

# **Keivan Zandi, PhD. Assistant Professor, Department of Pediatrics, School of Medicine, Emory University**

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## **Current Titles and Affiliations**

- Assistant Professor  
Department of Pediatrics, School of Medicine, Emory University, Atlanta GA, USA, December 2018-Present

## **Previous Academic and Professional Appointments**

- Instructor  
Department of Pediatrics, School of Medicine, Emory University, Atlanta GA, USA, November 2016-December 2018
- Associate Professor  
Department of Medical Microbiology, Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia, August 2011- 31<sup>st</sup> October 2016
- Associate Professor  
Microbiology Department, Faculty of Medicine, Bushehr University of Medical Sciences, 2007-2010
- Assistant Professor  
Microbiology Department, Faculty of Medicine, Bushehr University of Medical Sciences, 2003-2007

## **Education**

- Research Fellowship, Arbovirology  
WHO Collaborating Center for Arbovirus Reference and Research (Dengue Fever/Dengue Haemorrhagic Fever), Tropical Infectious Diseases Research & Education Center (TIDREC), University of Malaya, Kuala Lumpur, Malaysia. 2010-2011
- Fellowship, Molecular Virology  
Department of Microbiology and Immunology, Queen's University, Kingston, Canada, 2003
- Ph.D, Medical Virology

Department of Virology, Faculty of Medical Sciences, Tarbiat Modarres University, Tehran, Iran, 1998 – 2003

- **M.Sc, Medical Virology**  
Department of Microbiology and Immunology, Faculty of Medicine, Iran University of Medical Sciences, Tehran, Iran, 1994- 1997
- **B.Sc, Microbiology**  
Islamic Azad University (Qom Branch), Qom, Iran, 1990-1994

## **Executive and Managerial Appointments**

- **Director of Persian Gulf Tropical and Infectious Diseases Research Center**  
Bushehr University of Medical Sciences, Bushehr, Iran, 2009-2010
- **Head of Antiviral Research Unit**  
Tropical Infectious Diseases Research and Education Center, University of Malaya, Kuala Lumpur, Malaysia, 2011-2016
- **Director of Research and Information Affairs**  
Bushehr University of Medical Sciences, 2008-2010
- **Director of Educational Affairs**  
Bushehr University of Medical Sciences, 2004-2008
- **Course Coordinator, Biomedical Science Program**  
Faculty of Medicine, University of Malaya, 2010 to 2016
- **Committee member, Problem Base Learning (PBL)**  
Faculty of Medicine, University of Malaya, 2010 to 2016

## **Patents**

- Compositions and methods for inhibiting viral infection (US20160213647A1)
- Antiviral activity of baicalein against Japanese encephalitis virus (WO2014142644A1)
- Antiviral activity of quercetin against Japanese encephalitis virus (WO2014142645A1)
- Enhancement of dengue virus production (WO2015130157A1)
- Anti-Alphavirus composition (PI 2015000270)
- Antiviral composition against Chikungunya virus (PI 201471331)
- Anti- Chikungunya virus composition (PI 201471330)
- Antiviral composition against dengue virus (PI 2014701044)

## Publications

1. **Zandi K**, Amblard F, Amichai S, Bassit L, Tao S, Jiang Y, Zhou L, Olinger Russell O, Mengshetti S, Schinazi RF. Nucleoside analogs with antiviral activity against Yellow fever virus. *Antimicrobial Agents and Chemotherapy*. **2019**. In Press.
2. **Zandi K, et al.** Kinetics of Oncolytic Reovirus T3D Replication and Growth Pattern in Mesenchymal Stem Cells. *Cell Journal*. **2019**. In Press.
3. **Zandi K**, Bassit L, Amblard F, Cox BD, Hassandarvish P, Moghaddam E, Yueh A, Rodrigues GOL, Passos I, Costa VV, AbuBakar S, Zhou L, Kohler JJ, Teixeira MM, Schinazi RF. Nucleoside Analogs with Selective Antiviral Activity Against Dengue Fever and Japanese Encephalitis Viruses. *Antimicrobial Agents and Chemotherapy*. **2019**. May 6.
4. Oo A, Teoh BT, Sam SS, Abu Bakar S, **Zandi K**. Baicalein and Baicalin as Zika Virus Inhibitors. *Archives of Virology*. **2019**. 164:585-593.
5. Saeidi A, **Zandi K**, Ying CY, Saeidi H, Wong WF, Lee CY, Choon H, Yong YK, Larsson M, Shankar EM. T-Cell Exhaustion in Chronic Infections: Reversing the State of Exhaustion and Reinvigorating Optimal Protective Immune Responses. *Frontiers in Immunology*. **2018**. Nov 9;9:2569.
6. Zakeri Z, Abramov R, Ghosh Roy S, Landazuri J, **Zandi K**, Lockshin RA. The flavonoid Quercetin protects MDCK cells against toxicity of CPT by Induction of autophagy. *Journal of Cell Signaling*. **2018**. 3:4.
7. Khor CS, Mohd-Rahim NF, Hassan H, Chandren JR, Nore SS, Johari J, Loong SK, Abd-Jamil J, Khoo JJ, Lee HY, Pike BL, Wong LP, Lim YA, **Zandi K**, AbuBakar S. Seroprevalence of Q Fever Among the Indigenous People (Orang Asli) of Peninsular Malaysia. *Vector Borne and Zoonotic Diseases*. **2018**. 18:131-137
8. Oo A, Rausalu K, Merits A, Higgs S, Vanlandingham D, Bakar SA, **Zandi K**. Deciphering the potential of baicalin as an antiviral agent for Chikungunya virus infection. *Antiviral Research*. **2018**. 150:101-111.
9. Hassandarvish P, Oo A, Jokar A, Zukiwski A, Proniuk S, Abu Bakar S, **Zandi K**. Exploring the in vitro potential of celecoxib derivative AR-12 as an effective antiviral compound against four dengue virus serotypes. *Journal of Antimicrobial Chemotherapy*. **2017**. 72:2438-2442.

