



CURRICULUM VITAE YASAMAN TASLIMI

Address:

Immunotherapy and Leishmania Vaccine Research Department, Pasteur Institute of Iran, Tehran, Iran
13164

Tel: 0098 21 6695 3311-20 Ext. 2112/2115

E-mail: ytaslimi@yahoo.com

Education:

- B.Sc. on Nutrition, Azad University, Tehran, Iran, 2000.
- M.Sc. on Biochemistry, Azad University, Damghan, Iran, 2015.
- PhD on Medical Biotechnology , Pasteur Institute of Iran, 2023

Position:

- Researcher in Immunotherapy and *Leishmania* Vaccine Research Department, Pasteur Institute of Iran, 2000-now

Area of Expertise:

- Non-invasive sampling and diagnosis methods of cutaneous leishmaniasis
- Molecular genetics, molecular parasitology, gene function and expression.
- Arginase assay.
- Protein analysis techniques such as Western Blot, Elisa
- PEA assay
- LAMP assay

Courses:

- Molecular DATA for infectious disease, ITM, Antwerp, Belgium, 2018
- International Workshop of Leishmania and Leishmaniasis, Pasteur Iran, 2016
- Molecular Biology of Leishmaniasis, ICGEB, Trieste, Italy, 2016.
- Targeting and Expression of Gene in Cells, International Congress of Immunology, Tehran, 2014
- How to write an International Article, Elsevier workshop, Tehran, 2014
- Application of Bioinformatics in Biotechnology, Pasteur Iran, 2013
- Flow Cytometry workshop, Pasteur Iran, 2012
- Quality Control Management, Pasteur Iran, 2012
- Calibration methods and standards, Pasteur Iran, 2011
- Life skills courses (Depression, Anger management, Time management, ...), Pasteur, 2010
- Advanced Molecular Genetic course, Pasteur Iran, 2006

ICDL courses, 2006

Teaching:

- High throughput technologies in translational immunology, Pasteur, Iran, 2022
- Western Blot, Practical, School of Pharmacy, Shahid Beheshti University, Tehran, Iran, 2016
- Immunology of infectious disease, Practical, Pasteur Iran, 2006

Visiting Researcher:

- Gothenburg university (Leishild-MATI RISE project), Department of Microbiology and Immunology at Institute of Biomedicine, 2019/02/26-2019/05/14
- Pasteur institute of Paris (Leishild-MATI RISE project), Department of Molecular Parasitology and Signalling, 2023/12/17-2023/02/17

