

# *Philippine* **Men** *of* **Science**



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

**VOLUME 25**



Science and Technology Information Institute  
**INFORMATION RESOURCES AND ANALYSIS DIVISION**  
Department of Science and Technology

# **Philippine Men of Science**

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

**Volume 25  
December 2012**

**Information Resources and Analysis Division  
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**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.

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## **Preface**

**The Philippine Men 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.**

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**Name** Jose Ramon G. Albert  
**Gender** Male  
**Civil Status** Single

**Organizational Affiliations**

Senior Research Fellow, Philippine Institute for Development Studies (PIDS),  
NEDA sa Makati Bldg., 106 Amorsolo St., Legaspi Village, Makati, Philippines  
Consultant, Asian Development Bank Independent Evaluation Office

**Education**

Ph.D. in Statistics, State University of New York, USA 1993

**Fields of Specialization**

Mathematical Sciences

Statistics

**Trainings**

Training on Microeconometrics Using Stata for Staff of Indicators Division of  
Economic Research Depa, Asian Development Bank, Pasig, Philippines 2011 F  
21- 2011 Mr 4

Vulnerability and Household Coping Mechanisms in Social Protection Programmes,  
Completed 2010 S - 2011 Mr

Joint Statistical Research and Training Center-Philippine Statistical Association  
Annual Conference, Sulo Hotel, Quezon City 2002

5rd Session of the International Statistical Institute, Seoul, Korea 2002

**Researches****Completed**

Applied Econometric Modeling on Improving Implementation Performance with  
Complexity in Project Design (Consultant)

Philippine County Study on Out of School Children (Philippine Institute for  
Development Studies), (March 2011 – October 2011), Project Leader

Philippine Study on Innovation Activities contracted by Department of Science &  
Technology to Philippine Institute for Development Studies, (January 2011 – June  
2011), Project Leader

Study on Teacher Deployment and Classroom Shortage Processes at Department  
of Education for Department of Budget & Management (2011 Mr-2011 Je),  
Consultant

**Papers Presented**

Albert, J.R.G. (2002). Viewing Regional and Provincial Poverty Structures through  
the Self Organizing Map. (2002), National Mapping and Resource Information  
Authority GIS Day 2002 Conference, Manila Galleria Suite, Manila.

Albert, J.R.G. (2002). An Empirical Comparison of Seasonal Adjustment  
Techniques to Philippine Time Series Data, Technical Report, Statistical Research  
& Training Center.

Albert, J.R.G., Padua, R.N., Macalalag, E. (2002). A Simple Robust Test of Linear  
Hypothesis (1988). Agham: Journal of the De La Salle University College of  
Science. Manila: De La Salle University., 2002 Statistical Research and Training  
Center First Quarterly Research Workshop, Sulo Hotel, Quezon City.

Albert, J.R.G., Padua, R.N., Macalalag, E. (2002). A Simple Robust Test of Linear



Hypothesis (1988). Agham: Journal of the De La Salle University College of Science. Manila: De La Salle University., 2001 Joint Statistical Research and Training Center-Philippine Statistical Association Annual Conference, Sulo Hotel, Quezon City

Albert, J.R.G. (2001 D 15). Some Issues and Challenges in Teaching and Learning Statistical Modeling, Mathematical Society of the Philippines, De La Salle University.

Albert, J.R.G. (2001 Ap 31- My 3). Assessing the Impact of the Asian Financial Crisis on Poverty In the Philippines, 2nd Regional Workshop on Poverty Analysis, Hotel Nikko, Makati City (A Country Report prepared for the World Bank Institute-Philippine Institute of Development Studies).

Albert, J.R.G. (2001). Poverty in the Philippines Amidst the Asian Financial Crisis, 53rd Session of the International Statistical Institute, Seoul, Korea.

Albert, J.R.G., Solosa, P. (2001). Bayesian Regression of Philippine Crime Statistics, Proceedings of the 53rd Session of the International Statistical Institute, Seoul, Korea.

Albert, J.R.G. (2001). Access to Higher Education or Access to Quality Higher Education, Proceedings of 2000 Conference of the International Association of Official Statistics on Statistics, Human Rights, and Development in Montreux, Switzerland.

Albert, J.R.G. (1997). Estimation in Incomplete Data Models, Scientia: Faculty Journal of the College of Arts and Sciences, San Beda College, Manila.

Albert, J.R.G., Tabunda, A.M. (). Philippine Poverty in the Wake of the Asian Financial Crisis and El Nino, Chapter 7: Impact of the East Asian Financial Crisis: Revisited (ed. Shahid Khandkher, ed.) Philippines: World Bank Institute and Philippine Institute for Development Studies.

(). Some Issues on the Quality of Surveys and Censuses, Unpublished manuscript

## **Publications**

- 2002 Albert, J.R.G. Viewing Regional and Provincial Poverty Structures through the Self Organizing Map. Proceedings of the National Mapping and Resource Information Authority, GIS Day 2002 Conference, Manila Galleria Suite, Manila, 2002.
- 2002 Albert, J.R.G., Selda, G.G. Jr. Possible Thrusts and Directions of Statistical Research (Philippine Statistical Association, Quezon City). The Philippine Statistician, 2002, 41(1-2).
- 2000 Albert, J.R.G., Elloso, L., Tan, M.A. On Fitting Normal Mixtures to Grouped Data. The Philippine Statistician (Philippine Statistical Association, Quezon City), 2000, 39(1-2&3-4).
- 1998 Albert, J.R.G. Solving Puzzles and Handling Crises. Scientia (Faculty Journal of the College of Arts and Sciences, San Beda College), 1998.
- 1997 Albert, J.R.G. Estimation in Incomplete Data Models. Scientia: Faculty Journal of the College of Arts and Sciences, San Beda College, Manila, 1997.
- 1997 Albert, J.R.G. Infinity: The Threshold of the Finite. Philippine Journal of Arts and Sciences, Manila: Association of Philippine Colleges of Arts and Sciences, 1997.
- 1996 Albert, J.R.G. On Sums and Differences of IID Normals. Scientia: Faculty Journal of the College of Arts and Sciences, San Beda College, Manila, 1996.
- 1995 Albert, J.R.G., Baxter, L.A. Applications of the EM Algorithm to the Analysis of Lifelength Deie. Applied Statistics (Royal Statistical Society, London), 1995, 44(3).

- 1995 Albert, J.R.G. Statistics: Practices and Malpractices. Scientia: Faculty Journal of the College of Arts and Sciences, San Beda College, Manila, 1995.
- 1990 Albert, J.R.G., Javier, W.R. The Trimmed Jackknifed Kernel Density Estimator. The Philippine Statistician, The Philippine Statistical Association, Quezon City, 1990, 39(1-2&3-4).
- 1988 Albert, J.R.G. Borel's Strong Law of Large Numbers for Dependent Summands and the sub-Gaussian Techniques. Agham: Journal of the De La Salle University College of Science, Manila, 1988.
- 1988 Albert, J.R.G., et al. A Simple Robust Test of Linear Hypothesis. Agham: Journal of the De La Salle University College of Science. Manila: De La Salle, 1988.
- Albert, J.R.G. Some Issues on the Quality of Surveys and Censuses.. Unpublished manuscript.

**Name** Divina M. Amalin  
**Gender** Female  
**Civil Status** Single

**Organizational Affiliations**

Postdoctoral Research Associate, Cooperative Agreement with USDA-APHIS-CPHST,

**Education**

Ph.D. in Entomology, University of Florida, Gainesville, Florida 1999

M.S. in Biology, University of the Philippines at Los Baños, College, Laguna 1988

BS Entomology, University of the Philippines, Los Baños, 1982

**Fields of Specialization**

Plant and Animal Science

Crop Entomology

**Employment**

Graduate Research Assistant, Tropical Research and Education Center, University of Florida, Homestead, FL, 1995-1999

Postdoctoral Research Associate, Tropical Research and Education Center, University of the Philippines, Homestead, FL, 1999-2001

Subcontract Scientist, Tropical Research and Education Center, University of Florida, Homestead, FL, 2005-2006

Postdoctoral Research Associate, Cooperative Agreement with USDA-APHIS-CPHST, 2002-present-

Handled laboratory of the course Cytology, University of the Philippines Los Baños Laguna, 1989-1990

Handled Laboratory portion of the course General Genetics, University of the Philippines Los Baños, 1989-1990

Primary Instructor of Fundamentals of Entomology, Miami Dade College, 1997-1998

Primary Instructor of Tropical Fruit Production Course, University of Florida, Tropical Research and Education Center, 1999-2000

Instructor of Fundamentals of Entomology, University of Florida, Tropical Research and Education Center, 1999-2000

Student Assistant, Entomology Department, International Rice Research Institute, Los Baños, Laguna, Philippines, 1979

Research Assistant, Department of Life and Sciences, University of the Philippines, Los Baños, Laguna, Philippines, 1980-1984

Research Assistant, Genetics Laboratory, Institute of Biological Sciences, University of the Philippines, Los Baños, La, 1985-1988

Assistant Professor, Genetics Laboratory, Institute of Biological Sciences, University of the Philippines, Los Baños, La, 1989-1990

Research Associate, International Potato Center, Region VII, Los Baños, Laguna Philippines, 1991-1993

### **Association Membership**

Member, Entomological Society of America  
Member, Florida Entomological Society  
Member, American Arachnological Society  
Member, Plant Biologist of South Florida  
Member, Florida Society of Horticultural Science  
Member, Gamma Sigma Delta Honor Society

### **Honors / Awards**

Florida Entomological Society Mini-Grant Research Award, University of Florida 1997-1998  
AGRI-Council Scholarship, University of Florida 1995-1998  
Dennis Carpenter Memorial Fellowship, University of Florida 1995-1997  
Undergraduate Grants-in-Aid Scholar, University of the Philippines 1977-1982  
Harold E. Kendall Sr. Endowed Scholarship Award, University of Florida 1998  
The Honor Society of Gamma Sigma Delta, Florida USA, University of Florida 2000  
Balik Scientist Award, DOST 2010

### **Trainings**

Hands-on practice in the use of Lucid Keys for insect and plant identification, Miami Plant Inspection Station Miami, Florida 2007  
Biological control of invasive pests: USDA-APHIS operation in Miami, Tropical Research and Education Center Seminar Series. TREC, Homestead, FL 2003 Je 17  
Biological control by natural enemies, Distance Education- Entomology section, Tropical Research and Education Center, Homestead, FL 2002 Ap 13  
Biological control of Diaprepes by parasitoids, Diaprepes Task Force Meeting, Miami-Dade Extension Service, Homestead, FL 2001 My 10  
Importance of spiders in agroecosystems, 1999 Seminar Series University of Miami 1999 O 18  
On-hand training on molecular cloning, protein expression, protein purification and analysis methods, Department of Biochemistry, University of Vermont, Burlington, Vermont 1994  
Identification of sweet potato pests and their natural enemies, Southeast Asia Potato Program Research and Development (SAPPRAD)Albay Experimental Station, Albay, B 1993 My  
Management of sweet potato weevil population in the Philippines, Southeast Asian Potato Program Research and Development (SAPPRAD)Albay Experimental Station, Albay, 1992 My  
Resistance to sweet potato weevil, PCARRD, Los Baños, Laguna, Philippines 1990 Je  
Increasing sweet potato production, Training Workshop on Sweet Potato On-Farm Research in Vietnam 1990 Ap  
Screening resistance to the weevil, Integrated Pest Management of Sweet Potato Weevil 1989 JI  
Arthropod fauna of sweet potato agroecosystems in the Philippines, Integrated

Pest Management of Sweet Potato Weevil 1989 JI

Implementation of sweet potato weevil sex pheromone in the farmers' field, Asian Vegetables Research and Development Center, Shanhua, Taiwan 1988

## Researches

### Completed

Mass Rearing and Release of *Boreioglycaspis melaleucae* (Hemiptera Psyllidae: a biocontrol effort against *Melaleuca quinquenervia* in South Florida

Mass Production of Parasitoids of *Diaprepes* weevil

Florida and Offshore Biological Control Initiative Against Invasive Species

Implementation of Biological Control Agents of Invasive Species in Florida

## Papers Presented

Amalin, D.M. (2009 JI 26-29). Seasonal abundance of *Crypticerya genitae* (Hempel) (Hemiptera: Monophlebidae) and its natural enemies in south Florida, 92nd Annual Meeting of the Florida Entomological Society.

