*Curriculum Vitae*

# Llewelyn M. Espiritu

Espiritu

Current Home Address: Alea Residences, Talaba Diversion Road, Las Piñas Philippines
Email Address: llewelyn.espiritu@dlsu.edu.ph
Contact Number: +639175087487

## PERSONAL INFORMATION

Date of Birth: February 25, 1988
Place of Birth: Zamboanga del Sur, Philippines
Civil Status: Married
Nationality: Filipino

## ACADEMIC BACKGROUND

**(i) Doctor of Philosophy in Biology**
Graduate Degree (August 2016 – October 2020)
College of Science, De La Salle University
Manila, Philippines

**Title of Dissertation: "***Characterization of selected azole resistance-related genes by genome wide analysis and investigation of virulence in clinical Candida albicans* isolates"

Dissertation Adviser: Esperanza C. Cabrera, PhD

*Visiting student researcher* (August 2019- January 2020)
Institute of Microbiology and Infection
School of Biosciences, University of Birmingham
Birmingham, United Kingdom

Research Topic: *Genome wide analysis of azole resistant Candida albicans* strain CGP73 and functional characterization of its *ERG11* gene

Supervisor: Rebecca Hall, PhD

**(ii) Master of Science, major in Microbiology** (Honor: *Cum laude*)

Graduate Degree (June 2011 – March 2013)
The Graduate School, University of Santo Tomas
Manila, Philippines

Espiritu

**Title of Thesis: "***Occurrence and Antimicrobial Activities of Fungal Endophytes from Selected Philippine Mangroves in Luzon Island, Philippines"*

Research Adviser: Thomas Edison E. dela Cruz, PhD

**(iii) Bachelor of Science in Microbiology**
Undergraduate Degree (June 2005 – March 2009)
College of Science, University of Santo Tomas
Manila, Philippines

**Title of Research Study:** *Dye Decolorization of Locally Isolated Marine Fungi*

**(iv) Secondary Education** (June 2001 – March 2005)
Western Mindanao State University Laboratory Elementary School
Baliwasan, Zamboanga City
High School, 1st Honorable Mention

## PROFESSIONAL/ GOVERNMENTAL/ COMMUNITY AFFILIATIONS

Associate Member, **National Research Council of the Philippines**
Member, **Philippine Society for Microbiology, Inc.**
Member, **Philippine Network of Microbial Culture Collections, Inc.**
Member, **Microbiology Society (UK)**
Member, **American Society for Microbiology**
Member, **Association of Systematic Biologists Philippines, Inc.**
Member, **Mycological Society of the Philippines, Inc.**
Member, **Rotary Club of San Juan Central**

## POSITIONS HELD

Medical Microbiology division representative - Philippine Society for Microbiology, Inc. (present)
PhD Biology Representative – DLSU Graduate Student Council (2018-2019)
Mindanao-Division Representative, Mycological Society of the Philippines (2014-2015)
President, UST Microbiology Society (2008-2009)

## ELIGIBILITY

Passed, Philippine Civil Service Eligibility Professional Exam
Certified Hazard Analysis Critical Control Point (HACCP) specialist

Espiritu

## WORK EXPERIENCES

(1) ***Associate Professor*** – Department of Biology, College of Science, De La Salle University, Manila (2020-present)

Teaches courses in General Microbiology Lecture and Laboratory, Medical Microbiology lecture and laboratory, Zoology lecture and laboratory, Embryology laboratory and Cell Biology lecture and laboratory.

Supervises thesis advisees in the undergraduate and graduate level.

***Bioresearch coordinator*** of the Department of Biology (Term 1 AY 2021-2022) – monitors the status of undergraduate thesis students

***ANIMO repository coordinator*** of the Department of Biology – checks and approves submissions of undergraduate final thesis manuscripts in the DLSU ANIMO repository website

(2) ***Lecturer*** – Department of Biology, College of Science (2013-2016)
De La Salle University – Manila

*Job Description*: teaches courses in Microbiology, General Zoology, Invertebrate Zoology, and Biotechnology for undergraduate Biology and Human Biology, supervises thesis advisees working on fungal endophytes

(3) ***Research Assistant*** (May 2011- June 2012)
University of Santo Tomas- Research Center for the Natural and Applied Sciences

Project Title: Biodiversity and Antimicrobial properties of Mangrove Fungi isolated from Luzon Islands, Philippines

*Job Description*: conducts extensive studies on the biodiversity, ecology, systematics and antimicrobial activities of crude extracts of mangrove fungi
Funded by National Council Research of the Philippines (NRCP)

(4) **Documentation and Standardization Personnel (HACCP/QC**) (2010 – 2011)
YL Fishing Corporation – Zamboanga City

*Job Description:* updates and revises Hazard Analysis Critical Control Point Manual, implements HACCP program, conducts in-house laboratory analysis such as Aerobic Plate Count and *E. coli* count, and performs internal audits and files quality system records.

