

# *Philippine* **Men and Women** *of* **Science**

A compilation of bio-bibliographical information on  
men and women in the field of science and technology

**VOLUME 26**



Science and Technology Information Institute  
**Information Resources and Analysis Division**  
Department of Science and Technology

# **Philippine Men and Women of Science**

**(Formerly Philippine Men of Science)**

**A compilation of bio-bibliographical information of  
men and women in the field of science and technology**

**Volume 26  
June 2013**

**Information Resources and Analysis Division  
Science and Technology Information Institute  
Department of Science and Technology  
Bicutan, Taguig City, Philippines**

Tel. No. 8372191 to 95



**THE PHILIPPINE MEN AND WOMEN OF SCIENCE Volume 26, June 2013**  
issue is published by the Science and Technology Information Institute –  
Department of Science and Technology (STII-DOST), General Santos Ave.,  
Bicutan, Taguig City, Philippines

**Editorial Board and Staff :**

**Raymund E. Liboro**, Director; **Rosie A. Almocera**, Chief, Information Resources and Analysis Division (IRAD); **Geraldine D. Bulaon**, Supervising Science Research Specialist; **Josefina A. Mahinay**, Science Research Specialist II (Scientist Database Manager); **Marievic V. Narquita** Science Research Specialist II and **Robelyn C. Cruz**, Science Research Specialist II (IT Support Staff); **Annie Lyn D. Bacani** and **Jeffrey T. Centeno**, Documentation Specialist.

Scientists Database, the online version can be accessed at <http://webdb.stii.dost.gov.ph>

Copyright (Q) 2012 by the Science and Technology Information Institute. This content is free for use by the public for education and research purposes only but not for commercial profit. Payment, if required, is for the subsidized costs of paper and printing only. Attribution to the Science and Technology Information Institute as the publisher is required at all times.

**Disclaimer:**

Utmost concern for accuracy and quality is taken in the production of this content but the Science and Technology Information Institute waives responsibility from any adverse effect that may result from the inappropriate use of this content.

## **Preface**

**The Philippine Men and Women of Science is one of the in-house publications generated from the Scientists Database, being maintained by the Science and Technology Institute (STII), the information arm of the Department of Science and Technology (DOST). It contains bio-bibliographical information of the living scientists who have excelled in their careers with their scientific and technical contributions published in various scientific and technical journals here and abroad.**

**This compilation aims to provide a useful and effective baseline information needed by researchers, planners, policy makers and the general public who may need the expertise of these scientists.**

**The publisher is very grateful to all the scientists who have extended their wholehearted and invaluable cooperation in this undertaking as it is hoped that this information will be of help in our national development effort.**

**Philippine Men and Women of Science  
Volume 26 – June 2013  
Table of Contents**

<b>Scientists</b>	<b>Pages</b>
<b>Albano, Alfonso M.</b> Elementary Particles Physics Non-equilibrium Thermodynamics Physics (Non-linear Dynamics) Statistical Mechanics	<b>8</b>
<b>Alvindia, Dionisio G.</b> Agriculture Mycology Postharvest Pathology and	<b>15</b>
<b>Belino, Manuel C.</b> Education Engineering Education Mechanical Engineering	<b>19</b>
<b>Brawner, Filma G.</b> Educational Statistics Management of Science Education Programs Research and Evaluation S & T Human Resource Development Science Education Development Tests & Measurements	<b>23</b>
<b>Cabauatan, Pepito Q.</b> Bacteriology Plant Pathology Virology	<b>26</b>
<b>Calacal, Gayvelline</b> Forensic DNA Analysis Population Genetics	<b>35</b>
<b>Caparanga, Alvin R.</b> Chemical Thermodynamics/ Engineering Freeze concentration for environmental application Polymer recycling Siosorption	<b>43</b>
<b>Castaneto, Yolina Tarranco</b>	<b>46</b>

Agriculture and Forestry  
Forestry: SFI (Tree Improvement)

<b>Cauyan, Gil A.</b>	<b>50</b>
Animal Parasitology	
Anthelmintic Potential of Some Local Philippine Plants	
Biological Sciences	
Molecular Studies on Philippine Cryptosporidiasis and Amoebiasis.	
Soil transmitted Helminthiasis in the Philippines	
<b>Dedeles, Gina R.</b>	<b>54</b>
Biological Sciences	
Chemistry	
Environmental Sciences	
<b>Dela Cruz, Thomas Edison E.</b>	<b>58</b>
Biological Sciences	
Ecophysiology	
Fungal Systematics	
Mycology	
<b>Dimaano, Maria Natalia R.</b>	<b>65</b>
Biodiesel and Alternative Fuels	
Materials Science and Engineering	
Thermal Energy Storage for Cooling Application	
<b>Dumale, Wilfredo Jr. Arellano</b>	<b>68</b>
Cycling of stable and active soil organic carbon (SOC) in agricultural soils and their contribution to global atmospheric CO <sub>2</sub>	
Influence of Applied lime on CO <sub>2</sub> evolution and SOC Cycling in acid agricultural soils	
Printing effect of artificially - applied organic matter (SOC)	
<b>Dumlao, Florentina S.</b>	<b>71</b>
Agricultural Economics and Rural Development	
Agriculture and Forestry	
Extension Education	
<b>Ella, Evangelina S.</b>	<b>74</b>
Agricultural Chemistry	
Chemical Sciences	
Plant Physiology (Stress Physiology)	
<b>Galapon, Eric Alvarez</b>	<b>77</b>
Computational physics	
Foundations and applications of quantum mechanics	
Physics	
<b>Lio-Po, Gilda D.</b>	<b>82</b>
Aquatic Microbiology	
Biological Sciences	
Microbiology	
<b>Manatad, Fe A.</b>	<b>86</b>

Agriculture and Forestry Horticulture	
<b>Martinez - Goss, Milagrosa R.</b> Biological Sciences Botany Phycology	<b>89</b>
<b>Mendoza, Ronald Umali</b> International Economic Development Public economics, financial and economic crises management Social Science Research	<b>92</b>
<b>Pulido, Marian Apolinario</b> Biological Sciences Directed Evolution of Proteins Food Microbiology Hyperthermophilic proteins	<b>98</b>
<b>Quinitio, Emilia T.</b> Crab and shrimp culture in nursery and grow-out ponds/pens Reproductive physiology of shrimps and crabs Shrimp and crab breeding and seed production	<b>102</b>
<b>Quinto, Edward A.</b> Biological Sciences Chemistry Lactic acid fermentation Microbial bioluminescence Microbial natural products Microbiology	<b>109</b>
<b>Rabena, Alfredo R.</b> Chemical Sciences Forest Products Chemistry Natural Products and Wood Natural Products Chemistry	<b>114</b>
<b>Salvana, Edsel Maurice T.</b> Drug Resistant Organisms (including MSRA) Emerging Infectious Disease Immunocompromised Host Internal Medicine, Infectious Diseases & Tropical Medicine Lymphatic Filariasis The role of anti-Wolbachia antibodies in pathogenesis of acute disease Tropical and Travel Medicine	<b>118</b>
<b>Santos, Ameurfina D.</b> Biological Sciences Molecular Biology	<b>124</b>
<b>Sioson, Allan Adriano</b> Algorithms, Software Testing, and Computer Science Education Bioinformatics Computational Biology, Data Mining, Modeling and Simulation	<b>128</b>

Information Visualization  
Multimodal Networks

**Vea, Reynaldo B.** **132**

Marine Engineering  
Marine Transportation Systems  
Mechanical Engineering  
Naval Architecture

**Villegas-Pangga, Gina** **139**

Agriculture and Forestry  
Farming Systems  
Management of Agricultural Waste and Waste Disposal Strategies  
Plant Nutrition  
Soil Chemistry

**Yu, Derrick Ethelbert C.** **142**

Molecular Engineering of Iron Phthalocyanine for Novel "photo-magneto"  
Dynamic Cancer Therapy

Molecular mechanics and pharmacokinetic studies on the  
anti-hypoglycemic activity of dipeptidyl peptidase 4 (DPP4) inhibitors:  
structure-based computational drug design

Phthalocyanine - titanium oxide nanosystem paint additive  
as volatile organic air pollutant oxidizer

Synthesis and design of molecular imprinted polymer  
(MIP)sorbents for cis/trans fatty acid extraction and separation

Synthesis of Ruthenium phthalocyanine with various axial ligands:  
promising malfunctional molecular conductors

**Specialization Index** **146**

**Authors' Index** **150**



**Name** Alfonso M. Albano

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Marion Reilly Professor Emeritus and Research Professor (ret), Department of Physics BRYN MAWR College,

**Education**

Ph.D. in Physics, State University of New York, Stony Brook, New York 1969

M.S. in Physics, University of Iowa, USA 1964

B.S. in Physics, University of the Philippines, Diliman, Quezon City 1959

**Fields of Specialization**

Physics (Non-linear Dynamics)

Elementary Particles Physics

Statistical Mechanics

Non-equilibrium Thermodynamics

**Employment**

Editor, Physica D, -

Member of the Editorial Board, Physical Review E, -

**Association Membership**

Member, Philippine-American Academy of Science and Engineering

Member, Sigma Xi, Sigma Pi Sigma, Phi Kappa Phi

Member, American Association of Physics Teachers

Member, American Physical Society

**Honors / Awards**

1996 Pennsylvania Professor of the Year, Carnegie Foundation for the Advancement and Support of Education (CASE 1996) 1996

Christian F. and Mary S.Lindback Foundation Award for Distinguished Teaching, 1996

Presidential Award for Excellence in Science, Mathematics and Engineering Mentoring, Bryn Mawr College Physics Department 1998

Mary Patterson McPherson Award for Excellence, 2005

Balik Scientist Award, DOST 2009

### **Trainings**

Workshop on Nonlinear Dynamics and Time Series Analysis, Mindanao State University – Iligan Institute of Technology, Philippines 2008 S

5th Jagna International Workshop, Jagna, Bohol (Philippines) 2008 Ja 3-5

International Conference on Nonlinear Dynamics and, Bangalore, India 1998 F 1-5

International Workshop on Measures of Spatiotemporal Dynamics, Co-sponsored by U.S. Navy NAWC, Bryn Mawr 1995 Je 11-13

3rd International Congress of Behavioral Medicine, Amsterdam, The Netherlands 1994 JI 8

2nd Annual Conference on the Nonlinear Dynamical Analysis of the EEG, University of Houston, Texas, USA 1992 Ap

2nd International Workshop on Quantitative Measures of Complexity and Chaos, Co-sponsored by U.S., Bryn Mawr 1992 Ag 13-15

Southeastern Pennsylvania Section Meeting, American Association of Physics Teachers, 1991 Ap 2

International Workshop on Quantitative Measures of Complexity and Chaos, a NATO Advanced Topic Works, Bryn Mawr 1989 Je 22-24

Science as Exploration: Developing inquiry-based methods. A summer workshop for Philadelphia School,

Workshop on Nonlinear Dynamics and Time Series Analysis, Mindanao State University – Iligan Institute of Technology

### **Researches**

#### **Completed**

Development and refinement of algorithms for the calculation of quantitative measures of complex spatial and temporal behavior and for the identification and classification of complex systems

Computational characterization of electroencephalographic signals,"

Determination of Embedding Windows by Higher-Order Correlations

Unstable Behavior in Lasers and Other Optical Systems

Dynamical Systems Theory Applied to Electromyographic Signal Processing

High Gain Laser Amplifiers (September 1979-80)

### **Papers Presented**

Albano, A.M. (2002 Mr 3). Chaos, Boltzmann, Shannon and Electrophysiology, Juniata College Physics Colloquium.

Albano, A.M. (1998 F 5-11). Spatiotemporal EEG information transfer in an episode of epilepsy, International Conference on Nonlinear Dynamics and Brain Functioning, Bangalore, India.

Albano, A.M. (1997 Mr 24). Disease or Noise?: Nonlinear Analysis of Biomedical Data, Widener University Science Colloquium.

Albano, A.M. (1996 N 28-D 1). The Bryn Mawr Conspiracy, 1st Asian Regional Bryn Mawr College Alumnae/ Conference, Manila, Philippines,(Talk given at Malacañang, at a dinner hosted by Philippine President and Mrs. Fidel V. Ramos).

Albano, A.M. (1996 JI 30). Nonlinear dynamics and biomedical engineering, College of Engineering and Agricultural Technology, University of the Philippines at Los Baños.

Albano, A.M. (1996 JI 21). Fluid dynamical simulation strategies that may be applicable to the lahar problem, Centre for Fluid Dynamics, University of the Philippines at Los Baños.

Albano, A.M. (1994 O 21). Chaos and Fractals: Geometrizing the Description of Motion, Indiana University of Pennsylvania Physics Colloquium.

Albano, A.M. (1994 JI 8). Dynamical Tools: Handle with Care (invited talk), Third International Congress of Behavioral Medicine. Amsterdam, The Netherlands.

Albano, A.M. (1993 My 13). Stalking Strange Attractors with Kolmogorov and Smirnov, Drexel University Physics Colloquium.

Albano, A.M. (1993 Ap 28). Using neural networks to filter noise-corrupted broadband non-stochastic signals, Naval Air Warfare Center Technical Seminar Series.

Albano, A.M. (1992 Ap). On the reliability of dynamical measures of EEG signals (Invited talk), 2nd Annual Conference on the Nonlinear Dynamical Analysis of the EEG, University of Houston, Texas, USA.

Goldberg, G. Janicki, M.B., Murphy, D. Niemeyer, E., Albano, A.M., Rapp, P.E. (1992 Ag). Using a coarse-grained entropy to characterize electromyographic signals, 2nd Bryn Mawr Workshop on Measures of Complexity and Chaos, Bryn Mawr College.

Albano, A.M. (1991 Ap 27). Looking for Chaos with Neural Nets, Southeastern Pennsylvania Section Meeting, American Association of Physics Teachers.

Albano, A.M. (199 S 29). Chaos and Fractals in Medicine, Philadelphia College of Pharmacy and Science.

Abraham, N.B., Albano, A.M., Chyba, T.C., Gioggia, R.S., Hoffer, L.M., Searle, C.M. (1984 My 21-24). Instabilities and Chaos in Single-Mode Lasers with Inhomogeneously-Broadened Gain Lines, Atti del IV Congresso Nazionale di Elettronica Quantistica e Plasmi, Certosa, Capri ENEA Serie Simposium.

Albano, A.M., Brodfuehrer, P.D., Tapyrik, L., Sunder, S. (). Variance and spatial mutual information patterns distinguish swimming response of the leech to intracellular stimulation, Shanghai International Symposium on Nonlinear Science and Applications.

## Publications

- 2009 Tigno, X.T., Hansen, B.C., Albano, A.M. Vasomotion spectra and principal components of pooled measures predict diabetes in monkeys. *International Journal of Bifurcations and Chaos*, 2009, 19:2439-2446.
- 2008 Brodfuehrer, P.D., McCormick, K., Lauren Tapyrik, L., Albano, A.M., Graybeal, C. Activation of two forms of locomotion by a previously identified trigger interneuron for swimming in the medicinal leech. *Invertebrate Neuroscience*, 2008, 8:31-39.

- 2008 Albano, A.M. Termite Computers: Entropy Is What You Don't Know. *Emergence Theory*, Anne Dalke and Jan Trembley, editors, Soundings (Special issue), 2008, 90(1-2).
- 2007 Getreuer, P., Albano, A.M., Muriel, A. Possibility of turbulence from a post-Navier-Stokes equation. *Physics Letters A*, 2007, 366:101-104.
- 2007 Hess, S.M., Albano, A.M., Gaertner, J.P. Analysis and insights from a dynamical model of nuclear plant safety risk. *Reliability Engineering and System Safety*, 2007, 92:15-29..
- 2007 Getreuer, P., Albano, A.M., Muriel, A. Possibility of turbulence from a post-Navier-Stokes equation. *Physics Letters A*, 2007, 366:101-104.
- 2006 Albano, A.M., Brodfuehrer, P.D., Tapyrik, L., Sunder, S. Linear and nonlinear properties of prestimulus ventral cord signals distinguish swimming response of the leech to intracellular stimulation. *International Journal of Bifurcations and Chaos*, 2006, 16:145-155.
- 2005 Cellucci, C.J., Albano, A.M., Rapp, P.E. Statistical validation of mutual information calculations: Comparison of alternative numerical algorithms. *Physical Review E*, 2005, 71:066208.
- 2005 Hess, S.M., Albano, A.M., Gaertner, J.P. Development of A Dynamical Systems Model of Plant Programmatic Performance on Nuclear Power Plant Safety Risk. *Reliability Engineering and System Safety*, 2005, 90:62-74.
- 2005 Cellucci, C.J., Albano, A.M., Rapp, P.E. Statistical validation of mutual information calculations: Comparison of alternative numerical algorithms. *Physical Review E*, 2005, 71:066208.
- 2004 Rapp, P.E., Cellucci, C.J., Watanabe, T.A.A., Albano, A.M. Quantitative characterization of the complexity of multichannel human EEGs. *International Journal of Bifurcations and Chaos*, 2004, 15:1737-1744..
- 2003 Duckrow, R.B., Albano, A.M. Comment on Performance of different synchronization measures in real data: A case study on electroencephalographic signals. *Physical Review E*, 2003:063901.
- 2003 Cellucci, C.J., Albano, A.M., Rapp, P.E., Krystal, A.D. Quantitative determination of abrupt changes in dynamical systems: Illustration via identification of seizure termination in generalized tonic-clonic seizure EEG data. *International Journal of Bifurcation and Chaos*, 2003, 13:2641-2655.
- 2003 Cellucci, C.J., Albano, A.M., Rapp, P.E. Comparative study of embedding methods. *Physical Review E*, 2003, 67:, 066210.
- 2001 Albano, A.M., Cellucci, C.J., Harner, R.N., Rapp, P.E. Optimization of Embedding Parameters for Prediction of Seizure Onset with Mutual Information. *Nonlinear Dynamics and Statistics*, A. I. Mees, editor (Birkhauser, Boston, 2001), 2001.
- 2001 Rapp, P.E., Cellucci, C.J., Watanabe, T.A.A. Albano, A.M., Schmah,, T.I. Surrogate data pathologies and the false-positive rejection of the null hypothesis. *International Journal of Bifurcation and Chaos*, 2001, 11:983-997.
- 2000 Cellucci, C.J., Brodfuehrer, P.D., Acera-Pozzi, R., Dobrovolny, H., Engler, E., Los, J., Thompson, R., Albano, A.M. Linear and nonlinear measures predict swimming in the leech. *Physical Review E*, 2000, 62:4826-4834.

- 2000 Albano, A.M., Cellucci, C.J., Rapp, P.E. Nonlinear analysis of the EEG. Proceedings of the Indian National Science Academy, Special Issue on Nonlinear Phenomenon, Physical and Biological Sciences (Section 1: Biological Sciences), (N. Pradhan and S. K. Malik, eds.), New Delhi, India, 2000:283-321.
- 1998 Hess, S.M., Albano, A.M. Minimum requirements for stochastic resonance in threshold systems. *International Journal of Bifurcation and Chaos*, 1998, 8:395-400..
- 1998 Krystal, A.D., Greenside, H.S., Rapp, P.E., Albano, A.M., Cellucci, C.J., Weiner, R.D. Partial Least Squares Analysis of Multichannel EEG Data. *Journal of Clinical Neurophysiology*, 1998, 15:274.
- 1997 Cellucci, C.J., Albano, A.M., Rapp, P.E., Pittenger, R.A., Josiassen, R.C. Detecting noise in a time series. *Chaos*, 1997, 7:414-422.
- 1996 Storela, R.J., Shi, Y., Wood, H.W., Jimenez-Montano, M.A., Albano, A.M., Rapp, P.E. The variance and the algorithmic complexity of heart rate variability display different responses to anesthesia. *International Journal of Bifurcation and Chaos*, 1996, 9:2169-2172.
- 1995 Albano, A.M., Rapp, P.E., Passamante, A. Kolmogorov-Smirnov test distinguishes attractors with similar dimensions. *Physical Review E*, 1995, 52:196-206.
- 1994 Rapp, P.E., Albano, A.M., Zimmerman, I.D., Jimenez-Montano, M.A. Phase-randomized surrogates can produce spurious identifications of non-random structure. *Physics Letters A*, 1994:27-33.
- 1994 Rapp, P.E., Zimmerman, I.D., Vining, E.P., Cohen, N., Albano, A.M., Jimenez-Montano, M.A. The algorithmic complexity of neural spike trains increases during focal seizures. *Journal of Neuroscience*, 1994, 14:4731-4736..
- 1993 Rapp, P.E., Albano, A.M., Schmah, T.I., Farwell, L.A. Acausally filtered noise can mimic low dimensional chaotic attractors. *Physical Review E*, 1993, 47:2289-2297.
- 1993 Albano, A.M., Beckmann, P.A., Carrington, M.E., Fusco, F.A., O'Neill, A.E., Scott, M.E. A General NMR Spectral Density and its Experimental Verification. *Journal of Physics C*, 1993, 16:L979-983.
- 1993 Palmer, C., Albano, A.M., Beckmann, P.A. Dipole-dipole spin relaxation in solids: The unrestricted hopping model and the methyl proton- non-methyl proton interaction. *Physica B*, 1993, 190:267-284.
- 1993 Abraham, N.B., Albano, A.M., Passamante, A., Rapp, P.E., Gilmore, R. Complexity and Chaos II. *International Journal of Bifurcation and Chaos*, 1993, 3:485-490.
- 1993 Rapp, P.E., Goldberg, G., Albano, A.M., Janicki, M.B., Murphy, D., Niemeyer, E., Jimenez-Montano, M.A. Using coarse-grained measures to characterize electromyographic signals. *International Journal of Bifurcation and Chaos*, 1993, 3:525-541.
- 1993 Kaige, W., Abraham, N.B., Albano, A.M. Chaotic behavior in transverse-mode laser dynamics. *Chaos*, 1993:287-294.
- 1993 Albano, A.M. Telegraphy: The Beginnings. *Discovery, Innovation, and Risk*, N. Copp and A. Zanella, eds., (MIT Press, Cambridge, 1993), 1993.
- 1993 Albano, A.M. Analysis of the EEG. B.H. Jansen and M.E. Brandt, editors, (World

Scientific, Singapore, 1993), 1993.

- 1992 Albano, A.M., Passamante, A., Hediger, T., Farrell, M.E. Using Neural Nets to Look for Chaos. *Physica D*, 1992, 58:1-9.
- 1992 Martinerie, J., Albano, A.M., Mees, A.I., Rapp, P.E. Mutual Information, strange attractors and optimal estimation of dimension. *Physical Review A*, 1992, 45:7058-7064..
- 1991 Albano, A.M., Passamante, A., Farrell, M.E. Using higher-order correlations to define an embedding window. *Physica D*, 1991, 54:85-87.
- 1990 Albano, A.M. Dynamical Characterization of Brain Electrical Activity. *The Ubiquity of Chaos*, (S. Krasner, editor), AAAS, Washington, 1990.
- 1989 Abraham, N.B., Albano, A.M., Tufillaro, N.B. Complexity and Chaos. *Measures of Complexity and Chaos*, N. B. Abraham et al., eds. (Plenum, New York, 1989), 1989.
- 1987 Chyba, D.E., Abraham, N.B., Albano, A.M. Semiclassical Analysis of a Detuned Ring Laser with a Saturable Absorber: New Results for the Steady States. *Physical Review A*, 1987, 35:2936-2950..
- 1987 Abraham, N.B., Albano, A.M., Das, B., Tarroja, M.F.H. Coherences and Correlations in Chaotic Optical Signals. *Fundamentals of Quantum Optics II* (Lecture Notes in Physics) F. Ehlotzky, ed. (Springer, Berlin, 1987), 1987, 282.
- 1987 Abraham, N.B., Albano, A.M., Chyba, T.C., Hoffer, L.M., Tarroja, M.F.H., Adams, S.P., Gioggia, R.S. Experimental Measurements of Transitions to Pulsations in a Single Mode, Unidirectional Ring Laser with an Inhomogeneously Broadened Medium. *Instabilities and Chaos in Quantum Optics* (Springer Series in Synergetics, R. G. Harrison and F. T. Arecchi, eds. (Springer-Verlag, Berlin), 1987, 34.
- 1986 Abraham, N.B., Albano, A.M., Das, B., G. de Guzman, G., Yong, S., Gioggia, R.S., Puccioni, G.P., Tredicce, J.R. Calculating the Dimensions of Attractors from Small Data Sets. *Physics Letters* 114A, 1986:217-221..
- 1986 Tufillaro, N.B., Albano, A.M. Chaotic Dynamics of a Bouncing Ball. *American Journal of Physics*, 1986, 54:939-944.
- 1986 A.M. Albano, N.B. Abraham, G.C. de Guzman, M.F.H. Tarroja, D.K. Bandy, R.S. Gioggia, P.E. Rapp, I.D. Zimmerman, N.N. Greenbaun, and T.R. Bashore, "Lasers and Brains: Complex Systems with Low-Dimensional Attractors, Dimensions and Entropies in Chaotic Systems (G. Mayer-Kress, ed. (Springer-Verlag, Berlin, 1986), 1986:231-240.
- 1986 Abraham, N.B., Albano, A.M., B. Das, B., T.M. Mello, T.M., Tarroja, M.F.H., Tufillaro, N., Gioggia, R.S. Definitions of Chaos and Measuring its Characteristics. *Optical Chaos*, J.R. Chrostowski and N.B. Abraham, eds., SPIE Proceedings, (Bellingham, 1986), 1986, 667.
- 1985 Rapp, P.E., Zimmerman, I.D., Albano, A.M., de Guzman, G.C., Greenbaun, N.N. Dynamics of Spontaneous Neural Activity in the Simian Motor Cortex: The Dimension of Chaotic Neurons. *Physics Letters*, 1985, 110A:335-338..
- 1985 Rapp, P.E., Zimmerman, I.D., Albano, A.M., de Guzman, G.C., Greenbaun, N.N., Bashore, T.R. Experimental Studies of Chaotic Neural Behavior: Cellular Activity and Electroencephalographic Signals. *Nonlinear Oscillations in Biology and*

- Chemistry, H.G. Othmer, ed. (Springer-Verlag, Berlin, 1985)., 1985.
- 1985 Albano, A.M., Abounadi, J., Chyba, T.C., Yong, S., Gioggia, R.S., Abraham, N.B. Low-Dimensional Chaotic Attractor for an Unstable, Single-Mode, Xe-Ne Laser. *Journal of the Optical Society of America*, 1985, B2:47-57.
- 1984 Albano, A.M., Abraham, N.B., Chyba, D.E., Martelli, M. Bifurcations, Propagating Solutions and Phase Transitions in a Chemical Reaction with Diffusion. *American Journal of Physics*, 1984, 52:161-167.
- 1984 Albano, A.M., Beckmann, P.A., Carrington, M.E., Fisch, E.E., Fusco, F.A., O'Neill A.E., Scott, M E. A Nuclear Spin Relaxation Study of Internal Motion in Two Organic Molecular Solids. *Physical Review B*, 1984, 30:2334-2339.
- 1983 Albino, A.M. General NMR Spectral Density and its Experimental Verification. *Journal of Physics C*, 1983, 16.
- 1980 Albano, A.M., Bedeaux, D., Vlieger, J. On the Description of Interfacial Properties Using Singular Densities and Currents at a Dividing Surface. *Physica A*, 1980, 99:293-304.
- 1979 Wolff, P.A., Albano, A.M. Non-Equilibrium Thermodynamics of Interfaces Including Electromagnetic Effects. *Physica A*, 1979, 98:491-508.
- 1978 Albano, A.M. On the Symmetry of Friction Coefficients for Particles Moving in Fluids with Spin. *Physics Letters*, 1978, 67A:251-252.
- 1976 Bedeaux, D., Albano, A.M., Mazur, P. Boundary Conditions and Non-Equilibrium Thermodynamics. *Physica*, 1976, 82A:438-462.
- 1975 Albano, A.M., Bedeaux, D., Mazur, P. On the Motion of a Sphere with Arbitrary Slip in a Viscous Incompressible Fluid. *Physica*, 1975, 80A:89-97.
- 1974 Albano, A.M. Cole-Moore Superposition and Kinetic Models for the Potassium Conductance of Nerve Fiber Membranes. *Journal of Theoretical Biology*, 1974, 45:341-350.
- 1974 Albano, A.M. Conditions for Quasistatic Relaxation. *Physica*, 1974, 73:341-350.
- 1972 Dresden, M., Albano, A. A Class of Nonlinear Realizations of the Poincaré Group. *Journal of Mathematical Physics*, 1972, 13:275-282.
- 1967 Dresden, M., Albano, A.M. Nonlinear Space-Time Transformations Related to the Lorentz Group. *Proceedings of the National Academy of Sciences (USA)*, 1967, 58:916-922.

**Name** Dionisio G. Alvindia  
**Gender** Male  
**Civil Status** Single

**Organizational Affiliations**

Affiliate Professor, Central Luzon State University (CLSU), Science City of Munoz,  
Nueva Ecija

**Education**

Ph.D., Tokyo University of Agriculture, Tokyo, Japan 2003

**Fields of Specialization**

Postharvest Pathology and  
Mycology  
Agriculture

**Association Membership**

Member, National Research Council of the Philippines

**Honors / Awards**

Postdoctoral Fellowship, Foreign Researchers 2006 Je - 2008 My  
Best Paper (Research Cat.) Non-chem. Approaches for Managing Postharvest  
Diseases of Tropical Fruits, PhilMech 2011  
AFMA Best R&D Paper (Bronze Award), AFMA 2011

**Trainings**

International Conference on Agriculture and Agro-Industry 2010: Food, Health and  
Trade, Mae Fah Luang University, Chiang Rai, Thailand 2010 N 19-20  
The 3rd Asian Conference on Plant Pathology, Yogyakarta, Indonesia 2007 Ag 20-  
14  
9th International Working Conference on Stored Product Protection, Sao Paulo,  
Brasil 2006 O 15  
International Society for Southeast Asian Agricultural Sciences (ISSAAS),  
University Putra Malaysia, Selangor, Malaysia 2006 D 9-11  
Annual Meeting of Phytopathological Society of Japan, Tokyo, Japan 2003 Ap  
International Working Conference on Stored Product Protection, Canberra,  
Australia 1994 Ap

**Researches**

**Completed**

Non-chemical Approaches in Managing Postharvest Diseases of Tropical Fruits  
(Mango), 2011  
Effect of surfactant on the protective value of inorganic salt to control crown rot of  
banana



Biological control of crown rot of banana with epiphytic fungi

The aerial and fruit surface populations of fungi in non-chemical banana production in the Philippines

Microbiota of Cacao

### **Papers Presented**

Alvinda, D.G. (2010 N 19-20). Alternatives to Chemical Fungicide to Control Crown Rot of Banana, International Conference on Agriculture and Agro-Industry 2010: Food, Health and Trade, Mae Fah Luang University, Chiang Rai, Thailand.

Alvinda, D.G., Natsuaki, K.T. (2007 S 10-14). Evaluation of epiphytic bacteria isolated from banana fruit surface for biocontrol of crown rot-causing fungal pathogens of banana. Recent advances in banana crop protection for sustainable production and improved livelihoods, Recent Advances in Banana Crop Protection for Sustainable Production and Improved Livelihoods, Greenway Woods, White River, South Africa.

Alvinda, D.G. (2007 Ag 20-14). Isolation and characterization of natural epiphytic antagonists for biocontrol of postharvest diseases, The 3rd Asian Conference on Plant Pathology, Yogyakarta, Indonesia.

Sabio, G.C., Dator, J.V., R.F. Orge, R.F., Julian, D.T., Alvinda, D.G., Miranda, G.C., Austria, M.C. (2006 O 15-18). Preservation of Mestizo 1 (PSB Rc72H) seeds using hermetic and low temperature storage technologies, 9th International Working Conference on Soted Product Protection, Sao Paulo, Brasil.

Alvinda, D.G., Natsuaki, K.T., Sabio, G.C., Acda, M.A. (2006 D 9-11). Evaluation of nonchemical alternatives to control postharvest diseases of banana, International Society for Southeast Asian Agricultural Sciences (ISSAAS), University Putra Malaysia, Selangor, Malaysia.

Alvinda, D.G., Kobayashi, T., Natsuaki, K.T., Tanda, S. (2003 Ap). Inhibitory influence of inorganic salts against postharvest pathogens of banana and its preliminary application to control crown rot, Annual Meeting of Phytopathological Society of Japan, Tokyo, Japan.

Alvinda, D.G., Yasuda, H., Takamura, Y., Kobayashi, T., Natsuaki, K.T. (2002 Mr). Selection and evaluation of several fungi against major postharvest diseases of banana, Annual Meeting of Phytopathological Society of Japan, Osaka, Japan.

Alvinda, D.G., Kobayashi, T., Natsuaki, K.T. (2002 Mr). A one-year survey of the mycoflora of culturally and non-culturally managed non-chemical banana farms in the Philippines, Annual Meeting Phytopathological Society of Japan, Osaka, Japan.

Alvinda, D.G., Kobayashi, T., and Natsuaki, K.T. (2001 Je). Fungal flora of non-chemical banana farms in the Philippines with and without cultural management during rainy season, Annual Meeting Kanto Division Phytopathological Society of Japan, Tokyo, Japan.

Alvinda, D.G., Kobayashi, T., Natsuaki, K.T. (2001 Ap). Fungal flora of non-chemical banana farms in the Philippines with and without cultural management during rainy season, Annual Meeting Japan Phytopathological Society, Sendai, Japan.

Alvinda, D.G., Yaguchi, Y., Kobayashi, T., Natsuaki, K.T. (1999 N). Occurrence and symptoms of postharvest diseases on non-chemical bananas imported from

the Philippines, DABIA III, Tokyo, Japan.

Alvandia, D.G., Kobayashi, T., Yaguchi, Y., Natsuaki, K.T., Aoki, T. (1999 Ap). Fungi associated with postharvest diseases of non-chemical bananas imported from the Philippines (2) Identification of species of the main fungi isolated, Annual Meeting Japan Phytopathological Society, Niigata, Japan.

Alvandia, D.G., Yaguchi, Y., Kobayashi, T., Natsuaki, K.T. (1998 Ap). Fungi associated with postharvest diseases of non-chemical bananas imported from the Philippines, Annual Meeting of Japan Phytopathological Society, Tokyo, Japan.

Caliboso, F.M., Navarro, S., Alvandia, D. G., Donahaye, J., Sabio, G.C., dela Cruz, M.T (1996 Ap). Effect of gastight storage on growth of fungi in paddy stored outdoors, International Conference on Controlled Atmosphere and Fumigation in Stored Products, Nicosia, Cyprus.

Sabio, G.C., Julian, D.D.T., Alvandia, D.G., Dator ,J.V., Graver, J.V.S. (1995 S). Storage of grains outdoor in transportable plastic enclosure, Symposium on Pest Management for Stored Food and Feed, Bogor, Indonesia.

Sabio, G.C., Alvandia, D.G. (1994 S). Safe storage of bagged grain outdoor-is it possible?, Symposium on Postharvest Development, National Food Authority (NFA) 22nd Anniversary, Cabanatuan City, Philippines.

Alvandia, D.G., Caliboso F.M., Sabio, G.C., Regpala A.R. (1994 Ap). Modified atmosphere storage of bagged maize outdoors using flexible liners: a preliminary report, International Working Conference on Stored Product Protection, Canberra, Australia.

Julian, D.D.T., Sabio, G.C., Dator, J.V., dela Cruz M.T., Alvandia, D.G., Annis, P.C., Graver, S., Van, J. (1993). Design and development of an outdoor storage system using plastic membranes: a preliminary study, 16th ASEAN Seminar on Grain Postharvest Technology, Phuket, Thailand.

Alvandia, D.G., Sabio, G.C., Julian, D.T.,Dator, J.V. (1991 N). Observation of the losses caused by birds to paddy stacked in warehouse, ASEAN Seminar on Grain Postharvest Handling, Manila, Philippines.

Murillo, R. Jr., Sambrano, M.S., Sabio, G.C., Alvandia, D.G., Julian D.D.T. (1989 F). Storage of bagged maize sealed in plastic enclosures in the Philippines, Fumigation and Controlled Atmosphere Storage of Grain, Singapore.

## **Publications**

- 2012 Alvandia, D.G. Revisiting hot water treatments in controlling crown rot of banana cv. BuÃ±gulan. *Crop Protection*, 2012, 33:59-64.
- 2012 Alvandia, D.G. Inhibitory influence of biocontrol agents, plant oils, and an inorganic salt on *Mycosphaerella fijiensis* and *Cordana musae*. *African Journal of Microbiology Research*, 2012, 6:3690-3695.
- 2011 Alvandia, D.G., Hirooka, Y. Identification of *Clonostachys* and *Trichoderma* spp. from banana fruit surfaces by cultural, morphological and molecular methods. *Mycology*, 2011, 2:109-115.
- 2011 Alvandia, D.G. Fungal Diversity of Non-chemical Banana and its Environs in the Philippines: A handbook for taxonomist and parataxonomist. PhilMech, Science City of Munoz, Nueva Ecija. 87 p. ISBN: 978-971-94668-7-1., 2011.

- 2010 Alwindia, D.G., Acda, M.A. Mycoflora of coffee beans in the Philippines. *Journal of International Society for Southeast Asian Agricultural Sciences*, 2010, 16:116-125.
- 2009 Alwindia, D.G., Natsuaki, K.T. Biocontrol activities of *Bacillus amyloliquefaciens* DGA14 isolated from banana fruit surface against banana crown rot-causing pathogens. *Crop Protection*, 2009, 28:236-242.
- 2008 Alwindia, D.G., Natsuaki, K.T. Evaluation of fungal epiphytes isolated from banana fruit surfaces for biocontrol of banana crown rot disease. *Crop Protection*, 2008, 27:1200-1207.
- 2007 Alwindia, D.G., Natsuaki, K.T. Control of crown rot-causing fungal pathogens of banana by inorganic salts and a surfactant. *Crop Protection*, 2007, 26:1667-1673.
- 2007 Natsuaki, K.T., Alwindia, D.G. The prospect of agricultural farming in the Philippines (in Japanese). *Journal of Agriculture Society of Japan*, 2007, 1496(65-69).
- 2006 Alwindia, D.G., Kobayashi, T., Natsuaki, K.T. The aerial and fruit surface populations of fungi in nonchemical banana production in the Philippines. *Journal of General Plant Pathology*, 2006, 72:257-260.
- 2004 Alwindia, D.G., Kobayashi, T., Natsuaki, K.T., Tanda, S. Inhibitory Influence of Inorganic salts on banana pathogens and preliminary application to control crown rot. *Journal of General Plant Pathology*, 2004, 70:61-65.

**Name** Manuel C. Belino  
**Gender** Male  
**Civil Status** Single

**Organizational Affiliations**

Dean, School of Mechanical Engineering, Mapua Institute of Technology, Muralla Street; Intramuros Manila

Dean and Full Professor, Mapua Institute of Technology, Muralla St., Intramuros, Manila

**Education**

Doctor of Education, De La Salle University, Manila 1998

**Fields of Specialization**

Engineering Education

Mechanical Engineering

Education

**Association Membership**

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Elected as Scholarship Trustee, American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 2011

Outstanding Faculty Advisor 2011 for District G (Asia- Pacific), American Society of Mechanical Engineers (ASME) 2011

Student Activities Achievement Award, American Society of Heating, Refrigerating and Airconditioning Engineers (ASHRAE) 2008

Finalist- Metrobank Foundation, Inc., Search for Outstanding Teacher 2004

**Trainings**

International Leadership Summit in Mechanical/ Multi- Disciplinary Engineering Education, Hong Kong 2011 S 27-29

59th PSME National Convention, SMX Convention Center, Pasay City 2011 O 26

11th Asia Pacific Conference on the Built Environment Green Energy for Environment, Jakarta, Indonesia 2011 O

2nd National Tri-Level Conference of Teachers and Educators, Manila Hotel 2008 O 8-10

2nd PIMEE Mechanical Engineering Education Conference, University of Sto. Tomas, Manila 2008 N 27-28

International Research Conference, University of San Carlos, Cebu City 2008 Mr 13-15

17th Annual Association for Practical and Professional Ethics (APPE) Annual

Meeting Mini-Conference, San Antonio, Texas, USA 2008 F 21-24

## **Researches**

### **Completed**

Development of Underfloor Air Distribution System

Assessment of Chemical and Biological Contaminants and Improvement of Air Quality in Air-conditioned Urban Buses

Comparative Analysis of Energy Efficiency of WACU and PACU

Investigation of the Interior Air Quality of LRT Trains

Development of an Indoor Environmental Quality Simulation Laboratory at the School of Mechanical Engineering of Mapua Institute of Technology

### **On-going**

Assessment of Air Quality in Airconditioned Buildings and Urban Proponent Buses. De La Salle University, University Research Coordination Office.

Development of a Thermal Ice Storage for Airconditioning Laboratory Apparatus

Indoor Air Quality Assessment of Selected Shopping Malls in Metro Manila

Baseline Data of the MBTI Personality Profile of Freshman Engineering Students in the Philippines

## **Papers Presented**

Belino, M.C. (2011 S 27-29). International Collaboration Among Mechanical Engineering Departments, 2011 International Leadership Summit in Mechanical/ Multi- Disciplinary Engineering Education, Hong Kong.

Belino, M.C. (2011 O 26). Towards an Outcomes- Based Education in the Philippines, 59th PSME National Convention, SMX Convention Center, Pasay City.

Belino, M.C. (2011 N 18). Assessment and Evaluation of Program Outcomes: The Mapua School of Mechanical Engineering Experience Conference, De La Salle University, 3rd PIMEE ME Education.

Belino, M.C. (2011 F 24). A Survey of Indoor Air Quality Studies in the Philippines Focusing on Biological Contaminants., 2011 Science and Technology Congress, De La Salle University, Manila, Philippines.

Belino, M.C. (2008 S 29). Investigation of the Interior Air Quality of LRT Trains, 16th Annual Conference of the Transportation Science of the Philippines. SMX Convention Center, Pasay City.

Belino, M.C. (2008 O 8-10). In-door Air Quality Investigation of Classrooms In Selected Grade Schools in Metro Manila, 2nd National Tri-Level Conference of Teachers and Educators, Manila Hotel.

Belino, M.C. (2008 N 27-28). The University in Service of the Society : The Dynamic Interaction of Teaching and Research to Extension Service, 2nd PIMEE Mechanical Engineering Education Conference, University of Sto. Tomas, Manila.

Belino, M.C. (2008 N 27-28). Establishing Student Chapters of National and International Professional Societies in Mechanical Engineering: Benefits and Opportunities for Students, University of Sto. Tomas, Manila.

Belino, M.C. (2008 Mr 13-15). Making the First Year of the Engineering Program

Interesting and Exciting through an Engineering Orientation Course, International Research Conference, University of San Carlos, Cebu City.

Belino, M.C. (2008 F 21-24). It's Not Too Late to Teach Ethics to Engineering Graduate Students, 17th Annual Association for Practical and Professional Ethics (APPE) Annual Meeting Mini-Conference, San Antonio, Texas, USA.

Belino, M.C. (2004 JI 26-27). Service Learning at the Mechanical Engineering Department of De La Salle University- Manila, International Conference in Engineering Education, Manila, Philippines.

## **Publications**

- 2011 Belino, M.C., Anastacio, J. Indoor Air Quality Investigation of Selected Shopping Malls in Metro Manila. Proceedings of the 11th Asia Pacific Conference on the Built Environment Green Energy for Environment, 2011 O.
- 2011 Belino. M.C., Aleido, M.C., Bautista, N.G., Rafert Dina, R., Manalo, J.C. Comparative Analysis of WACU and Split PACU Energy Efficiency and IEQ Factors in Classroom Application. Proceedings of the 11th Asia Pacific Conference on the Built Environment Green Energy for Environment, Jakarta, Indonesia, 2011 O.
- 2011 Belino, M.C., Anastacio, J. Indoor Air Quality Investigation of Selected Shopping Malls in Metro Manila. Proceedings of the 11th Asia Pacific Conference on the Built Environment Green Energy for Environment, Jakarta, Indonesia, 2011 O.
- 2011 Belino, M.C. Establishing Student Chapters of National and International Professional Societies in Mechanical Engineering: Benefits and Opportunities for Students and Faculty. Proceedings of the 3rd Regional Conference on Mechanical and Aerospace Technology with ISSN 2094-8387, Traders Hotel, Manila, Philippines, 2011 Mr 4-5.
- 2011 Belino, M.C. Intercollegiate Ethics Bowl: A Platform for Fostering Professional and Practical Ethics in Tertiary Education.. Proceedings of the 3rd Regional Conference on Mechanical and Aerospace Technology with ISSN 2094-8387, Traders Hotel, Manila, Philippines, 2011 Mr 4-5.
- 2011 Belino M.C. Towards an Outcomes- Based Mechanical Engineering Education in the Philippines and the Mapua Institute of Technology School of Mechanical Engineering Initiatives. mm. Proceedings of the 3rd Regional Conference on Mechanical and Aerospace Technology with ISSN 2094-8387, TradersHotel, Manila, Philippines, 2011 Mr 4-5.
- 2011 Belino, M.C. Implications of MBTI Personality Profile of Mechanical Engineering Students to Student 'Centered Learning. Proceedings of the 3rd Regional Conference on Mechanical and Aerospace Technology with ISSN 2094-8387, Traders Hotel, Manila, Philippines,, 2011 Mr 4-5.
- 2011 Belino, M.C. A Comparison of Master's Programs in Mechanical Engineering in Singapore and the Philippines. Journal of Mechanical Engineering Education. (PIMEE), 2011 Mr, 5(1).
- 2011 Belino, M.C. A Comparison of Master's Programs in Mechanical Engineering in Singapore and the Philippines. PIMEE Journal of Mechanical Engineering Education, 2011 Mr, 5(1).
- 2011 Belino, M.C. A Survey of Indoor Air Quality Studies in the Philippines Focusing on

Biological Contaminants. Proceedings of the 2011 DLSU Science& Technology Congress with ISSN 2012-, 2011.

