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Dr. Hassan Zaraket is a scientist, an entrepreneur, and a leader. He earned in bachelor degree in Pharmacy in Lebanon in 2005. He then received a scholarship to pursue a PhD degree in infectious diseases in Japan, following which he moved to the United States to continue his postdoctoral studies in virology. In 2012, he started and served as the chief technology officer of *US Biologic*, a company developing a wildlife vaccine for Lyme disease. He was among the managing team that raised a \$1,5 million round A investment. As a scientist, Dr. Zaraket has led several research teams. He is currently an assistant professor at the Faculty of Medicine the American University of Beirut. He is also serving on the board of International Society for Influenza and Other Respiratory Viruses. He has passion for training young scientists on research, time management, and leadership. He published over 40 research articles and reviews and presented his work at many international and local conferences.

PROFESSIONAL EXPERIENCES

current	Member , Board, International Society for Influenza and Other Respiratory viruses (<i>isirv</i>), London, UK
2014-current	Assistant Professor, Virology , Department of Experimental Pathology, Immunology, and Microbiology, Faculty of Medicine, American University of Beirut, Beirut, Lebanon
2009-2014	Postdoctoral Research Associate , Division of Virology, Department of Infectious Diseases, St. Jude Children's Research Hospital, Memphis, TN, USA
Dec 2013	Visiting Scientist , School of Public Health, Hong Kong University, Hong Kong
2012-2013	Chief Technology Officer and Co-founder , US BIOLOGIC, Memphis, TN, USA
2008-2009	Research Assistant , Division of Public health, Graduate School of Medical and Dental Sciences, Niigata University, Japan
2006-2007	Teaching Assistant , Microbiology, School of Medicine, Niigata University, Japan
2004-2005	Community Pharmacist , Spears Pharmacy, Beirut, Lebanon

ACADEMIC DEGREES

Sept/2009	PhD, Community Disease Control . Division of Public Health, Graduate School of Medical and Dental Sciences, Niigata University, Niigata, Japan
Jun/2004	Bachelor of Science Pharmacy , Beirut Arab University, Lebanon

RESEARCH INTERESTS

- Emerging viral pathogens
- Epidemiology and molecular evolution of respiratory and gastrointestinal viruses
- Viral infections and the sphingolipid pathway
- Virus and host determinants of virulence and host range of influenza viruses
- Viral co-infections

PUBLICATIONS

<http://www.ncbi.nlm.nih.gov/sites/myncbi/1nQmhyei5eDQy/bibliographahy/48252881/public/?sort=date&direction=ascending>

