

Aref Teimouri



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Languages

Persian
English
Turkish

Summary

Aref Teimouri is Assistant Professor of parasitology at Shiraz University of Medical Sciences. His Ph.D. study was a simple, portable, and rapid assay for serodiagnosis of toxoplasmosis based on recombinant *Toxoplasma gondii* SAG1 and GRA7 proteins. His current research interests are focused on hydatid cyst and helminthic infections.

Disciplines

- Parasitology
- Immunology
- Molecular Biology
- Nanotechnology

Skill highlights

- DNA and RNA extraction
- PCR and PCR-RFLP
- Cloning
- Gene expression
- Parasite culture
- SDS-PAGE
- Western blot
- ELISA

Education

- Ph.D. in **Medical Parasitology**, 2013-2019, from School of Public Health, Tehran University of Medical Sciences, Tehran, Iran.
- Master of Science in **Medical Parasitology**, 2009-2012, from School of Public Health Tehran University of Medical Sciences, Tehran, Iran.
- Bachelor of Science in **Medical Laboratory Sciences**, 2007-2009 from Shahid Sadoughi University of Medical Sciences, Yazd, Iran.

Present position

Assistant Professor, Department of Parasitology and Mycology, School of Medicine, Shiraz University of Medical Sciences. Shiraz, Iran.

Thesis

- **Ph.D. thesis title:** Development, optimization and validation of an in house Dot-ELISA rapid test based on SAG1 and GRA7 proteins for serological detection of *Toxoplasma gondii* infections in human sera
- **MSc. thesis title:** Identification and phylogenetic relationship of Iranian strains of various *Leishmania* species isolated from cutaneous and visceral cases of leishmaniasis based on N-acetylglucosamine-1-phosphate transferase (NAGT) and ITS- 1 genes

Award and honors

- Awarded as the best graduated student from Iran's National Elites Foundation (2020).
- Awarded as the best scientific graduated student in Ph.D., Tehran University of Medical Sciences, Tehran, Iran (2019).
- Rank 1st and top student among Ph.D. students in medical parasitology at Tehran University of Medical Sciences with GPA 18.84/20 (2018).
- Rank 3rd in national entrance examination of ministry of health for Ph.D. (2013).
- Selected as exceptional talented student in MSc and Ph.D. (2013).
- Rank 1st and top student among MSc students in medical parasitology at Tehran University of Medical Sciences with GPA 19.10/20 (2012).
- Rank 2nd in national entrance examination of ministry of health for MSc (2009).
- Awarded as the best scientific graduated student in Bachelor of Science, from Shahid Sadoughi University of Medical Sciences, Yazd, Iran (2009).

Research experience

- Genomic studies on *Toxoplasma gondii*, *Leishmania* spp., *Sarcocystis* spp., *Plasmodium vivax*, *Neospora caninum* and *Spirocerca lupi* using RAPD, PCR-RFLP and sequencing.
- Diagnosis of parasitic infections such as toxoplasmosis, leishmaniasis and fascioliasis by several techniques, including microscopy, molecular assays, and serological assays.
- Treatment of parasitic infections using various nanomaterials.
- Studies on recombinant vaccines against parasitic diseases.
- Studies on parasites fauna in Iran.

Genes

Deposit more than 140 genes of various parasites in the GenBank.