- 2011 Belino, M.C. A Survey of Indoor Air Quality Studies in the Philippines Focusing on Biological Contaminants. Proceedings of the 2011 DLSU Science& Technology Congress with ISSN 2012-3477 De La Salle University, Manila, Philippines, 2011.
- 2008 Belino, M.C. It's Not Too Late to Teach Ethics to Engineering Graduate Students. Philippine Institute of Mechanical Engineering Educators (PIMEE) Journal of Mechanical Engineering Education. ISSN 1908-6296, 2008, 2(2).
- 2008 Belino, M.C. Investigation of Indoor Air Quality in Selected Grade School Classrooms in Metro Manila. Philippine Institute of Mechanical Engineering Educators (PIMEE) Journal of Mechanical Engineering Education, ISSN 1908-6296, 2008, 2(1).

Belino. M.C. Towards an Outcomes- Based Mechanical Engineering Education in the Philippines and the Mapua Institute of Technology School of Mechanical Engineering Initiatives. Proceedings of the 3rd Regional Conference on Mechanical and Aerospace Technology, .

**Name** Filma G. Brawner  
**Gender** Female  
**Civil Status** Married  
**Home Address** 98 Starlite St., Rancho Estate III Concepcion, Marikina City

**Organizational Affiliations**

Executive Director, Philippine Science High School System, Agham Road, Diliman, Quezon City

**Education**

Ph.D. Education, Research and Evaluation, University of the Philippines, Diliman, Quezon City 1990

MA Education, Child Study, Philippine Normal College (now PNU), Taft Avenue, Manila 1975

BS Elementary Education, St. Mary's College (now SMU), 1969

**Fields of Specialization**

Research and Evaluation

Science Education Development

Educational Statistics

Tests & Measurements

S & T Human Resource Development

Management of Science Education Programs

**Employment**

Deputy Director, Science Education Institute, DOST, 1997 - 2007, Ag 15-

OIC, Office of the Deputy Director, and Division Chief, STMAD, SEI-DOST, 1994 - 1997-

Division Chief, S&T Manpower Assessment Division, SEI-DOST, 1993 - 1994-

Education Program Specialist, PUP, 1991-1992-

University Researcher, UP-DECS PRODED National Evaluation and Impact Study, 1988 - 1993-

Chief, Evaluation Section, DECS Textbook Board Secretariat, 1981 -1983-

Supervising Educational Researcher, DECS Textbook Board Secretariat, 1977 - 1981-

Faculty, St Mary's College, Bayombong, Nueva Vizcaya, 1975 - 1977-

Classroom Teacher, St. Mary's College Elem. Dept'., 1969 - 1970-

**Association Membership**

Member, Pi Lambda Theta Honor Society (Philippine Chapter)



Member, National Research Council of the Philippines

### **Honors / Awards**

Awardee for Academic Excellence, U.P. - College of Education 1990

Cum Laude, St. Mary's College (now SMU) 1969

Most Outstanding Alumni, St. Mary's College 2005

Most Outstanding Alumni, St. Jeromes Academy 2002

### **Trainings**

Industrial and Economic Development Policy Training for Filipino Officials, KOICA, South Korea 2002 Ap 4

Seminar Workshop, Second Information Technology in Education Study, Denmark 1999

Meeting of SEAMO RECSAM Governing Board, Malaysia 1999

International Summer Course on Quantitative Methods for Planning the Quality of Education, International Institute for Educational Planning, Paris 1997 Ag

Conference on Cooperative Learning and Constructivism, Malaysia 1997

International Conference on Public Understanding of Science, China 1995

Training of Quality Control Monitors for TIMSS, England 1995

TBS-EDPITAF Staff Development Fellowship, Institute of Education, University of London 1980 Ja - Mr

Fund for Assistance to Private Edu Faculty Dev't Program (Scholarship for a Master's Degree), PNU 1970 - 1972

7 items more from cv.,

### **Researches**

#### **Complete**

Survey of Local Beliefs and Practices as Inputs for Instructional Materials in Science

A Comparative Study of the School Performance of Working and Non-Working Children, ORC - UP

Evaluation of the Impact of the Philippine Textbook Project on the Achievement of Elementary and High School Students

Evaluation of the Program for Decentralized Education Development

Third International Mathematics and Science Study

Teacher Market Study in Science and Mathematics Education

Benchmarking Study in Science and Mathematics Education

Teacher Education Development Study. (Mathematics)

#### **Completed**

2nd Information and Technology in Education Study (SITES M2, 2001-2002)

### **Publications**

- 2008 Brawner, F.G., Andrada, L. Absorption, Recruitment, Induction Program and Supervision of Science and Mathematics Teachers. Market Study and Monitoring System on Teacher Education in Science and Mathematics, Science Education Institute, 2008.
- 2008 Brawner, F.G., Ibe, M.D., Ogena, E.O. Teacher Education Study - Mathematics. Country Report. 2008, 2008.
- 2004 Brawner, F.G., Ogena, E.B. Effective Practices in Science and Mathematics Education: A Benchmarking Project (A Capsule Report). Science Education Institute, 2004.
- 2004 Brawner F.G., Ibe, M.D., Ogena, E.B. Effective Practices in Science and Mathematics Education. A Benchmarking Project (Major Report, Science Education Institute, 2004.
- 2004 Brawner, F.G. Science Equipment and Library Facilities in the Benchmark Schools in Effective Practices in Science and Mathematics Education: A Benchmarking Project. Science Education Institute, 2004.
- 2003 Brawner, F.G., Ogena, E.B. Chapter on Philippine Report, in International Report: Second Information Technology in Education Study-Module 2 (SITES M2). The Netherlands: IEA, 2003.
- 2000 Brawner, F.G., Ogena, E.B. Chapter on Philippine Report in The Impact of TIMSS on the Teaching and Learning of Mathematics and Science. Pacific Educational Press. Canada, 2000.
- 1998 Brawner, F.G., Ogena, E.B. Science Education in the Philippines: Challenges for Development. Science Education Institute, 1998.
- 1991 Brawner, F.G. School Characteristics in Context as Reported by Parents. UP-DECS PRODED National Evaluation and Impact Study, UP, 1991.
- 1991 Brawner, F.G., Salvador, L. Evaluation of the Research Special Studies and Technical Support. UP-DECS PRODED National Evaluation and Impact Study, UP, 1991.

**Name** Pepito Q. Cabauatan  
**Gender** Male  
**Civil Status** Married

**Organizational Affiliations**

Senior Associate Scientist, International Rice Research Institute , Plant Breeding Genetics and Biotechnology Division, Los Baños, College, Laguna

**Education**

Ph.D. in Plant Pathology (Virology), Hokkaido University, Sapporo, Japan 1998

M. Sc. in Plant Pathology (Virology), University of the Philippines, Los Banos, Laguna 1983

B. S. A. Plant Pathology (Bacteriology), University of the Philippines, Los Banos, Laguna 1972

**Fields of Specialization**

Plant Pathology

Bacteriology

Virology

**Employment**

Assistant Scientist II, EPPD, IRRI, 1998 Ja - 1998 D-

Assistant Scientist, EPPD, IRRI , 1991 - 1997-

Senior Research Assistant, EPPD, IRRI , 1984 - 1990-

Research Assistant, EPPD, IRRI , 1975 - 1983-

Instructor, Department of Life Sciences,, UPLB , 1972 - 1975-

**Association Membership**

Member, Philippine Phytopathological Society

Member, IRRI Filipino Scientists Association (Formerly IRRI Junior Researcher Inc.)

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Best Paper Award (co-author), Crop Science Society of the Philippines 2002 Ap 23-26

Excellence Award, IRRI 1999 D 10

Nominee, 1999 CGIAR Chairman's Award for Outstanding Local Scientist, CGIAR 1999

Recipient of the Japan Society for the Promotion of Science Fellowship for Ph.D Dissertation Program, Japan Society 1994 Mr

Special Achievement Award, IRRI 1993 D

Special Achievement Award "For isolating strains of rice tungro bacilliform virus", IRRRI 1993 D

Best Poster Paper Award in Plant Pathology, Pest Management Council of the Philippines 1989 My

Outstanding Performance Award (1980 - 1985), IRRRI 1985 D

1st Gintong Ani Award for Outstanding Performance as a Junior Researcher, IRRRI Junior Researcher Association (IJR) 1986 F

Best Paper Award in Plant Pathology, Pest Management Council of the Philippines 1978 My

## Trainings

Asian Rice Biotechnology Network Microarray and Bioinformatics Workshop, International Rice Research Institute 2001 D 3 - 7

Management Skills Program, Mindbroker Corporation/IRRI, Le Bea Resort, Bagong Kalsada, Calamba, Laguna 2000 Je 20 - 21

Management Skills Program II, Mindbroker Corporation/IRRI, Fontana Resort and Country Club, Angeles, Pampanga 2000 Ag 16 - 18

Molecular characterization of rice tungro biological variants, Division Seminar, Entomology and Plant Pathology Division 1999 My

Knowledge-based tech on rice virus diseases & their app to rice tungro disease research & mgnt, IRRRI (Grade level 7) Special Seminar 1999 F

Etiology and Strain Characterization of Rice Virus Diseases in the Philippines, Hokkaido University, Sapporo, Japan 1998 Ag

Molecular cloning & nucleotide sequencing of cDNAs of rice tungro spherical virus strains A & Vt6., Faculty of Agriculture, Hokkaido University, Sapporo, Japan 1997 Je - S

Molecular diagnosis and DNA sequencing of rice tungro bacilliform virus strains, National Agriculture Research Center, Tsukuba, Japan 1996 O

Radiation Safety Course, Philippine Nuclear Research Institute/ IRRRI 1996 F

Molecular analysis of rice tungro bacilliform virus strains, National Agriculture Research Center, Tsukuba, Japan 1994 S - N

"*Oryza glaberrima*, an Indicator Plant for Rice Tungro Viruses", Scientific Meeting of the Pest Management Council of the Philippines (PMCP) 1994 My

Molecular cloning and nucleotide sequencing of ds-RNAs of the Philippine isolate of rice dwarf virus, Faculty of Agriculture, Hokkaido University, Sapporo, Japan 1994 Je - S

Alternative Diagnostic methods for the Detection of Rice Tungro Viruses, Int Workshop On Rice Tungro Disease Management, Alor Setar, Malaysia 1993 N

Rice Dwarf, a New Virus Disease in the Philippines, 30th Annual Meeting of the Philippine Phytopathological Society (PPS), Cebu City 1993 My

Purification of rice orange leaf MLO and testing specificity of cDNA probes for RYD, JIRCAS, Tsukuba, Japan 1992 Jl - Ag

Technical Writing for IRRRI Professional/Supervisory Research Personnel, Institute

of Development Communication, UPLB and HRD/IRRI 1992 Ap

Purification of rice yellow dwarf (RYD) MLO and application of cDNA probes for RYD detection, Japan International Research Center for Agricultural Sciences, (JIRCAS), Tsukuba, Japan 1991 N

Survey and identification of rice yellow mottle virus, IRRI Outreach Station, Antananarivo, Madagascar 1991 Ja - Mr

Molecular analysis of rice tungro bacilliform virus, National Institute of Agrobiological Research, Tsukuba, Japan 1989 O - 1990 Mr

Avidin-biotin ELISA for Sensitive Detection of Rice Tungro Viruses, 26th Annual Meeting of the PPS, Baguio City 1989 My

Application of monoclonal antibodies for the detection of rice grassy stunt virus, USDA, Beltsville, Maryland, USA 1988 Je

Monoclonal Antibodies for the Detection of Rice Grassy Stunt Virus in the Philippines, Conf. on Biotech for Health and Agriculture, National Academy of Sciences, Washington, D. C., USA 1988 Je

Rice Tungro-Associated Viruses: Transmission, Isolation, Purification, and Serology, Int. Congress of Plant Protection Manila, Philippines 1987 O

Isolation, Purification, and Serology of Rice Tungro- Associated Viruses, 24th Annual Meeting of the PPS. Davao City 1987 My

Application of Monoclonal Antibody on Serodiagnosis of Rice Grassy Stunt Virus, 23rd Annual Meeting of the PPS, Iloilo City 1986 My

Production and handling of monoclonal antibodies, American Type Culture Collection, Rockville, Maryland, USA 1985 S - O

Rice Grassy Stunt Virus 2: a New Strain of Rice Grassy Stunt in the Philippines, 21st Annual Meeting of the PPS. Los Banos, Laguna 1984 My

Purification and serology of rice grassy stunt virus, National Agriculture Research Center, Tsukuba, Japan 1983 Mr

RGSV2: A Strain of Rice Grassy Stunt Virus, IRRI Saturday Seminar IRRI 1983 Ag

An Unknown Disease of Rice Transmitted by Nilaparvata lugens in the Philippines, 19th Annual Meeting of the PPS, Baguio City 1982 My

Rice Tungro Collaborative Report, International Rice Research Conference, IRRI 1979 Ap

"Rice Ragged Stunt Disease in the Philippines", 15th Annual Meeting of the PPS, Holiday Inn Hotel, Manila 1978 My

## **Researches**

Different aspects of rice diseases caused by viruses and mycoplasma-like organism (MLO)

Virus/ vector interaction

Identification and characterization of rice viruses and their strains

Purification and serology of rice viruses

Development of protein/nucleic acid-based methods for virus/MLO detection

Molecular cloning and nucleotide sequencing of rice viruses

Studies on the mechanism of resistance to rice viruses

Screening for resistance to rice viruses

Studies on the genetic diversity of rice tungro viruses

### **Papers Presented**

Cabauatan, P.Q., Cabunagan, R.C. and Choi, I.R. (2010). Rice viruses transmitted by the brown planthopper *Nilaparvata lugens* Stahl, Planthoppers: new threats to the sustainability of intensified rice production system in Asia. Los Banos (Philippines): International Rice Research Institute.

Cabauatan, P.Q. and Choi, I.R. (2008). The genetic and biological diversity of rice tungro viruses. In: *The Rice Tungro Virus Disease - A Paradigm in Disease Management.*, Science City of Munoz, Nueva Ecija. Philippine Rice Research Institute and Honda Research Institute, Japan Co. Ltd.

Cabauatan, P.Q., Choi, I.R., De Leon, T., Satoh, K., Muhsin, M., Mauleon, R., Madamba, M.R., Kwak, D.Y., Lee, B.C., Cabunagan, R., Kikuchi, S. and Leung, H. (2005). Integrated location/expression candidate approach for analysis of RTSV resistance., 5th International Rice Genetics Symposium, EDSA Shangri-la Hotel, Manila, Philippines..

Cabauatan, P.Q., Choi, I.R., Kwak, D.Y., Yamada, H., Lee, B.C., Satoh, K., Ooka, H., Muhsin, M., Yang, S.J., Leung, H., Kikuchi, S. (2004). Comparative analysis of gene expression profiles from rice plants in response to infection with rice tungro spherical virus, Crop Functional Genomics Symposium at Ramada Plaza Jeju, Jeju, Korea.

Cabauatan, P.Q., Choi I.R., Angeles E.R., Cabunagan R.C. and Kush G.S. (2002). Overview of rice tungro virus research in IRRI., International Symposium on Molecular Biological Approaches on Resistance to Virus Disease in Rice, RDA, Korea: National Yeongnam Agricultural Experiment Station..

Cabauatan, P.Q., McNally, R., Angeles E.R., Bui Chi Buu, Abdullah B., Talag J., Virk P., Li Z., Cohen M., Kush, G S, Brar. (2002). Sustaining rice production by tapping hidden genes from wild species for tolerance to biotic and abiotic stress., 32nd annual Scientific Conference of the Crop Society of the Philippines, Bohol Tropics Resort, Tagbilaran City, Bohol, Philippines..

Cabauatan, P.Q. (1998). Etiology and strain characterization of rice virus diseases in the Philippines., Faculty of Agriculture, Hokkaido University, Sapporo, Japan..

Cabauatan, P.Q., Arboleda, M., Sta. Cruz, F., Muhsin, M., Bhattarai, I., Baw, A., Ahn, H., and O. Azzam. (1997). Genetic variability of rice tungro bacilliform virus in the Philippines, Indonesia, and Vietnam., Annual Meeting of the International Program on Rice Biotechnology, Malacca, Malaysia.

Cabauatan, P.Q., Yambao, M.L.M., Muhsin, M., and Azzam, O. (1997). Molecular characterization of two rice tungro spherical virus strains and their distribution in the Philippines and Indonesia., Annual Meeting of The International Program on Rice Biotechnology, Malacca, Malaysia..

Cabauatan, P.Q. and Koganezawa, H. (1994). Alternative diagnostic methods for the detection of rice tungro viruses., Int. Workshop on Rice Tungro Disease Management, Alor Setar, Malaysia..

Cabauatan, P.Q., Koganezawa, H. (1993). Strains of rice tungro viruses, 6th

International Congress of Plant Pathology, Montreal, Canada.

Cabauatan, P.Q., Nakashima, K., Koganezawa, H., and Murata, N. (1992). Indexing rice yellow dwarf pathogen (mycoplasma-like organisms) by nucleic acid hybridization-based assay., IRRI - Japan Shuttle Research Project Report, JIRCAS, Tsukuba, Japan..

Cabauatan, P.Q. and Hibino, H. (1991). Monoclonal antibodies for detection of rice viruses: grassy stunt, stripe, dwarf, gall dwarf and ragged stunt., *Biotechnology for Biological Control of Pests and Vectors*.

Cabauatan, P.Q., Koganezawa, H., Ishikawa, K., Omura, T., and H. Hibino. (1990). Nucleic acids of rice tungro bacilliform and spherical viruses., *Annual Meeting of the Phytopathological Society of Japan*, Matsuyama, Japan..

Cabauatan, P.Q. and Hibino, H. (1988). Purification, serology and properties of rice tungro-associated viruses., *5th Int. Congress of Plant Pathology*, Kyoto, Japan..

Cabauatan, P.Q., Hibino, H., Daquioag, R.D., Tiongco, E.R., Cabunagan, R.C., Dahal, G., Rahman, N.M., and Hasanuddin, A. (1988). Resistance to tungro disease., *5th Int. Congress of Plant Pathology*. Kyoto, Japan..

Cabauatan, P.Q., Hasanuddin, A., Hibino, H. (1987). Tolerance of rice varieties to tungro disease and its possible use for disease management, *Workshop on Rice Tungro Virus*. Maros, Indonesia.

Cabauatan, P.Q., Hibino, H. (1987). Rice tungro-associated viruses: Transmission, isolation, purification and serology, *International Congress of Plant Protection*, Manila, Philippines.

Cabauatan, P.Q., Hibino, H. (1984). Dependent transmission of rice tungro bacilliform virus on rice tungro spherical virus by a vector leafhopper, *Proceedings of the Symposium on Transmission of Viruses by Plant and Animal Vectors*. Fukuoka, Japan.

Cabauatan, P.Q. (1983). Characterization of a "tungro-like" disease of rice transmitted by the brown planthopper, *Nilaparvata lugens* (Stal.) in the Philippines., *University of the Philippines at Los Banos, College, Laguna*.

Cabauatan, P.Q. and Ling, K.C. (1980). Life span of and tungro transmission by viruliferous *Nephotettix virescens* on 10 rice varieties at IRRI, Philippines., *Report of the rice tungro collaborative project*. IRRI, Los Banos, Laguna..

## **Publications**

- 2010 Cabauatan, P.Q., Lee, J.H., Muhsin, M., Atienza, G.A., Kwak, D.Y., Kim, S.M., de Leon, T.B., Angeles, E.R., Coloquio, E., Kondoh, H., Satoh, K., Cabunagan, R.C., Kikichi, S., Leung, H., Choi, I.R. Single nucleotide polymorphism in a gene for translation initiation factor (eIF4G) of rice associated with resistance to rice tungro spherical virus. *MPMI*, 2010, 23(1):29 - 38.
- 2009 Cabauatan, P.Q., Encabo, J.R., Cabunagan, R.C., Satoh, K., Lee, J.H., Kwak, D.Y., De Leon, T.B., Macalalad, R.A., Kondoh, H., Kikuchi, S., Choi, I.R. Suppression of two tungro viruses by separable traits originating from cultivar Utri Merah. *MPMI*, 2009, 22:1268 - 1281.
- 2008 Cabauatan, P.Q., Zenna, N.S., Baraoidan, M., Leung, H., Choi, I.R. Characterization of a putative rice mutant for reaction to rice tungro disease. *Crop Science*, 2008, 48:480 - 486.

- 2007 Du, P.V., Cabunagan, R.C., Q. Cabauatan, P.Q., S. Choi, H.S., Choi, I.R., Chien, H. V., Huan, N.H. Yellowing syndrome in rice: etiology, current status, and future challenges. *Omonrice*, 2007, 15:94 - 101.
- 2007 Cabauatan, P.Q., Shibata, Y., Cabunagan, R., Choi, I.R. Characterization of *Oryza rufifogon*-derived resistance to tungro disease in rice. *Plant Disease*, 2007, 91:1386 - 1891.
- 2000 Cabauatan, P.Q., Isogai, M., Masuta, C., Uyeda, I., Azzam, O. Complete nucleotide sequence of rice tungro spherical virus genome of a highly virulent strain Vt6. *Virus Genes*, 2000, 20(1):75 - 81.
- 1999 Cabauatan, P.Q., Melcher, U., Ishikawa, K., Omura, T., Hibino, H., Koganezawa, H., Azzam, O. Sequence changes in six variants of rice tungro bacilliform virus and their phylogenetic relationships. *Journal of General Virology*, 1999, 80:2229 - 2237.
- 1998 Cabauatan, P.Q., Arboleda, M., Azzam, O. Differentiation of rice tungro bacilliform virus strains by restriction analysis and DNA hybridization. *J. Virol. Methods*, 1998, 76:121 - 126.
- 1998 Cabauatan, P.Q., Azzam, O. Mechanism of resistance to rice tungro spherical virus. *International Rice Research Notes*, 1998, 23(2):22 -24.
- 1998 Cabauatan, P.Q., Yambao, M.L.M., Azzam, O. Molecular differentiation of two rice tungro spherical virus variants.. *International Rice Research Notes*, 1998, 23(2):24.
- 1996 Cabauatan, P.Q., Murao, K., Uyeda, I., Ando, Y., Kimura, I., Koganezawa, H. Genomic rearrangement in genome segment 12 of rice dwarf phytoreovirus. *Virology*, 1996, 216:238 - 240.
- 1995 Cabauatan, P.Q., Cabunagan, R.C., and Koganezawa, H. Biological variants of rice tungro viruses in the Philippines. *Phytopathology*, 1995, 85:77 - 81.
- 1995 Cabauatan, P.Q., Miranda, G., Yambao M.L.M., Venkitesh, S.R., Koganezawa, H. Degradation of a coat protein of rice tungro spherical virus. *Annals of Phytopathological Society of Japan*, 1995, 61:41 - 43.
- 1995 Cabauatan, P.Q., Suga, H., Uyeda, I., Yan, J., Murao, K., Kimura, I., Tiongco, E.R., Koganezawa, H. Heterogeneity of rice ragged stunt oryzavirus genome segment 9 and its segregation by insect vector transmission. *Arch. Virol.*, 1995, 140:1503 - 1509.
- 1994 Cabauatan, P.Q., Cabunagan, R.C., Sta.Cruz, F.C., Koganezawa, H. Occurrence of rice dwarf virus in the Philippines.. *Philippine Phytopathology*, 1994, 30:54 - 58.
- 1994 Cabauatan, P.Q., Koganezawa, H. Leafhopper transmission of the Philippine isolate of rice dwarf virus. *International Rice Research Notes*, 1994, 19(2):26.
- 1994 Cabauatan, P.Q., Cabunagan, R.C., Koganezawa, H. Comparative transmission of two strains of rice tungro spherical virus in the Philippines.. *International Rice Research Notes*, 1994, 19(2):10 - 11.
- 1994 Cabauatan, P.Q., Koganezawa, H. Symptomatic strains of rice tungro bacilliform virus.. *International Rice Research Notes*, 1994, 19(2):11 - 12.
- 1994 Cabauatan, P.Q., Koganezawa, H., Tsuda, S., Hibino, H. Applying rapid immunofilter paper assay to detect rice viruses.. *International Rice Research*



Notes, 1994, 19(2):34.

- 1994 Cabauatan, P.Q., Dolores-Talens, A.C., Escara-Wilke, J.R., Nelson, R.J., Koganezawa, H. Strain differentiation of rice tungro bacilliform virus by restriction fragment length analysis of polymerase chain reaction-amplified product. *International Rice Research Notes*, 1994, 19(1):10 - 11.
- 1993 Cabauatan, P.Q., Kobayashi, N., Ikeda, R., Koganezawa, H. *Oryza glaberrima*: an indicator plant for rice tungro spherical virus.. *International Journal of Pest Management*, 1993, 39:273 - 276.
- 1993 Cabauatan, P.Q., Duan, Y.P., Sta. Cruz, F.C., Tiongco, E.R., Hibino, H. Enzyme-linked immunosorbent assay of rice tarsonemid mite virus in mites and rice tissues. *J. Plant Prot. Tropics*, 1993, 10(1):1 - 9.
- 1993 Cabauatan, P.Q., Takahashi, Y., Tiongco, E.R., Koganezawa, H., Hibino, H. and Omura, T. Detection of rice tungro bacilliform virus by polymerase chain reaction for assesing mild infection of plants and viruliferous leafhoppers.. *Phytopathology*, 1993, 83:655 - 659.
- 1993 Cabauatan., P.Q., Koganezawa, H. IRGC 100139, an accession of *Oryza glaberrima* sensitive to rice tungro spherical virus (RTSV). *International Research Notes*, 1993, 18(1).
- 1993 Cabauatan, P.Q., Koganezawa, H., Cabunagan, R.C., Sta. Cruz, F.C. Rice dwarf, a new virus disease in the Philippines. *International Rice Research Notes*, 1993, 18(1):50.
- 1993 Cabauatan, P.Q., Nakashima, K., Koganezawa, H. Use of DNA probes to distinguish mycoplasma-like orgnisms ( MLOs ) of yellow dwarf and orange leaf ( ROL ) in rice. *International Rice Research Notes*, 1993, 18(4):29 - 30.
- 1992 Cabauatan, P.Q., Kano, M., Koizumi, M., Noda, H., Hibino, H., Ishikawa, K., Omura, T., Koganezawa, H. Nucleotide sequence of capsid protein gene of rice tungro bacilliform virus. *Arch. Virol.*, 1992, 124:157 - 163.
- 1992 Cabauatan, P.Q., Nakashima, K., Koganezawa, H. Detection of the Philippine isolate of rice yellow dwarf ( RYD ) agent using DNA probes. *International Rice Research Notes*, 1992, 17(2):23 - 24.
- 1991 Cabuatan, P.Q., Hibino, H., Ishikawa, K., Omura T., Koganezawa, H. Characterization of rice tungro bacilliform and rice tungro spherical viruses. *Phytopathology*, 1991, 81:1130 - 1132.
- 1990 Cabauatan, P.Q., Hsu, H.T., Hibino, H. Development of serological procedures for rapid, sensitive, and reliable detection of rice grassy stunt virus. *Plant Disease*, 1990, 74:695 - 698.
- 1989 Cabauatan, P.Q., Hibino, H. Avidin-biotin ELISA for sensitive detection of rice tungro-associated viruses. *Philippine Phytopathology*, 1989, 25:68.
- 1988 Cabauatan, P.Q., Hibino, H. Isolation, purification and serology of rice tungro bacilliform and rice tungro spherical viruses. *Plant Disease*, 1988, 72:526 - 528.
- 1988 Cabauatan, P.Q., Hibino, H., Daquioag, R.D., and Dahal, G. Resistance to rice tungro spherical virus in rice.. *Plant Disease*, 1988, 72:843 - 47.
- 1988 Cabauatan, P.Q., Hibino, H., Hsu, H.T. Dotblot immunoassay for detecting rice grassy stunt virus in infected tissues.. *International Rice Research*

- Newsletter, 1988, 13(4):34 - 35.
- 1987 Cabauatan, P.Q., Hibino, H. Infectivity neutralization of rice tungro-associated viruses acquired by vector leafhoppers. *Phytopathology*, 1987, 77:473 - 476.
- 1987 Cabauatan, P.Q., Hibino, H. Isolation, purification, and serology of rice tungro-associated viruses. *Philippine Phytopathology*, 1987, 23:30 - 31.
- 1986 Cabauatan, P.Q., Daquioag, R.D., Hibino, H. Balimau Putih- cultivar tolerant of rice tungro-associated viruses. *International Rice Research Newsletter*, 1986, 11(6):8.
- 1986 Cabauatan, P.Q., Hibino, H. A modified dot immunobinding assay for the detection of rice grassy stunt virus in infected tissues. *Philippine Phytopathology*, 1986, 22:8.
- 1986 Cabauatan, P.Q., Hibino, H. Application of monoclonal antibody on serodiagnosis of rice grassy stunt virus. *Philippine Phytopathology*, 1986, 22:11.
- 1986 Cabauatan, P.Q., Hsu, H.T., Hibino, H. Mouse monoclonal antibody to rice grassy stunt virus and its use for disease detection. *Phytopathology*, 1986, 76:1132.
- 1986 Cabauatan, P.Q., Hibino, H. Infectivity neutralization of rice tungro- associated viruses acquired by vector leafhoppers. *Philippine Phytopathology*, 1986, 76:1075.
- 1986 Cabauatan, P.Q., Daquioag, R.D., Hibino, H. Tolerance of Balimau Putih to RTV-associated viruses. *Philippine Phytopathology*, 1986, 22:13.
- 1986 Cabauatan, P.Q., Daquioag, R.D., Mesina, E., Hibino, H. Reaction of selected resistant varieties to tungro associated-viruses. *Philippine Phytopathology*, 1986, 22:6.
- 1985 Cabauatan, P.Q., Hibino, H., Omura, T., and Tsuchizaki, T. Rice grassy stunt virus strain causing tungro-like symptom in the Philippines.. *Plant Disease*, 1985, 69:538 - 541.
- 1985 Cabauatan, P.Q., Hibino, H. Transmission of rice tungro bacilliform and spherical viruses by *Nephotettix virescens*. *Philippine Phytopathology*, 1985, 21:103 - 109.
- 1985 Cabauatan, P.Q., Hibino, H., Lapis, D.B., Omura, T., Tsuchizaki, T. Rice grassy stunt virus 2: a new strain of rice grassy stunt in the Philippines. *IRRI Research Paper Series*, 1985, 106:8.
- 1985 Cabauatan, P.Q., Hibino, H. Purification and serology of rice tungro spherical virus. *International Rice Research Newsletter*, 1985, 10(4):10 - 11.
- 1985 Cabauatan, P.Q., Daquioag, R.D., Hibino, H. Reaction of IR varieties to rice tungro complex under greenhouse and field conditions as detected by latex test.. *International Rice Research Newsletter*, 1985, 10(2):11.
- 1985 Cabauatan, P.Q., Hibino, H. Serological blockage of RTV complex transmission by the green leafhopper, *N. virescens*. *Philippine Phytopathology*, 1985, 21:10 - 11.
- 1985 Cabauatan, P.Q., Daquioag, R.D., Hibino, H. TKM 6- a source of resistance to rice tungro spherical virus. *Philippine Phytopathology*, 1985, 21:7.
- 1985 Cabauatan, P.Q., Bajet, N.B., Daquioag, R.D., Hibino, H. Concentration of rice tungro spherical virus in tungro-infected rice. *Philippine Phytopathology*, 1985, 21:12.

- 1984 Cabauatan, P.Q., Hibino, H. Incidence of rice tungro bacilliform and rice tungro spherical viruses on susceptible rice cultivars.. International Rice Research Notes, 1984, 9(3):13.
- 1984 Cabauatan, P.Q., Hibino, H. Detection of spherical and bacilliform virus particles in tungro-infected rice plants by leafhopper transmission. International Rice Research Newsletter, 1984, 9(1):18 - 19.
- 1984 Cabauatan, P.Q., Aguiro, V.M., Hibino, H. A new possible source of resistance to rice grassy stunt virus. International Rice Reserach Newsletter, 1984, 9(3):11 - 12.
- 1984 Cabauatan, P.Q., Hibino, H. Transmission of rice tungro bacilliform and spherical viruses by *Nephotettix virescens*. Philippine Phytopathology, 1984, 20:19.
- 1984 Cabauatan, P.Q., Hibino, H., Lapis D.B., Omura, T., Tsuchizaki, T. Rice grassy stunt virus 2: a new strain of rice grassy stunt in the Philippines. Philippine Phytopathology, 1984, 20:9.
- 1984 Cabauatan, P.Q., Daquioag, R.D., Hibino, H. Reaction of IR varieties to rice tungro virus complex under greenhouse and field conditions as detected by latex test. Philippine Phytopathology, 1984, 20:8.
- 1983 Cabauatan, P.Q., Hibino, H. An unknown disease of rice transmitted by the brown planthopper, *Nilaparvata lugens* (Stal.) in the Philippines. International Rice Research Newsletter, 1983, 8(2):12 -13.
- 1983 Cabauatan, P.Q., Hibino, H., Omura, T., Tsuchizaki, T. Purification and serological properties of rice grassy stunt virus 2.. International Rice Research Newsletter, 1983, 8(6):11 - 12.
- 1983 Cabauatan, P.Q., Hibino, H. Serological relations between rice grassy stunt and unknown disease of rice transmitted by *Nilaparvata lugens*(Stal.) in the Philippines. International Rice Research Institute, 1983, 8(2):12.
- 1982 Cabauatan, P.Q., Hibino, H. An unknown disease of rice transmitted by the brown planthopper, *Nilaparvata lugens* (Stal.) in the Philippines. Philippine Phytopathology, 1982, 8:13.
- 1980 Cabauatan, P.Q., Ling, K.C., Distaphorn, S., Anjaneyulu, A., Miah, S.A., Rao, P.S., John, V.T., Parejarearn, A., Nahar, M.A., Koesnang, S., Ghosh, A., Tiongco, E.R., Flores, Z.M. Report of the 1979 rice tungro collaborative project. IRRI, 1980:96.
- 1979 Cabauatan, P.Q., Ling, K.C. Acquisition of rice tungro virus through parafilm membrane by *Nephotettix virescens*. International Rice Research Newsletter, 1979, 4(4):12.
- 1979 Cabauatan, P.Q., Tiongco, E.R., Ling, K.C. Studies on host range of rice ragged stunt virus. Philippine Phytopathology, 1979, 15:105.
- 1979 Cabauatan, P.Q., Ling, K.C. Varietal resistance to rice ragged stunt virus and to its vector. Philippine Phytopathology, 1979, 15:105.
- 1978 Cabauatan, P.Q., Ling, K.C., Tiongco, E.R., Aguiro, V.M. Rice ragged stunt disease in the Philippines. IRRI Research Paper, 1978, 16:25.
- 1978 Cabauatan, P.Q., Ling, K.C., Tiongco, E.R., Aguiro, V.M. Rice ragged stunt disease in the Philippines. Philippine Phytopathology, 1978, 14:38 - 57.
- 1978 Cabauatan, P.Q., Ling, K.C. A study of vein swellings on rice plants infected with rice ragged stunt virus. International Rice Research Newsletter, 1978, 3(2):9 - 10.

- 1978 Cabauatan, P.Q., Ling, K.C., Tiongco, E.R., Aguiro, V.M. Rice ragged stunt disease in the Philippines-Symptomatology, transmission and causal agent. *Philippine Phytopathology*, 1978, 14:1 - 2.
- 1973 Cabauatan, P.Q., Karganilla, A.D. Bacterial leaf stripe of corn in the Philippines. *Philippine Agriculturist*, 1973, 58:105 - 114.

**Name** Gayvelline Calacal  
**Place of Birth** Manila  
**Date of Birth** August 26, 1972  
**Gender** Male  
**Civil Status** Single  
**Home Address** 42 Alfred St., Kingsville Subd., Antipolo City

**Organizational Affiliations**

University Researcher II, DNA Analysis Laboratory, NSRI, University of the Philippines, Diliman, Quezon City

**Education**

MS in Microbiology, University of the Philippines, Diliman, Quezon City 2003  
B.S. Medical Technology, University of Santo Tomas, Manila 1993

**Fields of Specialization**

Forensic DNA Analysis  
Population Genetics

**Employment**

University Researcher II, DNA Analysis Laboratory, NSRI, 2009 N-  
University Research Associate II, DNA Analysis Laboratory, NSRI, 1998 Ja-  
University Research Associate I, University of the Philippines, Diliman, Quezon City, 1997 D-

**Association Membership**

Member, Regional Asia DNA Profiling Group (REAFD)  
Member, Philippine Biosafety and Biosecurity Association, Inc. (PhBBA)  
Member, Philippine Society for Biochemistry and Molecular Biology (PSBMB)  
Member, Philippine Society for Microbiology (PMS)  
Member, Philippine Association of Medical Technologists (PAMET)

**Honors / Awards**

Research in Forensic DNA Analysis (Grant), Philippine Council for Advanced Science Technology Research and Development, Department of Science 2001-2003  
Y-chromosomal DNA variation of a representative Filipino population, Grant awarded by the Natural Sciences Research Institute, University of the Philippines 2000-2001  
Determination of the Minimum Probability of Paternity in a Filipino Population, 2000-2002  
Validation of DNA Typing Procedures and Assessment of Genetic Relationships among Filipinos, 1999-2009

2009 Best Poster Award "Y-STR DNA Analysis of Vaginal Swab from Child Sexual Assault Victims", Department of Chemistry Malaysia and Ministry of Science Technology and Innovation, Malaysia 2009

Best Poster Award (1st prize) "DNA Analysis Procedures for Human Remains Identification", Faculty of Medicine, Rattathibodi University, Thailand 2008

Best Poster Award (3rd prize) "Expansion of the Philippine Autosomal Short Tandem Repeat Reference D, Faculty of Medicine, Ramathibodi University, Thailand 2008

Best Poster Award "An efficient and cost-effective strategy for collecting, transporting and analyzing, Department of Chemistry Malaysia, Ministry of Science Technology and Innovation, Malaysia 2007

Finalist, Best Research Award for Young Scientist, Merck, Inc., University of the Philippines 2009

International Publication Awards "Allele frequencies for two pentanucleotide STR loci Penta D and Pe, University of the Philippines 2007

Gawad Chancellor Award for Pinakamahasay na Nilathalang Pananaliksik, University of the Philippines 2005

Gawad Chancellor Award for Outstanding REPS (Research Category), University of the Philippines 2007

## **Trainings**

International Symposium on Forensic Science and Environmental Health, Kuala Lumpur, Malaysia 2009 N 9-11

International Symposium of Forensic Science and Environmental Health, Kuala Lumpur, Malaysia 2009 N 11-12

4th Annual Asia-Pacific Biosafety Conference "Biosafety without Borders", Hyatt Hotel, Manila, Philippines 2009 Ap 29-30

4th Annual Asia-Pacific Biosafety Pre-Conference Workshop "Effective Biosafety Committee", Hyatt Hotel, Manila 2009 Ap 28

4th Annual Asia-Pacific Biosafety Pre-Conference "Biosecurity", Hyatt Hotel, Manila, Philippines 2009 Ap 27

Paternity Testing Workshop, Renaissance Hotel, Hollywood, USA 2008 O 2

Interpretations and Statistics for Y-STR Analysis, Pullman Hotels and Resorts, Bangkok, Thailand 2008 N 9

International DNA Analysis Symposium: Towards International Quality, Pullman Hotels and Resorts, Bangkok, Thailand 2008 N 10-11

Forensic DNA Analysis for Science, Technology and Society Lecture Series, College of Science Auditorium, University of the Philippines, Diliman, Quezon City 2008 Ja 4 /2008 My

Upgrading for Chemistry in Higher Education: Course 4: Molecular Biochemistry, University of the Philippine, Diliman, Quezon City 2007 O 23

National Chemistry Week, Scientist as SuperSleuths: A Symposium on Forensic, Ateneo De Manila University, Quezon City 2007 F 21

Incorporating DNA Evidence in the Resolution of Sexual Assault Cases in the

Philippines, University of the Philippines, Diliman Quezon City 2006 JI 4-6

9th Philippine Linguistics Congress, University of the Philippines, Diliman, Quezon Philippines 2006 Ja 25-26

Centennial Grand Scientific Symposium on Emergencies and Disasters: Pearls Century Primary Health P, Manila Hotel, Manila 2006 Ja 22-25

Seminar on Bioinformatics: A Key to Greater Possibilities, SEARCA, Los Banos Laguna 2006 D14

Biotechnology: Magic in the Realm of Reality, National Youth Science, Technology and Environment Summer Camp, Cebu City 2005 My 16-21

Forensic and Legal Applications of DNA Technology, NISMED Auditorium, University of the Philippines Diliman, Quezon City 2005 Mr 11-12 /17-18

Annual Scientific Meeting of the National Academy of Science and Technology (Philippines), Manila Hotel, Manila, Philippines 2005 JI 13-14

Mass Disasters: Human Identification by DNA typing. Emergencies and Disasters Centennial Grand Scien, Manila Hotel, Manila 2005 Ja 23

Annual Meeting of the Philippine Society for Molecular Biology and Biotechnology. "Biochemistry of, Ateneo de Manila University, Diliman Quezon City 2005 D 1-2

Laboratory Procedures: Essential Elements of Good Laboratory Practice, Integrated Chemist of the Philippines & Institute of Chemistry, NIA Quezon City 2005 Ag 8

INPALMS pre-congress Satellite Meeting with the theme Current Status of Forensic DNA Analysis in the, NSRI, UPD, Quezon City 2004 S

Use of DNA Evidence in Criminal Trials and Implications on Capital Appeal Cases, Great Eastern Hotel, (Organized by the Free Legal Assistance Group) 2004 N 26

Annual National Academy of Science and Technology Congress, Manila Hotel, Philippines 2004 JI 15

Training and Synthesis of Taq enzyme using bacterial clones, IRRI, Laguna 2004 JI

Laboratory Visit at the National Forensic Science and Technology Center, Largo, Florida, USA 2004 Je 14

33rd Annual Convention and Scientific Meeting of the Philippine Society for Microbiology Biotechnol, Heritage Hotel, Pasay City 2004 Ap 28-30

Symposium on Microbes in Food Health and Politics, Philippine Society for Microbiology, Pasig City 2003 S 27

Seminar on Biological and Chemical Safety, NSRI, University of the Philippines, Diliman Quezon City 2003 N 19

Seminar on ISO/IEC. The Standard for Laboratory Competence, UPD 2003 JI 29-30

Training on MS Office Applications, University of the Philippines, Diliman, Quezon City 2002 Mr

Technology Transfer Course, Gessellschaft filr Biotechnologie Forschung (GBF). Braunschweig, Germany 2001 O

International Management Training, Carlfnrnsberg, Gesselschaft V. (CDG). Cologne, Germany 2001 N

Introduction to Industrial Biotechnology (Lectures, Seminars, Biotech Companies Visits), Gessellschaft fUr Biotechnolo ie Forschun . OBF GBF, Rraunschwei ,German 2001 Ap

National Symposium on DNA Analysis in the Administration of Justice, Malcolm Theater University Of the Philippines, Diliman 2000 D

Training Course on Random Amplified Polymorphic, University of the Philippines, Diliman, Quezon City 1999 Ap 26-28

Training Course 011 "DNA-based Detection of Pathogens in, University of the Philippines, Diliman, Quezon City 1998 S 22-25

Training Course on Random Amplified Polymorphic DNA, University of the Philippines, Diliman, Quezon City 1998 O 12-13

Training Course on Forensic DNA Analysis for Royal Thai Police (NSRI), University of the Philippines, Diliman, uezon City 1998 Je 1-5

## **Researches**

### **Completed**

International Federation of Red Cross-Management of the Dead, Identification of mass disaster victims

## **Papers Presented**

Calacal, G. (2009 S 10). DNA Technology: A tool for human Identification, Science Lecture Forum, JPL of Freedom, Lyceum of the Philippines University, Manila.

Calacal, G.C. (2009 O 20-23). Repeat DNA Typing in Evaluating Sexual Abuse of Young Females, TWAS's 11th General Conference and 20th General Meeting, Durban, South Africa.

Sagum, M.S., Franco, S.A.E.L., Calacal, G., Salvador, J.M., Maiquilla, S.M.B., Otero, M.C.B., De Ungria, M.C.A. (2009 N 11-12). Case report: Formalin-fixed paraffin embedded tissues, which one is mine?, International Symposium of Forensic Science and Environmental Health, Kuala, Lumpur, Malaysia.

Calacal, G.C., Salvador, J.M., Franco, S.A.E.L., Maiquilla, S.M.B., Otero, M.C.B., Tabbada, K.A., de Ungria, M.C.A. (2009 N 10-11). Autosomal STR typing and mtDNA sequencing of embalmed remains using toe bones as DNA source, International Symposium of Forensic Science and Environmental Health, Kuala Lumpur, Malaysia.

Maiquilla, S.M.B., Salvador, J.M., Calacal, G.C., Franco, S.A.E.L., Sagum, M.S., Dalet, M.R.D., Delfin, F.C., Tabbada K.A, Perdigon, H.B., De Ungria, M.C.A. (2009 N 10-11). y-STR DNA Analysis of Vaginal Swab from Child Sexual Assault Victims, International Symposium of Forensic Science and Environmental Health, Kuala Lumpur, Malaysia.

Franco, S.A.E.L., Calacal, G.C., Salvador, J.M., Maiquilla, S.M.B., Otero, M.C.B., De Ungria, M.C.A. (2009 JI 13-15). Evaluation of Different DNA Extraction Procedures of Formalin Fixed Paraffin-embedded Tissue for Human Identification Purposes., 29th Annual Philippine-American Academy of Science and Engineering Meeting and Symposium, Ateneo de Manila University, Loyola Heights, Quezon City, Philippines.



Otero, M.C.B., Bautista, R.L.P., Calacal, G.C., De Ungria, M.C.A. (2008 O 24). Validation of Molecular Methods for DNA Analysis of Pork and Pork Products, 45th Philippine Society for Animal Science Annual Scientific Seminar and Convention, Philippine Carabao Center, National Headquarters and Gene Pool Science of Munoz Nueva Ecija, Philippines.

