CURRICULUM VITAE: LING HAN TONG MAURICE

PERSONAL DATA

NATIONALITY: Singaporean
Languages (Written): English, Chinese
Languages (Dialects) Spoken: English, Mandarin, Teochew, Cantonese, Hokkien

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E-Mails: mauriceling@acm.org, computer.in.science@gmail.com

ONLINE PROFILES: LinkedIn: http://www.linkedin.com/in/mauriceling
Website: https://mauriceling.github.io

CAREER SUMMARY

- Over 20 years of experience (since 2003) as research and lecturing biologist / bioinformaticist in both academic and industrial settings.
- More than 4,400 hours of lecturing, project supervision, and corporate trainer experience since January 2017.
- 141 refereed publications (including 3 publications from high-school projects, more than 30 publications from pre-undergraduate projects, and more than 33 publications from undergraduate projects) and 1 US patent.
- Collaborated with colleagues across different countries and time-zones.
- Co-founded the first synthetic biology company in Singapore.

ACADEMIC RECORD

2004-2009 **Doctor of Philosophy (Bioinformatics).** The University of Melbourne, Australia
Understanding Mouse Lactogenesis by Transcriptomics and Literature Analysis. Supervisors: Prof KR Nicholas, A/Prof C Lefevre, A/Prof F Lin. Degree awarded 24 Dec 2009.

2008-2009 **Certificate in Teaching (Higher Education).** Singapore Polytechnic, Singapore

2005-2007 **Bachelor of Science (Computing).** University of Portsmouth, UK

2003-2004 **Bachelor of Science (Honours, H2A).** The University of Melbourne, Australia
Identifying the Roles of Insulin, Prolactin and Glucocorticoid in the Initiation of Murine Lactogenesis. Supervisor: A/Prof KR Nicholas.

2002-2003 **Bachelor of Science.** The University of Melbourne, Australia

2001-2003 **Advanced Diploma in Computing.** National Computing Centre, United Kingdom
Project: *InterBase Data Warehouse Builder (IB-DWB) Version 1.0*

CERTIFICATIONS

2024 **Google Cybersecurity Certificate.** Coursera.
Google Cybersecurity Certificate (ID WXSEQ2AKWTPR), total of 171 hours and consisting of

1. Foundations of Cybersecurity (Certificate ID 6AVZV6PYN64E, 21 hours)

2. Play It Safe: Manage Security Risks (Certificate ID AEZD5HWUTJB2, 11 hours)
3. Connect and Protect: Networks and Network Security (Certificate ID PMYF4UUFYCLJ, 14 hours)
4. Tools of the Trade: Linux and SQL (Certificate ID CTCSNDQC7DB2, 27 hours)
5. Assets, Threats, and Vulnerabilities (Certificate ID Y5BAW6MR725L, 26 hours)
6. Sound the Alarm: Detection and Response (Certificate ID 5TJQYZV3LR47, 24 hours)
7. Automate Cybersecurity Tasks with Python (Certificate ID CRNPHA3BU89Y, 30 hours)
8. Put It to Work: Prepare for Cybersecurity Jobs (Certificate ID 5BZ94W6MDVDY, 18 hours)

2023 **Google Advanced Data Analytics Certificate.** Coursera.
Google Advanced Data Analytics Certificate (ID AGRF62K8XS56), total of 202 hours and consisting of

1. Foundations of Data Science (Certificate ID 4B7A3GJ37ZMD, 23 hours)
2. Get Started with Python (Certificate ID 9DSA5ELH4FPN; 30 hours)
3. Go Beyond the Numbers: Translate Data into Insights (Certificate ID 87Q4QDKVHTQ4, 32 hours)
4. The Power of Statistics (Certificate ID 4JRJR4UQEY4E, 37 hours)
5. Regression Analysis: Simplify Complex Data Relationships (Certificate ID PFG52V4VVMH7, 34 hours)
6. The Nuts and Bolts of Machine Learning (Certificate ID VBNZX2XZJ9XD, 37 hours)
7. Google Advanced Data Analytics Capstone (Certificate ID MH8ZBYFAWX46, 9 hours)

2023 **Google Business Intelligence Certificate.** Coursera.
Google Business Intelligence Certificate (ID C9BD6HG6FJ9T), total of 74 hours and consisting of

1. Foundations of Business Intelligence (Certificate ID QE2TV8H44XP6; 23 hours)
2. The Path to Insights: Data Models and Pipelines (Certificate ID SBT8S4RFPHEP; 24 hours)
3. Decisions, Decisions: Dashboards and Reports (Certificate ID QSUDYBL8G9MV; 24 hours)

2023 **Google Project Management Certificate.** Coursera.
Google Project Management Certificate (ID RJN24P2A8ZKN), total of 152 hours and consisting of

8. Foundations of Project Management (Certificate ID DK8QM2ZE72UG, 18 hours)
9. Project Initiation: Starting a Successful Project (Certificate ID N5ZHGL26FRAM; 21 hours)
10. Project Planning: Putting It All Together (Certificate ID PQQMSDXT5KCR, 29 hours)
11. Project Execution: Running the Project (Certificate ID P4HF2TBBDPHN, 26 hours)
12. Agile Project Management (Certificate ID NGQ43XPD334W, 25 hours)
13. Capstone: Applying Project Management in the Real World (Certificate ID NS4YPVUKAQSM, 33 hours)

SIGNIFICANT TECHNOLOGY DISCLOSURES

Ling Han Tong Maurice, Poh Chueh Loo and Lim Yuting Rosary. *Prediction of Gene Transcription Intensity and Gene Perturbation.*

- United States Provisional Application No. 61/839,046 filed June 26, 2013
- International Patent Application No. PCT/SG2014/000234 filed May 28, 2014.

Maurice Ling, Kok Hien Gan, Kevin Clancy, Raymond Tecotzky and Kin Chong Sam. *Methods and Systems for In Silico Experimental Design and Performing a Biological Workflow.*

- United States Provisional Application No. 61/578,820
- International Patent Application No. PCT/US2012/071379 filed December 21, 2012
- United States Non-Provisional Application No. 13/724,765 filed December 21, 2012
- United States Application No. 15/259,033 filed September 7, 2016

- United States Patent issued on October 11, 2016; Patent Number 9,465,519

AWARDS AND SCHOLARSHIPS

2010 Science Mentorship Program "Outstanding Mentor Award", Ministry of Education, Singapore
2005 Melbourne Abroad Traveling Scholarship, The University of Melbourne
2005 Postgraduate Overseas Research Experience Scholarship, The University of Melbourne
2005 F.H. Drummond Travel Award, The University of Melbourne
2005 Melbourne International Fee Remission Scholarship, The University of Melbourne
2004 Science Faculty Scholarship, The University of Melbourne
2004 CRC for Innovative Dairy Products (PhD Scholarship)
2003 CRC for Innovative Dairy Products (Honours Scholarship)

RESEARCH AND DEVELOPMENT EXPERIENCES

2017- current **Scientist,** Temasek Polytechnic (School of Applied Sciences). I supervise and mentor interns and major project students, which resulted in 21 refereed publications (see Listing 1) with 27 project students.
- 2017-2020: Adjunct Lecturer
- 2020-2022: Lecturer
- 2023-current: Scientist

2017- current **Associate Lecturer,** Management Development Institute of Singapore (MDIS). I supervise undergraduate students for the honours year projects, mainly in bioinformatics; which resulted in 22 refereed publications (see Listing 2).

2014-current **Co-Founder and Director (Technology)**, AdvanceSyn Pte. Ltd. As a biologist turned bioinformaticist, I am responsible for technological developments (both biology and IT tools) of the company.

2018-2021 **Research Assistant Professor,** Perdana University (School of Data Sciences). I assist the Dean of Data Science to identify research strategies, on top of project supervision and mentoring.

2010-2017 **Honorary Fellow (equivalent to academic rank of Lecturer)**, The University of Melbourne (Department of Zoology). I was appointed on basis of continued contributions to the university in terms of outreach programs and research contributions.

2013-2017 **Research Fellow,** Nanyang Technological University (School of Chemical and Biomedical Engineering). I am part of the synthetic biology group with several responsibilities:
- Developing software tools for modeling and predicting gene expression and protein production
- Engineering micro-organisms for waste degradation and production of high-valued chemical compounds and peptides
- Providing advice for experimental procedures on genetic engineering and characterization
- Safety representative for the group

2012-2013 **Research Associate,** South Dakota State University (Department of

Mathematics and Statistics). I am working on a NIH funded project on antisense transcript, as well as providing bioinformatics support to the university community at large.

2010-2012 **Senior Scientist (Bioinformatics)**, Life Technologies. I was in the core team for Vector NTI Express and provided specifications on bioinformatics algorithms, and responsible for drafting the high-level requirements for Vector NTI Designer.

2008-2011 **Lecturer,** Singapore Polytechnic (School of Chemical and Life Sciences). I led student/internship projects on experimental evolution. We found that constant chemical stress on *Escherichia coli* leads to rapid adaptation to the stressors, which has significance to antibiotics resistance and food preservation. Using DNA fingerprinting, we had demonstrated that these adaptations are genetic.

2004-2009 **Ph.D. Candidate**, The University of Melbourne (Department of Zoology). I developed a system for rapid survey of the literature and used it, together with microarray analysis, to elucidate potentially novel hypotheses for further experimental research.

2003-2004 **B.Sc.(Hons) candidate**, The University of Melbourne (Department of Zoology). I proposed a model in which insulin, prolactin and glucocorticoid exert their effects singly and in combination to trigger mouse lactogenesis. Much of the analysis used data from microarray experiments.

2003 **Research Experience,** The University of Melbourne (Department of Anatomy and Cell Biology Ocular Development Laboratory), supervised by Dr R de Iongh. I completed expression studies of BMP4 receptors in lens development and assisted in establishing in situ hybridization techniques in the laboratory.

2002-2003 **Adv. Dip. Computing candidate**, National Computing Centre, UK. I designed a data warehouse builder based on Borland InterBase 6, which resulted in a paper at the 1st Australian Undergraduate Students' Computing Conference.