## Research publications and Conference Proceedings

Espiritu

(1) Concepcion II R, Relano R, Francisco K, Baun J, Janairo A, de Leon J, **Espiritu L**, Mayol A, Enriquez M, Vicerra R, Bandala A. 2022. Optimizing low power near L-band capacitive resistive antenna design for in silico plant root tomography based on genetic big bang-big crunch. (Submitted to 17th International Conference on Ubiquitious Information management and Communication, 2023).
(2) Yu PK, **Moron-Espiritu** L, Lao A. (2022). Mathematical modeling of fluconazole resistance in the ergosterol pathway of *Candida albicans*. m*Systems*.
(3) Cabuhat KSP and **Moron L**. (2022). Mechanisms of antibiotics and modern approaches against antibiotic resistance in medical science. (Submitted in Malaysian Journal of Microbiology, under review).
(4) Cabuhat KSP and **Moron-Espiritu L**. (2022). Quorum sensing orchestrates antibiotic drug resistance, biofilm formation, and motility in *Escherichia coli*: A review. *J Pure Appl Microbiol. 16(3):1538-1549.*
(5) Concepcion II R, **Moron L**, Valenzuela I, Alejandro J, Vicerra RR, Bandala A, and Dadios E. (2021). Towards the integration of computer vision and applied artificial intelligence in postharvest storage systems: non-invasive harvested crop monitoring. 13th *International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment and Management (HNICEM)*, doi: 10.1109/HNICEM54116.2021.9731973.
(6) **Moron LS** and Cabrera EC. (2019). ABC genotyping and virulence factors of *Candida albicans* clinical isolates. *Malaysian Journal of Microbiology*, 15(5): 400-407.
(7) **Moron LS**, Lim YW, dela Cruz TEE. (2018). Antimicrobial activities of crude culture extracts from mangrove fungal endophytes collected in Luzon Island, Philippines. *Philippine Science Letters* (Special Issue) 11 (Supplement): 028-036.
(8) **Moron LS** and Cabrera EC. (2018). Detection of azole resistance and *ERG11* point mutations in *Candida albicans* isolates from tertiary hospitals in the Philippines. *Current Research in Environmental & Applied Mycology* 8(3): 298-305.
(9) **Moron LS**, Oyong GG, Chua JCC, Cabrera EC. (2017). Polyphasic identification of clinical *Candida albicans* in the Philippines. *Current Research in Environmental & Applied Mycology* 7(4): 346-355.
(10) Valdehuesa KN, Ramos KR, **Moron LS**, Lee I, Nisola GM, Lee WK, Chung WJ. (2018). Draft genome sequence of newly isolated agarolytic bacteria *Cellulophaga omnivescoria* sp. nov. W5C carrying several gene loci for marine polysaccharide degradation. *Current Microbiology* 75(7); 925-933.
(11) Ramos KR, Valdehuesa KN, Cabulong RB, **Moron LS**, Nisola GM, Hong SK, Lee WK, Chung WJ. (2016). Overexpression and secretion of AgaA7 from *Pseudoalteromonas hodoensis* sp. nov in *Bacillus subtilis* for the depolymerization of agarose. *Enzyme and Microbial Technology* 90: 19-25.
(12) Kuhn R, Javier OA, Rodillas C, Parra C, Corpuz LH, **Moron LS**, dela Cruz LS. (2013). Occurrence and distribution of myxomycetes (plasmodial slime molds)

in three provinces of Luzon Island, Philippines. *Philippine Science Letters* 6 (1): 1-7.

(13) Torres JM, Cardenas C, **Moron LS**, Guzman AP, dela Cruz TEE. (2011). Dye decolorization activities of marine-derived fungi isolated from Manila Bay and Calatagan Bay, Philippines. *Philippine Journal of Science* 140 (2): 133-143.

