi, E., Shams, M. and Basati, Gh. Promising effects of parasite-derived compounds on tumor regression: a systematic review of *in vitro* and *in vivo* studies. Environmental Science and Pollution Research (2021) (In-Press).

Conference posters:

[1] Ebrahimisadr, P., **Majidiani, H.**, Bineshian, F., Jamei, F., Ghasemi, E. and Ghaffarifar, F. The cytotoxic and apoptotic effect of *Chaerophyllum macropodum* ethanolic extract on *Leishmania major* promastigotes in vitro. (2016). 12th European Multicolloquium of Parasitology, At Turku, Finland.

[2] **Majidiani, H.**, Dalimi, A., Ghaffarifar, F., Pirestani, M. and Nasiri, V. Construction of a recombinant *Leishmania tarentolae* encoding polytopes from SAG1, ROP16, MIC4, GRA12 and M2AP antigens as a vaccine candidate against *Toxoplasma gondii*. (2017). 3rd International and 10th National Congress of Parasitology & parasitic Diseases of Iran (NICOPA10), Shiraz, Iran.

Published books / Chapters:

[1] Ghaffarifar, F., **Majidiani, H.**, Zaki, L., Vafae Eslahi, A., Badri, M. and Rafiei, R. *Pharmacology in Parasitic Diseases*. 1st Edition, Heidari Publications (Tehran, Iran). (2019). 200 pp

Attended Courses / Workshops

1) 2D gel electrophoresis and western blotting (8 hours), 12th International Congress of Immunology & Allergy, Tehran. 2014

2) Advanced Multi-color Flow Cytometry (4 hours), 12th International Congress of Immunology & Allergy, Tehran. 2014

1) Primer design (4 hours), Tarbiat Modares University. 2015

2) Real-Time PCR and its analysis (8 hours), Tarbiat Modares University. 2015

3) Ethics in publishing scientific papers (4 hours), Tarbiat Modares University. 2015

4) Hygiene, safety and environment (H.S.E.) in laboratory (8 hours), Tarbiat Modares University. 2015

5) Principles of isolation and culture of *Acanthamoeba* (8 hours), Shahid Beheshti University of Medical Sciences. 2016

6) Introduction to Systematic review and meta-analysis studies (40 hours), virtual course of Johns Hopkins University in "Coursera". 2016

7) Principles of cell culture (8 hours), Tehran University of Medical Sciences. 2017

Working Experiences

June 2012 – September 2013: Veterinary internship at animal care clinics, veterinary pharmacy as well as field works such as vaccinating livestock against pox virus, foot-and-mouth disease and anthrax

March 2015 – January 2016: English translator at Iran Typist institute, Tehran, Iran

January 2018 – June 2018: Teaching Introduction to Mycology and Parasitology (Neyshabur University of Medical Sciences, Khorasan Razavi, Iran)

October 2018 – January 2019: Teaching General Microbiology (parasites and fungal agents) (Neyshabur University of Medical Sciences, Khorasan Razavi, Iran)

October 2018 – January 2019: Teaching Parasitology for operating room technicians and emergency students (Neyshabur University of Medical Sciences, Khorasan Razavi, Iran)

December 2019 – September 2020: Experience of working at veterinary laboratory, collecting clinical samples from suspected animals (skin biopsy, blood collection, tick isolation, etc.), performing blood smear Giemsa staining to detect blood-borne agents, detection of fungal contamination, etc.

Activities, Honors and Awards

1) Achieving top 1% grade among 460,000 participants in National University Entrance Exam in Iran, July 2008

2) First D.V.M. student to defend his dissertation in the history of Zabol College of Veterinary Medicine with A score, September 2014.

3) Proficient in English language (self-taught); being awarded 84 out of 100 score in Ministry of Science, Research and Technology (MSRT) English Exam, December 2013

Memberships in Professional Societies

Member of Iranian Society of Parasitology (2015 – present)

Member of Iranian Veterinary Council (2015 – present)

Peer-Reviewing of Scientific Papers

Scientific Reports, Nature Publishing Group, United Kingdom

ACS Chemical Neuroscience, published by the American Chemical Society, ACS Publications, United States

Journal of Infection and Public Health, first official journal of the Saudi Arabian Ministry of National Guard Health Affairs, Elsevier Publications, Saudi Arabia

Journal of Helminthology, Cambridge University Press, United Kingdom

Experimental Parasitology

Evidence-Based Complementary & Alternative Medicine, SAGE Publications, United States

Journal of Parasitic Diseases, Springer, India

Journal of Parasitology Research, Hindawi, London