TEACHING AND MENTORING EXPERIENCES

2017- current **Scientist,** Temasek Polytechnic (School of Applied Sciences).

- 2017-2020: Adjunct Lecturer
- 2020-2022: Lecturer
- 2023-current: Scientist
- Supervising and mentoring interns and major project students, which resulted in 21 refereed publications (see Listing 1) with 27 project students.
- Subjects taught: [1] Biological Data Analysis, [2] Digitalization for Applied Sciences (as subject leader), [3] Scripting for Bioinformatics (as subject leader), [4] Statistics for Applied Sciences (as subject leader), and [5] Synthetic Biology. Developed course materials for [1] Digitalization for Applied Sciences, [2] Scripting for Bioinformatics, [3] Statistics for Applied Sciences, and [4] Synthetic Biology.

2017- current **Associate Lecturer,** Management Development Institute of Singapore (MDIS). Approved by Committee for Private Education (CPE, Singapore).

- Supervising honours projects, which resulted in 22 refereed publications (see Listing 2).

- Lecturing on subjects from Northumbria University (UK):
  - Applied Bioinformatics and Postgenomics (Year 3 BSc(Hons))
  - Genomics (Year 3 BSc(Hons))
  - Introductory Pathological Science (Year 1 BSc (Hons))
  - Investigative Biotechnology (Year 2 BSc(Hons))
  - Practical Skills (Year 1 BSc(Hons))
  - Professional Skills (Year 2 BSc(Hons))
  - Research: Approaches, Methods, and Skills (M Public Health)
  - Research Methods in Applied Sciences (Year 2 BSc(Hons))
  - Scope of Biotechnology (Year 2 BSc(Hons))
- Lecturing on subjects from Teesside University (UK):
  - Informatics and Technology in Healthcare Management (Year 2 BSc(Hons))
- Lecturing on subjects from Roehampton University (UK):
  - Biometry: Physiology, Mathematics, and Statistics (Year 1 BSc(Hons))

2009 – 2020 **Pro Bono Scientific Research Mentor.** I provide research mentorship on a pro bono (voluntary) basis to juniors interested in scientific research, which resulted in more than 20 peer-reviewed publications.

2013-2017 **Research Fellow,** Nanyang Technological University (School of Chemical and Biomedical Engineering). I manage and mentor final year project (FYP) students assigned to my research group.

2012-2013 **Research Associate,** South Dakota State University (Department of Mathematics and Statistics)

- Instructor for graduate level statistical methods course; Statistical Methods II; using SAS, Minitab, JMP and R.
- Judge for East South Dakota Science and Engineering Fair 2012.

2008-2011 **Lecturer,** Singapore Polytechnic (School of Chemical and Life Sciences)

- Diploma in Biotechnology representative, Information Technology in Teaching and Learning Committee
- Diploma in Biotechnology representative, Alumni and Industry Relations
- Sharing Session Coordinator
- Mentored 12 diploma students/interns and 9 specialist diploma students (adult learners).

2006-2008 **Resident Adviser and Tutor,** University College, The University of Melbourne, Australia. Provided pastoral care and academic support for undergraduates and postgraduate students. Tutored in "*Academic writing for senior science students*" and "*Introductory Programming in C*" subjects.

2004-2005 **Head Demonstrator,** The University of Melbourne (Department of Zoology). I was the lead demonstrator in practical classes in Biology to more than 1100 first year students. Demonstrated in 3rd year Development Biology practical classes.

PROFESSIONAL SERVICES

2022-current **Associate Editor**, Computational Genomics [specialty section of Frontiers in Genetics (ISSN 1664-8021), Frontiers in Bioengineering and Biotechnology (ISSN 2296-4185), and Frontiers in Plant Science (ISSN 1664-462X)].

- Topic editor for Current State of Multi-omics Modeling and

Simulations (https://www.frontiersin.org/research-topics/30282)

2022-current **Review Editor**, STEM Education [a specialty section of Frontiers in Education (ISSN 2504-284X)].

2020-current **Honorary Director**, Asia Pacific Bioinformatics Network Ltd (UEN 201225997K), which is registered in Singapore as a legal entity to manage the routine operations of Asia Pacific Bioinformatics (APBioNet).

2019-current **Executive Committee Member,** Society for Synthetic Biology (Singapore) (SynBioSG).

2018-current **Executive Committee Member,** Association of Medical and Bio-Informatics, Singapore (AMBIS). Secretary from 2018 to 2020. Treasurer for 2021.

2008-current **Editorial Committee Member.** I was invited to join the editorial committee of the following journals:

- The Python Papers Anthology incorporating The Python Papers (ISSN 1834-3147), The Python Papers Monograph Series (ISSN 1837-7092), and The Python Papers Source Codes (ISSN 1836-621X), as Co-Editor-in-Chief (2008 – 2018).
- iConcept Journal of Computational and Mathematical Biology (ISSN 2219-1402), iConcept Press Ltd (2010 – 2018).
- MOJ Proteomics & Bioinformatics (ISSN 2374-6920), MedCrave Publishing Group (2014 – 2018 as Associate Editor, 2018 – 2020 as Honorary Editor).
- Acta Scientific Microbiology (ISSN 2581-3226), Acta Scientific (from 2018).
- Acta Scientific Computer Sciences (ISSN , Acta Scientific (from 2018).

2017-2020 **Series Editor,** Current STEM. Nova Science Publishers, Inc. Current STEM is a broad-spectrum book series for all aspects of STEM (Science, Technology, Engineering, and Mathematics). This includes all philosophical, theoretical and applied aspects of STEM; and STEM-related areas, such as education, industry and economy, ethics and legal aspects.

2010-2020 **Programme Committee Member.**

- Python for High Performance Computing (2010 – 2017), part of International Conference for High Performance Computing, Networking, Storage and Analysis.
- 4th International Conference on Electronics, Communications and Networks (CECNet 2014) (2014).
- International Symposium on Bioinformatics 2018 (InSyB 2018) (2018), as Programme Committee Chair.
- International Conference on Bioinformatics 2019 (InCoB 2019) (2019).

2010-2019 **Technical Reviewer,** Packt Publishing (IT publishing house). I reviewed 14 books on Python programming – [1] Python Multimedia Beginner's Guide (ISBN 978-184-951016-5), [2] wxPython 2.8 Application Development (ISBN 978-184-951178-0), [3] Python 2.6 Text Processing (ISBN 978-184-951212-1), [4] Python Text Processing with NLTK 3 Cookbook (ISBN 978-178-216785-3), [5] Building Machine Learning Systems with Python (ISBN 978-1-78216-140-0), [6] Python Testing Cookbook (ISBN 978-1-849514-66-8), [7] IPython Interactive Computing and Visualization Cookbook (ISBN 978-178-328481-8), [8] Python for Secret Agents (ISBN 978-178-398042-0), [9] Building Machine Learning Systems with Python, 2nd edition (ISBN 978-

1-784392772), [10] Mastering Python for Data Science (ISBN 978-1-78439-015-0), [11] Learning Python Design Patterns, 2nd edition (ISBN 978-1-78588-803-8), [12] Automate it! Recipes to upskill your business (ISBN 978-1-78646-051-6), [13] Python Testing Cookbook, 2nd Edition (ISBN 978-1-78712-252-9), [14] Python Object Oriented Programming Cookbook (ISBN 978-1-78862-278-3), [15] Python GUI Programming Cookbook, Third Edition (ISBN 978-1-83882-754-0).

2015-2018 **Honorary Auditor,** Python User Group (Singapore) (ROS 2060/2009, Singapore). Python User Group acts as a professional entity to promote Python use in education and industry within Singapore. After completion of my terms, in various capacities, in the executive committee; I was elected as Honorary Auditor.

2009-2012 **Conference and Publications Co-Chair,** PyCon Asia-Pacific
I am the co-chair for PyCon Asia-Pacific 2010 to 2012. The community had accepted PyCon Asia-Pacific as one of the 3 major Python conferences worldwide, together with PyCon US and EuroPython.

2009-2015 **Committee Member,** Python User Group (Singapore) (ROS 2060/2009, Singapore). Python User Group acts as a professional entity to promote Python use in education and industry within Singapore. I serve as Vice-President from 2009 to 2013, and Treasurer from 2013 to 2015. Co-founder of the society and drafted the constitution for submission to Ministry of Home Affairs, Singapore.

2002-2003 **Publication Team Member** (ISBN 0-646-4275-1-2), Australian Undergraduate Students' Computing Conference 2003.

2001 **Operations Manager (Advisory),** Fund Raising Project for Gujarat Earthquake Relief. I was the director of operations and contingency planning on the day of event, managing more than 250 volunteers and coordinating emergency services over 8 operation sectors housing more than 30000 residences.

1996-1999 **Deputy S1 (Administration Officer),** Cadet Lieutenant promoted to Senior Cadet Lieutenant, National Cadet Corp, Singapore.

PROFESSIONAL MEMBERSHIPS

2000-2008 Association of Computing Machinery (Student Member)
2018-2021 MyBioInfoNet, Malaysia
2008–current Association of Computing Machinery (Professional Member)
2009–current Python User Group (Singapore)
2018–current Singapore Society for Synthetic Biology
2018–current Association of Medical and Bio-Informatics, Singapore

PUBLICATIONS

Refereed Journal Articles:

1. Seow, SK, Dave, VS, Ong, RT, Lao, S, **Ling, MHT**. 2024. *A 10-Year Systematic Review (2013 to 2022) on Effects of Diet on Migraine*. EC Clinical and Medical Case Reports 7(2): 01-15.
2. Lum, AKY, Shanmugam, JH, Teo, W, Kwan ZJ, Ng, SMH, **Ling, MHT**. 2024. *Core Genome of Deinococcota Phylum from 72 Strains Across 40 Species Consist of Only One Gene, Beta Subunit of DNA-Directed RNA Polymerase*. Medicon Microbiology 3(1): 03-06.
3. Ong, RT, Lao, S, Seow, SK, Dave, VS, **Ling, MHT**. 2024. *Systematic Review of PubMed Articles Prior to 2023 on Effects of Breakfast on School Performance.* Medicon Medical Sciences 6(1): 11-25.

