

Foreword

The Philippine Genome Center (PGC) welcomes this special issue on Genomics by the Philippine Journal of Science (PJS) that shows the collective efforts of Filipino scientists who are at the forefront of genomics research in the Philippines. The PGC is commemorating its 10th anniversary this year and the publication of this issue is rather fitting and auspicious.

The range of genomic researches presented in this special issue represents the various levels of research capability already being done in the country and the extent of collaborative engagements with global counterparts. Several papers in this issue describe the various applications of methodological processes that one can access in genomic research on biodiversity, ethnicity, and forensics—from the utilization of the Y-chromosomal short tandem repeat data for statistical evaluation of forensic caseworks in the Philippines; to the improvement of the molecular phylogeny of the Philippine tiger perches by targeting mitochondrial genes to distinguish high-value fish species; or the sequencing of the complete mitogenome of the land snail *Ryssota otaheitana*. Similarly, DNA barcoding method was used on Philippine fruit bats and Philippine helicostyline land snails for taxonomic evaluation and conservation efforts.

Also, in this issue, studies on agri-fishery products—namely milkfish, sugarcane, coconut, and coffee—have utilized differential expression studies through transcriptome analysis and genotyping methods using microsatellite technique that further defines the diversity profile of some of our country's valuable agri-fishery products. Annotating important virulence- and host-specificity-related genes for the bacterial isolates *Ralstonia solanacearum*, a plant pathogen affecting banana and tomatoes, provided clues underlying the differences in the pathogenic mechanisms among strains that may be useful in protecting our banana and tomato industries.

These are just a few examples of genomic-based researches currently done in the Philippines. One author provided his own perspective on the state of genomic researches in the Philippines, its successes, and identified challenges. The author's experience in both the science and business of genomics coming from a resource adequate country provided potential areas for improvement within the Philippine landscape.

This special issue of PJS gives a snapshot of the roadmap set by the PGC to further its advocacy for “a deeper understanding and judicious application of advanced knowledge and emerging technologies in genomics and bioinformatics” in health, agriculture, biodiversity, and the environment for the benefit of Filipinos and the rest of humanity. We also hope to spark the interest of scientists to consider genomics as a research platform, increase our current talent pool, and expand the genomics community within the country and eventually further increase our global competitiveness through the center's five-year strategic direction.

The Philippine government has magnified its support towards genomics research through investments in the PGC and various ‘omics initiatives. The Department of Science and Technology, Commission on Higher Education, Department of Agriculture, and University of the Philippines are some of the agencies that have provided notable funding support for large-scale ‘omics studies and capacity building programs.

On behalf of the PGC, my sincerest thanks to all the authors who have chosen to share their research findings and contributions to the readers of this journal and the global research community. We hope that more experts will contribute to the interplay of the ‘omics fields in improving our lives and the environment as we embark on a collective journey towards genomics for a better Philippines.

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