Calacal, G.C., Salvador, J.M., Franco, S.A.E.L., De Ungria, M.C.A. (2008 O 14-16). Comparison of DNA Extraction Procedures for Human Bone Identification, International Symposium on Human Identification, Renaissance Hotel, Hollywood, USA.

Calacal, G.C., Salvador, J.M., Franco, S.A.E.L., Tabbada, K.A., Otero, M.C.B., De Ungria, M.C.A. (2008 N 10-11). DNA Analysis Procedures for Human Remains Identification, International DNA Analysis Symposium 2008: Towards International Quality, Pullman Hotels and Resorts, Bangkok, Thailand.

Sagum, M.S., Calacal, G.C., Salvador, J.M., Maiquilla, S.M.B., Franco, S.A.E.L., Tabbada, K.A., Dalet, M.R.M., De Ungria, M.C.A. (2008 N 10-11). Casework applications of Y chromosomal short-tandem repeat (Y STR) Analysis, International DNA Analysis Symposium 2008: Towards International Quality, Pullman Hotels and Resorts, Bangkok, Thailand.

Salvador, J.M., Calacal, G.C., Maiquilla, S.M.B., Franco, S.A.E.L., Almazora, L., Bautista, R.L.P., Tabbada, K.A., De Ungria, M.C.A. (2008 N 10-11). Evaluation of Powerplex 16 Multiplex System for analysis of Mixed DNA Samples, International DNA Analysis Symposium 2008: Towards International Quality, Pullman Hotels and Resorts, Bangkok, Thailand.

Maiquilla, S.M.B., Salvador, J.M., Calacal, G.C., Delfin, F.C., Perdigon, H.B., Tabbada, K.A., De Ungria, M.C.A. (2008 N 10-11). Expansion of the Philippine Autosomal Short Tandem Repeat Reference Database for Forensic Applications Towards International Quality, International DNA Analysis Symposium 2008: Pullman Hotels and Resorts, Bangkok, Thailand.

Otero, M.C.B., Bautista, R.L.P., Calacal, G.C., De Ungria, M.C.A. (2008 N 10-11). Validation of Procedures for DNA Analysis of Pork and Other Meat Products, International DNA Analysis Symposium 2008: Towards International Quality, Pullman' Hotels and Resorts, Bangkok, Thailand.

Calacal, G.C., Salvador, J.M., Tabbada, K.A. Franco, S.A.E.L., De Ungria, M.C.A. (2008 JI 9-10). Validation of mitochondrial DNA typing of human bone samples for forensic application, 30th Annual Scientific Meeting of the National Academy of Science and Technology (Philippines), Manila Hotel, Manila, Philippines.

Dalet, M.R.M., Sagum, M.S., Calacal, G.C., Salvador, J.M., Tabbada, K.A., Villamor, L.P., Franco, S.A.E.L., Maiquilla, S.M.B., De Ungria, M.C.A. (2008 JI 9-10). Comparative study of the utility of ABO blood-typing vs DNA analysis for paternity testing, Annual Scientific Meeting of the National Academy of Science and Technology Manila Hotel, Manila, Philippines.

Calacal, GC, Salvador JM, Tabbada KA, Franco SAEL and De Ungria MCA (2008 JI 9-10). Validation of mitochondrial DNA typing of human bone samples for forensic application, 30th Annual Scientific Meeting of the National Academy of Science and Technology (Philippines). Manila Hotel, Manila, Philippines.

Dalet, M.R.M., Sagum, M.S., Calacal, G.C., Salvador, J.M., Tabbada, K.A., Villamor, L.P., Franco, S.A.E.L., Maiquilla, S.M.B., De Ungria, M.C.A. (2008 JI 9-10). Comparative study of the utility of ABO blood-typing vs DNA analysis for paternity testing, 30th Annual Scientific Meeting of the National Academy of

Science and Technology (Philippines) Manila Hotel, Manila, Philippines.

Delfin, F.C., De Ungria, M.C.A., Salvador, J.M., Calacal, G.C., Perdigon, H.B., Tabbada, K.A., Villamor, L.P., Halos, S.C., Xu, S., Jin, L., Gunnarsdottir, E., Kayser, M., Stoneking, M., Hurler, M.E. (2008 Je 5-8). Y-chromosome genetic affinities of nine Filipino ethno-linguistic groups, Annual Meeting of the Society for Molecular Biology and Evolution, Barcelona, Spain.

Delfin, F.C., Calacal, G.C., Tabbada, K.A., Salvador, J.M., Perdigon, H.B., Villamor, L.P., Gunnarsdottir, E., Stoneking, M., De Ungria, M.C.A. (2008 Ap 2-5). Autosomal short tandem repeat variation in Philippine populations, Joint 7th Human Genome Organization (HUGO)-Pacific Meeting and the Asia-Pacific Conference on Human Genetics, Shangri-La's Mactan Island Resort, Cebu, Philippines.

De Ungria, M.C.A., Calacal, G.C., Delfin, F.C., Lara, M.C., Magtanong, D., Fortun, R.D. (2008 Ap 2-5). Validation of Procedures in forensic DNA analysis of exhumed human remains for identification purposes, Joint 7th Human Genome Organization (HUGO)-Pacific Meeting and the 8th Asia-Pacific Conference on Human Genetics, Shangri-La Mactan Island Resort, Cebu, Philippines.

De Ungria, M.C.A., Sagum, M.S., Calacal, G.C., Delfin, F.C., Tabbada, K.A., DaJet, M.M., Salvador, J.M., Villamor, L.P., Perdigon, H.B., Tan, M.M., Halos, S.C. (2007 N 13-14). Impact of DNA evidence in the Philippine Criminal Justice System, General Meeting of The Academy of Sciences for the Developing World, Trieste, Italy.

Dalet, M.M., Calacal, G.C., Delfin, F.C., Sagum, M.S., Madrid, B.J., Tan, M., Salvador, J.M., Tabbada, K.A., Perdigon, H.B., Villamor, L.P., Halos, S.C., De Ungria, M.C.A. (2007 N 12-13). An efficient and cost-effective strategy for collecting, transporting and analyzing sexual assault DNA evidence, International DNA Symposium on Forensic DNA: Now and Beyond, Kuala Lumpur, Malaysia.

Saguin, M.S., Dalet, M.M., Calacal, G.C., Delfin, F.C., Salvador, J.M., Tabbada, K.A., Villamor, L.P., Perdigon, H.B., De Ungria, M.C.A. (2007 N 12-13). Paternity Testing at the UP-NSRI, International DNA Symposium on Forensic DNA: DNA Analysis Laboratory, Philippines Now and Beyond, Kuala Lumpur, Malaysia.

Perdigon, H.B., Tabbada, K.A., De Ungria, M.C.A., Salvador, J.M., Calacal, G.C., Delfin, F.C. (2007 N 12-13). Expansion of the Philippine Y-STR DNA haplotype database, International DNA Symposium on Forensic DNA: Now and beyond, Kuala Lumpur, Malaysia.

Calacal, G.C., Franco, S.A.E.L., Salvador, J.M., De Ungria, M.C.A. (2007 N 12-13). Validation of DNA extraction procedures from exhumed bone samples and application in forensic STR DNA typing, International DNA Symposium on Forensic DNA: Now and Beyond, Kuala Lumpur, Malaysia.

De Ungria, M.C.A., Sagum, M.S., Calacal, G.C., Delfin, F.C., Tabbada, K.A., Dalet, M.M., Salvador, J.M., Villamor, L.P., Perdigon, H., Tan, M.M., Halos, S.C. (2007 N 1-3). DNA evidence in Criminal Courts in the Philippines, International Conference on Testing Genes, Profiling DNA: Global Governance of Genomics: Hopes, Duties and Security, Brno, Czech Republic.

Tabbada, K.A., Tan, M.M., Villamor, L.P., Halos, S.C., Perdigon, H.B., Sagum, M.S., Salvador, J.M., De Ungria, M.C.A., Calacal, G.C., Dalet, M.M., Delfin, F.C. (2005 N 21-26). Establishing the Scientific Framework of Forensic DNA Technology in the Philippines, 3rd Meeting of the Third World Organization of Women Scientists, Bangalore, India.

Tan, M.M., Calacal, G.C., Delfin, F.C., Tabbada, K.A., Tan, M.P., Ferreon, J.C., Perdigon, H.B., Halos, S.C., De Ungria, M.C.A. (2003 S 5). Genetic comparison of the 15 regional populations in the Philippines, European-American School in Forensic Genetics.

De Ungria, M.C.A., Calacal, G.C., Tabbada, K.A., Halos, S.C., (1999 Ag 17-19). Extraction and PCR amplification of DNA from human bloodstains on different textiles and Philippine woods, 18th International Congress on Forensic Haematogenetics, San Francisco, USA.

Otero, M.C.B, Bautista, R.L.P., Calacal, G.C., De Ungria, M.C.A. (). Validation of Extraction Procedures for DNA analysis, Philippine Society for Biochemistry and Molecular Biology Annual Convention.

Calacal, G.V. (). Using the DNA Collection Kit for Paternity and Maternity Cases, 44th Annual Conference of the PAMET, SMX Convention Center, SM Mall of Asia, Pasay City.

## **Publications**

- 2008 De Ungria, M.C.A., Sagum, M.S., Calacal, G.C., Delfin, F.C., Tabbada, K.A., Dalet, M.R.M., Te, T.O. Diokno, J.L., Diokno, M.S.I., Asplen, C.A. Forensic DNA evidence and the death penalty in the Philippines. *Forensic Science International: Genetics*, 2008, 2(4):329-332.
- 2008 De Ungria, M.C.A., Calacal, G.C., Delfin, F.C., Tabbada, K.A., Salvador, J.M., Sagum, M.S., Dalet, M.R.M. Franco, S.A.E.L., Maiquilla, S.M.B., Perdigon, H.B., Villamor, L.P., Halos, S.C. Forensic DNA testing by the UP-NSRI DNA Analysis Laboratory. *Acta Medica Philippina*, 2008, 42(2):34-38.
- 2008 Calacal, G.C., Salvador, J.M., Franco, S.A.E.L., Tabbada, K.A., Sagum, M.S., Maiquilla, S.M.B., De Ungria, M.C.A. Case Report: DNA tests for maternity determination. *Acta Medica Philippina*, 2008, 42(2):39-42.
- 2007 Salvador, J.M., Calacal, G.C., Villamor, L.P., De Ungria, M.C.A. Allele frequencies for two pentanucleotide STR loci Penta D and Penta E in a Philippine population. *Legal Medicine*, 2007, 9(5):282-283.
- 2005 Calacal, G.C., Delfin, F.C., Tan, M.M., Roewer, L., Magtanong, D.L., Lara, M., Fortun, R. dR., De Ungria, M.C.A. Identification of exhumed remains of fire tragedy victims using I conventional methods and autosomally-STR DNA profiling. *American Journal of Forensic Pathology and Medicine*, 2005, 3:285-291..
- 2005 Calacal, G.C., De Ungria, M.C.A. Fungal DNA challenge in human' STR typing of bone samples. *Journal of Forensic Sciences*, 2005, 5(6):1-7.
- 2004 Perdigon, H.B., Calacal, G.C. Evaluation and in-house validation of five DNA extraction methods for PCR-based STR analysis of bloodstained denims. *Science Diliman*, 2004, 16(1):37-48.
- 2003 Calacal, G.C., De Ungria, M.C.A., Delfin, F.C., Lara, M., Magtanong, D.L., Fortun, R.dR. Identification of Two Fire Victims by Comparative Nuclear DNA TYping of Skeletal Remains and Stored Umbilical Tissues. *American Journal of Forensic Pathology and Medicine*, 2003, 24(2):1-5.
- 2003 Lessig R., Willuweit, S., Krawczak, M., Wu, F.C., Pu, C.E., Kim, W., Henke, L., Henke, 1, Miranda, J., Hidding M, Benecke, M., Schmitt, C., Magno, M., Calacal G, et al. Asian online Y -STR Haplotype Reference Database. *Legal Medicine (Tokyo)*, 2003, 5(Suppl I:S):160-3.

- 2003 Tan, M.M., Calacal, G.C., Delfin, F.C., Roewer, L., De Ungria, M.C.A. Allele Frequency Distribution of the Y-chromosomal STR haplotype of Filipinos in the NCR for Forensic Applications. *Philippine Journal of Science*, 2003, 132(2):95-101.
- 2002 Tabbada, K.A., Magno, M.M.F., Delfin, F.C., Calacal G., Tan, M.M.F., Chu-Ferreon, F.Y., Halos, S.C., De Ungria, M.C.A. Allele frequencies of eight Short Tandem Repeat. Loc] in three Visayas Regional Populations of the Philippines. *Journal of Forensic Science*, 2002, 47(6):1-2.
- 2002 De Ungria, M.C.A., Frani, A.M., Magno, M.M.F., Tabbada, K.A., Calacal, G.C., Delfin, F.C., Halos, S.C. Evaluating DNA tests of motherless cases using a Philippine genetic database. *Journal of Transfusion*, 2002, 42(7):954-958.
- 2002 Delfin, F.C., Tabbada, K.A., Frani, A.M., Halos, S.C., De Ungria, M.C.A., Magno, M.M.F., Calacal, G.C. Interpreting DNA evidence in disputed parentage cases. *The IBP Newsletter*, 2002:30-31.
- 2002 De Ungria, M.C.A., Frani, A.M., Tabbada, K.A., Magno, M.M.F., Calacal, G.C., Frani, A.M., Halos, S.C. The Philippine genetic database of of Short Tandem Repeats (STR) in DNA-based paternity testing. *Philippine Journal of Science*, 2002, 131(1):1-8.
- 2002 De Ungria, M.C.A., Calacal, G.C., Delfin, F.C., Tabbada, K.A., Magno, M.M.F. Resolving paternity disputes using a Philippine Genetic Database v. *Science Diliman*, 2002, 14(1):8-16.

**Name** Alvin R. Caparanga  
**Place of Birth** Buhi, Camarines Sur  
**Date of Birth** August 28, 1970  
**Gender** Male  
**Civil Status** Single  
**Home Address** Block 9 Lot 35 Whispering Palms Subd., Llano, Caloocan City

**Organizational Affiliations**

Subject Chair, Chemical Engineering, School of Chemical Engineering and Chemistry, Mapua Institute of Technology Intramuros, Manila

Subject Chair, Chemical Engineering, School of Chemical Engineering and Chemistry, Mapua Institute of Technology Intramuros, Manila

**Education**

Ph.D. in Environmental Engineering, Mapua Institute of Technology, Intramuros, Manila, Philippines 2008

Master of Science and Chemical Engineering, University of the Philippine Diliman, Quezon City 1996 Ap

BS in Chemical Engineering, Mapua Institute of Technology, Intramuros, Manila 1991 N

**Fields of Specialization**

Polymer recycling

Freeze concentration for environmental application

Chemical Thermodynamics/

Siosorption

Engineering

**Employment**

Production Leader / Supervisor, Polymerization Sec./PENTAX (Asahi Optical Cavite Phils. Corp., Gateway Bus. Park, G. Trias, Cavite, 1992 Je - 1994 Ja-

Subj. Chair, Chemical Engineering, School of Chemical Engineering and Chemistry Mapua Institute of Technology Intramuros, Manila, 2003 Ap - 2008 S-

Post-doctoral Research Associate, Thermodynamics Laboratory Department of Chemical Engineering, Chung Yuan Christian University, 2008 S - 2009 Ag-

Research Coordinator / Research Head, School of Chemical Engineering and Chemistry, Mapua Institute of Technology Intramuros, Manila, 2000 Ap - 2003 Mr-

**Association Membership**

Founding Member, Philippine Institute of Chemical Engineers - Metro Manila Academe Chapter

Board of director, Philippine Institute of Chemical Engineers - Metro Manila Academe Chapter

Auditor, Philippine Institute of Chemical Engineers - Metro Manila Academe Chapter

#### **Honors / Awards**

Outstanding Faculty of Chemical Engineering/ Chemistry, Mapua Institute of Technology 2002

Outstanding Young Scientist Award, NAST-DOST 2009

#### **Trainings**

Regional Symp. on Chemical Engineering: "Chemical Engineering at the Forefront of Global Challenge", Manila Hotel, Manila, Philippines 2009 Ja 22-23

1st Regional Conference on Chemical Engineering: Collaborative Research and Development in Chem.Eng, Century Park Hotel, Manila, Philippine 2009 D1-2

2008 Joint Taiwan/Korea/Japan Chemical Engineering Conference and 55th Annual Conference of Taiwan I, Tatung University, Taipei, Taiwan 2008 N 20-22

69th Annual Convention of Philippine Institute of Chemical Engineers, Cebu City 2008 F 27- Mr 1

#### **Researches**

##### **Completed**

Kinetics of absorption of carbon dioxide in AMP + MDEA + water

Equilibrium solubility of carbon dioxide in 2-amino-2-methyl-1-propanol:+ piperazine + water

Diffusion coefficients of aqueous ionic liquids from electrolytic conductivity data

Sorption of Cr(IV) on *Sargassum ilicifolium*-chitosan admix

A simple approach to predict molar heat capacity of ionic liquids using group additivity analysis

#### **Papers Presented**

Caparanga, A.R. (2009 Ja 22-23). Chemical Engineering at the Forefront of Global Challenge, Regional Symp. on Chemical Engineering, Manila Hotel, Manila, Philippines.

Caparanga, A.R. (2009 D 1-2). Collaborative Research and Development in Chemical Engineering, 1st Regional Conference on Chemical Engineering, Century Park Hotel, Manila, Philippines.

#### **Publications**

Cheng, M.-D., Caparanga, A.R., Soriano, A.N., Li, M.-H. Solubility of CO<sub>2</sub> in the solvent system (water + monoethanolamine + triethanolamine). *The Journal of Chemical Thermodynamics*, Corrected Proof, Available online 9 September 2009 (DOI: 10.1016/j.jct.2009.09.005)., In Press.

Chen, Y.-R., Caparanga, A.R., Soriano, A.N., Li, M.-H. Liquid heat capacity of the solvent system (piperazine + 2-amino-2-methyl-propanol + water). *The Journal of Chemical Thermodynamics*, Corrected Proof, Available online 13 November 2009 (DOI: 10.1016/j.jct.2009.11.006), In Press.

2009 Caparanga, A.R., Basilia, B.A., Dagbay, K.B., Salvacion, J.W.L. Factors affecting degradation of polyethylene terephthalate (PET) during pre-flotation

- conditioning. *Waste Management*, 2009 S, 29(9):2425-2428.
- 2009 Lagumbay, L.J.L.I., Agapito, A.M., Caparanga, A.R., Soriano, A.N., Li, M.-H. Diffusion coefficients of aqueous ionic liquids from electrolytic conductivity data. *Fluid Phase Equilibria*, 2009 O.
- 2009 Cheng, Y.-C., Hsu, C.H., Lan, K.H., Munoz, J.C., Caparanga, A.R. Desmearing of FR4 epoxy resin using NMP-based sweller. *Journal of Electronic Materials*, 2009 N, 38(11).
- 2009 Agapito, A.M., Lagumbay, L.J.L.I., Caparanga, A.R., Li, M.-H. A simple approach to predict molar heat capacity of ionic liquids using group additivity analysis. *Journal of the Taiwan Institute of Chemical Engineers*, 2009 Je.
- 2009 Yang, Z.-Y., Soriano, A.N., Caparanga, A.R., Li, M.-H. Equilibrium solubility of carbon dioxide in 2-amino-2-methyl-1-propanol+ piperazine + water. *The Journal of Chemical Thermodynamics*, 2009 Ag.
- 2009 Huang, Y.-M., Soriano, A.N., Caparanga, A.R., Li, M.-H. Kinetics of absorption of carbon dioxide in AMP + MDEA + water. *Chemical Engineering Science*, 2009 Ag.
- 2009 Wang, M.-H., Soriano, A.N., Caparanga, A.R., Li, M.-H. Mutual diffusion coefficients of aqueous solutions of some glycols. *Fluid Phase Equilibria*, 2009, 285(1-2):44-49..
- 2008 Bathan, R.S., Dagbay, K.B., Caparanga, A.R. Bioconversion of water hyacinth (*Eichhornia crassipes*) at its optimum age into bioethanol via separate hydrolysis and fermentation. *Philippine Institute of Chemical Engineers Journal*, 2008 O, 11(1):T-11.
- 2008 Lavapie, C.R.N., Anog, E.S., Caparanga, A.R., An enthalpy-concentration diagram for freeze-concentration of coconut water. *Philippine Institute of Chemical Engineers Journal*, 2008 O, 11(1):50-56.
- 2007 Caparanga, A.R., Rodriguez, B.I., Jr., Aguilar, F.M. The effects of Na<sup>+</sup> and nonionic surfactant on the biosorption of lead (II) using *Sargassum ilicifolium*. *Research Journal of Chemistry and Environment*, 2007 S, 11(3):82-86.
- Berdan, H.F., Caparanga, A.R., Dagbay, K.B. Sorption of Cr(IV) on *Sargassum ilicifolium* - chitosan admix. (manuscript in preparation), .

**Name** Yolina Tarranco Castaneto  
**Place of Birth** Alabat, Quezon  
**Date of Birth** February 16, 1961  
**Gender** Female  
**Civil Status** Married

**Organizational Affiliations**

Associate Professor V and Dean, College of Forestry, Nueva Viscaya State University, Don Mariano Perez Bayombong, 3700 Nueva Vizcaya

**Education**

Ph.D. in Forestry, University of the Philippines at Los Baños, Laguna 1997

**Fields of Specialization**

Forestry: SFI (Tree Improvement)  
Agriculture and Forestry

**Association Membership**

Member, National Research Council of the Philippines

**Honors / Awards**

Plaque of Recognition for 3rd Best Paper for Technology, CVARRD Regional Sectoral Integrated R&D/E Review for Forestry, Environment and Natural Resources 2003

Plaque of Recognition, Most Outstanding Teacher SY 2003-2004, NVSU Recognition Day 2004

Plaque of Recognition for 2nd Best Techno Board, CVARRD 15th Regional Symposium for Research and Developments Highlights for CY 2003 2003

Plaque of Recognition for 3rd Best Paper for Technology, CVARRD 15th Regional Symposium for Research and Developments Highlights for CY 2003 2003

Award of Recognition, 1st Best Paper for Technology, Sectoral Integrated R&D/E Review for Forestry, Environment and Natural Resources, CVARRD Echageu 2004

Award of Recognition, 3rd Best Paper for Technology, 16th Regional Symposium on R and D/E Highlights 2004

**Trainings**

NVSU Agency Inhouse Review, NVSU Mini-theater, Bayombong, Nueva Ecija 2005 JI 27-28

5th International Conference on Environment and Development, ISU, Cabagan, Isabela 2005 Ap 11-13

Regional Sectoral R and D Review for Forestry, Environment and Natural Resources, ISU CVARRD Complex- 2004 JI 27

CVARRD Regional Sectoral Integrated R & D Review for Forestry, Environment and Natural Resources, Claveria, Cagayan 2003 JI 15-16



12th International Conference in BIO-REFOR, Gadjah Mada University, Jakarta, Indonesia 2003 D 15-18

CVARRD 15th Regional Symposium for Research and Development Highlights for CY 2003, Carig, Tuguegarao City 2003 Ag 26-27

## **Researches**

### **Completed**

Rooting of molave (*Vitex parviflora* Juss.) stem cuttings using non-aerated hydroponics.

Fertilization of macropropagated ipil (*Insia bijuga* Colebr.) in the nursery.

Macropropagation of guijo (*Shorea guiso* (Blanco) Blume) using stem cuttings.

### **On-going**

Growth and survival of *Jatropha curcas* applied with different levels of vermicompost in the nursery

Project Leader. Establishment of arboretum for conservation of forest genetic resources. NVSU.

Study Leader. Macropropagation of ipil (*Intsia bijuga* Colebr.) using hydroponics. NVSU.

Project Leader. Nursery and field performance of two indigenous species *Saurauia subglabra* (Dagwey) and *Embellia philippinensis* (Dikay). NVSU.

Study Leader. Growth of *Dikay* (*Umbella philippinensis* A.D.C.) cuttings to various rooting media. NVSU.

Study Leader. Establishment of clonally propagated *Dipterocarp* plantation. NVSU.

Growth of pechay (*Brassica pekinensis*) applied with different levels of vermitea

Growth of pechay (*Brassica pekinensis*) applied with different amount of Vermicompost

Nursery trials on mahogany (*Swietenia macrophylla*) and *Gmelina* (*Gmelina arborea*) using mushroom spent mixed in potting media

Establishment of clonally propagated *dipterocarp* plantation

Growth of *dikay* (*Umbella philippinensis* A.D.C.) cuttings to various rooting media

Macropropagation of ipil (*Intsia bijuga* Colebr.) using hydroponics

Establishment of arboretum for conservation of forest genetic resources

Nursery and field performance of two indigenous species *Saurauia subglabra* (Dagwey) and *Embella philippinensis* (Dikay)

### **Ongoing**

Nursery trials of Mahogany (*Swietenia macrophylla*) and *Gmelina* (*Gmelina arborea*) using mushroom spent mixed in potting media.

## **Papers Presented**

Castaneto, Y.T. (2009 Ja 29-30). Vermicomposting : the NVSU Experience, 4th Cordillera Agriculture Congress ISCAF Campus Nayon, Lamut, Ifugao.

Castaneto, Y.T. (2005 Jl 27-28). Effects of different rooting media and levels of

indolebutyric acid on macropropagated guiso (Shoreaguiso), NVSU Agency Inhouse Review, NVSU Mini-theater, Bayombong, Nueva Ecija.

Castaneto, Y.T. (2005 JI 27-28). Rooting of molave (*Vitex parviflora* Juss.) stem cuttings using non-aerated hydroponics, NVSU Agency Inhouse Review, NVSU Mini-theater, Bayombong, Nueva Ecija .

Castaneto, Y.T. (2004 S 24). Clonal Forestry: Its Prospects and Potentials, Symposium on Forestry Development Technologies, NVSU Mini-theater,.

Castaneto, Y.T. (2004 JI 9). Preliminary trial on the macropropagation of dikay (*Embelia philippinensis* AD.C.) using stem cuttings, NVSU 1st Agency In-house Review. NVSU Mini-theater Bayombong, Nueva. Vizcaya.

Castaneto, Y.T. (2004 JI 27). Fertilization of macropropagated ipil (*Intsia bijuga* Colebr.) seedlings in the nursery, Regional Sectoral R and D Review for Forestry, Environment and Natural Resources ISU CVARRD Complex.

Castaneto, Y.T. (2004 JI 14-15). Growth of macropropagated ipil (*Intsia bijuga* Colebr.) seedlings in the nursery, NAST Annual Scientific Meeting, Manila.

Castaneto, Y.T. (2004 Ag). Production of improved planting stocks of ipil (*Intsia bijuga* Colebr.) using cuttings, 16th Regional Symposium on R and D Highlights, ISU De Venecia Hall Echague, Isabela.

Castaneto, Y.T. (2003 JI 15-16). Fertilization of macropropagated Philippine teak (*Tectona philippinensis* Benth. and Hook.), CVARRD Regional Sectoral Integrated R & D Review for Forestry, Environment and Natural Resources, Claveria, Cagayan.

Castaneto, Y.T. (2003 D 15-18). Upland restoration using fertilized macropropagated Philippine teak (*Tectona philippinensis* Benth and Hook.), 12th International Conference in BIO-REFOR, Gadjah Mada University, Jakarta, Indonesia.

Castaneto, Y.T. (2003 D 15-18). Fertilization of macropropagated ipil (*Intsia bijuga* Colebr.) seedlings in the nursery, 12th International Conference in BIO-REFOR, Gadjah Mada University, Jakarta, Indonesia.

Castaneto, Y.T. (2003 Ag 26-27). Mass propagation of Philippine teak (*Tectona philippinensis* Benth. and Hook.) through cuttings grown in soil applied with Biocore, CVARRD 15th Regional Symposium for Research and Development Highlights for CY 2003, Carig, Tuguegarao City.

Castaneto, T.Y. (2005 Ap 11-13). Production of improved planting stocks of ipil (*Intsiabijuga* Colebr.) for upland restoration and biodiversity conservation, 5th International Conference on Environment and Development, ISU, Cabagan, Isabela.

## **Publications**

- |      |  |
|------|--|
| 2007 | Castaneto, Y.T. Agricultural wastes as feed materials for African Night Crawler ( <i>Eudrilus eugeniae</i> ). NVSU Research Journal ISSN 1908- 3327, 2007, 14(1-2).            |
| 2007 | Castaneto, Y.T. Efficacy of different ratios of soil and vermicast as potting medium for <i>Jatropha curcas</i> Meristem. ISSN 1655-4884, 2007, 3:48-54.                       |
| 2006 | Castaneto, Y.T. Organic fertilizer application of Lubeg ( <i>Syzygium lineatum</i> (Roxb.) Merr. and Perry) in the nursery. NVSU Research Journal ISSN 1908-3327, 2006, 13(1). |

- 2005 Castaneto, Y.T. Rooting of narra (*Pterocarpus indicus* Willd.) cuttings collected from different locations on the mainstem. *Meristem*, 2005, 5:23-25.
- 2005 Castaneto, Y.T. Growth of molave (*Vitex parviflora* Juss.) seedling in decomposed agricultural waste. *Meristem*, 2005, 5:37-43.
- 2005 Castaneto, T.Y. Production of improved planting stocks of *Tectona philippinensis* and *Intsia bijuga* using stem cutting. *The International Forestry Review*, 2005, 7(5):65.
- 2004 Castaneto, Y.T. Rooting of ipil (*Intsia bijuga* Colebr.) cuttings from seedlings using indolebutyric acid (IBA). *Meristem*, Vol. 4:9-12 (2004), 2004, 4:9-12.
- 2004 Castaneto, Y.T. Growth of narra (*Pterocarpus indicus* Willd.) in mushroom spent enhanced media. *Meristem*, 2004, 4:19-25.
- 2003 Castaneto, Y.T. Growth of mahogany (*Swietenia macrophylla* King.) cuttings to applied mykovam and biocore. *NVSIT Graduate School Research Journal*, 2003, 5(1-4):1-9.
- 2003 Castaneto, Y.T. Response of Philippine teak (*Tectona philippinensis* Benth. and Hook.) cuttings to applied mykovam and biocore. *Philippine Journal of Science*, 2003, 132(2).
- 2003 Castaneto, Y.T. Preliminary trial on macropropagation of narra (*Pterocarpus indicus* Willd.) using stem cuttings from seedlings. *Meristem*, 2003, 3:6-11.
- 2003 Castaneto, Y.T. Initial trial on macropropagation of yakal (*Shorea astylosa* Foxw.) using alphanaphthalene acetic acid. *Meristem*, 2003, 3:16-18.
- 2003 Castaneto, Y.T. Response of Philippine teak (*Tectona philippinensis* Benth. and Hook.) Cuttings to Applied Mykovam and Biocore. *Philippine Journal of Science*, 2003, 132(2).
- 2003 Castaneto, Y.T. Growth of mahogany (*Swietenia macrophylla* King.) cuttings to applied Mykovam and Biocore. *NVSIT Graduate School Research Journal*, 2003, 5(1-4):1-9.
- 2002 Tarranco-Castaneto, Y.A. Biofertilizer for better growth of mahogany (*Swietenia macrophylla* King.) cuttings. *Harnessing Science and Technology to Meet the Global Challenge*, 2002:390-396.
- 2001 Castaneto, Y.T. Growth response of molave (*Vitex parviflora* Juss.) seedlings to biocore and mykovam. *Philippine Journal of Science*, 2001 D, 130(2):97-101.

**Name** Gil A. Cauyan  
**Date of Birth** 1952  
**Gender** Male  
**Civil Status** Single  
**Home Address** # 51- Magat Salamat St. Project 4, Quezon City

**Organizational Affiliations**

Associate Professor and Resident Researcher, College of Science and Research Center for the Natural Sciences, University of Santo Tomas, Espana, Manila

Researcher, Research Center for the Natural Sciences, UST, Manila

Associate Professor, Department of Chemistry, Research Center for Natural Sciences, UST, Manila

**Education**

Diplomate in Applied Parasitology and Entomology (DAPE), University of Malaya, Kuala Lumpur, Malaysia 1980

M.S. in Parasitology, University of the Philippines, Manila 1977

B.S., University of the Philippines, Manila 1974

**Fields of Specialization**

Biological Sciences

Animal Parasitology

Soil transmitted Helminthiasis in the Philippines

Anthelmintic Potential of Some Local Philippine Plants

Molecular Studies on Philippine Cryptosporidiasis and Amoebiasis.

**Employment**

Consultant (Filariasis), Dept. of Health, Manila, 2006-

Technical Consultant, Office of the Community Development on Intestinal Parasitism, -

**Association Membership**

Member, BIOTA

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

JICA Fellow, Obihiro University, Research Center for Protozoan Molecular Immunology, Hokkaido, Japan

JSPS Fellow, Nagasaki University, Research Center for Tropical Medicine, Nagasaki, Japan 1996-1997

JICA Fellow, Obihiro University, Research Center for Protozoan Molecular Immunology

Molecular Studies on Philippine Cryptosporidiasis and Amoebiasis,  
Soil transmitted Helminthiasis in the Philippines,  
Anthelmintic Potential of Some Local Philippine Plants,

### **Trainings**

National BIOTA (Biology Teachers Association of the Philippines) Convention and Workshop, Ateneo de Zamboanga, Zamboanga City 2006 Mar 5-8

S&T Undergraduate Research Colloquium, UST College of Science, Faculty of Pharmacy, and Faculty of Engineering, University of Santo Tomas, 2006

### **Researches**

#### **Completed**

A simplified no-centrifugation method of DNA extraction from various plant

In-vitro efficacy of the crude shoot and flower extract of *Vernonia cinerea* (Asteraceae) against the cow tick *Boophilus microplus*

Anthelmintic effect of garlic (*Allium sativum*) bulb extract on *Ascaris suum* eggs, larvae and adult worms

In-vitro efficacy of the leaves of *Vernonia cinerea* (Asteraceae) against the adult, eggs and larvae of the pinworm, *Enterobius vermicularis*

Determination of intestinal parasites common to man and its relation to the patterns of sanitary measures in three barangays in Maragondon, Cavite

Biochemical characterization of DNA: color reaction test for the presence of phosphate, deoxyribose, purines and pyrimidines

Anthelmintic effect of *Allium sativum* (Garlic) bulb extracts on *Ascaris suum* adult worms and eggs

Anthelmintic potential of the bark and flowers of *Vernonia cinerea* against *Fasciola hepatica* Linn Adult Worm

Nematocidal effect of the crude extract of *Vernonia cinerea* (Asteraceae) on adult *Toxocara canis*

Anthelmintic potential of *Vernonia* species against parasite round worms and protozoa

In-vivo Assessment of the anthelmintic property of *Coleus amboinicus* in chicken infected with *Ascaridia galli*

Biochemical characterization of DNA

#### **On-going**

In-vitro efficacy of the leaves of *Vernonia cinerea* (Asteraceae) against the adult lung fluke, *Paragonimus westermani*

In-vitro nematocidal activity of the crude leaf extract of *Vernonia cinerea* (Asteraceae) against the intestinal parasites of the aetas in Bamban, Tarlac, Philippines

### **Papers Presented**

Cauyan, G.A., Castro, M.P.D., Cruz, N.J., Sanding, P., Sison, P. (2006 N 15). In-vitro efficacy of the leaves of *Vernonia cinerea* (Asteraceae) against the adult, eggs and larvae of the pinworm, *Enterobius vermicularis*, S & T Research Colloquium

(Sponsored by UST Research Center for the Natural Sciences and College of Science, UST).

Aquino, K., Lugtu, G., Patigas, S., Visita, R., Cauyan, G.A. (2006 Mr 5-8). Protozoan ectoparasites of prwn *Penaeus monodon* in Flordeliza 918 Aquafarm, San Pascual, Hagonoy, Bulacan, Philippines, National Biology Teachers Association of the Philippines Convention and Workshop, Ateneo de Zamboanga, Zamboanga City.

Cauyan, G.A., Andaman, D.E., Mari, S., Sabado, A., Sahagun, C. (2006 Mr 5-8). Determination of intestinal parasites common to man and its relation to the patterns of sanitary measures) in three barangays in Maragondon, Cavite, National BIOTA (Biology Teachers Association of the Philippines) Convention and Workshop (Ateneo de Zamboanga, Zamboanga City).

Cauyan, G.A., Nario, K., Ramos, J., Simeon Pagdanganan, S., Janica, P. (2006). Efficacy of the crude tuber extract of *Raphanus sativus* against *Ascaris suum* adults and eggs, S&T Undergraduate Research Colloquium (UST College of Science, Faculty of Pharmacy, and Faculty of Engineering) University of Santo Tomas, Manila.

Cauyan, G.A., Amba, N., Bias, L., Asuncion, L., De Chaves, M. (2006). In-vitro efficacy of the crude shoot and flower extract of *Vernonia cinerea* (asteraceae) against the cow tick *Boophilus microplus*, National BIOTA (Biology Teachers Association of the Philippines).

#### **Publications**

- 2008 Cauyan, G.A., Alcid, M., Bersales, K., Agoncillo, L., Cabrera, C.C. Efficacy of *Vernonia cinerea* against the 4th Instar Larvae of *Aedes aegypti* (Dengue Mosquito) ISSN-0115-2106. *The Philippine Biota*, 2008, 41(1):20-30.
- 2007 Ramos, J.N.K., Pagdanganan, S., Pajarillo, J., Cauyan, G.A. Efficacy of the crude tuber extract of *Raphanus sativus* against *Ascaris suum* adults and eggs. UST Research Report (Biennial Report 2004-2006), 2007:238-239.
- 2007 Aquino, K., Lugtu, G., Patigas, S., Visita, R., Cauyan, G.A. Protozoan ectoparasites of prwn *Penaeus monodon* in Flordeliza 918 Aquafarm, San Pascual, Hagonoy, Bulacan, Philippines. UST Research Report (Biennial Report 2004-2006), 2007:232.
- 2006 Cauyan, G.A. et al. The brine shrimp bioassay. *The Philippine Biota*, 2006, 39(1):23-32.
- 2006 Cauyan, G.A. et al. Evaluation of the IgE reactivity on sera of parasite infected humans using *Ascaris lumbricoides* antigen. *Acta Manilana*, 2006, 54.
- 2006 Cauyan, G.A., Valmonte, G., Ramos, J., Alava, I., Timbol, A., Umerez, A., Barzaga, N. Evaluation of the IgE reactivity on sera of parasite infected humans using *Ascaris lumbricoides* antigen. *Acta Manilana*, 2006(ISSN-0065-).
- 2006 Antonio, R.K., Nicolas, G., Cauyan, G.A. Prevalence of marine ectoparasites of fishes found in the coastal waters of Barangay Sta Mercedes, Maragodon, Cavite. UST Research Report (Biennial Report 2004-2006), 2006:232.
- 2002 Cauyan, G.A., Omata, Y., Saito, A. Recognition of the Major Antigens of *Cryptosporidium parvum* in Man, Calves and Mouse. *Acta Manilana*, 2002:35-43.
- 2000 Cauyan, G.A., Omata, Y., Saito, A. *Cryptosporidium parvum*: Humoral Immune

- Response in Experimentally Infected Newborn Calves. *Acta Manilana*, 2000, 48:37-44.
- 1998 Cauyan, G.A., Fujimaki, Y., Aoki, Y. In Vitro Efficacy of the Sesquiterpene Lactones from *Vernonia amygdalina* Del. against *Brugia pahangi* Adult Worm. *Acta Manilana*, 1998, 46:37-42.
- 1994 Cauyan, G.A., Usero, M.L. *Ascaris lumbricoides* Ova in Philippine Vegetables Commonly Eaten Raw. *Acta Manilana*, 1994, 42:43-48.
- 1990 Cauyan, G.A., Camaya, E.N. Intestinal Parasitism in Ten Lakeside Fishing Villages of Laguna de Bay, Philippines. *U.P. Los Banos Research Journal*, 1990, 1:35-44.
- Cauyan, G.A. et al. In vitro-efficacy of the sesquiterpene lactone vermodalin from *Vernonia amygdalina* (Del.) against *Brugia pahangi* adult worm. *Acta Manilana*, , 46:37-42.

**Name** Gina R. Dedeles  
**Gender** Female  
**Civil Status** Single

**Organizational Affiliations**

Assistant Professor III, Department of Biological Sciences, College of Science,  
University of Santo Tomas, España, Manila 1015

Business Manager, Philippine Society for Microbiology, Inc (PSM), 2009-2010,

Board Member, Philippine Network of Microbial Culture Collections, Inc (PNMCC),  
2007-2009,

**Fields of Specialization**

Chemistry

Biological Sciences

Environmental Sciences

**Association Membership**

Member, Philippine Society of Lactic Acid Bacteria Inc (PSLAB)

Member, Natural Products Society of the Philippines Inc (NPSP)

Associate Member, National Research Council of the Philippines (NRCP)

Member, Biology Teachers Association (BIOTA) Philippines

**Honors / Awards**

3rd Prize, Poster Exhibit Competition, Science Week, College of Science, UST  
2004 F 9-13

Monbusho Scholarship Program, Japanese Government Ministry of Education,  
Japan 1997-2001

Short Term Research Grant awarded by JASSO, Hokkaido University, Sapporo,  
Japan 2007 N-2008 F

Travel Grant for Paper Presentation, Baltimore, Maryland, USA, Commission on  
Higher Education (CHED) 2007 My 7-10

Short-term Scholarship Training, National Science Council, Taiwan 2009 JI 5-11

Short-term Research Grant (Hokkaido University, Sapporo, Japan), Japanese  
Student Services Organization (JASSO) 2007 N- 2008 F

1st Prize, Microbiology Poster Exhibit Competition, Science Week, College of  
Science, UST 2007 F 5-9

Best Workshop Presenter, 41st National BIOTA Convention and Scientific  
Sessions, Zamboanga City 2006 Ap 6-8

**Trainings**

8th Philippine Society for Microbiology Annual Convention and Scientific Meeting,  
Hyatt Hotel and Casino, Manila 2009 My 14-15



Comparative Biogeography of Key Freshwater and Marine Species Between Taiwan and Philippines, National Science Council, Taiwan 2009 JI 5-11

MicroWeek 2008, Blas Hall, College of Science, UST, Manila (UST Microbiology Society) 2008 D 10

9th International In-Situ and On-site Bioremediation Symposium, Battelle, Baltimore, Maryland, USA 2007 My 7-10

International Seminar-Workshop on Integrated Water Resources Management (Sponsored by DAAD and SURED, University of the Philippines, Diliman, Quezon City 2006

Purification and Characterization of Protoporphyrinase from *Pseudomonas azelaica* YA-1 Biotechnology, JSPS-NRCT/DOST/LIPI/VCC Joint Seminar 2001

Biotechnology for Sustainable Utilization of Biological Resources in the Tropics JSPS-NRCT/DOST/LIP, Bangkok, Thailand 2001

8th Joint Saudi-Japanese Lecture Series on Biotechnology, King Abdulaziz City for Science and Technology, Riyadh, Saudi Arabia 2000

## **Researches**

### **Completed**

The Abilities of White-Rot Fungi, *Phanerochaete chrysosporium* and *Coriolus versicolor* to Decolorize Distillery Slops

Isolation, Characterization and Identification of Toluene Degrading Bacteria from Gasoline Contaminated Soil and Water

### **Ongoing**

Molecular Cloning of Manganese Peroxidase from *Ganoderma* Species for the In Situ Treatment of Distillery Slops

Biosorption of Lead using *Lyngbya* Species Isolated from Pond Water

Comparison of Abilities of White-Rot Fungi to Decolourize Distillery Slops

Identification and Characterization of NIPPS-Degrading Microorganisms from Oil-Contaminated Soils

## **Papers Presented**

Dedeles, G.R. (2009 Mr 11). Color Reduction of Molasses Wastewater by *Ganoderma lucidum*, 76th NRCP General Membership Assembly, Polkabal-Rigodon Hall, Manila Hotel Organized by the National Research Council of the Philippines (NRCP) .

Dedeles, G., Cordero, P., Eugenio, C., Dabu, I., Entico, J. (2007 My 7-10). Decolorizing Ability of Local Fungal Isolates on Distillery Slops, 9th International In-Situ and On-Site Bioremediation Symposium, Battelle, Baltimore, Maryland, USA.

Dedeles, G., Cordero, P., Eugenio, C., I. Dabu, I., Entico, J. (2007 My 7-10). Decolorizing ability of local fungal isolates on distillery slops, 9th International In-Situ and On-Site Bioremediation Symposium, Baltimore, Maryland.

Dedeles, Gina R. (2007 Je 29). Application of Biology/Marine Biology in Pharmacy Research, CEU Pharmacy Research Symposium, Centro Escolar University, School of Pharmacy and Junior Philippine Pharmaceutical Association.

Dedeles, Gina R. (2007 F 20). Color Reduction of Distillery Slops by Crude

Manganese Peroxidase Extract from a Locally Isolated Fungus, *Ganoderma* Species, 2007 Science and Technology Undergraduate Research Symposium, Thomas Aquinas Research Complex, UST, Espana, Manila.

Dedeles, G., Barcarse, F., Cabrera, C., Go, F., Lua, C. and Reyes, J.C. (2006). The Abilities of White-Rot Fungi, *Phanerochaete chrysosporium* and *Coriolus versicolor* to Decolorize Distillery Slops, International Seminar-Workshop on Integrated Water Resources Management. Sponsored by German Academic Exchange Service (DAAD), German Alumni Water Network, SURED Alumni Network and eSURED-Philippines. University of the Philippines, Diliman, Quezon City..

Dedeles, G.R. (2005 F 7-11). The Antimicrobial Properties of Different Types of Dental Products against *Streptococcus* mutants, College of Science, UST, Manila.

Dedeles, G.R. (2005 Ap 9-11). Isolation, Characterization and Identification of Toluene Degrading Bacteria from Gasoline Contaminated Soil and Water, 40th National BIOTA Convention and Scientific Sessions, La Salle Greenhills, Science Week, UST Manila.