Amalin, D.M., Peña J.E., Duncan R., Leavengood J., Koptur, S. (2009 Je 7-9). Effects of Pesticides on the Arthropod Community in the Agricultural Areas Near the Everglades National Park, 2009 Joint Annual Meeting of the Florida State Horticultural Society and Soil and Crop Science Society of Florida. Jacksonville, Florida.

Amalin, D.M., Nieves, L.R., Roda, A., Mannion, C. (2009 Je 7-9). Tracking the Pink Hibiscus Mealybug (*Maconellicoccus hirsutus* Green) and the Success of its Parasitoids in Miami Dade County, Florida using GPS/GIS Mapping System, 2009 Joint Annual Meeting of the Florida State Horticultural Society and Soil and Crop Science Society of Florida, Jacksonville, Florida.

Amalin, D.M. (2009 Ap 14). Florida and Offshore Biological Control Initiative against Invasive Species: Accomplishment Report, USDA-APHIS Advisory Committee Meeting, Homestead, Florida.

Amalin, D.M., Roda, A., Mannion C., Bradshaw, L. (2008 Ma 2-5). Population Dynamics of *Crypticerya genitae* Hempel (Hemiptera: Margaroridae) and its Natural Enemies in South Florida, SEB-ESA Annual Meeting, Jacksonville, Florida.

Amalin, D.M. (2008 Ja 17). Implementation of Biological Control against Invasive Pests in Florida: Activity Report, USDA-APHIS Advisory Committee Meeting, Miami, Florida.

Amalin, D.M. (2007 N 18). Effect of Plant Age on the Reproductive and Feeding Performance of *Gratiana boliviana* on Tropical Soda Apple, TSA Working Group Meeting, Fort Pierce, Florida.

Amalin, D.M. (2005 Je 5-7). Effects of parasitic wasps (*Coccobius fulvus*) on Cycad *Aulacaspis* Scale (*Aulacaspis yasumatsui*) at Montgomery Botanical Center, 118th Annual Meeting of Florida State Horticultural Society.

Amalin, D.M. (2004 Je 25-28). Varietal Susceptibility and Spatial Analysis of Local Distribution of the Lobate Lac Scale, 87th Annual Meeting and 5th International Caribbean Conference of the Florida Entomological Society, Fort Lauderdale, Florida.

Amalin, D.M. (2000 Ap 1). Establishment of *Ceratogramma etiennei*, a parasitoid of citrus root weevil exotic to south Florida, Plant Biologist Society of South Florida Annual Meeting.

Amalin, D.M. (2000 Ag 6-9). Recovery of Parasitoids (Hymenoptera: Eulophidae and Trichogrammatidae) Released for Biological Control of *Diaprepes abbreviatus* (Coleoptera : Curculionidae ) in Florida, 83th Annual Meeting of the Florida

Entomological Society.

Amalin, D.M. (1995 D 17-21). Spider diversity on lime groves and its importance in the control of citrus leafminer, *Phyllocnistis citrella*, 1995 ESA Annual Meeting.

Amalin, D.M. (1992 My 25-29). Efficacy of *Bacillus thuringiensis* against sweet potato weevil, *Cylas formicarius* Fabr., Federation of Crop Science Society of the Philippines (FCSSP).

Amalin, D.M. (1991 N 7-9). Stem resistance of *I. trifida* to sweet potato weevil, *Cylas formicarius* Fabr, Federation of Crop Science Society of the Philippines.

Amalin, D.M. (1991 My). Mass production of the white muscardine fungus, *B. bassiana*, and its efficacy against sweet potato weevil, Pest Management Council of the Philippines.

Amalin, D.M. (1985 My). Cytology of the parasitic wasp, *Dirhinus* sp. nr.himalayanus, Pest Control Council of the Philippines.

Amalin, D.M. (1984 My). Spiders as biological control agents, Pest Control Council of the Philippines.

## Publications

- 2010 Medal, J., Bustamante, N., Overholt, W., Diaz, R., Stansly, P., Roda, A., Amalin, D., Hibbard, K., Gaskalla, R., Sellers, B., Hight, S., Cuda, J. Biological Control of Tropical Soda Apple (*Solanaceae*) in Florida: Post-Release Evaluation. *Florida Entomologist*, 2010, 93(1):130-132.
- 2009 Amalin, D.M., Nieves L.R., Roda, A., Mannion, C. Tracking the spread of Pink Hibiscus Mealybug (*Maconellicoccus hirsutus* Green) and its Parasitoids in Miami-Dade County, Florida using GPS/GIS Mapping System. *Proceedings of the Florida Horticultural Society*, 2009 S.
- 2009 Overholt, W.A., Diaz, R., Hibbard, K.L., Roda, A.L. Amalin, D., Fox, A. J., Hight, S.D., Medal, J.C., Stansly, P.A., Carlisle, B., Walter, J.H., Hogue, P.J. Releases, Distribution and Abundance of *Gratiana boliviana* (Coleoptera: Chrysomelidae), a Biological Control Agent of Tropical Soda Apple (*Solanum viarum*, *Solanaceae*) in Florida. *Florida Entomologist*, 2009, 92(3):450-457.
- 2007 Pena, J.E., Amalin, D., Hunsberger, A., Mannion, C.M. Egg Distribution and Sampling of *Diaprepes abbreviatus* (Coleoptera: Curculionidae) on Silver Buttonwood. *Florida Entomologist*, 2007, 90(1):234-237.
- 2006 Epsky, N.D., Amalin, D., Kendra, P.E., Puche, H.P., Mannion, C.M. Temporal and Spatial Characterization of an Infestation of *Paratrichardina lobata* (Hemiptera: Kerriidae). A New Invasive Pest in Florida. *Florida Entomologist*, 2006, 89(3):367-374.
- 2005 Aijun Zhang, Amalin, D. Sex Pheromone of the Female Pink Hibiscus Mealybug, *Maconellicoccus hirsutus* (Green) (Homoptera: Pseudococcidae): Biological Activity Evaluation. *Environmental Entomology*, 2005, 34(2):264-270.
- 2005 Amalin, D.M., Pena, J.E., Duncan, R.E. Effects of host age, female parasitoid age, and host plant on parasitism of *Ceratogramma etienniae* (Hymenoptera: Trichogrammatidae). *Florida Entomologist*, 2005, 88(1):77-82.
- 2005 Amalin, D., Zhang, A., Shirali, S., Serrano, M.S., Franqui, R.A., Oliver, J.E., Klun, J.A., Aldrich, D.E., Meyerdick, D.E., Lopointe, S.L. Effects of parasitic wasps (*Cocobius fulvus*) on Cycad Aulacaspis Scale (*Aulacaspis yasumatsui*) at Montgomery Botanical Center, Florida. *Proc. Fla. State Hort. Soc.*, 2005, 118(319-321).
- 2004 Amalin, D.M., Pena, J.E., Duncan, R.E. Effects of host age, female parasitoid age

- and host plant on parasitism of *Ceratogramma etiennei* (Hymenoptera)(Trichogrammatidae). *Florida Entomologist*, 2004, 87(2):222-224.
- 2004 Zhang, A., Amalin, D., Shirali, S., Serrano, M.S., Franqui, R.A., Oliver, J.E., Klun, J.A., Aldrich, J.R., Meyerdick, D.E., Lopointe, S.L., Sex pheromone of the pink hibiscus mealybug, *Maconellicoccus hirsutus*, contains unusual cyclobutanoid monoterpene. *PNAS*, 2004, 101(6):9601-9606.
- 2004 Amalin, D.M., Stansly, P., Pena, J.E. Effect of Micromite on the egg parasitoids *Ceratogramma etiennei* (Hymenoptera: Trichogrammatidae) and *Quadrastichus haitiensis* (Hymenoptera: Eulophidae). *Florida Entomologist*, 2004, 87(2):222-224.
- 2004 Amalin, D.M. Spider Behavior and Value in Agricultural Landscapes. *Encyclopedia of Entomology*, Kluwer Academic Publishers, Dordrecht, The Netherlands, 2004.
- 2003 Amalin, D.M., Pena, J.E., McSorley, R. Development of the three sac spiders occurring on lime orchards at Homestead, Florida. *Proceedings of the Florida State of Horticultural Society*, 2003, 116:44-46.
- 2003 Amalin, D. Rearing method for *Quadrastichus haitiensis* (Gahan ) (Hymenoptera: Eulophidae) for biological control of *Diaprepes abbreviatus* (L.) (Coleoptera: Curculionidae). Bureau of Methods and Development and Biological Control. FDACS, Division of Plant Industry, 2003:1-4.
- 2003 Amalin, D.M. Biological Control of *Diaprepes*. *Citrus and Vegetable Magazine*, 2003, 67(8).
- 2003 Amalin, D.M. A New Spider in Miami-Dade Country, *Cryptophora citricola*. *Hort Newsletter*, 2003, 2(2).
- 2002 Amalin, D.M., Pena, J.E., Duncan, R.E., Browning, H.W., McSorley, R. Natural mortality factors acting on citrus leafminer, *Phyllocnistis citrella*, in lime orchards in South Florida. *BioControl*, 2002, 47:327-347.
- 2001 Amalin, D.M., Jonathan, R., Peña, J.E., McSorley, R. Predatory Behavior of three species of Sac Spider Attacking Citrus Leafminer. *Journal of Arachnology*, 2001, 29(1):72-81.
- 2001 Amalin, D.M., Pena, J.E., Mcsorley, R., Browning, H.M., Crane, J.H. Comparison of Different Sampling Methods and Effect of Pesticide Application on Spider Populations in Lime Orchards in South Florida. *Environmental Entomology*, 2001, 30(6):1021-1027.
- 2001 Amalin, D.M., Pena, J.E., Reiskind, J., McSorley, R. Comparison of the survival of three species of sac spiders on natural and artificial diets. *Journal of Arachnology*, 2001, 29(2):253-262.
- 2001 Amalin, D.M., Pena, J.E., Reiskind, J. McSorley, R. Predation by three species of hunting spiders attacking citrus leafminer. *Journal of Arachnology*, 2001, 29:72-81.
- 2001 Amalin, D.M., Pena, J.E., McSorley, R., Reiskind, J. Predation by three species of sac spiders on citrus leafminer, *Phyllocnistis citrella* (Lepidoptera: Gracillariidae). *Journal of Entomological Science*, 2001, 36:199-207.
- 2001 Amalin, D.M. Efforts toward establishment of biological control agents of diaprepes root weevil. University of Florida, Cooperative Extension Service, IFAS, EDIS, 2001.
- 2000 Amalin, D.M., Pena, J.E., McSortel, R. Gut Content Analysis of the Three Species of Sac Spiders Electrophoresis. *Florida Entomologist*, 2000:489-492.
- 2000 Amalin, D.M., Pena, J.E., Yu, S., McSorley, R. Selective Toxicity of Some Pesticides to *Hibana velox*, a predator of citrus leafminer. *Florida*