Esquivitu

---

## ON-GOING RESEARCH PROJECTS

**(1) Metagenomic surveillance of antimicrobial resistance in hospital wastewater (DOST-PCHRD funded)**
Research assistant and MS Biology student advisee: **Jiaan Santos**
Collaborators: Dr. Anish Shrestha (DLSU), Dr. Angelyn Lao (DLSU), Dr. Ma. Luisa Enriquez
International Collaborators: **Dr. Ryo Honda, Dr. Tavan Janvilisr, Dr. Joy Scaria, Dr. Haruo Suzuki**

**(2) Drug identification targets in the ergosterol biosynthesis pathway using mathematical models**
DOST Career Incentive Program research assistant: **Dr. Paul Yu**
Collaborator: **Dr. Angelyn Lao** (DLSU Department of Mathematics)

**(3) Overexpression of *ERG6* in *Candida albicans* leads to hyper susceptibility to azole drugs: mathematical modeling and functional genetics**
Collaborators: **Dr. Paul Yu** and **Dr. Angelyn Lao**
International collaborators: **Dr. Gary Lin (National Taiwan University), Dr. Pao Yu-Chen (National Taiwan University)**

**(4) Hospital AMR p-graph**
Collaborators: **Dr. Angelyn Lao, Riz Ruzgal, Dr. Paul Yu**

(5) **Phylogenomics of clinical *Candida albicans* isolates**
Computer science intern student: **Faith Juliamae Griffin**
Collaborator: **Dr. Anish Shrestha** (DLSU College of Computer Studies)

**(6) Indirect determination of *Fusarium species-infected maize root quality based on resistivity map generated using capacitive coupling***
Collaborators: Dr. Ronnie Concepcion and Dr. Andres Philip Mayol

**(7) Development of a vision-based postharvest system for lettuce**
Collaborators: Dr. Ronnie Concepcion and Dr. Ira Valenzuela

**(8) Assessment of Knowledge, Attitude and Behavior (KAB) towards antibiotics use and resistance among Senior High School -STEM students in the Philippines: A cross sectional study**

Researchers: Kevin Smith Cabuhat, Christian Joseph Ong, Mary Lee, Rorimar Mallari, Jeffhraim Balilla, Llewelyn Moron-Espiritu
Institutional collaborators: Bulacan State University, La Consolacion University

---

## RESEARCH FUNDING GRANTS

Espiritu

(1) Metagenomic and genomic surveillance of antimicrobial resistance in hospital wastewater and the computation prediction of efficacy of alternative non-antibiotic therapy (on-going)
Funding agency: DOST-PCHRD e-ASIA Joint Research Program
Researchers: Dr. Angelyn Lao (Project leader), Dr. Ma. Luisa Enriquez, Dr. Anish Shrestha, Dr. Llewelyn Moron, Sherill Tesalona, Dr. Evelina Lagamayo
Institutional collaborators: University of Santo Tomas, St. Lukes Hospital, UST-Hospital, Chinese General Hospital, Mahidol University (Thailand), South Dakota University (USA), Kanazawa University (Japan), Keio University (Japan), University of South Australia (Australia).

(2) Indirect determination of *Fusarium species-infected maize root quality based on resistivity map generated using capacitive coupling* (on-going)
Funding agency: DLSU URCO
Researchers: Dr. Ryan Rhay Vicerra, Dr. Argel Bandala, Dr. Elmer Dadios, Dr. Ronnie Concepcion II, Engr. Jason Española, Dr. Llewelyn Moron-Espiritu

(3) Development of a vision-based postharvest system for lettuce (on-going)
Funding Agency: DLSU URCO
Researchers: Dr. Ira Valenzuela, Dr. Ronnie Concepcion II, Dr. Llewelyn Moron-Espiritu

(4) Department of Science and Technology – Research Enrichment Sandwich Program (DOST-REP)
Research study funded:
Genome wide analysis of azole-resistant *Candida albicans* strain CGP73 and functional characterization of its *ERG11* gene

(5) Philippine Society for Microbiology, Inc. – ESCO Dissertation Subsidy Grant
Research study funded:
Genome wide analysis of azole-resistant *Candida albicans* strain CGP73 and functional characterization of its *ERG11* gene

## SUPERVISED STUDENT RESEARCHES

(i) Genome sequence analysis acquired antimicrobial resistance genes in Methicillin-resistant *Staphylococcus aureus*
Undergraduate advisees (on going)