Dedeles, G., Abe, A., Saito, K., Asano, K., Saitoh, K., Yokota, A., Tomita, F. (2001). Purification and Characterization of Protoporphyrinase from *Pseudomonas azelaica* YA-1 Biotechnology for Sustainable Utilization of Biological Resources in the Tropics, JSPS-NRCT/DOST/LIPI/VCC Joint Seminar, Bangkok, Thailand.

Tomita, F., Abe, A., Dedeles, G., Yokokawa, Y., Yokota, A., Asano, K. (2000). Microbial Removal of Quinoline and Metallo-porphyrins from Crude Oil and Petroleum Products , 8th Joint Saudi-Japanese Lecture Series on Biotechnology, King Abdulaziz City for Science and Technology, Riyadh, Saudi Arabia.

Dedeles, G. R. (2009 My 14-15). Degradation of Pyrene, Fluorene and Fluoranthene: The Role of Lignin Peroxidase and Manganese Peroxidase from *Ganoderma lucidum* , 38th Philippine Society for Microbiology Annual Convention and Scientific Meeting Hyatt Hotel and Casino, Manila Sponsored by Philippine Society for Microbiology, Inc. (PSM) .

Dedeles, G.R. (2008 D 10). Cleaning the Environment: Applying Microorganisms as Bioremediation Agents, MicroWeek 2008, Blas Hall, College of Science, UST, Manila (UST Microbiology Society) .

## Publications

- 2010 Dedeles, G., Cordero, P., M. Tanaka, M., Asano, K. Color reduction of molasses-based distillery slop by crude manganese peroxidase from *Ganoderma lucidum* . *Asia Life Sciences*, 2010 Mr, 19(2):215-227.
- 2009 Dedeles, G.R., Baldueza V.D., et al. Degradation of pyrene, fluorene and flouranthene: The role of lignin peroxidase ng mnganese peroxidase fro *Ganoderna lucidum*. *Trans.National Academy of Science and Technology (Philippines)*, 2009, 31(1):p.58.
- 2007 Dedeles, G., Cordero, P., Eugenio, C., Dabu, I., Entico, J. Decolorizing Ability of Local Fungal Isolates on Distillery Slops. *Proceedings of the 9th International In Situ and On-Site Bioremediation Symposium, Baltimore, Maryland, 2007 My 7-10.*
- 2006 Dedeles, G., Benedicto, P., Go, M., Marquez, D., Sonico, D., Velasco, J. Isolation, Characterization and Identification of Toluene Degrading Bacteria from Gasoline Contaminated Soil and Water. *Philippine BIOTA Journal*, 2006, 39(1):6-14.

- 2001 Dedeles, G., Abe, A., Saito, K., Asano, K., Saitoh, K., Yokota, A., Tomita, F. Purification and Characterization of Protoporphyrinase from *Pseudomonas azelaica* YA-1. *Biotechnology for Sustainable Utilization of Biological Resources in the Tropics* (JSPS-NRCT/DOST/LIPI/VCC Joint Seminar), 2001, 15 pp..
- 2000 Dedeles, G., Abe, A., Saito, K., Asano, K., Saito, K., Yokota, A., Tomita, F. Microbial Demetallization of Crude Oil: Nickel Protoporphyrin Disodium as Model Organo-Metallic Substrate. *Journal of Bioscience and Bioengineering*, 2000, 90(5):515-521.
- 1998 Dedeles, G., Abe, A., Sumita, Y., Saito, K., Saito, K., Yokota, A., Tomita, F. Microbial Degradation of Nickel Protoporphyrin Disodium. *Annual Report of IC-Biotech*, 1998, 21:899-904.

**Name** Thomas Edison E. Dela Cruz  
**Place of Birth** Palayan City, Nueva Ecija  
**Date of Birth** July 28, 1975  
**Gender** Male  
**Civil Status** Single  
**Home Address** 6 Mayaman St., UP Village, Quezon City 1101

**Organizational Affiliations**

Professor 1, Dept. of Biological Sciences, College of Science, UST, Manila  
Associate Professorial Lecturer 2, The Graduate School , University of Santo Tomas, Espana 1015, Manila, Philippines  
Associate Professor 2, Dept. of Biological Science, UST, Manila

**Education**

Non-degree Certificate: Online Teaching and Learning, University of the Philippines Open University, Laguna, Philippines 2010  
Doctor of Natural Sciences (Dr. Rer.Nat.), University of Braunschweig,, Braunschweig, Germany 2006  
Diploma in Science Teaching major in Biology, University of the Philippines Open University, Laguna, Philippines 2003  
M.Sc. in Biological Sciences, University of Santo Tomas, España, Manila 1999  
B.S. in Microbiology, University of Santo Tmas, Manila, Philippines 1996

**Fields of Specialization**

Fungal Systematics  
Biological Sciences  
Ecophysiology  
Mycology

**Employment**

Associate Professorial Lecturer I, The Graduate School, University of Santo Tomas, Manila, Philippines, 2006 N-2009 My-  
Assistant Professor 2, Dept. of Biological Science, College of Science, University of Santo Tomas, Manila, 2002 Je-2006 O-  
Instructor 4, Dept. of Biological Science, College of Science, UST, Manila, 1999 N-2002 My-  
Instructor 1, Dept. of Biological Sciences, College of Science, UST, Manila, 1998 Je-1999 O-

**Association Membership**

Regular Member, National Research Council of the Philippines  
Registered Microbiologist, Philippine Academy of Microbiology (PAM)

Diplomate in Microbiology, Philippine Academy of Microbiology (PAM)  
Specialist Microbiologist, Philippine Academy of Microbiology (PAM)  
International Member, Mycological Society of Japan  
Founding Member, International Society for Fungal Conservation (ISFC)  
Regular Member, American Society for Microbiology  
Student Member, British Mycological Society (BMS)  
Regular Member, British Mycological Society (BMS)  
Associate Member, National Research Council of the Philippines

### **Honors / Awards**

Outstanding Young Scientist Award, NAST-DOST 2012

Best Poster Presentation, Philippine Network of Microbial Culture Collection, Inc., 9th Annual Symposium and General Assembly, De la Salle University, Manila 2009 N 21

Best Poster Presentation (City U - Molitoris Scholarship for Marine Mycology), 11th International Marine and Freshwater Mycology Symposium, Taichung, Taiwan 2009 N 15-19

Recipient, Martin - Baker Research Award, Mycological Society of America, USA 2009 Ju

Best Poster Award, Association of Systematic Biologists of the Philippines, 27th Annual Scientific Conference, National Museum, Manila 2009 My 29-30

Best Paper Presentation, 11th Mycological Society of the Philippines (MSP) Annual Scientific Meeting and Symposium 2009 Ap 29

Best Poster Award (3rd Prize, Cluster III), General Membership Assembly of the National Research Council of the Philippines (NRCP) 2009 Mr 11

Best Research Award - Science and Technology, Gawad San Alberto Magno awarded in UST 2009 F 27

Best Poster Presentation (City U - Molitoris Prize for Marine Mycology), 9th International Marine and Fresh water Mycology Symposium, Chiang Mai, Thailand 2004 N 14-19

Best Paper Presentation, Mycological Society of the Philippines (MSP) Annual Scientific Meeting

Best Paper Presentation (Professional Level), Philippine Society for Microbiology (PSM) Annual

Best Paper Presentation, 12th Mycological Society of the Philippines (MSP) Annual Scientific Meeting

Best Poster Award (2nd Place), 12th Mycological Society of the Philippines (MSP) Annual Scientific Meeting, Philippine Network of M

Best Poster Presentation, Philippine Network of Microbial Culture Collection. Inc., (PNMCC)

Best Poster Award, Association of Systematic Biologists of the Philippines (ASBP) Annual Scientific Meeting

International Publication Award 2006-2008, UST 2010 JI 21

Outstanding Researcher (Natatanging Mananaliksik) - Science and Technology (Gawad San Alberto Magno), UST 2010 Mr 10

University of Santo Tomas Silver Series 2000-2002, LIST 2003 F 27

### **Trainings**

A Survey of Cellular slime Molds (dictyostelids) in Lubang Island, Occidental Mindoro, Philippines,, Hotel Villa Rica, Recife, Brazil 2011 S 09-16

Asian Mycology Congress 2011 & 12th International Marine and Freshwater Mycology Symposium, University of Incheon Convention Center, Incheon, South Korea 2011 Ag 7-11

Diversity and biobleaching potential of folliicolous fungi from decaying leaves of Philippine mangro, University of Incheon Convention Center, Incheon, South Korea 2011 Ag 7-11

SM-Visayas Regional Chapter Annual Convention, Punta Villa Hotel and Resort, Iloilo City 2009 O 22-23

Marine Fungi: Their Diversity and Unseen Potential dela Cruz., T.E.E., PSM-Visayas Regional Chapter Annual Convention, Punta Villa Hotel and Resort, Iloilo City 2009 O 22-23

Asian Mycology Congress 2009 & 11th International Marine and Freshwater Mycology Symposium, National Museum of Natural Science, Taichung, Taiwan 2009 N 15-19

27th Association of Systematic Biologists of the Philippines Annual Scientific Conference , National Museum, Manila 2009 M 29-30

1st ASIAHORCs Symposium on Biodiversity, Nagoya University, Nagoya, Aichi, Japan 2009 JI 18-20

14th Annual Convention, Philippine Sino-Center for Agricultural Technology, Munoz City, Philippines 2009 D 03-04

11th Mycological Society of the Philippines (MSP) Annual Scientific Meeting and Symposium, Cavite State University 2009 A 29

### **Researches**

#### **Completed**

Dye decolorization activities by locally isolated marine fungi from Manila Bay

Isolation and characterization of marine yeasts from selected substrates collected in Calatagan, Batangas

Biosorption of mercury by *Oendryphiel/a salina* from Mediterranean Sea. Acta Manilana

Corticulous myxomycetes associated with *Samanea saman* collected from different sites in Luzon island,

#### **On-going**

Biodiversity, systematics, biological activities and bioremediation potential of marine mangrove fungi collected from Luzon Island, Philippines

Phylogenetic relationship, biological activities and biosorption potential of fruticose

lichens collected from selected national parks in the Philippines

Biodiversity, systematics and biological activities of marine fungi associated with seagrasses and seaweeds collected from Luzon Island, Philippines

Biodiversity, population distribution and systematics of plasmodial and cellular myxomycetes (slime molds) from selected terrestrial montane forest ecosystems and geographically isolated island sites in Luzon Island, Philippines

### **Papers Presented**

dela Cruz, T.E.E. (2011 N 10). Mangrove fungal leaf endophytes: sources of bioactive secondary metabolites and extracellular enzymes, University of Arkansas, Fayetteville, Arkansas, USA.

dela Cruz, T.E.E. (2011 N 10). Exploring Philippine Lichens: a Closer Look at their Biodiversity, Department of Biological Sciences Seminar.

dela Cruz, T.E.E. (2009 O 28). Workshop on Exploring our Microbes: Discoveries and Application - a lecture and hands-on training for high school students Techniques, Renaissance School of Science and Technology, Morong, Rizal.

dela Cruz, T.E.E. (2009 O 22-23). Marine Fungi: Their Diversity and Unseen Potential, PSM-Visayas Regional Chapter Annual Convention, Punta Villa Hotel and Resort, Iloilo City.

Cruz, R.J., de Jesus, E.E., Puylong, R.G., Vasquez, R.D., Laurente, O.S., Gallardo, E.J.B., Arriola, A.H., Espiritu, R.R.L., Gulpeo, P.C.R., dela Cruz, T.E.E. (2009 N 29). Diversity and taxonomy of plasmodial myxomycetes (true slime molds) from Subic Bay Forest Reserve, Zambales, Philippine Network of Microbial Culture Collections 9th Annual Symposium and General Assembly, De La Salle University, Manila.

dela Cruz, T.E.E. (2009 N 15-19). Mining our Seas: Strategies for isolating biologically active marine fungi, Asian Mycology Congress 2009 & 11th International Marine and Freshwater Mycology Symposium, National Museum of Natural Science, Taichung, Taiwan.

Torres, J.M.O., Cardenas., C.V., Guzman, A.P.A., Moron, L.S., dela Cruz, T.E.E. (2009 N 15-19). Bioremediation of textile dyes by marine fungi isolated from the Philippines, Asian Mycology Congress 2009 & 11th International Marine and Freshwater Mycology Symposium, National Museum of Natural Science, Taichung, Taiwan.

Ramirez, C.S.P., Torres, J.M.O., dela Cruz, T.E.E. (2009 N 15-19). Molecular identification of marine fungi isolated from seawater, seagrasses, seaweeds and sediments in Manila and Calatagan Bays, Philippines, Asian Mycology Congress 2009 & 11th International Marine and Freshwater Mycology Symposium, National Museum of Natural Science, Taichung, Taiwan.

Ching., M.C., Dagamac., N.H.A., Ramirez., C.S.P., Santiago., K.A.A., Torres., J.M.O., Yap., J.M., dela Cruz., T.E.E. (2009 N 15-19). Taxonomy of dictyostelids (cellular slime molds) from Subic Forest Reserve, Zambales., Asian Mycology Congress 2009 & 11th International Marine and Freshwater Mycology Symposium, National Museum of Natural Science, Taichung, Taiwan.,.

Borricano, J.N.C., Canal, J.N., Marcelo, D.N.A., Perez, M.C.P., Santiago, K.A.A., dela Cruz, T.E. (2009 Mr 11). Antibacterial activities and secondary metabolic profiles of fruticose lichens collected from different sites in Luzon Island,

Philippines, 76th General Membership Assembly of the National Research Council of the Philippines, Manila Hotel, Manila.

Yulo, P.R.J., dela Cruz, T.E.E. (2009 M 29-30). Diversity and taxonomy of cellular slime molds from Mt. Arayat National Park, 27th Association of Systematic Biologists of the Philippines Annual Scientific Conference, National Museum, Manila.

dela Cruz, T.E.E. (2009 JI 18-20). Biodiversity and Distribution of Myxomycetes (Cellular & Plasmodial Slime Molds) in selected highlands and islands of Luzon Island, Philippines, 1st ASIAHORCs Symposium on Biodiversity.

dela Cruz, T.E.E. (2009 D 03-04). Marine Fungi, endophytes and fruticose lichens: untapped sources of biologically active and potentially novel secondary metabolites, 14th Annual Convention, Philippine Sino-Center for Agricultural Technology, Munoz City, Philippines.

Atayde, R.J., Bumatay, J.J., Magpayo, M.J., Mamba, M.M., Sebastian, B.H., dela Cruz, T.E.E. (2009 D 03-04). Diversity and taxonomy of plasmodial slime molds (myxomycetes) in Biak-na-Bato National Park, Bulacan, 14th Annual Convention Natural Products Society of the Philippines (NPSP), Philippine Sino-Center for Agricultural Technology, Munoz City, Philippines.

Grey, G.N.A., Ramos, K.M.A., Ramos, M.L., Raposon, M.B., Raymundo, C.O., dela Cruz, T.E.E. (2009 D 03-04). Antifungal activities of fruticose lichens from selected sites in Luzon and Visayas, 14th Annual Convention Natural Products Society of the Philippines (NPSP), Philippine Sino-Center for Agricultural Technology, Munoz City, Philippines.

dela Cruz, T.E.E. (2009 A 29). Marine-derived fungi from *Kappaphycus alvarezii* and *K. striatum*: Potential causative agents of ice-ice disease in farmed seaweeds, 11th Mycological Society of the Philippines (MSP) Annual Scientific Meeting and Symposium, Cavite State University.

## Publications

- Dela Cruz, T.E.E., Santiago, K.A.A., Ramirez, C.S.P., Torres, J.M.O., Dagamac, N.H.A., Yap, J., Ching, M., Yulo, P.R.J. Occurrence of cellular slime molds (dictyostelids) in Subic Bay Natural Forest Reserve, Zambales, Philippines. *Philippine Journal of Systematic Biology*, In press.
- 2011 dela Cruz, T.E.E., Pangilinan, M.V. Litao, R.A. Printed identification key or web-based identification guide; an effective tool for species identification. *Journal of Microbiology & Biology Education/American Society for Microbiology Conference for Undergraduate Educators (ASMCUE) Abstracts*, 2011 My, 12(1):113.
- 2011 dela Cruz, T.E., Macabago, S.A. In Vitro Culture and Enzyme Production of Plasmodial Myxomycetes (Slime molds) Collected from Lubang Island, Occidental Mindoro. *Transactions of the National Academy of Science and Technology (Abstract of Papers)*, 2011 JL13-14, 33(1).
- 2011 dela Cruz, T.E. AntiBacterial Activities and Diversity of Marine Fungi Associated with Seagrasses Collected from Lubang Island, Occidental Mindoro. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2011 JI 13-14, 33(1).
- 2011 Macabago, S.A.B., dela Cruz, T.E.E. Surveying the myxomycetes of Lubang Island, Philippines. *Inoculum - Supplement to Mycologia*, 2011 F, 62(1):5-6.



- 2011 Dagamac, N.H.A., dela Cruz, T.E.E., Occurrence, distribution and diversity of mycomycetes (plasmodial slime molds) along two transects in Mt Arayat , National Park, Pampanga, Philippines. *Mycology: International Journal of Fungal Biology*, 2011.
- 2011 Yulo, P.R.J., dela Cruz, T.E.E. Cellular slime molds isolated from Lubang Island, Occidental Mindoro, Philippines. *Mycosphere*, 2011, 2(5):565-573.
- 2011 Dagamac, N.H.A., Pangilinan, M.V.B., Stephenson, S.L., dela Cruz, T.E.E., List of species collected and interactive database of myxomycetes (plasmodial slime molds) for Mt. Arayat National Park, Pampanga, Philippines. *Mycosphere*, 2011, 2(4):449-455.
- 2011 Torres, J.M.O., Cardenas, C.V., Moron, L.S., Guzman, A.P.A., dela Cruz, T.E.E. Dye decolorization activities of marine-derived fungi isolated from Manila bay and Calatagan Bay, Philippines. *Journal of Philippines Science*, 2011, 140(2):133-143.
- 2011 Bungihan, M.E., Tan, M.A., Kogure, N., Kitajirna M. dela Cruz. TEE. Takayama H, Nonato MG. A new isocoumarin compound from an endophytic fungus *Guignardia* sp. isolated from *Pandanus amaryllifolius* Roxb.. *ACGC Chemical Research Communications* 24, 2011.
- 2010 Macabago, S.A.B., Dagamac, N.H.A., dela Cruz, T.E.E. Diversity and distribution of plasmodial myxomycetes (Slime molds) from La Mesa Ecopark, Quezon City, Philippines. *Biotropia*, 2010, 17(2):51-61.
- 2010 Dagamac, N.H.A., Leontyev, D., dela Cruz, T.E.E. Corticolous myxomycetes associated with *Samanea saman* collected from different sites in Luzon island, Philippines. *Philippine BIOTA*, 2010(43):2-15.
- 2010 Solis, M.J., Draeger, S., dela Cruz, T.E.E. Marine-derived fungi from *Kappaphycus alvarezii* and *K. striatum* as potential causative agents of ice-ice disease in farmed seaweeds. *Botanica Marina*, 2010, 53:587-594.
- 2010 Ramirez, C.S., Connel, G., Hernandez, S.M., Ruiz, H., Sabit, M.B., dela Cruz, T.E.E. Characterization of marine yeasts isolated from different substrates collected in Calatagan, Batangas. *Philippine Journal of Systematic Biology*, 2010, 4:1-11.
- 2010 dela Cruz, T.E.E., Schulz B.E., Druzhinina I.S. Polyphasic approaches to the taxonomy of the marine *Dendryphiella* species from different geographic origins. In: *Fungal Biochemistry and Biotechnology* (VK Gupta, M Tuohy, RK Gaur, editors) LAP Lambert Academic Publishing, Saarbrucken, Germany. ISBN: 978-3-8433-5800-2, 2010.
- 2009 Moreno, G., Mitchell, OW., Stephenson, S.L., dela Cruz, T.E. A new species of *Craterium* (Myxomycetes) with reticulate spores. *Bol. Soc. Micol., Madrid*, 2009, 33:175-180.
- 2009 dela Cruz, T.E.E., Kuhn, R.V, Javier, A.O.M, Parra, C.M., Quimio, T.H. Status of the myxomycete collection at the UPLB. *Philippine Journal of Systematic Biology*, 2009, 3(1):97-111.
- 2009 Battung, M.A., Ojuederie, O.S., Vispo, K.E., Yoro, E.D.R., dela Cruz, T.E.E. Antifungal activities of locally isolated *Lactobacillus* species from milk products . *Philippine Biota*, 2009, 42(1):33-44.
- 2009 Montano, G.L, Chan, J.S., Jarabelo, R.E., Pastor, A.B.I., dela Cruz,

- T.E.E. Isolation and characterization of purple nonsulfur bacteria (PNSB) from rice paddy soil in San Jose del Monte, Bulacan. *Philippine Journal of Systematic Biology*, 2009, 3(1):57-67.
- 2009 dela Cruz, T.E., Sogono, P.G. Banana Root Endophytes: Potential Bio-control Agents for Vascular Wilt Disease. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1).
- 2009 dela Cruz, T.E., Canal, J.N. Fruticose Lichens from Selected Sites in Luzon Islands as Sources of Biologically Active Lichens Acids. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1).
- 2009 dela Cruz, T.E. Occurrence of Corticolous Myxomycetes from Acacia Trees (*Samanea samans* Merr.) Collected From Different Sites in Luzon Island, Philippines. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1).
- 2009 dela Cruz, T.E., Dagamac, N.H.A. Four New Records and One New Species of Philippine Myxomycetes from Hundred Islands and Anda Islands, Pangasinan. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1).
- 2009 Moreno, G. Michell, D.W., Stephenson, S.L., dela Cruz, T.E.E. A new species of *Craterium* (Myxomycetes) with reticularate spores.. *Bol. Soc. Micol, Madrid*, 2009, 33:75-180.
- 2009 dela Cruz, T.E.E., Kuhn, R.V., Javier, A.O.M., Parra, C.M., Quimio, T.H. Status of the myxomycete collection at the UPLB \_ Museum of Natural History (UPLB-MNH) Mycological Herbarium. *Philippine Journal of Systematic Biology*, 2009, 3(1):97-111.
- 2009 Montano, G.L., Chan, J.S., Jarabelo, R.E., Pastor, A.B.I., dela Cruz, T.E.E. Isolation and characterization of purple nonsulfur bacteria (PNSB) from rice paddy soil in San Jose del Monte, Bulacan. *Philippine Journal of Systematic Biology*, 2009, 3(57 -67.).
- 2008 Dagamac, N.H.A., Sogono, P.G., Cabalfin, R.C.B., Adducul, A.C.Y., dela Cruz, T.E.E. Fungal root endophytes from *Musa* spp. as biological control agents against the plant pathogen *Fusarium oxysporum*. *Acta Manilana*, 2008, 56:27-35.
- 2008 Schulz, B., Draeger, S., dela Cruz, T.E.E., et al Screening strategies for obtaining novel, biologically active, fungal secondary metabolites from marine habitats. *Botanical Marina*, 2008, 51:219-234.
- 2008 Dela Cruz, T.E.E., Wagner, S., Schulz, B. Physiological responses of marine *Dendryphiella* species from different geographical locations. *Mycological Progress*, 2008, 5(2):108-119.
- 2000 dela Cruz, T.E., Meoguito, C. Callus induction in *Ipomoea muricata* Jacq. hypocotyl and leaf explants. *Acta Manilana*, 2000, 48:53-60.
- 20 Macabago, S.A.B., dela Cruz, T.E.E., Stephenson, S.L. First records of myxomycetes from Lubang Island, Occidental Mindoro, Philippines. *Sydowia*, 2000, 20 II.
- 1997 dela Cruz, T.E., Ancheta, M., Capaque, R., Mantes, A., Perez, M.E. Light inhibition of *Photobacterium leiognathi* as bioindicator of heavy metal pollution. *Philippine Technology Journal*, 1997., 22(3):45 - 51..

dela Cruz, T.E.E., Kuhn, R.V. Javier, A.O.M. Rodillas C.P., Parra, C.M., Corpuz, L.H.I. Occurrence and distribution of plasmodial myxomycetes in Hundred Islands National Park, Pangasinan, Philippines. *Acta Manilana*, .

**Name** Maria Natalia R. Dimaano  
**Gender** Female  
**Civil Status** Single

**Organizational Affiliations**

Associate Professor 3, Materials science and Chemical Engineering Laboratory,  
Research Center for the Natural Sciences, University of Santo Tomas, España,  
Manila

**Education**

D. Engineering, ,

**Fields of Specialization**

Biodiesel and Alternative Fuels

Materials Science and Engineering

Thermal Energy Storage for Cooling Application

**Trainings**

13th International Student Seminar on Transport Research (ISSOT) Symposium,  
International Associatio, Chiba, Japan 2007 N 20

74th NRCP Annual Meeting: Crossing Disciplinary Boundaries for National  
Development - Scientific Pos, Polkabal-Rigodon Hall, Manila Hotel, Manila 2007  
Mr 8

2007 PIChE - MMAC Resarch Colloquium, Engineering Conference Hall, UST,  
Manila, Philippines 2007 Ja 12

DOST-JSPS-PRF S&T Workshop, SEAFDEC, Miag-ao, Iloilo 2007 D 19

**Researches**

**Completed**

Thermal performance characterization of capric acid and lauric acid mixture for low  
temperature thermal energy storage

Vitrification of steel slag and waste glass and its subsequent transformation to  
glass ceramics

Preliminary investigation of phase change materials for solar energy storage in  
semiconducting materials: Review of possible composites

Investigation of esterified arachis hypogaea (Peanut oil) as potential biodiesel fuel  
source

The solidification behavior of phase change material for Low-temperature energy  
storage

Transient behavior of the C-L acid for thermal energy storage

**On-going**

Extraction and methylation of non-edible plant seed oils for biofuel production

Practical investigation on the employment of C-L acid as storage material for

residential and industrial cooling: effectiveness of capric-lauric acid impregnated in gypsum wallboard for thermal cooling

Design of a small-scale non-conventional air-cooling system employing the capric and lauric acid system

Development of plant-based materials as alternative fuels for two stroke and possibly for four stroke engines: Characterization of coco methyl ester (CME) with castor oil as an alternative to 2T oil

Practical investigation on the employment of C-L acid as storage material for residential and industrial cooling: Design employing capric and lauric acid mixture as phase change material for process cooling

Development of plant-based materials as alternative fuel for two stroke and possibly for four stroke engines: Corn oil methyl ester as fuel for diesel engines

Development of composites and nanocomposites from waste and beneficiated materials

Jatropha curcas (tubang bakod) oil for biodiesel production

Gypsum wallboard impregnated with pentadecane as a construction material for low temperature energy storage application

### **Ongoing**

Transesterification and smoke emission testing of glycine max (Soybean oil) as potential biodiesel fuel source

Beneficiation of Jatropha Curcas (Tubang Bakod) meal as fertilizer

### **Papers Presented**

Antonio, J.P.M., Fabros, A.F.C., Mendiola, A.S.M., Dimaano, M.N.R. (2007 N 20). Extraction, Transesterification and Characterization of Bitao (Calophyllum inophyllum) Seed Oil as a Potential Source of Biofuel, 13th International Student Seminar on Transport Research (ISSOT) Symposium, International Association of Traffic and Safety Sciences, Chiba, Japan.

Dimaano, M.N.R. (2007 My 25). Jatropha Curcas (Tubang Bakod) Oil as a Potential Biofuel Alternative, Forum on Scientific Research Outputs of JSPS RONP AKU Fellows: Investing in Knowledge for National Development, Bangko Sentral ng Pilipinas, Malate, Manila.

Dimaano, M.N.R. (2007 Ja 12). Industrial Application of Capric-Lauric Acid for Low Temperature Energy Storage: An Option, 2007 PIChE - MMAC Resarch Colloquium, Engineering Conference Hall, UST, Manila, Philippines.

Mozzaffari-Namin, F.E., Dimaano, M.N.R. (2007 F 15-17). Gypsum Wallboard Impregnated with Eutectic Mixture of Capric Acid and Lauric Acid for Thermal Energy Storage Cooling Application, Annual PAASE Meeting & Symposium 27th APAMS: 2007 International S & T Conference - Science, Engineering and Technology in Economic Development, Century Park Hotel, Manila.

Calica, E.B., Roque, R.B., Roque, M.C.Z., Dimaano, M.N.R. (2007 F 15-17). Transesterification and Smoke Emission Testing of Glycine Max (Soybean Oil) as a Potential Biodiesel Fuel Source, Annual PAASE Meeting & Symposium 27th APAMS: 2007 International S & T Conference - Science, Engineering and Technology in Economic Development, Century Park Hotel, Manila, Philippines.

Bringas, J.A., Dimaano, M.N.R. (2007 D 4). Transesterification of Philippine *Jatropha Curcas* Oil as an Alternative Biodiesel: Optimization of JME %Yield, ASEAN RSCE 2007, Hotel Melia Purosani, Yogyakarta, Indonesia.

Dimaano, M.N.R. (2007 D 19). Researches on Biodiesel Production from Plant Seed Oils, DOST-JSPS-PRF S&T Workshop: Sharing of Knowledge and Resources through Collaborative Research and Development Initiatives, SEAFDEC, Miag-ao, Iloilo.

### **Publications**

- 2009 Dimaano, M.N.R. Optimization of *Jathropa Curcas* (Tubang Bakod) and *Calophyllum Inophyllum* (Bitaog) as a viable Source of Activated Carbon for Methylene Blue Adsorption. Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2009, 31(1).
- 2009 Dimaano, M.N.R., Antonio, J.P.M. Preliminary Investigation of *Calophyllum Inophyllum* (Bitaog) as a Potential Source of Biofuel. Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2009, 31(1).
- 2006 Takayuki Watanabe, Dimaano, M.N.R. Thermal performance characterization of capric acid and lauric acid mixture for low temperature energy storage.. Solar Energy: New Researches, Nova Sciences Publishing Co., Inc., 2006:1-42.
- 2006 Aguirre, I.L.P., Dimaano, M.N.R. et al. Corn oil methyl ester as fuel for diesel engine.. Acta Manilana, 2006, 24:39-42.
- 2003 Dimaano, M.N.R., Watanabe, T. The transient behavior analysis of the capric acid and lauric acid mixture in a vertical tube. Journal of Chemical Engineering of Japan, 2003, 36(12):1421-1431.
- 2002 Dimaano, M.N.R. Watanabe, T. The capric and lauric acid mixture with chemical additives as latent heat storage materials for cooling application.. Energy-The International Journal, 2002, 27(9):886-888.
- 2002 Dimaano, M.N.R. Watanabe, T. The capric - lauric acid and pentadecane combination as phase change material for cooling applications.. Applied Thermal Engineering, 2002, 22(4):365-377.
- 2002 Dimaano, M.N.R., Watanabe, T. Performance investigation of the capric and lauric acids mixture as latent heat energy Storage for for a cooling system. Solar Energy, 2002, 72(3):205-215.

**Name** Wilfredo Jr. Arellano Dumale  
**Place of Birth** San Jose City, Nueva Ecija  
**Date of Birth** Nov. 27, 1973  
**Gender** Male  
**Civil Status** Single  
**Home Address** 25B Sta. Rosa St., Sta Rosa Bayombong, Nueva Viscaya  
3700 Philippines

**Organizational Affiliations**

Assistant Professor II, Dept. of Plant Science, College of Agriculture, Nueva Viscaya State University, Bayombong, Nueva Viscaya

Editorial Board Member, E-International Scientific Research Journal (EISRJC),

Editorial Board Member, Open Journal of Soil (OJSS),  
<http://www.scirp.org/journal/ojss>

Presidential Assistant for External Affairs, Nueva Viscaya State University, Bayombong, Nueva Viscaya

**Education**

Ph.D. in Biological and Environmental Engineering, The University of Tokyo, Japan 2009 Mr

M.S. in Soil Science, Central Luzon State University, Science City of Munoz 2003

B.S. Agriculture, Central Luzon State University, Science City of Munoz 1994

**Fields of Specialization**

Cycling of stable and active soil organic carbon (SOC) in agricultural soils and their contribution to global atmospheric CO<sub>2</sub>

Printing effect of artificially - applied organic matter (SOC)

Influence of Applied lime on CO<sub>2</sub> evolution and SOC Cycling in acid agricultural soils

**Employment**

Post Doctoral Researcher, Dept. of Biological and Environmental Engineering, University of Tokyo, Japan, 2010 N-2011 O-

Assistant Professor II, Dept. of Plant Science, College of Agriculture, NVSU, Bayombong, Nueva Viscaya, 2010 Ja- present-

Presidential Assistant for External Affairs, Nueva Vizcaya State University, Bayombong, Nueva Vizcaya, -

Instructor 1, Dept. of Soil Science, College of Agriculture NVSU, Bayombong, Nueva Vizcaya, 2004 je-2009 D-

Science Research Specialist I Research Program, Nueva Vizcaya State Institute of Tecknology, 1997 N- 2004 Je-

Researcher, Farm Frsh Philipines International, Inc, 1995-F-1997 O-

Science Research Specialist I (Research Program), Agronomy, Soils and Plant Physiology Division, PRRI, 1994 Je-1995 F-

### **Association Membership**

Member, Geochemical Society (GS) <http://www.geochemsoc.org/>

Member, PCARRD Scholars Association, Inc. (PSAI)

Member, Philippine Association of Japan Ministry of Education Scholars (PHILAMJAMES)

Member, Philippine Society of Soil Science and Technology (PSSST)

Member, Philippine Association of Agriculturist (PAA)

Associate member, National Research Council of the Philippines (NRCP)

Member, Asian Educational Research Association (AERA)  
<http://www.aerassociation.com/>

Member, Japan Geoscience Union (JpGU) [http://www.jpгу.org/index\\_.html](http://www.jpгу.org/index_.html)

### **Honors / Awards**

Achievement Award, Central Luzon State University Alumni Association, Inc. (CLSUAAl) 2010

Best Research Paper for Agricultural Resources Management, Cagayan Valley Agriculture and Resource Research and Development (CVARRD, Isabela State University, I) 2004

Merit Award, 5th Place in the 2003 Licensure Examination for Agriculturists (LEA)(86.83% Rating), Board of Agriculture, Professional Regulation Commission (PRC) 2003

Best Research Paper for Information Dissemination "Cultural Management Practices of Vegetable Farmer, CVARRD 1999

Cum Laude, BS in Agriculture, Major in Soil Science, CLSU 1994

Distinguished Alumnus in the Field of Agricultural Research and Tertiary Education, Constancio Padilla National High School Alumni Federation, Inc., San Jose Nueva Ecija 2011

### **Trainings**

Goldschmidt 2011 Scientific Meeting: Earth, Life and Fire (Poster Presenter), Kongresove Centrum, Praha, Prague, Czech Republic 2011 Ag 13-19

Goldschmidt 2010 Scientific Meeting: Earth, Life and the Environment (Poster Presenter), Knoxville International Convention Center, Knoxville, Tennessee, USA 2010 Je 13-18

Japan Geoscience Union (JPGU) Meeting, Makuhari Messe International Conference Hall, Mihama-ku, Chiba Prefecture, Japan 2009 My 16-21

2008 Western Pacific Geophysics Conference of the American Geophysical Union (AGU)(Poster Presenter, Cairns International Convention Center, Cairns, Queensland, Australia 2008 JI 29-2008 Ag 1

### **Researches**

#### **Completed**

Yield potential of Tropaquepts and Ustifluvents



Effect of a Ammonium Nitrogen level and frequency of Application on the Growth and Yield of Chinese Cabbage (*Brassica campestris* var. *Pekinensis* Rupr.)

Sustainability assessment of land utilization types in Malabing, Kasibu, Nueva Viscaya, Philippines

Land use evaluation of Bangan Hill National Park

Dynamics of turnover of active-biological and stable-mineralogical soil organic carbon resulting in CO<sub>2</sub> evolution

CO<sub>2</sub> evolution and <sup>12</sup>C and <sup>13</sup>C turn over from soil organic carbon in acid soils applied with lime

### **Ongoing**

Ecological and genetic risk analyses of fish kill outbreaks in tilapia aquaculture in Pampanga through establishment of comprehensive environmental geo-reference database

### **Publications**

- 2011 Dumale, W.A., Miyasaki, T., Hirai, K., Nishimura, T. SOC turnover and lime-CO<sub>2</sub> evolution during liming of an acid andisol and ultisol. *Open Journal of Soil Science*, 2011, 1(2):50-54.
- 2011 Dumale, W.A. Jr., Miyasaki, T., Hirai, K., Nishimura, T., Imoto, H. Evidence of Lime-CO<sub>2</sub> evolution and printing effect of agricultural liming. *Mineralogical Magazine*, 2011, 75(3):789.
- 2011 Dumale, W.A. Jr., Hirai, k., Nishimura, T., Miyasaki, T., Imoto, H. Agricultural liming contributes to global warming. *Transactions of the National Academy of Science and Technology*, 2011, 33(1):56.
- 2011 Dumale, W.A. Jr., Miyasaki, T., Seki, K. Short-term dynamics of the active and passive soil organic carbon pools in a volcanic soil treated with fresh organic matter. *E-International Scientific Research Journal*, 2011, 3(2):128-144.
- 2010 Dumale, W.A. Jr., Miyasaki, T., Nishimura, T., Seki, K. Turnover of stable organic carbon and CO<sub>2</sub> evolution of soils applied with fresh organic matter. *Geochimica et Cosmochimica Acta*, 2010, 74(12):A250.
- 2009 Dumale, W.A. Jr., Miyasaki, T., Nishimura, T., Seki, K. CO<sub>2</sub> evolution and short-term carbon turnover in stable soil organic carbon from soils applied with fresh organic matter. *Geophysical Research Letters*, 2009, 36:L01301, doi:10.1029/2008GL036436.
- 2005 Dumale, W.A. Jr., Miyasaki, T., Nishimura, T., Seki, K. Kinetics of CO<sub>2</sub> evolution, soil microbial biomass carbon, and mineral-associated organic carbon of a tropical soil applied with organic matter. *NSVU Research Journal* ISSN no. 1908-3327, 2005, 15:45-59.
- 2005 Pine, B.M., Dumale, W.A. Jr. Ecological and Economic assessment of sloping agricultural land technology in Balite, Aritao, Nueva Viscaya. *NVSU Research Journal* (ISSN No. 1908-3327), 2005, 12(1):27-37.
- 2004 Terado, M., Dumale, W.A. Jr. Response of PSB Rc 18 to different seeding rates and age at incorporation of *Sesbania rostrata* as green manure. *NVSIT Research Journal* (ISSN No. 1019-4925), 2004:10.

- 2003 Dumale, W.A. Jr., Perez, F. Ecological sustainability of land utilization types in Malabing, Kasibu, Nueva Vizcaya. *The Journal of Graduate Studies* (ISSN 0119-1136), 2003, 6(2):64-74.

**Name** Florentina S. Dumlao  
**Gender** Female  
**Civil Status** Married  
**Home Address** DMMMSU, Bacnotan 2515 La Union

**Organizational Affiliations**

Professor VI, DMMSU, Bacnotan, La Union

**Education**

Ph.D. in Extension Education, DMMMSU, La Union 1991

**Fields of Specialization**

Agriculture and Forestry

Agricultural Economics and Rural Development

Extension Education

**Association Membership**

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Certificate of Commendation for Contribution Leadership, DMMMSU 2003 Ap 23-25

2nd Place Best Paper, UNP 2003 My 29

3rd Place Best Paper Award, UNP 2003 Ag 07-08

Presidential Commendation as Coordinator, PAEPI 2003 O 23

Presidential Commendation for Resource Generations Efforts, 2003 O 23

Plaque of Recognition as Treasurer and Board of Director, PAEPI 2003 O 21-24

Recognition Award, CHR 2003 D 09

Special Award, Research Category, 25th Foundation Day Anniversary 2006

1st Place Best R & D Management Paper, 16th National Convention of the Philippine Asso. of Research Managers Inc. 2006 Ap 18-21

Leadership, Plaque of Recognition, DMMMSU 2011 Ja 14

**Trainings**

Conference on Watershed Management of the Philippines, DMMMSU-NLUC, Bacnotan, La Union 2006 My 16-18

16th National Convention of the Philippine Association of Research Managers, Inc., MMSU, Batac, Ilocos Norte 2006 Ap 18-21

SURED International Seminar on Sustainable Watershed Management, Haikou, China 2006 Ag 26-28

PAEPI Convention and General Assembly, PSPC, Aklan 2003 O 21-24

Regional Seminar-workshop on Extension Updates and State Opportunities, Bicol University and Partido State University, Camarines Sur 2003 My 14

International Symposium cum Workshop, 2003

## **Researches**

### **On-going**

Economics of the Sericulture Industry

Socio-Economic Assessment of the Variability of the Apiculture Industry

## **Papers Presented**

Dumlao, F.S. (2006 My 16-18). Apiculture RDE Program: A showcase of Productivity and Accountability, Conference on Watershed Management of the Philippines, DMMMSU-NLUC, Bacnotan, La Union.

Dumlao, F.S. (2006 Ap 18-21). Apiculture RDE Program: A showcase of Productivity and Accountability, 16th National Convention of the Philippine Association of Research Managers Inc., MMSU, Batac, Ilocos Norte.

Dumlao, F.S. (2006 Ag 26-28). Apiculture RDE Program: A showcase of Productivity and Accountability, SURED International Seminar on Sustainable Watershed Management, Haikou, China.

Dumlao, F.S. (2003 S 10). Economic contribution of women in fishery development., BFAR, La Union.

Dumlao, F.S. (2003 S 05). Fulfilling economic rights through livelihood opportunities, CHR, La Union.

Dumlao, F.S. (2003 O 21-24). PAEPI convention and general assembly, PSPC, Aklan.

Dumlao, F.S. (2003 O 13-17). Strengthening the effective implementation of research and development in the province of La Union, Philippines, Changmai, Thailand.

Dumlao, F.S. (2003 N 05). University educational research agenda in the seminar on issues and concerns in teacher education, DMMMSU, La Union.

Dumlao, F.S. (2003 My 14). Regional Seminar-workshop on extension updates and opportunities, Bicol University and Partido State University, Camarines Sur.

Dumlao, F.S. (2003 Mr 26). Status,prospect of ube production., DMMMSU, Bacnotan, La Union.

Dumlao, F.S. (2003 Mr 01). Symposium on development planning in research and extension., DMMMSU, La Union.

Dumlao, F.S. (2003 Jl 24-25). Key intervention to strengthen research and development, RDC, DOST and CHED.

Dumlao, F.S. (2003 Ag 19-25). DMMMSU Graduate tracer study, Yogyakarta, Indonesia.

Dumlao, F.S. (2003). Networking sericulture industry in the Philippines, International Symposium cum Workshop.

## **Publications**

- 2011 Dumlao, F.S. Strengthening the Effective Implementation of Research & Development in La Union, Philippines.. DMMMSU-GS Faculty Journal, 2011, 1:16-23.
- 2011 Dumlao, F.S. Integrating Systems Approach in Managing Yam Research, Development & Extension Program. DMMMSU-GS Faculty Journal, 2011, 1:24-40.
- 2011 Dumlao, F.S. Apiculture Research, Development & Extension program: A Showcase of Productivity and Accountability. DMMMSU-GS Faculty Journal, 2011, 1:66-82.
- 2011 Dumlao, F.S. Setting Performance Standards/Targets. DMMMSU-GS Faculty Journal, 2011, 1:139-141.
- 2008 Cristobal, R.G., Dumlao, F.S. City of San Fernando: The City with Waste Management Responsible Citizen by 2025. DMMMSU-MLUC Graduate Studies Research Journal, 2008:35-36.
- 2007 Joven, R.M., Dumlao, S.M. Service Delivery of the Bureau of Customs Region II, CAR and I. An input to a Four Year Action Plan. DMMMSU MLUC Graduate Studies Resarch Journal, 2007:37-38.
- 2006 Gapasin, E.R., Dumlao, F.S., Sito, A.S., Dangle, J.C., Laquidan, R.C., Dulay, L.S., Lopez, S.O., Ipac, G.R., Pans, J.A., Claro, R.C. Apiculture RDE program: A showcase of productivity and accountability. Proceedings on Conference on Watershed Management of the Philippines, DMMMSU-NLUC, Bacnotan, La Union, 2006 My 16-18.
- 2006 Gapasin, E.R., Dumlao, F.S., Pera, E.M. Integrating systems approach as a coping strategy in the Yam (*Dioscorea alata* Linn.) research and extension program. Proceedings from SURED International Seminar on Sustainable Watershed Management, Haikou, China, 2006 Ag 26-28:152-158.
- 2006 Gapasin, E.R., Dumlao, F.S., Pera, E.M. Managing Yam Research, Development and Extension Program. Philippine Association of Research Managers, Inc. Journal, 2006:22-27.
- 2003 Dumlao, F.S. NSTP resource book on community organizing and extension. Love Printing Press, Cabanatuan City, 2003.
- 2003 Dumlao, F.S. Networking Sericulture Industry in the Philippines. Proceeding of an International Symposium Cum Workshop - The Role of Dialogue and Networking: From a Transitional to an Industrialized Country, 2003:353-358.

**Name** Evangelina S. Ella

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Assistant Scientist II, IRRI, P.O. Box 3227

Associate Scientist, International Rice Research Institute, Los Baños, Laguna

**Education**

MSc. Agricultural Chemistry, University of the Philippines at Los Baños, College, Laguna 1982

**Fields of Specialization**

Agricultural Chemistry

Plant Physiology (Stress Physiology)

Chemical Sciences

**Association Membership**

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Who's Who in the World 2005, Marquis Who's Who, New Providence, NJ 2004

Nomination for 2009 IRRI Award for Outstanding Scientific Achievement, IRRI 2009

**Trainings**

International Symposium on Rice: From Green Revolution to Gene Revolution, Hyderabad, India 2004 O 4-6

15th Annual Scientific Conference of the Federation of Crops Science Societies of the Philippines, FCSSP, General Santos City 1999 My 10-15

39th Symposium of the Japanese Society of Plant Physiologists and 1999 Annual Meeting, 1999 Mr 28-30

**Researches**

**Completed**

Active oxygen-scavenging System fo Alleviation of Submergence Damage in Rice (*Oryza sativa* L.)