- Entomologist, 2000, 83:254-262.
- 2000 Amalin, D.M. The impact of weeds on the population of predatory spiders on lime orchard at Homestead, Florida. Proceedings of Florida State of Horticultural Society, 2000, 113:17-19.
- 2000 Amalin, D.M. Effect toward establishment of biological control agents of Diaprepes root weevil. Fact Sheet ENY, 2000:1-5.
- 2000 Amalin, D.M. Biological control of Diaprepes sbbreviatus by parasitoids In: Diaprepes Short Course (S.H. Futh ed.). Cooperative Extension Service Florida Agricultural Experiment Station. Citrus Research & Education Center, Lake Alfred, FL., 2000:66-76.
- 2000 Amalin, D.M. Efforts toward establishment of biological control agents of Diaprepes weevil. Citrus Industry, 2000:30-38.
- 1999 Amalin, D.M., Reiskind, J., McSorley, R., Peñã, J. Survival of the Hunting Spider, Hibana velox (Becker), Raised on Different Artificial Diets. Journal of Arachnology, 1999, 27(2):696-9=696.
- 1999 Amalin, D.M. Predatory spiders in lime orchards and their importance in the control of citrus leafminer, Phyllocnistis citrella (Lepidoptera: Gracillariidae). Proceedings of the Florida State Horticultural Society, 1999, 112:222-224.
- 1996 Amalin, D.M. Spiders of leafminer biocontrol: A Conference Notes. The IPM Practioner, 1996, 18(9):15.
- 1993 Amalin, D.M. A Handbook on Philippine Sweet Potato Arthropod Pests and their Natural Enemies. International Potato Center, Los Baños, Laguna, Philippines, 1993:83.
- 1993 Amalin, D.M. Comparative karyomorphology of two Neoscona species (AraneaL Araneidae). Philippine Entomologist, 1993, 1:1-6.
- 1992 Amalin, D.M., Chujoy, E., Gerpacio, M.T.L Selection of resistance to the sweet potato weevil, Cylas formicarius Fabr. International Potato Center, Region VII Working Paper, 1992:126-138.
- 1992 Amalin, D.M. Genetic variation in two local population of the sweet potato weevil, Cylas formicarius Fabr. (Coleoptera: Curculionidae). International Potato Center, Region VII Working Paper 92-13, 1992:116-125.
- 1992 Amalin, D.M. Screening for the most virulent Bacillus thuringiensis Berliner strain against Cylas formicarius Fabr. International Potato Center, Region VII Working Paper 92-12, 1992:110-115.
- 1992 Amalin, D.M. Morphology and cytology of Argiope catenulata (Doleschall) (Aranea: Araneidae). Asia Life Sciences, 1992, 1(3):35-44.
- 1991 Amalin, D.M., Opeña, G.B., Chujoy E., Vander Zaag, P Increasing sweet potato Productivity: An on-farm research approach. International Potato Center, Region VII Working Paper 91-23, 1991:205-215.
- 1991 Amalin, D.M Control of sweet potato weevil: An integrated pest management approach. International Potato Center, Region VII Working Paper 91-12, 1991:100-107.
- 1991 Amalin, D.M. Efficacy of an entomogeneous bacterium, Bacillus thuringiensis Berliner on sweet potato weevil, Cylas formicarius Fabr. International Potato Center, Region VII Working Paper 91-13, 1991.
- 1991 Amalin, D.M. Arthropod of sweet potato in the Philippines. Philippine Agriculturist, 1991, 74(1):39-50.



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- 1990 Amalin, D.M. Screening of synthetic 6x *Ipomea trifida* clones for resistance to the sweet potato weevil (*Cylas formicarius* Fabr.). International Potato Center, Region VII Working Paper 90-10, 1990:99-103.
- 1990 Amalin, D.M. Monitoring population density of sweet potato weevil, *Cylas formicarius* Fabr. using sex pheromone traps. International Potato Center, Region VII Working Paper 90-10, 1990:104-108.
- 1990 Amalin, D.M. Evaluation screening methodologies for resistance to sweet potato weevil, *Cylas formicarius* Fabr. (Coleoptera: Curculionidae). International Potato Center, Region VII Working Paper 90-12, 1990:109-114.
- 1990 Amalin, D.M. Mass production of white muscardine fungus, *Beauveria bassiana* Bals. and its efficacy against sweet potato weevil, *Cylas formicarius* Fabr. International Potato Center, Region VII Working Paper 90-13, 1990:115-121.
- 1990 Amalin, D.M. Chromosome of sweet potato weevil, *Cylas formicarius* Fabr. (Coleoptera: Curculionidae). International Potato Center, Region VII Working Paper 90-14, 1990:122-123.
- 1990 Amalin, D.M. Spiders of white potato (*Solanum tuberosum* L.) in the IOWland. Philippine Agriculturist, 1990, 73:179-184.
- 1989 Amalin, D.M. Morphology, life history and somatic chromosomes of *Drosophila immigrans* Sturtevant in the Philippines. Philippine Entomologist, 1989, 8(1):667-682.
- 1989 Amalin, D.M. A Simplified egg chromosomes squash technique. Philippine Entomologist, 1989, 7(8):537-538.
- 1989 Amalin, D.M. Morphology and Cytology of the lynx spider *Oxyopes javanus* (Thorell). Philippine Journal of Science, 1989, 118:229-237.
- 1988 Amalin, D.M. Two orb-weaving spiders (Araneae:Araneidae) in the Philippines causing araneidism. Philippine Journal of Science, 1988, 116:245-254.
- 1988 Amalin, D.M. The orb-weaving spiders genus *Neoscana* (Araneae:Araneidae) in the Philippines. Philippine Agriculturist, 1988, 69:385-409.
- 1987 Amalin, D.M. Morphology, life history, and cytology of *Drosophila simulans* Sturtevant. Philippine Journal of Science, 1987, 117:118-125.
- 1987 Amalin, D.M. Most common lynx spiders genus *Oxyopes* (Aranea:Oxyopidae) in the Philippines. Natural and Applied Science Bulletin, 1987, 13:35-46.
- 1987 Amalin, D.M. Cytology of parasitic wasps, *Dirhinus* sp. nr. *himalayanus*. Philippine Entomologist, 1987, 10:20-21.
- 1983 Amalin, D.M. Some jumping spiders (Araneae:Salticidae) of Mt. Makiling. Philippine Entomologist, 1983, 6(1):1-9.
- 1982 Amalin, D., Barrion, A.A., Ulilang, V.L. New record of philippine spiny-bellied orb-weavers (Araneae: Araneidae). Philippine Agriculturist, 1982, 65(4):331-338.

**Name** **Ernelea P. Cao**

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Professor 9, University of the Philippines, College of Science, Institute of Biology  
U.P. Diliman, Q.C.

**Education**

Ph.D. Biology, University of the Philippines, Diliman, Quezon City 1992

**Fields of Specialization**

Biological Sciences

Genetics

**Honors / Awards**

Jose Kabigting Santos Professorial Chair in Botany, 2002

Centennial Professional Chair Award, July 2010 – June 2011, U.P. Diliman 2010  
Jl-2011 Je

**Trainings**

31st Annual Convention of the Philippine Environmental Mutagens Society, Pilar  
Herrera Hall, Institute of Chemistry, U.P. Diliman, Quezon City 2011 N 26

6th Asian-Pacific Organization for Cell Biology (APOCB) Congress, EDSA Shangri-  
La Hotel, Manila, Philippines 2011 25-28

7th National Genetics Symposium, Splash Mountain Resort Hotel, Los Banos,  
Laguna 2002 O

4th Asia-Pacific Marine Biotechnology Conference, International Convention  
Center, University of Hawaii, Honolulu, Hawaii 2002 Ap 22-26

Workshop on the BPI (Bureau of Plant Industry) Risk Assessment Report for Food  
Safety and the Codex, One Tagaytay Place, Tagaytay City 2001 Ag 22-23

**Researches**

**Completed**

Intraspecific Variation in *Portulaca grandiflora* (Hook) using Traditional and  
Geomorphometric Analysis of Floral and Vegetative Characters (2011)

Intraspecific Variation in *Portulaca grandiflora* (Hook) using Traditional and  
Geomorphometric Analysis of Floral and Vegetative Characters

Metal Accumulation of Biomass Derived from Cyanobacteria

Differential RNA Expression in Salttolerant and Metal-tolerant Microalgae

Genetic Characterization of Microalgal Isolates from Some Polluted Waters in the  
Philippines

**On-going**

Multivariate Morphometry and Geomorphometric Analysis of Four  
Commercially Cultivated Varieties of Coffee (*Coffea*) in the Philippines

## Papers Presented

Cao, E.P. (2011 N 26). Genomics: At the Crossroad of Chemistry, Biology and Mathematics, 31st Annual Convention of the Philippine Environmental Mutagens Society, Pilar Herrera Hall, Institute of Chemistry, U.P. Diliman, Quezon City.

Batanes, T., Bonifacio, J.C., dela Rosa, C.J., Ng, K.C., Manset, K., Cao, E.P. (2011 My 11-14). Response of *Hapalosiphon welwitschii* Nägel to Lead Metal Stress, Convention of the Philippine Society for Microbiology Inc. on the theme Microbiology and Biotechnology: Rising to the Challenges of the Times, 6th Asia-Pacific Biotechnology Congress and 40th Annual Philippine International Convention Center, Manila, Philippines.

Sy, R.A., Cao, E.P. (2011 My 11-14). Influence of Varying Light-Dark Regimes and the Nutrient Phosphorus on the Antimicrobial Activities of *Hapalosiphon welwitschii* Nägel Extracts, Philippine International Convention Center, Manila, Philippines,.

Sy, R.A., Cao, E.P. (2011 My 11-14). Influence of Varying Light-Dark Regimes and the Nutrient Phosphorus on the Antimicrobial Activities of *Hapalosiphon welwitschii* Nägel Extracts, 6th Asia-Pacific Biotechnology Congress and 40th Annual Convention of the Philippine Society for Microbiology Inc. on the theme "Microbiology and Biotechnology: Rising to the Challenges of the Times," Philippine International Convention Center, Manila.

Batanes, T., J. C. Bonifacio, C. J. dela Rosa, K. C. Ng, K. Manset and E. P. Cao. (2011 My 11-14). Response of *Hapalosiphon welwitschii* Nägel to Lead Metal Stress, 6th Asia-Pacific Biotechnology Congress and 40th Annual Convention of the Philippine Society for Microbiology Inc. on the theme "Microbiology and Biotechnology: Rising to the Challenges of the Times," Philippine International Convention Center, Manila, Philippines.

M.R. Alvarez, E.P. Cao, J.C. Bocobo, M.P.S. Dimamay, R.R. Matias and J.G. Cervantes (2011 F 25-28). Single Nucleotide Variations of Determinant Region of Hepatitis B Virus Isolated from the Philippines, 6th Asian-Pacific Organization for Cell Biology (APOCB) Congress, EDSA Shangri-La Hotel, Manila, Philippines.

Cao, E.P. (2011 Ag 22-23). The Codex R-DNA Plant Guideline, Workshop on the BPI (Bureau of Plant Industry) Risk Assessment Report for Food Safety and the Codex R-DNA Plant Guideline, One Tagaytay Place, Tagaytay City.

Alvarez, M.R., E.P. Cao, E.P., Bocobo, J.C., Dimamay, M.P.S., Matias, R.R., Cervantes, J.G. (2011 25-28). Single Nucleotide Variations of the Surface Gene a Determinant Region of Hepatitis B Virus Isolated from the Philippines, 6th Asian-Pacific Organization for Cell Biology (APOCB) Congress, EDSA Shangri-La Hotel, Manila, Philippines.

Cao, E.P. (2002 O 17-19). PCR amplification of the *smt* locus in *Synechococcus aquatilis* SY01 Sn, 7th National Genetics Symposium, Splash Mountain Resort Hotel, Los Banos, Laguna.

Cao, E.P. (2002 Ap 22-26). Cadmium binding potential of *Hapalosiphon welwitschii* from Marinduque, Philippines,, 4th Asia-Pacific Marine Biotechnology Conference International Convention Center, University of Hawaii, Honolulu, Hawaii.