Note: # indicates corresponding author

1. **Zaraket H**, Kondo H, Hibino A, Yagami R, Odagiri T, Takeme N, Tsunekuni R, Saito T, Japanese Influenza Collaborative Study Group, Myint Y, Kyaw Y, Oo K, Tin H, Lin N, Anh N, Hang N, Mai LQ, Hassan MR, Shobugawa Y, Dbaibo G, Saito R. Full genome characterization of human influenza A/H3N2 isolates from Asian countries reveals a rare amantadine resistance-conferring mutation and novel PB1-F2 polymorphisms. *Submitted*
2. Ghulmiyyah L, Alame MM, Mirza FG, **Zaraket H**, Nassar AH. Influenza and its treatment during pregnancy: A review. *J Neonatal Perinatal Med*, 2015 [ahead of print].
3. **Zaraket H**, Baranovich T, Kaplan BS, Carter R, Song MS, Paulson JC, Rehg JE, Bahl J, Crumpton J, Seiler J, Edmonson M, Wu G, Karlsson E, Fabrizio T, Zhu H, Guan Y, Schultz-Cherry S, Krauss S, McBride R, Webster RG, Govorkova EA, Zhang J, Russell CJ, Webby RJ. Mammalian adaptation of influenza A(H7N9) virus is limited by a narrow genetic bottleneck. *Nat. Com.* 6:6553 doi:10.1038/ncomms7553, 2015
4. **Zaraket H**[#], Dapat C, Ghanem S, Ali Z, Lteif M, Kondo H, Dapat IC, Saito K, Kayali G, Suzuki H, Dbaibo G, Saito R. Characterization of Human Influenza Viruses in Lebanon during 2010-2011 and 2011-2012 Post-Pandemic Seasons. *Intervirology*. 57:344–352, 2014
5. Duan S, Govorkova EA, Bahl J, **Zaraket H**, Baranovich T, Seiler P, Prevost K, Webster RG, Webby RJ. Epistatic interactions between neuraminidase mutations facilitated the emergence of the oseltamivir-resistant H1N1 influenza viruses. *Na. Commun.* 9:5:5029. doi: 10.1038/ncomms6029, 2014
6. Wong SS, Yoon SW, Zanin M, Song MS, Oshansky C, **Zaraket H**, Sonnberg S, Rubrum A, Seiler P, Ferguson A, Krauss S, Cardona C, Webby RJ, Crossley B.. Characterization of an H4N2 Influenza Virus from Quails with a Multibasic Motif in the Hemagglutinin Cleavage Site. *Virology*. 468-470C:72-80, 2014
7. Kandeil A, Bagato O, **Zaraket H**, Debeauchamp J, Krauss S, El-Shesheny R, Webby RJ, Ali MA, Kayali G. Proteolytic enzymes in embryonated chicken eggs sustain the replication of egg-grown low-pathogenicity avian influenza viruses in cells in the absence of exogenous proteases. *J Virol Methods*. 15:28-33, 2014
8. The SJCEIRS H9 Working Group. (By Alphabetical Order: Baranovich T, Bridges O, Burnham A, Carey D, Cline TD, Crumpton JC, DeBeauchamp J, Duan S, Ducatez M, Elbahesh H, Fabrizio T, Forrest HL, Franks J, Freiden P, Govorkova P, Guan Y, Jones JC, Kaplan BS, Karlsson E, Kercher LA, Koçer ZA, Krauss S, Little B, Marathe BM, McClaren L, McKenzie PM, Meliopoulos VA, O'Brien KB, Oguin TH, Oshansky CM, Peiris M, Prevost K, Rubrum A, Russell CJ, Sanders C, Seiler P, Seufzer B, Shanmuganatham KK, Sonnberg S, Stoner TD, Jeevan T, Turner J, van de Velde LA, van de Velde N, Walker D, Webby RJ, Webster RG, Wong SS, Yoon SW, Zanin M, **Zaraket H**, Schultz-Cherry SL, Thomas PG.) Assessing the fitness of distinct clades of influenza A (H9N2) viruses. *Emerg. Microbes Infectec.* 2, e75; doi:10.1038/emi.2013.75, 2013
9. Jones J, Baranovich T, **Zaraket H**, Guan Y, Shu YL, Webby R, Webster R. Human H7N9 Influenza A Viruses Replicate in Swine Respiratory Tissue Explants. *J Virol.* 87:12496-8, 2013
10. Shabana II, **Zaraket H**, Suzuki H. Molecular studies on diarrhea-associated Escherichia coli isolated from humans and animals in Egypt. *Vet Microbiol.* 167:532-9, 2013
11. Kocer Z, Obenauer J, **Zaraket H**, Zhang J, Rehg J, Russell CJ, and Webster RG. Fecal influenza in mammals: selection of novel variants? *J Virol.* 2013. 87:11476-11486