4. Yap, SSK, Choy, WJ, Tan, RYH, **Ling, MHT**. 2024. *Assembly of Single Substance Use Epidemiological Models.* Acta Scientific Medical Sciences 8(1): 43-50.
5. Lao, S, Seow, SK, Ong, RT, Dave, VS, **Ling, MHT**. 2023. *Systematic Review on the Effects of Food on Mental Health via Gut Microbiome*. SciMedicine Journal 5(2): 81-91.
6. Işık, EB, Brazas, MD, Schwartz, R, Gaeta, B, Palagi, PM, van Gelder, CWG, Suravajhala, P, Singh, H, Morgan, SL, Zahroh, H, **Ling, M**, Satagopam, VP, McGrath, A, Nakai, K, Tan, TW, Gao, G, Mulder, N, Schönbach, C, Zheng, Y. De Las Rivas, J, Khan, AM. 2023. *Grand Challenges in Bioinformatics Education and Training*. Nature Biotechnology 41: 1171–1174.
7. Chia, VSQ, **Ling, MHT**. 2023. *Potential Information Processing Differences in Male and Hermaphrodite Neural Networks of Caenorhabditis elegans*. Medicon Medical Sciences 5(2): 53-59.
8. Shin, AW, Yan, LZW, Poh, KSH, **Ling, MHT**. 2023. *Science/Education Portraits VIII: Duoethnography of First-Generation Bioscience Undergraduates in a Private Education Institute in Singapore.* Acta Scientific Microbiology 6(6): 24-35.
9. **Ling, MHT.** 2023. *ChatGPT (Feb 13 Version) is a Chinese Room.* Novel Research in Sciences 14(2): NRS.000832.
10. Toh, BCY, **Ling, MHT**. 2023. *Applications Utilizing CRISPR/Cas9*. Novel Research in Sciences 14(1):NRS.000826.
11. Roh, D, Naing, SY, **Ling, MHT**. 2023. *Peptide Properties of Saccharomyces arboricola H-6 Suggest Randomness in Chromosomal Organization*. EC Microbiology 19(3): 01-08.
12. Wong, KM, Sim, BJH, **Ling, MHT**. 2023. *Consistency Between Saccharomyces cerevisiae S288C Genome Scale Models (iND750 and iMM904).* Acta Scientific Microbiology 6(3): 63-68.
13. **Ling, MHT**, Musttakim, S, Lau, PN. 2023. *Development of a Basic Chemistry Conversational Corpus*. Acta Scientific Nutritional Health 7(2): 48-54.
14. Azan, NK, Ng, ASY, Samsudi, F, Mazlan, MR, Loh, YK, **Ling, MHT**. 2023. *A 5-Year Systematic Review (2018 to 2022) on The Effectiveness of Mediterranean Diet in Preventing Alzheimer's Disease*. Acta Scientific Nutritional Health 7(2): 79-90.
15. Ng, ASY, Azan, NK, Samsudi, F, Mazlan, MR, Loh, YK, **Ling, MHT**. 2023. *A 5-Year Systematic Review (01 April 2017 to 31 March 2022) on the Causes of Abdominal Obesity*. EC Clinical and Medical Case Reports 6(1): 90-110.
16. Naing, SY, Thia, EWJ, Roh, D, Chew, C, Tun, SK, Wai, MK, **Ling, MHT**. 2023. *Novel Populations from Simulated Admixed Populations.* Medicon Medical Sciences 4(1): 9-15.
17. Tan, JZH, Tan, NTF Tan, **Ling, MHT**. 2022. *Brainopy: A Biologically Relevant SQLite-Based Artificial Neural Network Library.* Acta Scientific Computer Sciences 4(12): 13-22.
18. Loh, BJK, Kannan, KSS, Patil, T, Vij, R, **Ling, MHT**. 2022. *Inconsistent Phylogenetic Trees from Nucleotide or Amino Acid Sequences from Mammalian Mitochondrial Genomes.* EC Clinical and Medical Case Reports 5(7): 03-09.
19. Sim, BJH, Wong, KM, **Ling, MHT**. 2022. *Metabolite Overproduction Potential of Saccharomyces cerevisiae S288C Explored Using Its Genome-Scale Metabolic Model, iMM904.* EC Microbiology 18(7): 46-51.
20. Maitra, A, **Ling, MHT**. 2022. *DOSSIER: A Toolkit to Extract Data from Digital Life Simulations Using DOSE.* Acta Scientific Computer Sciences 4(7): 37-40.
21. Kannan, KSS, Patil, T, Vij, R, Loh, BJK, **Ling, MHT**. 2022. *Nutrient Availability Impacts Intracellular Metabolic Profiles in Digital Organisms.* Acta Scientific Microbiology 5(6): 18-25.
22. Tang, AY, **Ling, MHT**. 2022. *Relapse Processes are Important in Modelling Drug Epidemic.* Acta Scientific Medical Sciences 6(6): 177-182.
23. Wee, YY, Kng, X, Sor, SX, **Ling, MHT**. 2022. *Genome-Scale Metabolic Model-Based Reactome-Phenome Map of Synechocystis sp. PCC 6803, A Potential Biofuel Producer.* Medicon Microbiology 1 (4): 02-08.
24. Sor, SX, Wee, YY, Kng, X, **Ling, MHT**. 2022. *A Systematic Scoping Review on the Current Applications of Environmental DNA (eDNA).* EC Clinical and Medical Case Reports 5(4): 46-64.
25. Chua, MTE, Dumanglas, ABG, **Ling, MHT**. 2022. *Gene Co-Expressions Cannot Predict Protein-Protein Interactions in Escherichia coli.* EC Microbiology 18(3): 102-109.
26. Tan, FL, Kuan, ZJ, Amir-Hamzah, N, Kng, X, Wee, YY, Sor, SX, **Ling, MHT**. 2022. *Significant Differences in Media Components and Predicted Growth Rates of 58 Escherichia coli Genome-scale Models.* Acta Scientific Microbiology 5(2): 56-68.
27. Kuan, ZJ, Amir-Hamzah, N, **Ling, MHT**. 2022. *Kinetic Models with Default Enzyme Kinetics from Genome-scale Models.* Acta Scientific Computer Sciences 4(1): 59-63.
28. **Ling, MHT**. 2021. *ZeroOne: Building and Enhancing Executing Simulation by Incremental Patches.* Acta

Scientific Computer Sciences 3(10): 50-52.

29. Sim, KS, **Ling, MHT**. 2021. *Installation and Documentation Evaluation of Recent (01 January 2020 to 15 February 2021) Chatbot Engines from Python Package Index (PyPI).* Acta Scientific Computer Sciences 3(8): 38-43.
30. Ang, DGY, **Ling, MHT**. 2021. *Sudden and Steep Harsh Environment Results in Over-Compensation in Digital Organisms*. EC Microbiology 17(7): 104-113.
31. Johny, A, Sumedha, PR, **Ling, MHT**. 2021. *Simulation Suggests that One-Off Simple Supplementation from the Wild into Captive Population May Not Increase Captive Genetic Diversity*. EC Veterinary Science 6(7): 107-111.
32. Lim, GZK, Azmi, HH, Dolmatova, M, **Ling, MHT**. 2021. *Significant Differences in Nucleotide and Peptide Features Between Chromosomes Suggesting Sequence Non-Randomness Across Chromosomes.* Acta Scientific Microbiology 4(4): 23-28.
33. Kuan, ZJ, Amir-Hamzah, N, **Ling, MHT**. 2021. *Coffee as a Potential Nutraceutical*. EC Nutrition 16(3): 57-65.
34. Kim, KD, Chua, SCH, **Ling, MHT**. 2021. *Science/Education Portraits VII: Statistical Methods Used in 1081 Papers Published in Year 2020 Across 12 Life Science Journals Under BioMed Central.* Acta Scientific Nutritional Health 5(3): 06-12.
35. Kuan, ZJ, **Ling, MHT**. 2021. *Core Genome of Poales, An Economically Important Order of Monocotyledons.* EC Agriculture 7(2): 24-29.
36. Cho, JL, **Ling, MHT**. 2021. *Adaptation of Whole Cell Kinetic Model Template, UniKin1, to Escherichia coli Whole Cell Kinetic Model, ecoJC20.* EC Microbiology 17(2): 254-260.
37. Chua, SCH, **Ling, MHT**. 2021. *Stop Codon Usage Varies on CDS Length, Nucleotide Compositions, and Peptide Instability in Six Escherichia coli Strains*. EC Clinical and Medical Case Reports 4(2): 39-46.
38. **Ling, MHT**. 2020. *Low Classification Accuracy by Logistic Regression, Support Vector Classifier, and Multi-Layer Perceptron, but Not Decision Tree, on Random Attributes from Hadamard Matrix*. EC Clinical and Medical Case Reports 3(12): 07-10
39. Teo, YH, **Ling, MHT**. 2020. *A Systematic Review on the Sufficiency of PubMed and Google Scholar for Biosciences*. Acta Scientific Medical Sciences 4(12): 03-08.
40. Wang, VCC, **Ling, MHT**. 2020. *Science/Education Portraits VI: Anecdotes of Life in Singapore During COVID-19 (February 2020 to September 2020).* EC Clinical and Medical Case Reports 3(11): 98-111.
41. Chew, SSM, Murthy, MV, Kamarudin, NJ, Wang, VCC, Tan, XT, Ramesh, A, Yablochkin, NV, Mathivanan, K, **Ling, MHT**. 2020. *Rapid Genetic Diversity with Variability between Replicated Digital Organism Simulations and its Implications on Cambrian Explosion*. EC Clinical and Medical Case Reports 3(11): 64-68.
42. Liu, TT, **Ling, MHT**. 2020. *BactClass: Simplifying the Use of Machine Learning in Biology and Medicine*. Acta Scientific Medical Sciences 4(11): 43-47.
43. **Ling MHT**. 2020. *AdvanceSyn Toolkit: An Open-Source Suite for Model Development and Analysis in Biological Engineering*. MOJ Proteomics & Bioinformatics 9(4):83–86.
44. Murthy, MV, Balan, D, Kamarudin, NJ, Wang, VCC, Tan, XT, Ramesh, A, Chew, SSM, Yablochkin, NV, Mathivanan, K, **Ling, MHT**. 2020. *UniKin1: A Universal, Non-Species-Specific Whole Cell Kinetic Model.* Acta Scientific Microbiology 3(10): 04-08.
45. Wang, VCC, Kamarudin, NJ, Tan, XT, Ramesh, A, Chew, SSM, Murthy, MV, Yablochkin, NV, Mathivanan, K, **Ling, MHT**. 2020. *A Case Study using Mitochondrial Genomes of the Order Diprotodontia (Australasian Marsupials) Suggests that Single Ortholog is Not Sufficient for Phylogeny.* EC Clinical and Medical Case Reports 3(9): 93-114.
46. Kamarudin, NJ, Wang, VCC, Tan, XT, Ramesh, A, Chew, SSM, Murthy, MV, Yablochkin, NV, Mathivanan, K, **Ling, MHT**. 2020. A *Simulation Study on the Effects of Founding Population Size and Number of Alleles Per Locus on the Observed Population Genetic Profile: Implications to Broodstock Management.* EC Veterinary Science 5(8): 176-180.
47. Tan, XT, Ramesh, A, Wang, VCC W, Kamarudin, NJ, Chew, SSM, Murthy, MV, Yablochkin, NV, Mathivanan, K, **Ling, MHT**. 2020. *Core Pseudomonas Genome From 10 Pseudomonas Species*. MOJ Proteomics & Bioinformatics 9(3): 68–71.
48. Gunalan, K, Wong, CQL, Neo, MPY, **Ling, MHT**. 2020. *One Percent of Escherichia coli O157:H7 Peptides May Contain Putative Beta-Lactamase Activity*. EC Microbiology 16(8): 73-79.
49. Cheong, KC, Hon, RYH, Sander, CJ, Ang, IZL, Foong, JH, **Ling, MHT**. 2020. *A Simulation Study on the Effects of Media Composition on the Growth Rate of Escherichia coli MG1655 using iAF1260 Model.* Acta Scientific Microbiology 3(8): 40-44.
50. Neo, CY, **Ling, MHT**. 2020. *Prevalence and Length of Open Reading Frames Vary Across Randomly*

