

## Curriculum Vitae

<b>Last name:</b>	Shams
<b>First name:</b>	Saeed
<b>Affiliation:</b>	Department of Microbiology. Qom University of Medical Sciences, Qom, Iran (Cellular and Molecular Research Center). Department of Medical Microbiology, Faculty of Medical Sciences , Tarbiat Modares University, Tehran, Iran.
<b>Email:</b>	<a href="mailto:sshamsmed@gmail.com">sshamsmed@gmail.com</a> and <a href="mailto:sshams@muq.ac.ir">sshams@muq.ac.ir</a>
<b>Date of Birth:</b>	23 March 1982
<b>Academic degree</b>	Assistant Professor of Medical Bacteriology

### EDUCATION

**2012-2017**      **Ph.D.** at the Department of Medical Bacteriology, Faculty of Medical Sciences, Tarbiat Modares University (**Ranked first** in the entrance exam for Ph.D.)

Supervisor: Prof. Bita Bakhshi

Thesis: Design, fabrication and evaluation of a plasmonic nanobiosensor for *Campylobacter* spp. detection"

**2005-2009**      **M.Sc.** in medical microbiology at Microbiology Department of Kerman University of Medical Sciences.

Supervisor: Prof. Hamid Abdollahi

Thesis: Comparison of IL-10, TNF- $\alpha$ , IFN- $\gamma$  cytokines level in serum and mucosa of *Helicobacter pylori*-infected patients referring to Endoscopy unit of Afzalipour hospital in Kerman, Iran, during 2007.

**2001-2005**      **B.Sc.** in laboratory sciences at Tabriz University. Tabriz. Iran.

### TEACHING EXPERIENCE:

Teaching medical microbiology (Theory and practice) for students at Qom University of Medical Sciences 2012-Continued.

Teaching bioinformatics workshops such as primer and probe design workshops.

### **PROFESSIONAL ACTIVITIES**

-Visiting student in the University of Padova, Italy for 7 months (2015-2016)-I was worked in nanotechnology and bacteriology fields on developing a nano-biosensor.

-Membership in European Society of Clinical Microbiology and Infectious Diseases (ESCMID)-2018-2019.

-Membership in Iranian Society of Medical Bacteriology- 2018-2019.

-Member of the research council of Cellular and Molecular Research Center at Qom University of Medical Sciences. 2018-Continued.

-Reviewer in some journals: Qom University of Medical Sciences Journal,/ Infection, Genetics and Evolution,/ Malaysian Journal of Microbiology,/ Pediatric Infectious Disease Journal, and Archives of Hygiene Sciences. 2012-Continued.

-Member of the Research council of HSR (Health Systems Research) at Qom University of Medical Sciences (2012-2013).

-Director of Student Research Committee at Qom University of Medical Sciences (2012-2013).

-Member of talented students at Kerman University of Medical Sciences (2008-2010).

-Student's representative in Iranian Society of Medical Microbiology (2008-2010).

### **COMPUTER SKILLS IN BIOINFORMATICS STUDIES:**

-Experiences with CLC sequence viewer, CLC Genomics Workbench, AlleID, and GeneRunner software.