10. Jindal HM, **Zandi K**, Ong KC, Velayuthan RD, Rasid SM, Samudi Raju C, Sekaran SD. Mechanisms of action and in vivo antibacterial efficacy assessment of five novel hybrid peptides derived from Indolicidin and Ranalexin against *Streptococcus pneumoniae*. *PeerJ*. **2017**. 5;5:e3887.
11. Zakaryan H, Arabyan E, Oo A, **Zandi K**. Flavonoids: promising natural compounds against viral infections. *Archives of Virology*. **2017** May 25.
12. Al-Obaidi MM, Bahadoran A, Har LS, Mui WS, Rajarajeswaran J, **Zandi K**, Manikam R, Sekaran SD. Japanese encephalitis virus disrupts blood-brain barrier and modulates apoptosis proteins in THBMEC cells. *Virus Research*. **2017** Mar 6;233:17-28.
13. Ehteshami M, Tao S, **Zandi K**, Hsiao HM, Jiang Y, Hammond E, Amblard F, Russell OO, Merits A, Schinazi RF. Characterization of  $\beta$ -D-N4-hydroxycytidine as a Novel Inhibitor of Chikungunya Virus. *Antimicrobial Agents and Chemotherapy*. **2017** Jan 30.
14. Oo A, Hassandarvish P, Chin SP, Lee VS, Abu Bakar S, **Zandi K**. In silico study on anti-Chikungunya virus activity of hesperetin. 2016, *PeerJ*. **2016** Oct 26;4:e2602.
15. Lani, R., Hassandarvish, P., Shu M.H., Phoon, W.H., Hann Chu J.J., Higgs, S., Vanlandingham, D., Bakar, S.A., **Zandi K**. Antiviral activity of selected flavonoids against Chikungunya virus. 2016, *Antiviral Research*. 2016 Sep;133:50-61.
16. Ahmadi A, Lani R, Hassandarvish P, Yadollahi P, Abubakar S, **Zandi K**. Inhibition of chikungunya virus replication by hesperetin and naringenin *RSC Advances*. 2016, 6, 69421.
17. Seyedi SS, Shukri M, Hassandarvish P, Oo A, Muthu SE, Abubakar S, **Zandi K**. Computational Approach Towards Exploring Potential Anti-Chikungunya Activity of Selected Flavonoids. *Scientific Reports*. **2016** Apr 13;6: 24027.
18. Hassandarvish P, Rothan Ha, Rezaei S, Yusof R, Abubakar S, **Zandi K**. In silico study on baicalein and baicalin as inhibitors of dengue virus replication. *RSC Advances*. **2016**, 6, 31235-31247.
19. Khamisipour G, Jadidi-Niaragh F, Jahromi AS, **Zandi K**, Hojjat-Farsangi M. Mechanisms of tumor cell resistance to the current targeted-therapy agents. *Tumour Biology*. **2016** May 7.
20. Muhd Radzi SF, Ruckert C, Sam SS, Teoh BT, Phoon WH, Abubakar S, **Zandi K**. Development of a TaqMan real-time one-step qRT-PCR method for Langkat virus. *Scientific Reports*. **2015** Sep 11.
21. Marlina S, Shu MH, Abubakar S, **Zandi K**. Development of a Real-Time Cell Analysing (RTCA) Method as a Fast and Accurate Screen for the Selection of Chikungunya Virus Replication Inhibitors. *Parasites and Vectors*. **2015** 7:597.

22. Marlina S, Radzi S, Lani R, Sieng K, Rahim N, Hassan H, Li-Yen C, Abu Bakar S, **Zandi K**. Seroprevalence screening for the West Nile virus in Malaysia Orang Asli population. *Parasites and Vectors*. **2015** Dec 17;7:597.
23. Shukri MM, Ghane Kisomi M, Lani R, Marlina S, Muhd Radzi SF, Hassan Nizam QN, Abu Bakar S, Zandi K. Seroprevalence report on tick-borne encephalitis virus and crimean-congo haemorrhagic fever virus among Malaysians farm workers. *BMC Public Health* **2015** 24;15:704.
24. Zorofchian Moghadamtousi S, Nikzad S, Abdul Kadir H, AbuBakar S, **Zandi K**. Potential antiviral agents from marine fungi: An Overview. *Marine Drugs*. **2015** 13(7):4520-38.
25. Ahmadi A, Zorofchian Moghadamtousi S, AbuBakar S, **Zandi K**. Antiviral potential of algae polysaccharides isolated from marine sources. *Biomed Research International*. **2015** Article ID:825203.
26. Lani R, Hassandarvish P, Chun Wei C, Moghaddam E, Chu JJ, Rausalu K, Merits A, Higgs S, Vanlandingham D, Abu Bakar S, **Zandi K**. Antiviral activity of silymarin against chikungunya virus. *Scientific Reports*. **2015** Jun 16;5:11421.
27. Lani R, Mohd Rahim NF, Hassan H, Yaghoobi R, Li-Yen C, AbuBakar S, **Zandi K**. First Report on the seroprevalence of the Crimean-Congo Haemorrhagic Fever Virus in Malaysia's Orang Asli population. *European Review for Medical and Pharmacological Sciences*. **2015**, 19: 461-466.
28. Barathan M, Gopal K, Mohamed R, Ellegård R, Saeidi A, Vadivelu J, Ansari AW, Rothan HA, Ravishankar Ram M, **Zandi K**, et al. Chronic hepatitis C virus infection triggers spontaneous differential expression of biosignatures associated with T cell exhaustion and apoptosis signaling in peripheral blood mononucleocytes. *Apoptosis*. **2015** Jan 11.
29. Mehrali M, Moghaddam E, Seyed Shirazi SF, Baradaran S, Mehrali M, Latibari ST, Metselaar HS, Kadri NA, **Zandi K**, Osman NA. Mechanical and *in vitro* biological performance of graphene nanoplatelets reinforced calcium silicate composite. *PLoS One*. **2014** Sep 17; 9 (9):e106802.
30. Marlina S, Radzi S, Lani R, Sieng K, Rahim N, Hassan H, Li-Yen C, Abu Bakar S, **Zandi K**. Seroprevalence screening for the West Nile virus in Malaysia Orang Asli population. *Parasites and Vectors*. **2014** Dec 17; 7: 597.
31. Moghaddam E, Teoh BT, Sam SS, Lani R, Hassandarvish P, Chik Z, Yueh A, Abubakar S, **Zandi K**. Baicalin the metabolite of baicalein exhibits *in vitro* anti-dengue virus activity. *Scientific Reports*. **2014**. 26; 4:5452.
32. **Zandi K**, et al. Tick-borne viruses: A review from the perspective of therapeutic approaches. *Ticks and Tick-Borne Diseases*. **2014**. 2014.04.001.