12. **Zaraket H**, Bridges OA, Duan S, Baranovich T, Yoon SW, Reed ML, Salomon R, Webby RJ, Webster RG, Russell CJ. Increased hemagglutinin protein stability enhances H5N1 influenza virus growth in the nasopharynx but is insufficient for transmission in ferrets. *J Virol.* 87:9911-22, 2013
13. **Zaraket H**, Bridges OA, Russell CJ The pH of Activation of the Hemagglutinin Protein Regulates H5N1 Influenza Virus Replication and Pathogenesis in Mice. *J Virol.* 87:4826-34, 2013
Article of significant interest selected by the editor- Hemagglutinin Acid Stability Drives H5N1 Influenza Virus Adaptation from Birds to Mammals <http://jvi.asm.org/content/87/9/4797.full.pdf+html>; **Accompanying editorial-** A new determinant of H5N1 influenza virus pathogenesis in mammals. Dermody TS, Sandri-Goldin RM, Shenk T. *J Virol.* 87:4795-6, 2013
ASM press release- Mutation Altering Stability of Surface Molecule in Acid Enables H5N1 Infection of Mammals. <http://www.asm.org/index.php/asm-press-releases/92-news-room/press-releases/91550-mutation-altering-stability-of-surface-molecule-in-acid-enables-h5n1-infection-of-mammals>
14. Otsuka T, **Zaraket H**, Fujii K, Masuda Y, Komiyama K, Ishikawa Y, Shirai T, Iwaya A, Okazaki M Molecular Epidemiology of Methicillin-Resistant Staphylococcus aureus Isolated from Children in a Community with Low Antimicrobial Pressure in Japan. *Jpn J Infect Dis.* 65:483-8, 2012
15. Otsuka T, Komiyama K, Yoshida K, Ishikawa Y, **Zaraket H**, Nakamura M, Shoji Y, Nirei J, Ono T, Matsui K, Nakamura H, Shirai T, Iwaya A, Okazaki M. Genotyping of Haemophilus influenzae type b in pre-vaccination era. *J Infect Chemo.* 18:213-8, 2012
16. Dubois RM*, **Zaraket H*** Reddivari M, Heath RJ, White SW, Russell CJ. Acid stability of the hemagglutinin protein regulates H5N1 influenza virus pathogenicity. *PLoS Pathog.* 7(12):e1002398. 2011. (* Co-first authors)
17. **Zaraket H**[#], Kondo H, Thabet C, Suzuki Y, Dbaibo D, Saito R, Suzuki H. Genetic Diversity and Antiviral Drug resistance of Pandemic H1N1 2009 in Lebanon. *J Clin Virol.* 51:170–174, 2011
18. Suzuki Y, Saito R, Sato I, **Zaraket H**, Nishikawa M, Tamura T, Daput C, Caperig-Daput I, Baranovich T, Suzuki T, Suzuki H. Identification of oseltamivir resistance among pandemic and seasonal influenza A(H1N1) viruses by His275Tyr genotyping assay using cycling probe method. *J Clin Microbiol.* 49:125-30, 2011
19. Oguma T, Saito R, Masaki H, Hoshino K, **Zaraket H**, Suzuki Y, Caperig-Daput I, Daput C, Baranovich T, Kuroki R, Makimoto Y, Shirahige Y, Asoh N, Degawa S, Ishikawa H, Kageura H, Hosoi M, Suzuki H. Molecular Characteristics of Nosocomial Outbreaks of Influenza A/H3N2 Virus Variants. *Infect Control Hosp Epidemiol.* 32:267-75, 2011
20. Otsuka T, Yoshida K, Komiyama K, Ishikawa Y, **Zaraket H**, Nakamura M, Okazaki M. Prevalence and molecular typing of methicillin-resistant Staphylococcus aureus in an area under controlled antimicrobial use. *Jpn J Infect Dis.* 64:436-38, 2011
21. Baranovich T, **Zaraket H**, Shabana I, Nevzorova V, Turcutyuicov V, Suzuki H. Molecular characterization and susceptibility of methicillin-resistant and methicillin-susceptible Staphylococcus aureus isolated from hospitals and the community in Vladivostok, Russia. *Clin Microbiol Infect.* 16:575-82, 2010
22. Suzuki Y, Saito R, **Zaraket H**, Suzuki H. Rapid and specific detection of amantadine-resistant Ser31Asn mutated influenza A viruses by cycling probe method. *J Clin Microb.* 48:57-63, 2010
23. Daput C, Suzuki Y, Saito R, Kyaw Y, Myint YY, Lin N, Oo HN, Oo KY, Win N, Naito M,

