



Qasim Hussain

📍 Taipei-Keelung Metropolitan area, 251, Taiwan

✉ Email address: qasimhussain6798@gmail.com 📞 Phone: (+886) 916874756

🌐 Personal Website: <https://qasim-hussain-code.github.io/>

🐙 GitHub: <https://github.com/Qasim-Hussain-Code> 🤖 Hugging Face: <https://huggingface.co/QasimHussain>

🔗 Google Scholar: <https://shorturl.at/DJ3b1> 🔗 LinkedIn: <https://www.linkedin.com/in/qasim--hussain>

SKILLS

Wet Lab

Cell Culture (cell freezing, cell thawing, cell passaging, cell counting and cloning) | Virus Culture | *In Vitro* Assays (cytotoxicity assay, virus inhibition assay, G/F actin assay) | RNA Extraction | RT-qPCR | Gel Electrophoresis | Bacterial Culture | Protein production and purification | SDS PAGE | Western Blot | Confocal Microscopy | Handling, restraint, and physiological maintenance of murine (mice) and avian (pigeon) experimental models | Compliance with animal welfare protocols and execution of controlled dosing regimens, etc.

Dry Lab (NGS Analysis)

Whole Genome Sequencing (Short Reads, Long Reads, Hybrid) | Whole Exome Sequencing | Bulk RNA-Seq | Single Cell RNA-Seq | Spatial Transcriptomics | Pangenomics | Antibiotic Resistance Genes Detection (AMR) Analysis | CAZyme Analysis | Secretion System Detection | CRISPR-Cas | COJScan and TFFscan System Analysis | Biosynthetic Gene Cluster Analysis | ImmunoPhagomics | WGCNA | PanGWAS | TWAS | Ribo-Seq | Amplicon Sequencing (16S, 18S and ITS) | Metagenomics, etc.

Dry Lab (Structural Bioinformatics)

Machine Learning | Molecular Docking | Molecular Dynamics Simulation | Virtual Screening | Protein Structure Prediction and Modeling | *De Novo* Protein Design | *De Novo* Binder Prediction | *De Novo* Aptamers Prediction, etc.

Programming & Workflow Management

Markdown | Python | R | Linux/Bash | SQL | Git | Conda | Snakemake, etc.

EDUCATION & TRAINING

[9 Sep 2024 - 10 Jul 2026]

MS Animal Vaccine Technology

National Pingtung University of Science and Technology

Final grade: 93.63% | **Thesis:** *In silico* drug discovery via high-throughput virtual screening and *in vitro* validation of novel antivirals of Porcine Epidemic Diarrhea Virus (PEDV).

[4 Sep 2019 - 31 Aug 2023]

BS Zoology

University of Education, Township, Lahore

WORK EXPERIENCE

[13 Aug 2026 - Current]

Mackay Memorial Hospital

Research Assistant (Full-time) | Cardiovascular Research Group

[9 Sep 2024 - 10 Jul 2026]

National Pingtung University of Science and Technology

Graduate Researcher | Graduate Institute of Animal Vaccine Technology

Portfolio

[21 Dec 2025 - Current]

Independent Computational Research

PUBLICATIONS

1. [Lee, C.M., Villanueva, B.H.A., Minh, H., Hussain, Q.*, & Chuang, K.-P.* \(2025\). Evaluation of feline exosome mediated renal regeneration in adenine-induced chronic kidney disease. \[co-corresponding author\]](#)
2. [Villanueva, B.H.A., Gomez, M.C., Hussain, Q., Hong, Q.D., & Chuang, K.-P. \(2025\). Conserved internal PB2–PB1–PA–NP–M genes and divergent HA/NA in bat influenza A viruses H9N2, H17N10, and H18N11.](#)

3. Villanueva, B.H.A., [Hussain, Q.](#), Hong, Q.D., Chen, M.H., Minh, H., Huang, H.Y., Tyan, Y.C., & Chuang, K.P. Emergence of Black Queen Cell Virus in *Apis mellifera ligustica* of southern Taiwan: evidence from local genomic surveillance. ([Under Review](#))
4. [Nadeem, S.](#), [Tahir, S.B.](#), [Ahmad, M.](#), [Aslam, A.](#), [Farooq, M.](#), [Hussain, Q.](#), [Majid, H.](#), [Usman, S.M.](#), [Bashir, S.](#), & [Magsood, H.](#) (2023). The next pandemic: a comprehensive look into zoonotic emerging threats. ([Book Chapter](#))
5. Afzal, H., Umar, M., [Hussain, Q.](#), & Cheng, L.-T.* Evaluating the adjuvanticity of N-D1 domain of Flagellin encompassing hot-spot region in combination with Porcine Epidemic Diarrhoea Virus (PEDV) ([Under Review](#))
6. Are *de novo* designed proteins immunogenic? ([Review: Under Preparation](#))

CONFERENCES & SEMINARS

1. Umar, M., [Hussain, Q.](#), & Cheng, L.-T.* "From coexistence to contagion: assessing zoonotic threats from Formosan Macaques in urban Taiwan." 2025 Grand Challenge Taiwan SDGs Issue English Poster Competition, NCKU. ([Poster, 2nd author](#))
 2. [Hussain, Q.](#), & Chuang, K.P.* "*In vitro* antiviral efficacy of Molnupiravir against Porcine Epidemic Diarrhea Virus (PEDV)." 5th International Symposium on Immunotechnology and Animal Biologics Development, NPUST. ([Poster, 1st author](#))
 3. Duong, H.Q., [Hussain, Q.](#), Nguyen, D.L., & Chuang, K.-P.* "Potential application of plant-derived nanoparticles as antiviral agents against Parvovirus." 2026 International Nanotechnology Olympiad, Academia Sinica. ([Poster, 2nd author](#))
 4. [Hussain, Q.](#), Villanueva, B.H.A., Chuang, K.P.*, & Hsin, K.T.* "*In silico* drug discovery via high-throughput virtual screening and *in vitro* validation of novel antivirals against Porcine Epidemic Diarrhea Virus (PEDV) Spike Protein." 2026 International Symposium on Sustainable Innovation in Smart Agriculture (ISSI-SA 2026), NPUST. ([Poster, 1st author](#))
-

HONOURS AND AWARDS

- | | |
|-----------------|---|
| [13 Jun 2026] | Outstanding Researcher Award (Awarding institution: National Pingtung University of Science and Technology) |
| [17 Jan 2026] | Chung Hwa Rotary Education Foundation Scholarship Holder (Awarding institution: Chung Hwa Rotary Educational Foundation) |
| [4 Sep 2019] | University Scholarship Holder (Awarding institution: University of Education, Lahore, Pakistan) |
| [21 Jul 2017] | College scholarship holder (Awarding institution: Webster Group of Colleges) |
| [11 Sep 2017] | Prime Minister Laptop (Awarding institution: Punjab Board of Technical Education) |
| [11 May 2015] | Merit Scholarship Holder (Awarding institution: Punjab Educational Endowment Fund (PEEF)) |

LANGUAGE SKILLS

English ([IELTS: In Preperation](#))

RECOMMENDATIONS

Will be provided on demand.