33. **Zandi K**, et al. Antiviral activity of *Holothuria sp* a sea cucumber against herpes simplex virus type 1 (HSV-1). *European Review for Medical and Pharmacological Sciences*. **2014**. 2014 Feb;18:333-7.
34. Zorofchian Moghadamtousi S, Abdul Kadir H, Hassandarvish P, Tajik H, Abu Bakar S, and **Zandi K**. A review on antibacterial, antiviral and antifungal activity of curcumin. *Biomed Research International*. **2014**. Article ID 186864.
35. Zorofchian Moghadamtousi S, Karimian S, Khanabdali R, Razavi M, **Zandi K**, et al. Anticancer and Antitumor potential of Fucoidan and Fucoxanthin, two main metabolites isolated from Brown algae. *The Scientific World Journal*. **2014**. Article ID 768323.
36. Mehrali M, Moghaddam E, Shirazi SF, Baradaran S, Mehrali M, Latibari ST, Metselaar HS, Kadri NA, **Zandi K**, Osman NA. Synthesis, mechanical properties, and *in vitro* biocompatibility with osteoblasts of calcium silicate-reduced graphene oxide composites. *ACS Applied Material Interfaces*. **2014** Mar 26;6:3947-62.
37. Shirazi FS, Moghaddam E, Mehrali M, Oshkour AA, Metselaar HS, Kadri NA, **Zandi K**, Abu NA. *In vitro* characterization and mechanical properties of  $\beta$ -calcium silicate/POC composite as a bone fixation device. *Journal of Biomedical Material Research A*. **2014** Nov; 102:3973-85.
38. Zorofchian Moghadamtousi S, Hajrezaei M, Abdul Kadir H, **Zandi K**. *Loranthus micranthus* Linn.: Biological activities and phytochemistry. *Evidence Based Complementary and Alternative Medicine*. **2013**; 2013:273712. Epub **2013** Sep 10.
39. Tajbakhsh S, Gharibi S, **Zandi K**, Yaghoobi R. Use of a modified fluorescent *in situ* hybridization procedure to improve the identification of *Streptococcus pneumoniae* in blood cultures. *Acta Microbiologica et Immunologica Hungarica*. **2013**, Sep; 60:303-11.
40. **Zandi K**, Lim TH, Rahim NA, Shu MH, Teoh BT, Sam SS, Danlami MB, Tan KK, Abubakar S. Extract of *Scutellaria baicalensis* inhibits dengue virus replication. *BMC Complementary and Alternative Medicine*, **2013**; 13:91.
41. Ghannadi A, Plubrukarn A, **Zandi K**, Sartavi K, Yegdaneh A. Screening for antimalarial and acetylcholinesterase inhibitory activities of some Iranian seaweeds. *Research in Pharmaceutical Sciences*. 2013 Apr;8:113- 8.
42. Shu MH, Appleton D, **Zandi K**, Abubakar S. Anti-Inflammatory, gastroprotective and anti-ulcerogenic effects of the red alga *Gracilaria changii* (Gracilariales, Rhodophyta) Extract. *BMC Complementary and Alternative Medicine*, **2013** Mar 14;13:61.
43. Eghbali SS, Amirinejad R, Obeidi N, Mosadeghzadeh S, Vahdat K, Azizi F, Pazoki R, Sanjdideh Z, Amiri Z, Nabipour I, **Zandi K**. Oncogenic human papillomavirus

genital infection in southern Iranian women: population-based study versus clinic-based data. *Virology Journal*. **2012** Sep 12; 9:194.

44. **Zandi K**, Teoh BT, Sam SS, Wong PF, Mustafa MR, Abubakar S. Novel antiviral activity of baicalein against Dengue virus type-2 in cell culture. *BMC Complementary and Alternative Medicine*, **2012** Nov 9; 12:214.
45. Johari J, Kianmehr A, Mustafa MR, Abubakar S, **Zandi K**. Evaluation of baicalein and quercetin as antivirals against Japanese Encephalitis Virus. *International Journal of Molecular Sciences*, **2012** Dec 7;13:16785-95.
46. Meshkat Z, Roostaee MH, Soleimanjahi M, **Zandi K**. Evaluation of antibodies against glycoprotein D (gD) and glycoprotein (gG) in HSV-1 infected individuals' serum samples. *European Review for Medical and Pharmacological Sciences*. **2012**, 16: 499-502.
47. Vahdat K, Azizi F, **Zandi K**, Nabipour I. 2012. Chronic Inflammation is correlated with percentage of body fat independent of the burden of infection. *Inflammation*. **2012**, Mar 1. Epub ahead of print.
48. **Zandi K**, Lani R, Wong PF, Teoh BT, Sam SS, Johari J, Mustafa MR, AbuBakar S. Flavone enhances Dengue Virus Type-2 (NGC Strain) infectivity and replication in Vero cells. *Molecules*, **2012**, 17: 2437-2445.
49. **Zandi K**, Teoh BT, Sam SS, Wong PF, Mustafa MR, Abubakar S. Antiviral activity of four types of bioflavonoid against dengue virus type-2. *Virology Journal*, **2011**, 8:560.
50. **Zandi K**, Teoh BT, Sam SS, Wong PF, Mustafa MR, Abubakar S. *In vitro* antiviral activity of Fisetin, Rutin and Naringenin against Dengue virus type -2. *Journal of Medicinal Plants Research*, **2011**. 5(23):5534-5539.
51. Kargar M, Najafi A, **Zandi K**, et al. Genotypic distribution of rotavirus strains causing severe gastroenteritis in children under 5 years old in Borazjan, Iran. *African Journal of Microbiology Research*. **2011**. 5:2936-2941.
52. Tajbakhsh S, Pouyan M, **Zandi K**, et al. *In vitro* study of antibacterial activity of the alga *Sargassum oligocystum* from the Persian Gulf. *European Review for Medical and Pharmacological Sciences*. **2011**, 15 : 293-298.
53. Tajbakhsh S, Gharibi S, **Zandi K**, et al. Rapid detection of *streptococcus pyogenes* in throat swab specimens by fluorescent *in situ* hybridization. *European Review for Medical and Pharmacological Sciences*. **2011**, 15: 313-317.
54. **Zandi K**, Ramedani E, Mohammadi K, Tajbakhsh S, Deilami I, Rastian Z, Fouladvand M, Yousefi F, Farshadpour F. Evaluation of antiviral activities of