- Hasegawa G, Daplat IC, **Zaraket H**, Baranovich T, Nishikawa M, Saito T, Suzuki H. Rare influenza A (H3N2) variants with reduced sensitivity to antiviral drugs. *Emerg Infect Dis.* 16:493-6, 2010
24. Baranovich T, Saito R, Suzuki Y, **Zaraket H**, Daplat C, Caperig-Daplat I, Oguma T, Shabana II, Saito T, Suzuki H; Japanese Influenza Collaborative Study Group. Emergence of H274Y oseltamivir-resistant A (H1N1) influenza viruses in Japan during the 2008-2009 season. *J Clin Virol.* 47:23-28, 2010
25. **Zaraket H**[#], Saito R, Suzuki Y, Baranovich T, Daplat C, Caperig-Daplat I, Suzuki H. The Genetic Makeup of Amantadine-Resistant and Oseltamivir-Resistant Human Influenza A/H1N1 Viruses. *J Clin Microb.* 48:1085-92, 2010
26. **Zaraket H**[#], Wakim R, Tabet C, Medlej F, Reda M, Baranovich T, Suzuki Y, Daplat C, Caperig-Daplat I, Saito R, Dbaiibo G, Suzuki H. Antiviral Drug Susceptibilities of Seasonal Human Influenza Viruses in Lebanon, 2008-09 Season. *J Med Virol.* 82:1224-28, 2010
27. Saito R, Isamu Sato I, Suzuki Y, Baranovich T, Matsuda R, Ishitani N, Daplat C, Caperig-Daplat I, **Zaraket H**, Oguma T, Suzuki H. Reduced effectiveness of oseltamivir to children infected with oseltamivir resistant influenza A H1N1 viruses with His275Tyr mutation. *J Ped Infect Dis.* 29:898-904, 2010
28. **Zaraket H**[#], Saito R, Suzuki Y, Suzuki Y, Caperig-Daplat I, Daplat C, Shabana I, Baranovich T, Suzuki H. Genomic Events Contributing to High Prevalence of Amantadine-Resistant Influenza A/H3N2. *Antivir Ther.* 15:307-19, 2010
29. Daplat IC, Shobugawa Y, Sano Y, Saito R, Sasaki A, Suzuki Y, Kumaki A, **Zaraket H**, Daplat C, Oguma T, Yamaguchi M, Suzuki H. New genotypes within respiratory syncytial virus (RSV) Group B genotype BA in Niigata, Japan. *J Clin Microbiol.* 48:3423-27, 2010
30. Daplat C, Saito R, Kyaw Y, Cho TM, Myint YY, Lin N, Oo H, Oo K, Win N, Naito M, Hasegawa G, Suzuki Y, Daplat I, **Zaraket H**, Baranovich T, Nishikawa M, Suzuki H. Emerging human influenza viruses A (H1N1) that are resistant to both amantadine and oseltamivir. *Intervirology.* 52:310-20, 2009
31. Li D, Saito R, Suzuki Y, Sato I, **Zaraket H**, Daplat C, Caperig-Daplat I, Suzuki H. In vivo and in vitro alterations in influenza A/H3N2 M2 and HA genes: effect of passage in MDCK-SIAT1 cells and conventional MDCK cells. *J Clin Microb.* 47:466-468, 2009
32. **Zaraket H**[#], Saito R, Sato I, Suzuki Y, Li D, Daplat C, Caperig-Daplat I, Oguma T, Sasaki A, Suzuki H. Molecular evolution of human influenza A viruses in a local area during eight influenza epidemics from 2000 to 2007. *Arch Virol.* 154:285-95, 2009
33. **Zaraket H**[#], Dbaiibo G, Salam O, Saito R, Suzuki H. Influenza Virus Infections in Lebanese Children in the 2007-2008 Season. *Jpn J Infect Dis.* 62:137-138, 2009
34. Daplat C, Saito R, Kyaw Y, Naito M, Hasegawa G, Suzuki Y, Daplat IC, **Zaraket H**, Cho TM, Li D, Oguma T, Baranovich T, Suzuki H. Epidemiology of human influenza A and B viruses in Myanmar from 2005 to 2007. *Intervirology.* 52:310-20, 2009
35. Suzuki Y, Taira K, Saito R, Nidaira M, Okano S, **Zaraket H**, Suzuki H. Epidemiologic study of influenza infection in Okinawa, Japan, from 2001 to 2007: changing patterns of seasonality and amantadine-resistant influenza A. *J Clin Microb.* 47:623-629, 2009
36. Shobugawa Y, Saito R, Sano Y, **Zaraket H**, Suzuki Y, Kumaki A, Daplat I, Oguma T, Yamaguchi M, Suzuki H. Emerging Genotypes of Human Respiratory Syncytial 1 Virus Subgroup A in Japan. *J Clin Microb.* 47:2475-82, 2009
37. Saito R, Suzuki Y, Li D, **Zaraket H**, Sato I, Masaki I, Kawashima T, Hibi S, Sano Y, Shobugawa Y, Oguma T, Suzuki H. Increased Incidence of Adamantane Resistant Influenza A(H1N1) and A(H3N2) Viruses During the 2006–2007 Influenza Season in Japan. *J Infect*

