

*Research Assistant  
Virology and Infectious Diseases Unit  
Biomedical Research Center  
Qatar University*

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### ***Personal Information***

**Date of Birth:** 23, Aug 1990  
**Nationality:** Algerian  
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### ***Education***

***In progress:*** **Hamad Bin Khalifa University**

- Ph.D. Genomics and Precision Medicine **2018 – Expected 2022**  
**Title of Ph.D. dissertation:** *Genetic Susceptibility to Infectious Diseases in the Qatari population*

**Qatar University**

- M.Sc. Biomedical Sciences, Qatar University **2014 - 2016**  
**Title of Master's thesis:** *Seroprevalence and Phylogenetic Genotyping of Epstein Barr Virus (EBV) among Blood Donors in Qatar*

**Qatar University**

- B.S. Biomedical Sciences, Qatar University. **2008 – 2014**

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### ***Work Experience***

- **Qatar University– Biomedical Research Center** **July 2016 - Current**
  - ✓ Research Assistant of Virology and Infectious Diseases
- **Qatar University – Office of Graduate Studies** **2014- 2016**
  - ✓ Graduate Assistant (teaching and research) at the Biomedical Sciences Department
- **Qatar University – Foundation Program Unit** **Part- time job**
  - ✓ Competency Score Assistant Auditor **July – August 2014**
- **Qatar University – Academic Advising Program** **Part- time job**
  - ✓ Academic Advising Assistant **2009 - 2014**

## ***Skills and Qualifications***

### **Research experience (Main projects)**

#### **Genomics and Precision Medicine (2019- current)**

- Genetic susceptibility to SARS-CoV-2 and other infectious diseases (*Ongoing*)
- Elucidating the genetic susceptibility to infectious disease in the Qatari Population: A GWAS targeting non A-C hepatitis viruses as a public health threat (*Ongoing*)
- Novel generic variants associated with SARS-CoV-2 entry: *in silico analysis (Ongoing)*

#### **Virology/immunology (2016- current)**

- SARS-CoV-2 Whole Genome Sequencing.
- Viruses and Association with Autoimmunity
- Measuring Influenza Hemagglutinin Stem-Specific ADCC and CDC Activities in Human Sera Using Novel Stabilized Stem Probes  
Performed techniques include: ELISA, ADCC assay, protein expression and purification, Octet affinity binding, pseudovirus production and virus neutralization assay.
- Exploring the Microbial Profiles during Viral Infections (Viral gastroenteritis and Influenza)
- Antibody-Dependent Enhancement of Viral Infections
- Epidemiology and Molecular Characterization of Viral Infections in Qatar, including: Epstein Barr Virus (EBV), Respiratory viruses, and GE viruses.
- Detection and Phylogenetic Genotyping of Epstein Barr Virus (EBV) Among Blood Donors in Qatar (2016): *Master's thesis*.  
Performed techniques include: peripheral blood mononuclear cells (PBMC) isolation, DNA extraction, ELISA, Immunoblotting, real-time PCR, nested PCR, Cloning and plasmid extraction.
- Detection of HCV-RNA in Platelets and its Impact on Response to Treatment in Chronic HCV-Genotype 4 Patients (Bachelor's degree graduation project)  
Performed techniques include: isolation of platelets, RNA extraction and real-time PCR for viral detection and quantification.
- *Provided technical assistant for undergraduate students in projects titled:*
  - Comparing neutralization to different SARS-CoV-2 variants (2022)
  - Quantitative detection of human enteric viruses associated with gastroenteritis in expatriates arriving to Qatar (2016)
  - Investigation of *Legionella pneumophila* in Qatar cooling systems (2014)

#### **Routinely performed laboratory techniques:**

Cell culture, virus culture, DND/RNA Extraction, conventional PCR, Real-time PCR, Preparation of electro-competent cells & Cloning, Gel electrophoresis, Agilent DNA bioanalysis, NGS, ELISA, Immunoblot, protein expression and purification, Octet affinity binding, pseudovirus production.