- Curcumin derivatives against HSV-1 in Vero cell line. *Natural Product Communications*. **2010**, 5: 1935-1938.
55. **Zandi K**, Eghbali SS, Hamkar R, Ahmadi S, Ramedani E, Deilami I, Nejad HA, Farshadpour F, Rastian Z. Prevalence of various Human Papillomavirus (HPV) genotypes among women who subjected to routine Pap smear test in Bushehr city (South west of Iran) 2008-2009. *Virology Journal*. **2010**, March 22.
  56. Vahdat K, Keyvani H, Tabib SM, Rostamabadi S, Valizadeh SM, Cheraghi S, Shamsian S, **Zandi K**. Molecular epidemiology of hepatitis C virus genotypes in Bushehr province, Iran. *Euopean Review for Medical and Pharmacological Sciences*. **2010**, 14:861-864.
  57. **Zandi K**, Ahmadzadeh S, Tajbakhsh S, Rastian Z, Yousefi F, Farshadpour F, Sartavi K. Anticancer activity of *Sargassum oligocystom* water extract against human cancer cell lines. *Euopean Review for Medical and Pharmacological Sciences*. **2010**, 14: 669-673.
  58. **Zandi K**, Tajbakhsh S, Nabipour I, Rastian Z, Yousefi F, Sharafian S, Sartavi K. *In vitro* antitumor activity of *Gracilaria corticata* (a red alga) against Jurkat and molt-4 human cancer cell lines. *African Journal of Biotechnology*. **2010**, 40:6787-6790.
  59. Gharibi S, Tajbakhsh S, **Zandi K**, et al. Evaluation of fluorescent *in situ* hybridization for rapid diagnosis of enterococcal wound infection. *African Journal of Microbiology Research*. **2010**, 4(23), 2498-2502.
  60. Fooladvand M, Barazesh A, **Zandi K**, et al. Seroepidemiological study of toxoplasmosis in childbearing age women in Bushehr city, south west of Iran in 2009. *African Journal of Biotechnology*. **2010**, 9:5809-5812.
  61. Fooladvand M, Barazesh A, **Zandi K**, et al. Seroepidemiological study of toxoplasmosis in high school girls in Bushehr city, south west of Iran in 2009. *African Journal of Biotechnology*. **2010**, 4, 1117-1121.
  62. **Zandi K**, Taherzadeh M, Tajbakhsh S, et al. Antiviral activity of *Avicennia marina* against herpes simplex virus type 1 and Vaccine strain of poliovirus (An *In vitro* Study). *Journal of Medicinal Plant Research*. **2009**, 3:771-775.
  63. Tajbakhs S, Mohammadi K, Deilami I, **Zandi K**, et al. Antibacterial activity of indium curcumin and indium diacetyl curcumin. *African Journal of Biotechnology*. **2008**, 7:3832-3835.
  64. **Zandi K**, Roostaei MH, Sadeghizadeh M, Rasaee MJ, Hassan Sajedi R, Soleimanjahi H. Production of recombinant gG-1 protein of herpes simplex virus type 1 in a prokaryotic system in order to developing a type specific ELISA kit. *FEMS Immunology and Medical Microbiology*, **2007**. 50:319-323.



65. **Zandi K**, Hojat-Farsangi M, Nabipour I, et al. Isolation of a 60 kDa protein with *in vitro* anticancer activity against human cancer cell lines from the purple fluid of the Persian gulf sea hare, *Aplysia dactylomela*. *African Journal of Biotechnology*, **2007**, 6:1280-1283.
66. **Zandi K**, Salimi M, Sartavi K. *In vitro* antiviral activity of the red marine alga from Persian gulf, *Gracilaria salicornia* against herpes simplex virus type 2. *Journal of Biological Sciences*, **2007**, 7:1274-1277.
67. **Zandi K**, Abbaszadeh M, Sartavi K, Rastian Z. Antiviral activity of *Aloe vera* against herpes simplex virus type 2 :An *in vitro* study. *African Journal of Biotechnology*, **2007**, 6:1770-1773.
68. **Zandi K**, Fouladvand MA, Pakdel P, Sartavi K. Evaluation of *in vitro* antiviral activity of a brown alga from the Persian gulf against herpes simplex virus type 1. *African Journal of Biotechnology*. **2007**, 6:2511-2514.
69. Pourkarim MR, **Zandi K**, Davani NA, et al. An aberrant high prevalence of hepatitis B infection among afghans residing in one of the Bushehr refugee camps in southwest of Iran. *International Journal of Infectious Disease*. May **2007**.Epub ahead of print.
70. Amell S, Sabahi F, **Zandi K**, et al. Antigen specific lymphocyte proliferation assay and virus neutralization test measurement of measles specific immunity in 15-19 years old high school students, Tehran Iran. *Pakistan Journal of Biological Sciences*. **2007**, 10: 4144-4147.
71. Soleimanjahi H, Roostaei MH, Rasaee MJ, Mahboudi F, Kazemnejad A, Bamdad T, **Zandi K**. The effect of DNA priming – protein boosting on enhancing humoral immunity and protecting mice against lethal HSV infection. *FEMS Immunology and Medical Microbiology*, **2006**, 46: 100-106.
72. Coa J, Arulananadam R, Vultur A, Preston T, Jaronczyk K, Tomai E, **Zandi K**, Raptis L. Adenovirus – 5 E1A suppresses differentiation of 3T3 – L1 preadipocytes at lower levels than required for induction of apoptosis. *Molecular Carcinogenesis*, **2005** May; 43:38-50.
73. Vahdat K, Nabipour I, Motamedi M, Jafari SM, Ghajari V, Zafarmand MH, **Zandi K**, Sanjideh Z. A seroepidemiological survey on leptospirosis in the livestock breeders during the outbreak of haemorrhagic fever in domestic animals of Helleh River area in **2004**. *Iranian South Medicine Journal*, **2005**, 8: 53-59.
74. Soleimanjahi: H, Roostaei MH, Rasaee MJ, Kazemnejad A, Meshkat Z, **Zandi K**. Inducing humoral immunoresponse against HSV-1 using the recombinant gD protein of virus in BALB/C mice. *Iranian South Medicine Journal*, **2004**, 7: 1-10.

