Jordy Evan Sulaiman

Research Assistant Professor

Department of Health Technology & Informatics,

The Hong Kong Polytechnic University (PolyU)

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Academic Qualifications

09/**2017 –** 09/**2022** **Ph. D. in Chemical and Biomolecular Engineering**
M. Phil. in Chemical & Biomolecular Engineering
The Hong Kong University of Science & Technology (HKUST)
GPA: 4.15/4.3 (Ph.D.) & 4.3/4.3 (M.Phil.), Supervisor: Prof. Henry Lam,
Best postgraduate award for research excellence

09/**2015 –** 01/**2016** **Exchange Program in Chemical Engineering**
University of California, Los Angeles (UCLA)
GPA: 3.8/4.0, Dean's honors list

09/**2013 –** 09/**2017** **B. Eng. in Chemical & Biomolecular Engineering**
The Hong Kong University of Science & Technology (HKUST)
GPA: 4.1/4.3, First Class Honors & Ranked 1st in the department,
Academic achievement medal (top 1% of all graduates)

Academic Positions

03/**2025 – Present** **Research Assistant Professor**
PolyU*, Department of Health Technology & Informatics (HTI)*

11/**2024 –** 03/**2025** **Research Assistant Professor**
HKUST, *Department of Chemical & Biological Engineering (CBE)*

09/**2024 –** 03/**2025** **Honorary Fellow**
University of Wisconsin-Madison, *Department of Biochemistry*

09/**2022 –** 09/**2024** **Postdoctoral Research Associate**
University of Wisconsin-Madison, *Department of Biochemistry*
• Patented the technology and the design of robust anti-*C. difficile* consortia.
• Co-wrote an NIH R01 grant: A model-guided framework for designing precision microbiome interventions to inhibit *C. difficile*.

09/**2017 –** 09/**2022** **Graduate Student Research Scientist**
HKUST*, Department of Chemical & Biological Engineering (CBE)*
• Recipient of the Hong Kong PhD Fellowship (HKPFS).
• Co-wrote and prepared preliminary data for a successful RGC GRF proposal (Grant No. 16102821).

05/**2018 –** 06/**2018** **Visiting Research Scientist**
Wuhan University*, Key Laboratory of Combinatory Biosynthesis & Drug Discovery*

Work Experience

06/**2016 –** 07/**2016** **Research and Development Intern,** PT. Indah Kiat Pulp & Paper*, Indonesia*

09/**2014 –** 09/**2016** **Promotional Secretary,** The American Institute of Chemical Engineers, *Hong Kong*

09/**2013 –** 09/**2015** **Synthetic Biology Team Leader,** HKUST, *Hong Kong*
• Led the HKUST team to win the gold medal during the iGEM 2014 competition.

Grants, Fellowships, and Awards

Funded External Grants

01/**2026 –** 01/**2029** Guangdong Basic and Applied Basic Research Fund 2025.
Funding body: Department of Science and Technology of Guandong Province (GDSTC)
Title*: "Mechanisms by which cyanidin-3-O-glucoside-mediated regulation of Lactobacillus johnsonii A1 colonization mitigates aflatoxin B1-mediated hepatotoxicity"*
Amount funded: RMB$100,000, as **Co-I**

Funded Internal Grants (> HK$2.2 million)

10/**2025 –** 10/**2026** Departmental General Research Support Fund 2025/2026.
Funding body: HTI department, PolyU
Amount funded: HK$50,000

10/**2025 –** 10/**2027** RiFood Interdisciplinary Project Fund 2025.
Funding body: RiFood, PolyU
Title*: "Designing optimal microbial consortia for treatment of metabolic diseases"*
Amount funded: HK$1,000,000, as **Co-I**

09/**2025 –** 09/**2026** Departmental Focused Research Groups (FRGs) 2025.
Funding body: HTI department, PolyU
Title: *"Diabetes and Metabolic Diseases: From Pathogenesis to Therapy"*
Amount funded: HK$750,000