Espiritu

(ii) *In silico* ANALYSIS OF SELECTED ISOCOUMAIRN COMPOUNDS TARGETING LANOSTEROL C-14 α-DEMETHYLASE AND ITS POTENTIAL INHIBITION OF ERGOSTEROL SYNTHESIS IN *Candida albicans*
Undergraduate advisees (on going) and Dr. Mark Tristan Quimque (Mindanao State University)

(iii) Genome wide characterization of clinical *Candida albicans*
Undergraduate student: Ma. Angelica Gerodias

(iv) Plant and macrofungi inventory: a case study on the temporal variations between species diversity in an urban setting in Metro Manila
Graduate student: Bismark Lemana (Term 1 AY 2021-2022)

(v) Special problems in Microbiology
Graduate student: Kevin Cabuhat (Term 2 AY 2021-2022)

## Reviewer/Evaluator

Technical panel evaluator for National Council Research of the Philippines NSTEP Mindanao 2 cluster National Integrated Basic Research Agenda (NIBRA) of the Department of Science and Technology (DOST), June 2022.

Invited reviewer for Journal of Tropical Life Science, 2022

Invited reviewer for Frontiers in System Biology, 2022

## SOCIAL ENGAGEMENT

**Lingkod Lasalyano 2022 by DLSU Center for Social Concern and Action in partnership with DLSU Red Cross Youth and Plastic Free Bohol Movement. (June 25, 2022)**

**Save me: Coastal clean up resource speaker**. (May 20, 2022)

Espiritu

**Lingkod Lasalyano 2021 by DLSU Center for Social Concern and Action in partnership with Sun for All Children, Inc.** (November 26, 2021)

**National service training program (NSTP) class facilitator** – Center for Social Concern and Action (COSCA, 2014-2015)
De La Salle University – Manila

*Description:* Handles NSTP classes, coordinates/organizes with area coordinators from DLSU partner communities and organizations for the implementation of community projects proposed by DLSU students, facilitates immersion of students with partner host-families.

---

## HONORS, AWARDS and SCHOLARHIPS

(1) LNEST Grant Global Challenge Award, awarded on July 2022, Research title " Systems Biology Approach to Understanding Azole Resistance Mechanisms in *Candida albicans* (Authors: Paul Yu, Angelyn Lao, Llewelyn Espiritu)

(2) De La Salle University (DLSU) Research Congress 2022 Best Poster Paper, awarded on 08 July 2022 via zoom.

Paper awarded:
Identification of drug targets in *Candida albicans* ergosterol biosynthesis pathway using mathematical modeling (Authors: Paul Yu, Angelyn Lao, Llewelyn Espiritu)

(3) National Academy of Science and Technology 2021 *Future Science Leaders Forum*. November 17-18, 2021.

(4) Mycological Society of the Philippines22$^{nd}$ Annual Scientific Meeting and First Virtual Symposium, First place paper competition, awarded on June 17, 2021 via Zoom.
Paper Awarded: Construction of *Erg11* heterozygous mutant wild type *Candida albicans* using the *SAT1* flipping strategy

(5) Department of Science and Technology – Project Smarter Philippines through Data Analytics R&D, Training and Adoption (DOST-Project SPARTA) scholarship on DATA SCIENCE e-learning, awarded March 27, 2020.

(6) Department of Science and Technology – Accelerated Science & Technology Human Resource Development (DOST-ASTHRDP) Graduate Scholars Conference Year 8 Best Presenter in the Elevator Pitch Competition, awarded on 3 May 2019, Philippine International Convention Center.

Espinosa

Paper awarded:
ABC genotyping of hospital-acquired *Candida albicans*

(7) Philippine Society for Microbiology, Inc. – ESCO Dissertation Subsidy Grant, awarded on 23 March 2019, Dr. Rosita Leong Hall, Ateneo de Manila University.

Research study awarded:
Genome wide analysis of azole-resistant *Candida albicans* strain CGP73 and functional characterization of its *ERG11* gene

(8) De La Salle University (DLSU) Research Congress 2018 Best Paper, awarded on 22 June 2018, The Verdure, DLSU, Philippines.

Paper awarded:
Detection of azole resistance and *ERG11* point mutations in *Candida albicans* isolates from tertiary hospitals in the Philippines

(9) Department of Science and Technology – Accelerated Science & Technology Human Resource Development (DOST-ASTHRDP) Graduate Scholarship for PhD Biology studies (2016).