Publications

- 1) **Yasaman Taslimi**, Sima Habibzadeh, Vahid Mashayekhi Goyonlo , Amin Akbarzadeh, Zahra Azarpour, Safoora Gharibzadeh, Mehrdad Shokouhy, Josefine Persson, Ali M. Harandi **, Amir Mizbani *, Sima Rafati*. Tape-disc-loop-mediated isothermal amplification (TD-LAMP) method as noninvasive approach for diagnosis of cutaneous leishmaniasis caused by *L. tropica*. *Heliyon*. Volume 9, Issue 11, November 2023, e21397.
- 2) **Yasaman Taslimi**, Nasrin Masoudzadeh, Fariborz Bahrami, Sima Rafati Cutaneous leishmaniasis: multiomics approaches to unravel the role of immune cells checkpoints Expert Review of Proteomics. 12 Oct 2022
- 3) Fariborz Bahrami , Nasrin Masoudzadeh , Suzanne Van Veen , Josefine Persson , Arezou Lari , Hamzeh Sarvnaz, **Yasaman Taslimi** , Malin Östensson , Björn Andersson , Iraj Sharifi , Vahid Mashayekhi Goyonlo , Tom Hm Ottenhoff , Mariëlle C Hak , Ali M Harandi , Sima Rafati. Blood transcriptional profiles distinguish different clinical stages of cutaneous leishmaniasis in humans. *Mol Immunol*. 2022 Sep; 149:165-173. doi: 10.1016/j.molimm.2022.07.008. Epub 2022 Jul 26
- 4) Shokouhy M, Sarvnaz H, **Taslimi Y**, Lajevardi MS, Habibzadeh S, Mizbani A, Shekari F, Behbahani M, Torrecilhas AC, Rafati S. Isolation, characterization, and functional study of extracellular vesicles derived from *Leishmania tarentolae*. *Front Cell Infect Microbiol*. 2022 Aug 3;12:921410. doi: 10.3389/fcimb.2022.921410. eCollection 2022
- 5) **Yasaman Taslimi**, Christopher Agbajogu, Siggeir Fannar Brynjolfsson, Nasrin Masoudzadeh, Vahid Mashayekhi, Safoora Gharibzadeh, Malin Östensson, Sravya Sowdamini Nakka, Amir Mizbani, Sima Rafati1, Ali M. Harandi Profiling Inflammatory Response in Lesions of Cutaneous Leishmaniasis Patients Using a Non-Invasive Sampling Method Combined With a High-Throughput Protein Detection Assay. *Cytokine*. 2020 Mar 17;130:155056. doi: 10.1016/j.cyto.2020.155056
- 6) Nahidi S, Gholami E, **Taslimi Y**, Habibzadeh S, Seyed N, Davarpanah E, Ghanadan A, Rafati S, Taheri T. The outcome of arginase activity inhibition in BALB/c mice hosting *Leishmania tropica*. *Parasite Immunol*. 2020 Mar;42(3):e12691. doi: 10.1111/pim.12691. Epub 2020 Jan 7.
- 7) Eskandar M, Gholami E, Seyed N, **Taslimi Y**, Habibzadeh, S, Rafati S, Taheri T. *Iran Biomed J*. 2020 May;24(3):164-72. doi: 10.29252/ibj.24.3.164. Epub 2019 Dec 1. PMID: 31952434
- 8) Jaafari MR, Hatamipour M, Alavizadeh SH, Abbasi A, Saberi Z, Rafati S, **Taslimi Y**, Mohammadi AM, Khamesipour A. Development of a topical liposomal formulation of Amphotericin B for the treatment of cutaneous leishmaniasis. *Int J Parasitol Drugs Drug Resist*. 2019 Dec;11:156-165. doi: 10.1016/j.ijpddr.2019.09.004. Epub 2019 Sep 23. PMID: 31582344
- 9) Nasrin Masoudzadeh, Malin Östensson, Josefine Persson, Vahid Mashayekhi Goyonlo, Christopher Agbajogu, **Yasaman Taslimi**, Reza Erfanian Salim, Farnaz Zahedifard, Amir Mizbani, Housein Malekafzali Ardekani, Bronwyn M. Gunn, Sima Rafati, Ali M. Harandi. Molecular signatures of anthroponotic cutaneous leishmaniasis in the lesions of patients infected with *Leishmania tropica*. *Sci Rep*. 2020; 10: 16198, PMID: 33004861
- 10) Kiani R, Alilou S, Rafatnia S, **Taslimi Y**, Habibzadeh S, Gharibzadeh S, Firouzi A, Rahim S, Zahedmehr A, Mehrvarz F, Moghadam Ahari M, Sadeghipour P. Role of polymorphisms of the endothelial nitric oxide synthase gene in predicting slow-flow phenomenon after primary percutaneous coronary intervention. *Turk* 2020 Jul;48(5):472-483. PMID: 32633262 DOI: 10.5543/tkda.2020.53849Kardiyol Dern Ars.