07/**2025 –** 09/**2027** UGC Start-up Fund for RAPs under the Strategic Hiring Scheme 2025.
Funding body: PolyU Central
Title: "*Designing adjuvant probiotic consortia against recurrent Clostridioides difficile infection in obese/diabetic and aging conditions*"
Amount funded: HK$300,000, as **PI**

04/**2025 –** 10/**2025** Departmental Seed Fund for External Research Grant Applications 2024/25.
Funding body: HTI department, PolyU
Amount funded: HK$100,000

Grant proposals currently under consideration:

- RGC General Research Fund (GRF) 2026/27 as PI
- NSFC/RGC Joint Research Scheme (JRS) 2026/27 as PI

Previous attempted grant proposals:

- NSFC/RGC Joint Research Scheme (JRS) 2025/26 as PI
- Health and Medical Research Fund (HMRF) 2025/26 as PI
- RGC Collaborative Research Fund (CRF) 2025/26 as Co-I

Fellowships and Awards

2023 International Conference on Microbiome Engineering (ICME) fellowship.
2022 HKUST RedBird academic excellence award.
2022 HKUST best postgraduate award for research excellence.
2019 – 2022 Hong Kong Ph.D. fellowship (HKPFS).
2021 Top rated poster in the 31st European Congress of Clinical Microbiology & Infectious Disease.
2021 Outstanding poster in the World Microbe Forum.
2019 & 2020 HKUST excellent research award.
2019 University Grant Council (UGC) Research Travel Grant.
2018 & 2019 Hong Kong Society of Mass Spectrometry (HKSMS) conference award.
2017 Winner of HKUST Chemical and Biological Engineering department logo design competition.
2017 First place award in the 4th ASPIRE Undergraduate Research Academy (UGRA), Daejeon, Korea.
2017 HKUST academic achievement medal (highest recognition for HKUST graduates).

2017	HKUST Chemical & Biological Engineering department undergraduate research excellence award.
2017	Mr. Armin and Mrs. Lillian Kitchell undergraduate research award.
2015 & 2016	Joseph Lau Luen Hung Charitable Scholarship.
2015	HKSAR Talent Development Scholarship.
2014 & 2015	HKUST RedBird Bronze & Silver award.
2014	Gold Medal out of 245 multidisciplinary teams in iGEM synthetic biology competition, Boston, MA.
2013 – 2017	HKUST School of Engineering Dean's List for 7 consecutive semesters.

Service to Professional & Scientific Bodies, Membership of Professional & Learned Societies

09/**2021 – Present** **Review Editor**

- *Frontiers in Microbiology* (*Antimicrobials, Resistance and Chemotherapy*)
- *Frontiers in Bioengineering and Biotechnology* (*Biomaterials*)
- *Frontiers in Cellular and Infection Microbiology* (*Clinical Microbiology*)
- *Frontiers in Cellular and Infection Microbiology* (*Molecular Bacterial Pathogenesis*)

09/**2020 – Present** **Peer Reviewer**

Provided >14 review reports for journals, including *Nature Ecology & Evolution*, *mSystems*, *Microbiology Spectrum*, *Frontiers in Microbiology*, *Frontiers in Cellular and Infection Microbiology, Frontiers in Pharmacology, Annals of Medicine,* etc.

09/**2018 – Present** **Member**

- *PolyU Research Institute for Future Food (RiFood)*
- *PolyU Research Centre for Chinese Medicine Innovation (RCMI)*
- *Hong Kong Society of Mass Spectrometry (HKSMS)*
- *American Society for Microbiology (ASM)*
- *American Chemical Society (ACS)*

Patents

1. O. Venturelli, **J. E. Sulaiman**. "Microbial Communities that Inhibit *Clostridioides difficile* and Methods of Using Same.", U.S. Patent no. US20250228905A1 (2025).