Cao, E.P. (2001 Ag 22-23). The Codex R-DNA Plant Guideline, Workshop on the BPI (Bureau of Plant Industry) Risk Assessment Report for Food Safety and the Codex R-DNA Plant Guideline, One Tagaytay Place, Tagaytay City.

## Publications

- 2011 Quilang, J.P., Santos, B.S., Ong, P.S., Basiao, Z.U., Fontanilla, I.K.C., Cao, E.P. DNA barcoding of the Philippine endemic freshwater sardine *Sardinella*

- tawilis (Clupeidae) and its marine relatives. *The Philippine Agricultural Scientist*, 2011, 94(3):248 – 257.
- 2010 De Guzman, M.C., Cao, E.P. Cadmium binding ability of the blue-green alga *Hapalosiphon welwitschii* Näf gel under controlled conditions. *Philippine Science Letters*, 2010:76 – 86.
- 2009 Jalandoni-Buan, A.C., Decena-Soliven, A.L.A., Cao, E.P., Barraquio, V.L., Barraquio, W.L. Congo red decolorizing activity under microcosm and decolorization of other dyes by congo red decolorizing bacteria. *Philippine Journal of Science*, 2009:125 -132.
- 2009 Guzman, R.M.S, Gervasio R.N.R, Fontanilla, I.K.C, & E.P. Cao Frequency Distribution of Blood Groups ABO, MN and Rh Factor in Philippine Cosmopolitan, Regional and the National Populations. *Science Diliman*, 2009:43-49.
- 2008 Lazar-Molnar, E., Yan, Q., Cao, E., Ramagopal, U., Nathenson, S.G., Almo, S.C. From the Cover: Crystal structure of the complex between programmed death-1 (PD1) and its ligand PDL2. *Proceedings of The National Academy of Sciences - PNAS*, 2008(30):10483-10488.
- 2008 Quilang, J. P., de Guzman, M. C., de Hitta-Catalan, M. H., Rubio, R. O., Jacinto, S. D., Santiago, E. C. and Cao, E. P Effects of polychlorinated biphenyls (PCBs) on root meristem cells of common onion (*Allium cepa* L.) and on early life stages of zebrafish (*Danio rerio*). *Philippine Journal of Science*, 2008:141-151.
- 2008 Quilang, J.P., Basiao, Z.U., Pagulayan, R.C., Roderos, R.R., Cao, E.P. Low isozyme variation in native and transplanted populations of the endemic Philippine silver perch, *Leiopotherapon plumbeus* (Kner, 1864) from three lakes in the Philippines. *The Philippine Agricultural Scientist*, 2008:367-371.
- 2007 Yan, Q., Malashkevich, V.N., Fedorov, A., E. Fedorov, E., Cao, E., Lary, J.W., Cole, J.L., Nathenson, S.G., Almo, S.C. Journal: *Proceedings of The National Academy of Sciences - PNAS* , vol. 104, no. 25, pp. 10583-10588, 2007 DOI: 10.1073/pnas.0703893104 Structure of CD84 provides insight into SLAM family function. *Proceedings of The National Academy of Sciences - PNAS*, 2007, 104(25):10583-10588.
- 2005 Rivero, G.C., Cao, E.P. *BIOLOGY: A Study Guide (Second Edition)*. University of the Philippines Open University, 2005:201.
- 2002 Rivero, G.C., Cao, E.P. *BIOLOGY: A Study Guide* by Rivero, G. C. and E. P. Cao. 2002. First Edition.. University of the Philippines Open University, 2002.
- 2001 Cao, E. P. *The Principles of Inheritance: Mendelian Genetics*. In: *Gene Talk* (M. V. T. Reyes, L. V. Lee and A. D. Tañęga, editors). Asian Graphics Printing Inc., 2001:2-5.
- 2000 Cao, E. P. Use of the *smt* locus to detect metal-tolerant strains of cyanobacteria and other microalgae. *Proceedings of the DOST-JSPS Symposium on Current Trends in Molecular Biology*, Teodoro Hall, ISSI Building, UP Diliman, Quezon City, 2000.
- 2000 Canoza, R. O., H. D. Mendoza, P. O. Platon and E. P. Cao Bioremediation of a lead-bearing industrial effluent by *Synechococcus aquatilis* (Reynaud) strain Sy 01 Sn. *Proceedings of the 9th International Pacific Basin Conference on Hazardous Waste*, EDSA Shangri-La Hotel, Manila, Philippines, 2000:195 – 211.

**Name** **Meinhard Bayani R. Cardenas**

**Place of Birth** Germany

**Gender** Male

**Civil Status** Single

**Organizational Affiliations**

Associate Professor and William T. Stokes Centennial Teaching Fellow, Dept. of Geological Sciences, Jackson School of Geosciences, University of Texas at Austin, Austin, Texas

**Education**

MS Geology (Hydrogeology), University of Nebraska-Lincoln, USA 2002

BS Geology, University of the Philippines, Diliman 1999

Ph.D. Earth and Env't Science (Hydrology), New Mexico Institute of Mining and Technology, USA

**Fields of Specialization**

Surface Water-Ground Water Interactions at Various Spatial Scales using Field Methods and Modeling

Applied Hydrogeophysics and Thermal Remote Sensing

Heterogeneity and Architecture of Fluvial Deposits

Applications of environmental and artificial tracers

Multiphysics Transport Phenomena

Rivers/ Lakes/ Aquifers/ Caves and Karst

Hydrogeology and Hydrology

**Employment**

Teaching and Laboratory Assistant, University of Nebraska-Lincoln, 1999-2002-

Teaching Assistant, New Mexico Institute of Mining and Technology, Spring 2005-Fall an-

Research Assistant, New Mexico Bureau of Geology and Mineral Resource, 2002-2006-

Assistant Professor, The University of Texas at Austin, 2006-2010-

**Honors / Awards**

Hydrologic Sciences Early Career Award, American Geophysical Union (AGU) 2011

AGU Editors Citation for Excellence in Refereeing Water Resources Research, AGU 2011

American Geophysical Union (AGU) Hydrologic Sciences Early Career Award, AGU 2011

Top Referee Award, Journal of Hydrology (Elsevier) 2009

AGU Editors Citation for Excellence in Refereeing Geophysical Resources Research, AGU 2011

Balik Scientist Award, DOST 2008

## **Trainings**

Coastal sediment as bio-geo-reactors powered by waves, Texas A & M University River Corridor Restoration Conference 2011

River Corridor Restoration Conference, (EAWAG: Swiss Federal Institute of Aquatic Science and Technology, Switzerland) 2011

Complex surface water-ground water interactions, University of Texas at Austin, Inst. of Geophysics

## **Researches**

### **Completed**

Current-topography driven exchange process between water columns and heterogeneous permeable sediments

Hydrodynamics of groundwater-surface water interactions in gaining and losing channels: an experimental study

Measurement and ecological implications of multi-scale three-dimensional geomorphology-driven surface water-ground water connections at the Outdoor Stream Lab

## **Papers Presented**

Cardenas, M.B.R. (2012). Groundwater inputs into the coastal ocean: large scale patterns, local dynamics, and implications on material and energy budgets, University of Texas-Marine Science Institute.

Cardenas, M.B.R. (2011). The effects of river dynamics on river-aquifer interactions, University of the Philippines-National Institute of Geological Sciences.

Cardenas, M.B.R. (2011). Detection and characterization of local to regional groundwater inputs to rivers, lakes and oceans with electrical imaging, American Geophysical Union Fall Meeting.

Cardenas, M.B.R. (2011). The surface water-ground water continuum: hydraulics, biogeochemistry and geophysics, University of California - Berkeley.

Cardenas, M.B.R. (2011). Coastal sediment as bio-geo-reactors powered by waves, Texas A & M University River Corridor Restoration Conference 2011.

Cardenas, M.B.R. (2011). River-aquifer connectivity as a restoration target: what, why and how, River Corridor Restoration Conference 2011 (EAWAG: Swiss Federal Institute of Aquatic Science and Technology, Switzerland).

Cardenas, M.B.R. (2010). Integrating turbulent flow, biogeochemical and poromechanical processes in rippled coastal sediment, American Geophysical Union Fall Meeting.

Cardenas, M.B.R. (2010). Effects of dam and on groundwater-surface water interactions, University of Texas at San Antonio.

Cardenas, M.B.R. (2010). Fluid dynamic interactions near sediment-water interfaces in aquatic and coastal environments, American Society of Limnology and Oceanography Aquatic Sciences Meeting.

Cardenas, M.B.R. (2010). Time-averaged versus transient forcing by waves of porewater circulation and transport in permeable sediment, American Geophysical Union/American Society of Limnology and Oceanography/ The Oceanography Society Ocean Sciences Joint Meeting.

Cardenas, M.B.R. (2009). Towards the 'hydraulic meter'-predicting hydraulic exchange from bedforms to bars to bends, European Geosciences Union, Vienna, Austria.

Cardenas, M.B.R. (2009). Constraining denitrification in permeable coastal

sediment using linked biogeochemical and hydrodynamic models, Max-Planck Institute for Marine Microbiology, Bremen, Germany.

Cardenas, M.B.R. (2009). The familiar as a frontier: persistent transient stream-groundwater interactions, Geological Society of America Annual Conference.

Cardenas, M.B.R. (2009). Coastal sediment as bio-geo-reactors powered by waves, University of Texas at Arlington.

Cardenas, M.B.R. (2009). Effects of inertia and directionality on flow and transport in a fracture, American Geophysical Union Fall Meeting.

Cardenas, M.B.R. (2008). Power-law scaling of residence times: the geomorphological signature of ground water-surface water connection at nested scales, University of the Philippines-Diliman, National Institute of Geological Sciences.

Cardenas, M.B.R. (2008). Surface water-groundwater interactions across scales, University of Minnesota St. Anthony Falls Laboratory/ National Center for Earth Surface Dynamics-.

Cardenas, M.B.R. (2008). Constraining denitrification in permeable coastal sediment using linked biogeochemical and hydrodynamic models, University of the Philippines-Diliman, Marine Science Institute.

Cardenas, M.B.R. (2008). Power-law scaling of residence times: the geomorphological signature of ground water-surface water connection at nested scales, University of the Philippines-Diliman, National Institute of Geological Sciences.

Cardenas, M.B.R. (2007). Power-law scaling of residence times: the geomorphological signature of ground water-surface water connection at nested scales, Geological Society of America Annual Conference.

Cardenas, M.B.R. (2007). Understanding processes in streambeds with reductive models and high-resolution data, American Geophysical Union Fall Meeting.

Cardenas, M.B.R. (2006). The surface water-groundwater interface: crossing boundaries, University of Pittsburgh, Dept. of Geology and Planetary Science.

Cardenas, M.B.R. (2006). The surface water-groundwater interface: crossing boundaries, University of Virginia, Dept. of Environmental Sciences.

Cardenas, M.B.R. (2006). Flumes, finite-elements, field observations, Fourier-series and fractals: fundamental linkages in hyporheic zone research, Geological Society of America Annual Conference-.

Cardenas, M.B.R. (2006). Flumes, finite-elements, field observations, Fourier-series and fractals: fundamental linkages in hyporheic zone research, Geological Society of America Annual Conference.

Cardenas, M.B.R. (2006). Dynamics of fluids, solutes, and heat along sediment-water interfaces: a multiphysics modeling study, Gordon Research Conference on Permeable Sediments Plenary Lecture.

Cardenas, M.B.R. (2006). Understanding surface water-ground water interactions from bedforms to basin using high-fidelity models, University of Nevada-Reno, Graduate Program of Hydrologic Sciences.

Cardenas, M.B.R. (). The surface water-groundwater interface: crossing boundaries, University of Wyoming, Dept. of Geology and Geophysics.

Cardenas, M.B.R. (). The surface water-groundwater interface: crossing boundaries, University of Texas at Austin, Dept. of Geological Sciences.

