# 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

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 1<sup>st</sup> in the department

#### **Academic Positions**

0.2/20.25 -	Present	Rosparch	Assistant	Drofossor
U3/ <b>ZUZƏ —</b>	Presem	Research	ASSISIAIII	Professor

PolyU, Department of Health Technology & Informatics

11/2024 – 03/2025 Research Assistant Professor

HKUST, Department of Chemical & Biological Engineering

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

- 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/ <b>2016 -</b> 07/ <b>2016</b>	Research and Development Intern, PT. Indah Kiat Pulp & Paper, Indonesia		
09/ <b>2014 -</b> 09/ <b>2016</b>	Promotional Secretary, The American Institute of Chemical Engineers, Hong Kong		
09/ <b>2013 -</b> 09/ <b>2015</b>	Synthetic Biology Team Leader, HKUST, Hong Kong		
	<ul> <li>Led the HKUST team to win the gold medal during the iGEM 2014 competition.</li> </ul>		

# **Grants, Fellowships, and Awards**

# Internal Grants (> HK\$2 million)

10/**2025 –** 10/**2027** RiFood Interdisciplinary Project Fund 2025.

Title: "Designing optimal microbial consortia for treatment of metabolic diseases"

Amount funded: HK\$1,000,000, as Co-Investigator

09/**2025 –** 09/**2026** Departmental Focused Research Groups (FRGs) 2025.

Title: "Diabetes and Metabolic Diseases: From Pathogenesis to Therapy"

Amount funded: HK\$750,000, as **Co-Investigator** 

07/**2025 –** 09/**2027** UGC Start-up Fund for RAPs under the Strategic Hiring Scheme 2025.

Title: "Designing adjuvant probiotic consortia against recurrent Clostridioides difficile infection in

obese/diabetic and aging conditions"

Amount funded: HK\$300,000, as Principal Investigator

04/**2025** – 04/**2026** Departmental Seed Fund for External Research Grant Applications 2024/25.

Amount funded: HK\$100,000, as Principal Investigator

# 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.

Winner of HKUST Chemical and Biological Engineering department logo design competition.
 First place award in the 4<sup>th</sup> 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
2015
2016
2015
2014 & 2015
2014 & 2015
Joseph Lau Luen Hung Charitable Scholarship.
HKSAR Talent Development Scholarship.
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)

#### **Patents**

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

# <u>Refereed Journal Publications</u> (\* = Corresponding authors)

Google scholar citations: 630, h-index: 11, i10-index: 13

Impact factors and ranks refer to Journal Citation Reports 2022-2023

- 1. K. Long, Z. Liu, P. Liu, B. Wang, A. Xu, <u>J. E. Sulaiman</u>\*, K. Y. Cheng\*. "Lipodystrophy induces gut microbiota dysbiosis and its related glucose dysmetabolism in mice". *Under review*.
- 2. G. Gan, R. Chen, P. Zheng, K. Long, K. Y. Cheng\*, <u>J. E. Sulaiman</u>\*, X. Huang\*. "Oral pathogens meet the gut microbiome in systemic diseases: Key pathogens and underlying mechanisms". *In revision*.
- 3. J. Li, W. Ruan, <u>J. E. Sulaiman</u>, Y. Zhong, J. Wei, W. Xue, X. Jin, Y. Yang, H. Tang, H. Lei\*, Y. Liu\*. "Aflatoxin B₁-Induced Gut-Initiated Systemic Toxicity: Molecular Mechanisms and Gut-Targeted Interventions". *Under review*.
- 4. 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." *Accepted in the Journal of Clinical Investigation. Impact factor: 15.9. Rank of journal: 3/136 (Top 1.8%) in the field of Medicine, research & experimental.*
- 5. <u>J. E. Sulaiman</u>\*, 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: 5.2. Rank of journal: 38/135 (Top 27.8%) in the field of Microbiology.
- 6. Y. Pan, T. Y. Wong, <u>J. E. Sulaiman</u>\*, H. Lam\*. "Proteomic study of evolved *Pseudomonas aeruginosa* strains grown in *Staphylococcus aureus* and *Klebsiella pneumoniae*-conditioned media." *mSystems*, e00111-25 (2025). *Impact factor: 6.4. Rank of journal: 24/135 (Top 17.4%) in the field of Microbiology.*
- 7. 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: 30.3. Rank of journal: 4/135 (Top 2.6%) in the field of Microbiology.
- 8. <u>J. E. Sulaiman</u>, 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: 16.6. Rank of journal: 6/73 (Top 7.5%) in the field of Multidisciplinary sciences.
- 9. L. Long, Y. Xiao, <u>J. E. Sulaiman</u>, 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: 11.4. Rank of journal: 19/275 (Top 6.7%) in the field of Environmental sciences.
- 10. A. Cheng, Y. Zhang, J. Sun, D. Huang, <u>J. E. Sulaiman</u>, 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: 5.4. Rank of journal: 50/278 (Top 17.8%) in the field of Pharmacology & pharmacy.*
- 11. <u>J. E. Sulaiman</u>, 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: 3.7. Rank of journal: 62/135 (Top 45.6%) in the field of Microbiology.
- 12. <u>J. E. Sulaiman</u>, 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:* 5.2. *Rank of journal:* 38/135 (Top 27.8%) in the field of Microbiology.
- 13. <u>J. E. Sulaiman</u>, 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: 6.4. Rank of journal: 24/135 (Top 17.4%) in the field of Microbiology.*