High nitrogen reduces seedling survival after submergence in rice

**Ongoing**

Physiological traits involved in the mechanism of tolerance to stagnant flooding during vegetative and reproductive stages in rice

Factors affecting tillering capacity in rice exposed to stagnant flooding

Role of Stem Carbohydrates on Drought Tolerance at Flowering Stage

The Importance of Active Oxygen Scavenging System during Recovery of Submerged Rice Seedlings in High Light

Physiological basis of rice tolerance to anaerobiosis during dry direct seeding

## Role of Stem Carbohydrates on Submergence Tolerance Using Double Haploid Lines

Screenhouse evaluation of sub 1 gene introgression in submergence-intolerant rice genotypes

### Papers Presented

Ella, E.S. (2004 O 4-6). High nitrogen reduces seedling survival after submergence in rice, International Symposium on Rice: From Green Revolution to Gene Revolution, Hyderabad, India.

Ella, E.S. (2004 O 4-6). Submergence tolerance deployed to widely grown rainfed rice varieties through marker-assisted backcrossing, International Symposium on Rice: From Green Revolution to Gene Revolution, Hyderabad, India.

Ella, E.S. (1999 My 10-15). Importance of Active Oxygen Scavenging Systems on the Recovery of Submerged Rice Seedlings, 15th Annual Scientific Conference of the Federation of Crops Science Societies of the Philippines (FCSSP, General Santos City.

Ella, E.S. (1999 Mr 28-30). Changes in Active Oxygen Scavenging Substances in Rice during and after Submergence Stresssystems on the Recovery of Submerge, 39th Symposium of the Japanese Society of Plant Physiologists and 1999 Annual Meeting.

### Publications

- 2011 Ella, E.S., Dionisio-Sese, M.L., Ismail, A.M. Application of silica at sowing affects growth and survival of rice following submergence. *Philippine Journal of Crop Science*, 2011, 36(2):20-30.
- 2011 Ella, E.S., Dionisio-Sese, M.L., Ismail, A.M. Seed priming improves crop establishment of rice in flooded soils. 36-2011). *International Rice Research Notes (IRRN)* 36-2011 (online publication <http://irri.org/knowledge/publications/international-rice-research-notes/irrnvolume->, 2011.
- 2011 Ella, E.S., Dionisio-Sese, M.L., Ismail, A.M. Seed pretreatment in rice reduces damage, enhances carbohydrate mobilization and improves emergence and seedling establishment under flooded conditions. *Annals of Botany PLANTS* (online publication, first published online 18 Feb 2011 doi:10.1093/aobpla/plr007, <http://aobpla.oxfordjournals.org/content/2011/plr007.full.pdf+html>), 2011.
- 2009 Ismail, A.M., Ella, E.S., Vergara, G.V., Mackill, D. Mechanisms associated with tolerance for flooding during germination and early seedling growth in rice (*Oryza sativa* L.). *Journal Annals of Botany*, 2009, 103:197-209.
- 2009 Ella, E.S., Dionisio-Sese, M.L., Ismail, A.M Proper Management improves germinations and seedling survival during flooding in contrasting rice (*Oryza sativa* L.) genotypes. *Crop Science*, Crop Society of America, USA, 2009.
- 2004 Ella, E.S. Tolerance to flooding during germination and vegetative stages in rice: some recent developments.. *Proceedings of the 8th Conference of the International Society for Plant Anaerobiosis*, Perth, Western Australia, 2004 S 20-24:45.
- 2004 Ella, E.S. Nutrient status before submergence affects seedling survival after flooding in rice. *Proceedings of the World Rice Research Conference*, Tokyo and Tsukuba, Japan, 2004 N 4-7:236.
- 2004 Ella, E.S. Enhanced levels of ethylene and 0.- amylase activity associated with tolerance to oxygen stress during germination in rice. *Proceedings of the World Rice Research Conference*, Tokyo and Tsukuba, Japan, 2004 N 4-7:235.
- 2003 Ella, E.S. Blocking ethylene during submergence reduced chlorophyll degradation and improved seedling survival in rice. *Functional Plant Biology*, 2003, 30(813-819).
- 2003 Ella, E.S. Importance of active oxygenscavenging system in the recovery of rice seedlings after submergence. *Plant Science*, 2003, 165:85-93.

- 1999 Ella, E.S. Physiological basis of submergence tolerance in rainfed lowland rice ecosystem. *Field Crops Research*, 1999.
- 1999 Ella, E.S. Enhancement of submergence tolerance in transgenic rice overproducing pyruvate decarboxylase. *Journal of Plant Physiology*, 1999.
- 1999 Ella, E.S. Drought and submergence on rice production. *Rice Breeding and Genetics-Research Priorities and Challenges/Science Publishers Inc.*Enfield, New Hampshire, USA, 1999:73-79.
- 1999 Ella E.S. Importance of carbohydrates in Rice Seedling establishment under anoxia. *Acta Horticulturariae*, 1999.



**Name** Eric Alvarez Galapon

**Place of Birth** November 6, 1971

**Gender** Male

**Civil Status** Married

**Home Address** 1085 B JP Rizal, Guadalupe Viejo Makati City

**Organizational Affiliations**

Associate Professor of Physics, National Institute of Physics, UPD, Quezon City

**Education**

Ph.D. in Physics, University of the Philippines, Diliman, Quezon City 2001

M.S. Physics, University of the Philippines, Diliman, Quezon City 1996

B.S. Physics, University of the Philippines, Diliman, Quezon City 1992

**Fields of Specialization**

Foundations and applications of quantum mechanics

Computational physics

Physics

**Employment**

Assistant Professor of Physics, National Institute of Physics, UPD, 2001-2008-

Instructor of Physics, NIP-UPDiliman, 1993-2001-

**Association Membership**

Member, Samahang Pisika ng Pilipinas

Member (invited), South East Asia Theoretical Physics Association

**Honors / Awards**

Scientist I, University of the Philippines 2009-2001

Outstanding Young Scientist, NAST-DOST 2010

**Trainings**

International Colloquium in Time and Matter, Venice, Italy 2002 Ag 11-24

International Conference on Quantum Optics, Raubichi, Belarus 2000 My 28-31

**Researches**

**Completed**

Characterizing multiple solutions to the time-energy canonical commutation relation via internal symmetries

Diffusion type integrals

Exponentially small tunneling times

Quantum violations of the weak equivalence principle exponentially small tunneling times

Quantum crossing states

Deformation quantization in the quantum time of arrival problem

### Papers Presented

Sombillo, D., Galapon, E.A. (2009). Improved numerical approximation of the time kernel factor using hybrid schemes, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

Nable, J., Galapon, E.A. (2009). On Fedosov star-products of kernels of time operators, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

Domingo, H., Galapon, E.A. (2009). General operator bases for Bender-Dunne space, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

Caballar, R., Galapon, E.A. (2008). Classifying solutions to the time-energy canonical commutation relation via time reversal symmetry, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Villanueva, A., Galapon, E.A. (2008). Equivalence of the Liouville time of arrival operator and the superquantized time of arrival operator for the harmonic and quartic oscillators, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Villanueva, A., Galapon, E.A. (2008). The second minimal Bender-Dunne solution for the harmonic oscillator, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Sombillo, D., Galapon, E.A. (2008). Numerical approximation to the time kernel equation, Samahang Pisika ng Pilipinas 2008 Proceedings (Baguio).

Balite, P., Caballar, R., Galapon, E.A. (2008). Application of a method for solving the eigenfunctions and eigenvalues of a class of integral operators, Samahang Pisika ng Pilipinas 2008 (Baguio).

Bunao, J., Galapon, E.A. (2008). Quantum corrections to the classical time of arrival for certain potentials, Samahang Pisika ng Pilipinas 2008 (Baguio).

Caballar, R., Galapon, E.A. (2007 O 24-26). Quantum Time Transition States, Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos.

Villanueva, A.D., Galapon, E.A. (2007 O 24-26). Momentum Time of Arrival, Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), UPLB.

Ramirez, K., Galapon, E.A. (2007 O 24-26). Numerical Quantum Evolution of Free Particle with Non-Periodic Initial Wave Function Reconstructed by Gegenbauer Series, Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), UPLB.

Sombillo, D., Ilano, N., Galapon, E.A. (). Asymptotic solution of an anisotropic scattering potential, Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay).

### Publications

2009 Galapon, E.A. Post Pauli's Theorem Emerging Perspective on Time in Quantum Mechanics. Time in Quantum Mechanics II, J.G. Muga, A. Rushhaupt, A. del Campo, eds., Springer-Verlag (Germany), 2009.

2009 Bunao, J., Galapon, E.A. The role of conjugacy in the dynamics of the CTOA

- operator. Samahang Pisika ng Pilipinas 2009 Proceedings, 2009.
- 2009 Pamillo, R., Galapon, E.A. More delta convergent sequences that vanish at the support of the limit Dirac delta. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay), 2009.
- 2009 Galapon, E.A. et al. Quantum time of arrival expectation values for freely falling quantum particle as indicators of quantum violation of the weak equivalence principle. Samahang Pisika ng Pilipinas 2009 Proceedings, 2009.
- 2009 Martinez, J., Galapon, E.A. Effect of a linear potential on the temporal diffraction of particle in a box. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay), 2009.
- 2009 Villanueva, A., Galapon, E.A. Formal perturbative solution for the generalized crossing state. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay), 2009.
- 2009 Galapon, E.A. Quantum wave packet size effects on neutron time of flight spectroscopy. Rapid Communications: Phys. Rev. A 80, 030102, 2009.
- 2009 Caballar, R., Galapon, E.A. Characterizing multiple solutions of the time-energy-canonical commutation relation via quantum dynamics. Phys. Let. A, 2009.
- 2009 Galapon, E.A. Delta Convergent Sequences that Vanish at the Support of the Limit Dirac Delta Function. Journal of Physics A.: Math Theory, 2009, 42:175201.
- 2009 Galapon, E.A. Theory of Quantum Arrival and Spatial Wave Function Collapse on the Appearance of Particle. Proc. Roy. Lond. A, 2009, 465:71.
- 2008 Galapon, E.A. Comment on Almost-periodic time observables for bound quantum systems. J. Phys. A: Math. Theor., 2008, 42:018001.
- 2008 Galapon, E.A., Villanueva, A. Quantum First Time of Arrival Operators. J. Phys. A: Math. Theor., 2008, 41:455302.
- 2008 Vitancol, R., Galapon, E.A. Application of Clenshaw-Curtis method in confined time of arrival operator eigenvalue-problem. International Journal of Modern Physics C., 2008, 19:821.
- 2007 Caballar, R., Galapon, E.A. Eigenvalues and Eigenfunctions of a Class of Integral Operators. Proceeding of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos, 2007 O 24-26.
- 2007 Villanueva, A.D., Galapon, E.A. Obstruction to Quantization and Liouvilian Quantization. Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos, 2007 O 24-26.
- 2007 Dy, D.L., Galapon, E.A. Application of First-Order Perturbation Theory to the Confined Time of Arrival Problem. Proceedings of the Samahang Pisika ng Pilipinas (25th SPP Physics Congress), University of the Philippines Los Banos, 2007 O 24-26.
- 2006 Galapon, E.A. What could have been missing while Pauli's theorem was enforced?. Time and Matter, I. Bigi and M. Faesler, eds., World Scientific, 2006:133.
- 2006 Galapon, E.A. Theory of quantum first time of arrival via spatial confinement I: Confined time of arrival operators for continuous potentials. Int. Jour. Mod. Phys. A., 2006, 21:6351.

- 2006 Vitancol, R.S., Galapon, E.A. Superalgebraic computation of confined time of arrival operator eigenvalues. Samahang Pisika ng Pilipinas National Congress 2006 Proceedings, 2006.
- 2006 Galapon, E.A. Born series solution of the time kernel equation and quantum mechanical derivation of the anharmonic oscillator classical time of arrival. Samahang Pisika ng Pilipinas National Congress 2006 Proceedings, 2006.
- 2006 Ocampo, L.R., Galapon, E.A. Symmetry broken confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress Proceedings, 2006.
- 2006 Caballar, R.C., Galapon, E.A. Long time dynamical behavior of the confined quantum time of arrival eigenfunctions. Samahang Pisika ng Pilipinas National Congress 2006 Proceedings, 2006.
- 2006 Ramirez, K.G., Galapon, E.A. Numerical quantum evolution of confined particle with non periodic boundary conditions through split operator method reconstructed by Gegenbauer series. Philippine Physical Society National Congress 2006 Proceedings, 2006.
- 2006 Villanueva, A., Domingo, H.B., Galapon, E.A. Born series solution of the time kernel equation and quantum mechanical derivation of the anharmonic oscillator classical time of arrival. Samahang Pisika ng Pilipinas National Congress 2006 proceedings, 2006.
- 2006 Ocampo, L.R., Galapon, E.A. Symmetry broken confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress Proceedings, 2006.
- 2006 Caballar, R.C., Galapon, E.A. Long time dynamical behavior of the confined quantum time of arrival eigen functions. Samahang Pisika ng Pilipinas National Congress Proceedings, 2006.
- 2006 Ramirez, K.G., Galapon, E.A. Numerical quantum evolution of confined particle with non periodic boundary conditions through split operator method reconstructed by Gegenbauer series. Philippine Physical Society National Congress Proceedings, 2006.
- 2005 Galapon, E.A., Caballar, R. Bahague, R. Confined time of arrivals for vanishing potential. Physics Review A., 2005.
- 2005 Galapon, E.A., Delgado, F., Muga, J.G., Egusquiza, I. Transition from discrete to continuous time of arrival distribution for a quantum particle. Physics Review A, 2005, 74:042107.
- 2004 Galapon, E.A., Caballar, R.F., Bahague, R.T. Confined Quantum Time of Arrivals. Phys. Rev. Letters, 2004, 93:180406.
- 2004 Galapon, E.A. Shouldn't there be an antithesis to quantization. Journal of Mathematical Physics, 2004, 45:3180-3215.
- 2003 Caballar, R.C.F., Galapon, E.A. On the eigenvalue problem for periodic confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Domingo, H.B., Galapon, E.A. Modified time kernel equation. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Pilapil, H.B., Caballar, R.C.F., Perez, R.E., Galapon, E.A. Generalized Laplace method. Samahang Pisika ng Pilipinas 2003 Proceedings, 2003.

- 2003 Caballar, R.C.F., Galapon, E.A. On the eigenvalue problem for periodic confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Domingo, H.B., Galapon, E.A. Modified time kernel equation. Samahang Pisika ng Pilipinas National Congress 2003 Proceedings, 2003.
- 2003 Pilapil, H.B., Caballar, R.C.F., Perez, R.A., Galapon, E.A. Generalized Laplace Method. Samahang Pisika ng Pilipinas 2003 Proceedings, 2003.
- 2002 Galapon, E.A. Self-adjoint Time Operator is the Rule for Discrete Semibounded Hamiltonians. Proc. R Soc. Load A, 2002, 487:2671-2689.
- 2002 Galapon, E.A. Pauli's Theorem and Quantum Canonical Pairs: The Consistency Of a Bounded, Self-Adjoint Time Operator Canonically Conjugate to a Hamiltonian with Non-empty Point Spectrum. Proc. R. Soc. Load A, 2002, 458:451-472.
- 2002 Existence and uniqueness theorem for the time kernel equations. Samahang Pisika ng Pilipinas National Congress 2002 Proceeding, 2002.
- 2001 Galapon, E.A. Quantum-Classical Correspondence of Dynamical Observables, Quantization and the Time of Arrival Correspondence Problem. Opt. and Specs., 2001, 91:399.
- 2001 Bahague Jr., R.T., Galapon, E.A. Static behaviors of confined time of arrival operators. Samahang Pisika ng Pilipinas National Congress 2001 Proceedings, 2001.
- 2001 Domingo, H.B., Galapon, E.A. The time of arrival quantum-classical correspondence problem for arbitrary arrival points. Samahang Pisika ng Pilipinas National Congress 2001 Proceedings, 2001.
- 2001 Perez, R.E., Bahague, R.T., Galapon, E.A. Confined time of arrival operator for the (0,1) segment. Samahang Pisika ng Pilipinas National Congress 2001 Proceedings, 2001.
- 2000 Galapon, E.A. The time of arrival quantum classical correspondence problem. Samahang Pisika ng Pilipinas National Congress 2000 Proceedings, 2000.
- 1999 Galapon, E.A. Pauli's seven decade myth: the consistency of bounded time operator conjugate to a Hamiltonian with point spectrum. Samahang Pisika ng Pilipinas National Congress 1999 Proceedings, 1999.
- 1999 Galapon, E.A. Quantum arrival times for confined autonomous Hamiltonian systems. Philippine Physical Society National Congress 1999 Proceedings, 1999.
- 1998 Galapon, E.A., Overio, A. Iterative construction of quasi-time operators. Samahang Pisika ng Pilipinas National Congress 1998 Proceedings, 1998.
- 1998 Galapon, E.A. Free motion quantum theory of time in a box. Philippine Physical Society National Congress 1998 Proceedings, 1998.
- 1997 Galapon, E.A. Compounded infinitesimal Hamiltonian perturbations: a model of Hamiltonian transitions by a continuous perturbation on a free Hamiltonian. Samahang Pisika ng Pilipinas National Congress 1997 Proceedings, 1997.
- 1997 Galapon, E.A. Inverse commutation approach to classical and quantum time

functions. Philippine Physical Society-National Congress Proceedings, 1997.

Caballar, R., Galapon, E.A. Characteristic time operators for systems with degenerate energy spectrum. Samahang Pisika ng Pilipinas 2009 Proceedings (Tagaytay)2009, .

**Name** Gilda D. Lio-Po  
**Gender** Female  
**Civil Status** Single

**Organizational Affiliations**

Scientist II, Southeast Asian Fisheries Development Center (SEAFDEC),  
Tigbauan, Iloilo

Consultant on KHV and SVCV, NAFIQAVID, Vietnam

**Education**

Ph.D. in Biology, Simon Fraser University, Burnaby, British Columbia,  
Canada 1998

**Fields of Specialization**

Microbiology

Biological Sciences

Aquatic Microbiology

**Association Membership**

Member, National Research Council of the Philippines

**Honors / Awards**

Best Published Papers, Bureau of Agricultural Research 2001

Fellow in Microbiology, Philippine Academy of Microbiology (PAM) of the PSM  
2008 My 7

Certificate of Appreciation as Plenary Speaker, PSM Annual Convention 2008 O  
16

Certificate of Appreciation as Scientist and Dedicated Service to SEAFDEC for 31  
years, SEAFDEC, Iloilo 2008 JI 11

Featured in Marquis Who's Who in the World, USA 2009 S

**Trainings**

Annual Convention of the Philippine Society of Microbiology, Mambucal, Negros  
Occidental 2008 O 16-17

OIE/NACA Regional Workshop on Aquatic Animal Health, Bangkok, Thailand 2008  
Mr 25-28

PHILJAJFA Establishes Chapter in the Visayas Region, Iloilo, Philippines-Japan  
Fellows Association 2008 JI 7

International Workshop on CyHV-3 (KHV), Caesaria, Israel 2008 F 17-18

Marine Fish Disease: Prevention, Maintenance, Identification and Treatment  
Seminar, Iloilo City, Sponsored by American Soy Bean Association (ASA) 2008 D  
2

Seminar on Comparison of Characteristics of the Koi Herpesvirus Isolates from

Asia, SEAFDEC AQD, Iloilo 2008 Ap 3

## **Researches**

### **Completed**

Bacterial flora associated with the green water culture of the tiger shrimp, *Penaeus monodon*

Characterization of a virus obtained from the Epizootic ulcerative Syndrome (EUS) in snakeheads (*Ophicephalus striatus*) in the Philippines

Pathogenicity of the Epizootic Ulcerative Syndrome (EUS)-associated Rhabdovirus to Snake head *Ophicephalus striatus*

Investigation on the mechanism of the effect of tilapia culture water on luminous bacteria

Molecular epidemiology of koi herpesvirus (KHV) Fish Pathology

Initial assessment of the bacterial flora of Guimaras waters and soil after the MIT Solar I oil spill

Biocontrol of luminous *Vibrio* in the grow-out culture of tiger shrimp *Penaeus monodon*

Horizontal transmission of the EUS rhabdovirus in simulated natural conditions

### **On going**

Antibacterial metabolites in the microbial and phytoplankton flora of the greenwater cultured *Penaeus monodon*.

### **On-going**

Detection and identification of viral pathogens in cultured marine finfishes

Pilot Testing of the "SEAFDEC Indigenous Probiotic" in Grow-out Shrimp Ponds

Bioremediating Bacteria Isolated from MIT Solar I Affected sites in Guimaras

Detection and identification of viral pathogens in cultured marine finfishes

Surveillance of Emerging Fish Viral Pathogens in some Southeast Asian Countries

## **Papers Presented**

Lio-Po, G.D. (2008 O 16-17). Recent Developments in the Study and Surveillance of Koi Herpesvirus (KHV), Annual Convention of the Philippine Society of Microbiology, Mambucal, Negros Occidental.

Lio-Po, G.D. (2008 Je 22-26). Recent Developments in the Study and Surveillance of Koi Herpesvirus (KHV) in Asia, Symposium on Diseases in Asian Aquaculture VII, Taipei, Taiwan .

Lio-Po, G.D. (2008 D 9-10). Surveillance of Emerging Fish Viral Pathogens in some Southeast Asian Countries, ASEAN-SEAFDEC Consultative Group Mechanism, Iloilo City .

Lio-Po, G.D. (2008 D 2). Presumptive diagnosis of fish mortality outbreaks at the farm level, Marine Fish Disease: Prevention, Maintenance, Identification and Treatment Seminar, Iloilo City, Sponsored by American Soy Bean Association (ASA).

## **Publications**



- Lio-Po, G.D. Infectious Diseases associated with multiple pathogens. Health Management in Aquaculture, 2nd Edition, SEAFDEC, Philippines, in press.
- 2009 Lio-Po, G.D., Amar, E., de la Pena, L., Orozco, Z.G., Faisan, J., Suarnaba, V., Tubo, D.B. Surveillance of emerging fish viral pathogens in some Southeast Asian countries. Israeli Journal of Aquaculture, Bamidgheh, 2009, 61:208-214.
- 2009 Lio-Po, G.D. Viral Diseases. Health Management in Aquaculture, Second Edition SEAFDEC, Philippines (Lio-Po GD and Pitogo Celia eds.), 2009.
- 2009 Lio-Po, G.D. Advances in the use of probiotics. Health Management in Aquaculture, Second Edition, SEAFDEC, Philippines (Lio-Po G.D., Pitogo, C., eds.), 2009.
- 2009 Lio-Po, G.D. Updates on the nervous necrosis virus and the Koi Herpesvirus (KHV) in Asia. 1st International Congress on Aquatic Animal Health Management and Diseases, Tehran, Iran, 2009:52-73.
- 2009 Lio-Po, G.D. Molecular epidemiology of koi herpesvirus (KHV). Fish Pathology, 2009, 44:59-66.
- 2008 Lio-Po, G.D. Recent Developments in the Study and Surveillance Koi Herpesvirus (KHV) in Asia. Proceedings of the Diseases in Asian Aquaculture held in Taipei, Fish Health Section, Asia Fisheries Society, 2008 Je 23-27.
- 2007 Lio-Po, G.D., Villa-Franco, A.U., Cortado, C., Platon, R.R. In-vitro evaluation of some commercial probiotics used in the grow-out culture of the tiger shrimp *Penaeus monodon* Fabricius: Effect on bacterial parameters. International Journal of Oceans and Oceanography, 2007, 2(2).
- 2007 Lio-Po, G.D., Goodwin, A.E. Spring Viremia of Carp. SVC, GOJ-TF, SEAFDEC AQD, Iloilo, Philippines, 2007.
- 2005 Lio-Po, G.D., de la Pena, L.D. Viral diseases. Diseases of Cultured Groupers, Nagasawa K. and E.R. Cruz-Lacierda (eds.) SEAFDEC Aquaculture Department, Tigbauan, Iloilo, Philippines, 2005:3-18.
- 2005 Lio-Po, G.D., Leano, E., Penaranda, A., Villafranco, A., Sombito, C., Guanzon, N. Jr. Anti-luminous factors associated with the "green water"™ grow-out culture of the tiger shrimp. Journal: Aquaculture (DOI: 10.1016/j.aquaculture.2005.01.029), 2005, 250(1-2):1-7.
- 2005 Leano, E.M., Lio-Po, G.D., Tirado, A.C., Sadaba, R.B., Guanzon, N.G. Mycoflora of the 'green water' culture system of tiger shrimp *Penaeus monodon* Fabricius. Aquaculture Research (DOI: 10.1111/j.1365-2109.2005.01381.x), 2005, 36(16):1581-1587.
- 2004 Tendencia, E.A., dela Peña, M.R., Fermin, A.C., Lio-Po, G.D., Choresca, C.H., Inui, Y. Antibacterial activity of tilapia *Tilapia hornorum* against *Vibrio harveyi*. Aquaculture (DOI: 10.1016/S0044-8486(03)00531-3), 2004, 232(1):145-152.
- 2003 Lio-Po, G.D., Albright, L.J., Traxler, G.S., Leano, E.M. Horizontal transmission of epizootic ulcerative syndrome (EUS)-associated virus in the snakehead *Ophicephalus striatus* under simulated natural conditions. Diseases of Aquatic Organisms, 2003, 57:213-220.
- 2002 Lio-Po, G.D., Cruz-Lacierda, E.R., de la Peña, L.D. Progress and current status of diagnostic techniques for marine fish viral diseases at the SEAFDEC

- Aquaculture Department. Disease Control in Fish and Shrimp Aquaculture in Southeast Asia-Diagnosis and Husbandry Techniques, SEAFDEC, Philippines and Office International des Epizooties, France, 2002:215 pp..
- 2002 Lio-Po, G.D. et al. *Vibrio harveyi* and the green water culture of *Penaeus monodon*. In: Disease Control in Fish and Shrimp Aquaculture in Southeast Asia-Diagnosis and Husbandry Techniques, SEAFDEC, Philippines and Office International des Epizooties, France, 2002:215 pp..
- 2001 Lio-Po, G.D., Albright, L.G., Traxler, G.S., Leano, E.M. Pathogenicity of the epizootic ulcerative syndrome(EUS)associated rhabdovirus to snakehead, *Ophicephalus striatus*. *Fish Pathology*, 2001, 36:57-66.
- 2000 Lio-Po, G.D. Health Management in Aquaculture. SEAFDEC/AQD, Tigbauan, Iloilo, Philippines, 2000:pp.187.
- 2000 Lio-Po, G.D. Viral diseases. In: Health Management in Aquaculture, SEAFDEC/AQD, Tigbauan, Iloilo, Philippines, 2000:9-24.
- 2000 Lio-Po, G.D., Traxler, G.S., Albright, L.J., Leano, E.M. Characterization of a virus obtained from the Epizootic ulcerative Syndrome (EUS) in snakeheads (*Ophicephalus striatus*) in the Philippines. *Diseases of Aquatic Organisms*, 2000, 43:191-198.
- Lio-Po, G.D., Leano, E.M., Peñaranda, M.M.D., Villa-Franco, A.U., Sombito, C.D., Guanzon, N.G. Anti-luminescent *Vibrio* factors associated with the "green water"™ grow-out culture of the tiger shrimp *Penaeus monodon*. , .

**Name** Fe A. Manatad  
**Gender** Female  
**Civil Status** Single

**Organizational Affiliations**

Professor II & Director for Research Extension, Agusan del Sur State College of Agriculture (AASCAT), Bunawan, Agusan del Sur

Experts Pool/Team for Different Program Areas for Region XIII, DA-BAR,

Associate Professor IV and Director for Research and extension, Agusan del Sur State college of Agriculture and Technology, Bunawan, Agusan del Sur

**Education**

Ph.D. in Horticulture, University of Southern Philippines, Tagum City 2002

**Fields of Specialization**

Agriculture and Forestry

Horticulture

**Association Membership**

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Best Paper: In Vitro Culture of Banana cv. Lakatan as affected by Storage Duration of Corms, CCARRD and ASSCAT 2008 D 3

Best Paper: Effects of zinc sulfate and urea on the yield of straw mushroom, Regional RDE Network Inhouse Review 2006 My 25-26

**Trainings**

9th Regional Symposium on Research and Development Highlights (RSRDH), DOST CARAGA, Ampayon, Butuan City 2008 JI 16

2nd ASSCAT R&D Agency In-house Review,, ASSCAT, Bunawan, Agusan del Sur 2008 D 3

**Researches**

**Completed**

Effects of Plastic Mulch and Pruning on the Growth and Yield of Eggplant (Solanum melongena L.)

Effects of Zinc Sulfat and Urea in the yield of Straw mushroom (Volvarielle volvacea)

Growth Response of Tissue Cultured Banana Plantlets to the Application of Granular and Foliar Fertilizers

Topping of Corn for High Production Under Bunawan, Agusan del Sur Condition

In Vitro plantlet regeneration of Banana Musa sapientum L. ) Cv. Lakatan in response to different level of coconut water and Benzyl Adenine

In Vitro Culture of Banana Cv. Lakatan as Affected by Storage Duration of Corms  
Growth and Yield Response of Glutinous Corn to Plant Density and Levels of Inorganic Fertilizer  
In Vitro Plantlet Regeneration of Lakatan Banana (Musa sapientum) In Response to Culture Media

#### **On-going**

Growth Response of In Vitro-Cultured Banana cv Lakatan Plantlets to Two Potting Media and Different Levels of Urea  
Nutrient Management in Oil Palm and Vegetables Intercropping System  
Liming and Fertilizer Application in Oil Palm and Corn Intercropping System  
Field Performance of Grafted and Marcotted Rambutan Trees Intercropped with Tissue Cultured Lakatan Banana  
Long-term Effects of Application of Bunch Ash on Soil Properties and Oil Palm Yield  
Shoot Pruning and Gibberellic Acid Application on Watermelon  
Improved Bio-Organic Fertilizer for Corn Production  
Application of Palm Oil Mill Effluent (POME) and Bunch Ash on Selected High Value Vegetable Crops  
Long-term Effects of Application of Bunch Ash on Soil Properties and Oil Palm Yield  
Empty Fruit Bunches & Shells as Mulch in Oil Palm

#### **Papers Presented**

Manatad, F.A. (2008 Jl 16). Growth and Yield Performance of Six Detoxified Rice Varieties Using Conventional and Biodynamic/NFTS Farming Methods, 9th Regional Symposium on Research and Development Highlights (RSRDH), DOSTCARAGA, Ampayon, Butuan City.  
Manatad, F.A. (2008 JL 16). USM-ASSCAT Large Scale Clonal Training of Promising Rubber Clones in Mindanao, 9th Regional Symposium on Research and Development Highlights (RSRDH), DOSTCARAGA, Ampayon, Butuan City.  
Manatad, F.A. (2008 D 3). Effect of Detopping on the Growth and Yield Performance of Corn (USM Var.2), 2nd ASSCAT R&D Agency In-house Review, ASSCAT, Bunawan, Agusan del Sur.

#### **Publications**

- 2008 Manatad, F.A. In vitro Culture of Banana cv. Lakatan, As affected by Storage Duration of Corms. ASSCAT R&D Journal (ISSN 1656-2240 Refereed Journal), 2008, 4:97-104.
- 2008 Navarro, J.S., Manatad, F.A. Farm Management, Production Practices, and Costs and Returns of Coconut Farms in the Municipalities of Trento and Sta. Josefa, Agusan del Sur. ASSCAT R&D Journal, 2008, 4.
- 2008 Bayno, M.L., Manatad, F.A. Growth Performance of Tissue-cultured Lakatan Banana Plantlets. As affected by Bagging Media and Three Levels of Complete

- Fertilizer. ASSCA T R&D Journal, 2008, 4:105-118.
- 2008 Pamplona, N.C., Manatad, F.A. Influence of Kakawate (*Gliricidia sepium* Jacq) Leaf Extract and Soil Sterilization on the Germination and Seedling Development of Sweet Pepper. ASSCA T R&D Journal, 2008, 4:119-128.
- 2005 Manatad, F.A. Rooting and Survival of Rambutan (*Nephelium lappaceum* L.) By Air Layering As Influenced by Application of Naphthalene Acetic Acid. ASSCA T R&D Journal, 2005, 2(1):77-80.
- 2005 Manatad, F.A. In Vitro plantlet regeneration of Banana(*Musa sapientum* L.) cv. Lakatan in response to different levels of coconut water and Benzyl Adenine. ASSCAT R & D Journal, 2005, 3(1).

**Name** **Milagrosa R. Martinez - Goss**  
**Place of Birth** Manila Philippines  
**Date of Birth** October 19, 1942  
**Gender** Female  
**Civil Status** Married  
**Home Address** 2094 Mariposa St., Pleasant Vill., Los Banos, Laguna 4031

**Organizational Affiliations**

Scientist, Biological Science Division, UPLB, 2094 Mariposa St., Pleasant Vill., Los Banos Laguna

**Education**

PhD. in Botany, University of the Philippines at Los Baños, Laguna 1976

**Fields of Specialization**

Biological Sciences

Phycology

Botany

**Association Membership**

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Certificate of Honor, Museum of Natural History 2007 O 01

Plaque of Appreciation, College of Arts and Sciences 2007 N 21

**Trainings**

Phycological Society of America Annual Meeting, University of Washington, Seattle, Washington, U.S.A. 2011 JI 13-16

Consultation Workshop on DOST National R & D Priorities Plan, Main Resto, AFP Commissioned Officers Club, Camp Aguinaldo, Quezon City 2009 N 19

19th International Seaweed Symposium, Kobe, Japan 2007 Mr

International Conference on Diversity of Algae in Rice Paddies of the Philippines, Harison Hotel, Hanoi, Vietnam- 2007 D 18-19

Bio Adventure Exploring the Map of Life, Philippine Society of Youth Science Clubs, Inc., Dumaluan Beach, Resat, Panglas, Bohol 2003 O 20-24

Technoforum on Algae, Geo Farm, Bayambang, Pangasinan 2005 O 13

**Researches**

**On-going**

Marine Phytoplankter of the Philippines

CIDS Integration of Local Knowledge in Relation to Algal Diversity for a More Sustainable Rice Production in the Pinatubo Area

Biodiesel Feedstock Production from Freshwater Microalgae-Mass Cultivation of

Fresh Water Microalgae

Mastogloia spp. (Bacillariophyceae) from the Philippines

### Ongoing

Taxonomy and Ecology of Bloom-forming Algae in Rice Paddies of the Philippines

### Papers Presented

Martinez-Goss, M.R., Arguelles, E.D.L.R., Nacorda, J.O.O. (2011Ap 28-29). Epipellic Diatoms of Lake Caliraya, Laguna, Philippines, LakeCon Second National Congress on Philippine Lakes held at SEARCA, Los Baños, Laguna.

Martinez-Goss, M.R., N.M. Montaña, N.M., Ferrer, M.S. (2011 My 17). Seaweed Production and Climate Change in the Philippines, Seaweed Festival, Buguey, Cagayan (sponsored by Bureau of Fisheries and Aquatic Resources Regional Office No. 02.).

Kim, H.J., Hun Kim, Z., Lee, C.G., Goss, M.R.M., Jao, N.L., Torreta, N.K., Nacorda, J.O.O. (2011 JI 13-16). Effect of light quality on the growth and lipid content of *Chlorella vulgaris* Beij. (Cv1) (Chlorophyta), Phycological Society of America Annual Meeting, University of Washington, Seattle, Washington, U.S.A.

Martinez-Goss, M.R., Nacorda, J.O.O., Torreta, N.K. (2011 Ja 22). Diversity of Microalgae in the Aquatic Environment and their Potential as Biofuels, Cluster II Symposium of the Philippine Society for Microbiology held at DLSU, Manila.

Martinez-Goss, M.R., Toledo, N., Nacorda, J.O.O. Garibay, S.S., Perez, T.R., Demafelis, R.B., Torreta1, N.K., Pagdilao, C.R. (2011 Ja 17-19). Current Status on the R & D on Biodiesel Feedstock Production from Philippine Microalgae, "The Status and Technology Development of Biofuel from Algae in Workshop on ASEAN Countries' Institute of Graduate Studies, University of Malaya, Kuala Lumpur, Malaysia.

Martinez-Goss, M.R., Lim, J.C. (2011 F 1-3). Diversity of Epipellic Diatoms of Laguna de Bay, Philippines as Indicators of Environmental Changes, International Conference on Biodiversity and Climate Change" on in PICC, Manila, Philippines.

Martinez - Goss, M. (2009 S 25). Diversity of Algae in Rice Paddies of the Philippines, 2009 International Symposium on Bioresources: the Present and the Future at Chungnam National University, Daejeon, South Korea.

Martinez - Goss, M.R. (2009 S 14). Diatoms: Cells with glass walls, Institute of Biology, College of Science, University of the Philippines, Diliman, Quezon City/ Phi Sigma Biological Sciences Honor Society.

Martinez - Goss, M.R. (2009 O 23). Application of Diatoms in Health and Medicine, Second National Conference and General Assembly of the Philippine Society for Cell Biology at the Angelo King Auditorium at the St. Luke's Medical Center, Quezon City.

Martinez-Goss. M.R. (2009 N 27). Systematics of photosynthetic Euglenoids: Morphological and Molecular Approach , IBSLH3, Institute of Biological Sciences, CAS, University of the Philippines Los Banos, Laguna.

Martinez - Goss, M. (2009 Ag 25). Noteworthy Diatoms from Balayan Bay, Batangas, Province, Philippines, Verde Is. Conservation and Management in cooperation with SESAM, University of the Philippines Los Banos, College, Los Banos, Laguna.

Martinez, M.R. (2007 O 22). Diversity of Algae in Rice Paddies of the Philippines

and their uses, IBS.

Martinez-Goss, M.R. (2007 Mr). Effects of Depth and Spacing on the Growth of *Gracilaria firma* (Rhodophyta) in Buguey Lagoon, Cagayan Philippines/ and to visit and Observe Research and Teaching Institutions in Chiba, Fukuoka, Japan, 19th International Seaweed Symposium, Kobe, Japan.

Martinez, M.R. (2007 D 18-19). Diversity of Algae in Rice Paddies of the Philippines, International Conference, Harison Hotel, Hanoi, Vietnam.

Martinez, M.R. (2007). Algologist Confession on How to Survive in the Academic Ocean, 31st Anniversary of the MNH.

Martinez, M.R. (2005 O 13). Easy Way of Culturing the blue-green alga, *Nostoc commune varsch*, Technoforum on Algae in Geo Farm, Bayambang, Pangasinan.

Martinez - Goss, M.R. (2005 My 1-2). Effect of Lead Chloride on the growth, chlorophyll a content of the blue-geen alga, *Oscillatoria willei*, PSM, 32nd Annual Convention in Davao City.

Goss, M.R.M. (2003 O 18-21). Marine Diatoms of the Philippines and *Mastogloia*, 5th APCAB Meeting in Qingdao, China.

Martinez-Goss, M.R. (2003 O 20-24-). The Plants-Gateway to the Green World, Lecture given to the CSIW 2003. Bio Adventure Exploring the Map of Life, Philippine Society of Youth Science Clubs, Inc. in Dumaluan Beach, Resat, Panglas, Bohol.

Martinez-Goss, M.R. (). CIDS Integration of Local Knowledge in Relation to Algal Diversity for a More Sustainable Rice Production in the Pinatubo Area, 6th Asia Pacific Conference on Algal Biotechnology (APCAB).

## Publications

- 2011 Martinez-Goss, M.R., Lopez, L.C. Some noteworthy diatoms (Class Bacillariophyceae) associated with brown seaweeds, *Sargassum* spp., from Batangas and Quezon Provinces, Philippines. *Asia Life Sciences*, 2011, 6:151-163.
- 2011 Martinez-Goss, M.R., Evangelista, L.T. Contribution to the Taxonomy of *Mastogloia* (class Bacillariophyceae), in the Philippines. *Philippine Journal of Science*, 2011, 140(1):7-12.
- 2011 Demafelis, R.B., Quiñones, V.R., Martinez-Goss, M.R., Migo, V.P., Movillon, J.L., Alberto, P.R. Parametric Study on Dilute Acid Pre-treatment and Enzymatic Saccharification of *Turbinaria ornata* (Phaeophyta) for Hydrolysate Production. *Philippine Chemical Engineering Journal*, 2011, 13(1):77-83.
- 2011 Boonmee, S., Martinez-Goss, M.R., Shin, W. Taxonomy of flagellated algae in brackish- and freshwater fishponds in Central Luzon, Philippines. *Asia Life Science (Asia Int'l J. of Life Sciences)*, 2011, 20(1):97-139.
- 2007 Cremen, M.C., Martinez, M.R., Corre, V.L. Phytoplankton bloom in commercial shrimp ponds using green water technology. *Journal of Applied Phycology*, 2007, 19(6):615-624.
- 2007 Martinez, M.R., Torreta, N.K., Merca, F.E., Nacorda, J.O. Metal resistance and removal by two strains of the green alga, *Chorella vulgaris* Beijerinck, isolated from Laguna de bay, Philippines. *Journal of Applied Phycology*, 2007, 19(6):701-710.



- 2007 Martinez, M.R., Torreta, N.K., Merca, F.E. Algal Biotechnology. *Journal of Applied Phycology*, 2007, 19(6):603-605.
- 2003 Martinez-Goss, R.M. *Veterinary Botany*. IBS, College, Laguna, 2003:144.
- 2003 Martinez-Goss, R.M. *Practical Botany (A Lecture Syllabus)*. CAS, UP Los Banos, 2003.
- 2000 Briones, M.P., Martinez, M.R. A comparison of the morphocytology and chemical composition of the two forms of cyanobacterium, *Nostoc commune vauch* from the Philippines and Japan. *Journal of Applied Phycology*, 2000, 19(6):675-683.

**Name** Ronald Umali Mendoza  
**Date of Birth** June 16, 1973  
**Gender** Male  
**Civil Status** Married  
**Home Address** 41 Taurus Street, Cinco Hermanoos Subd., Marikina City

**Organizational Affiliations**

Associate Professor, AIM,  
Executive Director, Aim Policy Center,  
Co-Editor, Journal of Asian Business,

**Education**

PhD in Economics, Fordham University, Graduate School of Arts and Sciences, New York, USA 2008

Masters in Public Administration and International Development, Harvard University, The John F. Kennedy School of Government, Cambridge, Mass. USA 2001

M.A. in Economics, Fordham University, Graduate School of Arts and Sciences, New York, USA 1998

BA in Economics, Honors Program(Eco-H), Ateneo de Manila University, College of Arts and Sciences, Manila 1995

**Fields of Specialization**

Social Science Research  
International Economic Development  
Public economics, financial and economic crises management

**Employment**

Adjunct Professor of Economics, Dept. of Economics, Fordham University, New York, USA, 1998-1999-

Economist Intelligence Unit (EIU), New York, USA, Summer 1998-

Teaching Fellow, The John F. Kennedy School of Government, Cambridge, Mass. USA, Fall 1999 -Spring 20-

Lecturer, Dept. of Economiccs, Ateneo de Manila University, 1995-1996-

Executive Assistant to the Director, Graduate Program in International Political Economy and Development, Fordham University, 1997-1999-

Teaching Assistant, Fordham University, New York, USA, 1996-1997-

Economist and Policy Analyst, Office of Development Studies, UNDP, 2001Ag-2008 Ag-

Consultant on Tax Policy, Economic Research Department, Federal Reserve Bank of Boston, MA, USA, Summer 2000-

Economist, UNICEF, Policy and Practice Group, (DPP-SPEA), 2008 S- 2010 N-  
Research Assistant, Philippine Center for Social Policy (PCSP), Mr-My 1996-  
Research Assistant, Ateneo Center for Economics Research and Development,  
1995 JI-O-

#### **Association Membership**

Member, Global Development Network  
Member, Economists Allied for Arms Reduction  
Member, American Economics Association  
Member, Eastern Economics Association  
Member, Foundation for Economic Society  
Member, Foundation for Economic Freedom  
Member, Philippine Economic Society  
Member, Management Association of the Philippines  
Founding Member, Harvard Philippine Students Network

#### **Honors / Awards**

General Syjuco Saber for Leadership Excellence, Philippine Air Force (ROTC)  
1995  
Cum laude and Department Medal in Economics, Ateneo de Manila University  
1995  
Best Thesis in Economics (with Jerome Pampolina), Ateneo de Manila University  
1995  
Presidential Scholarship, Fordham University 1996-1999  
Omicron Delta Epsilon Honor Society in Finance and Economics, Fordham  
University 1997  
Peter Brooks Saltonstall, Harvard University 1999-2001  
Eugenio Lopez Fellowship, Harvard University 1999-2001  
Honor Medal for Academic Excellence, Philippine Air Force ROTC 1994  
Oblation Scholarship, University of the Philippines 1991  
Merit Scholarship, Ateneo de Manila University 1991  
Cum laude/ Departmental Medal for Economics, Ateneo de Manila University 1995

#### **Trainings**

CSO-DSWD Forum on Conditional Cash Transfers, Clark Air Base, Pampanga  
2011 S 6  
Extractive Industries, Human Development and Child Rights, Int.Conference on  
Avoiding the Resource Curse: Managing Extractive Industries for Human  
Development 2011 O 20-22  
Freedom of Information Policy Forum, Organized by the Council for Media  
Freedom and Responsibility, Makati City 2011 JI 27

Synthesis Session on Challenges Faced by Policymakers in Protecting Children During the Eco. Crisis, National University of Singapore and Ministry of Foreign Affairs, Singapore 2009 Ja 6-7

Meeting on Realizing the Potential of Diasporas to Reduce Poverty and Enhance Entrepreneurs, The Rockefeller Foundation, New York, USA 2008 My 13

International Political Economy and Development (IPED) Lecture on Inclusive Markets, Poverty Reducti, Fordham University, New York, USA 2008 F 21

## **Researches**

### **Completed**

Extractive Industries, Human Development and Child Rights

Civil Society, Access to Information and Good Governance

## **Papers Presented**

Mendoza, R.U. (2011 S 6). Civil Society, Access to Information and Good Governance, CSO-DSWD Forum on Conditional Cash Transfers, Clark Air Base, Pampanga.