Cardenas, M.B.R. (). Multiphysics modeling of processes along sediment-water

interfaces: towards fundamental understanding and mechanistic predictions, American Geophysical Union Fall Meeting.

Cardenas, M.B.R. (). Complex surface water-ground water interactions revealed, University of Texas at Austin, Inst. of Geophysics- Texas, USA.

Cardenas, M.B.R. (). Exchange across the surface water-ground water interface from bedforms to bends to basins, University of Lancaster.

## Publications

- 2012 Sawyer, A.H., Cardenas, M.B., Buttlers, J. Heat exchange in hyporheic zones formed by channel -spanning logs. *Water Resources Research*, 2012, 48:W01529, doi:10.1029/2011GL050475, 2012.
- 2012 Cardenas, M.B., Lagmay, A.M.F., Andrews, B.J., Rodolfo, R.S., Cabria, H.B., Zamora, P.B., Lapus, M.R. Terrestrial smokers: thermal springs due to hydrothermal convection of groundwater connected to surface. *Geophysical Research Letters*, 2012, 39:L02403, doi:10.1029/2011GL050475, 2012.
- 2012 Wang, L., Cardenas, M.B., Deng, W., Bennett, P.C. Theory for dynamic longitudinal dispersion in fractures and rivers with Poiseuille flow. *Geophysical Research Letters*, 2012, 39:L05602, doi:1029/2012GL051169.
- 2011 Sawyer, A.H., Cardenas, M.B., Buttlers, J. Hyporheic exchange due to channel-spanning logs. *Water Resources Research*, 2011, 47:W08502, doi:10.1029/2011WR010484, 2011.
- 2011 Chaudhary, K., Cardenas, M.B., Deng, W., Bennett, P.C. The role of eddies inside pores in the transition from Darcy to Forchheimer flows. *Geophysical Research Letters*, 2011, 38:L24405, doi:10.1029/2011GL050214, 2012.
- 2011 Nowinski, J.D., Cardenas, M.B., Lightbody, A.F. Evolution of hydraulic conductivity in the floodplain of a meandering river due to hyporheic transport of fine materials. *Geophysical Research Letters*, 2011, 38:L01401/ doi:10.1029/2010GL045819.
- 2011 Cardenas, M.B., Markowski, M.S. Geo-electrical imaging of hyporheic exchange and mixing of river water and groundwater in a large regulated river. *Environmental Science and Technology*, 2011, 45(1):1407-1411, doi:10.1021/10.102):1407-1411.
- 2011 Cardenas, M. B., Jiang, H.S. Wave-driven porewater and solute circulation through rippled elastic sediment under highly transient forcing, *Limnology and Oceanography*. *Fluids and Environments*, 2011, 1:23-37/ doi: 10.1215/21573698-1151658.
- 2011 Gerecht, K. E., Cardenas, M.B., Guswa, A.J., Sawyer, A.H., Swanson, T.E., Nowinski, J.D. Enhanced hyporheic flow and heat transport in the bed and bank of a large regulated river. *Water Resources Research*, 2011, 47(doi:10.102):W03524.
- 2011 Cardenas, M. B., Neale, C.M.U., Jaworowski, C., Heasler, H. High-resolution mapping of river-hydrothermal water mixing: Yellowstone National Park. *International Journal of Remote Sensing*, 2011, 32(10):2765 - 2777 / doi: 10.1080/01431161003743215, .
- 2011 Zlotnik, V.A., Cardenas, M.B., Toundykov, D. Effects of multi-scale depth-dependent anisotropy on hyporheic and regional groundwater flow. *Ground Water*, 2011, 49(4).
- 2011 Andrews, B.J., Cardenas, M. B., Bennett, P.C., Quantification of non-isothermal turbulent mixing processes with high spatio-temporal resolution thermal imaging, Breitenbush Hot Springs, Oregon. *Geochemistry, Geophysics, Geosystems*, 2011, 12(doi:10.102):Q07022.



- 2011 Swanson, T.E., Cardenas, M.B. Ex-Stream: A MATLAB® program for calculating fluid flux through sediment-water interfaces based on steady and transient temperature profiles. *Computers and Geosciences*, 2011, 37(doi:10.101):1664-1669.
- 2011 Senal, M.I.S., Jacinto, G.S., San Diego-McGlone, M.L., Siringan, F.P., Zamora, P.B., Soria, Z.L., Cardenas, M.B., Villanoy, C., Cabrera, O. Nutrient inputs from submarine groundwater discharge in Santiago Reef Flat, Bolinao, Northwestern Philippines. *Marine Pollution Bulletin*, 2011, 63(5-12):195-200/ doi:10.1016/j.marpolbul.2011.05.037,.
- 2010 Cardenas, M.B. The thermal skin effect of pipes in streambeds and its implications on groundwater flux estimation using diurnal temperature signals. *Water Resources Research*, 2010, 46(W03536,):doi:10.1029/2009WR008528.
- 2010 Francis, B.A., Francis, L.K., Cardenas, M.B. Water table dynamics and groundwater-surface water interactions during filling and draining of a large fluvial island due to dam-induced river stage fluctuations. *Water Resources Research*, 2010, 46(W07513,):doi:10.1029/2009WR008694.
- 2010 Swanson, T.E., Cardenas, M.B. Diel heat transport within the hyporheic zone of a pool-riffle-pool sequence of a losing stream and evaluation of models for fluid flux estimation using heat. *Limnology and Oceanography*, 2010, 5(4, doi:10):1741-1754.
- 2010 Cardenas, M. B., P. B. Zamora, F. P. Siringan, M. R. Lapus, R. S. Rodolfo, G. S. Jacinto, M. L. San Diego-McGlone, C. L. Villanoy, O. Cabrera, and M. I. Senal, Linking regional sources and pathways for submarine groundwater discharge at a coral reef by simultaneous resistivity, 222Rn, and salinity measurements. *Geophysical Research Letters*, 2010, 37(L16401, do).
- 2010 Cardenas, M.B., Jiang, X.W. Groundwater flow, transport and residence times through topography-driven basins with depth-decaying permeability and porosity. *Water Resources Research*, 2010, 46:W11538, doi:10.1029/2010WR009370.
- 2010 Cardenas, M. B. Lessons from and assessment of Boussinesq aquifer modeling of a large fluvial island in a dam-regulated river. *Advances in Water Resources*, 2010, 33(11):1359-1366 /doi:10.1016/j.advwatres.2010.03.0.
- 2010 Jiang, X.W., Wan, L., Cardenas, M.B., Ge, S., Wang, X.S. Simultaneous rejuvenation and aging of groundwater in topography-driven basins due to depth-decaying poromechanical properties. *Geophysical Research Letters*, 2010, 37(doi:10.102):L05403.
- 2010 Cardenas, M.B. The thermal skin effect of pipes in streambeds and its implications on groundwater flux estimation using diurnal temperature signals. *Water Resources Research*, 2010, 46(doi:10.102):W03536.
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- 2010 Jiang, X.W., Wan, L., Cardenas, M.B., Ge, S., Wang, X.S. Simultaneous rejuvenation and aging of groundwater in topography-driven basins due to depth-decaying poromechanical properties. *Geophysical Research Letters*, 2010, 37(doi:10.102):L05403.
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- 2009 Cardenas, M.B. A model for lateral hyporheic flow based on valley slope and channel sinuosit. *Water Resources Research*, 2009, 45(doi:10.102):W01501.
- 2009 Cardenas, M.B. Stream-aquifer interactions and hyporheic exchange in gaining and losing sinuous streams. *Water Resources Research*, 2009, 45(W06429):doi:10.1029/2008WR007651.
- 2009 Cardenas, M. B. Direct simulation of a pore-level continuum scale for Fickian dispersion through dense cubic packed spheres with vortices. *Geochemistry, Geophysics, Geosystems*, 2009:Q12014, doi:10.1029/2009GC002593,.
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- 2008 Cardenas, M. B. Three-dimensional vortices in single pores and their effects on transport. *Geophysical Research Letters*, 2008, 35:L18402,/ doi:10.1029/2008GL035343
- 2008 Cardenas, M.B., Cook, P., H. Jiang, P. Traykovski, Constraining denitrification in permeable wave-influenced marine sediment using linked hydrodynamic and biogeochemical modeling. *Earth and Planetary Science Letters*, 2008, 275(1-2):127-137/ doi:10.1016/j.epsl.2008.08.016,.
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- 2008 Cardenas, M.B. The effect of river bend morphology on flow and timescales of surface water-groundwater exchange across pointbars. *Journal of Hydrology*, 2008, 362(1-2):134-141/ doi:10.1016/j.jhydrol.2008.08.018,.
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- 2007 Cardenas, M. B., Wilson, J.L. Hydrodynamics of coupled flow above and below a sediment-water interface with triangular bed forms: underflow case. *Advances in Water Resources*, doi:10.1016/j.advwatres.2006.06.009, 2007, 2007, 30:301-313.
- 2007 Cardenas, M. B., Slottke, D.T., Ketcham, R.A., Sharp, J.M. Jr. Navier-Stokes flow and transport simulations using real fractures shows heavy tailing due to eddies,. *Geophysical Research Letters*, 2007, 34:4L1440, doi:10.1029/2007GL030545.
- 2007 Cardenas, M. B., Wilson, J.L. Dunes, turbulent eddies, and interfacial exchange with permeable sediments. *Water Resources Research*, 2007, 43:W08412, doi:10.1029/2006WR005787.
- 2007 Cardenas, M. B., Wilson, J.L. The effects of current-bedform induced fluid flow on the thermal regime of sediments. *Water Resources Research*, 2007, 43:W08431, doi:10.1029/2006WR005343.
- 2007 Cardenas, M. B., Wilson, J.L. Exchange across a sediment-water interface with ambient groundwater discharge. *Journal of Hydrology*, 2007, 346(3-4):doi:10.1016/j.jhydrol.2007.08.019, 69-80.
- 2007 Cardenas, M.B., Wilson, J.L. The thermal regime of sediments in channels under gaining and losing. *Journal of Geophysical Research-Biogeosciences*, 2007, 112(doi:10.1029):G04013,.
- 2007 Cardenas, M.B. Potential contribution of topography-driven regional groundwater flow to fractal stream chemistry: residence time distribution analysis of Toth flow. *Geophysical Research Letters*, 2007, 34(L05403, do).
- 2006 Cardenas, M.B., Wilson, J.L. Comment on Flow resistance and bed form geometry in a wide alluvial channel (by Shu-Qing Yang, Soon-Keat Tan and Siow-Ying Lim). *Water Resources Research*, 2006, 42:W06601, doi:10.1029/2005WR004663.
- 2006 Cardenas, M.B., Wilson, J.L. The influence of ambient groundwater discharge on exchange zones induced by current-bedform interactions. *Journal of Hydrology*, 2006, 331(doi:10.1016):103-109.
- 2006 Cardenas, M.B. Interactive comment on "Quantifying biologically and physically induced flow and tracer dynamics in permeable sediments by F.J. Meysman et al.. *Biogeosciences Discussions*, 2006, 3:S901-S908.
- 2003 Cardenas, M.B., Zlotnik, V.A. A simple constant-head injection test for stream bed hydraulic conductivity estimation. *Ground Water*, 2003, 41(6):867-871.
- 2003 Cardenas, M.B., Zlotnik, V.A. Three-dimensional model of modern channel bend deposits. *Water Resources Research*, 2003, 39(6):1441 doi:10.1029/2002WR001383.
- 2000 M. B. Cardenas, M.B. et al Vegetation controls on soil moisture distribution in the Valles Caldera, New Mexico. *Ecohydrology*, doi:10.1002/eco.11, 2000, 1(3):225-238.
- Cardenas, M.B., Wilson, J.L., Zlotnik, V.A. Impacts of heterogeneity, bed forms, and stream curvature on subchannel hyporheic exchange. *Water Resources Research*, , 40(10.1029/20):W08307.