Refereed Journal Publications (* = Corresponding authors)

Google scholar citations: 665, h-index: 12, i10-index: 15

1. K. Long, Z. Liu, P. Liu, B. Wang, A. Xu, **J. E. Sulaiman***, K. Y. Cheng*. "Lipodystrophy induces gut microbiota dysbiosis and its related glucose dysmetabolism in mice". *Under review in eBioMedicine.*
2. P. Liu, K. Long, Y. Wang, **J. E. Sulaiman**, B. Wang, X. Zhou, C. Liu, Y. Cheng, Y. Cai, A. Xu, K. Y. Cheng*. "Activation of p53 in subcutaneous white adipose tissue induces hepatic fibrosis via galectin-3 in mouse model". *Under review in Metabolism.*
3. H. Tang, **J. E. Sulaiman**, Y. Zhang, Y. Yang, W. Zhong, J. Wang, H. Lei, Y. Liu*. "Cyanidin-3-O-glucoside alleviates aflatoxin B_1-induced splenic immunotoxicity via gut microbiota remodeling". *Under review in Journal of Hazardous Materials.*
4. J. Li, W. Ruan, **J. E. Sulaiman**, Y. Zhong, J. Wei, W. Xue, X. Jin, Y. Yang, H. Tang, H. Lei*, Y. Liu*. "Aflatoxin B_1-induced gut-initiated systemic toxicity: Molecular mechanisms and gut-targeted interventions". *Under review.*
5. G. Gan, R. Chen, P. Zheng, K. Long, K. Y. Cheng*, **J. E. Sulaiman***, X. Huang*. "Oral pathogens meet the gut microbiome in systemic diseases: Key pathogens and underlying mechanisms". *Frontiers in Cellular and Infection Microbiology,* 1673512 (2025).
   Impact factor (2024): 4.8. Rank of journal: 32/163 (Top 19.3%) in the field of Microbiology.
6. K. Long, P. Liu, Y. Wang, **J. E. Sulaiman**, M. Hoque, H. Y. Li, D. Zhao, P. K. Lee, K. H. Siu, W. T. Lee, Z. Liu, P. K. So, Y. Cai, C. Woo, C. B. Chan, A. Xu, K. Y. Cheng*. "Subcutaneous white adipose tissue-derived extracellular vesicles maintain intestinal homeostasis via IgA biosynthesis in aging mice." *Journal of Clinical Investigation,* 135:e188947 (2025).
   Impact factor (2024): 13.6. Rank of journal: 5/195 (Top 2.3%) in the field of Medicine, research & experimental.