- 14. 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: 3.7. Rank of journal: 62/135 (Top 45.6%) in the field of Microbiology.
- 15. 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: 5.2. Rank of journal: 38/135 (Top 27.8%) in the field of Microbiology.
- 16. 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: 3.4. Rank of journal: 28/77 (Top 35.7%) in the field of Biochemical research methods.
- 17. 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: 4.8. Rank of journal: 44/135 (Top 32.2%) in the field of Microbiology.
- 18. 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: 5.8. Rank of journal: 15/73 (Top 19.9%) in the field of Multidisciplinary sciences.
- 19. 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: 5.2. Rank of journal: 38/135 (Top 27.8%) in the field of Microbiology.
- 20. 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: 6.4. Rank of journal: 24/135 (Top 17.4%) in the field of Microbiology.
- 21. 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: 4.4. Rank of journal: 17/77 (Top 21.4%) in the field of Biochemical research methods.
- 22. J. E. Sulaiman, H. Lam\*. "Application of Proteomics in Studying Bacterial Persistence." Expert Review of Proteomics, 16, 227-239 (2019). Impact factor: 3.4. Rank of journal: 28/77 (Top 35.7%) in the field of Biochemical research methods.

- 23. 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: 4.4. Rank of journal: 17/77 (Top 21.4%) in the field of Biochemical research methods.
- 24. 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: 12.9. Rank of journal: 22/161 (Top 13.4%) 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

- 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." 22<sup>nd</sup> 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. <u>J. E. Sulaiman</u>, 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. <u>J. E. Sulaiman</u>, 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. <u>J. E. Sulaiman</u>, H. Lam. "Proteomics Reveal the Underlying Mechanisms of Filamentous Persisters during Ampicillin Treatment and Resuscitation." 68<sup>th</sup> American Society for Mass Spectrometry (ASMS) Conference (2020).
- 10. <u>J. E. Sulaiman</u>, H. Lam. "Genomic and Proteomic Study of Evolved *Escherichia coli* Populations from Cyclic Antibiotic Treatment Exhibiting High Persistence Phenotype." *29<sup>th</sup> 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). Su Shan (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). University of Wisconsin-Madison, Department of Biochemistry 09/2023 - 06/2024 • 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).

### **Course Instructor**

09/**2025 – Present** PolyU, Department of Health Technology & Informatics

• HTI34016/HTI37104 – Introduction to Clinical Research (190 students)

• HTI35001 - Cell Technology for Biomedical Research (14 students)

Maria Joscelind Alvina (HKUST, CBE undergraduate, 2018-2019).

01/2025 - 06/2025 HKUST, Department of Chemical & Biological Engineering

• BIEN4000D – Introduction to Omics Technologies (23 students) [New course]

#### **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