Generated Sequences of Different Nucleotide Compositions. EC Microbiology 16(7): 72-78.

51. Sim, BKY, **Ling, MHT**. 2020. *Possibility of Abiotic Genesis of Biochemistry*. EC Microbiology 16(6): 104-109.
52. Teng, RSY, Kwang, JCY, Chin, ASQ, Sanders, CJ, Ang, IZL, Foong, JH, Cheong, KC, Hon, RYH, **Ling, MHT**. 2020. *Correlation Analysis on Transcriptomes from Published Human Skin Studies Show Variations between Control Samples*. EC Clinical and Medical Case Reports 3(6): 143-146.
53. **Ling, MHT**. 2020. *SeqProperties: A Python Command-Line Tool for Basic Sequence Analysis*. Acta Scientific Microbiology 3(6): 103-106.
54. Usman, S, Chua, JW, Ardhanari-Shanmugam, KD, Thong-Ek C, B, V, Shahrukh, K, Woo, JH, Kwek, BZN, **Ling, MHT**. 2019. Pseudomonas balearica DSM 6083T promoters can potentially originate from random sequences. MOJ Proteomics & Bioinformatics 8(2): 66–70.
55. **Ling, MHT**. 2019. *Island: A Simple Forward Simulation Tool for Population Genetics*. Acta Scientific Computer Sciences 1(2): 20-22.
56. **Ling, MHT**. 2019. *Draft Implementation of a Method to Secure Data by File Fragmentation*. Acta Scientific Computer Sciences 1(2): 10-13.
57. Ardhanari-Shanmugam, KD, Shahrukh, K, B, V, Woo, JH, Thong-Ek, C, Usman, S, Kwek, BZN, Chua, JW, **Ling, MHT**. 2019. *De Novo Origination of Bacillus subtilis 168 Promoters from Random Sequences.* Acta Scientific Microbiology 2(11): 07-10.
58. Chang, ED, **Ling, MHT.** 2019. *Explaining Monod in Terms of Escherichia coli Metabolism.* Acta Scientific Microbiology 2(9): 66-71.
59. **Ling, MHT.** 2019. *Science/Education Portraits V: The Scientific Tertiary Education that I had Envisioned.* Acta Scientific Medical Sciences 2(8): 75-79.
60. Kwek, BZN, Ardhanari-Shanmugam, KD, Woo, JH, Usman, S, Chua, JW, B, V, Shahrukh, K, Thong-Ek, C, **Ling, MHT.** 2019. *Random Sequences May Have Putative Beta-Lactamase Properties.* Acta Scientific Medical Sciences 3(7): 113-117.
61. Thong-Ek, C, Usman, S, Woo, JH, Chua, JW, Kwek, BZN, Ardhanari-Shanmugam, KD, B, V, Shahrukh, K, **Ling, MHT**. 2019. *Potential De Novo Origins of Archaebacterial Glycerol-1-Phosphate Dehydrogenase (G1PDH).* Acta Scientific Microbiology 2(6): 106-110.
62. Maitra, A, **Ling, MHT**. 2019. *Codon Usage Bias and Peptide Properties of Pseudomonas balearica DSM 6083T.* MOJ Proteomics & Bioinformatics 8(2):27–39.
63. Kim, JH, **Ling, MHT**. 2019. *Proteome Diversities Among 19 Archaebacterial Species.* Acta Scientific Microbiology 2(5): 20-27.
64. **Ling, MHT**. 2019. *De Novo Putative Protein Domains from Random Peptides*. Acta Scientific Microbiology 2(4): 109-112.
65. **Ling, MHT**. 2019. *Science/Education Portraits IV: Experiences from a Decade as Informal Career Counsellor can be Summarized as Personopreneurship*. Acta Scientific Medical Sciences 3(3): 151-156.
66. Suwinski, P, Ong, CK, **Ling, MH**, Poh, YM, Khan, AM, Ong, HS. 2019. *Advancing Personalized Medicine through the Application of Whole Exome Sequencing and Big Data Analytics.* Frontiers in Genetics 10: 49.
67. Lim, JX, **Ling, MHT**. 2019. *Gene Ontology and KEGG Orthology Mappings for 10 Strains of Pseudomonas stutzeri*. EC Proteomics and Bioinformatics 3(1): 12-18.
68. **Ling, MHT**. 2018. *SEcured REcorder BOx (SEREBO) Based on Blockchain Technology for Immutable Data Management and Notarization*. MOJ Proteomics & Bioinformatics 7(6):169–174.
69. **Ling, MHT.** 2018. *Science/Education Portraits III: Perceived Prevalence of Data Fabrication and/or Falsification in Research*. Advances in Biotechnology and Microbiology 11(5):555824.
70. **Ling, MHT.** 2018. *RANDOMSEQ: Python Command–line Random Sequence Generator*. MOJ Proteomics & Bioinformatics 7(4):206–208.
71. **Ling, MHT.** 2018. *Science/Education Portraits II: Pre-Tertiary and Undergraduate Research Mentors Should Consider Publication as Project Endpoint*. MOJ Proteomics & Bioinformatics 7(2):127–129.
72. Chan, OYW, Keng, BMH, **Ling, MHT**. 2018. *Science/Education Portraits I: Identifying Success Factors of Pre-Tertiary Bioinformatics Research Experience from Students' Perspective.* Advances in Biotechnology and Microbiology 8(2): 555734.
73. **Ling, MHT.** 2018. *Back-of-the-Envelope Guide (A Tutorial) to 10 Intracellular Landscapes.* MOJ Proteomics & Bioinformatics 7(1): 00209.

74. **Ling, MHT**. 2017. *Towards Portrait [(Auto) Ethnography, Narrative, and Action Research] of Bioinformatics.* EC Proteomics and Bioinformatics 2(1): 29-35.

75. **Ling, MHT**. 2017. *A Personal Narrative of 6 Pre-University Research Projects Over 7 Years (2009-2015) Yielding 19 Manuscripts.* MOJ Proteomics & Bioinformatics 6(3): 00193.

76. Wang, HJ, **Ling, MHT**, Chua, TK, Poh, CL. 2017. *Two Cellular Resource Based Models Linking Growth and Parts Characteristics Aids the Study and Optimization of Synthetic Gene Circuits.* Engineering Biology 1(1): 30-39.

77. Chay, ZE, Goh, BF, **Ling, MHT**. 2016. *PNet: A Python Library for Petri Net Modeling and Simulation.* Advances in Computer Science: an international journal 5(4): 24-30.

78. **Ling, MHT**. 2016. *Of (Biological) Models and Simulations.* MOJ Proteomics & Bioinformatics 3(4): 00093.

79. **Ling, MHT**. 2016. *COPADS IV: Fixed Time-Step ODE Solvers for a System of Equations Implemented as a Set of Python Functions.* Advances in Computer Science: an international journal 5(3): 5-11.

80. Chew, JS, **Ling, MHT**. 2016. *TAPPS Release 1: Plugin-Extensible Platform for Technical Analysis and Applied Statistics*. Advances in Computer Science: an international journal 5(1): 132-141.

81. Castillo, CFG, Chay ZE, **Ling, MHT**. 2015. *Resistance Maintained in Digital Organisms Despite Guanine/Cytosine-Based Fitness Cost and Extended De-Selection: Implications to Microbial Antibiotics Resistance*. MOJ Proteomics & Bioinformatics 2(2): 00039.