7. **J. E. Sulaiman***, Y. Zhan, S. Wang, K. L. Lai, H. W. Li, Y. Yu, K. Tsim, K. Cheng*, Y. Lai*, H. Lam*. "Proteomic study of *Akkermansia muciniphila* and *Bifidobacterium* species co-culture under different carbon sources." *Frontiers in Microbiology*, 16, 1666747 (2025).
Impact factor (2024): 4.5. Rank of journal: 38/163 (Top 23.0%) in the field of Microbiology.
8. Y. Pan, T. Y. Wong, **J. E. Sulaiman***, H. Lam*. "Proteomic study of evolved *Pseudomonas aeruginosa* strains grown in *Staphylococcus aureus*- and *Klebsiella pneumoniae*-conditioned media." *mSystems,* e00111-25 (2025).
Impact factor (2024): 4.6. Rank of journal: 34/163 (Top 20.6%) in the field of Microbiology.
9. **J. E. Sulaiman**, J. Thompson, P. L. Cheung, Y. Qian, J. Mill, I. James, H. Im, E. Vivas, J. Simcox, O. Venturelli*. "*Phocaeicola vulgatus* shapes the long-term growth dynamics and evolutionary adaptations of *Clostridioides difficile*." *Cell Host & Microbe*, 33, 42-58 (2025)
Impact factor (2024): 18.7. Rank of journal: 6/163 (Top 3.4%) in the field of Microbiology.
10. **J. E. Sulaiman**, J. Thompson, Y. Qian, E. Vivas, C. Diener, S. Gibbons, N. Safdar, O. Venturelli*. "Elucidating human gut microbiota interactions that robustly inhibit diverse *Clostridioides difficile* strains across different nutrient landscapes." *Nature Communications*, 15, 7416 (2024).
Impact factor (2024): 15.7. Rank of journal: 10/136 (Top 7.0%) in the field of Multidisciplinary sciences.
11. L. Long, Y. Xiao, **J. E. Sulaiman**, F. Luo, L. Wu, W. C. Wong, J. Tang, F. Chen, H. Lam, P.-Y. Qian*. "Mechanistic Insight into the Inhibitory Activity of Elasnin-based Coating Against Early Marine Biofilms." *Environmental Science & Technology,* 57, 9515-9525 (2023).
Impact factor (2023): 10.9. Rank of journal: 18/358 (Top 4.9%) in the field of Environmental sciences.
12. A. Cheng, Y. Zhang, J. Sun, D. Huang, **J. E. Sulaiman**, L. Wu, W. Ye, C. Wu, H. Lam, Y. Shi*, P.-Y. Qian*. "Pterosin Sesquiterpenoids from *Pteris laeta* Wall. ex Ettingsh. Protect Cells from Glutamate Excitotoxicity by Modulating Mitochondrial Signals." *Journal of Ethnopharmacology,* 308, 116308 (2023).
Impact factor (2023): 4.8. Rank of journal: 50/354 (Top 14.0%) in the field of Pharmacology & pharmacy.
13. **J. E. Sulaiman**, L. Wu, H. Lam*. "Mutation in the Two-component System Regulator YycH Leads to Daptomycin Tolerance in Methicillin-resistant *Staphylococcus aureus* upon Evolution with a Population Bottleneck." *Microbiology Spectrum*, 10, e01687-22 (2022).
Impact factor (2022): 3.7. Rank of journal: 62/135 (Top 45.6%) in the field of Microbiology.
14. **J. E. Sulaiman**, L. Long, P.-Y. Qian, H. Lam*. "Proteome Profiling of Evolved Methicillin-resistant *Staphylococcus aureus* Strains with Distinct Daptomycin Tolerance and Resistance Phenotypes." *Frontiers in Microbiology*, 13, 970146 (2022).
Impact factor (2022): 5.2. Rank of journal: 38/135 (Top 27.8%) in the field of Microbiology.
15. **J. E. Sulaiman**, L. Long, P.-Y. Qian*, H. Lam*. "Proteomics and Transcriptomics Uncover Key Processes for Elasnin Tolerance in Methicillin-resistant *Staphylococcus aureus*." *mSystems*, 7, e01393-21 (2022).
Impact factor (2022): 6.4. Rank of journal: 24/135 (Top 17.4%) in the field of Microbiology.
16. **J. E. Sulaiman**, L. Long, P.-Y. Qian*, H. Lam*. "Elasnin Effectively Eradicates Daptomycin-Resistant Methicillin-resistant *Staphylococcus aureus* Biofilms." *Microbiology Spectrum*, 10, e02320-21 (2022).
Impact factor (2022): 3.7. Rank of journal: 62/135 (Top 45.6%) in the field of Microbiology.
17. L. Long, **J. E. Sulaiman**, Y. Xiao, A. Cheng, R. Wang, J. J. Malit, W. C. Wong, W. Liu, Y.-X. Li, F. Chen, H. Lam*, P.-Y. Qian*. "Mode of Action of Elasnin as Biofilm Formation Eradicator of Methicillin-resistant *Staphylococcus aureus*." *Frontiers in Microbiology*, 13, 967845 (2022).
Impact factor (2022): 5.2. Rank of journal: 38/135 (Top 27.8%) in the field of Microbiology.
18. **J. E. Sulaiman**, H. Lam*. "Proteomics in Antibiotic Resistance and Tolerance Research: Mapping the Resistome and the Tolerome of Bacterial Pathogens." *Proteomics*, 22, 2100409 (2022).
Impact factor (2022): 3.4. Rank of journal: 28/77 (Top 35.7%) in the field of Biochemical research methods.
19. **J. E. Sulaiman**, H. Lam*. "Novel Daptomycin Tolerance and Resistance Mutations in Methicillin-resistant *Staphylococcus aureus* from Adaptive Laboratory Evolution." *mSphere*, 6, e00692-21 (2021).
Impact factor (2021): 5.0. Rank of journal: 52/137 (Top 37.6%) in the field of Microbiology.
20. **J. E. Sulaiman**, L. Long, L. Wu, P.-Y. Qian, H. Lam*. "Comparative Proteomic Investigation of Multiple Methicillin-resistant *Staphylococcus aureus* Strains Generated through Adaptive Laboratory Evolution." *iScience*, 24, 102950 (2021).
Impact factor (2021): 6.1. Rank of journal: 15/74 (Top 19.6%) in the field of Multidisciplinary sciences.
21. **J. E. Sulaiman**, H. Lam*. "Evolution of Bacterial Tolerance under Antibiotic Treatment and its Implications on the Development of Resistance." *Frontiers in Microbiology*, 12, 617412 (2021).
Impact factor (2021): 6.1. Rank of journal: 34/137 (Top 24.5%) in the field of Microbiology.