- 11) Gholami E, Oliveira F, Taheri T, Seyed N, Gharibzadeh S, Gholami N, Mizbani A, Zali F, Habibzadeh S, Bakhadj DO, Meneses C, Kamyab-Hesari K, Sadeghipour A, **Taslimi Y**, Khadir F, Kamhawi S, Mazlomi MA, Valenzuela JG, Rafati S. DNA plasmid coding for Phlebotomus sergenti salivary protein PsSP9, a member of the SP15 family of proteins, protects against Leishmania tropica. PLoS Negl Trop Dis. 2019 Jul 15;13(7):e0007585. doi: 10.1371/journal.pntd.0007585.
- 12) **Taslimi Y**, Rafati S. Study Break: Possible Diagnostic Improvement for Cutaneous Leishmaniasis: Is It Achievable? Iran Biomed J. 2018 Jul;22(4):215-6. Epub 2018 Feb 27.
- 13) Human Neutrophil Peptide 1 as immunotherapeutic agent against Leishmania infected BALB/c mice. Abdossamadi Z, Seyed N, Zahedifard F, Taheri T, **Taslimi Y**, Montakhab-Yeganeh H, Badirzadeh A, Vasei M, Gharibzadeh S, Rafati S. PLoS Negl Trop Dis. 2017 Dec;11(12):e0006123. doi: 10.1371/journal.pntd.
- 14) Abdossamadi Z, Taheri T, Seyed N, Montakhab-Yeganeh H, Zahedifard F, **Taslimi Y**, Habibzadeh S, Gholami E, Gharibzadeh S, Rafati S. Live Leishmania tarentolae secreting HNPI as an immunotherapeutic tool against Leishmania infection in BALB/c mice. Immunotherapy. 2017 Oct;9(13):1089-1102. doi: 10.2217/imt-2017-0076.
- 15) Masoudzadeh N, Mizbani A, **Taslimi Y**, Mashayekhi V, Mortazavi H, Sadeghipour P, Ardekani HM, Rafati S. *Leishmania tropica* infected human lesions: Whole genome transcription profiling. Acta tropica. 2017 Aug 22. pii: S0001-706X(17)30173-0.
- 16) H Montakhab-Yeganeh , Z Abdossamadi , F Zahedifard , **Y Taslimi** , A Badirzadeh , N Saljoughian , T Taheri , M Taghikhani , S Rafati · *Leishmania tarentolae* expressing CXCL-10 as an efficient immunotherapy approach against L. major-infected BALB/c mice. 2017 Aug 18.
- 17) Badirzadeh A, Taheri T, Abedi-Astaneh F, **Taslimi Y**, Abdossamadi Z, Montakhab-Yeganeh H, Aghashahi M, Niyyati M, Rafati S. Arginase activity of Leishmania isolated from patients with cutaneous leishmaniasis. Parasite Immunol. 2017 Sep; 39(9).
- 18) Badirzadeh A, Taheri T, **Taslimi Y**, Abdossamadi Z, Heidari-Kharaji M, Gholami E, Sedaghat B, Niyyati M, Rafati S. Arginase activity in pathogenic and non-pathogenic species of Leishmania parasites. PLoS Negl Trop Dis. 2017 Jul 14;11(7).
- 19) **Taslimi Y**, Sadeghipour P, Habibzadeh S, Mashayekhi V, Mortazavi H, Müller I, Lane ME, Kropf P, Rafati S. A novel non-invasive diagnostic sampling technique for cutaneous leishmaniasis. PLoS Negl Trop Dis. 2017 Jul 13;11(7).
- 20) **Taslimi Y**, Zahedifard F, Rafati S. Leishmaniasis and various immunotherapeutic approaches, Parasitology, Accept 29, October, 2016.
- 21) **TASLIMI Y**, Farnaz ZAHEDIFARD, Tahereh TAHERI, Delaram DOROUD, Sakineh LATIF DIZAJI, Noushin SALJOUGHIAN, and Sima RAFATI. Comparison of Protective potency of DNA and Live vaccines expressing parasite antigens against visceral leishmaniasis in hamster Syrian as preliminary study. Iranian Journal of Parasitology, Accept November 2016.
- 22) **Taslimi Y**, Zahedifard F, Habibzadeh S, Taheri T, Abbaspour H, Sadeghipour A, Mohit E, Rafati S. Antitumor Effect of IP-10 by Using Two Different Approaches: Live Delivery System and Gene Therapy, J Breast Cancer 2016 March; 19(1): 34-44.
- 23) Seif S, Kazemi F, Gholami E, Seyed N, **Taslimi Y**, Habibzadeh S, Azarian B, Jamshidi S, Hashemi M, Rafati S, Taheri T. EGFP reporter protein: its immunogenicity in Leishmania-infected BALB/c mice. Appl Microbiol Biotechnol. 2016, 100 (9):3923-34. Leishmania tarentolae secreting the sand fly salivary antigen PpSP15 confers protection against Leishmania major infection in a susceptible BA.
- 24) Shahbazi M, Zahedifard F, Taheri T, **Taslimi Y**, Jamshidi S, Shirian S, Barbara Papadopoulou, Sima Rafati. Evaluation of Live Recombinant Nonpathogenic Leishmania tarentolae Expressing Cysteine Proteinase and A2 Genes as a Candidate Vaccine against Experimental Canine Visceral Leishmaniasis, PLoS ONE 10(7): e0132794. doi:10.1371/journal.pone.0132794.