### **Teaching experience**

Guest Lecturer:

- **Virology** (For year 2 CMED students)- Fall 2017

Teaching Assistant:

- **Medical virology** (BIOM 243)- Fall 2016-2020

Graduate Teaching Assistant:

- **Medical virology** (BIOM 243) – Fall 2015 – Fall 2017
- **Biostatistics for Health Sciences** (PUBH 151) – Spring 2016
- **Introduction to Pathology** (BIOM 243) - Spring 2016
- **Medical Microbiology Lab** (BIOM 322) – Spring 2016
- **Human Genetics Lab** (BIOM 217) – Fall 2015
- **Immunohematology & Blood Bank Lab** (BIOM 452) – Fall 2015
- **Human Histology Lab** (BIOM 212) – Fall 2014 and Fall 2015
- **Medical Virology** (BIOM 324) – Fall 2015
- **Clinical Immunology** (BIOM 426)- Fall 2015
- **Hematology & Hemostasis** (BIOM 451) - Spring 2015

Computer Skills

- Command-line sequence analysis
- Graphpad Prism statistics software
- CLC sequence viewer
- DNASTAR for molecular analysis
- Microsoft office tools

Languages

- Arabic: Native
- English : Excellent
- French: Basic
- Turkish: Basic

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**Publications**

**2022** Abu-Raddad LJ, Chemaitelly H, Ayoub HH, AlMukdad S, Yassine HM, Al-Khatib HA, **Smatti MK**, et al. Effect of mRNA Vaccine Boosters against SARS-CoV-2 Omicron Infection in Qatar. **New England Journal of Medicine**. 2022.

**Smatti MK**, Al Khatib HA, Al Thani A, Yassine HM, Will host genetics affect the response to SARS-CoV-2 vaccines? : Historical precedents. **Front Genet**. 2022.

Mathew S, Fakhroo AD, **Smatti M**, Al Thani AA, Yassine HM. Immunoinformatics prediction of potential immunodominant epitopes from human coronaviruses and association with autoimmunity. **Immunogenetics**. 2022:1-17.

Islam MM, Farag E, Hassan MM, Enan KA, Mohammad Sabeel K, Alhaddad MM, **Smatti MK**. et al. Diversity of bacterial pathogens and their antimicrobial resistance profile among commensal rodents in Qatar. **Veterinary Research Communications**. 2022:1-12.

**2021** Kohil A, Jemmieh S, **Smatti MK**, Yassine HM. Viral meningitis: an overview. *Arch Virol*. 2021;166(2):335-45.

Abdelrahman D, Al-Sadeq DW, **Smatti MK**, Taleb SA, AbuOdeh RO, Al-Absi ES, et al. Prevalence and Phylogenetic Analysis of Parvovirus (B19V) among Blood Donors with Different Nationalities Residing in Qatar. **Viruses**. 2021;13(4).

Taleb S, Yassine HM, Benslimane FM, **Smatti MK**, Schuchardt S, Albagha O, et al. Predictive biomarkers of intensive care unit and mechanical ventilation duration in critically-ill coronavirus disease 2019 patients. **Frontiers in Medicine**. 2021;8.

Al Khatib HA, Mathew S, **Smatti MK**, Eltai NO, Pathan SA, Al Thani AA, et al. Profiling of intestinal microbiota in patients infected with respiratory influenza a and b viruses. **Pathogens**. 2021;10(6):761.

**2020 Smatti MK**, Albagha O, Al-Sarraj YA, Yassine HM. Host genetic variants potentially associated with SARS-CoV-2: A multi-population analysis. **Front. Genet.**2020.

Gupta I, Nasrallah GK, Sharma A, Jabeen A, **Smatti MK**, Al-Thawadi HA, Sultan AA, Alkhalaf M, Vranic S, AlMoustafa AE. Co-prevalence of human Papillomaviruses (HPV) and Epstein–Barr virus (EBV) in healthy blood donors from diverse nationalities in Qatar. **Cancer Cell International** 2020.

Al-Romaihi HE, **Smatti MK**, Al-Khatib HA, Coyle PV, et al. Molecular Epidemiology of Influenza, RSV, and Other Respiratory Infections among Children in Qatar: A six years report (2012-2017). *International Journal of Infectious Diseases*. **IJID** 2020.

Siddiqui M, Manansala JS, Abdulrahman HA, Nasrallah GK, Smatti MK, Younes N, Al Thani, Yassine HM. Immune Modulatory Effects of Vitamins on Viral Infections. **Nutrients** 2020.

**2019 Smatti MK**, Nasrallah GK, Al Thani AA, Yassine HM. Measuring influenza hemagglutinin (HA) stem-specific antibody-dependent cellular cytotoxicity (ADCC) in human sera using novel stabilized stem nanoparticle probes. **Vaccine**. 2019.

