

PRECIOUS RODRIGUEZ GUEVARRA

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EDUCATIONAL BACKGROUND

Master of Science in Genetics

(major Plant Breeding)

University of the Philippines Los Baños

College, Batong Malake, Laguna Philippines 4031

March 2021

Bachelor of Science in Agricultural Biotechnology

(major Food Biotechnology)

University of the Philippines Los Baños

College, Batong Malake, Laguna 4031

elected member of Phi Sigma Biological Sciences Honor Society - Alpha Chi Chapter

July 2015

WORK EXPERIENCE

Technical Writer

Endec, Inc.

02 Feb 2021 – 28 Mar 2021

- Determine the needs of end-users of technical documentation.
- Prepare and transcribe minutes of the meeting.
- Organize and write documents and reports in compliance to project contract.
- Use photographs, drawings, diagrams, animation, and charts that increase users' understanding.
- Select appropriate medium for message or audience, such as manuals or online videos.
- Standardize content across platforms and media.
- Revise documents as new issues arise; and
- Performs other related tasks and duties that may be assigned by the immediate superior/s.

Graduate Research Associate/University Research Associate II

Genetics Laboratory, Institute of Plant Breeding

06 Aug 2018 – 28 Mar 2021

Project Title: Targeted Genome Editing using CRISPR/Cas9 Technology: Capacity Building and Proof-of-Concept in Rice, Corn and Tomato

**under DOST-PCAARRD GREAT Scholarship Program*

- Generated mapping populations for tomato fruit colors.
- Collected phenotypic data on selected fruit characters of commercial and Philippine native tomato varieties.
- Quantified carotenoid levels of these accessions using colorimetric/spectrophotometric assay
- Optimized SNP validation protocol using Cel1 endonuclease in agarose gel electrophoresis
- Performed sequence validation of target tomato fruit color genes present in genotypes in study.
- Designed single-guide RNA (sgRNA) targeting fruit color genes of interest for CRISPR/Cas9 gene editing, construct assembly, transformation, cloning and insert validation
- Drafted reports for funding agency and biosafety application.

University Research Associate II
Plant Tissue Culture Laboratory,
National Plant Genetic Resources Laboratory,
Institute of Plant Breeding

01 Apr 2018 – 01 Aug 2018

Project Title: Utilization of *in vitro* Technology for Conservation and Micropropagation for Quality Seed/
Planting Material Production for Sugarcane Variety Improvement and Enhanced Farm Productivity

- Designed experiments to optimize *in vitro* conservation strategies of Philippine sugarcane germplasm collection
- Developed micropropagation techniques for mass production of disease-free planting materials
- Performed routine plant tissue culture experiments including media preparation, introduction, and subculture maintenance of *in vitro* Philippine sugarcane germplasm collection.

University Research Associate I
Genetics Laboratory, Institute of Plant Breeding

01 Dec 2015 – 31 Dec 2017

Project Title: Molecular characterization of Philippine native maize (*Zea mays* L.) Populations under the program Corn Germplasm Utilization Thru Advance Research and Development (CGUARD)

- Genotyping of Philippine native corn varieties collection using SSR markers
- Cross-pollination of Philippine native corn varieties
- Determine allelic diversity of Philippine native corn populations resistant and susceptible to corn borer (*Ostrinia furnacalis*) and downy mildew (*Peronosclerospora philippinensis*)
- Performed routine laboratory experiments on DNA extraction, quantification, PCR and PAGE
- Collection and analysis of genotypic data of selected native corn collection
- Served as resource person during training activities, funding agency visits and student visits
- Supervised and oversee performance of research technicians and project staff
- Draft reports, publications and presentations for local conferences and peer-reviewed journals
- Oversee procurement process of reagents, chemicals, and equipment
- Provided technical supervision to thesis students and on-the-job trainees as required

Quality Assurance Analyst
Bel Mondo Italia Corporation (Makers of Novellino Wines)

17 Aug 2015 – 28 Nov 2015

- Inspection and analysis of all materials to be used for production, including raw materials, packaging materials, and processing materials
- Analysis of in-process materials/ products, and finished products (Alcohol determination, TTA analysis etc.)
- Stability monitoring of finished goods
- Line inspection during bottling and labelling/ packing
- In-charge of the laboratory including all the materials being used for analyses, instruments, and equipment
- Microbial analysis of finished goods before transfer to the distributor
- Inspection of product returns and providing disposition
- Preparation of documents for applications in FDA
- Accomplishes and makes, reports, checklists, memos, certifications, and research, among others.