Dis. 197: 630-632, 2008

38. **Zaraket H[#]**, Saito R, Tanabe N, Taniguchi K, Suzuki H. Association of early annual peak influenza activity with El Niño southern oscillation in Japan. *Influenza and Other Respiratory Viruses*. 2: 127–130, 2008.
39. Saito R, Suzuki Y, **Zaraket H**, Suzuki H. Global Circulation of Influenza. *Sougo Rinsho*. (Japanese) 57: 2639-2644. (Review), 2008
40. Takano T, Higuchi W, **Zaraket H**, Otsuka T, Baranovich T, Enanya T, Saito K, Isobe H, Dohmae S, Kyoko Ozakia, Takano M, Iwao Y, Shibuya M, Okuboa T, Yabe S, Shia D, Reva I, Teng LJ, Yamamoto Y. Novel Characteristics of Community-Acquired Methicillin-Resistant *Staphylococcus aureus* Strains Belonging to Multilocus Sequence Type 59 in Taiwan. *Antimicrob Agents Chemother*. 52: 837-45, 2008 (Erratum published 56:6441, 2012)
41. **Zaraket H**, Otsuka T, Saito K, Dohmae S, Takano T, Higuchi W, Ohkubo T, Ozaki K, Takano M, Reva I, Baranovich T, Yamamoto T. Molecular characterization of methicillin-resistant *Staphylococcus aureus* in hospitals in Niigata, Japan: divergence and transmission. *Microbiol Immunol*. 51:171-6, 2007
42. Otsuka T, **Zaraket H**, Takano T, Saito K, Dohmae S, Higuchi W, Yamamoto T. Macrolide-lincosamide-streptogramin B resistance phenotypes and genotypes among *Staphylococcus aureus* clinical isolates in Japan. *Clin Microbiol Infect*. 13: 325-327, 2007
43. Yamamoto T, Otsuka T, Takano T, Yabe S., Dohmae S., Saito K, Higuchi W, Reva I., **Zaraket H**. *Helicobacter* infections; *Molecular bacteriology. J. Ped.* (Japanese). 39: 449-455. (Review), 2007
44. Yamamoto T, Baranovich T, **Zaraket H**, Ohkubo T, Shi D. Anti-SARS-CoV drugs, p. 89-106. In SARS (T Mizutani ed.), Transworld Research Network, (Book Chapter), 2006

CONFERENCE PRESENTATIONS

1. **Zaraket H**, Soudani N, Lteif M, Chaker R, Assaf-Casales A, Ali Z, Akel I, Heloua M, Khafaja S, Ojha R, Johnson K, Caniza M, Muwakkit S, Dbaibo G. Respiratory Virus Infections in Pediatric Cancer Patients. ASM2015, New Orleans. 2015
2. Soudani N, Lteif M, Chaker R, Assaf-Casales A, Ali Z, Akel I, Heloua M, Khafaja S, Muwakkit S, Dbaibo G, **Zaraket H**. Surveillance of Respiratory Virus Infections among Pediatric Cancer Patients at the Children's Cancer Center of Lebanon. 5th Annual AUB Biomedical Research Day, Beirut, Lebanon. 2015
3. Ali Z, Harastani H, Hammadi M, Reslan L, Ghanem S, Hajar F, Sabra A, Haider A, Inati A, Rajab M, Fakhouri H, Ghanem B, Baasiri G, Gerbaka B, **Zaraket H**, Ghassan Matar G, Dbaibo G. Disease burden and prevalent genotypes of rotavirus causing gastroenteritis in hospitalized children < 5 years of age in Lebanon. 5th Annual AUB Biomedical Research Day, Beirut, Lebanon. 2015
4. Shaker R, Lteif M, Hanna-Wakim R, Ghanem S, Shehab H, Hedari C, Hasan S, Saad R, Hamadi M, Yahfouf M, Saito K, Tabet C, Medlej F, Dapat C, Assaf-Casales A, Imad Akela, c, Mona El Heloua, c, Sarah Khafajaa, c, Isolde Dapathb, Imane Mahfouz I, Ali Z, Haidar A, Rima Khinkarly R, Soudani N, Hiroshi Suzuki H, Saito R, Dbaibo G, **Zaraket H**. Epidemiologic Surveillance of influenza viruses in Lebanon. 5th Annual AUB Biomedical Research Day, Beirut, Lebanon. 2015
5. **Zaraket H**, Bridges OA, Duan S, Baranovich T, Yoon SW, Reed ML, Salomon R, Webby RJ, Webster RG, Russell CJ. : Impact of the Hemagglutinin Protein Acid Stability on Virulence and Host Range of H5N1 Influenza Viruses. Options VIII, Cape Town, South Africa. 2013
6. **Zaraket, H**, Dapat C, Tabet C, Kondo H, Dapat IC, Saito K, Lteif M, Kayali G, Dbaibo G,