(10) National Academy of Science and Technology (NAST) – Outstanding Scientific Publication (2013), awarded on 11 July 2013, Manila Hotel, Philippines.

Publication awarded:
Torres JM, Cardenas C, **Moron LS**, Guzman AP, dela Cruz TEE. (2011). Dye decolorization activities of marine-derived fungi isolated from Manila Bay and Calatagan Bay, Philippines. *Philippine Journal of Science* 140 (2): 133-143.

(11) 15th Annual Scientific Meeting and Symposium of Mycological Society of the Philippines Best Paper Presenter, 3rd Place, awarded on 11 April 2013, Rizal Technological University, Mandaluyong City.

Paper awarded:
Exploring our Fungal Biome for Natural Products: Occurrence, Diversity and Molecular Identification of Fungal Endophytes from Philippines Mangroves.

(12) Department of Science and Technology – Accelerated Science & Technology Human Resource Development (DOST-ASTHRDP) Graduate Scholarship for MSc Microbiology studies (2012-2013).

## RESEARCH TRAININGS/WORKSHOPS

Espiritu

Introduction to Biosafety
Public Health Agency of Canada
August 08, 2022 via asynchronous platform

Good Clinical Practice (GCP): A Practical Guide
Unilab Philippines
June 20, 2022 via Zoom and asynchronous platform

Setting up Microbial Culture Collections: Opportunities and Challenges
Philippine Network of Microbial Culture Collection, Inc.
November 16-20, 2021 via Zoom

Introduction to Bioinformatics: Genome Assembly and Annotation
October 10-12, 2018, University of the Philippines- Philippine Genome Center
Room 208, Lecture Hall 2
Diliman, Quezon City

American Society for Microbiology (ASM) Hands-on workshop on Gene Cloning
December 9-10, 2016, Henry Sy Sr. Innovation Center/ Microbiology Research Laboratory
Miriam College, Katipunan Avenue, Loyola Heights
Quezon City

ChunLab NGS Bioinformatics Workshop
October 2015, Seoul National University
Gwanak-Gu, Seoul, South Korea

Industrial Enzymes and their Applications
February 26-28, 2013, University of the Philippines – BIOTECH
Los Baños, Laguna, Philippines

Training on Molecular Fungal Ecophylogeny
December 16, 2012 – January 12, 2013, Fungal Ecophylogeny Laboratory
Department of Biological Sciences, Seoul National University, Seoul, South Korea

1st UST Hazard Analysis Critical Control Point Specialist Certification Course
January – February 2011, University of Santo Tomas
The Graduate School, Manila, Philippines

HACCP Internal Auditing Course aligned to ISO 19011:2002
March 14-15, 2011, YL Fishing Corporation
Zamboanga City

## ORAL PRESENTATIONS

Espiritu

Concepcion R, Moron L, Valenzuela I, Alejandrino J, Vicerra R, Bandala A, Dadios E. **Towards the integration of computer vision and applied artificial intelligence in postharvest storage systems: non-invasive harvested crop monitoring,** *13th* International Conference on Humanoid, Nanotechnology, Information Technology, Communication and Control, Environment, and Management (HNICEM 2021) via Zoom.

Moron LS, Hall R, Cabrera EC. **Construction of *Erg11* heterozygous mutant wild type *Candida albicans* using the *SAT1* flipping strategy,** Mycological Society of the Philippines22nd Annual Scientific Meeting and First Virtual Symposium, June 17, 2021, via Zoom

Moron LS and Cabrera EC. **ABC genotyping of hospital-acquired *Candida albicans*.** DOST-ASTHRDP Graduate Scholars Conference Year 8, 2-3 May 2019, Philippine International Convention Center (PICC), Pasay City, Metro Manila, Philippines.

Moron LS and Cabrera EC. **Azole resistance, ABC genotypics and putative virulence factors of clinical isolates of *Candida albicans*.** 47th Philippine Society for Microbiology Inc., Annual Convention and Scientific Meeting: "*Globalization of Philippine Microbiology, Building the Quality Infrastructure"*, 19-20 July 2018, Legazpi City, Albay, Philippines.

Moron LS and Cabrera EC. **Detection of Azole resistance and *ERG11* point mutations in *Candida albicans* isolates from tertiary hospitals in the Philippines.** DLSU Research Congress 2018: "*Building Impact on Firm Foundations: From Basics to Applications"*, 20-22 June 2018, De La Salle University, Taft, Manila, Philippines.