82. **Ling, MHT.** 2014. *Applications of Artificial Life and Digital Organisms in the Study of Genetic Evolution*. Advances in Computer Science: an international journal 3(4): 107-112.

83. Keng, BMH, Chan, OYW, **Ling, MHT.** 2014. *Codon Usage Bias is Evolutionarily Conserved.* Asia Pacific Journal of Life Sciences 7(3): 233-242.

84. **Ling, MHT**, Poh, CL. 2014. *A Predictor for Predicting Escherichia coli Transcriptome and the Effects of Gene Perturbations.* BMC Bioinformatics 15: 140.

85. Castillo, CFG, **Ling, MHT**. 2014. *Resistant Traits in Digital Organisms Do Not Revert Preselection Status despite Extended Deselection: Implications to Microbial Antibiotics Resistance*. BioMed Research International 2014, Article ID 648389.

86. Chan, OYW, Keng, BMH, **Ling, MHT.** 2014. *Bactome III: OLIgonucleotide Variable Expression Ranker (OLIVER) 1.0, Tool for Identifying Suitable Reference (Invariant) Genes from Large Microarray Datasets*. The Python Papers Source Codes 6: 2.

87. Koh, YZ, **Ling, MHT**. 2014. *Catalog of Biological and Biomedical Databases Published in 2013*. iConcept Journal of Computational and Mathematical Biology 3: 3.

88. Loo, BZL, Low, SXZ, Aw, ZQ, Lee, KC, Oon, JSH, Lee, CH, **Ling, MHT.** 2014. *Escherichia coli ATCC 8739 Adapts Specifically to Sodium Chloride, Monosodium Glutamate, and Benzoic Acid after Prolonged Stress.* Asia Pacific Journal of Life Sciences 7(3): 243-258.

89. Castillo, CFG, **Ling, MHT**. 2014. *Digital Organism Simulation Environment (DOSE): A Library for Ecologically-Based In Silico Experimental Evolution.* Advances in Computer Science: an international journal 3(1): 44-50.

90. Chan, OYW, Keng, BMH, **Ling, MHT.** 2014. *Correlation and Variation Based Method for Reference Genes Identification from Large Datasets.* Electronic Physician 6(1): 719-727.

91. **Ling, MHT**. 2014. *NotaLogger: Notarization Code Generator and Logging Service.* The Python Papers 9: 2.

92. Chen, KFQ, **Ling, MHT**. 2013. *COPADS III (Compendium of Distributions II): Cauchy, Cosine, Exponential, Hypergeometric, Logarithmic, Semicircular, Triangular, and Weibull.* The Python Papers Source Codes 5: 2.

93. Koh, YZ, **Ling, MHT**. 2013. *On the Liveliness of Artificial Life.* iConcept Journal of Human-Level Intelligence 3: 1.

94. Keng, BMH, Chan, OYW, Heng, SSJ, **Ling, MHT.** 2013. *Transcriptome Analysis of Spermophilus lateralis and Spermophilus tridecemlineatus Liver Does Not Suggest the Presence of Spermophilus-liver-specific Reference Genes.* ISRN Bioinformatics 2013, Article ID 361321.

95. **Ling, MHT**, Ban, YG, Wen, H, Wang, SM, Ge, X. 2012. *Conserved Expression of Natural Antisense Transcripts in Mammals.* BMC Genomics 14:243.

96. Low, SXZ, Aw, ZQ, Loo, BZL, Lee, KC, Oon, JSH, Lee, CH, **Ling, MHT.** 2012. *Viability of Escherichia coli ATCC 8739 in Nutrient Broth, Luria-Bertani Broth and Brain Heart Infusion over 11 Weeks.* Electronic Physician 5:576-581.

97. **Ling, MHT.** 2012. *Re-creating the Philosopher's Mind: Artificial Life from Artificial Intelligence.* iConcept Journal of Human-Level Intelligence 2: 1.

98. **Ling, MHT.** 2012. *Ragaraja 1.0: The Genome Interpreter of Digital Organism Simulation Environment (DOSE).* The Python Papers Source Codes 4: 2.

99. How, JA, Lim, JZR, Goh, DJW, NG, WC, Oon, JSH, Lee, KC, Lee, CH, **Ling, MHT**. 2013. *Adaptation of Escherichia coli ATCC 8739 to 11% NaCl.* Dataset Papers in Biology 2013, Article ID 219095.

100. **Ling, MHT**, Rabara, RC, Tripathi, P, Rushton, PJ, Ge, X. 2013. *Extending MapMan Ontology to Tobacco for Visualization of Gene Expression.* Dataset Papers in Biology 2013, Article ID 706465.

101. **Ling, MHT.** 2012. *An Artificial Life Simulation Library Based on Genetic Algorithm, 3-Character Genetic Code and Biological Hierarchy.* The Python Papers 7: 5.

102. Goh, DJW, How, JA, Lim, JZR, NG, WC, Oon, JSH, Lee, KC, Lee, CH, **Ling, MHT**. 2012. *Gradual and Step-wise Halophilization Enables Escherichia coli ATCC 8739 to Adapt to 10% NaCl.* Electronic Physician 4(3): 527-535.

103. Dundas, JB, **Ling, MHT**. 2012. *Reference Genes for Measuring mRNA Expression.* Theory in Biosciences 131: 215-223.

104. Lee, CH, Oon, JSH, Lee, KC, Lee, CH, **Ling, MHT**. 2012. *Escherichia coli ATCC 8739 Adapts to the Presence of Sodium Chloride, Monosodium Glutamate, and Benzoic Acid after Extended Culture.* ISRN Microbiology 2012, Article ID 965356.

105. Too, IHK, **Ling, MHT**. 2012. *Signal Peptidase Complex Subunit 1 (SPCS1) and Hydroxyacyl-CoA Dehydrogenase Beta Subunit (HADHB) are Suitable Reference Genes in Human Lungs.* ISRN Bioinformatics 2012, Article ID 790452.

106. Heng, SSJ, Chan, OYW, Keng, BMH, **Ling, MHT**. 2011. *Glucan biosynthesis protein G (mdoG) is a Suitable Reference Gene in Escherichia coli K-12*. ISRN Microbiology 2011, Article ID 469053.

107. **Ling, MHT**. 2011. *Bactome II: Analyzing Gene List for Gene Ontology Over-Representation*. The Python Papers Source Codes 3: 3.

108. Tahat, A, **Ling, MHT**. 2011. *Mapping Relational Operations onto Hypergraph Model.* The Python Papers 6(1): 4.

109. Kuo, CJ, **Ling, MHT**, Hsu, CN. 2011. *Soft Tagging of Overlapping High Confidence Gene Mention Variants for Cross-Species Full-Text Gene Normalization.* BMC Bioinformatics 12(Suppl 8):S6.

110. Lim, JZR, Aw, ZQ, Goh, DJW, How, JA, Low, SXZ, Loo, BZL, **Ling, MHT**. 2010. *A Genetic Algorithm Framework Grounded in Biology.* The Python Papers Source Codes 2: 6.

111. **Ling, MHT**. 2010. *Specifying the Behaviour of Python Programs: Language and Basic Examples.* The Python Papers 5(2): 4

112. Chay, ZE, **Ling, MHT**. 2010. *COPADS, II: Chi-Square test, F-Test and t-Test Routines from Gopal Kanji's 100 Statistical Tests.* The Python Papers Source Codes 2:3.

113. Chay, ZE, Lee, CH, Lee, KC, Oon, JSH, **Ling, MHT**. 2010. *Russel and Rao Coefficient is a Suitable Substitute for Dice Coefficient in Studying Restriction Mapped Genetic Distances of Escherichia coli.* iConcept Journal of Computational and Mathematical Biology 1:1.

114. **Ling, MHT**. 2010. *COPADS, I: Distances Measures between Two Lists or Sets.* The Python Papers Source Codes 2: 2.

115. Ng, YY and **Ling, MHT**. 2010. *Electronic Laboratory Notebook on Web2Py Framework.* In: Peer-Reviewed Articles from PyCon Asia-Pacific 2010. The Python Papers 5(3): 7.

116. Lee, CH, Lee, KC, Oon, JSH, **Ling, MHT**. 2010. *Bactome, I: Python in DNA Fingerprinting.* In: Peer-Reviewed Articles from PyCon Asia-Pacific 2010. The Python Papers 5(3): 6.

117. Chia, CY, Lim, CWX, Leong, WT, **Ling, MHT.** 2010. *High Expression Stability of Microtubule Affinity Regulating Kinase 3 (MARK3) Makes It a Reliable Reference Gene.* IUBMB Life 62(3): 200-203.

118. Kuo, CJ, **Ling, MHT**, Lin, KT, Hsu, CN. 2009. *BIOADI: A Machine Learning Approach to Identify Abbreviations and Definitions in Biological Literature.* BMC Bioinformatics 10(Suppl 15):S7

119. **Ling, MHT**. 2009. *Ten Z-test Routines from Gopal Kanji's 100 Statistical Tests.* The Python Papers

Source Codes 1:5

120. **Ling, MHT.** 2009. *Compendium of Distributions, I: Beta, Binomial, Chi-Square, F, Gamma, Geometric, Poisson, Student's t, and Uniform.* The Python Papers Source Codes 1:4
121. **Ling, MHT**, Lefevre, C, Nicholas, KR. 2008. *Filtering Microarray Correlations by Statistical Literature Analysis Yields Potential Hypotheses for Lactation Research.* The Python Papers 3(3): 4.
122. **Ling, MHT**, Lefevre, C, Nicholas, KR. 2008. *Parts-of-Speech Tagger Errors Do Not Necessarily Degrade Accuracy in Extracting Information from Biomedical Text.* The Python Papers 3 (1): 65-80
123. **Ling, MHT**. 2007. *Firebird Database Backup by Serialized Database Table Dump.* The Python Papers 2 (1): 12-16.
124. **Ling, MHT**. 2006. *An Anthological Review of Research Utilizing MontyLingua, a Python-Based End-to-End Text Processor.* The Python Papers 1 (1): 5-12.