Editorial board

- BMC Research Notes
- Current Findings of Infectious Diseases

Presentations

- **Aref Teimouri**, and Hossein Keshavarz. (2019). Development of an in house Dot-ELISA rapid test based on SAG1 and GRA7 proteins for serological detection of *Toxoplasma gondii* infections. 19th International Congress on Infectious Diseases.
- **Aref Teimouri**, Co-author. (2016). Antimalarial effect of low molecular weight chitosan against *Plasmodium berghei* infection in mice, using in vivo test. 9th International Congress of Laboratory & Clinic 2th National Congress of Basic Medical Sciences and the Knowledge Based Production.
- **Aref Teimouri**, Co-author. (2016). Cloning, expression and purification of recombinant SAG1 (P30) of *Toxoplasma gondii* in *Escherichia coli*. 9th International Congress of Laboratory & Clinic 2th National Congress of Basic Medical Sciences and the Knowledge Based Production.
- **Aref Teimouri**, Co-author. (2014). In vitro activity of ethanolic extracts of *Medicago sativa* and *Satureja hortensis* against *Trichomonas vaginalis*. 8th International Congress of Laboratory & Clinic 1th National Congress of Basic Medical Sciences and the Knowledge Based Production.
- **Aref Teimouri**, Co-author. (2014). Molecular characterization and phylogenetic analysis among *Leishmania* species isolated from cutaneous and canine leishmaniasis based on rDNA ITS1 region in Iran. 8th International Congress of Laboratory & Clinic 1th National Congress of Basic Medical Sciences and the Knowledge Based Production.
- **Aref Teimouri**, Co-author. (2013). Molecular identification of the isolates of cutaneous *leishmania* by PCR-RFLP assay from different provinces of Iran. 7th International Congress of Laboratory and Clinic (Infectious Diseases) and 1st Conference of Clinical Virology.
- **Aref Teimouri**, Co-author. (2013). Study on inter and intra-specific variation of leishmanial species which collected from human and animal reservoir hosts infection on cutaneous and visceral leishmaniasis in some endemic area of Iran by ITS1-PCR-RFLP and sequencing. 5th Annual Student Research Congress of Mazandaran University of Medical Sciences.
- Co-author, **Aref Teimouri**. (2012). Identification of *leishmania* parasites isolated from rodents in northeastern of Iran by Nested PCR method. 1st International and 8th National Congress Parasitology & Parasitic Diseases.
- Co-author, **Aref Teimouri**. (2012). Study on inter and intra specific variation of *leishmania* species which collected from human and animal reservoir hosts infected on cutaneous and visceral leishmaniasis in some endemic area of Iran. Congress center Hamburg/Germany (HCC).
- Co-author, **Aref Teimouri**. (2012). A molecular and parasitological survey on cutaneous leishmaniasis patients referred to public health center of Iran during 2010-2011. 1st International and 8th National Congress Parasitology & Parasitic Diseases.

Books

- **Aref Teimouri**. (2017). Medical Protozoology: for Ph.D. entrance exam (In Persian).
- **Aref Teimouri**. (2017). Medical Helminthology: for Ph.D. entrance exam (In Persian).
- **Aref Teimouri**, et al. (2016). Medical Helminthology: for MSc entrance exam (In Persian).
- Vahid Raissi, **Aref Teimouri**, et al. (2016). Iran Question Bank (IQB): Medical Parasitology (In Persian).
- Vahid Raissi, **Aref Teimouri**, et al. (2016). Golden Points Series Medical Parasitology (G.P.S) (In Persian).

Publications

- **Aref Teimouri**, Mohammad Javad Abbaszadeh Afshar, Sina Mohtasebi, Sanaz Jafarpour Azami, Rasoul Alimi, Hossein Keshavarz. Assessment of an in-house ELISA and IgG avidity test based on SAG1 and GRA7 proteins for discriminating between acute and chronic toxoplasmosis in humans. **Journal of Clinical Microbiology**. 19; 59(8):e0041621. (2021). <https://doi.org/10.1128/JCM.00416-21>.
- Sina Mohtasebi, **Aref Teimouri**, Mohammad Javad Abbaszadeh Afshar, Hamed Abbasian, Iraj Mobedi, Mahya Allahmoradi, Gholamreza Mowlavi. First report of *Passerilepis parina* (Cestoda: Hymenolepididae) from *Parus major* in Iran: A probable fatal case due to hyperinfection. **Iranian Journal of Parasitology**. 16(3):518-523 (2021). doi: 10.18502/ijpa.v16i3.7107.
- Sina Mohtasebi, **Aref Teimouri**, Mohammad Javad Abbaszadeh Afshar, Iraj Mobedi, Hamed Abbasian, Niloofar Totonchian, Gholamreza Mowlavi. First report of *Spirocerca lupi* larva in dung beetles (*Scarabaeus armeniacus*) in the central region of Iran: A morphological and molecular identification. **Comparative Immunology, Microbiology and Infectious Diseases**. 77, 101671 (2021). <https://doi.org/10.1016/j.cimid.2021.101671>.
- Mehri Kargar, Homa Hajjarian, Javad Moazen, Mohammad Reza Shirzadi, Elham Kazemirad, Hamid Kalantari, **Aref Teimouri** and Mehdi Mohebali. Molecular Identification of *Leishmania* Species in an Outbreak of Re-Emerged Cutaneous Leishmaniasis in Southwestern Iran During 2015 – 2016. **Archives of Clinical Infectious Diseases**. 16(3):e82209 (2021). doi: 10.5812/archcid.82209.
- Mohammad Javad Abbaszadeh Afshar, Mehdi Mohebali, Sina Mohtasebi, **Aref Teimouri**, Bahareh Sedaghat, Reza Saberi. Intestinal parasites among intellectually disabled individuals in Iran: a systematic review and meta-analysis. **Gut Pathogens**. 13, 28 (2021). <https://doi.org/10.1186/s13099-021-00424-6>.
- Melica Shahighi, Aliehsan Heidari, Hossein Keshavarz, Amir Bairami, Saeedeh Shojaee, Monireh Sezavar, Mahboobeh Salimi, **Aref Teimouri**. Seroepidemiological study of toxoplasmosis in women referred to a pre-marriage counseling center in Alborz Province, Iran. **BMC Research Notes**. 14, 163 (2021). <https://doi.org/10.1186/s13104-021-05581-0>.
- Meysam Sharifdini, Khadijeh Nematdoost, Reza Shafiei, **Aref Teimouri***. Acute eosinophilic appendicitis caused by *Taenia saginata*: A case report. **Annals of Medicine and Surgery**. Volume 64, April 2021, 102241.
- Sina Mohtasebi, **Aref Teimouri**, Mohammad Javad Abbaszadeh Afshar. Demonstration of visceral leishmaniasis in steppe field mouse (*Apodemus witherbyi*): a neglected potential intermediate host? **Clinical Microbiology and Infection**, 16; S1198-743X (21)00036-7 (2021). doi: 10.1016/j.cmi.2021.01.009.
- **Aref Teimouri**, Hossein Keshavarz, Sina Mohtasebi, Fatemeh Goudarzi, Fattaneh Mikaeili, Alireza Borjian, Mahya Allahmoradi, Yonas Yimam, Mohammad Javad Abbaszadeh Afshar. Intestinal parasites among food handlers in Iran: a systematic review and meta-analysis. **Food Microbiology**. 95, 103703 (2021). <https://doi.org/10.1016/j.fm.2020.103703>.