75. Pourkarim MR, Khamisipour GR, **Zandi K**, Roostaei MH. Prevalence of anti-HTLV-1 and anti HTLV-2 antibodies in blood donors in Bushehr province. *Iranian South Medicine Journal*, **2004**, 6:161-166.
76. Pishraft Sabet L, Roostaei MH, **Zandi K**, Bamdad T. Restriction enzyme analysis of TK gene in four Iranian isolates of HSV-1. *Archives Razi Institute*. **2003**, 56: 1-10.
77. Aghaebrahimian M, Roostaei MH, Soleimanjahi H, **Zandi K**. Nucleic acid – based immunization with HSV -1 genes specifying gB-1 and gD-1. *Iranian South Medicine Journal*, **2003**, 6: 1-7.
78. **Zandi K**, Roostaei MH, Sadeghizadeh M, Rasaee MJ. Construction of a clone expressing gG-1 of HSV-1 in order to produce recombinant protein in prokaryotic system. *Iranian South Medicine Journal*, **2002**, 5: 1-7.
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80. **Zandi K**, Tajbakhsh S, Jafari SM, Ghaffarian, HR. Determination of immunity to rubella virus among pre-marriage girls of Bushehr port by HI and ELISA methods. *Iranian South Medicine Journal*, **1999**, 2: 35-40.

## Book Chapters

1. **Zandi K**. A Real-Time Cell Analyzing Assay for Identification of Novel Antiviral Compounds against Chikungunya Virus. In Book: *Methods In Molecular Biology*. **2016**
2. **Zandi K**, et al. Cell death and virus infection – a short review. In Book: *20 Years of Cell Death*. **2015**

## Grants Support

1. Development of anti-Yellow Fever agents *in vitro* and in mice. **Principal Investigator**. NIH (R21). 2019. (Under Resubmission).
2. Novel Pan-Dengue and Yellow Fever Antiviral Agents, **Principal Investigator**. NIH (R01). 2019. (Under Review).
3. Protease inhibitors with dual anti-Enterovirus and Norovirus activity. **Co-Investigator**. NIH (R01). 2019. (Under Review).

4. Multidisciplinary Approaches to Pan-Influenza Antiviral Drug Discovery. **Co-Investigator**. NIH (P01). 2019. (Under Review).
5. Evaluation of four novel compounds (AR-12,13,14,15,16) against Dengue virus replication (Arnotherapeutics Co Ltd, USA), **Co-Principal Investigator**. 2015.
6. Mechanism study of the flavonoids Fisetin and Quercetagenin, novel antivirals against Chikungunya virus, PPP Grant, University of Malaya, Kuala Lumpur, Malaysia, **Principal Investigator**.
7. Mechanistic study of selected flavonoids on Japanese Encephalitis virus *in vitro* replication PPP Grant, University of Malaya, Kuala Lumpur, Malaysia, **Principal Investigator**.
8. Evaluation of Iminosugars as antiviral candidates against Chikungunya Virus among Alphavirus family, PPP Grant, University of Malaya, Kuala Lumpur, Malaysia, **Principal Investigator**.
9. Determination of mechanism of action and intracellular pathways of baicalein and baicalin on dengue virus replication cycle, Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education, Malaysia, **Principal investigator**.
10. Mechanistic study of silymarin as a novel antiviral against chikungunya virus, University Malaya Research Grant (UMRG), University of Malaya, Kuala Lumpur, Malaysia, **Principal Investigator**.
11. Study on the effects of selected bioflavonoids on chikungunya virus replication cycle and their mechanisms of action, High Impact Research Grant (HIR), Ministry of Higher Education, Malaysia, **Principal Investigator**.
12. Determination of the effective route (S) of administration for bioflavonoids as anti-dengue virus agents in animal model, University Malaya Research Grant (UMRG), University of Malaya, Kuala Lumpur, Malaysia, **Principal Investigator**.
13. Tick-borne viral diseases in Malaysia, University Malaya Research Grant (UMRG), University of Malaya, Kuala Lumpur, Malaysia, **Co-Principal Investigator**.
14. Antiviral activity of flavonoids against Japanese Encephalitis Virus, Early career grant (BKP), University of Malaya, Kuala Lumpur, Malaysia, **Principal Investigator**.
15. Small molecule peptides as antimicrobials, High Impact Research Grant (HIR), University of Malaya, Kuala Lumpur, Malaysia, **Co-Investigator**.