Refereed Book Chapters:

1. **Ling, MHT.** 2019. SEcured REcorder BOx (SEREBO) Version 1.0. In Current STEM, Volume 2. pp. 67-154. Nova Science Publishers, Inc. ISBN 978-1-53616-042-0.
2. Wong, A, **Ling, MHT**. 2019. *Characterization of Transcriptional Activities*. In Guenther, R. and Steel, D. (eds.), Encyclopedia of Bioinformatics and Computational Biology, Volume 3, pages 830-841. Elsevier. ISBN 978-0-12811-414-8.
3. Li, BT, Lim, JX, **Ling, MHT**. 2019. *Analyzing Transcriptome-Phenotype Correlations*. In Guenther, R. and Steel, D. (eds.), Encyclopedia of Bioinformatics and Computational Biology, Volume 3, pages 819-824. Elsevier. ISBN 978-0-12811-414-8.
4. **Ling, MHT**. 2019. *Survey of Antisense Transcription*. In Guenther, R. and Steel, D. (eds.), Encyclopedia of Bioinformatics and Computational Biology, Volume 3, pages 842-846. Elsevier. ISBN 978-0-12811-414-8.
5. Lim, JX, Li, BT, **Ling, MHT**. 2019. *Sequence Composition*. In Guenther, R. and Steel, D. (eds.), Encyclopedia of Bioinformatics and Computational Biology, Volume 3, pages 323-326. Elsevier. ISBN 978-0-12811-414-8.
6. **Ling, MHT**. 2018. *COPADS VI: Fixed Time-Step ODE Solvers with Mixed ODE and non-ODE Function, and Script Generator.* In Current STEM, Volume 1, pp. 173-212. Nova Science Publishers, Inc. ISBN 978-1-53613-416-2.
7. **Ling, MHT**. 2018. *COPADS V: Lindenmayer System with Stochastic and Function-Based Rules.* In Current STEM, Volume 1, pp. 143-172. Nova Science Publishers, Inc. ISBN 978-1-53613-416-2.
8. **Ling, MHT**. 2018. *A Cryptography Method Inspired by Jigsaw Puzzles.* In Current STEM, Volume 1, pp. 129-142. Nova Science Publishers, Inc. ISBN 978-1-53613-416-2.
9. Castillo, CFG, **Ling, MHT**. 2018. *Digital Organism Simulation Environment (DOSE) Version 1.0.4.* In Current STEM, Volume 1, pp. 1-106. Nova Science Publishers, Inc. ISBN 978-1-53613-416-2.
10. Too, IHK, Heng, SSJ, Chan, OYW, Keng, BMH, Chia, CY, Lim, CWX, Leong, WT, Chu, QH, Ang, EJG, Lin, YJ, **Ling, MHT**. 2014. Identification of Reference Genes by Meta-Microarray Analyses. In Microarrays: Principles, Applications and Technologies. Nova Sciesnce Publishers, Inc.
11. **Ling, MHT,** Lefevre, Christophe, Nicholas, KR. 2010. *Mining Protein-Protein Interactions from Published Abstracts with MontyLingua.* In Sequence and Genome Analysis: Methods and Applications. iConcept Press Pty Ltd.
12. **Ling, MHT**, Lefevre, Christophe, Nicholas, Kevin R. 2009. *Biomedical Literature Analysis: Current State and Challenges.* In Internet Policies and Issues, Volume 7. Nova Science Publishers, Inc.
13. **Ling, MHT**, Lefevre, C, Nicholas, KR, Lin, F. 2007. *Re-construction of Protein-Protein Interaction Pathways by Mining Subject-Verb-Objects Intermediates.* In Proceedings of the Second IAPR Workshop on Pattern Recognition in Bioinformatics (PRIB 2007). Lecture Notes in Bioinformatics 4774. (pp. 286-299) Springer-Verlag.

Refereed Conference Papers:

1. Dundas, JB, **Ling, MHT**. 2023. *A Computational Approach to Understand the Human Thought Process*. 3rd International Conference on Electronic and Electrical Engineering and Intelligent System (ICE3IS).

2. **Ling, MHT**, Jean, A, Liao, D, Tew, BBY, Ho, S, Clancy, K. 2011. *Integration of Standardized Cloning Methodologies and Sequence Handling to Support Synthetic Biology Studies.* Third International Workshop on Bio-Design Automation (IWBDA). San Diego, California, USA. 6-7 June 2011.
3. **Ling, MHT** and So, CW. 2003. *Architecture of an Open-Sourced, Extensible Data Warehouse Builder: InterBase 6 Data Warehouse Builder (IB-DWB).* In Rubinstein, B. I. P., Chan, N. & Kshetrapalapuram, K. K. (Eds.), Proceedings of the First Australian Undergraduate Students' Computing Conference. (pp. 40-45).

Other Publications:

1. **Ling, MHT**. 2017. *Problem-Based Learning (PBL), an Important Paradigm for Bioinformatics Education.* MOJ Proteomics and Bioinformatics 5(4): 00166.
2. **Ling, MHT**. 2017. *AdvanceSyn Studio(TM): A BioCad Tool for Designing and Modeling Microbes in SynBio.* Synthetic Biology and the Bio economy – Accelerating Industrialisation, Commercialisation and Productivity, Singapore. 23-24 January 2017.
3. **Ling, MHT**. 2016. *The Bioinformaticist's/Computational Biologist's Laboratory*. MOJ Proteomics and Bioinformatics 3(1): 00075.
4. **Ling, MHT**. 2016. *Using Artificial Life Simulation to Gain Insights into Contradictory Field Evidence*. PyCon SG 2016, Singapore.
5. **Ling, MHT**, Fane, AG, Poh, CL. 2016. *Right Enzyme Concentration is Needed to Reduce Initial Biofilm Formation.* Biosystems Design 2.0, Singapore.
6. Castillo, CFG, **Ling, MHT**. 2015. *Improved Implementation of Digital Organism Simulation Environment (DOSE Version 1.0.4)*. Colossus Technologies LLP Technical Report Number 001.
7. **Ling, MHT**. 2014. *Hormonal Regulation of Mouse Lactogenesis: Using Transcriptomics and Literature Analysis.* Scholars' Press. ISBN 978-3-639-66810-0.
8. **Ling, MHT**, Poh, CL. 2013. *Predicting Transcriptome of Escherchia coli using "Marker" Genes*. Proceedings of Synthetic Biology 6.0. Imperial College, London, UK. 9-11 July 2013.
9. **Ling, MHT**. 2012. *Lecturer's Personal Website is a Tool for Improving Lecturer-Students' Rapport.* Journal of Education Research 6(3).
10. **Ling, MHT**, Chen, YJ, Stanton, B, Rhodius, V, Temme, K, Jean, A, Voigt, C, Peterson, T, Clancy, K. 2011. *Development of Characterized Parts Libraries for Control of Expression.* Global Knowledge Day 2011. Life Technologies.
11. Angelica, R, Liao, D, Chen, YM, Jean, A, **Ling, MHT**, Abdul Kahar, A, Palaniappan, K, Kee, MS, Ho, S, Tew, BY, Sam, KC, Gan, KH, Loh, LS, Cheng, S, Peterson, T, Clancy, K. 2011. *Development of a Desktop Application Framework for Vector NTI Express and Future Synthetic Biology Software.* Global Knowledge Day 2011. Life Technologies.
12. Heng, SSJ, Chan, OYW, Keng, BMH, **Ling, MHT**. 2011. *Identifying Invariant Genes in Escherichia coli.* Proceedings of the 17th Youth Science Conference. Singapore.
13. Lim, JZR, Goh, DJW, How, JA, **Ling, MHT**. 2011. *Gradually Evolving Escherichia coli to Grow in 10% NaCl in 6 Months.* Singapore Society of Biochemistry and Molecular Biology Young Scientists' Symposium 2011. Singapore Science Centre, 11th March 2010.
14. Aw, ZQ, Low, SXZ, Loo, BZL, **Ling, MHT**. 2011. *Ecological Specialisation of Escherichia coli within 1000 Generations.* Singapore Society of Biochemistry and Molecular Biology Young Scientists' Symposium 2011. Singapore Science Centre, 11th March 2010.
15. Kuo, CJ, **Ling, MHT**, Hsu, CN. 2010. *Gene Normalization as a Problem of Information Retrieval.* Proceedings of BioCreative III Workshop. Bethesda, Maryland, USA. 13-15 September 2010.
16. Kuo, CJ, Hsu, CN, **Ling, MHT**. 2010. *Advanced Gene Mention Tagging System for CALBC Challenge.* In Dietrich Rebholz-Schuhmann and Udo Hahn (eds). Proceedings of the First CALBC Workshop. European Bioinformatics Institute, UK. 17-18 June 2010.
17. Chu, QH, Lin, YJ, Ang, EJG, **Ling, MHT**. 2010. *Identification of Transcriptional Invariant Genes in Mouse Endocrine Glands from Microarray Data.* Proceedings of the 16th Youth Science Conference. Singapore.
18. Lee, CH, Oon, JSH, Lee, KC, **Ling, MHT**. 2010. *Escherichia coli Adapts to Food Additives within 180 Generations.* Singapore Society of Biochemistry and Molecular Biology Young Scientists' Symposium 2010. Singapore Science Centre, 12th March 2010.