## **PUBLICATIONS**

- 1- Bostanghadiri N, Ghalavand Z, Fallah F, Yadegar A, Ardebili A, Tarashi S, Pournajaf A, Mardaneh J, **Shams S**, Hashemi A. Characterization of Phenotypic and Genotypic Diversity of *Stenotrophomonas maltophilia* Strains Isolated From Selected Hospitals in Iran. *Frontiers in microbiology*. 2019;10.  
<https://www.ncbi.nlm.nih.gov/pubmed/31191502>.
- 2- Bonaiuto E, Magro M, Fasolato L, Novelli E, **Shams S**, Piccirillo A, Bakhshi B, Moghadam TT, Baratella D, Vianello F. Versatile nano-platform for tailored immunomagnetic carriers. *Analytical and bioanalytical chemistry*. 2018 Nov 1;410(29):7575-89. <https://www.ncbi.nlm.nih.gov/pubmed/30267275>
- 3- **Saeed Shams**, Bita Bakhshi, Tahereh Tohidi Moghadam, Mehrdad Behmanesh. A Sensitive Gold-Nanorods-Based Nanobiosensor for Specific Detection of *Campylobacter jejuni* and *Campylobacter coli*. *Journal of Nanobiotechnology* 2019; 17:43. <https://jnanobiotechnology.biomedcentral.com/articles/10.1186/s12951-019-0476-0>
- 4- **Saeed Shams**, Ali Hashemi, Mohammad Esmkhani, Somaye Kermani, Elham Shams and Alessandra Piccirillo. Imipenem resistance in clinical *Escherichia coli* from Qom, Iran. *BMC Research Notes*. 2018, 11:314.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5960099/>
- 5- Soleimani M, **Shams S**, Majidzadeh-A K. Developing a real-time quantitative loop-mediated isothermal amplification assay as a rapid and accurate method for detection of causative agent of Brucellosis. *Journal of Applied Microbiology*. 2013 Sep;115(3):828-34. <https://www.ncbi.nlm.nih.gov/pubmed/23795718>
- 6- Abdollahi H, **Shams S**, Zahedi MJ, Darvish Moghadam S, Hayatbakhsh MM, Jafarzadeh A. IL-10, TNF- $\alpha$  and IFN- $\gamma$  levels in serum and stomach mucosa of *Helicobacter pylori*-infected patients. *Iran J Allergy Asthma Immunol*. 2011.  
<https://www.ncbi.nlm.nih.gov/pubmed/22184269>
- 7- Farhadloo R, Far JG, Azadeh MR, **Shams S**, Parvaresh-Masoud M. Evaluation of Bacterial Contamination on Prehospital Ambulances Before and After Disinfection. *Prehospital and disaster medicine*. 2018 Dec;33(6):602-6.  
<https://www.ncbi.nlm.nih.gov/pubmed/30376910>
- 8- Mahdi Ghorbanalizadgan, Bita Bakhshi, **Saeed Shams**, Shahin Najari-Peerayeh. Pulsed-field gel electrophoresis fingerprinting of *Campylobacter jejuni* and