- Saito R, Suzuki H. Post-pandemic Human Influenza Virus Surveillance in Lebanon. Postdoctoral Professional Development Event, St Jude Children's Research Hospital, Memphis, US. 2013
7. **Zaraket H**, Bridges OA, Duan S, Baranovich T, Yoon SW, Reed ML, Salomon R, Webby RJ, Webster RG, Russell CJ. Novel Determinant of H5N1 Influenza Virus Pathogenesis in Mammals. Postdoctoral Professional Development Event, St Jude Children's Research Hospital, Memphis, US. 2013
8. **Zaraket H**, Dapat C, Tabet C, Kondo H, Dapat IC, Saito K, Lteif M, Kayali G, Dbaiibo G, Saito R, Suzuki H. Post-pandemic Human Influenza Virus Surveillance in Lebanon. Global Health and Infectious Disease Conference, Washington University, St Louis, Missouri, US. 2013
9. **Zaraket H**, Duan S, Bridges OA, Russell CJ. The hemagglutinin protein acid stability regulates H5N1 influenza virus pathogenicity and host adaptation. Second isirv Antiviral Group Conference on Severe Influenza: Burden, Pathogenesis and Management, Hanoi, Vietnam. 2012
10. **Zaraket H**, St Jude CEIRS Working Group. Risk assessment studies on Avian H9N2 influenza viruses from different lineages. 6th Annual CEIRS meeting, New York, US. 2012
11. **Zaraket H**, Dubois RM, Reed ML, Reddivari M, Bridges OA, Reddivari M, Heath RJ, White SW, Russell CJ. Energy barrier for HA activation helps determine influenza virus biology. 6th Annual CEIRS meeting, New York, US. 2012
12. **Zaraket H**, Duan S, Bridges OA, Russell CJ. The hemagglutinin protein activation pH helps determine H5N1 influenza virus pathogenicity and host adaptation. American Society for Virology 31st Annual Meeting, Minneapolis, US. 2012
13. **Zaraket H**, St Jude CEIRS Working Group. Moving Surveillance Forward; Risk Assessment of H9N2 Influenza Viruses Using *In vitro* and *In vivo* Models. St Jude CEIRS Scientific Advisory Board Meeting, Memphis, US. 2012
14. **Zaraket H**, Dubois RM, Reed ML, Reddivari M, Hulse DJ, Vieillevoe M, Heath RJ, Webster RG, White SW, Russell CJ. Acid stability of the hemagglutinin protein is a pathogenicity marker for H5N1 influenza virus in chickens. 2011 Postdoctoral Professional Development Event, St Jude Children's Research Hospital, Tennessee, US. 2011
15. **Zaraket H**, Dubois RM, Reed ML, Reddivari M, Hulse DJ, Vieillevoe M, Heath RJ, Webster RG, White SW, Russell CJ. Acid stability of the HA protein determines H5N1 pathogenicity in chickens. 5th Annual of the Centers of Excellence of Influenza Research and Surveillance, Georgia, US. 2011
16. **Zaraket H**, Dubois RM, Reed ML, Reddivari M, Hulse DJ, Vieillevoe M, Heath RJ, Webster RG, White SW, Russell CJ. Acid stability of the HA protein is a novel determinant of H5N1 influenza virus pathogenicity. American Society for Virology 30th Annual Meeting, Minneapolis, US. 2011
17. **Zaraket H**, Saito R, Suzuki Y, Baranovich T, Dapat C, Caperig-Dapat I, Suzuki H. The genesis of antiviral drug resistant human influenza A/H1N1 viruses. BirdFlu2009: Avian influenza and human health. St Hilda's College, Oxford, UK. 2009
18. **Zaraket H**, Saito R, Wakim R, Tabet C, Medlej F, Reda M, Abdul Sater Z, Dbaiibo G, Suzuki H. Antiviral Susceptibilities of Seasonal Human Influenza Viruses in Lebanon, 2008-09 Season. 7th National Pediatric Congress, Lebanon. 2009
19. **Zaraket H**. Influenza virus infections in Lebanese children in the 2007-2008 season. 2nd Japan-Myanmar Biomedical Workshop -Influenza and other viral infections in Asia, Japan. 2008

20. **Zaraket H**, Saito R, Suzuki Y, Sato I, Dapat C, Dapat I, Oguma T, Yamaguchi M, Suzuki H. Evolutionary Dynamics of Influenza A(H3N2) and A(H1N1) Isolated in Niigata during Eight Epidemics, 2000-2007. 56th Japan Conference for Virology, Japan. 2008
21. **Zaraket H**, Higuchi H, Saito K, Dohmae S, Otsuka T, Ikue T, Yamamoto T. Molecular Characterization of MRSA isolated in Hospitals. The 79th Japan Conference for Bacteriology, Japan. 2006