19. Kuo, CJ, **Ling, MHT**, Hsu, CN. 2009. *Applying Lazy Local Learning in BCII.5 Article Categorization Task*. BioCreative II.5 Workshop Special Session on Digital Annotations. Centro Nacional de Investigaciones Oncologicas, Spain. 7-9 October 2009.
20. Lim, MH, Quek, SG, Teoh, EJM, **Ling, MHT**, Chan, CY. 2009. *Protein Profiles of Bacteria under Short Term and Long Term Exposure to Environmental Stress.* Young Scientists' Symposium. Singapore Science Centre. 6th March 2009.
21. Chia, CY, Lim, CWX, Leong, WT, **Ling, MHT.** 2009. *Identification of Transcriptionally Invariant Genes in Mouse Liver from Microarray Data.* Proceedings of the 15th Youth Science Conference. Singapore.
22. Ng, JPH, Ong, YC, **Ling, MHT,** Xu, WJ. 2009. *Properties of Histatin 5.* Proceedings of the 15th Youth Science Conference. Singapore.
23. **Ling, MHT**, Lefevre, C, and Nicholas, KR. 2006. *A Pipeline for Analysis of Published Abstracts for Information on Protein-Protein Inter-Relations.* Proceedings of the Fourth Asia-Pacific Bioinformatics Conference.
24. **Ling, MHT**, Lefevre, C, and Nicholas, KR. 2005. *Mosirium: A Modelling and Simulation Tool for Lactation in the Mouse.* Proceedings of the Third Asia-Pacific Bioinformatics Conference.

Listing 1: Publications from Temasek Polytechnic

1. Yap, SSK, Choy, WJ, Tan, RYH, Ling, MHT. 2024. *Assembly of Single Substance Use Epidemiological Models.* Acta Scientific Medical Sciences 8(1): 43-50.
2. Işık, EB, Brazas, MD, Schwartz, R, Gaeta, B, Palagi, PM, van Gelder, CWG, Suravajhala, P, Singh, H, Morgan, SL, Zahroh, H, Ling, M, Satagopam, VP, McGrath, A, Nakai, K, Tan, TW, Gao, G, Mulder, N, Schönbach, C, Zheng, Y. De Las Rivas, J, Khan, AM. 2023. *Grand Challenges in Bioinformatics Education and Training*. Nature Biotechnology 41: 1171–1174.
3. Chia, VSQ, Ling, MHT. 2023. *Potential Information Processing Differences in Male and Hermaphrodite Neural Networks of Caenorhabditis elegans*. Medicon Medical Sciences 5(2): 53-59.
4. Toh, BCY, Ling, MHT. 2023. *Applications Utilizing CRISPR/Cas9*. Novel Research in Sciences 14(1):NRS.000826.
5. Wong, KM, Sim, BJH, Ling, MHT. 2023. *Consistency Between Saccharomyces cerevisiae S288C Genome Scale Models (iND750 and iMM904)*. Acta Scientific Microbiology 6(3): 63-68.
6. Ling, MHT, Musttakim, S, Lau, PN. 2023. *Development of a Basic Chemistry Conversational Corpus*. Acta Scientific Nutritional Health 7(2): 48-54.
7. Tan, JZH, Tan, NTF Tan, Ling, MHT. 2022. *Brainopy: A Biologically Relevant SQLite-Based Artificial Neural Network Library.* Acta Scientific Computer Sciences 4(12): 13-22.
8. Tang, AY, Ling, MHT. 2022. *Relapse Processes are Important in Modelling Drug Epidemic.* Acta Scientific Medical Sciences 6(6): 177-182.
9. Wee, YY, Kng, X, Sor, SX, Ling, MHT. 2022. *Genome-Scale Metabolic Model-Based Reactome-Phenome Map of Synechocystis sp. PCC 6803,* A Potential Biofuel Producer. Medicon Microbiology 1 (4): 02-08.
10. Sor, SX, Wee, YY, Kng, X, Ling, MHT. 2022. *A Systematic Scoping Review on the Current Applications of Environmental DNA (eDNA)*. EC Clinical and Medical Case Reports 5(4): 46-64.
11. Chua, MTE, Dumanglas, ABG, Ling, MHT. 2022. *Gene Co-Expressions Cannot Predict Protein-Protein Interactions in Escherichia coli*. EC Microbiology 18(3): 102-109.
12. Tan, FL, Kuan, ZJ, Amir-Hamzah, N, Kng, X, Wee, YY, Sor, SX, Ling, MHT. 2022. *Significant Differences in Media Components and Predicted Growth Rates of 58 Escherichia coli Genome-scale Models.* Acta Scientific Microbiology 5(2): 56-68.
13. Amir-Hamzah, N, Kuan, ZJ, Ling, MHT. 2022. *Kinetic Models with Default Enzyme Kinetics from Genome-scale Models.* Acta Scientific Computer Sciences 4(1): 59-63.
14. Sim and Ling. 2021. *Installation and Documentation Evaluation of Recent (01 January 2020 to 15 February 2021) Chatbot Engines from Python Package Index (PyPI).* Acta Scientific Computer Sciences 3(8): 38-43.
15. Kuan, et al. 2021. *Coffee as a Potential Nutraceutical.* EC Nutrition 16(3): 57-65.
16. Kim, et al. 2021. *Science/Education Portraits VII: Statistical Methods Used in 1081 Papers Published in Year 2020 Across 12 Life Science Journals Under BioMed Central.* Acta Scientific Nutritional Health 5(3): 06-12.
17. Chua and Ling. 2021. *Stop Codon Usage Varies on CDS Length, Nucleotide Compositions, and Peptide Instability in Six Escherichia coli Strains*. EC Clinical and Medical Case Reports 4(2): 39-46.
18. Kuan and Ling. 2021. *Core Genome of Poales, An Economically Important Order of Monocotyledons.* EC Agriculture 7(2): 24-29.

19. Teo and Ling. 2020. *A Systematic Review on the Sufficiency of PubMed and Google Scholar for Biosciences*. Acta Scientific Medical Sciences 4(12): 03-08.
20. Cheong, et al. 2020. *A Simulation Study on the Effects of Media Composition on the Growth Rate of Escherichia coli MG1655 using iAF1260 Model.* Acta Scientific Microbiology 3(8): 40-44.
21. Neo and Ling, MHT. 2020. *Prevalence and Length of Open Reading Frames Vary Across Randomly Generated Sequences of Different Nucleotide Compositions*. EC Microbiology 16(7): 72-78.
22. Teng, et al. 2020. *Correlation Analysis on Transcriptomes from Published Human Skin Studies Show Variations between Control Samples*. EC Clinical and Medical Case Reports 3(6): 143-146.
23. Chang and Ling. 2019. *Explaining Monod in Terms of Escherichia coli Metabolism*. Acta Scientific Microbiology 2(9): 66-71.

Listing 2: Publications from Honours Projects via MDIS

1. Ong, RT, Lao, S, Seow, SK, Dave, VS, Ling, MHT. 2024. *Systematic Review of PubMed Articles Prior to 2023 on Effects of Breakfast on School Performance*. Medicon Medical Sciences 6(1): 11-25.
2. Roh, D, Naing, SY, Ling, MHT. 2023. *Peptide Properties of Saccharomyces arboricola H-6 Suggest Randomness in Chromosomal Organization*. EC Microbiology 19(3): 01-08.
3. Azan, NK, Ng, ASY, Samsudi, F, Mazlan, MR, Loh, YK, Ling, MHT. 2023. *A 5-Year Systematic Review (2018 to 2022) on The Effectiveness of Mediterranean Diet in Preventing Alzheimer's Disease*. Acta Scientific Nutritional Health 7(2): 79-90.
4. Ng, ASY, Azan, NK, Samsudi, F, Mazlan, MR, Loh, YK, Ling, MHT. 2023. *A 5-Year Systematic Review (01 April 2017 to 31 March 2022) on the Causes of Abdominal Obesity*. EC Clinical and Medical Case Reports 6(1): 90-110.
5. Naing, SY, Thia, EWJ, Roh, D, Chew, C, Tun, SK, Wai, MK, Ling, MHT. 2023. *Novel Populations from Simulated Admixed Populations.* Medicon Medical Sciences 4(1): 9-15.
6. Loh, BJK, Kannan, KSS, Patil, T, Vij, R, Ling, MHT. 2022. *Inconsistent Phylogenetic Trees from Nucleotide or Amino Acid Sequences from Mammalian Mitochondrial Genomes.* EC Clinical and Medical Case Reports 5(7): 03-09.
7. Kannan, KSS, Patil, T, Vij, R, Loh, BJK, Ling, MHT. 2022. *Nutrient Availability Impacts Intracellular Metabolic Profiles in Digital Organisms.* Acta Scientific Microbiology 5(6): 18-25.
8. Ang, and Ling. 2021. *Sudden and Steep Harsh Environment Results in Over-Compensation in Digital Organisms*. EC Microbiology 17(7): 104-113.
9. Johny, et al. 2021. *Simulation Suggests that One-Off Simple Supplementation from the Wild into Captive Population May Not Increase Captive Genetic Diversity*. EC Veterinary Science 6(7): 107-111.
10. Lim, et al. 2021. *Significant Differences in Nucleotide and Peptide Features Between Chromosomes Suggesting Sequence Non-Randomness Across Chromosomes.* Acta Scientific Microbiology 4(4): 23-28.
11. Kim, et al. 2021. *Science/Education Portraits VII: Statistical Methods Used in 1081 Papers Published in Year 2020 Across 12 Life Science Journals Under BioMed Central*. Acta Scientific Nutritional Health 5(3): 06-12.
12. Cho, and Ling. 2021. *Adaptation of Whole Cell Kinetic Model Template, UniKin1, to Escherichia coli Whole Cell Kinetic Model, ecoJC20.* EC Microbiology 17(2): 254-260.
13. Chew, et al. 2020. *Rapid Genetic Diversity with Variability between Replicated Digital Organism Simulations and its Implications on Cambrian Explosion*. EC Clinical and Medical Case Reports 3(11): 64-68.
14. Murthy, et al. 2020. *UniKin1: A Universal, Non-Species-Specific Whole Cell Kinetic Model.* Acta Scientific Microbiology 3(10): 04-08.
15. Wang, et al. 2020. *A Case Study using Mitochondrial Genomes of the Order Diprotodontia (Australasian Marsupials) Suggests that Single Ortholog is Not Sufficient for Phylogeny.* EC Clinical and Medical Case Reports 3(9): 93-114.
16. Kamarudin, et al. 2020. *A Simulation Study on the Effects of Founding Population Size and Number of Alleles Per Locus on the Observed Population Genetic Profile: Implications to Broodstock Management*. EC Veterinary Science 5(8): 176-180.
17. Tan, et al. 2020. *Core Pseudomonas Genome From 10 Pseudomonas Species*. MOJ Proteomics & Bioinformatics 9(3): 68–71.
18. Gunalan, et al. 2020. *One Percent of Escherichia coli O157:H7 Peptides May Contain Putative Beta-Lactamase Activity.* EC Microbiology 16(8): 73-79.
19. Usman, et al. 2019. *Pseudomonas balearica DSM 6083T promoters can potentially originate from random sequences*. MOJ Proteomics & Bioinformatics 8(2): 66–70.