**Smatti, M.K.**; Cyprian, F.S.; Nasrallah, G.K.; Al Thani, A.A.; Almishal, R.O.; Yassine, H.M. Viruses and Autoimmunity: A Review on the Potential Interaction and Molecular Mechanisms. **Viruses** 2019, 11, 762.

Al-Romaihi HE, **Smatti MK**, Ganesan N, Nadeem S, Farag E, Coyle PV, et al. Epidemiology of respiratory infections among adults in Qatar (2012-2017). **PLoS One**. 2019;14(6):e0218097.

Al-Sadeq DW, Taleb SA, Zaied RE, Fahad SM, **Smatti MK**, Rizeq BR, et al. Hepatitis B Virus Molecular Epidemiology, Host-Virus Interaction, Coinfection, and Laboratory Diagnosis in the MENA Region: An Update. **Pathogens**. 2019;8(2).

Mathew S, Alansari K, **K Smatti M**, Zaraket H, Al Thani AA, Yassine HM. Epidemiological, Molecular, and Clinical Features of Norovirus Infections among Pediatric Patients in Qatar. **Viruses**. 2019;11(5).

Al Romaihi HE, Ganesan N, Farag EA, **Smatti MK**, Nasrallah GK, Himatt SM, et al. Demographics and Epidemiology of Hepatitis B in the State of Qatar: A Five-Year Surveillance-Based Incidence Study. **Pathogens**. 2019;8(2).

**2018 Smatti MK**, Al Thani AA, Yassine HM. Viral-Induced Enhanced Disease Illness. **Front Microbiol**. 2018;9:2991

Mathew S, **Smatti MK**, Al Ansari K, Nasrallah GK, Al Thani AA, Yassine HM. Mixed Viral- Bacterial Infections and Their Effects on Gut Microbiota and Clinical Illnesses in Children. **Scientific Reports**. 2019;9(1):865.

Yassine HM, McTamney PM, Boyington JC, Ruckwardt TJ, Crank MC, **Smatti MK**, et al. Use of Hemagglutinin Stem Probes Demonstrate Prevalence of Broadly Reactive Group 1 Influenza Antibodies in Human Sera. **Scientific Reports**. 2018;8(1):8628.

**Smatti MK**, Al-Sadeq DW, Ali NH, Pintus G, Abou-Saleh H, Nasrallah GK. Epstein-Barr Virus Epidemiology, Serology, and Genetic Variability of LMP-1 Oncogene Among Healthy Population: An Update. **Front Oncol**. 2018;8:211

**2017 Smatti MK**, Yassine HM, AbuOdeh R, AlMarawani A, Taleb SA, Althani AA, et al. Prevalence and molecular profiling of Epstein Barr virus (EBV) among healthy blood donors from different nationalities in Qatar. **PLoS One**. 2017;12(12):e0189033.

Elawad KH, Farag EA, Abuelgasim DA, **Smatti MK**, Al-Romaihi HE, Al Thani M, et al. Improving Influenza Vaccination Rate among Primary Healthcare Workers in Qatar. **Vaccines (Basel)**. 2017;5(4).

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### Google Scholar Record (As of Feb 2022)

<https://scholar.google.com/citations?user=khDkEpcAAAAJ&hl=en>

Citations: >700

H-index: 12

i10-index: 12

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### Scholarships, Certificates & Awards

- Certificate of Distinguished employee, Qatar University, **2020**.
- IDWeek International Investigator Award, U.S., **2019**.
- Best poster award - Qatar University Annual Research Forum, **2018**.
- Graduate assistantship, Graduate Studies & Innovations Office – Qatar University, **2014-2016**.
- Best poster award - Qatar University Annual Research Forum, **2016**.
- Best scientific poster in Biomedical Sciences - Qatar University Annual Research Day, **2014**.
- Certificate of academic excellence in recognition of being on the Science Dean's List, **2014**.
- Winner of the best short story writing competition – Qatar Culture Creativity Center, **2014**.
- First place winner of the annual writing competition from Qatar University, Arabic language department, **2013**.
- First place winner of volunteering competition/ article writing from Qatar Charity, **2012**.
- Certificate from Sport Science Program at Qatar University for supporting the program in its initial phase, **2010**.
- Certificate of International English Language Testing IELTS (Score: 6.5) , **2009**.
- Second place winner of Rhetoric and Arabic language Excellence competition, **2008**.

