

# **Ma. LaRue E. Ballefin- Salazar**

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## **OBJECTIVE**

I want to secure a position in an organization where I can utilize my knowledge and skills on genetics, biotechnology and research management

## **EDUCATION**

### **University of the Philippines Los Banos Master of Science in Genetics Minor in Plant Breeding**

*currently attending*

GWA: 1.32

Specialization: genomic predictions, genomic selection, quantitative genetics

### **University of the Philippines Los Banos Master in Public Affairs- Strategic Planning and Public Policy**

GWA: 1.31

January 2019- September 2020

Specialization: biosafety and biosecurity, biotechnology policies, R&D management

### **University of the Philippines Los Banos Bachelor of Science in Biology- Genetics**

June 2007- April 2011

## **EXPERIENCE**

### **University of the Philippines Los Banos College of Arts and Sciences Faculty Member of the Genetics and Molecular Biology Division September 2022 – January 2023**

- Handled ten sections of laboratory classes (both face to face and online mode of delivery) of BIO 30: Genetics
- Provided timely feedback of students' academic output relevant to the course

**University of the Philippines Los Banos**  
**College of Public Affairs and Development**  
**Teaching Assistant | September – December 2020**

- Provided assistance in creating learning modules in Science and Technology Policies (SPPS 232), Science, Technology and Development (SPPS 272)
- Provided assistance in developing materials and references for the professorial chair lecture on research management

**International Rice Research Institute**  
**Plant Breeding, Genetics and Biotechnology Division**  
**Research Associate | 2012-2018**

- Managed research projects on increasing yield potential of *Oryza*, development of monosomic alien addition lines from wild *Oryza* species, development of multi-parent advanced generation inter-cross (MAGIC) population in wild rice, gene pyramiding of blast resistance genes in Turkish rice varieties,
- Conducted field activities such as breeding work, yield trials and biotic and abiotic stress evaluation projects
- Conducted laboratory techniques such as genotyping, polymerase chain reaction, molecular breeding, cytological analyses of hybrid materials
- Supervised field technicians, laboratory assistants in both laboratory and field experiments and mentored research scholars on their research projects
- Prepared reports, presentation and scientific papers for journal publications and conference proceedings
- Collected, managed and analyzed data relevant to research projects

**PUBLICATIONS**

- Sung Ryul Kim, Kshirod K. Jena, Manas R. Prusty, Sherry Lou Hechanova, **Ma. LaRue E. Ballefin**, Eok- Keun Ahn, Pathmasiri Karunaratne. (2019) Unlocking the genetic potential of wild rice species to abiotic stress for rice improvement. In: KSBS & SABRAO International Conference on Plant Breeding for Sustainable Development

- **Ma. LaRue E. Ballefin**, Ricky B. Vinarao, Janice Sapin, Sung Ryul Kim and Kshirod K. Jena. (2018) Development of an intergeneric hybrid between *Oryza sativa* L. and *L. perrieri* (A. Camus) Launert. Breeding Science: doi:10.1270/jsbbs.18045
- Sherry Lou Hechanova, Manas R. Prusty, Sung Ryul Kim, **LaRue Ballefin**, Joie Ramos, G.D. Pahalada and Kshirod K. Jena (2018) Monosomic alien addition lines (MAALs) of *Oryza rhizomatis* in *Oryza sativa*: production, cytology, alien trait introgression, molecular analysis and breeding application. Theor Appl Genet.doi:10.1007/s00122-018-3147-x
- **Ma. LaRue E. Ballefin**, Sung-Ryul Kim, Ricky B. Vinarao, Sherry Lou S. Hechanova and Kshirod K. Jena (2016) Isolation of a novel bacterial blight resistance gene from a wild species *Oryza punctata*. In: 5th International Conference on Bacterial Blight of Rice
- Kshirod K. Jena, **Ma. LaRue E. Ballefin** and Ricky B. Vinarao (2016) Development of *Oryza sativa* L. by *O. punctata* Kotschy ex Steud. monosomic addition lines with high-value traits by interspecific hybridization. Theor Appl Genet. 129(10)1873-86
- Ricky B. Vinarao, **Ma. LaRue E. Ballefin**, Joie M. Ramos, Sherry Lou S. Hechanova, Balram Marathi and Kshirod K. Jena (2013) Identification of novel genetic resources for biotic stress resistance from wild species of rice. In: Proceedings of the 22nd National Scientific Conference of the Federation of Crop Science Societies of the Philippines
- Ricky B. Vinarao, Joie M. Ramos, Rogelio C. Cabunagan, Sherry Lou S. Hechanova, **Ma. LaRue E. Ballefin**, Marilyn M. del Valle, Balram Marathi and Kshirod K. Jena (2013) Identification of novel genetic resources from wild rice species for resistance to brown planthopper, ragged stunt virus, and grassy stunt virus. In: Rice Genetics VI