**Name** **Lawrence B. Dacuycuy**  
**Date of Birth** April 5, 1976  
**Gender** Male  
**Civil Status** Married  
**Home Address** Rm 2824 Cityland Makati Executive Tower, De la Rosa St.,  
 Brgy. Pio del Pilar, Makati City

**Organizational Affiliations**

Assistant Professor, De La Salle University, Taft Ave., Manila  
 Chairman, Economics Department, De La Salle University, Manila  
 Associate Professor, DLSU, Taft Ave., Manila

**Education**

Ph D (Economics), Kyoto University, Japan 2006  
 MA (Economics), University of the Philippines, Diliman, Quezon City 2000  
 BS Economics, University of the Philippines, Diliman, Quezon City 1998

**Fields of Specialization**

Econometrics  
 Emperical Inequality Analysis  
 Economics  
 Macroeconomics  
 Semiparametric and nonparametric methods in labor econometrics,

**Employment**

Assistant Professor, De La Salle University, 2002 Je-2003 Ag-  
 Associate Professor, De La Salle University, 2007-present-

**Association Membership**

Member , Philippine Economic Society  
 Member , East Asian Economic Association

**Honors / Awards**

Outstanding Associate Professor, De La Salle University, Manila 2009 JI 3  
 2009 Outstanding Young Scientist (OYS) Award for Economics, National Academy  
 of Science and Technology (NAST) 2009 JI 9

**Trainings**

Workshop on Creating Quality Employment in Asia, ADB Headquarters 2011 My  
 17-18  
 Central Bank Macroeconomic Modeling Workshop, Manila Peninsula Hotel, Makati  
 City on October 1 2010 O 19-20  
 5th Advanced Summer School in Economics and Econometrics themed  
 Semiparametric and Non- parametric E, University of Crete in Rethymno 2010  
 Applied Econometrics Seminar for the Analysis of Micro Data, Ronald Coase  
 Institute and the Hong Kong University, Hong Kong, China 2008 D 8-11  
 Summer course entitled VA primer in the estimation of Dynamic Stochastic General

Equilibrium (DSGE)m, Centro de Estudios Monetarios y Financieros (CEMFI) in Madrid 2008 Ag 25-29

A primer in the estimation of Dynamic Stochastic General Equilibrium (DSGE) models, Centro de Estudios Monetarios y Financieros (CEMFI), Madrid 2008 Ag 25-29

## Researches

The incidence and character of disadvantaged employment in the Philippines

### Completed

Validating wage functional forms

Covariate contributions to wage inequality: Counterfactual extensions and nonparametric inference

The migration of health professionals

Best practices in fostering migration opportunities: Do they work?

Documenting the time-series properties of Philippine Economic Aggregates: A Primer

Monetary neutrality and superneutrality: The Philippine case

On the covariance matrix estimation in double selection models

Parametric and semiparametric estimation and testing of age effects in selection models: The Philippine Case

### On-going

Testing the specifications of a regression function: Differencing versus kernel-based tests

## Papers Presented

Lee, K.K, Ono, H., Dacuycuy, L.B. (2008 N 16). Specialization and Happiness: A US-Japan Comparison, 11th East Asian Economic Association Conference, Manila, Philippines.

Dacuycuy, L. B. (2008 N 15). Sector choices, wage differentials and inequality: The Philippine Case, 11th East Asian Economic Association Conference, Manila, Philippines.

Dacuycuy, L. B. (2008 N 14). Parametric, semiparametric and nonparametric representations of the human capital earnings function, Philippine Economic Society Meetings, Manila, Philippines.

## Publications

2009 Marvin Raymond F Castell, Lawrence B Dacuycuy Exploring the use of Exchange Market Pressure and RMU Deviation Indicator for Early Warning Systems (EWS) in the ASEAN+3 Region. Dlsu Business and Economic Review, 2009, 18(2).

2009 Dacuycuy, L.B. The Functional Specification of the Wage Experience Relationship and Male Wage Inequality in the Philippines: A Decomposition Analysis. DLSU Business and Economic Review, 2009, 18(2).

2008 Dacuycuy, L.B. On wage density comparisons: Bandwidth selectors and test outcomes. Applied Economics Letters, 2008, 14(3):203-208.

2006 Dacuycuy, L.B. The effects of bandwidth changes on model validity: An empirical study. Applied Economics Letters, 2006, 13(10):629-633.

2006 Dacuycuy, L.B. On the finite sampling properties of the Zheng test for omitted and irrelevant variable problems. Applied Economics Letters, 2006, 13(11):681-684.

- 2006 Dacuycuy, L. B. Explaining male wage inequality in the Philippines: Nonparametric and semiparametric approaches. *Applied Economics Letters*, 2006, 38:2497-2511.
- 2005 Dacuycuy, L.B. On distribution approximation: A simple comparative study on procedural variations of the Zheng test. *Economics Bulletin*, 2005, 3(11):1-10.
- 2005 Dacuycuy, L.B. A note on the comparative performance of the Zheng and Elisson-Elisson tests for omitted variables in regression models. *Economics Bulletin*, 2005, 3(21):1-6.
- 2005 Dacuycuy, L.B. Is the earnings-schooling relationship linear/ A semiparametric analysis. *Economics Bulletin*, 2005, 3(37):1-8.
- Dacuycuy, L.B. The migration of health professionals. ILO Asian Regional Programme on Governance of Labour Migration Working Paper No.7, Bangkok: ILO

**Name** Aurelio Alfonso Jr. Delos Reyes  
**Place of Birth** Sta Cruz, Laguna  
**Date of Birth** March 30, 1958  
**Gender** Male  
**Civil Status** Married  
**Home Address** 38 Gov. San Luis Ave., Jubileeville, Masaya Bay 4033, Laguna, Philippines

**Organizational Affiliations**

Associate Professor 5, Land and Water Resources Division, Institute of Agricultural Engineering, UPLB, Laguna

Scientist, Aquaculture Department, SEAFDEC, Tigbauan, Iloilo, Philippines 5021

**Education**

PhD.in Engineering Science Major in Biological and Agricultural Engineering, Louisiana State University (LSU), Baton Rouge, USA 1995

Master in Engineering, Asian Institute of Technology (AIT), Bangkok, Thailand 1982

B.S. Agricultural Engineering, University of the Philippines at Los Baños (UPLB), Laguna 1979

**Fields of Specialization**

Aquaculture

Agricultural Engineering

**Employment**

Consultant and Team Leader, INTEM Consulting, Inc., Philippine Branch Office, 2004 F-Mr-

Research Coordinator and Aquaculture Expert, Ministry of Agriculture, F.A.O., 2005 F-2007 D-

Project Support Staff, DOST Engineering Research and Development for Technology, 2009 Ja 8- p-

Editor, Philippine Journal of Agricultural and Biosystems Engineering and, 2009 Ja 6 - present)-

Chairman, Department of Industrial Engineering, College of Engineering and Agro-Industrial Technology (CEAT),, 2009 Ja 6 - present-

Project Leader, AMDP, CEAT, UPLB, -

Head, Land and Water Resources Division, Institute of Agricultural Engineering, -

Associate Professor 5, Land and Water Resources Division, Institute of Agricultural Engineering, UPLB, Laguna, 2008 S 9 - present-

Scientist I Subprogram Leader, Development of Environment-Friendly Aquaculture, 1999 Ag -2003 D-

**Honors / Awards**

Outstanding Parents, Iloilo National High School Special Science Class 2002 Mr 12

One of 100 Outstanding Alumni Award, 100th Foundation Anniversary Celebration, Sta. Cruz Laguna 2002 Mr 8

## Trainings

The Regional Seminar-Workshop on Mangrove-Friendly Shrimp Aquaculture, SEAFDEC, Bangkok, Thailand 2003 Je 24-27

JIRCAS International Workshop: Studies on Sustainable Production Systems of Aquatic Animals in Brack, Japan International Research Center for Agricultural Sciences, Tsukuba, Japan 2002

Environment-friendly aquaculture.ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security, Bangkok, Thailand 2001 N 19-24

ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security in the New Millennium, Bangkok, Thailand 2001 N 19-24

The Second International Conference on Commercial Recirculating Aquaculture, Roanoke, Virginia Tech, Virginia, 1998 Jl 16-19

## Researches

Intensive tank culture method for Nile tilapia (*Oreochromis niloticus*) using lake water as an alternative water source.

### Completed

A combined upflow and fluidized sand filter for recirculating systems

Nitrification performance of a bubble-washed bead filter for combined solids removal and biological filtration in a recirculating aquaculture system

Generation and management of wastewater in an alligator farm

Performance of a commercial scale recirculating alligator production system employing a paddle-washed floating bead filter

Combination of a bead filter and rotating biological contactor in a recirculating fish culture system

### On-going

As Project leader: Performance evaluation of a recirculating brood stock system for milkfish Integrated recirculating tank culture of grouper and seaweed

Meiobenthos as possible indicator of nutrient and organic matter levels in aquaculture systems

### On-going (Co-Proponent)

Capacity of mangroves to process shrimp pond effluents. The fate of uneaten feeds in milkfish farming in the Philippines

## Papers Presented

Primavera, J.H., De Los Reyes, A.A. Jr., C. R. Lavilla-Pitogo, C.R., Altamirano, J.P. (2002 Ap 23-27). Capacity of mangroves to process shrimp pond effluents, World Aquaculture '02, Beijing China.

Delos Reyes, A.A.Jr. (2002 Ag 8). Integrated recirculating tank culture of grouper and seaweed, Aquaculture Department, SEAFDEC, Tigbauan, Iloilo.

## Publications

2007 Primavera, J.H., Altamirano, J.P., Lebata, M.J.H.L Delos Reyes, A.A. Jr., C.L. Pitogo, C.L. Mangroves and shrimp pond culture effluents in Aklan, Panay Is., Central Philippines. Bulletin of Marine Science, 2007, 80(3):795-804.

2005 Eguia, R.V., Delos Reyes, A.A. Jr High-density tank culture of Nile tilapia (*Oreochromis niloticus*) using lake water with effluent management. In: Cuvin-Aralar, M.L., R.S. Punongbayan, A. Santos-Borja, L.V. Castillo, E.V. Manalili and M.M. Mendoza (Eds.) SEAMEO, SEARCA,. Proceedings of the First National