Mendoza, R.U. (2011 O 20-22). Extractive Industries, Human Development and Child Rights, International Conference on Avoiding the Resource Curse: Managing Extractive Industries for Human Development, Ulaanbaatar, Mongolia.

Mendoza, R.U. (2011 Jl 27). Access to Information and Good Governance in Public Finance, Freedom of Information Policy Forum, Organized by the Council for Media Freedom and Responsibility, Makati City.

Mendoza, R.U. (2011 Ag 18). Time for Anti-Trust?, Competition Policy Forum.

Mendoza, R.U. (2011 Ag 12). Youth in the Global Economy, Youth Day, "Ka-JAM" Conference, Organized by International Organization for Migration, National Youth Council, UNICEF and Government of Spain, SMX, Metro Manila.

Mendoza, R.U. (2010 N 22). Promoting Recovery for All: Evidence of Social Impact and the Lessons Learned from the 2008-2010 Crises, University of New Haven, Dept. of Economics, Professional Enrichment Event Series, New Haven, Connecticut.

Mendoza, R.U. (2010 N 13). La Infancia y la crisis economica: Evidencia global e instrumentos de medicion de sus impactos segun la experiencia de UNICEF (Translated), 2nd International Forum on the Impact of the Economic Crisis on Children and Adolescents: Towards an Equitable Recovery, organized by UNICEF and CONEVAL, Sala Jose Maria Morelos y Pavon, Ministry of Foreign Relations (Secretaria de Relaciones Exteriores) Avenida Juarez 20, Mexico City.

Mendoza, R.U. (2010 Je 12-18). Global Economic Recovery with a Human Face, Poverty and Economic Policy Research Network's 8th General Meeting, Dakar, Senegal.

Mendoza, R.U., Komarecki, M. (2010 Ap 27). When the Global Downturn hits the Youth Bulge: Challenges and Opportunities for (Female) Youth Unemployment, UNICEF-New School University Conference on Adolescent Girls, New York, USA.

Mendoza, R.U. (2009 S 22). The Impact of the Global Economic Crisis on Children, Fordham University Consortium on Social Justice and Poverty Event on "The Global Impact on Poverty of the Economic Downturn, Fordham University Uncoln Center Campus, New York, USA.

Mendoza, R.U. (2009 My 25-26). The Economic Crisis and Emerging Challenges in Public Finance, UNICEF CEE-CIS Region Meeting on Critical Mass for Social Budgeting and Public Finance, Istanbul, Turkey.

Mendoza, R.U. (2009 Mr 1). Do Developing Countries Face a 'Double Whammy' of Brain Drain and Lower Remittances, Eastern Economics Association 2009 Session on Remittances and Labor Migration, New York, USA.

Mendoza, R.U. (2009 Je 24-25). Human Development in Crisis, Global Crisis and Long Term Growth: A New Capitalism Ahead?, XXI Villa Mondragone International Economic Seminar on University of Roms-Tor Vergata, Italy.

Mendoza, R.U. (2009 D3-4). Innovations in Social Budgeting: Bringing the Public Back into Public Finance, African Child Policy Forum Roundtable Meeting on Social Budgeting in Crisis, Addis Ababa, Ethiopia..

Mendoza, R.U. (2009 Ap 21-23). Economic Crisis Transmission to Poor Households, Women and Children, UNICEF CEE-CIS Regional Child Well-being Workshop, Issyk-Kul, Kyrgyz Republic.

Mendoza, R.U. (2007 F 21). Mapping the Base of the Pyramid: A Review of Preliminary Findings, Invited lecture for the Social Entrepreneurship class of Prof. V. Katsuri Rangan, Harvard Business School, Cambridge, MA.

Mendoza, R.U. (2007 D 14). Was the Asian Financial Crisis a Wake-up Call? Foreign Reserves as Self Protection, 2nd All China Economics (ACE) International Conference, Hong Kong, SAR.

Mendoza, R.U. (2007 Ap). Are Markets Inclusive for the Poor?, Advisory Board Meeting of the UNDP-led Multi-Stakeholder Initiative on "Growing Inclusive Markets, United Nations, New York, USA.

Mendoza R.U. (2006 D 8). Mapping the Base of the Pyramid: The BOP Heat Map as an Analytical Tool, Presented at the Experts Group Meeting on Mapping the Base of the Pyramid, United Nations, New York, USA.

Mendoza, R.U. (2004 Ja 10). Multilateral Regimes Under a Global Public Goods Lens: Policy Insights and Implications, Policy Seminar at the University of the Philippines, School of Law, Manila, Philippines.

Mendoza, R.U. (2003 My 1). Certified 'Fair Trade' Products: Can they significantly offset some of the negative effects of globalization?, Roundtable discussion organized by the Rockefeller Foundation, Ford Foundation and King Baudouin Foundation, New York, USA.

Mendoza, R.U. (2003 Ja 19-21). Viewing Multilateral Regimes as Global Public Goods: Policy Insights and Implications, 4th Global Development Network (GDN) Conference, Cairo, Egypt.

Mendoza, R.U. (2003 F 21). Toward Free and Fair Trade: A Global Public Good Perspective, 29th Eastern Economics Association Conference, New York, USA.

Mendoza, R.U. (2003 Ap 24). International Political Economy and Development (IPED) Lecture on Providing Global Public Goods and Managing Globalization, Fordham University, New York, USA.

Mendoza, R.U. (2001 N 2). The Role of Global Public Goods in Inclusive Globalization, Prepared for the World Commission on the Social Dimension of Globalization of the International Labor Organization, Knowledge Network Meeting.

Mendoza, R.U. (2000 Ag). An Analysis of the Net Economic Impact of Video Lottery Terminals (VLTs) in New Hampshire, Results presented in public testimony to the New Hampshire Education Funding Commission, Concord, New Hampshire.

Mendoza, R.U. (1998 Mr). Governmental and Labor Responses to Capital Mobility: Emerging Markets and the Decline of Economic Sovereignty, 39th Annual Convention of the International Studies Association (ISA), Minneapolis, Minnesota.

Mendoza, R.U. (). Synthesis Session on Challenges Faced by Policymakers in Protecting Children During the Economic Crisis of 2008-2009, Fordham University Consortium on Social Justice and Poverty Event on "The Global Impact on Poverty of the Economic Conference on the Impact of the Economic Crisis on Children Jointly Organized by UNICEF, Lee Kwan Yew School of Government (National University of Singapore) and Ministry of Foreign Affairs, Singapore.

Mendoza, R.U. (). International Political Economy and Development (IPED) Lecture, Inclusive Markets, Poverty Reduction and Achieving the MDGs, Fordham.

### **Publications**

- 2012 Mendoza, R.U., Harper, C., Jones, N., Stewart, D., Strand, E. Children in Crisis: Protecting the Vulnerable and Promoting Recovery for All. Palgrave MacMillan Publication, 2012 (Forthcoming).
- 2011 Mendoza, R.U. Crises and inequality: Lessons from the food fuel, financial and economic crisis of 2008-2010. Global Policy, 2011.
- 2011 Mendoza, R.U., Acosta, P., Melzer, I., Kim, N., Thelen, N. Are Markets Inclusive for the Poor?. Journal of World Business, 2011, 46(1):50-60.
- 2011 Mendoza, R.U. Why Do the Poor Pay More? Exploring the Poverty Penalty Concept. Journal of International Development, 2011, 23(1):1-28.
- 2010 Mendoza, R.U., Komarecki, M., Murthy, S. When Global Downturn Hits the Youth Bulge: Challenges and Opportunities for (Female) Youth Employment and Social Advancement. Proceedings from the UNICEF-GPIA conference on Adolescent Girls, 2010 Ap 26-28.
- 2010 Mendoza, R.U. Trade and Growth in the Post-Crisis World. World Economics, 2010, 4:29-36.
- 2010 Mendoza, R.U. Trade-Induced Learning and Industrial Catch-up. The Economic Journal, 2010, 120(546):F313-F350.
- 2010 Mendoza, R.U. Investitionen für Kinder: Gerade Jetzt. Kinder: Die Vergessenen der Finanzkrise, Mit allen Situation der Kinder in der Welt. Köln:Deutsches Komitee für UNICEF, 2010.
- 2010 Mendoza, R.U. The Intended and Unintended Consequences of Social Protection on School Dropout in Post-crisis Indonesia. Journal of International Development, 2010, 22(8):1115-1133.
- 2010 Mendoza, R.U. Was the Asian financial Crisis a Wake-up Call? Foreign Reserves as Self Protection. Journal of Asian Economics, 2010, 21(1):1-19.
- 2009 Mendoza, R.U. Aggregate shocks, poor households and children: Transmission Channels and Policy Responses. Global Social Policy, 2009, 9(1):55-78.
- 2009 Mendoza, R.U., Conceicao, P. Anatomy of the Global Food Crisis. Third World

- Quarterly, 2009, 6(1159-1182).
- 2009 Mendoza, R.U. A proposal for an Asian Rice Insurance Mechanism. *Global Economy Journal*, 2009, 9(1):6.
- 2006 Mendoza, R.U., Conceicao, P. Identifying high return investments: A methodology for identifying when International Cooperation pays for whom. *The New York Finance: Responding to Global Challenges*, New York: Oxford University Press, 2006.
- 2003 Kaul, I., Conceicao, P., Katell Le Goulven, Mendoza, R.U. The Multilateral Trade Regime: a Global Public Good for All?. *Providing Global Public Goods: Managing Globalization*, 2003.
- 1995 Mendoza, R.U. The Value Added Tax System in the Philippines and Foreign Direct and Portfolio Investments in the Philippines. *Reading in Economics*, Manila: Dept. of Economics, Ateneo de Manila University, 1995, 1.

**Name** Marian Apolinario Pulido  
**Place of Birth** Santa Rosa, Laguna  
**Date of Birth** Oct. 11, 1974  
**Gender** Female  
**Civil Status** Single  
**Home Address** Museum of Natural History University of the Philippines Los  
Banos College Laguna,4031

**Organizational Affiliations**

Scientist, Museum of Natural History, University of the Philippines, College, Laguna  
University Researcher II, Museum of Natural History, Upper Forestry Campus,  
UPLB, College, Laguna

**Education**

Ph.D. Engineering (Major in Material and Life Science), Osaka University, Osaka  
Japan 2008 Mr  
M.S. Food Science, University of the Philippines at Los Baños, Los Baños,  
Laguna, Philippines, 4031 Laguna 2002  
B.S. Food Technology, University of the Philippines Los Banos, Los Baños,  
Laguna, Philippines 1995

**Fields of Specialization**

Biological Sciences  
Hyperthermophilic proteins  
Food Microbiology  
Directed Evolution of Proteins

**Employment**

Sc. Research Assistant, Dept. of Material and Life Science, Osaka University,  
Japan, 2003 Ap-S-  
Study Leader, ANMR-RIKEN, 1998 Ap-2000 D-  
Project Staff, ANMR-RIKEN/MNH/UPLB-FI, 1998 Ap-2000 D-  
Project Staff, ANMR-RIKEN/MNH/UPLB-FI, 1997 S-2000 D-  
Study Leader, ANMR-RIKEN/MNH/UPLB-FI-, 1997 O-1998 Mr-  
Research Associate, ANMR-RIKEN/MNH/UPLB-FI--, 1996 Ap-1997 S-  
Research Associate, UPLB-FI/PCA, 1995 Ap-1996 Mr-

**Association Membership**

Member, Philippine Network for Microbial Culture Collection  
Organizing Committee Chair, Philippine Society for Microbiology  
Member, Philippine Society for Microbiology



Food and Nutrition Chair, National Research Council of the Philippines  
Member, Japanese Biochemical Society  
Member, Protein Science Society of Japan  
Member, International Youth Group, Osaka Japan  
Associate Member, National Research Council of the Philippines  
Life Member, Philippine Society for Microbiology  
Recording Secretary, Philippine Society for Microbiology  
Food Microbiology Division Representative, Philippine Society for Microbiology  
Business Manager, Philippine Network for Microbial Culture Collection  
Press Relation Officer, Philippine Network for Microbial Culture Collection  
Member, Philippine Network for Microbial Culture Collection  
Junior Adviser, Philippine Association of Food Technologist  
Member, Gamma Sigma -The Honor Society of Agriculture  
Member, Extension and Professional Staff Association

#### **Honors / Awards**

Research Studentship Award, Japanese Government Ministry of Education 2003  
Ap - 2003 S  
Doctoral Program Scholarship Award, Japanese Government Ministry of Education  
2003 O- 2006 S  
Visiting Researcher Award, Osaka, University, Osaka Japan 2006 N - 2007 Mr  
Special Citation, NAST Talent Search for Young Scientists, NAST, Manila Hotel,  
Manila 2008

#### **Trainings**

A Glimpse on the Function and Structure of a subtilisin from a Hyperthermophilic  
Archaeon, NIMBB, UP Diliman 2009 F 22  
A Glimpse on the Function and Structure of a subtilisin from a Hyperthermophilic  
Archaeon, DLSU, Taft Ave., Manila 2008 Ap 2  
A Special Lecture on Microbial Techniques presented to Batangas State University  
Students, Museum of Natural History 2008 Ag 8

#### **Researches**

##### **Completed**

Construction of low-temperature adapted Tk-subtilisin from hyperthermophilic  
archaeon  
Developmental studies on alcoholic on alcoholic beverages (wine) and  
champagne-type from coconut water  
Screening of useful microorganisms for unused tropical plant resources and  
process development  
Establishment of microbial culture collection and network

Investigation and collection of lactic acid bacteria from natural Resources in Southeast Asia

Information sharing network for research and development on microbes among distributed center

Characteristics analysis of microorganisms for utilization of unused tropical plant resources and process development.

### **Ongoing**

Exploration of the Microbial diversity of Caves in the Philippines and its biotechnological Potential: Bacterial Biofilm formation in Mapanghe and Bulalon Caves in Polillo Islands, Quezon

Exploration of the Microbial Diversity of Caves in the Philippines and its Biotechnological Potential: Bacterial Biofilm formation in Cave of Malay Municipality, Aklan Province

Role of propeptide on mutation of subtilisin from a hyperthermophilic archaeon

### **Papers Presented**

Pulido, M.A. (2008 O 4). Hyperthermophilic enzymes: The Microbial Potentials, 1st Regional Annual Convention and Scientific Meeting, Philippine Society for Microbiology, Inc., Bicol Chapter, Divine Word College of Legazpi, Legazpi City, Albay.

Pulido, M.A. (2008 O 16-17). Bacterial Food-Borne Infections: Up Close and Personal, 16th Regional Annual Convention and Scientific Meeting, Philippine Society for Microbiology, Inc., Visayas Chapter, Mambukal Resort, Murcia, Negros Occidental.

Pulido, M.A. (2008 N 14-15). Surveys on Mycotoxins: A Rising Threat to Humans, 13th Regional Annual Convention and Scientific Meeting, Philippine Society for Microbiology, Inc., Mindanao Chapter, Cagayan de Oro City.

Pulido, M.A. (2008 Je 23). Lower Forms of Organisms of Mt. Makiling: Here, Now and Thereafter, OVCRE's Roundtable Discussion on Towards Developing a Biodiversity Research Framework on Mt. Makiling, OVCRE's Conference Room.

### **Publications**

- 2008 Pulido, M.A. Role of propeptide on maturation of subtilisin from a hyperthermophilic archaeon. Ph.D. Thesis, Osaka University, Osaka, Japan, 2008 Mr.
- 2007 Pulido, M.A., Tanaka, S. et.al. Requirement for left handed glycine residue for high stability of the Tk-subtilisin propeptide as a revealed by mutational and crystallographic analyses. *Journal of Molecular Biology*, 2007, 374::1359-1373.
- 2007 Pulido, M.A., Koga, Y., Kanaya, S. Directed evolution of Tk subtilisin from a hyperthermophilic archaeon: Identification of a single amino acid substitution responsible for low temperature adaption. *Prot.Eng.Des.*, 2007, 20::143-153.
- 2006 Pulido, M.A., Saito, K., Koga, Y., Takano, K., Kanaya, S. Ca<sup>2+</sup> dependent maturation of Tk-subtilisin from hyperthermophilic archaeon: Propeptide is a potent inhibitor of the mature domain but is not required for its folding. *Applied Environmental Microbiology*, 2006, 72::4154-4162.
- 2002 Pulido, M.A. Screening of thermophilic bacterial isolates for protease production

and its application in food processing. MS Thesis, UPLB, Institute of Food Science and Technology, 2002 My.

- 1995 Pulido, M.A. Study on the product quality control and environmental aspects of nata de coco production in Malvar, Batangas. BS Thesis, UPLB, Institute of Food Science and Technology, 1995 Ap.

**Name** Emilia T. Qunitio  
**Gender** Male  
**Civil Status** Single  
**Home Address** Block 1 Lot 47 Ledesco Village, Jaro Iloilo City

**Organizational Affiliations**

Scientist, Southeast Asian Fisheries Development Center-Aquaculture Department, Tigbauan, Iloilo 5021, Philippines

Head, Breeding and Seed Production Section, SEAFDEC/AQD-, Tigbauan, Iloilo

**Education**

Doctor of Fisheries Science, Faculty of Fisheries, Hokkaido University, Hakodate, Japan 1995 Ap

Research Student, Faculty of Fisheries, Hokkaido University, Hakodate, Japan 1987 Ap - 1989 Mr

Master of Science in Fisheries (Major in Aquaculture), University of the Philippines in the Visayas, Iloilo, Philippines 1980 Je

Bachelor of Science in Fisheries (Major in Inland Fisheries), University of the Philippines, Diliman, Quezon City, Philippines 1976 Mr

License - Fisheries Technologist, Profession Regulation Commission, Manila -

**Fields of Specialization**

Shrimp and crab breeding and seed production

Reproductive physiology of shrimps and crabs

Crab and shrimp culture in nursery and grow-out ponds/pens

**Employment**

Head, Breeding and Seed Production Section, SEAFDEC/AQD, 2009 - present-

Program Leader, Shrimp and Mud Crab Domestication, SEAFDEC/AQD, 2007 - 2008-

Head, Breeding Section, SEAFDEC/AQD, 1995 S - 2000 F-

**Association Membership**

Full Founding Member, Asian Fisheries Society

Regular Member, Crustacean Society

Life Member, Philippine Association of the Japanese Ministry of Education Scholars

Treasurer -Visayas Chapter, Philippine Association of the Japanese Ministry of Education Scholars

President, Philippine Association of the Japanese Ministry of Education Scholars

Member, Editorial Board, Philippine Journal of Science (DOST)

Member, Philippine Aquaculture Society, Inc.

Member, National Research Council of the Philippines

Treasurer Visayas Cluster, National Research Council of the Philippines

Member, Department of Science and Technology-Philippine Society of JSPS  
Ronpaku Fellow

### **Honors / Awards**

Best published Research Paper, Bureau of Agriculture Research, Department of Agriculture 2001 O 4

National Research and Development Award, Bureau of Agricultural Research, Department of Agriculture 2005 O 5

Elvira O. Tan Memorial Award on Aquaculture and Inland Fisheries, Los Banos Science Community Foundation, Inc. and PCAMRD

### **Trainings**

Philippine Shrimp Congress, Bacolod City, Negros Occ., Philippines. 2010

Mangrove Ecology, Taxonomy, and Community Structure, SEAFDEC/AQD, Ibadan, Aklan 2008 Ap 30 - My 4

Integrated Training-Workshop on Technology Transfer and Commercialization, RED Foundation, Inc. and SEAFDEC/AQD, Tigbauan, Iloilo 1997 JI

Basic Supervisory Development Course, University of the Philippines and SEAFDEC/AQD, Tigbauan, Iloilo, 1982 O - D 16

### **Researches**

Domestication of mud crab

#### **Completed**

Physiological Studies on the Reproduction of Shrimps: Hormonal regulation during vitellogenesis

Development of improved mud crab *Scylla serrata* culture systems in the Philippines and Australia

Culture and management of *Scylla serrata* species (EC-CAMS)

Development of specific pathogen-free shrimp broodstock

Enhancing adoption of mud crab production technologies in Northern Samar

Selective breeding of mud crab *Scylla serrata*

Breeding and seed production of mud crab (refinements, pilot-testing, etc)

### **Papers Presented**

Quinitio, E.T. (2010). Updates on crustacean research at SEAFDEC/AQD, Philippine Shrimp Congress, Bacolod City, Negros Occ., Philippines..

Quinitio, E.T. (2009). Domestication of mud crab *Scylla serrata* (oral), 2009 Shanghai Crab Symposium - Shanghai Ocean University, Shanghai, China..

Quinitio, E.T. (2009). Assessment of microsatellite DNA variability in four Philippine wild populations of mud crab *Scylla serrata*, 2009 Shanghai Crab Symposium - Shanghai Ocean University, Shanghai, China..

- Quinitio, E.T. (2007). Mud Crab Culture ? the challenges and solutions, Indaqua 2007 - Chennai, India..
- Quinitio, E.T. (2007). Mud Crab Hatchery, Abot Forum - Phil. Social Science Center, Commonwealth Ave., Quezon City, Philippines.
- Quinitio, E.T., Sanraj, T. (2007). Mud crab culture: Challenges and opportunities, Compendium of the proceedings of Technical Sessions of Aquaculture and Ornamentals.
- Quinitio, E.T., Okuzawa, K., Leбата, J.H. and Buen-Ursua, S.M.A. (2006). The SEAFDEC/AQD Experience in Stock Enhancement., Regional Technical Consultation on Stock Enhancement for Threatened Species of International Concern. SEAFDEC/AQD and Government of Japan Trust Fund..
- Quinitio, E.T. (2005). Performance of hatchery and wild-sourced *Scylla serrata* juveniles in ponds;, International Workshop on Culture, Fisheries and Stock Enhancement of Portunid Crabs, Iloilo City, Philippines..
- Quinitio, E.T. (2005). Ovarian maturation stages of mud crab *S. serrata*, International Workshop on Culture, Fisheries and Stock Enhancement of Portunid Crabs, Iloilo City, Philippines.
- Quinitio, E.T. (2005). Maturity in *S. serrata*, *S. tranquebarica* and *S. olivacea*, International Workshop on Culture, Fisheries and Stock Enhancement of Portunid Crabs, Iloilo City, Philippines.
- Quinitio, E.T. (2005). Highlights of the international workshop on culture, fisheries and stock enhancement of portunid crabs, World Aquaculture 2005 - WAS, Bali, Indonesia.
- Quinitio, E.T. (2005). Crustacean breeding in the Philippines, Asian and European Meeting (ASEM) Workshop on Domestication and breeding, Bangkok, Thailand.
- Quinitio, E.T. (2004). Shrimp breeding in the Philippines, Shrimp Congress 2004, Shrimp Technology Advancement for Sustainable Aquaculture, Cebu City, Philippines.
- Quinitio, E.T. (2003). Mud crab hatchery and grow-out status in the Philippines, ACIAR Crab Aquaculture Scoping Study and Workshop Mud crab Aquaculture in Australia and Southeast Asia, QDPI, Bribie Island Aquaculture Research Centre, Queensland, Australia.
- Quinitio, E.T. (2003). Mud Crab Hatchery and Nursery Operations, Seminar on Business Opportunities in Aquaculture, Sarabia Manor Hotel, Iloilo City, Philippines.
- Quinitio, E.T. (2002). Mangrove crabs-Breeding, hatchery and culture, Aquabusiness Seminar and Exhibit 2002, Langkawi, Malaysia.
- Quinitio, E.T. (2001). Molting and regeneration of *Scylla serrata* juveniles, Workshop on Mud Crab Culture, Ecology and Fisheries, Can Tho, Vietnam.
- Quinitio, E.T. (2000). Seed production of mud crab spp., World Aquaculture 2000 - WAS, Nice, France.
- Quinitio, E.T., Estepa, F.P. and Alava, V. (1999). Development of hatchery techniques for the mud crab *Scylla serrata*, Mud Crab Scientific Forum, Darwin, Northern Territory, Australia..
- Quinitio, E.T., Parado-Estepa, F.D. (1999). Larval survival and megalopae

production of *Scylla* sp. at different salinities, Mud Crab Scientific Forum, Darwin, Northern Territory, Australia.

Quinitio, E.T., Millamena, O.M. (1999). Reproductive performance of pond-sourced *Scylla serrata* fed various broodstock diets, Mud Crab Scientific Forum, Darwin, Northern Territory, Australia.

Quinitio, E.T. (1998). Simulated transport of *Scylla serrata* megalopae at various densities and durations, Fifth Asian Fisheries Forum - AFS, Chiang Mai, Thailand.

Quinitio, E.T. (1998). Large-scale production of mud crab *Scylla serrata* juveniles, International Forum on the Culture of Portunid Crabs, Boracay, Aklan, Philippines.

Quinitio, E.T. (1998). Simulated transport of *S. serrata* megalopae at various densities and durations, International Forum on the Culture of Portunid Crabs, Boracay, Aklan, Philippines.

Quinitio, E.T. (1998). Simulated transport of *S. serrata* zoeae at various densities, International Forum on the Culture of Portunid Crabs, Boracay, Aklan, Philippines..

Quinitio, E.T. (1997). SEAFDEC crab larval rearing experiments: diets, ACIAR Mud Crab Scientific Forum, Darwin, Northern Territory, Australia..

Quinitio, E.T. (1997). Salinity tolerance of mud crab larvae, ACIAR Mud Crab Scientific Forum, Darwin, Northern Territory, Australia.

Quinitio, E.T. (1996). Influence of steroid hormones on gonadal maturation and molting in *Penaeus monodon*, Second International Conference on the Culture of Penaeid Prawns and Shrimps, Iloilo Philippines.

Quinitio, E.T., Estepa, F.P., Biona, H., Millamena, O.M. (1996). Reproductive performance of captive *Penaeus monodon* fed various sources of carotenoids, National Seminar-Workshop on Fish Nutrition and Feeds, SEAFDEC/AQD, Iloilo, Philippines.

Quinitio, E.T. (1995). Evaluation of sperm quality of captive *Penaeus monodon*., Fourth Asian Fisheries Forum - AFS, Beijing, China..

Quinitio, E.T. (1994). Reproductive performance of captive *Penaeus monodon* fed various sources of carotenoids., National Seminar-Workshop on Fish Nutrition and Feeds, SEAFDEC, Iloilo, Philippines.

Quinitio, E.T. (1992). Ovarian development in relation to changes in the external genitalia in captive *Penaeus monodon*, 3rd Asian Fisheries Forum - AFS.

Quinitio, E.T., Vogt, G., Pascual, F.P. (1989). Interaction of the midgut gland and the ovary in the vitellogenesis and consequences for the breeding success: a comparison of unablated and ablated spawners of *Penaeus monodon*, Aquaculture, A Biotechnology in Progress: Bredene, Belgium: European Aquaculture Society.

Quinitio, E.T. (1988). Hokkai ebi no seishoku sioki (Reproductive cycle of *Pandalus kessleri*), Spring 1988 Meeting of the Japanese Society of Scientific Fisheries, Nihon University, Tokyo, Japan.

Quinitio, E.T. (1983). The use of substitute feeds in larval rearing of *Penaeus monodon*, 1st International Conference on Warm Water Aquaculture-Crustaceans.

Quinitio, E.T. (1983). The effect of different feed combinations using chicken egg yolk in *Penaeus monodon*, 1st International Conference on Warm Water Aquaculture-Crustaceans.

## Publications

- 2009 Qunitio, E.T., Lebata J.H.L., Le Vay, L., Walton, M.E., Binas, J.B., Rodriguez, E.M., Primavera J.H. Evaluation of hatchery-base enhancement of the mud crab *Scylla* spp., fisheries in mangroves: comparison of species and release strategies. *Marine and Freshwater Research*, 2009, 60:58 - 69.
- 2009 Qunitio, E.T., Noe Lwin, M.M. *Soft-shell Mud Crab Farming*. SEAFDEC/AQD, Iloilo, Philippines, 2009:99.
- 2009 Qunitio, E.T. *Advances in mud crab hatchery and nursery*. Infofish International, Kuala Lumpur, Malaysia., 2009(My & Je):16 - 22.
- 2009 Qunitio, E.T. *Seed Production and grow-out of mud crab (Scylla paramamosain) in Vietnam (ed).. Extension Manual*, SEAFDEC/AQD, Tigbauan, Iloilo., 2009, 42:29.
- 2009 Qunitio, E.T., Rodriguez, E.M., Estepa, F.D. *Nursery and grow-out of mud crab*. *Training Handbook on Rural Aquaculture*, SEAFDEC/AQD, Iloilo, 2009, 44:87 - 95.
- 2008 Qunitio, E.T., Le Vay, L., Lebata, J.H., Walton, M., Primavera, J.H., Lavilla-Pitogo, C., Parado-Estepa, F., Rodriguez, E., Ut, V.N., Nghia, T.T., Sorgeloos, P., Wille, M. *Approaches to stock enhancement in mangrove-associated crab fisheries*. *Reviews in Fisheries Science*, 2008, 16(1 - 3):72 - 80.
- 2008 Qunitio, E.T., Okuzawa, K., Maliao, R.J., Buen-Ursua, S.M., Lebata, J.H., Gallado, W.G., Garcia, L.B., Primavera, J.H. *Stock enhancement of threatened species in Southeast Asia.. Reviews in Fisheries Science*, 2008, 16(1 - 3):394 - 402.
- 2007 Qunitio, E.T., Le Vay, L., Cravalho, G.R., Lebata, J.H., Ut, V.N., Fushimi, H. *Quality of hatchery-reared juveniles for marine fisheries stock enhancement*. *Aquaculture*, 2007, 268:169 - 180.
- 2007 Qunitio, E.T., de Pedro, J., Estepa, F.P. *Ovarian Maturation Stages of the Mud Crab Scylla serrata*. *Aquaculture Research*, 2007, 38:1434 - 1441.
- 2007 Qunitio, E.T., de Pedro, J., Estepa, F.D. *Formalin as an alternative to trifuralin as prophylaxis against fungal infection in mud crab Scylla serrata (Forsskal) larvae*. *Aquaculture Research*, 2007, 38:1554 - 1562.
- 2007 Qunitio, E.T., Lumasag, G., Aguilar, R., Baldevarona, R., Saclauso, C. *Ontogeny of feeding apparatus and foregut of mud crab Scylla serrata (Forsskal) larvae*. *Aquaculture Research*, 2007, 38:1500 - 1511.
- 2007 Qunitio, E.T., Alava, V.R., de Pedro, J., Orosco, Z., Wille, M. *Reproductive performance, lipids and fatty acids of mud crabs Scylla serrata (Forsskal) fed dietary lipid levels*. *Aquaculture Research*, 2007, 38:1442 - 1451.
- 2007 Qunitio, E.T., Alava, V.R., de Pedro, J.B., Priolo, F.M., Orosco, Z. and Wille, M. *Lipids and fatty acids in wild and pond-reared mud crab Scylla serrata (Forsskal) during ovarian maturation and spawning.. Aquaculture Research*, 2007, 38:1468 - 1477.
- 2007 Qunitio, E.T., Estepa, F.D., Rodriguez, E.M. *Seed Production of Charybdis feriatius (Linnaeus).. Aquaculture Research*, 2007, 38:1452 - 1458.
- 2007 Qunitio, E.T., Rodriguez E.M., and Parado-Estepa, F. *Extension of nursery*



- culture of *Scylla serrata* (Forsskal) juveniles in net cages and ponds.. *Aquaculture Research*, 2007, 38:1588 - 1592.
- 2006 Qunitio, E.T., Shaji M., Thampi, S., Kandan, S., Ganesh, K., Kumar, D., Arulraj, S., Pandiarajan, S., Ismail, S., Dhandapani, K. Seed production of mud crab *Scylla serrata* at the Rajiv Gandhi Center for Aquaculture, Tamil Nadu, India.. *Aquaculture Asia*, 2006, 11(1).
- 2003 Qunitio, E.T. and Parado-Esteva, F.D. Biology and Hatchery of Mud Crabs *Scylla* spp.. *Aquaculture Extension Manual SEAFDEC/AQD*, Iloilo, Philippines, 2003(34):42.
- 2002 Qunitio, E.T., Parado-Esteva, F.D., Rodriguez, E.M. Seed production of mud crab *Scylla* spp.. *Aquaculture Asia*, 2002, 7(3):29 - 31.
- 2001 Qunitio, E.T., Millamena O.M., Blackshaw, A. Proceedings of the International Forum on the Culture of Portunid Crabs. *Asian Fisheries Science*, 2001, 14(2).
- 2001 Qunitio, E.T., Parado-Esteva, F.D., Millamena, O.M., Rodriguez, E.M. Seed production of mud crab *Scylla serrata*. In: Proceedings of the International Forum on the Culture of Portunid Crabs. *Asian Fisheries Science*, 2001, 14(2):161 - 174.
- 2001 Qunitio, E.T. and Parado-Esteva, F.D. Simulated transport of *Scylla serrata* zoeae at various loading densities.. *Asian Fisheries Science*, 2001, 14(2):225 - 230.
- 2001 Qunitio, E.T., Rodriguez, E.M., Parado-Esteva, F.D., Millamena, O.M. Culture of *Scylla serrata* megalops in brackishwater ponds. *Asian Fisheries Science*, 2001, 14(2):185 - 190.
- 2001 Qunitio, E.T., Lavilla-Pitogo, C.R., Marcial, H.S., Pedrajas, S.A.G., Millamena, O.M. Problems associated with tank-held mud crabs (*Scylla* spp). *Asian Fisheries Science*, 2001, 14(2):217 - 224.
- 2000 Qunitio, E.T., Millamena, O.M. The effects of diets on the reproductive performance of eyestalk ablated and intact mud crab *Scylla serrata*. *Aquaculture*, 2000, 181:81 - 90.
- 2000 Qunitio, E.T. and Parado-Esteva, F.D. Transport of *Scylla serrata* megalopae at various densities and durations.. *Aquaculture*, 2000, 185:63 - 71.
- 2000 Qunitio, E.T., Honculada-Primavera, J. Runt-deformity syndrome in cultured giant tiger prawn *Penaeus monodon*. *Journal of Crustacean Biology*, 2000, 20(24):796 - 802.
- 1998 Qunitio, E.T., Gall G.A.E., Primavera, J.H. Culture of penaeid prawns and shrimps. *Aquaculture*, 1998, 164:1 - 374.
- 1996 Qunitio, E.T., Esteva, F.P., Borlongan, E.D. Prawn Hatchery Operations. Rev. ed.. SEAFDEC Aquaculture Extension Manual, 1996, 19:45.
- 1994 Qunitio, E.T. and Vogt, G. Accumulation and excretion of metal granules in the prawn, *Penaeus monodon*, exposed to water-borne copper, lead, iron and calcium.. *Aquatic Toxicology*, 1994, 28(3 - 4):223 - 242.
- 1994 Qunitio, E.T., Yamauchi, K., Nakao, S., Hara, A. Changes in the steroid hormone and vitellogenin levels during the gametogenic cycle of the giant tiger shrimp, *Penaeus monodon*. *Comparative Biochemistry and Physiology*, 1994, 109C:21 - 26.

- 1993 Qunitio, E.T., Caballero, R., Gustilo L. Ovarian development in relation to changes in the external genitalia in captive *Penaeus monodon*. *Aquaculture*, 1993, 114:71 - 81.
- 1992 Qunitio, E.T., Millamena, O.M. Ovarian changes and female-specific protein levels during sexual maturation of the white shrimp *Penaeus indicus*. *Israeli Journal of Aquaculture-Bamidgeh*, 1992, 44:7 - 12.
- 1991 Qunitio E.T., Yamauchi, K., Hara, A., Fuji, A. Profiles of progesterone and estradiol-like substances in the hemolymph of female *Pandalus kessleri* during an annual reproductive cycle. *General Comparative Endocrinology*, 1991, 81:343 - 348.
- 1991 Qunitio, E.T., Estepa, F., Coniza, E. Completion of the life cycle of *Penaeus japonicus* in the Philippines. *Philippine Journal of Science*, 1991, 120:155 - 158.
- 1991 Qunitio, E.T., Vogt, G. Fate and effects of water-borne heavy metals in *Penaeus monodon*. *European Aquaculture Soc. Special Publications No. 14*, 1991, 14:320 - 321.
- 1991 Qunitio, E.T., Estepa, F.P., Borlongan, E.D. Prawn Hatchery Operations. *SEAFDEC Aquaculture Extension Manual*, 1991, 19:44.
- 1990 Qunitio, E.T., Hara, A., Yamauchi, K., Fuji, A. Isolation and characterization of vitellin from the ovary of *Penaeus monodon*. *Invertebrate Reproduction and Development*, 1990, 17:221 - 227.
- 1989 Qunitio, E.T., Hara, A., Yamauchi, K., Mizushima, T., Fuji, A. Identification and characterization of vitellin in a hermaphrodite shrimp, *Pandalus kessleri*. *Comparative Biochemistry and Physiology*, 1989, 94:445 - 452.
- 1986 Qunitio, E.T., Vogt, G., and Pascual, F.P. *Leucaena leucocephala* leaves in formulated feed for *Penaeus monodon*: A concrete example of the application of histology in nutrition research.. *Aquaculture*, 1986, 59:209 - 234.
- 1985 Qunitio, E.T., Vogt, G., Storch, V., Pascual, F.P. Midgut gland as monitor organ for the nutritional value of diets in *Penaeus monodon* (Decapoda). *Aquaculture*, 1985, 58:1 - 12.
- 1984 Qunitio, E.T., Gabasa, P., Sunaz, F., Reyes E., de la Pena, D. Prawn Hatchery Design and Operation. *SEAFDEC/AQD Ext. Manual*, 1984, 9:47.
- 1983 Qunitio, E.T., de la Pena, D., Pascual, F.P. The use of substitute feeds in larval rearing of *Penaeus monodon*. *Proceedings of the 1st International Conference of Warm Water Aquaculture Crustaceans*, BYU, Hawaii, 1983:337-342.
- 1982 Tobias-Qunitio, E., Villegas, C.T. Growth, survival and macronutrient composition of *Penaeus monodon* Fabricius larvae fed with *Chaetoceros calcitrans* and *Tetraselmis chuii*. *Aquaculture*, 1982, 29:243 - 260.

**Name** Edward A. Quinto  
**Gender** Male  
**Civil Status** Single

**Organizational Affiliations**

Associate Professor II/Sr. Researcher/Lab Analyst, Dept. of Biological Sciences,  
College of Science, University of Sto. Tomas, España, Manila

**Education**

M.S. Microbiology, University of Santo Tomas, Manila 1998

Post Graduate Certificate Course in Biogeography and Environmental  
Assessment, University of Saarland, Germany 1993

B.S. Chemistry, University of Santo Tomas, Manila 1982

**Fields of Specialization**

Biological Sciences

Microbiology

Chemistry

Microbial bioluminescence

Microbial natural products

Lactic acid fermentation

**Association Membership**

Member, National Research Council of the Philippines (NRCP)

Member, UST Science Project Advising for Science High School Students,  
Defense Panel of the Department of Biological Sciences, College of Science

**Honors / Awards**

Best Oral Paper Award, 37th Annual Convention and Scientific Meeting of the  
PSM, Boracay Waterfront Hotel and Resort, Aklan 2008 My 7-9

Elected Diplomat of the Philippine Academy for Microbiology (PAM), Boracay  
Waterfront Hotel and Resort 2008 My 7-8

**Trainings**

Lecture Notes: The Structure and Function of Nucleic Acid (DNA & RNA) in the  
Storage and Transmissio, Seminar-Workshop on DNA Recombination Technology,  
UST Graduate School 2008 O 7-11

Lecture-Workshop: A World of "Man-made" Life.43rd Annual National Convention  
& Scientific Sessions o, University of La Salette, Isabela 2008 Ap 10-12

Lecture-Workshop: Make your Own Hand washes and Sanitizers with more potent  
Antimicrobial Activity U, University of La Salette, Isabela 2008 Ap 10-12

Bioluminescence: the Good Blue Living Light for a Greener World, 43rd Annual  
National Convention, University of La Salette, Isabela 2008 Ap 10-12

Bioluminescence: The Good Blue Light for Greener World, BIOTA CARAGA Chapter, Surigao Education Center 2008 Ag 20-22

34th Annual Convention of the Philippine Society of Microbiology, 2005

Microbial bioremediation Lecture Series on Environmental Concepts Focusing on Biodiversity Conservat, TUP, Manila 2004 N 27

4th Philippine Network of Microbial Culture Collection, Inc. (PNMCC) Symposium-Workshop, UST, Manila 2004 N 13

## **Researches**

### **Completed**

A novel, simple, rapid, and cost-effective bioassay for chlorine measurement in water based on paper-disc immobilized bioluminescence technology (PIBiT)

Lactobacillus H4 USTCMS strains: a potential livestock probiotic for a safer environment and a cleaner world

Biochemical characterization of DNA: color reaction test for the presence of phosphate, deoxyribose, purines and pyrimidines

The bioluminescent bacteria

Paper-disc immobilized bioluminescence technology (PIBiT) A novel, simple, and inexpensive multipurpose toxicity testing system

The microbes of light

Paper-disc immobilized bioluminescence technology (PIBiT): A novel, simple and inexpensive method for the general well-being and a cleaner environment

An endophytic fungus isolated from torpedo grass (*Panicum repens* linn.)

The use of bioluminescent bacteria in antimicrobial assays

Paper-disc immobilized bioluminescence technology (PIBiT)

Biochemical characterization of DNA

A simplified no-centrifugation method of DNA extraction from various plant

A simple and inexpensive antibacterial screening method for plant extracts using bioluminescent bacteria

### **On-going**

Monthly determination of the total coliform index of the treated wastewater of the UST building and ground's (B&G) wastewater treatment plant

Maintenance and enlargement of the holdings of the RCNS, University of Santo Tomas collection of microbial strains (USTCMS)

Isolation of streptomycetes and endophytic fungi and screening for antimicrobial and herbicidal activities

Isolation and screening of lactobacillus species exhibiting antibacterial and anticandida activities

Determination of the antimicrobial activity of conducting polymer coated cloth on *Staphylococcus aureus*, *Escherichia coli*, *Candida albicans* and *Aspergillus niger*.

Immuno-enhancing activity of the exopolysaccharide of *Lactobacillus* sp. USTCMS

strain on Albino *Mus musculus*.

Evaluation of the anti-oxidant property of the orange yeast: *Rhodotorula rubra* grown in acid saccharifide banana peelings.

Production, isolation and characterization of the antibacterial and antifungal constituents of the broth culture of streptomyces isolate of USTCMS strain 1086 obtained from the crater of Mt. Pinatubo.

Lactobacillus isolate USTCMS 1071: A potential swine probiotic for a safer and cleaner environment

### **Ongoing**

Screening of Streptomyces Isolates from Soil Samples for Antimycobacterial and Antifungal Activities

Use of Paper-disc Immobilized Bioluminescence Technology (PIBiT) for the toxicity testing of deep well water samples collected in the Imus, Cavite Area

LUMOS: A simple, rapid, and expensive dissolved oxygen determination of wastewater samples using the tube bioluminescent extinction method of vibrio fischeri USTCMS 1063

Evaluation of the biological activities of the fermented medium of lactic acid bacteria (LAB) against fruit fly, mosquito, worm and pathogenic microorganism

Use of Tube Bioluminescence Extinction Technology (TuBET) for the Rapid and Inexpensive Determination of the Freshnes of Fishes, Shrimps, Squids and Ground Beef and Pork

### **Papers Presented**

Quinto, E.A. (2008 Mr 12). Hygienic and Bio-insecticidal Trap for the Coffin Fly: *Megaselia scalaris* (Diptera: Phoridae) of the Spent MRS Medium of *Pediococcus acidilactici*., 75th Annual Scientific Meeting of NRCP General Membership Assembly (Basic Research for National Development), Manila Hotel.

Quinto, E. (2008). Close Association of the Coffin Fly, *Megaselia scalaris* (Diptera: Phoridae) and the Ikaliphilic, Facultatively Anaerobic Bacillus species: A Symbiotic Relationship, Proceedings of the 37th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology (PSM).

Quinto, E. (2008). Tube Bioluminescence Extinction Technology (TuBET): Novel Parameters for the Simple, Rapid and Inexpensive Determination of the Quality of Liquid Milk, Proceedings of the 37th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology (PSM).

Quinto, E.A. (2005 My 12-13). The isolation, screening and characterization of *Lactobacillus casei* USTCMS 1071, a potential swine probiotic for a safer and cleaner environment, 34th Annual Convention of the Philippine Society for Microbiology, Waterfront Insular Hotel, Davao City.

Quinto, E.A. (2005 My 12-13). The bioluminescence oxygen demand (BiOD): Simple, inexpensive and rapid determination of dissolved oxygen in wastewater samples, 34th Annual Convention of the Philippine Society for Microbiology, Water Front Insular Hotel, Davao City.

Quinto, E.A. (2005 D 3). A successful term preservation method for the isolated marine endophytic fungi of the University of Santo Tomas Collection of Microbial Strains (USTCMS), 10th Annual Convention of the Natural Prducts Society of the Philippines, Escaler Hall, Ateneo de Manila University, Manila.

Quinto, E.A. (2005 D 3). Screening of Streptomyces isolated from the soil samples collected on the crater of Mt.Pinatubo for antibacterial and antifungal activities, 10th Annual Convention of Natural Products Society of the Philippines, Escaler Hall, Ateneo de Manila University, Manila.

Quinto, E.A. (2005 D 3). Health benefits and comparative antimicrobial activities of selected commercial antimicrobial products with the fermented MRS medium of the lactic acid bacterium, *Pediococcus acidilactus* USTMS 1085, 10th Annual Convention of the Natural Products Society of the Philippines, Escaler Hall, Ateneo de Manila University, Manila.

Quinto, E.A. (2004 N 27). Microbial bioremediation, Lecture Series on Environmental Concepts Focusing on Biodiversity Conservation and Environmental Microbiology, TUP, Manila.

Quinto, E.A. (2004 N 13). Paper-disc immobilized bioluminescence technology (PIBIT), 4th Philippine Network of Microbial Culture Collection, Inc. (PNMCC) Symposium-Workshop, UST, Manila.