- Fatemeh Goudarzi, Sina Mohtasebi, **Aref Teimouri**, Yonas Yimam, Peyman Heydarian, Ghodrattollah Salehi Sangani, Mohammad Javad Abbaszadeh Afshar. A systematic review and meta-analysis of *Hymenolepis nana* in human and rodent hosts in Iran: a remaining public health concern. **Comparative Immunology, Microbiology and Infectious Diseases**. 74, 101580 (2021). doi: 10.1016/j.cimid.2020.101580.
- Sina Mohtasebi, **Aref Teimouri**, Iraj Mobedi, Alireza Mohtasebi, Hamed Abbasian, Mohammad Javad Abbaszadeh Afshar. Intestinal helminthic parasites of rodents in the central region of Iran: first report of a capillariid nematode from *Dryomys nitedula*. **BMC Research Notes**. 13, 461 (2020). <https://doi.org/10.1186/s13104-020-05304-x>
- **Aref Teimouri**, Sina Mohtasebi, Elham Kazemirad, Hossein Keshavar. Role of *Toxoplasma gondii* IgG avidity testing in discriminating between acute and chronic toxoplasmosis in pregnancy. **Journal of Clinical Microbiology**. 58:e00505-20 (2020). doi: 10.1128/JCM.00505-20.
- Sara Ayazian Mavi, **Aref Teimouri**, Mehdi Mohebali, Mohammad Kazem Sharifi Yazdi, Saeedeh Shojaee, Mostafa Rezaian, Mahboobeh Salimi, Hossein Keshavarz. *Sarcocystis* infection in beef and industrial raw beef burgers from butcheries and retail stores: A molecular microscopic study. **Heliyon**. 6(6): e04171 (2020). doi: 10.1016/j.heliyon.2020.e04171.
- Mohammad Bagher Rokni, Saber Raeghi, **Aref Teimouri**, Arezoo Bozorgomid, Ghasem Zamini, Vahid Shojaeimotlagh, Mohammad Reza Shiea. Molecular phylogenetic and genetic variability of *Fasciola gigantica* in Kermanshah Province with an overview to understand haplotypes distribution in Asia and Africa. **Veterinary Research Forum**. 11(3):265-271 (2020). doi: 10.30466/vrf.2019.98547.2350.
- Soudabeh Etemadi, Mehdi Nateghpour, Afsaneh Motevalli Haghi, Hamid Eslami, Mehdi Mohebali, Neda Setayesh, Leila Farivar, **Aref Teimouri**. Genotyping and Phylogenetic Analysis of *Plasmodium vivax* Circumsporozoite Protein (PvCSP) Gene of Clinical Isolates in South-Eastern Iran. **Iranian Journal of Public Health**. 49(5): 981-988 (2020). PMID: 32953687.
- **Aref Teimouri**, Mohammad Hossein Modarressi, Saeedeh Shojaee, Mehdi Mohebali, Mostafa Rezaian, Hossein Keshavarz. Development, optimization, and validation of an in-house Dot-ELISA rapid test based on SAG1 and GRA7 proteins for serological detection of *Toxoplasma gondii* infections. **Infection and Drug Resistance**. 12: 2657–2669 (2019). doi: 10.2147/IDR.S219281.
- Sara Ayazian Mavi, Mohammad Hossein Modarressi, Mehdi Mohebali, Saeedeh Shojaee, Hojjat Zeraati, **Aref Teimouri**, Hossein Keshavarz. Assessment of the immunogenicity and protective efficiency of a novel dual-promoter DNA vaccine, harboring SAG1 and GRA7 genes, from RH strain of *Toxoplasma gondii* in BALB/c mice. **Infection and Drug Resistance**. 12: 2519-2530 (2019). doi: 10.2147/IDR.S209270.
- Mehdi Mohebali, Elham Kazemirad, Homa Hajjaran, Elaheh Kazemirad, Mohammad Ali Oshaghi, Reza Raoofian, **Aref Teimouri**. Gene expression analysis of antimony resistance in *Leishmania tropica* using quantitative real-time PCR focused on genes involved in trypanothione metabolism and drug transport. **Archives of Dermatological Research**. 311(1): 9-17 (2019). doi: 10.1007/s00403-018-1872-2.