16. Distribution of different genotypes of Human Rotavirus in Bushehr, Iran, Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
17. Evaluation of incidence and genotyping of genital papillomaviruses among the women of Bushehr, Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
18. Antiviral activity of a green alga (*Caulerpa sertularioides*). From the Persian Gulf in cell culture. Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
19. Antiviral activity of a brown alga (*Cystoseria myrica*) from the Persian gulf against HSV-1 in Vero cells, Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
20. Anti HSV-2 activity of a red alga from the persian gulf (*Gracillaria corticata*), Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
21. Antiviral activity of *Aloe Vera* against HSV-1 and HSV-2 (*In vitro* study), Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
22. Antiviral Activity of *Avicennia marina* against HSV-1 and poliovirus, Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
23. Anticancer activity of brown algae (*Sargassum oligocystome*) on human cancer cell lines. Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
24. Anticancer activity of a red algae (*Gracilaria corticata*) on some human cancer cell lines. Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**
25. Antiviral activity of some new derivatives of curcumin against HSV-1 in Vero cells, Research Grant from Bushehr University of Medical Sciences, Iran, **Principal Investigator.**

## Invited Keynote Talks

- **Zandi K.** Bioflavonoids: Natural compounds with potential antiviral properties against important arboviruses. Queens College, City University of New York, **2018**

- **Zandi K.** Chikungunya New Antivirals. USAMRIID, Fort Fredrick, **2014**

## Conference Oral Presentations

1. **Zandi K**, et al. Baicalein as a potential candidate for the treatment of Japanese Encephalitis. "International Conference on Biological, Medical and Pharmaceutical Sciences (ICBMPS'2013). Phuket, Thailand, 2013.
2. **Zandi K**, et al. Bioflavonoids against denguevirus. 2nd International Conference on Ecological, Environmental and Biological Sciences (EEBS'2012). Bali, Indonesia, October 2012.
3. **Zandi K**, Abbaszadeh M, Sartavi K, Rastian Z. Antiviral activity evaluation of *Aloe vera* against herpes simplex virus type 2: An *in vitro* study. Fourth Iranian Congress of Virology, 2007. Tehran, Iran.
4. **Zandi K**, Roostaee MH, Sadeghizadeh M, Rassaei MJ. Construction of a clone expressing gG-1 of HSV-1 in order to produce recombinant protein in prokaryotic system. 10<sup>th</sup> International congress on Infectious Disease (2002) Singapore.
5. **Zandi K**, Roostaee MH, Sadeghizadeh M, Rassaei MJ. Construction of a clone expressing gG of HSV-1 in order to produce recombinant protein in a prokaryotic system. 1<sup>st</sup> Iranian Congress on Virology (2002). Tehran. Iran.
6. **Zandi K**, Tajbakhsh S, Jafari SM, Ghafarian HR. Seroepidemiology of rubella among the Pre marriage women of Bushehr. The First National Congress on General Health and Preventive Medicine (2000). Kermanshah, Iran.

## Conference Poster Presentations

1. Oo A, **Zandi K**, et al. Baicalin as an *in vitro* inhibitor for Chikungunya virus. . 29<sup>th</sup> International Conference on Antiviral Research 2017. Atlanta, USA.
2. Hassandarvish P, **Zandi K**, et al. *In vitro* Anti-Dengue activity of Flavonoids. 28<sup>th</sup> International Conference in Antiviral Research 2015. Rome, Italy.
3. Moghaddam E, **Zandi K**, et al. Antiviral activity of the medicinal serum containing metabolites of Baicalein as anti-Dengue Virus agent. 28<sup>th</sup> International Conference in Antiviral Research 2015. Rome, Italy.
4. **Zandi K**, et al. *In vitro* antiviral activity of *Scutellaria Baicalensis* against Dengue Virus. 28<sup>th</sup> International Conference on Antiviral Research 2015. Rome, Italy.
5. **Zandi K, et al.** Malaysian animal farm workers and the risk of important tick borne viral diseases. IA8 Conference 2015. Dubai, UAE.
6. **Zandi K, et al.** Indole based compounds with antiviral activity against chikungunya virus. 3rd Antivirals Conference 2014. Amsterdam. Netherland.

7. **Zandi K, et al.** CHZ-6 a novel indole-based compound with activity against chikungunya virus internalization. Chikungunya 2013. Langkawi, Malaysia, 2013.
8. **Zandi K, et al.** Evaluation of *in vitro* antiviral activity of Silymarin against Chikungunya Virus. Chikungunya 2013. Langkawi, Malaysia, 2013.
9. Teoh BT, Sam SS, Tan KK, **Zandi K**, et al. Purifying selection in the evolution of dengue virus type 1 in Malaysia. 15<sup>th</sup> International Congress on Infectious Diseases (ICID 2012). Bangkok, Thailand, 2012.
10. **Zandi K**, et al. Evaluation of antiviral activity of pure and non-pure curcumin against HSV-1 in the Vero cell line. 61st Conference of the Deutschen-Gesellschaft-fur-Hygiene-und-Microbiologie. Gottingen, GERMANY, SEP 20-23, 2009
11. Tajbakhsh S, Mohammadi K, Deilami I, **Zandi K**, et al. Antibacterial activity of indium curcumin and indium diacetylcurcumin. 61st Conference of the Deutschen-Gesellschaft-fur-Hygiene-und-Microbiologie. Gottingen, GERMANY, SEP 20-23, 2009.
12. **Zandi K**, Taherzadeh M, Tajbakhsh S, et al. Antiviral activity of *Avicennia marina* leaf extract on HSV-1 and vaccine strain of polio virus in Vero cells. 13 th ICID, Kuala Lumpur, Malaysia, 2008.
13. Tajbakhsh S, **Zandi K**, et al. Study of Antibacterial Activity of a Green Alga, *Caulerpa Sertularioides* from the Persian Gulf. 13 th ICID, Kuala Lumpur, Malaysia, 2008.
14. **Zandi K**, Salimi M, Sartavi K. Antiherpetic activity of the red marine alga from the Persian gulf, *Gracilaria salicornia*. Third European Congress of Virology, 2007. Nurnberg, Germany.
15. **Zandi K**, Pakdel P, Sartavi K. Antiviral activity of a brown alga from Persian gulf, *Cystoseira myrica* against herpes simplex virus type 1 in cell culture. Third European Congress of Virology, 2007. Nurnberg, Germany.
16. **Zandi K**, Eghbali SS, Hamkar R, Ahmadi S, Ramedani E, Deilami I, Rastian Z. Screening of genital human papillomaviruses by PCR method among women of Bushehr port, Iran. Third European Congress of Virology, 2007. Nurnberg, Germany.
17. **Zandi K**, Nabipour I, Hojat- Farsangi M. Isolation and purification of a novel anticancer 60KD Protein from the persian gulf sea hare, *Aplysia dactylomela*. HUPO 2005 congress . Munich, Germany.
18. Hamkar R, Delfroosh M, Noroozi M, **Zandi K**, et al. The prevalence of HPV infection and its association with cytological abnormalities of Pap smears among the women. IPV, 2007, Hong Kong.
19. Amell Jamedar S, Sabahi F, Shafiee A, **Zandi K**, Azizi Jalilian F. Application of the lymphocyte proliferation (LP) assay and the viral neutralization test (VNT) for