- Campylobacter coli* strains isolated from clinical specimens, Iran. Int Microbiol. 2019 Mar 14. doi: 10.1007/s10123-019-00062-8. [Epub ahead of print].  
<https://www.ncbi.nlm.nih.gov/pubmed/30875037>
- 9- **Saeed Shams**, Bita Bakhshi and Tahereh Tohidi Moghadam . In Silico Analysis of the *cadF* Gene and Development of a Duplex Polymerase Chain Reaction for Species-Specific Identification of *Campylobacter jejuni* and *Campylobacter coli*. Jundishapur J Microbiol. 2016 February; 9(2): e29645., DOI: 10.5812/jjm.29645.  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4842252/>
- 10- Shariati A, Azimi T, Ardebili A,4, Chirani AS, Bahramian A, Pormohammad A, Sadredinamin M, Erfanimanesh S, Bostanghadiri N, **Shams S**, Hashemi A. Insertional inactivation of *oprD* in carbapenem-resistant *Pseudomonas aeruginosa* strains isolated from burn patients in Tehran, Iran. New Microbes New Infect. 2017 Dec 1; 21:75-80. <https://www.ncbi.nlm.nih.gov/pubmed/29234497> .
- 11- Saeedeh Naseri, **Saeed Shams**, Ali Hashemi. Detection of Antibiotic Resistance Pattern of Isolated Bacteria from a Hospital. Arch Hyg Sci 2012;1(2):54-58.
- 12- Fallah F, Hakemi Vala M, Hashemi A, **Shams S**. Emergence of Novel Plasmid-mediated Beta-lactamase in *klebsiella pneumonia*. Qom Univ Med Sci J 2013;6(4):104-116.
- 13- Hashemi, **Shams S**, Kalantar D, Taherpour A, Barati M. Antibacterial effect of Methanolic extract of *Camellia Sinensis L.* on *Pseudomonas aeruginosa* strains producing  $\beta$ -lactamases. Journal of Gorgan University of Medical Sciences. 2012. vol 14 / no 1.
- 14- **Saeed Shams**, Ali hashemi, Somaye Kermani, Mohammad Esmkhani, Samira Tarashi. Determination of Extended-spectrum Beta-lactamase Genes (*bla*TEM, *bla*SHV, *bla*CTX-M) in *Escherichia coli* Strains Isolated from Clinical Specimenes in Ali-Ibne Abi Talib Hospital in Qom, Iran. Qom Univ Med Sci J 2016;10(1):30-39.
- 15- **Saeed Shams**, Bakhshi Bita, Bahram Nikmanesh. Designing a rapid and accurate method for transportation and culture of the *Campylobacter jejuni* and *Campylobacter coli*-fastidious bacteria in the children with bacterial gastrointestinal symptoms. Koomesh; Autumn 2016, 18 (1): 71-78.  
[http://koomeshjournal.semums.ac.ir/browse.php?a\\_id=3140&sid=1&slc\\_lang=en](http://koomeshjournal.semums.ac.ir/browse.php?a_id=3140&sid=1&slc_lang=en)
- 16- **Saeed Shams**, Mehdi Ghorbanalizadeghan, Somayeh Haj Mahmmodi, Alessandra Piccirillo. Evaluation of a multiplex PCR assay for the identification of

- Campylobacter jejuni* and *Campylobacter coli*. Infection, Epidemiology and Medicine. 2017; 3(1): 6-8. [http://iem.modares.ac.ir/article\\_15971.html](http://iem.modares.ac.ir/article_15971.html)
- 17- Mehrzad Sadredinamin , Hossein Goudarzi, Ali Hashemi , Samira Tarashi , Soroor Erfanimanesh , Aref Shariati , Zohreh Ghalavand , Shervin Shokouhi , **Saeed Shams**, Neda Yousefi Nojookambari. Investigation of MexAB-OprM Efflux Pump Expression Level in *Pseudomonas aeruginosa* Strains Isolated from Patients Hospitalized in Shahid Motahari Hospital in Tehran City using Real-Time PCR method. Qom Univ Med Sci J 2018, 11(10): 88-97.  
[http://journal.muq.ac.ir/browse.php?a\\_id=1557&sid=1&slc\\_lang=en](http://journal.muq.ac.ir/browse.php?a_id=1557&sid=1&slc_lang=en)
- 18- Ali Hashemi , Samin Jaber , Aref Shariati , Zohreh Ghalavand , Narjes Bostan Ghadiri , Farahnoosh Doustdar , **Saeed Shams** , Nilofar Massoudi, Elham Abbasi Identification of Inducible Clindamycin Resistance in Staphylococcus aureus Strains Isolated from Hospitalized Patients in Hospitals of Tehran City (Iran). Qom Univ Med Sci J 2018, 11(12): 52-60.  
[http://journal.muq.ac.ir/browse.php?a\\_id=1558&sid=1&slc\\_lang=en](http://journal.muq.ac.ir/browse.php?a_id=1558&sid=1&slc_lang=en)
- 19- Shams S, Mehdipour A, Kermani S, Ghorbani H, Ragolia S. Anti- Biofilm Activity of Punica granatum, Ricinus communis, and Allium sativum Plant Extracts on *Streptococcus mutans*. Infection Epidemiology and Microbiology. 2018;4(2):67-72.  
[http://mri.modares.ac.ir/browse.php?a\\_id=23374&sid=4&slc\\_lang=fa](http://mri.modares.ac.ir/browse.php?a_id=23374&sid=4&slc_lang=fa)
- 20- **Saeed Shams**, Zeinab Vesali Jamshid, Tayebe Shahbazi, Hemmesi Gholamreza, Molod Hasani. The comparison of serum anti- *Helicobacter pylori* IgG and IgA levels in patients with gastrointestinal symptoms. Infection Epidemiology and Microbiology. 2018 Sep 15;4(3):1-4. <http://iem.modares.ac.ir/article-4-26040-en.html>