## **Publications**

- 2006 Quinto, E.A. Lessons of Green from the microbes of light. Research Highlights, 2006:1-2.
- 2005 Quinto, E.A. Biotherapeutics: Novel health-care products from the fermented medium of the Lactic acid bacteria (LAB). The Philippine Biota, 2005, 38(2):25-33.
- 2005 Quinto, E.A. Novel therapeutics from the MRS fermented medium of *Lactobacillus acidophilus* USTCMS 1085. Proceedings of 34th Annual Convention of the Philippine Society of Microbiology, 2005.
- 2005 Quinto, E.A. Paper disc immobilized bioluminescence technology (PIBIT): A novel, simple and inexpensive method of determining the antibacterial activity of antiseptics, disinfectants and health care products. 24th International Congress of Chemotherapy, Book of Abstracts, 2005:126-127.
- 2005 Quinto, E.A. Novel therapeutics from *Lactobacillus acidophilus* USTCMS 1085 exhibiting potent inhibitory activity against bacteria, filamentous fungi and *Candida albicans*. 24th International Congress of Chemotherapy, Book of Abstracts, 2005:90-91.
- 2004 Quinto, E.A. Paper-disc immobilized bioluminescence technology (PIBIT): A novel, simple and inexpensive multipurpose toxicity testing system. Proceedings of the PSM 33rd Annual Convention (Manila: Philippine Society for Microbiology), 2004.
- 2004 Quinto, E. A., Santos, M.A.G. Microbiology Guidebook to Plant Screening: Phytochemical and Biological. Research Center for the National Sciences: Manila, 2004:p.65, ISBN 971-506-623-6.
- 2003 Quinto, E. A., Nonato, M.G. (eds.) UST RCNS Catalogue of microbial strains. UST RCNS and PCASTRD-DOST, 2003.
- 2003 Quinto, E.A., Sahagun, J., Idurot, H., Medina, S., Sy, G. *Lactobacillus* isolate USTCMS 1071: A potential swine and probiotic for a safer and cleaner environment. Acta Manilana, 2003, 51:(In press).
- 2002 Quinto, E.A. The fermentation profile of streptomyces isolate USTCMS 107 exhibiting broad antibiotic activity against all tested bacteria and fungi. Harnessing Science and Technology to Meet the Global Challenge, 2002:p. 480.

- 2002 Quinto, E.A. The light of light. *The Philippine BIOTA* (ISSN 0115-2106), 2002, 35(1):22.
- 2002 Quinto, E.A., Krohn, K. The fermentation and TLC profiles of the broth culture of streptomyces isolate USTCMS-7 exhibiting broad antibacterial, antifungal, and herbicidal activities. *Acta Manilana* (SSN 0065-1370), 2002, 50(9).

**Name** Alfredo R. Rabena  
**Gender** Male  
**Civil Status** Married

**Organizational Affiliations**

Director, Research and Development, University of Northern Philippines, Vigan City, Ilocos Sur

Chair, Commission on Ecology, Parish of St. Paul-Archdiocese of Nueva Segovia, Vigan City

Chair, Commission on Ecology, Green Initiatives, Inc. Manila Coastal Resource Management Rehab.and Protection Project, Vigan-Sta Catalina, Caoayan-San Vicente Coastal Areas

**Education**

Ph.D. in Forestry, University of the Philippines at Los Baños, College, Laguna 1996

**Fields of Specialization**

Chemical Sciences

Natural Products Chemistry

Forest Products Chemistry

Natural Products and Wood

**Association Membership**

Member, National Research Council of the Philippines

Consultant, Commission on Ecology , Parish of Snt. Paul-Archdiocese of Nueva Segovia, Vigan City

Consultant, Commission on Ecology, Vigan City

**Honors / Awards**

(INBAR)-MOST-INFORTRACE Training Grant, International Network for Bamboo and Rattan 2004 S 6-20

The Organizer-Secretariat. Trends and Innovations in the Bamboo Industry 4th National Bamboo Congress, UNP Vigan City, Ilocos Sur 2004 N 10-12

SURED Lecture Fellowship, 9th International Seminar Workshop SURED 2005 F 28-Mr 4

Most Outstanding Director for R & D in the Philippines, Exemplary Award, Office of the President 2005

OutstandingTeacher of Vigan City Tertiary Level, Vigan City Government 2006

Most Outstanding Alumnus Award, College of Forestry and Natural Resources 2006

Outstanding Alumnus of UPLB, UPLB Loyalty Day and Alumni Homecoming, UPLB 2006



## Trainings

International EurAsia Chemistry Conference, PICC, Manila Philippines 2008 Ja 6-8

International EurAsia Chemistry Conference, PICC, Manila 2008 Ja 6-8

2nd PAIR Natl Conference on Education and Social Sciences, Brokenshire College, Davao City 2008 D 6-7

1st PAIR Natl Conference on Health & Environment, Xavier University, Cagayan de Oro City 2008 Ag 1-2

International Training Workshop on Small Daily Products Technology, Zhejiang, China 2004 S 6-20

39th Annual National Biology Teachers Association (BIOTA) Convention, Northwestern University, Laoag City 2004 Ap 1-3

UFRO International Conference on Multipurpose Trees in the Tropics,

1st PAIR National Conference on Health and Environment, Xavier University, Cagayan de Oro City

## Researches

The Multipurpose Use of Physic Nut (*Jatropha curcas*)

### Completed

The Design and Construction of Dual Powered Foliage Chopper

A Preliminary Flame Tesitn of Bittaog (*Calphylum inolphyllum*) for Energy Use

The Phytochemical and Fermenting Properties of Samak (*Macaranga tanarius*)

The Limnological Study of Pudoc Lagoons in Tagudin Ilocos Sur

Propagation Techniques of Sablot (*Litsea glutinosa*) Lour. Rob.

Kakawate (*Gliricidia sepium*) as Botanical Pesticides and Organic Fertilizer for Rice

Kakawate (*Gliricida sepium*) and Neem (*Azardirachta indica*) as Botanopesticides for Corn Intercropped with Peanuts and Eggplants

The Brine Shrimp Lethality of DichloromehtanMethanol Extract of Anonas (*Anona reticulata*)

### On-going

Dual Powered Foliage Chopper for Organic Materials

Project F.R.E.S.H, UNP R & D-Extension-NSTP Collaborative Project, Site: Ayusan Norte, Vigan

Graduate Tracer Study of University of Northern Philippines

The Utilization of Tawwa tawwa (*Jatropha curcas*)

The Acclimatiza of Indigenous Root Crops of Ilocos

The Conservation and Propagation of Sablot (*Litsea glutinosa*) Lour.Rob.

### Ongoing

The Design and Construction of Fruit Dryer

The Tissue Culture of New Varieties of Ube (*Dioscorea alata*)

The Antimicrobial Assay of Tawwa tawwa

### Papers Presented

Rabena, A.R. (2006 S-14-15). Brine Shrimp Lethality of Methanol-Dichloromethane Extract of Anonas (*Anona Reticulata*) Leaves and Barks, 55th Annual PhilAAS National Convention, UST, Manila.

Rabena, A.R., Soria, J.R., De Vera, M.P., Raboy, M.R., Aludino, A., Andloo, E.O., Rodillas, F.R., Umali, R., Bautista, N.P. (2006 S 14-15). Kakawate and Neem Tree (*Azadirachta Indica*) as Botanopesticides for Corn Intercropped with Peanuts and Eggplants, 55th Annual PhiAAS National Convention, UST, Manila.

Rabena, A.R. (2006 S 14). Phytochemical screening of Samak (*Macaranga Tanarius*) and its fermenting and coloring properties, 55th Annual PhilAAS National Convention, UST, Manila.

Rabena, A.R. (2006 D 4-5). Brine Shrimp Lethality of Methanol-Dichloromethane Extract of Anonas (*Anona Reticulata*) Leaves and Barks, 11th Annual Natural Products Society of the Philippines National Convention, Siliman University, Dumaguete City, Negros Oriental.

Rabena, A.R. (2005 S 18). The Topographic Survey of Quarry Sites in Region 1, PhilAAS National Convention, TARC, UST, Manila.

Rabena, A.R. (2005 S 15). Arched-Yoke Formation and Production from Bayog (*Bambusa merilliana* (Elmer) Raja Roxas, PhilAAS National Convention, TARC, UST, Manila.

Rabena, A.R. (2005 S 15). The Structural Properties of Popular Bamboo Species Against Timber and Steel: A Simplified Evaluation, PhilAAS National Convention, TARC, UST, Manila.

Rabena, A.R. (2005 S 15). Sablot (*Litsea glutinosa*) Lour. Rob.: A Versatile But Disappearing Multipurpose Tree in Topical Ilocos, Philippines, PhilAAS National Convention, TARC, UST, Manila .

Rabena, A.R. (2005 F 28-Mr 4). The multipurpose use of Vetiver (*Vetiveria Zizanoides*) Nash ex Small in the Coastal Areas of Ilocos Sur, 9th International Seminar-Workshop on Sustainable Resources Development, University of Kariiruhe, Germany-SURED, UPLB, Laguna.

Rabena, A.R. (2004 S 6-20). Endemic Bamboo Species in Tropical Ilocos Philippines, International Training Workshop on Small Daily Products Technology Zhejiang, China.

Rabena, A.R. (2004 N10-12). The Utilization of Endemic Bamboo Species in Ilocos and Abra, 4th National Bamboo Congress, UNP, Vigan City.

Rabena, A.R. (2004 Ap 1-3). Chemical Extraction and Bioassay of Natural Products from Plants, 39th Annual National Biology Teachers Association (BIOTA) Convention, Northwestern University, Laoag City.

Rabena, A.R. (2004). Sablot (*Litsea glutinosa*) Lour. R Versatile But Disappearing Multi Tree in Tropical Ilocos, Philippine IUFRO Int'l. Conference on Multipurpose Trees, Growth & Assessment. Johdpur, India.

Rabena, A.R. (2004). Problems Besetting Bamboo Production in Ilocos Sur, 4th National Bamboo Congress, UNP, Vigan City.

## **Publications**

- 2008 Tacbas, L.B., Rabena, A.R. Training Manual on Organic Farming and Livelihood Module 1. ISBN 9789719413387, 2008.
- 2008 Tacbas, L.B., Rabena, A.R. Training Manual on Organic Farming and Livelihood Module 1B. ISBN 9789719413370, 2008.
- 2006 Tacbas, L.B., Rabena, A.R. Trends and Innovations in the Bamboo Industry. ISBN 971-933-471-1 Copyright 2006/ UNP R&D, Mega Star Printers, Anolid, Mangaldan, Pangasinan, 2006.
- 2005 Rabena, A.R. Books of Abstract 4th National Bamboo Congress. ISBN 971-93347-0-3, Copyright 2005, UNP., 2005.
- 2005 Tacbas, L.B., Rabena, A.R. Trends and Innovations in the Bamboo Industry. ISBN 971-93347-1-1, Copyright 2005, UNP, 2005.
- 2004 Rabena, A.R. Phytochemical Analysis of Sablot (*Litsea glutinosa*) Lour. Rob.. 39th National BIOTA Convention Abstract, 2004 Ap 1-3.
- 2004 Rabena, A.R. Sablot(*Litsea glutinosa*) Lour Rob. A versatile But Disappearing Multipurpose Trees in Tropical Ilocos, Philippines. IUFRO International Conference on Multipurpose Trees in the Tropics:Assessment, Growth & Mgt. Abstract(ISBN 029-265-4321), 2004.
- 2004 Rabena, A.R. IUFRO International Conference Proceedings. ISBN 029-265-4321, 2004.

**Name** Edsel Maurice T. Salvana  
**Place of Birth** Mandaluyong, Metro Manila  
**Date of Birth** July 24, 1975  
**Gender** Male  
**Civil Status** Married  
**Home Address** 30 Ma Eva, Tierra Pura, Quezon City

**Organizational Affiliations**

Research Asst. Professor, Institute of Molecular Biology & Biotechnology National Institute of Health,

Clinical Associate Professor, Infectious Disease Section, Dept. of Medicine, UP Manila, Manila

Balik Scientist, Long Term Program, Department of Science and Technology, Bicutan, Taguig City

Associate Professor of Medicine, Section of Infectious Diseases,, Department of Medicine, University of the Philippines College of Medicine, Manila, Philippines

Assistant Professor for Research, Institute of Molecular Biology and Biotechnology, National Institutes of Health, University of the Philippines, Manila

Consultant, SAGIP HIV/AIDS Clinic, Philippine General Hospital, Manila

Research Coordinator, Section of Infectious Diseases, Department of Medicine, UPCM, Manila, Philippines

Philippine Coordinator, University of Pittsburgh Medical Center Internal Medicine Residency Global Health Exchange Program,

Attending Physician, Medical Center Manila, Philippines

Chair, Health Research Fellowship Committee, National Institutes of Health, Philippines

Secretary, Research Capacity Strengthening Committee, Metro Manila Health Research and Development Consortium, National Institutes of Health, Philippines

Member, Institutional Review Board, Medical Center Manila, Philippines

Member, Institutional Biosafety Committee, National Institutes of Health, Philippines

Founder and Convenor, Philippine Red Party (Organization involved in fighting the Philippine HIV/AIDS epidemic),

**Education**

Fellowship, Infectious Diseases, Case Western Reserve University and University Hospitals Case Medical Center, Cleveland, Ohio, USA 2008

Diploma in Tropical Medicine Course, Case Western Reserve University and University Hospitals Case Medical Center, Cleveland, Ohio, USA 2008

Internship and Residency (Internal Medicine), Medical College of

Wisconsin, Milwaukee, Wisconsin, USA 2005

Doctor of Medicine, University of the Philippines, Manila 2001

BS in Biology, University of the Philippines, Diliman, Quezon City 1996

### **Fields of Specialization**

Internal Medicine, Infectious Diseases & Tropical Medicine

Tropical and Travel Medicine

Lymphatic Filariasis

The role of anti-Wolbachia antibodies in pathogenesis of acute disease

Drug Resistant Organisms (including MSRA)

Immunocompromised Host

Emerging Infectious Disease

### **Employment**

Chief Fellow, Division of Infectious Diseases and HIV Medicine Case Western Reserve University, 2007-2008-

Fellow, Infectious Diseases, Case Western Reserve University and University Hospitals Case Medical Center, 2005-2008-

Resident, Internal Medicine, Medical College of Wisconsin, Milwaukee, Wisconsin, USA, 2002-2005-

### **Association Membership**

, Certified in Tropical and Travel Medicine, American Society of Tropical Medicine and Hygiene

Reviewer, Clinical Infectious Diseases

Reviewer, Journal of Infection

Member, Philippine College of Physicians

Member, American Society for Tropical Medicine and Hygiene

Member, American Society for Microbiology

Chief Fellow, Division of Infectious Diseases and HIV Medicine. Case Western Reserve University and University Hospitals Case Medical Center

Member, Infectious Diseases Society of America

Fellow, Infectious Diseases, Case Western Reserve University and University Hospitals Case Medical Center, C

, Certified in Internal Medicine by the American Board of Internal Medicine

Member,, American Medical Association

Member, American College of Physicians

Member, University of the Philippines Medical Alumni Society in America

Certified,, Educational Commission on Foreign Medical Graduates

Certified, Board of Medicine Professional Regulatory Commission, Philippines

Member, Manila Medical Society

, Certified in Infectious Diseases by the American Board of Internal Medicine

Member, Infection Control Committee, Medical College of Wisconsin, Milwaukee, Wisconsin, USA

### **Honors / Awards**

Balik Scientist Award, DOST 2008

Fellow Travel Award to the Joint Infectious Diseases, Wyeth - American Society for Microbiology 2008

Travel Award to Annual Meeting in New Orleans, American Society of Tropical Medicine and Hygiene 2008

Outstanding Intern in Internal Medicine, University of the Philippines College of Medicine and 2001

Magna cum laude, BS Biology, University of the Philippines Diliman Institute of Biology Award 1996

Most Outstanding Undergraduate Thesis in Biology, Histopathology of Mouse Brain Infected with A, UPD 1996

Phi Sigma Biological Honor Society Award for Excellence, University of the Philippines Diliman

Phi Kappa Phi Honor Society Inductee, 1996

Oblation Scholar (Top 50 examinees of the nationwide), University of the Philippines College 1992

### **Trainings**

Invited Speaker, Global Health Residency Program, University of Pittsburgh Medical Center 2009

Infectious Diseases Society of America Meeting, (Participant), Philadelphia, USA 2009

Symposium on HIV/AIDS/organized by the HIV/AIDS study group of the National In(Invited Speaker), 2009

HIV/AIDS Centers for Treatment Conference, organized by the Tropical Disease Forum (Invited Speaker), 2009

Symposium on Tuberculosis, National Institutes of Health - UP Manila Anniversary (Co-chair), 2009

Sepsis Wars, 39th Philippine College of Physicians Annual Convention 2009

Philippine College of Chest Physicians Annual Convention. Topic: "TB and H, 2009

Joint Infectious Diseases Society of America/ International Conference on Antimicrob (Presenter), 2009

American Society for Tropical Medicine and Hygiene Meeting (Presenter), New Orleans, USA 2008

Medical Center Manila Residents Research Competition (Invited Judge), 2008

American Society for Tropical Medicine and Hygiene Meeting (Participant),

Philadelphia, Pennsylvania 2007

Infectious Diseases Society of America Meeting (Participant), Toronto, Canada 2006

Participant, American Society for Tropical Medicine and Hygiene Meeting, Washington DC, USA 2005

Society for General Internal Medicine Meeting, (Presenter), New Orleans, Louisiana, USA 2004

## **Researches**

### **Completed**

Disease Rates in Microfilaremic Patients from Barangay San Simon, Cagayan de Oro City (with Vicente Belizario Jr. Parasitology Elective Study, 1999)

Foreign trained Filipinos of exceptional scientific ability to return to the Philippines as catalysts for research and development

Role of anti-Wolbachia antibodies in acute lymphatic filariasis

The Impact of Direct Teaching Strategy of URTI Management on Barangay Health Workers from Selected Barangays of Sto. Tomas, Batangas (with Nicolas et al., Community Medicine Study, 2000)

(Co-Investigator) Histopathology of Mouse Brain Infected with Acanthamoeba isolate IB-17

Urinary Excretion of Rifampicin in Pediatric Patients (with Pujalte et al., Pharmacology Study, 1998)

Effect of Chicken Essence on the Hematocrit Levels and Mental Activities of Mice (with Alix et al.,) Pharmacology Study, 1997

The Effect of Corn Hair Concoction on the Dissolution of Renal Stones (with Alix et al., Physiology Study), 1997

The Effect of Caesalpinia sappan extract on Glutathione and SGPT Levels in Young Albino Mice (with Alix et al., Biochemistry Study, 1997)

Histopathology of Mouse Brain Infected with Acanthamoeba isolate IB-17 (undergraduate Biology thesis, 1996)

Revision of Clinical Practice Guidelines for Schistosomiasis (Co-Chair, TWG)

## **Papers Presented**

Salvana, E.M., Daehnel, K., Hise, A.G., Pearlman, E., Tisch, D.J., Kazura, J.W. (2008). Anti-Wolbachia antibodies may decrease the likelihood of acute adenolymphangitis in lymphatic filariasis. (Abstract published), American Society for Tropical Medicine and Hygiene Meeting in New Orleans, Louisiana, USA.

Salvana, E.M., Daehnel, K., Hise, A.G., Peariman, E., Tisch, D.J., Kazura, J.W. (2008). Association of acute lymphatic filariasis with anti-Wolbachia antibody. (Abstract published), ICAAC/IDSA Joint Meeting in Washington DC, USA.

Tisch, D.J., Salvana, E.M., Kastens, W., Bockarie, M., Alexander, N., Kazura, J.W. (2007). Familial aggregation of acute lymphatic filariasis in Papua New Guinea. (Abstract published), American Society for Tropical Medicine and Hygiene Meeting in Philadelphia, Pennsylvania, USA.

Salvana, E.M., Wagner, D.K. (2005). Micrococcus endocarditis in a patient with a

pacemaker. (Abstract published), Society of General Internal Medicine National Meeting in New Orleans, Louisiana USA..

Salvana, E.M., Almoujahed, M., Olds, G.R. (2003). Calcified neurocysticercosis lesions with post-therapy perilesional edema. (Abstract published), Annual Wisconsin ACID Chapter Meeting in Milwaukee, Wisconsin, USA.

Salvana, E.M., Almoujahed, M., Olds, G.R. 2003 (2003). Calcified neurocysticercosis lesions with post-therapy perilesional edema, Annual Wisconsin ACID Chapter Meeting in Milwaukee, Wisconsin, USA..

## Publications

- Salvana, E.M., King, C.H. *Schistosoma japonicum* in Parasitology. Bioscience, Columbus, OH (Satoskar AR, Simon G, Hotez P, Tsuji M. Landes, eds.), In Press.
- Salvana, E.M., Salata, R.A. African Trypanosomiasis (Sleeping Sickness; Trypanosome brucei complex). In Nelson Textbook of Pediatrics, 19th Edition edited by Kliegman RM, Stanton BF, St. Geme J, Schor N, Behrman RE. Elsevier Inc. Philadelphia, PA., In press.
- Salvana, E.M., Woc-Colbum, L., Salata, R.A. American Trypanosomiasis (Chagas Disease; Trypanosome cruzi). In Nelson Textbook of Pediatrics, 19th Edition edited by Kliegman R.M., Stanton, B.F., St. Geme, J., Schor, N., Behrman, R.E. Elsevier Inc. Philadelphia, PA., In press.
- 2011 Salvana, E.M., Salata, R.A., Ameabiasis. Nelson Textbook of Pediatrics, 19th Edition, Kliegman, R.M., Stanton, B.F., St. Geme, J., Schor, N., Behman, R.E. eds./Elsevier Inc., Philadelphia, P.A., 2011 Je.
- 2011 Salvana, E.M., Salata, R.A. Trichomoniasis (*Trichomonas vaginalis*). In Nelson Textbook of Pediatrics, 19th Edition edited by Kliegman, R.M., Stanton, B.F., St. Geme, J., Schor, N., Behrman, R.E. Elsevier Inc. Philadelphia, PA., 2011 Je.
- 2009 Salvana, E.M.T., Salata, R.A. Infectious complications associated with monoclonal antibodies and related small molecules. *Clinical Microbiology Reviews*, 2009, 22:274-290 DOI: 1128/CMR.00040-08.
- 2008 Salvana, E.M., Daehnel, K., Hise, A.G., Pearlman, E., Tisch, D.J., Kazura, J.W. Anti-Wolbachia antibodies may decrease the likelihood of acute adenolymphangitis in lymphatic filariasis. Abstract published and presented at 2008 American Society for Tropical Medicine and Hygiene Meeting in New Orleans, Louisiana, USA, 2008.
- 2008 Salvana, E.M., Daehnel, K., Hise, A.G., Peariman, E., Tisch, D.J., Kazura, J.W. Association of acute lymphatic filariasis with anti-Wolbachia antibody. Abstract published at 2008 ICAAC/IDSA Joint Meeting in Washington DC, USA, 2008.
- 2008 Salvana, E.M., King, C.H. Schistosomiasis in travelers and immigrants. *Curr Infect Dis Rep*, 2008, 10:42-49.
- 2008 Salvana, E.M., Wendt, J., Jacobs, M.R. Blood culture contamination with *Shigella sonnei*. *American Journal of Infection Control*, 2008, 36:227-228.
- 2007 Salvana, E.M., Cooper, G.S., Salata, R.A. Mycobacterium other than tuberculosis (MOTT) infection: An emerging disease in infliximab-treated patients. *Journal of Infection*, 2007, 55:484-487.



- 2007 Tisch, D.J., Salvana, E.M., Kastens, W., Bockarie, M., Alexander, N., Kazura, J.W. Familial aggregation of acute lymphatic filariasis in Papua New Guinea. Abstract published and presented at 2007 American Society for Tropical Medicine and Hygiene meeting in Philadelphia, Pennsylvania, USA., 2007.
- 2007 Domingo, A.F., Salvana, E.M. Solicitation of deceased and living organ donors. *New England Journal of Medicine*, 2007, 356:2427-2429.
- 2006 Salvana, E.M. Images in clinical medicine. Patent ductus arteriosus in an elderly man. *New England Journal of Medicine*, 2006, 354:2484.
- 2006 Domingo, A.F., Salvana, E.M. The metrics of the physician brain drain. *New England Journal of Medicine*, 2006, 354:528-30.
- 2006 Salvana, E.M., Frank, M. Lactobacillus endocarditis: case report and review of cases reported since 1992. *Journal of Infection*, 2006, 53:e5-e10..
- 2004 Salvana, E.M. Shirley - Personal Reflection. *Journal of Palliative Medicine*, 2004, 7:307-308.
- 2003 Salvana, E.M., Almoujahed, M., Olds, G.R. Calcified neurocysticercosis lesions with post-therapy perilesional edema. Abstract published and presented at 2003 Annual Wisconsin ACID Chapter Meeting in Milwaukee, Wisconsin, USA., 2003.
- Salvana, E.M., Wagner, D.K. Micrococcus endocarditis in a patient with a pacemaker. Abstract published and presented at 2005 Society of General Internal Medicine National Meeting in New Orleans, Louisiana, USA., .

**Name** Ameurfina D. Santos  
**Place of Birth** Manila  
**Date of Birth** August 18, 1943  
**Gender** Female  
**Civil Status** Married

**Organizational Affiliations**

Director, Office of Admissions, University of the Philippines,  
Professor, National Institute of Molecular Biology, Lakandula cor. Jacinto St., UP  
Diliman, Quezon City

**Education**

Ph.D. in Molecular Biology and Biotechnology, University of the  
Philippines, Diliman, Quezon City 1994  
M.S. in Chemistry, University of the Philippines, Diliman, Quezon City 1969  
BS Chemistry, University of the Philippines, Diliman, Quezon City 1964

**Fields of Specialization**

Biological Sciences  
Molecular Biology

**Employment**

Professor, National Institute of Molecular Biology & Biotechnology, University of  
the Philippines, Diliman QC, -  
Professor 9, University of the Philippines, Diliman, -  
Director, Office of Admissions, UP System, 2006-present-  
Deputy Director, National Institute of Molecular Biology and Biotechnology, UP  
Diliman, 2000-2003-

**Association Membership**

Member, Phi Kappa Phi  
Member, Phi Sigma  
Treasurer, Philippine Society for Biochemistry and Molecular Biology (PSBMB)  
Member, Board of Directors, Philippine Environmental and Mutagens Society  
(PEMS)  
Member, Philippine American Association for Science and Engineering (PAASE)  
Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Postdoctoral Fellow, National Institutes of Health, Bethesda, Maryland, USA 1995-  
1998  
Exchange Scientist, Sophia University, Tokyo, Japan

Research Grantee, University of Utah, Salt Lake City, USA

Natatanging Guro, Gawad Chancellor 2006

Professorial Chair, 2002 - present

International Publications Award, University of the Philippines System 1999-2000, 2002, 2004, 2007-2008

Eusebio Y. Garcia Recognition Award (National) for his work on Molecular Biology, National Research Council of the Philippines 2000

Most Outstanding Surigaonon in the Field of Science, Rotary Club of Metro Surigao

### **Trainings**

7th Pacific Congress on Animal, Plant and microbial Toxin, Plantation Bay, Mactan, Cebu 2005 O 25-29

NIMBB-UPD Professorial Chair/Faculty Grant Lecture Series, Room 106, Albert Hall, NIMMB, UP Diliman, Quezon City 2005 N 30

25th Annual Philippine American Academy of Science and Engineering (PAASE) Meeting and Symposium, Waterfront Hotel, Cebu City 2005 Je 24-26

32nd Philippine Society for Biochemistry and Molecular Biology (PSBMB), Ateneo de Manila University, Loyola Schools, Quezon City 2005 D 1-2

### **Researches**

#### **Completed**

Expression in yeast cells and characterization of multivalent humanized antitumor antibody

Antibody and Molecular Oncology Research (AMOR)

Molecular Genetic Analysis of Fresh Water Fish: Native Hito (Clarias Macrocephalus)

DNA Markers in Hatchery-Bred Milkfish (Chanos chanos Forsskal)

Studies on Dimerization Conditions for Antibodies

#### **On-going**

Identification of toxins from Philippine auger snails

#### **Ongoing**

Medical Biotechnology and Genome Research Laboratory

Genetically engineered antibodies against cancer

Molecular biology of Philippine venomous snails-

### **Papers Presented**

Santos, A.D. (2005 O 25-29). Putative O-Superfamily conotoxin from the molluscivorous snail *Conus furvus*, 7th Pacific Congress on Animal, Plant and microbial Toxin, Plantation Bay, Mactan, Cebu.

Santos, A.D. (2005 N 30). Simultaneous expression of two antibody genes with opposite charges in the CH3 domain, NIMBB-UPD Professorial Chair/Faculty Grant Lecture Series, Room 106, Albert Hall, NIMMB, UP Diliman, Quezon City.

Santos, A.D. (2005 JI 7). What's in it for my Health? The Humanized Antibody Process, 1st National Technology Week, Convention Hall, Bureau of Soils and Water Management (BSWM) Diliman, Quezon City.

Santos, A.D. (2005 Je 24-26). Inserting negatively charged amino acid residues into the constant region of antibodies to prevent homodimer formation, 25th Annual Philippine American Academy of Science and Engineering (PAASE) Meeting and Symposium, Waterfront Hotel, Cebu City.

Santos, A.D. (2005 Je 24-26). Engineered complimentary charges on antibody CH3 domains promotes heavy chain heterodimerization, 25th Annual Philippine-American Academy of Science and Engineering (PAASE) Meeting and Symposium, Waterfront Hotel, Cebu City.

Santos, A.D. (2005 Je 24-26). Functional Characterization of an antitumor diabody-Fc gamma expressed in *Pichia pastoris*, 25th Annual Philippine American Academy of Science and Engineering (PAASE) Meeting and Symposium, Waterfront Hotel, Cebu City.

Santos, A.D. (2005 Je 24-26). The effect of generating positive charges on antibody dimerization, 25th Annual Philippine American Academy of Science and Engineering (PAASE) Meeting and Symposium, Waterfront Hotel, Cebu City.

Santos, A.D. (2005 Je 24-26). Polymorphism of 12s mitochondrial rDNA sequence : Implication to toxoglossate phylogeny, 25th Annual Philippine American Academy of Science and Engineering (PAASE) Meeting and Symposium, Waterfront Hotel, Cebu City.

Santos, A.D. (2005 D 1-2). Alternative phylogeny of *Conus furvus* based on the 16s rRNA gene sequence, 32nd Philippine Society for Biochemistry and Molecular Biology (PSBMB), Ateneo de Manila University, Loyola Schools, Quezon City.

Santos, A.D. (2005 D 1-2). Toxinology and molecular phylogeny of some members of the family turridae, 32nd Philippine Society for Biochemistry and Molecular Biology (PSBMB), Ateneo de Manila University, Loyola Schools, Quezon City.

Santos, A.D. (2005 O 25-29). Two different cone snail species code for similar omega conotoxin, 7th Asia-Pacific Congress on Animal, Plant, and Microbial Toxin, Plantation Bay, Mactan, Cebu Philippines.

Santos, A.D., Kashmiri, S.V.S. Padlan, E.A. (2000). Generation of Designer Antibodies, Proceedings of the JSPS-DOST Symposium on Current Trends in Molecular Biology.

## Publications

- 2008 Espino, S.S., Kohn, A.J., Villanueva, J.A., Heralde, F.M., Corneli, P.S., Concepcion, G.P., Olivera, B.M., Santos, A.D. Feeding behavior, phylogeny, and toxinology of *Conus furvus* Reeve, *Gastropoda: Neogastropoda: Conidae*. *Nautilus*, 2008, 122:143-150.
- 2008 Heralde, F.M., Imperial, J., Bandyopadhyay, P.K., Olivera, B.M., Concepcion, G.P., Santos, A.D. A rapidly diverging superfamily of peptide toxins in venomous *Gemmula* species. *Toxicon*, 2008, 51:890 - 897.
- 2008 Santos, A.D. Cloning.. Straight Talk on Biotechnology/ Ateneo de Manila Press, 2008, 1:46 - 59.
- 2007 Heralde, F.M., Watkins, M., Ownby, J.P., Bandyopadhyay, P.K., Santos, A.D.,

- Concepcion, G.P., Olivera, B.M. Molecular Phylogeny of some Indo-Pacific genera in the subfamily Turrinae H. Adams and A. Adams, (Gastropoda: Neogastropoda). *The Nautilus*, 2007, 121:131-138.
- 2004 Santos, A.D., McIntosh, J.M., Hillyard, D.R., Cruz, L.J., Olivera, B.M. The A-Superfamily of Conotoxins. *Journal of Biological Chemistry*, 2004, 279:17596-17606..
- 2002 De Pascalis, R., Iwahashi, M., Tamura, M., Padlan, E.A., Gonzalez, N.R, Santos, A.D., Giuliano, M., Schuck, P., Schlom, J., Kashmiri, S.V.S. Grafting of Abbreviated Complementarity-Determining Regions Containing Specificity-Determining Residues Essential for Ligand Contact to Engineer a Less Immunogenic Humanized Monoclonal Antibody. *Journal of Immunology*, 2002, 169:3076-3084.
- 2000 Santos, A.D, Kashmiri, S.V.S., Padlan, E.A. Generation of Designer Antibodies. *Proceedings of the JSPS-DOST Symposium on Current Trends in Molecular Biology*, 2000.
- 2000 Santos, A.D., Padlan, E.A. Does mRNA Translation Using an Alternative Initiation Site Cause Huntington Disease. *Medical Hypothesis*, 2000, 54:689-690.
- 1999 McIntosh, J.M., Santos, A.D., Olivera, B.M. Conus Peptides Targeted to Specific Nicotinic Acetylcholine Receptor Subtypes. *Annual Review of Biochemistry*, 1999, 68:59-88.
- 1999 Olivera, B.M., Walker, C., Cartier, G.E., Hooper, D., Santos, A.D., Schoenfeld, R., Shetty, R., Watkins, M., Bandyopadhyang, P., Hillyard, D.R. Speciation of Cone Snails and Interspecific Hyperdivergence of their Venom Peptides Potential Evolutionary Significance of Introns. *Annals of the NY Academy of Science*, L. Caporale, ed., 1999, 870:223-227.
- 1999 Santos, A.D., Kashmiri, S.V.S., Horan-Hand, P., Schlom, J., Padlan, E.A. Generation and Characterization of a Single-Gene-Encoded Single-Chain-Tetravalent Anti-tumor Antibody. *Journal of Clinical Cancer Research*, 1999:3118-3123.
- 1998 Santos, A.D., Padlan, E.A. Development of More Efficacious Antibodies for Medical Therapy and Diagnosis. *Academic Press*, 1998, 60:169-192.
- 1998 Santos, A.D An O-Glycosylated neuroexcitatory conus peptide. *Biochemistry*, 1998, 37:16019-16025.
- 1992 Santos, A.D. Heterodimeric structure of the spider toxin  $\Omega$ -Agatoxin IA revealed by precursor analysis and mass spectroscopy. *Journal of Biological Chemistry*, 1992, 267:20701-20705.

**Name** **Allan Adriano Sioson**  
**Place of Birth** Tanza, Navotas, Rizal, Metro Manila  
**Date of Birth** Dec. 1, 1970  
**Gender** Male  
**Civil Status** Single  
**Home Address** Block 5, Lot 18, Phase 1A, Barcelona Drive, Mediterranean Villas, South Forbes, Barangay Inchican, S

**Organizational Affiliations**

Associate Editor, Philippine Information Technology Journal, ISSN 2012-0761, Computing Society of the Philippines and the Phil Society of Information Technoly Educators,

Dean of College of Computer Studies, Ateneo de Naga University, Ateneo Avenue, Naga City

Editorial Board Member, Gibon, Official Ateneo de Naga University Journal, Ateneo de Naga University, Ateneo Avenue, Naga City, 4400 Philippines

**Education**

PhD. in Computer Science and Applications, Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA 2005

Master of Science in Computer Science, Ateneo de Manila University, Loyola Heights, Quezon City 1994

Bachelor of Science in Mathematics, Ateneo de Manila University, Loyola Heights, Quezon City 1991

**Fields of Specialization**

Multimodal Networks

Bioinformatics

Data Mining, Modeling and Simulation

Information Visualization

Computational Biology,

Algorithms, Software Testing, and Computer Science Education

**Employment**

Lead Programmer, Ateneo de Naga College Registration System, Ateneo de Naga University, Ateneo Avenue, Naga City, 440, 1997-1998-

Researcher, Mathematics Department, Ateneo de Manila University, Loyola Heights, Quezon City, 1108 Philippines, -1993-1994

High School Math Teacher, Ateneo de Naga High School, 1991-1992-

Technical Committee on Government, Academe, and Industry Linkage, Commission on Higher Education (CHED), Philippines, 2008-

Associate Professor of Computer Science, Ateneo de Naga University, Ateneo

Avenue, Naga City, 4400 Philippines, 2006-2008-

Graduate Research Assistant, Virginia Tech, Blacksburg, Virginia, USA, 2002-2005-

Graduate Teaching Assistant, Virginia Tech, Blacksburg, Virginia, USA, 2001-

Chair, Computer Science Department, Ateneo de Naga University, Ateneo Avenue, Naga City, 1995-2001-

Assistant Professor of Computer Science, Ateneo de Naga University, Ateneo Avenue, Naga City, 2000-2005-

Instructor of Computer Science, Ateneo de Naga University, Ateneo Avenue, Naga City, 4400 Philippines, 1994-2000-

System Administrator, Ateneo de Naga University, Ateneo Avenue, Naga City, 4400 Philippines, 1996-2001-

### **Association Membership**

Member, Institute of Electrical and Electronics Engineers (IEEE)

Member, Association of Computing Machinery (ACM)

Member, Computing Society of the Philippines (CSP)

Member, Philippine Society of Information Technology Educators (PSITE)

Currently Region V Chapter President, Philippine Society of Information Technology Educators (PSITE)

### **Honors / Awards**

Eleazar Chair Award, Ateneo de Naga 2000

Gloria Macapagal Arroyo Chair Award, Ateneo de Naga 2000

Ellen Francisco-Fajardo Foundation Chair Award, Ateneo de Naga 2000

Professorial Award, Ateneo de Naga 1998

Professorial Award, Ateneo de Naga 1995

### **Trainings**

7th National Conference on Information Technology Education, Capitol University, Cagayan de Oro City 2009 O 21-23

National Higher Education Research Agenda Conference, Royal Mandaya Hotel, Davao City 2009 N 12-13

9th Philippine Computing Science Congress, Silliman University, Dumaguete City 2009 Mr 2-3

6th Conference on Information Technology Information (NCITE 2008), University of the Philippines, , Los Baños, Laguna 2008 O 23-24

10th International Conference on Molecular Systems Biology (ICMSB), University of the Philippines, Diliman, Quezon City 2008 F 25-2

8th Philippine Computing Science Congress (PCSC 2009), University of the Philippines, Diliman, Quezon City 2008 F 23-24

4th Symposium on the Mathematical Aspects of Computer Science (SMACS

2008), University of the Philippines-Cebu College , Lahug, Cebu 2008 Ag 6

2007 Science Education Conference Philosophy, Technology, & Environment, Ateneo de Naga University, Fr. John J. Phelan, S.J. Science Hall, Naga City 2007 S 1

5th National Conference on Information Technology Education (NCITE 2007), Silliman University, Dumaguete City 2007 O 22-23

3rd Symposium on the Mathematical Aspects of Computer Science (SMACS 2006), Adventists University of the Philippines, Silang, Cavite 2006 O 20

2nd Symposium on the Mathematical Aspects of Computer Science (SMACS 2004), Baguio, Philippines 2004 My 26-30

Symposium on Mathematical Aspects of Computer Science (SMACS 1997), UP College of Baguio, Baguio, Philippines 1997 My 28- Je 1

## **Researches**

### **Completed**

Multimodal network database and analysis system for data acquisition and systems biology

## **Papers Presented**

Sioson, A.A. (2008 F 25-28). Programming Language Support in Simulating Semantic Multimodal Network Models, IOth International Conference on Molecular Systems Biology (ICMSB), University of the Philippines, Diliman, Quezon City.

Sioson, A.A. (2008 F 23-24). Developing Creative Algorithmic Solutions in Bioinformatics, 8th Pbilippine Computing Science Congress (PCSC 2009).

Sioson, A.A. (2007 S 1). Bioinformatics: Computing in Biology, 2007 Science Education Conference Philosophy, Technology, & Environment, Ateneo de Naga University, Fr. John J. Phelan, S.J. Science Hall, Naga City.

Sioson, A.A. (2007 O 22-23). Webby - An Automatic Program Grader, 5th National Conference on Information Technology Education (NCITE 2007), Silliman University, Dumaguete City.

Sioson, A.D. (2006 O 20). Computations on Multimodal Networks, 3rd Symposium on the Mathematical Aspects of Computer Science (SMACS 2006), Adventists University of the Philippines, Silang, Cavite.

Sioson, A.A. (2004 My 26-30). Modeling Biological Networks, 2nd Symposium on the Mathematical Aspects of Computer Science (SMACS 2004), Baguio, Philippines.

Sioson, A.A. (1997 My 28-Je 1). Formal syntax directed translation, Symposium on Mathematical Aspects of Computer Science (SMACS 1997), UP College Baguio, Baguio, Philippines.

## **Publications**

2009 Ang, M.P., Sioson, A.A. Enriching Programming Instruction using Visualization. Philippine Information Technology Journal ISSN: 2012-0761, 2009 O, 2(2):31-34.

2009 Heath, L.S., Sioson, A.A. Semantics of multimodal network models. IEEE/ACM Transactions on Computational Biology and Bioinformatics, ISSN: 1545-



- 5963.[Doi]<http://dx.oi.org/10.1109/TCBa.2007.70242>, 2009 Ap-Je, 6(2):271-280.
- 2009 Heath, L.S., Sioson, A.A. Multimodal networks:: structure and operations. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, 2009 Ap-Je, 6(2):321-332.
- 2008 Sioson, A.A., Antonio, C.V., Papica, S.M.A., Webby-An Online Automatic Program Grader. *Philippine Information Technology Journal*, ISSN: 2012-0761, 2008 O, 1(2):29-34.
- 2008 Watkinson, J.I., Hendricks, L., Sioson, A.A., Heath, L.S., Bohnert, H.J., Grene, R., Tuber development phenotypes in adapted and acclimated, drought-stressed *Solarium tuberosum* ssp. *andigena* have distinct expression profiles of genes associated with carbon metabolism. *Plant Physiology and Biochemistry*, ISSN: 0981-9428. [DOI]<http://dx.doi.org/10.1016/j.plaphy.2007.10.020>, 2008 Ja, 46(1):34-45.
- 2007 Mane, S.P., Robinet, C.V., Sioson, A.A., Heath, L.S., Grene, R. Early PLDa Mediated Events in Response to Progressive Drought Stress in *Arabidopsis*: a Transcriptome Analysis. *Journal of Experimental Botany*, ISSN: 0022-0957. DOI<http://dx.doi.org/10.1093/jxb/er1262>, 2007 Ja, 58(2):241-252.
- 2006 Li, P., Sioson, A.A., Mane, S.P., Ulanov, A., Grothaus, G., Heath, L.S., Murali, T.M., Bohnert, H.J., Grene, R. Response diversity of *Arabidopsis thaliana* ecotypes and *Thellungiella halophila* in elevated CO<sub>2</sub> in the field,. *Plant Molecular Biology*, ISSN: 0167-4412 (Print)1573-5028 (Online)DOI<http://dx.doi.org/10.1007/s11103-006-9041-y>, 2006 N, 62(4-5).
- 2006 Li, P., Mane, S.P., Sioson, A.A., Robinet, C.V., Heath, L.S., Bohnert, H.J., Grene, R. Effects of chronic ozone exposure on gene expression in *Arabidopsis thaliana* ecotypes and in *Thellungiella halophila*. *Plant Cell and Environment*, ISSN: 0140-7791. DOI<http://dx.doi.org/10.1111/j.1365-3040.2005.01465.x>, 2006 My, 29(5):854-868.
- 2006 Watkinson, J.I., Hendricks, L., Sioson, A.A., Robinet, C.V., Stromberg, V., Heath, L.S., Schuler, M., Bohnert, H.J., Bonierbale, M., Grene, R. Accessions of *Solarium tuberosum* ssp. *andigena* show differences in photosynthetic recovery after drought stress as reflected in gene expression profiles. *Plant Science*, ISSN: 0168-9452. [doi]<http://dx.doi.org/10.1016.plantsci.2006.07.010>, 2006 D, 171(6):745-758.
- 2006 Sioson, A.A., Heath, L.S., Some fundamental operations on multimodal networks in biology. *Philippine Computing Journal*, ISSN: 1908-1995, 2006 D, 1(2):13-22.
- 2006 Sioson, A.A., Shrinivasrao P. Mane, S.P., Li, P., Sha, W., Heath, L.S. Hans, J., Bohnert, H.J., Grene, R. The statistics of identifying significantly expressed genes in Expresso and 1M4: a comparison. *BMC Bioinformatics*, ISSN: 1471-2105, (DOI) <http://dx.doi.org/10.1186/1471-2105-7-215>, 2006 Ap 20, 7(215).
- 2003 Watkinson, J.I., Sioson, A.A., et. al. Photosynthetic acclimation is reflected in specific patterns of gene expression in drought-stressed loblolly pine. *Plant Physiology*, ISSN: 0032-0889. {DOI}<http://dx.doi.org/10.1104/pp.103.026914>, 2003 D1, 133(4):1702-1716.
- 2003 Sioson, A.A., et al. Expresso and chips: Creating a next generation microarray experiment management system. *Proceedings of the Next Generation Software Systems Workshop, 17th International Parallel and Distributed Processing Symposium (IPDPS'03)*, Nice France,

209.b.[DOI]<http://dx.doi.org/10.1109/IPOPS.2003.1213381>, 2003 Ap 22-26.

- 1997 Sioson, A.A. Formal syntax directed translation. Proceedings of the Symposium on Mathematical Aspects of Computer Science (SMAC8 1997), UP College Baguio, 1997 My 28- Je 1.