- 25) Hossein MORTAZAVI, Mehdi MOHEBALI, **Yasaman TASLIMI**, Pardis SADEGHIPOUR, Mahsa ANSARI, Kambiz KAMYAB, Marjan TALEBI, Ali KHAMESIPOUR. Hoarseness as the Presenting Symptom of Visceral Leishmaniasis with MucoCutaneous Lesions: A Case Report. *Iranian Journal of Parasitology*. 2015; 10(2):296-300.
- 26) Tahereh Taheri, Elham Gholami, Faeze Saatchi, Negar Seyed, **Yasaman Taslimi**, Sima Rafati. Expressional comparison between episomal and stable transfection of selected tri-fused protein in *Leishmania tarentolae*. *Vaccine Research*, 2014, 1 (1):9.
- 27) Farnaz Zahedifard, Elham Gholami, Tahereh Taheri, **Yasaman Taslimi**, Fatemeh Doustdari, Negar Seyed, Fatemeh Torkashvand, Claudio Meneses Barbara Papadopoulou, Shaden Kamhawi, Jesus G. Valenzuela and Sima Rafati. Enhanced protective efficacy of nonpathogenic recombinant *Leishmania tarentolae* expressing cysteine proteinases combined with a sand fly salivary antigen. *PLOS Neglected Tropical Diseases*, March 2014, Volume 8, Issue 3, e2751.
- 28) Sara Dabirian, **Yasaman Taslimi**, Farnaz Zahedifard, Elham Gholami, Fatemeh Doustdari, Mahdieh Motamedirad, Shohreh Khatami, Kayhan Azadmanesh, Susanne Nylen, Sima Rafati. Human Neutrophil Peptide-1 (HNP-1): A New Anti-Leishmanial Drug Candidate. *PLOS Negl Trop Dis*, October 17, 2013 , 7(10).
- 29) Saljoughian N, Taheri T, Zahedifard F, **Taslimi Y**, Doustdari F, Bolhassani A, Doroud D, Azizi H, Heidari K, Vasei M, Namvar Asl N, Papadopoulou B, Rafati S. Development of novel prime-boost strategies based on a tri-gene fusion recombinant *L. tarentolae* vaccine against experimental murine visceral leishmaniasis. *PLoS Negl Trop Dis*. 2013 Apr 18;7(4).
- 30) Hosseinzadeh S, Bolhassani A, Rafati S, Taheri T, Zahedifard F, Daemi A, **Taslimi Y**, Hashemi M, Memarnejadian A. A non-pathogenic live vector as an efficient delivery system in vaccine design for the prevention of HPV16 E7-overexpressing cancers. *Drug Deliv*. 2013; 20(3-4):190-8.
- 31) Mohyedini, Sh., Jamshidi, Sh, Rafati, S, Nikbakht, Gh.R, Malmasi, A, **Taslimi, Y.**, Akbarein, H.Comparison of immunochromatographic rapid test with molecular method in diagnosis of canine parvovirus. *Iranian Journal of Veterinary Medicine*, 2013, 7(1):57-61.
- 32) Salehi M, Taheri T, Mohit E, Zahedifard F, Seyed N, **Taslimi Y**, Sattari M, Bolhassani A, Rafati S. Recombinant *Leishmania tarentolae* Encoding the *Human papillomavirus Type16 E7 Gene* in Tumor Mice Model. *Immunotherapy*. 2012 Nov;4(11):1107-20.
- 33) E. Mohit, A. Bolhassani, F. Zahedifard, **Y. Taslimi** & S. Rafati. The contribution of NT-gp96 as an adjuvant for increasing HPV16 E7-specific immunity in C57BL/6 mouse model. *BASIC IMMUNOLOGY*. 2012, Jan; 75(1):27-37.
- 34) Delaram Doroud, Farnaz Zahedifard, Alireza Vatanara, **Yasaman Taslimi**, Rouholah Vahabpour, Fatemeh Torkashvand, Behrooz Vaziri, Abdolhossein Rouholamini Najafabadi, Sima Rafati. C-Terminal Domain Deletion Enhances the Protective Activity of cpa/cpb Loaded Solid Lipid Nanoparticles against Leishmania major in BALB/c Mice. *PLoS Negl Trop Dis*. 2011 Jul;5(7).
- 35) Doroud D, Zahedifard F, Vatanara A, Najafabadi AR, **Taslimi Y**, Vahabpour R, Torkashvand F, Vaziri B, Rafati S. Delivery of a cocktail DNA vaccine encoding cysteine proteinases type I, II and III with solid lipid nanoparticles potentiate protective immunity against Leishmania major infection J Control Release. 2011 Jul 30; 153(2):154-62.
- 36) Azam Bolhassani, Tahereh Taheri, **Yasaman Taslimi**, Soheila Zamanlui, Farnaz Zahedifard, Negar Seyed, Fatemeh Torkashvand, Behrouz Vaziri and Sima Rafati. Fluorescent *Leishmania* species: Development of stable GFP expression and its application for *in vitro* and *in vivo* studies. *Experimental Parasitology*, 2011 Mar; 127(3):637-45.