Moron LS and Cabrera EC. **Detection of *ERG11* point mutations and putative virulence factors in clinical *Candida albicans.*** DOST-SEI Graduate Scholars' Conference: "Big Data for Big Science", 18-19 June 2018, Philippine International Convention Center (PICC), Pasay City, Manila, Philippines.

Moron LS and Cabrera EC. **Phenotypic, molecular Identification and antibiogram of clinical *Candida albicans isolates*.** De La Salle University (DLSU) Research Congress 2017 CENSER Workshop: *"The ASEAN ecosystem @ 50: Change for a More Inclusive Growth"*, 20-22 June 2017, De La Salle University, Taft, Manila, Philippines.

Moron LS and Cabrera EC. **Isolation, identification, and antibiograms of clinical *Candida albicans*.** 2nd International DOST-SEI Graduate Scholars' Conference: "*From Discoveries Today to Innovations Tomorrow"*, 24-25 May 2017, Philippine International Convention Center (PICC), Pasay City, Manila, Philippines.

Española SM, Resurreccion MC, Moron LS. **Isolation and screening of antimicrobial activities of fungal endophytes from Philippine endemic plant *Dillenia***

Espiritu

***philippinensis* (Rolfe)**. The International Conference on Biosciences and Medical Engineering (ICBME): "*Enhancing Multidisciplinary Research In Areas of Biosciences & Medical Engineering: Transitioning research findings into practical applications"*, 10-11 November 2016, Faculty of Biosciences & Medical Engineering, Universiti Teknologi Malaysia, Johor Bahru, Johor, Malaysia.

Dela Cruz TEE, Apurrilo CCS, Moron LS, Ramirez CSP. **The PhilFUB Project: documenting fungal endophytes from Philippine mangroves.** 1st ASEAN Microbial Biotechnology Conference and ASEAN Network on Microbial Utilization Inagural Meeting, 19-21 February 2014, Bangkok International Trade and Exhibition Center, Bangkok, Thailand.

dela Cruz TEE, Ramirez CSP, Moron LS, Bungihan ME. **Antimicrobial activities and secondary metabolites of fungal leaf endophytes from Philippine mangroves.** Asian Mycological Congress 2013 and 13th International Marine and Freshwater Mycology Symposium, 19 – 23 August 2013, China National Convention Center, Beijing, China.

Moron LS, Lim YW, dela Cruz TEE. **Exploring our Fungal Biome for Natural Products: Occurrence, Diversity and Molecular Identification of Fungal Endophytes from Philippine Mangroves.** 15th Annual Scientific Meeting and Symposium of Mycological Society of the Philippines, April 11, 2013, Rizal Technological University, Mandaluyong City.

Moron LS, Lim YW, dela Cruz TEE. **Occurrence and Antibacterial Activities of Selected Fungal Endophytes from Philippine Mangroves.** 2nd National DOST ASTHRDP-NSC Scholar's Conference, February 21-22, 2013, Traders Hotel, Manila.

---

**POSTER PRESENTATIONS**

Gerodias A and Espiritu LS. **Genomic characterization of azole-resistant and non-azole resistant *Candida albicans* in the Philippines**, Mycological Society of the Philippines 23rd Annual Scientific Meeting, June 25, 2022 via Zoom.

Oronce JM, Mala PJ, Espiritu LS. **Detection of chromosomal aneuploidies in drug-resistance clinical *Candida albicans*,** Mycological Society of The Philippines 23rd Annual Scientific Meeting, June 25, 2022 via Zoom.

Moron LS, Hall RA, and Cabrera EC. **Construction of *ERG11* heterozgyous mutant wild type *Candida albicans* using the *SAT1* flipping strategy,** Mycological Society of the Philippines 22nd Annual Scientific Meeting, 16-17 June 2021, via Zoom.

Moron LS, Hall RA, and Cabrera EC. ***In vivo* virulence and genomic insights of azole-resistant clinical *Candida albicans* from the Philippines,** *Candida and Candidiasis* 2021 by British Microbiology Society, March 23, 2021.

Moron LS, Hall RA, and Cabrera EC. **Greater wax moth *(Galleria mellonella*) as a alternative *in vivo* infection model for the assessment of fungal virulence and fungal resistance*,*** 2021 Annual Scientific Conference and 88th General National Assembly of the National Council Research of the Philippines, March 10, 2021.