20. Ardhanari-Shanmugam, et al. 2019. *De Novo Origination of Bacillus subtilis 168 Promoters from Random Sequences.* Acta Scientific Microbiology 2(11): 07-10.
21. Kwek, et al. 2019. *Random Sequences May Have Putative Beta-Lactamase Properties.* Acta Scientific Medical Sciences 3(7): 113-117.
22. Thong-Ek, et al. 2019. *Potential De Novo Origins of Archaebacterial Glycerol-1-Phosphate Dehydrogenase (G1PDH).* Acta Scientific Microbiology 2(6): 106-110.
23. Maitra, and Ling. 2019. *Codon Usage Bias and Peptide Properties of Pseudomonas balearica DSM 6083T*. MOJ Proteomics & Bioinformatics 8(2):27–39.
24. Kim, and Ling. 2019. *Proteome Diversities Among 19 Archaebacterial Species.* Acta Scientific Microbiology 2(5): 20-27.

Listing 3: Advised Undergraduate and Postgraduates

Postgraduates

1. **Jack Jian Ming LEE** (2018 – 2021): MSc at School of Data Sciences, Perdana University, Malaysia. Thesis: Meta-ome for Homology Search.

Undergraduates

1. **Zhao Jie KWAN** (2023-2024): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Ab Initio Whole Cell Kinetic Model of *Stutzerimonas balearica* DSM 6083 (pbmKZJ23)
2. **Waylen TEO** (2023-2024): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Independent Genic-Encoded Enzymatic Reactions May Randomly Link into Multi-Step Biochemical Pathways in the Absence of Large Cell Selective Pressure
3. **Aaron Kwong Yam LAM** (2023-2024): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Core Genome of Deinococcota Phylum from 72 Strains Across 40 Species Consist of Only One Gene, Beta Subunit of DNA-Directed RNA Polymerase.
4. **Shaunnessy Ming Hui NG** (2023-2024): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Examining Connectome-Functional Relationship using Simulations.
5. **Simone LAO** (2022-2023): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Systematic Review on the Effects of Food on Mental Health via Gut Microbiome
6. **Shayna Keying SEOW** (2022-2023): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Role of Diet in Migraine
7. **Rong Ting ONG** (2022-2023): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Systematic Review on Effects of Breakfast on School Performance
8. **Vaidehi Shrikant DAVE** (2022-2023): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Dietary Impact on GERD - Exploring the Effects of Diets on Gastroesophageal Reflux Disease
9. **Shah Yunn NAING** (2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Population structure of admixed populations.
10. **Daeun ROH** (2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Chromosomal Organization of *Saccharomyces arboricola* H-6.
11. **Cedric CHEW** (2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore.
12. **Sandi Kyaw TUN** (2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore.
13. **Mee Khin WAI** (2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore.
14. **Shi Ya Ariel NG** (2021-2022): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Causes of Abdominal Obesity.
15. **Yuan Kai LOH** (2021-2022): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Artificial Sweeteners and The Risk of Cancers.
16. **Muhammad Rusydi Bin MAZLAN** (2021-2022): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: How effective is nutrition in reducing the risk of Chronic Obstructive Pulmonary Disease (COPD) in smokers?
17. **Farij Bin SAMSUDI** (2021-2022): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Nutritional Knowledge in General Public: Systematic Review.
18. **Nur Khairina Binte AZAN** (2021-2022): BSc(Hons) at Roehampton University (UK); via MDIS, Singapore. Thesis: Effectiveness of Mediterranean Diet in Preventing Alzheimer's disease.
19. **Katheresan Selvam Sooriya KANNAN** (2021-2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Effect of Environmental Nutrient Availability on Intracellular Metabolite Amount in Digital Organisms Across Six Different Environments.

20. **Tanmay PATIL** (2021-2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Significantly Different Average Intracellular Metabolite Amounts Depending on Nutrient Availability in Digital Organisms.
21. **Rohit VIJ** (2021-2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Randomly Generated Nucleotide Sequences and their Relationship with the Mean Number of Protein Domains.
22. **Behnjemyn Jeng Kit LOH** (2021-2022): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Phylogenetic Analysis of the Evolution of Mitochondrial Genome of the Mammalia.
23. **Eugene Wei Jun THIA** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Equal Proportion of Source Population to Admixed Population May Not Result in Stable Population Genetic Structure.
24. **Alan JOHNY** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Simulation Suggests that One-Off Simple Supplementation from the Wild into Captive Population May Not Increase Captive Genetic Diversity.
25. **Pasumarthi SUMEDHA** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Supplementation from the Wild as a Means to Mitigate Domestic Inbreeding.
26. **Garg Shubhangi VIBHOR** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Effect of Bottlenecking on the Population Genetic Structure of an Isolated Population.
27. **Dennis Gee Yao ANG** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Niche Adaptation as a Driver of Evolution: How does adaptation to environment drive evolution?
28. **Aarthi RAVICHANDRAN** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: The Effects of Coding Density on Organism Fitness.
29. **Leejun CHO** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Adaptation of Whole Cell Kinetic Model Template, UniKin1, to *Escherichia coli* Whole Cell Kinetic Model, ecoJC20.
30. **Mariia DOLMATOVA** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Chromosomal Organization of *Plasmodium falciparum.*
31. **Phebe Hwee Boon LOH** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Core and Pan-Genome of *Saccharolobus solfaraticus.*
32. **Zhe En PHUA** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: A Simulation Study on the Effects of Contamination on the Wild Population with Those in Captivity.
33. **Hykal Hassan AZMI** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Logic of Chromosomal Organization in *Prunus dulcis* – Are Genes Organized into Chromosomes Randomly or Is There a Logical Aspect?
34. **Gabriel Zhen Kang LIM** (2020-2021): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Investigation of Non-Uniform Organization by Comparing Differences in Nucleotide and Peptide Properties Between Chromosomes *Sacrophilus harisii.*
35. **Si Min Shermaine CHEW** (2019-2020): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Rapid Genetic Diversity with Variability between Replicated Digital Organism Simulations and its Implications on Cambrian Explosion.
36. **Nikita YABLOCHKIN** (2019-2020): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Evolvability of Protein Domain Sequences.
37. **Xue Ting TAN** (2019-2020): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Core Pseudomonas Genome From 10 *Pseudomonas* Species.
38. **Avettra RAMESH** (2019-2020): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Biological Evolution – A Perspective on the Increase of Fitness Score Based on Genetic Variations.
39. **Nur Jannah KAMARUDIN** (2019-2020): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: A Simulation Study on the Effects of Founding Population Size and Number of Alleles Per Locus on the Observed Population Genetic Profile.
40. **Chieh Victor WANG** (2019-2020): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: A Case Study Using Comparative Phylogeny on Mitochondrial Genomes of Twenty-Four Organisms in the *Diprotodontia* Order (Australian Marsupials) Suggests That Single Ortholog Is Not Sufficient for Phylogeny.
41. **Vinayaka Murthy MADHURYA** (2019-2020): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Metabolic Flux Alteration Due to Varying Enzyme Parameters in a Universal Glycolysis Model.
42. **Celine Wong** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis Probability of Beta-Lactamase Activity in *Lactobacillus.*

43. **Krishneswari Gunasekaran** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: One Percent of *Escherichia coli* O157:H7 Peptides May Contain Putative Beta-Lactamase Activity.
44. **Marilyn Neo** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Evolution of Apicoblast.
45. **Junhong WOO** (2018-2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of Origin of Replications.
46. **Sharlene USMAN** (2018 - 2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of *Pseudomonas balearica* Promoters.
47. **Khadija SHAHRUKH** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of *Pseudomonas putida* Promoters.
48. **Vicnesh B** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of Ribosome Binding Sites.
49. **Jing Wen CHUA** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of *Escherichia coli* Promoters.
50. **Chakrit THONGEK** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of Glycerol-1-Phosphate Dehydrogenase.
51. **Brenda KWEK** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of Beta-Lactamases.
52. **Keerthana Devi ARDHANARI SHANMUGAN** (2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: De Novo Origins of *Bacillus subtilis* Promoters.
53. **Dakshahini BALAN** (2018 - 2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Metabolic Modelling of Glycolysis Reaction.
54. **Shanthini SUBRAMANIYAM** (2018 - 2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Discovering Gene Commonality in Archaebacteria.
55. **Nazartul SHEHNAZ** (2018 - 2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Frequency of Peptides and Antidipeptides.
56. **Jung Hwan KIM** (2018 - 2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Differing Peptide Properties in Archaebacteria.
57. **Braxton Jun Heng SIM** (2018 - 2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore.
58. **Jaron Jie Rong SOH** (2018 - 2019): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore.
59. **Jocelyn Xin Hui TAN** (2018): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Genomic Landscapes of *Streptococcus mitis* B6.
60. **Min Yi KOH** (2018): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: GC variation and Codon Usage Bias in *Corynebacterium striatum*.
61. **Argho MAITRA** (2018): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: Demystifying the Mechanism Underlying Codon Usage Bias in the *Pseudomonas balearica* DSM 6083^{T} Genome.
62. **Wei Jie CHEAH** (2018): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: GC-content affects amino-acid usage and peptide physical properties to varying degrees in *Anopheles gambiae*.
63. **Fong Guan LAI** (2018): BSc(Hons) at Northumbria University (UK); via MDIS, Singapore. Thesis: From Gene to Peptide: The Secret within Honeybee.