INVITED TALKS/ PANELIST

1. **Zaraket H**. Influenza Prevention and Treatment. Lebanese Order of Pharmacists Continuing Education Program. Beirut, Lebanon. 2015
2. **Zaraket H**. Rotavirus Infections and Vaccination in Children under Five in Lebanon. 23rd Lebanese Order of Pharmacists Pharmaceutical Congress. Connecting Science to Practice. Beirut, Lebanon. 2015
3. **Zaraket H**. (Panelist). Careers in Pharmacy. Career Orientation Session. 23rd Lebanese Order of Pharmacists Pharmaceutical Congress. Connecting Science to Practice. Beirut, Lebanon. 2015
4. **Zaraket H**. Acute Viral Respiratory Infections. Lebanese Order of Pharmacists Continuing Education Program. Tyre, Lebanon. 2015
5. **Zaraket H**. Viral Etiological Agents of Acute Respiratory Tract Infections. Lebanese Order of Pharmacists Continuing Education Program. Beirut, Lebanon. 2015
6. **Zaraket H**. Influenza and Other Respiratory Viruses Surveillance in General Population and Pediatric Cancer Patients in Lebanon. Infectious Disease Research Conference. St Jude Children's Research Hospital, USA. 2015
7. **Zaraket H**. Assessing the pandemic potential of H7N9 influenza viruses. Basic Medical Science Departments Research Seminar and Journal Club Series. American University of Beirut, Lebanon. 2015
8. **Zaraket H**. Turning the tide of antimicrobial drug resistance. Oman. 2015
9. **Zaraket H**. Antimicrobial apocalypse is a non-fiction story. Middle East Otolaryngology Conference and Exhibition, Dubai. 2015
10. **Zaraket H**. Influenza pandemics and emerging infectious diseases. Faculty of Health Sciences, Modern University of Business and Science (MUBS), Lebanon. 2014
11. **Zaraket H**. The weight of acid stability on the pathogenesis of influenza virus. Hong Kong University, Hong Kong. 2013
12. **Zaraket H**. The influenza virus acid stability: A balancing act. Institut National De la Recherche Agronomique, France. 2013
13. **Zaraket H**. Influence of HA acid stability on H5N1 interspecies adaptation. Regional Biocontainment Laboratory. University of Tennessee Health Science Center, USA. 2013
14. **Zaraket H**. Risk assessment studies on Avian H9N2 influenza viruses from different lineages. 6th Annual CEIRS meeting, New York, US. 2012
15. **Zaraket H** (Panelist along with Drs. Nancy Cox, Carol Candona, Scott Krauss). Risk Assessment and CEIRS Role. 6th Annual CEIRS meeting, New York, US. 2012
16. **Zaraket H**. H5N1 influenza virus virulence and host range: The role of the hemagglutinin protein. American University of Beirut, Lebanon. 2012
17. **Zaraket H**. Molecular determinants of H5N1 influenza virus virulence and host range: The hemagglutinin protein. Beirut Arab University, Lebanon 2012

18. **Zaraket H.** Acid stability of the hemagglutinin protein regulates H5N1 influenza virulence and host adaptation. Infectious Disease Workshop, St Jude Children's Research Hospital. 2012
19. **Zaraket H.** Novel Pathogenic Markers for the H5N1 Influenza Virus. Research Seminar and Journal Club Series, American University of Beirut, Lebanon. 2010
20. **Zaraket H.** Methicillin-resistant *Staphylococcus aureus* (MRSA): Background, Antimicrobial Resistance, and Molecular Typing. Basic Science Seminar, American University of Beirut, Lebanon. 2007

RADIO AND TV INTERVIEWS

Influenza prevention and treatment. Asia Morning (Arabic). Asia TV. October 3, 2015.
Discussion on Ebola Virus. The Family Doctor Radio Program (Arabic). Al-Bashaer Radio Station. August 12, 2014

RESEARCH GRANT SUPPORT

1. DEFINING THE INTERPLAY BETWEEN INFLUENZA A VIRUS INFECTION AND THE SPHINGOLIPID PATHWAY
Role: PI
Supported by:
Medical Practice Plan, American University of Beirut: \$90, 000 (August 2015-July 2018)
2. SURVEILLANCE OF RESPIRATORY VIRUS INFECTIONS AMONG PEDIATRIC CANCER PATIENTS AT THE CHILDREN'S CANCER CENTER OF LEBANON
Role: PI
Supported by:
Medical Research Plan, American University of Beirut: \$40,000 (August 2014-July 2015)
Center for Infectious Disease Defense, St Jude children's Research Hospital: \$16,000 (July 2014- June 2015)

AWARDS

2013 Centers of Excellence for Influenza Research and Surveillance (CEIRS) Training Award
2013 Quantitative Systems Immunology Summer School Scholarship, Boston University
2012 Second isirv Antiviral Group Conference Travel Award
2012 American Society for Virology 31st Annual Meeting Postdoctoral Fellow Travel Award
2011 American Society for Virology 30th Annual Meeting Postdoctoral Fellow Travel Award
2005-2009 Japanese Government Scholarship for Graduate Studies (Awarded to three students each year)

SCIENTIFIC SERVICE

International Associations:

International Society for Influenza and other Respiratory viruses (isirv)
Member, board, 2015-2016

Committees

23rd Order of Lebanese Pharmacists Pharmaceutical Congress
Member, *Scientific Committee*, 2015

Editorial Board

The Scientific World Journal, 2015

Peer Review

Reviewer for the following Journals:

Nature's Scientific Reports

Virology Journal

Antiviral Research

BMC Research Notes

BMC infectious Diseases

BMC Microbiology

PLOS ONE

Journal of Molecular Genetics Medicine

Virus Genes

Journal of Research in Medical Sciences

Annals of Clinical Microbiology and Antimicrobials

Disease Markers

The Scientific World Journal

Indian Journal of Medical Research

TEACHING

American University of Beirut, Faculty of Medicine

1. Microbiology and Infectious Diseases IDTH 205, Virology and Infectious Diseases Instructor
For Med I and II students (since 2014)

GRADUATE STUDENTS SUPERVISED (MASTERS THESIS ADVISOR)

- Mohsen El-Husseini, Department of Experimental Pathology, Immunology, and Microbiology, Faculty of Medicine, American University of Beirut, 2015-2016. Thesis Title: Full genome sequencing of unique rotavirus genotypes isolated in Lebanon.

GRADUATE STUDENTS SUPERVISED (MASTERS THESIS COMMITTEE MEMBER/Co-advisor)

- Yolla German, Department of Experimental Pathology, Immunology, and Microbiology, Faculty of Medicine, American University of Beirut, 2015-2016. Thesis title: Effect of *Toxoplasma gondii* infection on subsequent influenza infection in mice (co-advisor)
- Amani Aude, Department of Biochemistry, Faculty of Science, Beirut Arab University, 2015-2016. Thesis title: Effect of acid sphingomyelinase on influenza virus infection (co-advisor)

STUDENTS and RESEARCH ASSISTANTS SUPERVISED

- Elie Massaad, Medical student, American University of Beirut, 2015
- Hala Usta, Medical Research Volunteer Student, 2015

- Medical Research Volunteer Program, hosting students, 2014-2015
- Hadi Abu El-Hassan, Medical student, American University of Beirut, 2014- current
- Nadia Soudani, research assistant, American University of Beirut, 2014-current
- Houda Harastani, research assistant, American University of Beirut, 2014-current
- Samer Labban, medical student, Beirut Arab University (one month summer internship), 2014
- Yang Guohua, lab technician, St Jude Children's Research Hospital, 2013-2014
- Olga Bridges, lab technician, St Jude Children's Research Hospital, 2009-2014
- Lauren Jayne, lab technician, St Jude Children's Research Hospital, 2010-2012
- Isolde C. Dapat, Graduate Student, Niigata University, 2007-2008
- Tatiana Baranovich, Graduate Student, Niigata University, 2008
- Iman Shabana, Suez Canal University-Niigata University Channel Graduate Program, 2008-2009

UNIVERSITY COMMITTEES/ TASK FORCES

- American University of Beirut
Member, *Library Committee*, 2014-current
- American University of Beirut, Faculty of Medicine
Member, *Task force on research initiatives to decrease research cost*, 2015
- American University of Beirut, Faculty of Medicine
Member, *DTS moving task force*, 2015
- American University of Beirut, Faculty of Medicine
Member, *Organizing Committee of the 6th Annual AUB Biomedical Research Day*, 2015

PROFESSIONAL SOCIETY MEMBERSHIPS

- *American Society for Microbiology* (member since 2015)
- *International Society for Influenza and other Respiratory Virus Diseases* (member since 2009)
- *International Society for Infectious Diseases* (member since 2014)
- *American Society for Virology* (full member since 2009)
- *American Association for the Advancement of Science* (member since 2011)
- *National Postdoctoral Association USA* (member 2012-2014)
- *Lebanese Order of Pharmacists* (member since 2005)
- *Japanese Society for Virology* (member 2007-2009)
- *Japanese Society for Bacteriology* (member 2005-2007)

COMMUNITY SERVICE

- Darwazah Student Innovation Contest
Judge, (2014-2015)
- Postdoctoral Association Council, St Jude Children's Research Hospital
Member, *Postdoc Professional Development Event Committee*, 2012
- Postdoctoral Association Council, St Jude Children's Research Hospital
Vice Chair for Local Outreach, 2011-2012
- International Student Association of Niigata University
Liaison with Niigata Prefecture International Friendship Association (2008-2009)
- International Student Association of Niigata University
Vice President 2007-2008
- Beirut Arab University, Faculty of Pharmacy

Member, Science Committee, 2003-2004