- Ali Mohammadpour, Hossein Keshavarz, Mehdi Mohebali, Mahbooh Salimi, **Aref Teimouri**, Saeedeh Shojaee. The relation of serum prolactin levels and *Toxoplasma* infection in humans. **International Journal of General Medicine**. 12, 7–12 (2019). doi: 10.2147/IJGM.S188525.
- Sina Mohtasebi, Mehdi Mohebali, Samira Elikae, Behnaz Akhondi, Abbas Rahimi Foroushani, **Aref Teimouri**, Hamed Yarizadeh. In vitro and in vivo anti-parasitic activity of biogenic antimony sulfide nanoparticles on *Leishmania major* (MRHO/IR/75/ER). **Parasitology Research**. 118(9): 2669-2678 (2019). doi: 10.1007/s00436-019-06382-y.
- Farzaneh Mirzaei, Vahid Raissi, **Aref Teimouri**, Parisa Mousavi, Mohammad Ali Mohaghegh, Mahdi Dehghan Manshadi, Fateme Zare, Bahman Rahimi Esboei. Anti-*Trichomonas vaginalis* Activity of Ethanolic Extracts of *Medicago Sativa* and *Satureja Hortensis*, in vitro Study. **International Journal of Medical Laboratory**. 6(3): 166-171 (2019). <http://ijml.ssu.ac.ir/article-1-233-en.html>.
- Naser Nazari, Saeedeh Shojaee, Mehdi Mohebali, **Aref Teimouri**, Keyghobad Ghadiri, Saber Raeghi, Mohammad Reza Shiee, Yousef Azarakhsh, Arezoo Bozorgomid. *Toxoplasma gondii* and *Neospora caninum* in Brain Tissue of Rodents in North-West Iran. **Veterinary Medicine: Research and Reports**. 2019, 10: 223-227. doi: 10.2147/VMRR.S224664.
- Saeedeh Shojaee, **Aref Teimouri**, Hossein Keshavarz, Sanaz Jafarpour Azami, Sahar Nouri. The relation of secondary sex ratio and miscarriage history with *Toxoplasma gondii* infection. **BMC Infectious Diseases**. 18(1): 307 (2018). doi: 10.1186/s12879-018-3228-0.
- **Aref Teimouri**, Mohammad Hossein Modarressi, Saeedeh Shojaee, Mehdi Mohebali, Nima Zouei, Mostafa Rezaian, Hossein Keshavarz. Detection of *toxoplasma*-specific immunoglobulin G in human sera: performance comparison of in house Dot-ELISA with ECLIA and ELISA. **European Journal of Clinical Microbiology & Infectious Diseases**. 37(8): 1421-1429 (2018). doi: 10.1007/s10096-018-3266-y.
- **Aref Teimouri**, Mehdi Mohebali, Elham Kazemirad, Homa Hajjaran. Molecular identification of agents of human cutaneous leishmaniasis and canine visceral leishmaniasis in different areas of Iran using internal transcribed spacer 1 PCR-RFLP. **Journal of Arthropod-Borne Diseases**. 13; 12(2): 162-171. (2018). PMID: 30123810.
- Sanaz Jafarpour Azami, **Aref Teimouri**, Hossein Keshavarz, Amir Amani, Fariba Esmaeili, Hamid Hasanpour, Samira Elikae, Hamid Salehiniya, Saeedeh Shojaee. Curcumin nanoemulsion as a novel chemical for the treatment of acute and chronic toxoplasmosis in mice. **International Journal of Nanomedicine**. 13, 7363–7374 (2018). doi: 10.2147/IJN.S181896.
- **Aref Teimouri**, Sanaz Jafarpour Azami, Hossein Keshavarz, Fariba Esmaeili, Rasoul Alimi, Sara Ayazian Mavi, Saeedeh Shojaee. Anti-*Toxoplasma* activity of various molecular weights and concentrations of chitosan nanoparticles on tachyzoites of RH strain. **International Journal of Nanomedicine**. 13, 1341-1351 (2018). doi: 10.2147/IJN.S158736.