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### Conferences

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|-------------------|--|------------------------------------|
| <b>2021</b>       | <b>2nd IBCQ International Biobanking Conference 2021</b>                                   | • Biobank- Qatar- <b>Presenter</b> |
| <b>2017- 2021</b> | <b>Qatar University Annual Research Forums</b>   | • QU - Qatar - <b>Presenter</b>    |
| <b>2020</b>       | <b>ESCV Virtual Meeting on Covid-19</b>  | • Online – <b>Attendee</b>         |
| <b>2019</b>       | <b>IDWeek</b>  | • IDSA – USA - <b>Presenter</b>    |
| <b>2017</b>       | <b>The 4th International Congress on Pathogens at the Human-Animal Interface (ICOPHAI)</b> | • QUBRC- Qatar - <b>Presenter</b>  |
| <b>2017</b>       | <b>Aspetar 1<sup>st</sup> Lab Day Conference</b>   | • Aspetar – Qatar- <b>Speaker</b>  |

2017	Qatar University Annual Research Forum	• QU - Qatar - <b>Presenter</b>
2017	2 <sup>nd</sup> Biobank Conference	• Qatar Biobank - Qatar <b>Attendee</b>
2016	Emerging Pathogens at the Human- Animal- Environment Interface	• QUBRC –Qatar- <b>Organizer &amp; presenter</b>
2013- 2018	Annual research conference ARC’13 - 16	• Qatar Foundation – <b>Attendee</b>

## ***Training Courses and Workshops***

### **Organizer/Trainer**

2016	Mammalian Cell Culture	• One-week theoretical and hands-on training on basic cell culture techniques
2018	Mammalian Cell Culture	• One-week theoretical and hands-on training on basic cell culture techniques
2019	Bioinformatics and Laboratory Investigations of Emerging Pathogens and Epidemics	• Four days’ workshop on the new bioinformatics approaches that are used in outbreak investigations of emerging and re-emerging pathogens.
2021	Viral Genomics and Bioinformatics Training Course	• One-week workshop on performing viral sequencing and data analysis
2021	Biosafety and biosecurity capacity building: To Boost Laboratory & occupation Safety Practices across Qatar	• Two-days workshop that provided diversify training content on biosafety and biosecurity principles

### **Participant**

2019	Avian Influenza – USAPEEC- US	• One week training by the USA Poultry and Egg Export Council (USAPEEC) in coordination with USDA.
2019	Bioinformatics and Laboratory investigations of emerging pathogens and epidemics – QU- Qatar	• Four days’ workshop on the new bioinformatics approaches that are used in outbreak investigations of emerging and re-emerging pathogens.
2019	BSL3 training course - QU- Qatar	• Three-days training on laboratory safety management in Biosafety level 3 labs.
2018	Next Generation Sequencing Data Analysis – QU - Qatar	• Two days’ workshop on NGS and sequence assembly.
2017	Indicator Based & Event Based Surveillance for Health Care Workers – MoPH- Qatar	• Training workshop by MOPH in collaboration with WHO to update the focal points from all health sectors on Event Based Surveillance (EBS)
2016	LUMENIX Technology- QU- Qatar	• LUMENIX Technology- two days’ workshop about Biomarkers Assays using Multiplex technology
2015	Flow Cytometry- QU- Qatar	• Flow cytometry Experiment Design & Data Analysis
2015	Office of Faculty and Instructional	• SPSS Training, 5 session course (Basic level)

## Development - QU- Qatar

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| 2015 | <b>Social and Economic Survey Research Institute - QU- Qatar</b> | <ul style="list-style-type: none"><li>• Introduction to Research Design course</li></ul>   |
| 2015 | <b>Teaching Techniques Series - QU- Qatar</b>                    | <ul style="list-style-type: none"><li>• “Facilitating Classrooms’ Discussion Groups” workshop</li><li>• “Essential Tools and Techniques for Effective Teaching” workshop</li><li>• “Effective Classroom Management” workshop</li></ul>       |
| 2014 | <b>Safety workshops- HMC- Qatar</b>                              | <ul style="list-style-type: none"><li>• Middle East Forum on Quality and Safety in Health care</li><li>• Fire safety, Infection control, Environmental safety, PPE and laboratory safety</li><li>• (BSL) Basic Life Support course</li></ul> |
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## References

- Dr. Hadi Yassine.** Ph.D. Research Projects Manage. Associate Professor of Infectious Diseases – Qatar University Biomedical Research Center. Email: [hyassine@qu.edu.qa](mailto:hyassine@qu.edu.qa) Tel: +974 4403 6819.
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