Moron LS, Hall RA, and Cabrera EC. **Novel mutations in transcriptional factor *UPC2* and expression of efflux pumps in fluconazole-resistant *Candida albicans*.** 2020 Annual Scientific Conference and 87th General National Assembly of the National Council Research of the Philippines, March 9, 2020.

Moron LS and Cabrera EC. **ABC Genotyping of Hospital Acquired *Candida albicans*.** Management Association of the Philippines (MAP) Exhibition, 24 June 2019, Dusit Thani Hotel, Makati City, Philippines.

Moron LS, Valdehuehsa KG, Hee-jin Y, Ramos KR, Cabulong RB, Nisola GM, Lee WK, Chung WJ. **Isolation and identification of agar-degrading marine bacterium from red algae *Palmaria* sp.** 30th Anniversary Meeting and International Symposium of The Korean Society for Biotechnology and Bioengineering (KSBB), 11-14 October 2015, Songo Convensia, Incheon, South Korea.

Hee-jin Y, Valdehuehsa KG, Moron LS, Ramos KR, Cabulong RB, Nisola GM, Lee WK, Chung WJ. **Isolation of Agarolytic Bacterium from Marine Macroalgae.** 30th Anniversary Meeting and International Symposium of The Korean Society for Biotechnology and Bioengineering (KSBB), 11-14 October 2015, Songo Convensia, Incheon, South Korea.

Moron LS, Lim YW, dela Cruz TEE. **The search for bioactive metabolites: Do mangrove fungal endophytes have the answer?** 1st ASEAN Biotechnology Conference and ASEAN Network on Microbial Utilization Inagural Meeting, 19-21 February 2014, Bangkok International Trade and Exhibition Center, Bangkok, Thailand.

Moron LS and TEE dela Cruz. **The Search for Promising Fungal Bioactive Natural Products: Occurrence and Antimicrobial Activities of Fungal Endophytes from Philippine Mangroves.** 80th National Research Council of the Philippines General Membership Assembly, March 13, 2013, Manila Hotel, Manila.

Moron LS and TEE dela Cruz. **Fungal Endophytes from Philippine Mangroves: The Search for Promising, Biologically Active Secondary Metabolites.** 6th Philippine National Health Research System Convention, August 8-10, 2012, Hotel Sofitel, Philippine Plaza, Manila.

Moron LS, TEE dela Cruz. **The Seach for New Drugs: Do Fungal Endophytes have the answer?** 39th Philippine Society for Biochemistry and Molecular Biology, November 29-30, Fort Ilocandia Resort Hotel, Laoag City.

Moron L, Buaya AT, TEE dela Cruz. **Philippine Mangroves from Basilan and Zamboanga: Are they good hosts for Fungal Endophytes?** Association of Systematic Biologist of the Philippines Annual Scientific Meeting, May 23-25, 2012, Angeles University Foundation, Angeles City, Pampanga.

Espiritu

---

**SEMINARS / CONFERENCES ATTENDED**

1. **As Organizer/ Speaker/Facilitator**

   **National Research Council of the Philippines (invited as moderator)**
   **NRCP Biological Sciences Scientific Session**, September 23, 2022 via Zoom

   **BIOTA-DLSU Webinar Online Lecture Series (Invited as speaker)**
   Title of talk: "*in vivo* pathogenicity of clinical *Candida albicans* using *Galleria mellonella* model (Greater Wax Moth), August 17, 2022 via Zoom

   **Philippine Science High School System Science Immersion Program (as organizer)**
   June 20-July 8, 2022
   80 hr intership program for senior high school students focused on Bioinformatics training

   **21st Annual Symposium and General Assembly of the Philippine Network of Microbial Culture Collections, Inc**. **(Invited as a panel judge for research paper competition),** October 16, 2021 via zoom.

   **Asia-Oceania Five Universities Alliance 2021 Summer Camp Program (Facilitator)*,*** 11 August 2021 via Zoom.

   **DLSU Microbiology Research Webinar (Organizer*)*** 3 July 2021 via Zoom. Attended by 225 participants. Invited speakers were Dr. Muhammad Yasir – Quadram Institute, UK, Dr. Lisa Lamberte – University of Birmingham UK, and Dr. Windi Muziasari, RESISTOMAP, Finland.

   Molecular Phylogeny: how to analyse your gene **sequences** (Organizer) 16 April 2013, 3rd Floor Main Building, College of Science, University of Santo Tomas, Manila, Philippines.