- 37) Mizbani A, **Taslimi Y**, Zahedifard F, Taheri T, Rafati S. Effect of A2 gene on infectivity of the nonpathogenic parasite Leishmania . Parasitol Res. 2011 Sep; 109(3):793-9.
- 38) Azizi H, Hassani K, **Taslimi Y**, Najafabadi HS, Papadopoulou B, Rafati S. Searching for virulence factors in the non-pathogenic parasite to humans Leishmania tarentolae, Parasitology. 2009 Jun;136(7):723-35.
- 39) A. Mizbani, T. Taheri, F. Zahedifard, **Y. Taslimi**, H. Azizi, K. Azadmanesh, B. Papadopoulou and S. Rafati. Recombinant *Leishmania tarentolae* expressing the A2 virulence gene as a novel candidate vaccine against visceral leishmaniasis. Vaccine 2009; 28(1):53-62.
- 40) Khoshgoo N, Zahedifard F, Azizi H, **Taslimi Y**, Alonso MJ, Rafati S. Cysteine proteinase type III is protective against *Leishmania infantum* infection in BALB/c mice and highly antigenic in visceral leishmaniasis individuals, Vaccine. 2008 Oct 29;26(46).
- 41) Rafati S, Zahedifard F, Azari MK, **Taslimi Y**, Taheri T. Leishmania infantum: Prime boost vaccination with C-terminal extension of cysteine proteinase type I displays both type 1 and 2 immune signatures in BALB/c mice, Exp Parasitol. 2008 Mar;118(3).
- 42) Rafati S, Gholami E, Hassani N, Ghaemimanesh F, **Taslimi Y**, Taheri T, Soong L. Leishmania major heat shock protein 70 (HSP70) is not protective in murine models of cutaneous leishmaniasis and stimulates strong humoral responses in cutaneous and visceral leishmaniasis patients. Vaccine. 2007 May 22; 25(21).
- 43) Rafati S, Hassani N, **Taslimi Y**, Movassagh H, Rochette A, Papadopoulou B. Amastin peptide-binding antibodies as biomarkers of active human visceral leishmaniasis. Clin Vaccine Immunol. 2006 Oct.
- 44) S. Rafati, A. Nakhaee, T. Taheri, **Y. Taslimi**, H. Darabi, D. Eravani, S. Sanos, P. Kaye, M. Taghikhani, S. Jamshidi, M. A. Rad. Protective vaccination against experiment canine visceral Leishmaniasis using a combination of DNA and protein immunization with cysteine proteinases type I and II of *L. infantum*.Vaccine 23 (2005), 3716-3725.
- 45) Rafati S, Salmanian AH, Taheri T, Masina S, Schaff C, **Taslimi Y**, Fasel N. Type I signal peptidase from Leishmania is a target of the immune response in human cutaneous and visceral leishmaniasis. Mol Biochem Parasitol. 2004 May; 135(1):13-20.
- 46) Zadeh-Vakili A, Taheri T, **Taslimi Y**, Doustdari F, Salmanian AH, Rafati S. Immunization with the hybrid protein vaccine, consisting of Leishmania major cysteine proteinases Type I (CPB) and Type II (CPA), partially protects against leishmaniasis.Vaccine. 2004 May 7; 22(15-16):1930-40.