- the measurement of Measles-specific immunity. Immuno 2004 congress. Montreal, Canada.
20. **Zandi K**, Roostaei MH, Sadeghizadeh M, Rasaei MJ, Soleimanjahi H. Application of baculovirus expression system to produce recombinant gG- 1 protein of HSV-1 in order to develop an ELISA kit. HUPO International Congress (2003). Montreal, Canada.
  21. Rahimizadeh S, Roostaei MH, Rezaei A, **Zandi K**, Soleimanjahi H. Production of HSV-1 TK recombinant protein in E.coli. HUPO International Congress(2003). Montreal, Canada.
  22. Aghaebrahimian M, Roostaei MH, Soleimanjahi H, **Zandi K**. Induction of neutralizing antibodies against HSV-1 in BALBIC mice inoculated with recombinant PCDNA 3-gD or PCDNA3 –gB or both. HUPO International Congress (2003) Montreal, Canada.
  23. Meshkat Z, Roostaei MH, Soleimanjahi H, **Zandi K**, Meshkat M. Comparison of western blotting with virus neutralization tests for the measurement of HSV-1 antibodies. HUPO International Congress (2003). Montreal, Canada.
  24. Roostaei MH, **Zandi K**, Sadeghizadeh M, Rasaei MJ, Hassan – Sjadi R. Preparation of recombinant glycoprotein G of HSV-1 for the development of western blotting. APOCB International congress (2002). Sinica, Taipei.
  25. Edalat R, Sabahi F, Roostaei MH, **Zandi K**. Enzyme linked immunosorbent assay compared with neutralization test for the detection of mumps virus IgG antibodies. 11<sup>th</sup> European congress of clinical Microbiology and Infectious Diseases (2001). Istanbul, Turkey.
  26. **Zandi K**, Roostaei MH, Sadeghizadeh M, Rasaei MJ, Soleimanjahi H. Production of purified gG-1 of HSV-1 in eukaryotic and prokaryotic systems. 2<sup>nd</sup> Iranian congress on virology (2004). Tehran, Iran.
  27. Rahimizadeh s, Roostaei MH, Razaee A, **Zandi K**, Soleimanjahi H. Cloning of HSV-1 TK gene in E.coli using PCR method for direct cloning. 2<sup>nd</sup> Iranian Congress on virology (2004). Tehran, Iran.
  28. Pourkarim MR, **Zandi K**, Khamisipour G. Investigation about the HBV infection criteria in an Afghani refugee camp in Bushehr, 2002. 2<sup>nd</sup> Iranian Congress on Virology 2004. Tehran, Iran.
  29. Pishraft Sabet L, Roostaei MH, **Zandi K**, Bamdad T. Restriction enzyme analysis of the TK gene in various isolates of HSV-1 and KOS standard Strain. 2<sup>nd</sup> Iranian Congress on Virology 2004. Tehran, Iran.
  30. Pishraft – Sabet L, **Zandi K**, Roostaei MH, Bamdad T. Comparison of two DNA extraction methods of HSV-1 in order to determine its genomic polymorphism. 1<sup>st</sup> Iranian congress on Virology (2002). Tehran, Iran.

31. Amell S, Sabahi F, Shafiee A, **Zandi K**. Development and optimization of Lymphocyte Tehran formation Text (LTT) in order to assess cellular immunity against measles virus. 1<sup>st</sup> Iranian Congress on Virology (2002). Tehran, Iran.
32. Nejati M, Roostaei MH, Solemanjahi H, Sabahi F, **Zandi K**, Faghihzadeh S. Application of passive HA in comparison with virus neutralization tests to detect and measure antibodies against genital herpes simplex virus. 1<sup>st</sup> Iranian Congress on Virology (2002). Tehran, Iran.
33. Tajbakhsh S, Salehi S, Moazemi N, **Zandi K**. Using prophage induction assays for screening of anticancer compounds. 1<sup>st</sup> Iranian Congress on Virology (2002) Tehran, Iran.
34. **Zandi K**, Shamsi – Shahrabadi M, Gharabaghi F. The effect of calcium ion on measles virus replication and morphogenesis. The Third Microbiology Congress (2000). Hamedan, Iran.

## Research Grant Reviewer Duties

- NIH Early Career Program Reviewer, USA, 2018-Present
- Grant Panel Reviewer, The Research Foundation – Flanders (FWO), Belgium, 2015-Present
- Grant Reviewer, Agency for Health Quality and Assessment of Catalonia, Since 2017-Present
- Grant Reviewer, British Society For Antimicrobial Chemotherapy, Since 2019-Present
- Grant Panel Reviewer, Ministry of Education, Malaysia, 2013-Present
- Grant Panel Reviewer, Research Council of University of Malaya, Kuala Lumpur, Malaysia, 2012-2016

## Editorships and Editorial Boards

- Editorial Board Member, Scientific Reports (Nature Publishing Group), 2014-Present
- Editorial Board Member, PLoS One, 2018-Present
- Editorial Board Member, BMC Infectious Diseases, 2018-Present
- Editorial Board Member, SM Tropical Medicine Journal, 2015-Present
- Editorial Board Member, Evidence Based Medicine and Public Health, 2016-Present
- Associate Editor, International Journal of Drug Discovery, 2015-Present
- Associate Editor, Biotechnology journal, 2015-Present
- Associate Editor, International Journal of Pharmacology, 2015-Present
- Associate Editor, American journal of Drug Discovery and development, 2015-Present
- Associate Editor, International Journal of Virology, 2015-Present



## **Committee Memberships**

- Organizing Committee Member, Eurovirology 2016 Conference, Madrid, Spain, 2016
- Scientific and Organizing Committee Member, Bridging The Science Conference On Emerging Viral Infections, Fort Lauderdale, Florida, USA, 2015
- Organizing Committee Member, Pharmacognosy, Beijing, China, 2014
- Organizing Committee, Basic and Clinical Immunology Course Faculty of Medicine, University of Malaya, Kuala Lumpur, Malaysia, 2014
- Scientific Advisory Board Member, The First International Symposium on Human Vector-Borne Diseases, Hawaii, USA, 2013
- Scientific Committee Member, The Fourth Iranian Virology Congress, 2007
- Scientific Committee Member, The Third Iranian Virology Congress, 2005
- Scientific Committee Member, The Second Iranian Virology Congress, 2004
- Scientific Committee Member, The First Iranian Virology Congress, 2002

## **Scientific Society Memberships**

- Member of European Society for Clinical Virology
- Member of International Society for Antiviral Research
- Member of Asian Pacific Virology Society
- Member of International Society for Medicinal Plants.