CONFERENCE PRESENTATIONS

Oral presentations

- Guevarra, PR**, Gardoce, RR, Soyotong, S, Mateo, JMC, Aglibot, CC and Galvez, HF. (September 2019). Mining Natural Sequence and Carotenoid Variation in Tomato to Design sgRNA Towards CRISPR/Cas9 Gene-Editing. Oral session presented at 25th FCSSP/1st FPSAP Scientific Conference on 16- 21 September 2019 at Davao City.
- Alcachupas, CG, **Guevarra, PR**, Descalsota, MLV, Huelgas, VC and Damasco, OP. Growth Enhancement and Control of Culture Media Browning using Activated Charcoal in *in vitro* Conserved Sugarcane (*Saccharum officinarum*). Oral session presented at 25th FCSSP/1st FPSAP Scientific Conference on 16- 21 September 2019, at Davao City.
- Guevarra, PR**, Uy, JNR, Valle, MLS., Descalsota, JC, Huelgas, VC & OP Damasco (July 2018). Genotypic Response of Selected Philippine Sugarcane (*Saccharum officinarum*) Accessions to Various Concentrations of 6-Benzylaminopurine (BAP) Under *in vitro* Conditions. Oral session presented at the PAPTCB Scientific Convention, Bohol

Poster Presentations

- Alcachupas, **CG, Guevarra, PR**, Descalsota, MLV, Huelgas, VC and Damasco, OP. Approaches to *in vitro* conservation of the Philippine sugarcane (*Saccharum officinarum*). Poster session presented at 25th FCSSP/1st FPSAP Scientific Conference on 16- 21 September 2019, Davao City. (**Awarded as best poster for crop production and management/protection category**)
- Guevarra, PR**, Diaz, DC. & Canama, AO. (July 2018). Allelic diversity of selected Philippine native maize (*Zea mays* L.) populations resistant and susceptible to corn borer. Poster session presented at the NAST Annual Scientific Meeting, Manila.
- Guevarra, PR**, Uy, JNR, Valle, MLS., Descalsota, JC, Huelgas, VC & OP Damasco (July 2018). *in vitro* Initiation of Four Commercial Varieties of Sugarcane (*Saccharum officinarum*) Subjected to Various Concentrations Of 6-Benzylaminopurine (BAP). Poster session presented at the PAPTCB Scientific Convention. Bohol.
- Guevarra, P.R.**, Uy, JNR, Valle, MLS., Descalsota, JC, Huelgas, VC & OP Damasco (July 2018). Assessment of shoot culture browning responses of sugarcane (*Saccharum officinarum*) accessions during *in vitro* initiation and conservation. Poster session presented at the PAPTCB Scientific Convention, Bohol.
- Guevarra, PR**, Diaz, DC. & Canama, AO. (November 2017). Assessment of genetic diversity based on individual samples from selected traditional corn germplasm using SSR Markers. Poster session presented at the PSBMB Annual Convention, Tagaytay City.
- Guevarra, PR**, Diaz, DC. & Canama, AO. (June 2017). Molecular characterization of native corn populations in the Philippines based on SSR Markers. Poster session presented at the 24th FCSSP Scientific Conference, Iloilo City

TRAININGS ATTENDED

QX200™ Droplet Digital PCR End-User Training Institute of Plant Breeding (IPB) and Lifeline Diagnostics Supplies, Inc.	28 – 29 Aug 2019
Training-Workshop on Technical Writing for Publication in a Refereed Journal Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (DOST-PCAARRD)	01– 05 Jul 2019
Gene Editing with CRISPR: 5 Day Training-Workshop Philippine Genome Center Program for Agriculture and International Rice Research Institute (IRRI)	17 Sep 2018 – 26 Nov 2018
Bioinformatics Workshop Series 3 Genome Database and Mining Philippine Genome Center Program for Agriculture and Boyce Thompson Institute (BTI)	14 -15 Jan 2016

AFFILIATIONS AND MEMBERSHIPS IN SCIENTIFIC ORGANIZATIONS

Junior Researchers Organization (JRO), IPB

Secretary, 2018

Crop Biotech Division Representative, 2020

Philippine Society of Molecular Biology and Biotechnology (PSBMB)

Crop Science Society of the Philippines (CSSP)

Philippine Association for Plant Tissue Culture & Biotechnology (PAPTCB)

The University of the Philippines Los Baños (UPLB) Genetics Society

OTHER SKILLS

Philippine driver's license

CHARACTER REFERENCES

ROANNE R. GARDOCE, MSc

Genetics Lab Head

Institute of Plant Breeding

University of the Philippines Los Baños

ALMA O. CANAMA, MSc

University Researcher II

Institute of Plant Breeding

University of the Philippines Los Baños

ANTONIO C. LAURENA, PhD

Research Associate Professor

Institute of Plant Breeding

University of the Philippines Los Baños

**contact details available upon request*