## **ABSTRACTS PRESENTED IN INTERNATIONAL AND IRANIAN CONFERENCES**

- 1- Mahdi Ghorbanalizadgan, Bita Bakhshi, **Saeed Shams**. Virulence potential, antibiotic resistance, and pulsed-field gel electrophoresis profiling of *Campylobacter* spp. isolated from children in Iran. 29<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), Amsterdam, Netherlands, 2019.
- 2- **Saeed Shams**, Emanuela Bonaiuto, Alessandra Piccirillo, et al. Development of a nanobiosensor for the detection of *Campylobacter fetus*. 28<sup>th</sup> European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), Madrid, Spain, 2018.

- 3- **S. Shams**, D. Mousavi Nasab, H. Heydari. Identification and genotyping of human rotavirus VP4 and VP7 genes in children with gastroenteritis in Qom, Iran. Accepted at 21<sup>st</sup> ESCV 2018 - European Society for Clinical Virology. Athens, Greece.
- 4- A. Ghalyanchi Langeroudi, K. Majidzadeh, M. Soleimani, M. M. Kian, **Saeed Shams**, A. H. Mohseni. Knowledge, attitude and practice (KAP) regarding anthrax among health care workers in some hospitals in Tehran, 2010. International Meeting on Emerging. Diseases and Surveillance. Austria. 2011.
- 5- Zeinab Vesali Jamshid, Tayebe Shahbazi, Hemmesi Gholamreza, Molod Hasani, **Saeed Shams**. The comparison of serum anti- *Helicobacter pylori* IgG and IgA levels in patients with gastrointestinal symptoms. The 13th Iranian & The Second International Congress of Microbiology. Ardabile. Iran. 2012.
- 6- **Saeed Shams**, Keivan Majidzadeh, Mohammad Soleimani. Loop mediated isothermal amplification as a rapid diagnostic method for the detection of *brucella* species. 14<sup>th</sup> International Iranian Congress of Microbiology. Shahid Beheshti University International Conference Center. Iran. 2013.
- 7- Somaye Kermani, Ali Kamali, Sajjad Sharifi, Mojtaba Haji alizade, **Saeed Shams**. Prevalence of imipeneme resistance in *E. coli* isolated from 3 university hospitals of Qom province. The 2<sup>nd</sup> Iranian Congress of Medical Bacteriology. 2012. Tehran, Iran.
- 8- **Saeed Shams**, Shahnaz Ashrafpour, Ali Hashemi, Tahereh Tohidi Moghadam, Bijan Ranjbar, Bita Bakhshi. Antibacterial Activity of Silver Nanoparticles on *Escherichia coli* and *Staphylococcus aureus*: A Comparatice Study. 15<sup>th</sup> International Iranian Congress of Microbiology. Shahid Beheshti University International Conference Center. Iran. 2014.
- 9- **Saeed Shams**, Ali hashemi, Mohammad Esmkhani, Somaye Kermani. Detection of bla NDM-1, AIM-1, DIM-1, KPC and CTX-M genes in ESBL producing *Escherichia coli* isolated from a hospital in Qom province. 15<sup>th</sup> International Iranian Congress of Microbiology. Shahid Beheshti University International Conference Center. Iran. 2014.
- 10- **S. Shams**, et al. Evaluation of anti-biofilm activity of *punica granatum*, *ricinus communis* and *allium sativum* plant extracts on *Streptococcus mutans*. The 16<sup>th</sup> Iranian International Congress of Microbiology. Tehran. Iran. 2015.