## **Peer Reviewer Appointments**

- PLoS Neglected Tropical Diseases
- Medicinal Chemistry
- MAb
- Expert Opinion On Therapeutic Targets
- Antiviral Research
- Vector-Borne and Zoonotic Diseases
- Microbial Pathogenesis
- Evidence Based Complementary and Alternative Medicine
- Molecular Biology Reports

- Viral Immunology
- Hemodialysis International

## **Honors and Awards**

- Distinguished Researcher, Bushehr Province, Bushehr, Iran, 2008
- Top Lecturer Award, Faculty of Medicine, Bushehr University of Medical Sciences, Bushehr, Iran, 2009

## **Formal Teaching**

### **a. Undergraduate Programs:**

- Medical Virology, Faculty of Medicine, University of Malaya, Malaysia, 2011-2016
- Medical Microbiology, Faculty of Medicine, University of Malaya, Malaysia, 2011-2016
- Medical Microbiology, Faculty of Dentistry, University of Malaya, Malaysia, 2011-2016
- Medical Microbiology, Faculty of Pharmacy, University of Malaya, Malaysia, 2013
- Problem Based Learning, Faculty of Medicine, University of Malaya, Malaysia, 2014-2016
- Practical Medical Microbiology, Faculty of Medicine, University of Malaya, Malaysia, 2011-2016
- Advanced Diagnostic Virology For Biomedical Sciences Program, Faculty of Medicine, University of Malaya, Malaysia, 2011-2016
- Introductory Diagnostic Virology For Biomedical Sciences Program, Faculty of Medicine, University of Malaya, Malaysia, 2011-2016
- Advanced Medical Microbiology For Biomedical Sciences Program, Faculty of Medicine, University of Malaya, Malaysia, 2014-2016
- Medical Microbiology, Faculty of Medicine, Bushehr University of Medical Sciences, 2003-2011
- Medical Virology, Faculty of Medicine, Bushehr University of Medical Sciences, 2003-2011
- Cell and Molecular Biology, Faculty of Medicine, Bushehr University of Medical Sciences, 2003-2011

### **b. Graduate Programs**

- Advanced Systematic Virology For Medical Virology M.Sc Program, Faculty of Medical Sciences, Tarbiat Modarres University, 2002
- Advanced Molecular Virology For Medical Microbiology M.Sc Program, Faculty of Medicine, Bushehr University of Medical Sciences, 2010

## **Supervisory Teaching**

### **a. PhD Students Directly Supervised**

- Pouya Hassandarvish, 2013-2017, Postdoctoral Fellowship
- Hassan Jindal, 2013-2017, Research Assistant
- Adrian Oo, 2014-2018, Postdoctoral Fellowship

### **b. M.Sc Students Directly Supervised**

- Azin Ahmadi, 2015-2017
- Rafidah Lani, 2013-2016
- Ehsan Moghaddam, 2013-2016
- Marziyeh Taherzadeh, 2007-2009
- Akram Najafi, 2008-2010
- Sanaz Koosha, 2014-2016

### **c. Thesis Committees**

- Alireza Saeidi, Immunology, University of Malaya, 2016
- Venus Iman, Molecular Medicine, University of Malaya, 2016
- Maryam Hajrezaei, Molecular Medicine, University of Malaya, 2016
- Shahram Golbabapour, Molecular Medicine, University of Malaya, 2015
- Yalda Khosravi, Medical Microbiology, University of Malaya, 2015
- Somayeh Fani, Molecular Medicine, University of Malaya, 2013

### **d. Other**

- Adrian Oo, Biomedical Science Final Year Project, 2014
- Shu Ling Goh, Biomedical Science Final Year Project, 2014
- Pedram Yadollahi, Biomedical Science Final Year Project, 2015
- Joey Tan, Biomedical Science Final Year Project, 2015
- Shirin Alijani, Biotechnology Program Final Year Project, 2015

## **International and National Collaborators**

- Dr. Frank Kuppeveld, Utrecht University, Netherlands
- Dr. Volker Lohmann, Heidelberg University, Germany
- Dr. Stephen Higgs, Biosecurity Research Institute, Kansas State University, USA
- Dr. Zahra Zakeri, City University of New York, USA
- Dr. Andrew Yueh, National Health Research Institutes, Taiwan
- Dr. Andres Merits, Tartu University, Estonia
- Dr. Justin Chu, National University of Singapore, Singapore

### **Mentoring and Outreach Activities**

I have served different organizations all around the world as a grant reviewer panel member including, NIH early career program, Agency for Health Quality and Assessment of Catalonia, Spain, Flinders (FWO) from Belgium, British Society for Antimicrobial Chemotherapy and Ministry of Higher Education in Malaysia. I have served different scientific journals as an editorial board member including Scientific Reports and PLoS One, BMC Infectious Diseases and some others and also I am serving several high impact scientific journals as peer reviewer such as PLoS Neglected Tropical Diseases, mAb, Medicinal Chemistry, Antiviral Research and even more. I have been among the organizing and committee members for several International and national seminars and conferences as listed in my CV. As a mentor I have supervised 3 Ph.D students and 6 M.Sc students and also several undergraduate students for their final year project. I also managed and supervised all research assistants who were involved in my 21 research projects as mentor.