   33rd Asian Medical Students' Association (Speaker) "Hazard Analysis Critical Control Point: Principles and Application", 9 July 2012, Faculty of Medicine and Surgery, University of Santo Tomas, Manila, Philippines.

Innovative Teaching Strategies for Microbiology Undergraduate Educators (Organizer), 8 July 2011, Computer Laboratory 1, University of Santo Tomas, Manila, Philippines.

Espiritu

"Tapping Microbial Resources for Biotechnological Applications" (Organizer/Speaker), 07-08 May 2013, Labrador Hall & Botany Student Laboratory, University of Santo Tomas, Manila, Philippines.

"Exploring our Microbes: Discoveries and Applications" (Speaker), 1 March 2012, Ateneo de Naga University, Naga City.

"Exploring our Microbes: Discoveries and Applications" (Speaker), 25 August 2011, V. Mapa High School, Mendiola, Manila, Philippines.

2. **As Participant**

51st Annual Convention and Scientific Meeting of the Philippine Society for Microbiology, Inc. July 21-22, 2022 via Zoom.

uTALK in Microbiology Education by PSM, Inc. July 20, 2022 via Zoom.

Biosafety and Biosecurity in Research and Education: Pandemic and post-pandemic scenarios by PSM, Inc. July 20, 2022 via Zoom.

Trends in microbial identification by PSM, Inc. July 20, 2022 via Zoom.

Philippine Society for Microbiology Inc., Cluster 2 Symposium, Theme: "Philippine Microbiology and the ONE Health Approach: Problems, Solutions and Update", 23 March 2019, Dr. Rosita Leong Hall, Ateneo De Manila University.

The Philippine Genome Center Bioinformatics Symposium 2019, Theme: Building networks, creating a community". 20 March 2019, National Institute of Physics Auditorium, National Science Complex, University of the Philippines, Quezon City.

Philippine Society for Microbiology Inc., Cluster 1 Symposium, Theme: "ONE Health Approach Towards Combating Antimicrobial Resistance in the Philippines", 24 November 2018, 7th Floor Student Services, Trinity University of Asia Theater.

2018 The Philippine-American Academy of Science & Engineering (PAASE) Meeting, Theme: "PAASE Volunteerism to Promote Philippine Science, Engineering and Innovation, 24-25 October 2018, National Institute of Physics, University of the Philippines, Diliman, Quezon City.

Mycological Society of the Philippines, Inc. 20th Annual Scientific Meeting, Symposium & Training, Theme: "Mycology and Global Change: Capitalizing on

Fungal Research and Education in Building Resilient Communites", 25 August 2018, Institute of Biological Sciences, University of the Philippines, Los Baños.

30th Anniversary Fall Meeting and International Symposium of The Korean Society for Biotechnology and Bioengineering (KSBB), Theme: "Shifting Gears from Academia to Industry", 11 – 14 October 2015, Songdo Convensia, South Korea.

The Korean Society for Biotechnology and Bioengineering (KSBB) 2o15 Spring meeting and International Symposium, 15-17 April 2015, Yeosu EXPO, South Korea.

Mycological Society of the Philippines, Theme: "Fungi in Industrial Biotechnology" 23 April 2014, Thomas Aquinas Research Center Auditorium, University of Santo Tomas, Manila.

Philippine Society for Microbiology Inc., Cluster 2 Symposium, Theme: "Putting microbes to work: Bio solutions for economic sustainability", January 25, 2014, AMV-COA Multi-Purpose Hall Alfredo Velayo Building, University of Santo Tomas, Manila.

Philippine Society for Microbiology Inc., Cluster 2 Symposium, Theme: "Harnessing Microbes as Catalysts of Industrial Development and Environmental Sustainability", January 19, 2013, Ateneo De Manila, Quezon City.

---

## CHARACTER REFERENCES

1. Esperanza C. Cabrera, PhD
   Biology Department
   College of Science
   De La Salle University
   Taft, Manila
   Email: esperanza.cabrera@dlsu.edu.ph

2. Gina Dedeles, PhD
   Department of Biological Sciences
   College of Science
   University of Santo Tomas
   España, Manila
   Email: giededeles@gmail.com

3. Thomas Edison dela Cruz, PhD
   Department of Biological Sciences
   College of Science
   University of Santo Tomas
   España, Manila
   Email: tedelacruz@ust.edu.ph