22. **J. E. Sulaiman**, H. Lam*. "Proteomic Study of the Survival and Resuscitation Mechanisms of Filamentous Persisters in an Evolved *Escherichia coli* Population from Cyclic Ampicillin Treatment." *mSystems*, 5, e00462-20 (2020).
Impact factor (2020): 6.5. Rank of journal: 21/136 (Top 15.0%) in the field of Microbiology.
23. **J. E. Sulaiman**, H. Lam*. "Proteomic Investigation of Tolerant *Escherichia coli* Populations from Cyclic Antibiotic Treatment." *Journal of Proteome Research*, 19, 900-913 (2020).
Impact factor (2020): 4.5. Rank of journal: 17/78 (Top 21.2%) in the field of Biochemical research methods.
24. **J. E. Sulaiman**, H. Lam*. "Application of Proteomics in Studying Bacterial Persistence." *Expert Review of Proteomics*, 16, 227-239 (2019).
Impact factor (2019): 3.6. Rank of journal: 19/77 (Top 24.0%) in the field of Biochemical research methods.
25. **J. E. Sulaiman**, C. Hao, H. Lam*. "Specific Enrichment and Proteomics Analysis of *Escherichia coli* Persisters from Rifampin Pretreatment." *Journal of Proteome Research*, 17, 3984-3996 (2018).
Impact factor (2018): 3.8. Rank of journal: 15/79 (Top 18.4%) in the field of Biochemical research methods.
26. **J. E. Sulaiman**, S. Zhu, Z. Xing, Q. Chang, M. Shao*. "Pt–Ni Octahedra as Electrocatalysts for the Ethanol Electro-Oxidation Reaction." *ACS Catalysis*, 7, 5134 (2017). (*Undergraduate publication*)
Impact factor (2017): 11.4. Rank of journal: 13/147 (Top 8.5%) in the field of Physical chemistry.

Presentations and Seminars

Invited Talks/Lectures

1. "Omics to study inter-species interactions of the human gut microbiota" *27th HKSMS Conference,* Hong Kong (2025).