**Name** Reynaldo B. Vea  
**Date of Birth** March 20, 1952  
**Gender** Male  
**Civil Status** Married  
**Home Address** Mapua Institute of Technology Intramuros, Manila 1002  
PHILIPPINES

**Organizational Affiliations**

President, Mapua Institute of Technology, Muralla St., Intramuros, Manila

**Education**

PhD. in Engineering, University of California, USA

**Fields of Specialization**

Marine Transportation Systems

Marine Engineering

Naval Architecture

Mechanical Engineering

**Employment**

President and CEO, Member Board of Trustees, Mapua Institute of Technology, 2000-present-

President, Mapua Techserv, 2001-present-

Chairman, Technical Panel on Science, Technology and Engineering Education, Congressional Commission on Science & Technology and Engineering (COMSTE), 2008 F-present-

Member, Private Sector Advisory Board, Commission on Information and Communications Technology, 2005-present-

Vice-Chairman, MMDA Committee on Infrastructure Development, 2003-present-

Member, Filipinnovation Network, 2008 S-present-

Member, National Competitiveness Council, 2008 S-present-

Member, ILEP Selection Committee, International Leaders in Education Program, Phil.-American Educational Foundation, 2008 JI-present-

Member, Fulbright Selection Committee, Fulbright Program, 2007 Ap-Je-

Dean, University of the Philippines College of Engineering, 1993-1997-

Associate Dean, University of the Philippines, 1992-1993-

Chairman, UP College of Engineering, Department of Engineering Sciences, 1985-1986; 1991-1993-

Chairman, UP College of Engineering Computer Science Program Committee, 1985-1986-

Project Leader, Engineering and Science Education Project, DOST, 1992-1993-

Chairman, UP College of Engineering Committee on Private Scholarships, 1986-1987-

Teacher - Professor, University of the Philippines College of Engineering, 1977-2000-

Executive Director, National Engineering Center, 1993-1997-

Chairman, NEC Editorial Board for Publications, 1985-1986-

Officer-in-Charge, National Center for Transportation Studies, 1993-1995-

Resource Person-UN Laws of the Sea Program, UP Law Center, 1995-1997-

Member, Advisory Council, Marine Sciences Center, 1983-1986-

Representative of UP, Quezon City Science Community, 1993-1997-

Resource Person, Philippine Merchant Marine Academy, 1992-1997-

Co-Chairman, Technical Panel on Engg. and Arch. Education, Department of Education, Culture and Sports, 1993-1994-

Chairman, Technical Panel for Engineering, Architecture and Maritime Education, Commission on Higher Education, 1994-1997-

Member, Central Awards Board, Commission on Higher Education, 2004-2005-

Co-Chairman, Regional Evaluation Team of Experts, Commission on Higher Education, 2007-2008-

Member, Governing Council, Department of Science and Technology, Phil. Council for Industry and Energy Research and Dev., 1995-1997-

Chairman, Scientific Career Council, DOST Committee on Engineering and Technology, 2003-2004-

Member, Office of the President, I.T. and e-Commerce Council of the Republic of the Philippines, 2003-2004-

Administrator, Vice Chairman of Board of Trustees, Metropolitan Waterworks and Sewerage System, 1997-2000-

Member, Board of Trustees, MWSS Board Committee on Construction Management, 1995-1997-

Chairman, Inter-Agency Committee of Water Crisis Management, 1997-2000-

Member, National Water Resources Board (NWRB), 1997-2000-

Member, Cabinet Cluster G (Infrastructures), 1997-2000-

Member, Presidential Task Force on Water Resources Development & Management, 1997-1998-

Member, Presidential Task Force El Nino, 1997-1998-

Member, National Coordinating Council, International Training Network (ITN), 1993-1997-

Chairman, Committee on Education and Information, Metro Manila Land Transportation Coordinating Council (MMLTCC), 1994-1995-

Technical Consultant, Maritime Industry Authority (MARINA), 1983-1986-

Resource Person, Cabinet Committee on the United Nations Convention on the Law of the Sea, 1984-1985-

Naval Architect and Marine Engineer, Hudson Shipbuilders, Inc., Pascagoula, Mississippi, USA, 1981-1982-

Naval Architect and Marine Engineer/ Project Manager, Herbert Engineering Corp., San Francisco, California, USA, 1982-1983-

Research Assistant, University of California at Berkeley, Institute of Transportation Studies, 1989-1991-

### **Association Membership**

Member, Director (elected 2006), National Research Council of the Philippines (NRCP)

Member, Executive Council, ASEAN Academy of Engineering and Technology (AAET)

Director, Treasurer for year 2006, Philippine Association of Colleges and Universities (PACU)

Director, ex-officio, as PACU Director, Coordinating Council of Private Education Associations (COCOPEA)

Director and Treasurer, Philippine Quality and Productivity Movement (PQPM)

Vice-Chairman, Advanced Research and Competency Development Institute (ARCDI)

Director, Industrial Research Foundation

Chairman, Philippine Science High School System National Alumni Association (PSHSS-NAA)

Trustee/President, Philippine Science High School Foundation, Inc.

Member, Board of Advisers, Philippine Emerging Start-Ups Open (PESO)

Member, Editorial Board, Philippine Science Letters

President, Member Board of Trustees, Mapua Information Technology Center (MITC)

President, Member Board of Trustees, Malayan High School of Science

President, Member Board of Trustees, Malayan Colleges Laguna

President, San Lorenzo Ruiz Institute of Health Sciences

Member, Board of Management, Jaypee Institute of Information Technology (Noida, India)

Member, Board of Trustees, Yuchengco Center, De La Salle University

### **Honors / Awards**

Nominee for the ASEAN Engineering Award, ASEAN 2003

Academician, NAST-DOST 2001

Fellow, Center for Integrative Development Studies, Office of the President 1995-

1997

50 Men and Women of Science, Republic of the Philippines, DOST 2008

2008 Most Outstanding Fulbrighter in Science and Technology, Philippines Fulbright Scholars Association (PFSA) 2008

Diamond Jubilee Award for Outstanding Achievement, International Honor Society of Phi Kappa Phi UP Chapter 045 2003

2001 Outstanding Professional Award in Engineering, University of the Philippines Alumni Association (UPAA) 2001

2000 Most Distinguished Alumnus, the University of the Philippines Alumni Engineers (UPAE) 2000

Outstanding Son of Balanga, Bataan, HAS Club of Balanga 2001

1993 Gawad Lagablab Award for Science and Technology Education, Philippine Science High School Alumni Association 1993

1978 Most Outstanding Male Graduate, University of the Philippines

1967 Pambihirang Talino (Extraordinary Intelligence) Award, National Movement for Science and Technology (NAMOST)

## **Trainings**

CE Nurture Culture, Academic Program Improvement Workshop, Department of Civil Engineering, College of Engineering, University of the Philippines, Antipolo, Ri 2008 Ap

Educational Leadership and Management Development Seminar Series, Coordinating Council of Private Ed, Manila, Philippines 2006 JI

Risk Management, Bangko Sentral ng Pilipinas and Deutsche Bundesbank, Makati City 2006

Corporate Governance, Institute of Corporate Directors, Makati City 2006

Project Management, JICA Counterpart Training, Tokyo and Tsukuba Science City, Japan 1995

Management Seminar on Creating Industrial Links for Filipino Executives (Industry-Academe Linkages), Japan 1995

Privatization of Water and Sewerage Systems, World Bank and Aguas de Barcelona, Barcelona, Spain 1995

Local Energy Planning, Finmeccanica Training Center, Rome, Italy 1985

Groundwater Hydrology, University of California at Berkeley, USA 1983

The Finite Element Method, University of California at Berkeley, USA 1983

## **Researches**

### **On-going**

Wave energy generation using relative motion between two floating goodies of different spring mass-characteristics

The Globalization of Engineering Education and Practice

## Regional Accreditation Systems in Engineering Education

### Papers Presented

Vea, R.B. (2008 S). Engineering Education and Philippine Competitiveness, Rotary Club of Manila, Makati, Philippines.

Vea, R.B. (2008 S). Towards Greater International Mobility in Professional Engineering Practice, 2008 National Convention and General Membership Meeting, Philippine Association for Technological Education (PATE), Manila.

Vea, R.B. (2008 S). R & O, a Key to Success, National Civil Engineering Symposium 2008, Convergence: One CE, One Vision, Towards National Development, Quezon City.

Vea, R.B. (2008 O). Main Resource Person and Speaker, Ship Stability Standards, SONAME Technical Symposium 2008, "Focused on Ship Technology", Society of Naval Architects and Marine Engineers, Inc. in cooperation with the Propeller Club, Manila.

Vea, R.B. (2008 N). Engineering Education in the Philippines, Interdisciplinary and Trans-boundary Engineering Opportunities in ASEAN, Modernization of Engineering Education,, 26th Conference of the ASEAN Federation of Engineering Organizations (CAFEO 26), Bangkok, Thailand.

Vea, R.B. (2008 N). Speaker, Why Planets Have Elliptical Orbits,'69er's Speak, Series of Talks by the First Batch of Philippine Science High School Graduates, Quezon City.

Vea, R.B. (2008 My). The Managerial and Financial Challenges Faced by Educational Executives and Administrators and Appropriate Coping Strategies Executive Course for School Administrators, Universidad de Zamboanga, Zamboanga City, Philippines.

Vea, R.B. (2008 Je). Opportunities in Marine Technology & Oceanography Sector, Conference-Workshop On Business Development For State Universities And Colleges, Philippine Association of State Universities and Colleges (PASUC), Asia Pacific Development and Technology Management (APTECH) Foundation, Inc. and the Center for Urban Management and Environment, Inc. (CUME), Tagaytay City, Philippines.

Vea, R.B. (2008 Je). Keynote Speaker, The University of the Philippines Baguio Beyond the Centennial, 2008 University of the Philippines at Baguio Faculty Conference, Mt. Data, Benguet, Philippines.

Vea, R.B. (2008 D). Assessment of Educational Outcomes (Panel Speaker), 19th Annual General Assembly, Philippine Association of Colleges and Universities-Commission on Accreditation (PACUCOA), Manila.

Vea, R.B. (2008 Ap). Guest Speaker, Infrastructure for the Future, CE Nurture Culture, Academic Program Improvement Workshop, Department of Civil Engineering, College of Engineering, University of the Philippines, Antipolo, Rizal.

Vea, R.B. (2008 Ag). Speaker and Conference Organizer, The Globalization of Engineering Education and Practice; Conference on Science, Math and Engineering Education, Congressional Commission on Science, Technology and Engineering (COMSTE), Quezon City.

Vea, R.B. (2007 O). Gaps in Knowledge and skills Affecting Philippine Competitiveness on Human Capital, 25th National Quality and Productivity

- Congress, Philippine Quality and Productivity Movement (PQPM) Makati City.
- Vea, R.B. (2007 Mr). Building the competitiveness of the S & T Workforce, National Conference on Improving Competitiveness Through the S & T Human Resource Development, Science Education Institute.
- Vea, R.B. (2007 Mr). Building the competitiveness of the S & T Workforce, National Conference on Improving Competitiveness Through the S & T Human Resource Development, Science Education Institute.
- Vea, R.B. (2007 F). Enhancing Industry Academe Linkage, Private Education: Gearing Up for the Next Generation, 2nd National Congress of the Coordinating Council of Private Educational Association.
- Vea, R.B. (2007 F). The Global Application of Engineering, 14th Distinguished Alumni Lecture Series, University of the Philippines Alumni Engineers, Quezon City.
- Vea, R.B. (2007 F). Academe & Industry: Synergizing for Global Cooperation and Competitiveness, 68th National Convention of the Philippine Institute of Chemical Engineer.
- Vea, R.B. (2007 F). Academe & Industry: Synergizing for Global Cooperation and Competitiveness, 68th National Convention of the Philippine Institute of Chemical Engineer.
- Vea, R.V., (2006 JI). Gauging Progress: Are we moving towards our vision? The Mapua Experience, Educational Leadership and Management Development Seminar Series, Coordinating Council of Private Educational Associations (COCOPEA), Manila, Philippines.
- Vea, R.B., Cruz, Jr., J.B. (2006). Engineering Education Standards for Global Professional Practice, 2006 Global Colloquium on Engineering Education (GCEE), American Society for Engineering Education (ASEE), Rio de Janeiro, Brazil.
- Vea, R.V. (2006). Towards Greater Heights in Philippine Mechanical Engineering Education, 1st Mechanical Engineering Conference and 6th Mechanical Engineering Students Conference, PIMEE and PSME, NCR Academe Chapter, Manila.
- Vea, R.B., Cruz, J.B. Jr. (2005). Continuous Quality Improvement: Key to the Globalization of Engineering Education, 4th Global Colloquium on Engineering Education (GCEE), American Society for Engineering Education (ASEE) and the Australian Association for Engineering Education (AaEe), Sydney, Australia.
- Vea, R.B. (2001). Ship Technical Characteristics and Fleet Performance and Economics, Journal of the Eastern Asia Society for Transportation Studies (EASTS), presented during the 4th International Conference, Hanoi, Vietnam.
- Vea, R.B. (2000). Engineering Education in the New Economy, The 6th Triennial Conference of the Association for Engineering Education in Southeast Asia and the Pacific (AESEAP), Bali, Indonesia.
- Vea, R.B. (1998). MWSS and the El Nino Episode of 1997-98, Philwater 98, 7th International Conference and Exhibition, Philippine Waterworks Association (PWWA), Davao City, Philippines.
- Vea, R.B. (1997 0). The Probability of a Ship Sinking or Capsizing, 2nd International Conference of the Eastern Asia Society for Transportation Studies (EASTS), Seoul, South Korea.



Vea, R.B. (1997). Innovations in Engineering Education in the Philippines, 4th World Congress on Engineering Education and Training, World Federation of Engineering Organizations (WFEO), Sydney, Australia,.

Vea, R.B. (1997). Country Paper: Engineering Education in the Philippines, The 1997 Conference of the Association for Engineering Education in Southeast Asia and the Pacific (AEESEAP), Manila, Philippines.

Vea, R.B. (1996). Government-Industry-Academe Linkages in the Philippines, 1996 Mid-Term Conference of the Association of Engineering Education in Southeast Asia and the Pacific (AEESEAP), Chiba, Japan.

Vea, R.B. (1995). The Manufacturing Linkage Program of the University of the Philippines, The 1995 International Conference of Deans and Industry Leaders, Melbourne, Australia.

Vea, R.B. (1994). Engineering Education in the Philippines, Conference of the Association for Engineering Education in Southeast Asia and the Pacific (AEESEAP), Lae, Papua New Guinea.

### **Publications**

2008 Cruz, J.B.Jr., Follosco, C.L. Revolution in Philippine Engineering Accreditation through a Rapid Evolution. Global Colloquium on Engineering Education (GCEE), American Society for Engineering Education (ASEE), Capetown, South Africa, 2008 O.

2006 Vea, R.B., Cruz J.B., Jr. Engineering Education Standards for Global Professional Practice. Proceedings of the 2006 Global Colloquium on Engineering Education (GCEE), American Society for Engineering Education (ASEE), Rio de Janeiro, Brazil, 2006.

1999 Vea, R.B. Trumping El Nino in Metro Manila. Asian Water, 1999 Je, 15(6).

1994 Vea, R.B. A method to optimize the on-time performance of containerhips. Marine Technology, Technical Quarterly of the U.S. Society of Naval Architects and Marine Engineers (SNAME), 1994 Ja.

Vea, R.B. Ship Technical Characteristics and Fleet Performance and Economics. Journal of the Eastern Asia Society for Transportation Studies (EASTS), .

**Name** Gina Villegas-Pangga  
**Gender** Female  
**Civil Status** Married  
**Home Address** UPCO Staff Housing UPLB, College, Laguna

**Organizational Affiliations**

Consultant, Testing and Promotion of Organic Fertilizers, Agri-Jade Corporation,  
Assistant Professor 5, Farming System and Soil Resources Institute Agricultural  
System Cluster, UPLB, College, Laguna  
Assistant Professor 6, Farming Systems and Soil Resources Institute Agricultural  
Systems Cluster, University of the Philippines Los Baños, College, Laguna 4031

**Education**

Ph.D. Soil Fertility and Plant Nutrition, University of New England, Australia, 2000

**Fields of Specialization**

Soil Chemistry  
Farming Systems  
Agriculture and Forestry  
Plant Nutrition  
Management of Agricultural Waste and Waste Disposal Strategies

**Trainings**

International Conference of Solid Waste 2011 Moving Towards Sustainable  
Resource Management, Hongkong Convention and Exhibition Centre, Hongkong,  
SAR, China 2011 My 3-5  
34th ASM-NAST Poster Session, Manila Hotel, Philippines 2011 JI 13-15  
7th International Federation of Organic Agriculture Movement-Organic World  
Congress, Namyangju, South Korea 2011  
Non-Chemical Soil and Substrate Disinfestations, 7th International Symposium on  
Chemical and Colleqi, Leuven, Belgium 2009 S 13-18  
31st Annual Scientific Meeting of National Academy of Science and Technology,  
Manila Hotel, Manila 2009 JI 8-9  
31st Annual Scientific Meeting of National Academy of Science and Technology,  
Manila Hotel, Manila 2009 JI 8-9  
Quality of Organic Materials for Improved Soil Fertility in the Organic rice  
Production System, Go Organic 2009 Symposium, Bangkok, Thailand 2009 Ag 19-  
21

**Researches**

**Completed**

Documentation of Indigenous and Existing Organic Farming  
Practices/Technologies in Selected Southern Tagalog areas

Long Term Experiment on the Management of Crop/Plant Residues and Influences on Nutrient Supply to Rice

### **Ongoing**

Utilization of crop residues and lesser-known plant materials as organic fertilizers/soil amendments for ornamental plant and organic vegetables production

### **Papers Presented**

Pangga, G.V. (2011 My 3-5). Solid Waste Recycling Strategies in Selected Municipalities of Southern Luzon Philippines, International Conference of Solid Waste 2011 Moving Towards Sustainable Resource Management, Hongkong Convention and Exhibition Centre, Hongkong, SAR, China.

Pangga, G.V. (2011 JI 13-15). Indigenous Knowledge Systems as Stimulus to a Better Soil Health and Bionetwork, 34th ASMNAST Poster Session, 13-15 July 2011, Manila Hotel, Philippines.

Pangga, G.V., Baquireza, C.J. (2011 JI 13-15). Effect of Human Geography on Soil and Ecosystem Health, 34th ASM-NAST Poster Session, Manila Hotel, Philippines.

Villegas-Pangga, G. (2011 JL 13-14). Indigenous Knowledge Systems as Stimulus to a Better Soil Health and Bionetwork, 33rd NAST Annual Scientific Meeting.

Villegas-Pangga, G. (2011 Jk 13-14). Effect of Human Geography on Soil and Ecosystem Health, 33rd NAST Annual Scientific Meeting.

Pangga, G.V. (2011). The Facts and Myths in Organic Agriculture: Farmers' Farming Practices in Southern Luzon Philippines, 17th International Federation of Organic Agriculture Movement-Organic World Congress, Namyangju, South Korea.

Villegas-Pangga, G. (2009 JI 8-9). Indigenous Practices and Technologies Toward a Sustainable Organic Rice Production System, 31st Annual Scientific Meeting of National Academy of Science and Technology, Manila Hotel, Manila.

Villegas-Pangga, G. (2009 JI 8-9). Organic Matter Residue Management for the improvement of Soil Quality in Lowland Rice Systems, 31st Annual Scientific Meeting of National Academy of Science and Technology, Manila Hotel, Manila.

Pangga, G.V. (2009 D 13). Overview of organic agriculture and requirements of composting, Agricultural Systems Cluster Lecture Hall, UPLB College, Laguna.

Villegas-Pangga, G. (2009 D 13). Different Perspectives on the Development and Utilization of Biofertilizers in Agriculture Beyond the Food Systems, Cluster Lecture Hall, UPLB, College, Laguna.

### **Publications**

- 2011 Villegas-Pangga, G. Indigenous knowledge Systems As Stimulus to a Better Soil Health and Bionetwork. Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2011 JL 13-14, 33(1).
- 2011 Villegas-Pangga, G. Effect of Human Geography on Soil and Ecosystem Health. Transactions of the National Academy of Science and Technology. Abstract of Papers, 2011 JI 13-14, 33(1).
- 2011 Pangga, G.V. The Facts and Myths in Organic Agriculture: Farmers' Farming Practices in Southern Luzon Philippines. Proceedings of the 17th International Federation of Organic Agriculture Movement Organic World Congress,

- Namyangju, South Korea, 2011.
- 2010 Pangga, G.V. A Strategy in Assessing Plant Residue Material Quality to Enhance Sustainability of Lowland Agricultural Systems. Sustainability in Food and Water: An Asian Perspective, K. Fukushi et al. (ed). Springer Publication, 2010, 18(Part 6):425-433..
- 2010 Villegas-Pangga, G. Kakawate (*Gliricidia sepium*, Leguminosae) as a soil amendment and biological control of soil-borne pathogens: The Philippines Experience. *Acta Hort.* (ISHS) [http://www.actahort.org/books/883/883\\_38.htm](http://www.actahort.org/books/883/883_38.htm), 2010, 883:309-315.
- 2010 Pangga, G.V., Dimaano, A.O. Effects of changing land use and cover change on ecosystem health. In: SEAGA Conference 2010 Handbook. Hanoi, Vietnam: University of Education Publishing House, 2010:99.
- 2009 Villegas-Pangga, G. Ecological landscape analysis and agricultural pollution. The case of Mt. Banahaw Watershed in the Philippines. In 13th International Specialized Conference on Diffuse Pollution and Integrated Watershed Management, Seoul, South Korea, 2009 O 12-15.
- 2009 Villegas-Pangga, G. Quality of Organic Materials for Improved Soil Fertility in the Organic rice Production System. In. Go Organic 2009 Symposium, Bangkok, Thailand, 2009 Ag 19-21.
- 2009 Villegas-Pangga, G. The Three Q's of organic Soil Quality, Water Quality, and Food Quality and Safety. In Go Organic 2009 Symposium, Bangkok Thailand, 2009 Ag 19-21.
- 2009 Villegas-Pangga, G. Kakawate (*Gliricidia sepium* Leguminosae) as soil amendment and biological control of soil-borne pathogens. The Philippine experience. In 7th International Symposium on Chemical and Non-Chemical Soil and Substrate Disinfestations, Colloquium de Valk, Leuven, Belgium, 2009 S 13-18.
- 2009 Villegas-Pangga, G. Growth and yield of rice (*Oryza sativa* L.) applied with straw from different rice varieties under varying water regimes and fertilizers levels. *The Philippine Journal of Crop Science*, 2009, 34:59-67.
- 2009 Villegas-Pangga, G. Indigenous Practices and Technologies Toward A Sustainable Organic Rice Production System. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1).
- 2009 Villegas-Pangga, G. Organic Matter Residue Management for the Improvement of Soil Quality in Lowland Rice Systems. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1).
- 2009 Villegas-Pangga G. Indigenous practices and technologies toward sustainable organic rice production system. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1):p.24.
- 2009 Villegas-Pangga, G. Organic matter residue management for the improvement of soil quality in lowland rice systems. *Transactions of the National Academy of Science and Technology. Abstracts of Papers*, 2009, 31(1):p.25.
- Villegas-Pangga, G., Blair, G.J., Lefroy, R.D.B. Measurement of decomposition and associated nutrient release from barrel medic (*Medicago truncatula*) hay and chickpea (*Cicer arietinum*) straw using an in vitro perfusion system 51(5). *Australian Journal of Agricultural Research*, , 5:563 - 568.

**Name** Derrick Ethelbhart C. Yu  
**Place of Birth** Manila  
**Date of Birth** November 14, 1976  
**Gender** Male  
**Civil Status** Single  
**Home Address** 352 P. Guevarra St., San Juan City

**Organizational Affiliations**

Associate Professor, Chemistry Department, De La salle University, Manila  
Head, Materials Science and Nanotechnology Unit, De La salle University, Manila  
Vice Dean, College of Science, De La Salle University, Manila

**Education**

Ph.D. in Chemistry, Hokkaido University, Sapporo, Japan 2008  
M.S. in Chemistry, De La Salle University, Manila 2002  
B.S. Major in Chemistry, De La Salle University, Manila 1998

**Fields of Specialization**

Molecular Engineering of Iron Phthalocyanine for Novel "photo-magneto" Dynamic Cancer Therapy  
Synthesis of Ruthenium phthalocyanine with various axial ligands: promising malfunctional molecular conductors  
Molecular mechanics and pharmacokinetic studies on the anti-hypoglycemic activity of dipeptidyl peptidase 4 (DPP4) inhibitors: structure-based computational drug design  
Synthesis and design of molecular imprinted polymer (MIP)sorbents for cis/trans fatty acid extraction and separation  
Phthalocyanine - titanium oxide nanosystem paint additive as volatile organic air pollutant oxidizer

**Employment**

Vice Chair, Chemistry Department, De La Salle University, Manila, 2009 Ja- 2009 D-  
Supervisor, Chemistry Laboratories and Services, De La Salle University, Manila, 2003 My - 2004 Mr-  
Asst. Professorial Lecturer, De La salle University, Manila, 2003 Ja- 2003 Ap-  
Lecturer, De La salle University, Manila, 2001 Je -2000 D-  
Asst. Lecturer, De la Salle University, manila, 2000 Je-2001 My-  
Visiting Researcher, University of Tokyo, Japan, 2006 Ja -2007 D-

**Association Membership**

Member, Royal Society of Chemistry (UK)

Founding Members and 1st President, Philippine Society of Materials Science and Nanotechnology, Inc.

Director/Country Representatives for the Philippines, Society of Porphyrins and Phthalocyanines (Dijon, France)

Member, American Chemical Society

Member, Chemical Society of the Philippines

### **Honors / Awards**

Dr. Richard Duerr Academic Chair in Chemistry, De La Salle University 2011 Je

Admittance (only 20 worldwide) and Scholarship to the 4th University Leadership and Management, DAAD 2011 JI-2012 F

Scientific Paper "Stable n-n dependent conduction band of phthalocyanine molecular conductors, Royal Society of Chemistry 2011 Mr

Doctoral Scholarship, Ministry of Education, Govt. of Japan 2004 Ap - 2008 Mr

### **Trainings**

4th Osaka University Computational Materials Design Workshop, De La Salle University 2011 O

1st Philippine Society of Materials Science and Nanotechnology Conference, De La Salle University 2010 N

11th, 12th and 14th Osaka University -DLSU Research Conference, DLSU, Taft Ave., Manila 2008 S, 2009 S, 2010

### **Researches**

#### **Completed**

Nano-Synthesis and Transport Engineering of Iron Phthalocyanine Molecular Conductor

Ligand-Based Computational Drug-Design of Kaurane Diterpene Derivatives with NF-kB Inhibitory Activity

Synthetic and Crystal Structure of Ruthenium Phthalocyanine with Monoatomic Di-Axial Ligands

Quantum Chemical Calculations of Ligand Field Effects in Metallophthalocyanine Magnetic Molecular Conductors

Synthesis of the Elusive Ruthenium Phthalocyanine with Di-Axial Bromo Ligands

### **Papers Presented**

(2010 S). Molecular Similarity Analysis Between Ent-Kaurenoic Acid and Kaurane Diterpenoids with NF- kB Inhibitory Activity, 14th Osaka University-De La Salle University Research Conference.

### **Publications**

2011 Yu, Matsuda, Tajima, Naito, Inabe Stable n-n dependent electron conduction band of TPP [M(Pc)L<sub>2</sub>]<sub>2</sub> molecular conductors (TPP=tetraphenylphosphonium; M = Co, Fe; Pc = phthalocyaninato; L = CN, Cl, Br). Dalton Transactions, 2011, 40:2283.

2011 Janairo, Janairo, Yu Assessing the binding affinity of a selected class of DPP4 inhibitors using chemical descriptor-based multiple linear

- regression. *Orbital*, 2011, 3(15).
- 2011 Janairo, Janairo, Yu Semi-Empirical Prediction on the Structure and Properties of ent-Kaurenoic Acid and Derivatives. *E-Journal of Chemistry*, 2011, 8(703).
- 2010 Inoue, Nonato, Yu Molecular Similarity Analysis Between Ent-Kaurenoic Acid and Kaurane Diterpenoids with NF- $\kappa$ B Inhibitory Activity. *Proceedings of the 14th Osaka University-La Salle University Research Conference*, 2010 S.
- 2010 Janairo, Co, Janairo, Yu Regression analysis on the chemical descriptors of a selected class of DPP4 inhibitors. *Studies in Mathematical Sciences*, 2010, 1(45).
- 2010 Yu, Gacho, Janairo, Ang, Tan Skewered cyano-ligated Cobalt 1,2-Naphthalocyanine polymer: An electron transport engineering. *The Manila Journal of Science*, 2010, 6(33).
- 2010 Inoue, Torizuka, Tajima, Matsuda, Yu, Naito, Inabe, Hanasaki Magnetic torque measurements of  $\text{TPP}\{\text{Fe}(\text{Pc})\text{Br}_2\}_2$ . *Physica B; Condensed Matter*, 2010, 405:331.
- 2009 Gamboa, Valenton, Yu Facile Synthesis and Plausible Mechanism of Axially-Ligated Ruthenium (III)Phthalocyanine Complexes. *Proceedings of the 12th Osaka University-De La Salle University Research Conference*, 2009 S.
- 2009 Hanasaki, Inoue, Matsuda, Tajima, Naito, Inabe, Yu Torque Magnetometry Measurements on  $\text{TPP}\{\text{Fe}(\text{Pc})\text{L}_2\}_2$  (L=Br, Cl). *Proceedings of the Meeting of the Physical Society of Japan*, 2009 Ag 18, 64(2-4).
- 2009 Yu, Matsuda, tajima, Taketsugu, Hanasaki, Naito, Inabe Variable magnetotransport properties in the  $\text{TPP}\{\text{Fe}(\text{Pc})\text{L}_2\}_2$  system (TPP = Tetraphenylphosphonium, Pc = Phthalocyaninato, L = CN, Cl, and Br). *Journal of Materials Chemistry*, 2009, 19:718.
- 2008 Yu, Gacho, Janairo Polymeric Cyano-Bridged Cobalt Naphthalocyanine: A Skewered Type Molecular Conductor Design. *Proceedings of the 11th Osaka University -De La Salle University Research Conference*, 2008 S.
- 2008 Yu, Matsuda, Tajima, Naito, Inab Molecular Engineering of Phthalocyanine-Based Multifunctional Conducting Materials. *Proceedings of the 11th Osaka University-De La Salle University Research Conference*, 2008 S.
- 2008 Inabe, Yu, Ishikawa, Naito Design of magneto-transport properties in axial-ligated phthalocyanine molecular conductors. *Journal of Porphyrins and Phthalocyanines*, 2008, 12:104.
- 2007 Yu, Kikuchi, Taketsugu, Matsuda, Tajima, Naito, Inabe Controlling the Solid-State Properties of Partially-Oxidized Metallophthalocyanine Conductors. *Proceedings of the 7th International Symposium on Crystalline Organic Metals, Superconductors, and Ferromagnets, Peniscola, Spain*, 2007 S.
- 2007 Yu, Kikuchi, Taketsugu, Matsuda, Tajima, Naito, Inabe Electronic Structures and Correlating Properties of Axially-Ligated Metallophthalocyanine Molecular Conductors. " *Proceedings of the Japan Society for Molecular Science National Conference*, Sendai, Japan, 2007 S.
- 2007 Yu, Kikuchi, Taketsugu, Matsuda, Tajima, Naito, Inabe Electronic Structures and Correlating Properties of Axially-Ligated Metallophthalocyanine Molecular Conductors *Proceedings of the Japan Society for Molecular Science National Conference*, Sendai, Japan, Sep 2007 Yamada, Yu, Inabe "Synthesis, Structure,

- and Properties of  $TPP[Cr^{III}(Pc)Xz]z$  ( $X = CN, Cl, Br$ )" Proceedings of the Japan Society for Molecular Science National Conference, Sendai, Japan, Sep Electronic Structure Quantum Chemical Calculations of Iron Phthalocyanine Complexes. Proceedings of the Japan Society for Molecular Science National Conference, Sendai, Japan, 2007 S.
- 2007 Inoue, Matsuda, Tajima, Yu Magnetic torque of phthalocyanine-base molecular conductor. Proceedings of the Japan Society for Molecular Science National Conference, Sendai, Japan, 2007 S.
- 2007 Yu, Matsuda, Tajima, Naito, Inabe Effects of varying axial ligands on the r-d interaction of 1-D partially -oxidized phthalocyanines. Proceedings of the 87th Annual Meeting, Osaka, Japan, 2007 Mr.
- 2006 Yu, Imai, Ushio, Takeda, Naito and Inabe One-Step Synthesis of Partially-Oxidized Salts of Cobalt (III) Phthalocyanine with Axial Ligands. Chemistry Letters, 2006, 35:602.
- 2006 Inabe, Yu, Ishikawa, Yamashita and Naito Interplay between conduction n-electrons and localized d-spins in phthalocyanine conductors. Journal of Porphyrins and Phthalocyanines, 2006, 10:463.
- 2005 Yu, Imai, Naito and Inabe One-Dimensional Partially -Oxidized Salts of metal Phthalocyanines with Axial Halides. Bunshi Kozo Sogo Toronkai Koen Yoshishu, 2005, 218.
- 1999 Alea, Alto, Garcia, Janairo, Quiblan and Yu Synthesis of D-Galactose Modified 1,3-Dithiole-2-Thione Derivative. The Manila Journal of Science, 1999, 2:49.



## Specialization Index

Agricultural Chemistry  
Ella, Evangelina S.

Agricultural Economics and Rural  
Development  
Dumlao, Florentina S.

Agriculture  
Alvindia, Dionisio G.

Agriculture and Forestry  
Castaneto, Yolina Tarranco  
Dumlao, Florentina S.  
Manatad, Fe A.  
Villegas-Pangga, Gina

Algorithms, Software Testing, and Computer  
Science Education  
Sioson, Allan Adriano

Animal Parasitology  
Cauyan, Gil A.

Antihelminthic Potential of Some Local  
Philippine Plants  
Cauyan, Gil A.

Aquatic Microbiology  
Lio-Po, Gilda D.

Bacteriology  
Cabauatan, Pepito Q.

Biodiesel and Alternative Fuels  
Dimaano, Maria Natalia R.

Bioinformatics  
Sioson, Allan Adriano

Biological Sciences  
Cauyan, Gil A.  
Santos, Ameurfina D.  
Quinto, Edward A.  
Lio-Po, Gilda D.  
Pulido, Marian Apolinario  
Dela Cruz, Thomas Edison E.  
Dedeles, Gina R.  
Martinez - Goss, Milagrosa R.

Botany  
Martinez - Goss, Milagrosa R.

Chemical Sciences  
Rabena, Alfredo R.  
Ella, Evangelina S.

Chemical Thermodynamics/  
Caparanga, Alvin R.

Chemistry  
Dedeles, Gina R.  
Quinto, Edward A.

Computational Biology,  
Sioson, Allan Adriano

Computational physics  
Galapon, Eric Alvarez

Crab and shrimp culture in nursery and  
grow-out ponds/pens  
Quinitio, Emilia T.

Cycling of stable and active soil organic  
carbon (SOC) in agricultural soils and their  
contribution to global atmospheric CO<sub>2</sub>  
Dumale, Wilfredo Jr. Arellano

Data Mining, Modeling and Simulation  
Sioson, Allan Adriano

Directed Evolution of Proteins  
Pulido, Marian Apolinario

Drug Resistant Organisms (including MSRA)  
Salvana, Edsel Maurice T.

Ecophysiology  
Dela Cruz, Thomas Edison E.

Education  
Belino, Manuel C.

Educational Statistics  
Brawner, Filma G.

Elementary Particles Physics

Albano, Alfonso M.

Emerging Infectious Disease  
Salvana, Edsel Maurice T.

Engineering  
Caparanga, Alvin R.

Engineering Education  
Belino, Manuel C.

Environmental Sciences  
Dedeles, Gina R.

Extension Education  
Dumlao, Florentina S.

Farming Systems  
Villegas-Pangga, Gina

Food Microbiology  
Pulido, Marian Apolinario

Forensic DNA Analysis  
Calacal, Gayvelline

Forest Products Chemistry  
Rabena, Alfredo R.

Forestry: SFI (Tree Improvement)  
Castaneto, Yolina Tarranco

Foundations and applications of quantum  
mechanics  
Galapon, Eric Alvarez

Freeze concentration for environmental  
application  
Caparanga, Alvin R.

Fungal Systematics  
Dela Cruz, Thomas Edison E.

Horticulture  
Manatad, Fe A.

Hyperthermophilic proteins  
Pulido, Marian Apolinario

Immunocompromised Host  
Salvana, Edsel Maurice T.

Influence of Applied lime on CO<sub>2</sub> evolution  
and SOC Cycling in acid agricultural soils  
Dumale, Wilfredo Jr. Arellano

Information Visualization  
Sioson, Allan Adriano

Internal Medicine, Infectious Diseases &  
Tropical Medicine  
Salvana, Edsel Maurice T.

International Economic Development  
Mendoza, Ronald Umali

Lactic acid fermentation  
Quinto, Edward A.

Lymphatic Filariasis  
Salvana, Edsel Maurice T.

Management of Agricultural Waste and  
Waste Disposal Strategies  
Villegas-Pangga, Gina

Management of Science Education  
Programs  
Brawner, Filma G.

Marine Engineering  
Vea, Reynaldo B.

Marine Transportation Systems  
Vea, Reynaldo B.

Materials Science and Engineering  
Dimaano, Maria Natalia R.

Mechanical Engineering  
Belino, Manuel C.  
Vea, Reynaldo B.

Microbial bioluminescence  
Quinto, Edward A.

Microbial natural products  
Quinto, Edward A.

Microbiology  
Quinto, Edward A.  
Lio-Po, Gilda D.

Molecular Studies on Philippine  
Cryptosporidiosis and Amoebiasis.  
Cauyan, Gil A.

Molecular Biology  
Santos, Ameurfina D.

Molecular Engineering of Iron

Phthalocyanine for Novel "photo-magneto"  
Dynamic Cancer Therapy  
Yu, Derrick Ethelbherth C.

Molecular mechanics and pharmacokinetic  
studies on the anti-hypoglycemic activity of  
dipeptidyl peptidase 4 (DPP4) inhibitors:  
structure-based computational drug design  
Yu, Derrick Ethelbherth C.

Multimodal Networks  
Sioson, Allan Adriano

Mycology  
Alvindia, Dionisio G.  
Dela Cruz, Thomas Edison E.

Natural Products and Wood  
Rabena, Alfredo R.

Natural Products Chemistry  
Rabena, Alfredo R.

Naval Architecture  
Vea, Reynaldo B.

Non-equilibrium Thermodynamics  
Albano, Alfonso M.

Phthalocyanine - titanium oxide nanosystem  
paint additive as volatile organic air pollutant  
oxidizer  
Yu, Derrick Ethelbherth C.

Phycology  
Martinez - Goss, Milagrosa R.

Physics  
Galapon, Eric Alvarez

Physics (Non-linear Dynamics)  
Albano, Alfonso M.

Plant Nutrition  
Villegas-Pangga, Gina

Plant Pathology  
Cabauatan, Pepito Q.

Plant Physiology (Stress Physiology)  
Ella, Evangelina S.

Polymer recycling  
Caparanga, Alvin R.

Population Genetics

Calacal, Gayvelline

Postharvest Pathology and  
Alvindia, Dionisio G.

Printing effect of artificially - applied organic  
matter (SOC)  
Dumale, Wilfredo Jr. Arellano

Public economics, financial and economic  
crises management  
Mendoza, Ronald Umali

Reproductive physiology of shrimps and  
crabs  
Quinitio, Emilia T.

Research and Evaluation  
Brawner, Filma G.

S & T Human Resource Development  
Brawner, Filma G.

Science Education Development  
Brawner, Filma G.

Shrimp and crab breeding and seed  
production  
Quinitio, Emilia T.

Siosorption  
Caparanga, Alvin R.

Social Science Research  
Mendoza, Ronald Umali

Soil Chemistry  
Villegas-Pangga, Gina

Soil transmitted Helminthiases in the  
Philippines  
Cauyan, Gil A.

Statistical Mechanics  
Albano, Alfonso M.

Synthesis and design of molecular imprinted  
polymer (MIP)sorbents for cis/trans fatty  
acid extraction and separation  
Yu, Derrick Ethelbherth C.

Synthesis of Ruthenium phthalocyanine with  
various axial ligands:promising malfunctional  
molecular conductors  
Yu, Derrick Ethelbherth C.

Tests & Measurements  
Brawner, Filma G.

The role of anti-Wolbachia antibodies in  
pathogenesis of acute disease  
Salvana, Edsel Maurice T.

Thermal Energy Storage for Cooling  
Application

Dimaano, Maria Natalia R.

Tropical and Travel Medicine  
Salvana, Edsel Maurice T.

Virology  
Cabauatan, Pepito Q.

## Authors' Index

### **Albano, Alfonso M.**

Elementary Particles Physics  
Non-equilibrium Thermodynamics  
Physics (Non-linear Dynamics)  
Statistical Mechanics

### **Alvandia, Dionisio G.**

Agriculture  
Mycology  
Postharvest Pathology and

### **Belino, Manuel C.**

Education  
Engineering Education  
Mechanical Engineering

### **Brawner, Filma G.**

Educational Statistics  
Management of Science Education  
Programs  
Research and Evaluation  
S & T Human Resource Development  
Science Education Development  
Tests & Measurements

### **Cabauatan, Pepito Q.**

Bacteriology  
Plant Pathology  
Virology

### **Calacal, Gayvelline**

Forensic DNA Analysis  
Population Genetics

### **Caparanga, Alvin R.**

Chemical Thermodynamics/  
Engineering  
Freeze concentration for environmental  
application

Polymer recycling  
Siosorption

### **Castaneto, Yolina Tarranco**

Agriculture and Forestry  
Forestry: SFI (Tree Improvement)

### **Cauyan, Gil A.**

Animal Parasitology  
Anthelmintic Potential of Some Local  
Philippine Plants  
Biological Sciences  
Molecular Studies on Philippine  
Cryptosporidiasis and Amoebiasis.  
Soil transmitted Helminthiasis in the  
Philippines

### **Dedeles, Gina R.**

Biological Sciences  
Chemistry  
Environmental Sciences

### **Dela Cruz, Thomas Edison E.**

Biological Sciences  
Ecophysiology  
Fungal Systematics  
Mycology

### **Dimaano, Maria Natalia R.**

Biodiesel and Alternative Fuels  
Materials Science and Engineering  
Thermal Energy Storage for Cooling  
Application

### **Dumale, Wilfredo Jr. Arellano**

Cycling of stable and active soil organic  
carbon (SOC) in agricultural soils and their  
contribution to global atmospheric CO<sub>2</sub>  
Influence of Applied lime on CO<sub>2</sub> evolution  
and SOC Cycling in acid agricultural soils

Printing effect of artificially - applied organic matter (SOC)

**Dumlao, Florentina S.**

Agricultural Economics and Rural Development  
Agriculture and Forestry  
Extension Education

**Ella, Evangelina S.**

Agricultural Chemistry  
Chemical Sciences  
Plant Physiology (Stress Physiology)

**Galapon, Eric Alvarez**

Computational physics  
Foundations and applications of quantum mechanics  
Physics

**Lio-Po, Gilda D.**

Aquatic Microbiology  
Biological Sciences  
Microbiology

**Manatad, Fe A.**

Agriculture and Forestry  
Horticulture

**Martinez - Goss, Milagrosa R.**

Biological Sciences  
Botany  
Phycology

**Mendoza, Ronald Umali**

International Economic Development  
Public economics, financial and economic crises management  
Social Science Research

**Pulido, Marian Apolinario**

Biological Sciences  
Directed Evolution of Proteins  
Food Microbiology  
Hyperthermophilic proteins

**Quinitio, Emilia T.**

Crab and shrimp culture in nursery and grow-out ponds/pens  
Reproductive physiology of shrimps and crabs  
Shrimp and crab breeding and seed production

**Quinto, Edward A.**

Biological Sciences  
Chemistry  
Lactic acid fermentation  
Microbial bioluminescence  
Microbial natural products  
Microbiology

**Rabena, Alfredo R.**

Chemical Sciences  
Forest Products Chemistry  
Natural Products and Wood  
Natural Products Chemistry

**Salvana, Edsel Maurice T.**

Drug Resistant Organisms (including MSRA)  
Emerging Infectious Disease  
Immunocompromised Host  
Internal Medicine, Infectious Diseases & Tropical Medicine  
Lymphatic Filariasis  
The role of anti-Wolbachia antibodies in pathogenesis of acute disease  
Tropical and Travel Medicine

**Santos, Ameurfina D.**

Biological Sciences  
Molecular Biology

**Sioson, Allan Adriano**

Algorithms, Software Testing, and Computer Science Education  
Bioinformatics  
Computational Biology,  
Data Mining, Modeling and Simulation  
Information Visualization  
Multimodal Networks

**Vea, Reynaldo B.**

Marine Engineering  
Marine Transportation Systems

Mechanical Engineering  
Naval Architecture

**Villegas-Pangga, Gina**

Agriculture and Forestry  
Farming Systems  
Management of Agricultural Waste and  
Waste Disposal Strategies  
Plant Nutrition  
Soil Chemistry

**Yu, Derrick Ethelbhart C.**

Molecular Engineering of Iron  
Phthalocyanine for Novel "photo-magneto"  
Dynamic Cancer Therapy  
Molecular mechanics and pharmacokinetic  
studies on the anti-hypoglycemic activity of  
dipeptidyl peptidase 4 (DPP4) inhibitors:  
structure-based computational drug design  
Phthalocyanine - titanium oxide nanosystem  
paint additive as volatile organic air pollutant  
oxidizer  
Synthesis and design of molecular imprinted  
polymer (MIP)sorbents for cis/trans fatty  
acid extraction and separation  
Synthesis of Ruthenium phthalocyanine with  
various axial ligands:promising malfunctional  
molecular conductors