## SKILLS/ COMPETENCIES

### Technical Skills

- Laboratory techniques (DNA extraction, polymerase chain reaction, genotyping, microscopy and cytological analyses, tissue culture, embryo rescue)
- Field techniques (phenotyping, plant disease assessment and evaluation, yield trials, plant breeding techniques)
- Development of genetic mapping population
- Experimental design and scientific writing
- Data management and statistical analyses (SAS, PBTtools, R)
- Bioinformatics and marker design (MSA, MEGA Software, Protein Modeling)

### Strategic Planning Skills

- SWOT analysis, logical framework, balanced scorecard, 7S
- Qualitative and quantitative research methods and analysis
- Data modeling and analytics, forecasting
- Policy formulation and analysis, MSC

### 21<sup>st</sup> Century Skills

- Written and verbal communication skills, professional networking
- Critical thinking, decision-making, problem solving
- Planning and organizing, organizational awareness, business fundamentals
- Cross- cultural, social and societal awareness
- Flexibility, dynamic self re-skillin

#### **AWARDS AND ACKNOWLEDGEMENTS**

- 2019 College of Public Affairs and Development Achievement Awardee
- 2013 IRRI Award on Outstanding Scientific Achievement or Development

#### **TRAININGS/ SEMINARS**

- **Advanced Biotechnology and Industry**  
International Center for Biotechnology, Osaka University, Japan
- **Project SPARTA- Data Analytics**  
Department of Science and Technology
- **Biosafety and Biosecurity Course**  
National Training Center for Biosafety and Biosecurity, National Institute of Health, UP Manila  
March 31, 2020
- **5<sup>th</sup> International Conference on Bacterial Blight of Rice**  
October 17-19, 2016
- **Research Data Management**  
International Rice Research Institute  
March 4-6, 2014
- **7<sup>th</sup> International Rice Genetics Symposium**  
November 5-8, 2013
- **22<sup>nd</sup> National Scientific Conference of the Federation of Crop Science Societies of the Philippines**  
March 11-16, 2013

#### **PROFESSIONAL AFFILIATION**

- Federation of Crop Science Societies of the Philippines
- International Rice Research Institute Filipino Scientists' Association

#### **PROFESSIONAL REFERENCES**

- **Dr. Ma. Genaleen Q. Diaz**  
Professor  
Genetics and Molecular Biology Division  
Institute of Biological Sciences  
College of Arts and Sciences  
University of the Philippines Los Banos  
[mqdiaz@up.edu.ph](mailto:mqdiaz@up.edu.ph)

- **Dr. Ma. Carmina C. Manuel**  
Professor  
Genetics and Molecular Biology Division  
Institute of Biological Sciences  
College of Arts and Sciences  
University of the Philippines Los Banos  
[mcmanuel1@up.edu.ph](mailto:mcmanuel1@up.edu.ph)
- **Dr. Sung Ryul Kim**  
Scientist  
International Rice Research Institute  
[sr.kim@irri.org](mailto:sr.kim@irri.org)