Congress Presenttions

- 1) **Future of Biosensors and Bioelectronics Congress, Spain, Barcelona, 2024, NON-INVASIVE DIAGNOSIS METHOD FOR CUTANEOUS LEISHMANIASIS WITH HIGH SPECIFICITY AND SENSITIVITY.** Yasaman Taslimi , Sima Habibzadeh , Roya Yousefi , Vahid Mashayekhi , Amin Akbarzadeh , Zahra Azarpour , Safoora Gharibzadeh , Josephin Persson , Ali M Harandi , Amir Mizbani and Sima Rafati , **Oral presentation**
- 2) **ADAPTING TO CHANGE: Emerging infectious diseases in a shifting climate Institut Pasteur, October 16-18 2024.** Non-invasive diagnosis method for cutaneous leishmaniasis. **Y Taslimi** , S Habibzadeh , R Yousefi , V Mashayekhi , A Akbarzadeh , Z Azarpour , J Persson, S Gharibzadeh , Ali M Harandi , Amir Mizbani and Sima Rafati, **Travel grant awarded, poster presentation**
- 3) **International Congress of Dermatology, Cosmetics and Laser, Iran, Tehran, 2022.** Novel applications of non-invasive sampling method in cutaneous leishmaniasis. **Taslimi Y**, Agbajogu C, Habbibzadeh S, Yousefi R, Masoudzadeh N, Mashayekhi V,Gharibzadeh S, Ostensson M, Nakka S, Mizbani A, Harandi AM , Rafati S

- 4) **International congress of immunology, Iran, Ahvaz, 2021**, Assessment of inflammatory and antibody responses in the lesion of cutaneous leishmaniasis patients using a non-invasive sampling method combined with a high-throughput protein detection assay and ELISA, Taslimi Y, Agbajogu C, Masoudzadeh N, Mashayekhi V, Gharibzadeh S, Ostensson M, Nakka SS, Mizbani A, Rafati S, Harandi AM.
- 5) **The 17th International Congress of Immunology, 19-23 October 2019, Beijing, China.** Profiling inflammatory response in active lesion of cutaneous leishmaniasis patients using a non-invasive sampling method and a high-throughput protein detection assay. Taslimi Y, Agbajogu C, Masoudzadeh N, Mashayekhi V, Gharibzadeh S, Ostensson M, Nakka SS, Mizbani A, Rafati S, Harandi AM.
- 6) **Molecular Biology of Leishmania course, 24-26 October 2016, Trieste, Italy.** Nonpathogenic Leishmania tarentolae encoding IP-10: as a weapon against mice 4T1 breast cancer. Taslimi Y, Zahedifard F, Habibzadeh S, Taheri T, Abbaspour H, Gholami E, Mohit E, Rafati S.
- 7) **Annual Symposium of the Institut Pasteur International Network, October 14-16, 2015, Paris. (Poster).** Evaluation of the effect of IP-10 delivered by *Leishmania tarentolae* using determination of arginase activity in 4T1 implanted mice. Taslimi Y, Mohit E, Zahedifard F, Habibzadeh S, Taheri T, Abbaspour H, Sadeghipour A, Rafati S
- 6) **6th Worldleish international congress, 16-20 May 2017, Toledo, Spain.** A NOVEL RAPID, NONINVASIVE AND USER-FRIENDLY DIAGNOSTIC SAMPLING TECHNIQUE FOR CUTANEOUS LEISHMANIASIS , Yasaman Taslimi, Pardis Sadeghipour, Sima Habibzadeh, Vahid Mashayekhi, Hossien Mortazavi, Hosseini Malekafzali Ardakani, Ingrid Muller, Pascale Kropf *and Sima Rafati *

Awards

- 4) **The Second National Conference on New Cellular and Molecular, November 2015, Iran.** Construction of a recombinant non-pathogenic *Leishmania* expressing Th1 directing chemokine (IP-10). Yasaman Taslimi, Elham Mohit, Hossain Abbaspour, Tahereh Taheri, Sima Rafat, Best Congress Paper Award (Lecture)
- 5) **13th International Congress of Immunology and Allergy of Iran Held at TUOMS, Tabriz, May, 2015.** Anti-tumor effect of IP-10 using different strategies: comparison between DNA and live therapy in mice model. Taslimi Y., Mohit E., Zahedifard F., Habibzadeh S., Taheri T., Abbaspour H., Sadeghipour A., Rafati S. Best Poster Presentation
- 6) **First ranked Ph.D student in Pasteur institute of Iran, 2018**