- Congress on Philippine Lakes (LakeCon 2003), Los Baños, Laguna, Philippines, 2005:205-213.
- 2004 Delos Reyes, A.A. Jr. (Team Leader), Salayo, N.D., Gonzales, B.V., Garibe, J.W. Basic Study on the Philippine Fisheries Sector / A Study Commissioned by the Japan International Cooperation Agency (JICA). INTEM Consulting, Inc., INTEM Philippine Branch Office, Makati City, 2004.
- 2003 Primavera, J.H., Delos Reyes, A.A. Jr., Lavilla-Torres, C.R., Altamirano, J.P. Capacity of mangroves to process shrimp pond effluents. The Regional Seminar-Workshop on Mangrove-Friendly Shrimp Aquaculture, 24-27 June 2003. SEAFDEC, Bangkok, Thailand, 2003.
- 2002 De los Reyes, A.A. Jr. A combined upflow and fluidized sand filter for recirculating systems. *Aquaculture Engineering*, Official Journal of the Society of Aquaculture Engineers of the Philippines (SAEP), 2002 JI, 14:8-21.
- 2002 Delos Reyes, A.A. Jr. Development of environment-friendly aquaculture technologies and practices. In: Maeda, M., Y. Maeno and M. Yokoyama (Eds.). JIRCAS International Workshop: Studies on Sustainable Production Systems of Aquatic Animals in Brackish Mangrove Areas. Japan International Research Center for Agricultural Sciences, Tsukuba, Japan, 2002:67-76.
- 2001 de los Reyes, A.A. Jr. Recirculating aquaculture systems: Experiences, concepts, designs and equipment. *Harnessing Science and Technology to Meet the Global Challenge/Proceedings of the World Conference on Science and Technology*, Manila Philippines, 2001 S 13-15:65-82.
- 2001 Delos Reyes, A.A. Jr Environment-friendly aquaculture. ASEAN-SEAFDEC Conference on Sustainable Fisheries for Food Security in the New Millennium "Fish for the People," Bangkok, Thailand, November 19-24, 2001, 2001.
- 1999 Delos Reyes, A.A. Jr. Nitrification performance of a bubble-washed bead filter for combined solids removal and biological filtration in a recirculating aquaculture system. *Aquacultural Engineering*, 1999, 19(2):105-118.
- 1998 Malone, R.F., Beecher, L.E., De los Reyes, A.A. Jr. Proceedings, The Second International Conference on Commercial Recirculating Aquaculture. Roanoke, Virginia Tech, Virginia, 1998 JI 16-19:319-341.
- 1998 Delos Reyes, A.A. Jr., Rusch, K.A., Malone, R.F. Generation and management of wastewater in an alligator farm. *Journal of Applied Aquaculture*, 1998, 8(2):27-38.
- 1998 De los Reyes, A.A. Jr., K. A. Rusch, K.A., Malone, R.F. Generation and management of wastewater in an alligator farm. *Journal of Applied Aquaculture*, 1998, 8(2):27-38.
- 1997 Delos Reyes, A.A. Jr., Rusk, K.A., Malone, R.F. Performance of the Commercial Scale recirculating alligator production system employing a paddle-washed floating bead filter. *Aquacultural Engineering*, 1997 b, 16(4):239-251.
- 1997 De los Reyes, A.A. Jr., Beecher, L.E., Malone, R.F. *Aquacultural Engineering Society Proceedings III, Advances in Aquacultural Engineering. (ISTA IV)*, Orlando, Florida, NRAES, New York, 1997 N 9-12:287-294.
- 1996 De los Reyes, A.A. Jr., Lawson, T.B. Combination of a bead filter and rotating biological contactor in a recirculating fish culture system. *Aquacultural Engineering* 1996, 15(1):27-39.
- 1995 De los Reyes, A.A. Jr. Solid removal schemes and the related biological contactor in recirculating fish culture systems. Ph.D Dissertation, Department of Biological and Agricultural Engineering, Louisiana State University, Baton Rouge, 1995.
- 2002 Delos Reyes, A.A. Jr. Recirculating aquaculture systems: experiences, concepts,

designs, and equipment. In: Tansinsin, L.G. et al. (Eds.). *Harnessing Science and Technology to Meet the Global Challenge*. Proceedings of the World Conference on Science and Technology, 13-15 September 2001. PhilAAS, Manila, Philippines, pp. 65-82., 2002:65-82.

De los Reyes, A.A. Jr. Performance of a commercial scale recirculating alligator production system employing a paddle-washed floating bead filter. *Aquacultural Engineering*, , 16(4):239-251.

**Name** **Patricio S. Faylon**  
**Date of Birth** 17 March 1951  
**Gender** Male  
**Civil Status** Married  
**Home Address** Orchard Drive, Marymount Village Los Baños, Laguna, 4030  
 Philippines

**Organizational Affiliations**

Executive Director, PCARRD-DOST, Los Baños, Laguna

OIC, Office of the Executive Director, PCAMRD-DOST, Los Baños, Laguna

**Education**

Executive Leadership Program, Career Executive Service Board, Philippines 1995

Managing Bureaucracy for Results, Program for Senior Government Executives, Career Executive Service Board, Philippines 1989

Doctor of Philosophy in Ruminant Nutrition and Physiology/Meat Processing/Forage and Pasture, University of the Philippines Los Baños (UPLB), College, Laguna, Philippines 1981

Master of Science in Ruminant Nutrition/Production Economics, University of Illinois, Champaign-Urbana, IL, USA 1976

Bachelor of Science in Agriculture (Swine Production/Agricultural Business Management), University of the Philippines Los Baños (UPLB), College, Laguna, Philippines 1972

**Fields of Specialization**

Agriculture and Forestry

Animal Science Research Management

**Employment**

Executive Director, Livestock Development Council, Department of Agriculture, 1998 JI 15-1999 Ag15-

Program Director, Maka-MASA-Livestock Program, Department of Agriculture, 1998 JI 15-1999 Ag15-

Executive Director, Minimum Access Volume (MAV), Department of Agriculture, 1998 Ag - 1999 Ag-

Director, Livestock Research Division, PCARRD-DOST, 1985 Ag - 1998 JI-

Technical Consultant, Pioneer Development Foundation for Asia and the Pacific, Inc, 1993 Je - 1994 My-

Acting Deputy Executive Director for Research and Development, PCARRD-DOST, 1992 Mr - 1993 Ap

National Professional Project Officer, Food and Agriculture Organization (FAO), 1990 JI - 1992 D

Visiting Assistant Professor, Visiting Associate Professor, Institute of Animal Science University of the Philippines Los Baños (UPLB), 1988 Je - 1996 D

National Team Leader, Beef & Chevon Commodities R & D Team, PCARRD-DOST, 1986 Ja - 1987 D

Acting Director, Livestock Research Division, PCARRD-DOST, 1984 Ja - 1985 JI

Assistant Director and Concurrent Officer-in-Charge, International Projects Department, PCARRD-DOST, 1982 D - 1984 Ja

Assistant Director, Livestock Research Department, PCARRD-DOST, 1981 JI - 1982 N

Senior Subject Matter Specialist, PCARRD-DOST, 1976 Ja - 1979 N

Program Specialist, PCARRD-DOST, 1973 O - 1974 N

Research Assistant, College of Agriculture, University of the Philippines Los Baños, 1972 Je - 1972 D

### **Association Membership**

Member, National Research Council of the Philippines (NRCP)

President, UPLB College of Agriculture Alumni Association (UPLB CA-AA)

Member, Board of the UPLB Alumni Association

Member, Nat'l. Tech. Comm. of IRR of E.O. 481 for the Promo. & Devt. of Organic Agriculture in the Phil.

DOST Focal Person, Agriculture National Food Summit

Member, Special Committee for the Selection of Outstanding DOST Scholars

Chairman, Technical Working Group on the CHED Outstanding Extension Program/Project Awards

Chairman, Search Committee for Abra State Institute of Sciences and Technology (ASIST) Presidency

Chairman, Search Committee for Camarines Sur State College of Agriculture (CSSAC) Presidency

Chairman, Search Committee for Batangas State University (BSU) Presidency

Member, UPLB College of Agriculture Alumni Association (UPLBCAAA)

President, UPLB College of Agriculture Alumni Association

Member, Search Committee for Outstanding Citizens of Los Baños

Secretary, Los Baños Science Community Foundation, Inc. (LBSCFI)

Member, Screening Com of the CY 2005 10 Outstanding Students of the Phil. (Agri, Science & Math)

Member, DOST-Change Management Team

Member, Asia-Pacific Association of Agricultural Research Institutions (APAARI)

Member, Steering/Organizing Committee of the International Year of Rice (IYR 2004) Philippine Celebration

Member, Implementation of the DOST-JSPS Joint Scientific Cooperation Program

Member, DOST Inter-Council Committee Policy Group

Member, Natl Steering Com of the Sustainable Agri & Rural Devt-Farming Sys Evolution (SARD-FSE) Project

Member, DA Secretary's Technical Working Group

Member, National Mango Action Team and Technical Working Group

Member, Steering Committee for Philippine Agriculture & Fisheries BIOTECH Program

Member, Board of Trustees of the Philippine Rice Research Institute, DA-Philippines

Member, Policy Advisory Council of the Australian Centre for International Agricultural Research (ACIAR)

Member, Committee of the Underutilised Tropical Fruits for Asia-Pacific Network (UTFANET)

Member, Executive Committee (ExeCom), DOST, Taguig, Manila

Member, DOST-wide Honoraria Committee

Member, DOST Screening Com on Certification of Eligibility for Non-DOST S&T Personnel under IRR RA 8439

Member, DOST Ad Hoc Com to Draft a Performance Evaluation Sys, for Scientists under Scientific Career Sys

Member, DOST Committee on Scientific Career Evaluation/SCC-Evaluation & Special Technical Committees

Chairman, Regional Network on Plant Genetic Res (based at Int'l Plant Genetic Resources Ins, Malaysia)

Member, Plan Com, Phil Medium Term Devt Plan-Agri, Environment & Nat Resources & Agrarian Reform Chapter

Member, DOST S&T Human Resource Development Technical Working Group

Member, DOST Balik-Scientist Evaluation Committee

Alternate Member, National Land Use Commission (NLUC) Proper and Technical Working Group

Philippine representative, Global Project on Livestock Policy (based at FAO-RACO for Southeast Asia)

Member, Tech Advisory Com of the Food and Fertilizer Technology Center for the Asian and Pacific Region

Member, Board of Trustees of the Plant Resources of South-East Asia Network (PROSEA)

Member, Council for Partnership in Rice Research in Asia (based in IRRI, Philippines)

Chairman, Steering Com SANREM CRSP/SEA Lantapan Proj (Phil-USAID) Prog on Sustainable Agri, Nat. Res Mngt)

Member, GAWAD SAPAT ANI 2000 National Technical & Regional Search Committee

Chairman, Council for Partnership in Rice Research in Asia (based in IRRI, Philippines)

Member, Advisory Committee of the Asian Maize (Corn) Biotechnology Network (based at CIMMYT, Mexico)

Member, Executive Committee, Asia-Pacific Association of Agricultural Research Institutions (APAARI)

Member, Advisory Committee of the Cereal and Legumes Network (based at ICRISAT, India)

Philippine representative, Asia-Pacific Assn of Agriculture Research Ins (APAARI) & Global Forum for Agri Research (GFAR)

Member, Academic Consultative Committee, SEARCA, Philippines

Member, Board of Trustee of the Plant Genetic Resources, Foundation (based at Bogor, Indonesia)

Member, PCARRD Governing Council  
Chairman, PCARRD Technical Advisory Committee  
Member, Advisory Committee of the Agricultural Machinery Testing and Evaluation Center (AMTEC)  
Member, Program Management Board and Furniture, Handicraft Industries R&D Program, FPRDI  
Member, Advisory Council of Crop-livestock Research Network for Asia  
Council Member, Livestock Development Council, DA-Philippines  
Member, Gamma Sigma Delta Honor Society, UPLB Chapter  
Member, Philippine Society of Animal Science (PSAS), National Chapter  
Member, Philippine Society of Animal Nutritionist (PHILSAN)  
Charter Member, Association of Professional in Animal Production

### **Honors / Awards**

Research Leadership Excellence Award, Philippine Association of Research Managers, Inc. (PHILARM) 2006 Ap  
CESO Rank II, CESB 2007 O 30  
CESO Rank III, CESB  
Career Service Professional, CSC 1976 My  
Research Management Award, Crop Science Society of the Philippines (CSSP) 2006 My  
Pisang Rajah Award, Int'l Network for Improvement of Banana & Plantain (INIBAP) & Banana Asia Pacific Network (BAPNET) 2005 O 14  
Outstanding Citizen for Science and Technology, 2005 S  
Distinguished Alumnus Award for Management of R/DE Programs, UPLB-CA 2002 O  
Most Distinguished Fellow (Highest Award), PSAS 1997  
Animal Science Professional Extension Award, PSAS 1995  
Outstanding Young Man in Animal Science, PSAS 1985  
Fullbright-Hays Scholarship Grant, Michigan State University 1981  
PCARRD Scholarship Grant (Ph.D. Program), UPLB 1977  
Perkinson Pork Farm/University of Illinois Scholarship Grant, University of Illinois 1976