- **Aref Teimouri**, Afsane Motevalli, Mehdi Nateghpour, Leila Farivar, Haleh Hanifian, Sara Ayazian, Roghayeh Zare. Antimalarial effect of low molecular weight chitosan against *Plasmodium berghei* infection in mice, using in vivo test. **Journal of Vector Borne Disease**. 53(4):312-316 (2016). PMID: 28035107.
- **Aref Teimouri**, Bahman Rahimi Esboei, Parisa Mousavi, Mahbubeh Taghavi. Sero-prevalence of *Toxoplasma gondii* Infection among Women in First Trimester of Pregnancy in Razavi-Khorasan Province. **J Neyshabur Univ Med Sci**. 2016, 3(4):10-18 (In Persian).
- Homa Hajjaran, Mehdi Mohebali, **Aref Teimouri**, Mohammad Ali Oshaghi, Hamed Mirjalali, Elham Kazemi-Rad, Mohammad Reza Shiee, Saied Reza Naddaf. Identification and phylogenetic relationship of Iranian strains of various *Leishmania* species isolated from cutaneous and visceral cases of leishmaniasis based on N-acetylglucosamine-1-phosphate transferase gene. **Infection, Genetics and Evolution**. 2013, 26: 203-212. doi: 10.1016/j.meegid.2014.05.026.
- Homa Hajjaran, Mehdi Mohebali, **Aref Teimouri**, Mohammad Ali Oshaghi, Elham Kazemi-Rad, Saied Reza Naddaf. PCR-RFLP and sequencing of N-Acetyl Glucoseamine Transferase (NAGT) for identification and genetic variation in populations of *Leishmania* species in Iran. **International Journal of Medical Microbiology**. 303, 77 (2013). doi: 10.4103/0972-9062.234621
- Homa Hajjaran, Mehdi Mohebali, Mohammad Reza Abaei, Mohammad Ali Oshaghi, Zabih Zarei, Sorour Charehdar, Hamed Mirjalali, Meysam Sharifdini, **Aref Teimouri**. Natural infection and phylogenetic classification of *Leishmania* spp. infecting *Rhombomys opimus*, a primary reservoir host of zoonotic cutaneous leishmaniasis in northeast Iran. **Transactions of the Royal Society of Tropical Medicine and Hygiene**. 107(9), 550-557 (2013). doi: 10.1093/trstmh/trt060.
- Homa Hajjaran, Mehdi Mohebali, Setareh Mamishi, Farzaneh Vasigheh, Mohammad Ali Oshaghi, Saied Reza Naddaf, **Aref Teimouri**, Gholam Hossein Edrissian, Zabiholah Zarei. Molecular identification and polymorphism determination of cutaneous and visceral leishmaniasis agents isolated from human and animal hosts in Iran. **BioMed Research International**. 2013, 789326 (2013). doi: 10.1155/2013/789326.
- Mohammad Reza Shiee, Mehdi Mohebali, Abbas Doroodgar, **Aref Teimouri**, Hassan Afzali, Mohammad Reza Shirzadi. A molecular and parasitological survey on cutaneous leishmaniasis patients from historical city of Kashan in Isfahan Province, center of Iran. **Asian Pacific Journal of Tropical Disease**. 2(6), 421-425 (2012).