Conference Presentations

2. **J. E. Sulaiman**, J. Thompson, Y. Qian, S. Hromada, E. Vivas, C. Diener, S. Gibbons, N. Safdar, O. Venturelli. "Mapping Gut Microbiota Interactions that are Robust to *C. difficile* Strain Variability and Nutrient Landscapes." *6th International Conference on Microbiome Engineering (ICME),* Berkeley, California, USA (2023). (**Conference Award**)
3. **J. E. Sulaiman**, H. Lam. "Time-Course Proteome Profiling of Filamentous Persisters during Antibiotic Treatment and Resuscitation." *8th Asia-Oceania Mass Spectrometry Conference (AOMSC)*, Macau (2020).
4. **J. E. Sulaiman**, H. Lam. "Genomic and Proteomic Study of High Persistence Evolved *Escherichia coli* Populations from Cyclic Antibiotic Treatment." *22nd HKSMS Conference*, Hong Kong (2019). (**Conference Award**)
5. **J. E. Sulaiman**, H. Lam. "Label-free Quantitative Proteomics Analysis of the *Escherichia coli* Persisters." *21st HKSMS Conference*, Hong Kong (2018). (**Conference Award**)
6. **J. E. Sulaiman**, C. Hao, H. Lam. "Deep Quantitative Proteomics Analysis of the *Escherichia coli* Persisters." *28th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID)*, Madrid, Spain (2018).
7. **J. E. Sulaiman**, L. Long, L. Wu, P.-Y. Qian, H. Lam. "Comprehensive Proteomic Analysis of Tolerant and Resistant Methicillin-resistant *Staphylococcus aureus* Strains Generated through Laboratory Evolution." *31st European Congress of Clinical Microbiology and Infectious Diseases (ECCMID)* (2021). (**Top Rated Poster Award**)
8. **J. E. Sulaiman**, H. Lam. "Development of Tolerance and Resistance in Methicillin-resistant *Staphylococcus aureus* Under Daptomycin Treatment and Differences in the Proteome Profile of the Evolved Strains." *1st World Microbe Forum* (2021). (**Outstanding Poster Award**)
9. **J. E. Sulaiman**, H. Lam. "Proteomics Reveal the Underlying Mechanisms of Filamentous Persisters during Ampicillin Treatment and Resuscitation." *68th American Society for Mass Spectrometry (ASMS) Conference* (2020).
10. **J. E. Sulaiman**, H. Lam. "Genomic and Proteomic Study of Evolved *Escherichia coli* Populations from Cyclic Antibiotic Treatment Exhibiting High Persistence Phenotype." *29th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID)*, Amsterdam, Netherlands (2019).

Teaching and Mentoring Experience

Research Supervisor

09/**2025 – present** PolyU, *Department of Health Technology & Informatics*
- Guangtao Yan (Research Assistant, 2025).
- Xin Cao (Research Assistant, 2025).
- Shan Su (Research Assistant, 2025).

09/**2024 –** 06/**2025** HKUST, *Department of Chemical & Biological Engineering*
- Yanrong Pan (HKUST, Bioengineering Ph.D., 2024-2025).
- Xing Wu (HKUST, Bioengineering Ph.D., 2024-2025).

09/**2023 –** 06/**2024** University of Wisconsin-Madison, *Department of Biochemistry*
- Arun Hajra (UW-Madison, Biochemistry undergraduate, 2023-2024).

09/**2018 –** 06/**2022** HKUST, *Department of Chemical & Biological Engineering*
- Ishita Kumar (HKUST, CBE undergraduate, 2020-2021).
- Lee Donghun (HKUST, CBE undergraduate, 2019-2020).
- Mark Alexander Ngai (HKUST, CBE undergraduate, 2019-2020).
- Maria Joscelind Alvina (HKUST, CBE undergraduate, 2018-2019).

Course Instructor

09/**2025 – Present** PolyU, *Department of Health Technology & Informatics*
- HTI34016/HTI37104 – Introduction to Clinical Research (190 students) [**Subject leader**]
- HTI35001 – Cell Technology for Biomedical Research (14 students) [**Subject lecturer**]

01/**2025 –** 06/**2025** HKUST, *Department of Chemical & Biological Engineering*
- BIEN4000D – Introduction to Omics Technologies (23 students) [**Subject leader**]

Graduate Student Teaching Assistant

09/**2017 –** 09/**2021** HKUST, *Department of Chemical & Biological Engineering*
- BIEN2310 - Modeling for Chemical and Biological Engineering
- CENG2210 - Chemical Engineering Thermodynamics

Undergraduate Student Teaching Assistant

09/**2016 –** 09/**2017** HKUST, *Department of Chemical & Biological Engineering*
- CENG2210 - Chemical Engineering Thermodynamics
- CENG1000 - Introduction to Chemical and Biomolecular Engineering