### **Trainings**

International Conference on Food Security During Challenging Times, University Putra Malaysia, Serdang, Selangor, Malaysia 2010 Jl 5-7  
Coconut Productivity Resource Forum, EDSA Shangrila Hotel, Makati City 2008 Ag 8  
Regional Training Course on Extension Methodologies for the Improvement of SFBPS, CEC, UPLB, Laguna 1987 O 19-N 6  
Regional Integrated R & D Review and Planning Workshop, BSU, La Trinidad, Benguet 1987 Jl 5-7  
Crop-Livestock Systems Research Workshop, ARRO-IRRI-PCARRD, Sta Barbara, Pangasinan 1985 F 27-Mr 2

Evaluation of the Different Buffalo Genotypes (Carabao Action Project in the Provinces), Kuala Lumpur, Malaysia 1985 D 2-11

PCARRD-SERD Seminar on Economic Data Requirements and Analysis for Experiments, Los Baños, Laguna 1982 S 1-2

Regional Organic farming Workshop, Iloilo City 1982 O 28-30

Research Methods and Techniques in Animal Science, RMC-UPLB, College, Laguna 1982 Mr 22-26

MSSRF-FAO Expert Consultation on Implementing the Farmer's Rights for Conservation and Utilization, bb

First National Conference-Workshop on Agbiotechnology for Corn, UP Diliman, Quezon City

International Seminar on Technologies for Good Agricultural Practices in the Asian and Pacific Region, mm

Expert Consultation on Agricultural Extension, Research-Extension-Farmer Interface and Technology Transfer, bb

Agricultural Colleges Association of the Philippines (ACAP) Biennial Convention, Pampanga Agricultura

APAARI and JIRCAS Symposium on Global Climate Change : Imperatives for Agricultural Research in Asia, nn

Technology generation, verification, packaging and dissemination for improved carabeef production,

First National Conference-Workshop on Agribiotechnology for Corn, UP Diliman, Quezon City

## **Researches**

### **Completed**

Opportunities, Learnings and Priority Projects on Integrated Crop-Livestock Production and R & D Program

## **Papers Presented**

Faylon, P.S., Buendia L.J. (2010 JI 5-7). Food Security Amidst Climate Change through S&T, International Conference on Food Security During Challenging Times, University Putra Malaysia, Serdang, Selangor, Malaysia.

Faylon, P.S., Foronda, A.C.T.M. (2008 O 21). Sustaining the Productivity and Competitiveness of the Agriculture, Forestry and Natural Resources Sectors amidst Global Climate Change, APAARI and JIRCAS Symposium on Global Climate Change : Imperatives for Agricultural Research in Asia-Pacific, Tsukuba, Japan.

Faylon, P.S. (2008 Ag 8). S&T Based Coconut Investment Programming, Coconut Productivity Resource Forum, EDSA Shangrila Hotel, Makati City.

Faylon, P.S., Batalon, J.E. (2008 O 27). Status of Coconut R&D Program in the Philippines : S&T Agenda towards Coconut Industry Revitalization, Forum on Philippine Coconut Industry, UCPB, Makati City.

Faylon, P.S. (2007 F 2). Enhancing Livelihood Opportunities through the Techno Gabay Program, Agricultural Colleges Association of the Philippines (ACAP) Biennial Convention, Pampanga Agricultural College (PAC), Magalang, Pampanga.

Faylon, P.S. (2007 Ap 30). Initiatives on Global Climate Change, DOST Press Conference, Sulo Hotel, Quezon City.

Faylon, P.S. (2006 N 12). PCARRD's Institution Building for RD&E, PSAI Biennial National Convention, Subic, Olongapo City.

Faylon, P.S. (2006 My 25). PCARRD: Directions for 2006 and Beyond, Zonal Consultation Workshop, Davao City.

Faylon, P.S. (2006 JI 22). PCARRD Environment and Techno Gabay Programs, DOST-wide Planning Workshop.

Faylon, P.S., Cardona, E.C. (2005 O 24-28). Philippine Agriculture: Retrospect and Prospects in Good Agricultural Practices Amid Globalization, International Seminar on Technologies for Good Agricultural Practices in the Asian and Pacific Region, Tsukuba, Japan.

Faylon, P.S. (2005 My 18). Biotechnology R&D in Agriculture, First National Conference-Workshop on Agbiotechnology for Corn, UP Diliman, Quezon City.

Faylon, P.S. (2005 D 14). The Philippines Farmers Information and Technology Services (FITS) in the K-AgriNet Program, Expert Meeting on Rural Information Networks in Asia-Pacific: Innovative Practices and Future Directions, Bangkok, Thailand.

Faylon, P.S. (2004). SEA-NARS R&D Priorities (On-going Projects) and Investments vis-a-vis ILRIS SE Asian Regional Livestock Development Framework, ILRI Roundtable Meeting.

Faylon, P.S. (2003). The Technology Delivery Program of PCARRD and the Philippine NARS, SEARCA's Agriculture and Development Seminar Series.

Faylon, P.S., Eusebio, J. E. and Anit, E.A. (2003). Banana Research and Development in the Philippines : Updates and Highlights, 2nd BAPNET Steering Committee Meeting.

Faylon, P.S. (2003). Appropriate Technologies for Cavite's Agri-based Areas, Cavite Barangay Development Summit.

Faylon, P.S., and Lopez, E. L. (2003). Perspective on Philippines ? IRRI Partnership, Philippines ? IRRI Workplan Meeting.

Faylon, P.S. (2003). Abaca and Banana Bunchy Top Disease ? Assessment, Implications, and R&D Priorities, Forum on Economic Implications of Banana and Abaca Bunchy Top Disease.

Faylon, P.S. (2003). Philippine Agricultural and Forest Biotechnology Agenda II (2002-2010), Asia Pacific Consortium on Agri-Biotech Meeting.

Faylon, P.S. (2002). S&T for the People: Agricultural R&D Thrusts and Directions of the Government Sector, Panel discussion of the First National Peasants-Scientists Conference.

Faylon, P.S., and Acoba, E.P. Acoba (2002). Agricultural Research and Development (R&D) Extension-farmer Interface, and Technology Transfer in the Philippines: Gearing Up for the Challenges of a Liberalized Market Regime, Expert Consultation on Agricultural Extension, Research-Extension-Farmer Interface and Technology Transfer.

Faylon, P.S. (2002). Research and Development (R&D) Priorities and Programs for Selected Horticultural Crops, Mindanao-wide Sectoral Consultation for the Horticulture Industry.

Faylon, P.S., Perez, C.P., Pantua, L.C., and Valdez, V.B. (2002). Managing Town-Community Solid Waste: Malinis at Maayos na Kapaligiran, Malusog at Matinong Pamayanan, Philippine Association of Career Scientists seminar series.

Faylon, P.S (2002). Biotechnology in Philippine Livestock Program, 10th Lecture Series of the Edwin G. Wagelie Foundation.



Faylon, P.S., Lopez, E.L., Eusebio, J.E. (2002). Farmers' Rights: The Philippine Perspective, MSSRF-FAO Expert Consultation on Implementing the Farmers' Rights for Conservation and Utilization of Plant Genetic Resources in the Asia-Pacific Region: From Legislation to Action.

Faylon, P.S. (2001 Je 27-28). East and Southeast Asia Regional Priorities: Perspective of the NARS, East and Southeast Asia Sub-regional Research Priority Setting Meeting, IRRI, Los Baños, Laguna.

Faylon, P.S. (2001). East and Southeast Asia Regional Priority Setting: Toward enhancing agricultural productivity and sustainability, 6th Executive Committee Meeting of APAARI and Expert Consultation on Regional Priority Setting for Agricultural Research for Development in the Asia-Pacific Region.

Faylon, P.S. , and Lopez, E.L. (2001). Status of Rice Research and Development in the Philippines, 5th Annual Meeting of the Council for Partnership on Rice Research in Asia.

Faylon, P.S., Delfino, D.A., Cabrera, A.Z. (2001). IT Statistics in agriculture, forestry and natural resources research and development, 8th National Convention on Statistics.

Faylon, P.S. (2000 N 7). PCARRD Scholars: Meeting Tomorrow's Challenges Today, 2nd National Convention of PCARRD Scholars, Los Baños, Laguna.

Faylon, P.S., Lansigan, F.P., Delfino, D.A., Maningas, R.V. (2000 My 23). Management of Information and Knowledge Systems: Managing agriculture and natural resources information and knowledge systems: The Philippine NARS experience, Launching of NARS Forum, Dresden, Germany.

Faylon, P.S. (2000 Ag 2-3). Research and Development (R&D) Directions in the Millennium: The PCARRD medium-term plan, Workshop on Strengthening the Regional R&R Planning, Monitoring and Evaluation, Davao City.

Faylon, P.S. (2000). Status of prospects of biotechnology in agriculture and natural resources, Zonal Seminar-Workshop on Biotechnology.

Faylon, P.S., Argañosa, A.S., Burgos, B.M. (2000). PCARRD's Technology Management Initiatives for Sustainable Agriculture, Asia-pacific Workshop on Sustainable Agriculture.

Faylon, P.S., Lansigan, F.P., Delfino, D.A. and Maningas, R.V. (2000). Management of Information and Knowledge Systems: Managing agriculture and natural resources information and knowledge systems: The Philippine NARS experience, Los Baños Science Community Convocation-Symposium.

Faylon, P.S. (2000). Research and Development (R&D) Directions in the New Millennium, Academic Forum, 19th DMMMSU University Foundation Anniversary,.

Faylon, P.S., Magboo, E.C. (1987 O 19- N 6). Action Program for Carabao Development of the Philippine R&D Systems, Regional Training Course on Extension Methodologies for the Improvement of Smallholder Farmers Buffalo Production Systems, FAO/RAS/81/050, CEC, UPLB.

Faylon, P.S. (1987 My 4-6). Directional R&D Approach: Livestock R&D Program Planning and Implementation, Regional Integrated R&D Review and Planning Workshop, BSU, La Trinidad.

Faylon, P.S. (1987). The Carabao/ Buffalo Industry in the Philippines, Regional Training Course on Extension Methodologies for the Improvement of Smallholder Farmer's Buffalo Production Systems, FAO/RAS/81/050.

Faylon, P.S., Deriquito, M.R. (1986 O 5-26). Beef and Milk Production in the

Philippines, 6th FAO Regional Training Course on Tropical Pasture Production for the High Rainfall Tropics of S.E. Asia, CEC, UPLB.

Faylon, P.S. (1986 Ap). Appropriate Technology for Carabao Production, PSAS Mindanao Chapter Convention, USM, North Cotatbato.

Faylon, P.S., and Villar, E.C. (1986). Goat and Sheep Production Systems in the Philippines, 6th FAO Regional Training Course on Tropical Pasture Production for the High Rainfall Tropics of S.E. Asia.

Faylon, P.S., and Magboo, E.C. (1986). Action Program for Carabao Development in the Provinces of Cagayan and Isabela, Crop-Livestock Systems Research Workshop.

Faylon, P.S. (1986). The Carabeef R&D Program in Support to the National Carabao Development Program, BAI-Carabao Development Workshop.

Faylon, P.S. (1986). The Solid Accomplishment of SMARC and the NRS Strategy for Development, 10th anniversary celebration of the Southern Mindanao Agriculture Research Center.

Faylon, P.S. (1985 F 27- Mr 2). Integrating Crop-Livestock Production/Research Systems, ARO-IRRI-PCARRD Crop-Livestock Systems Research Workshop, Sta Barbara, Pangasinan.

Faylon, P.S. (1985). Carabao Action Project in the Provinces, Workshop, "Evaluation of the different buffalo genotypes.

Faylon, P.S. (1985). Opportunities, Learnings and Priority Projects on Integrated Crop-Livestock Production and R&D Program, PSAS Visayas Chapter Convention.

Faylon, P.S. (1985). Available Technologies in Livestock Production, RRDP Regional Consultation Meeting.

Faylon, P.S. (1984 S). Strengthening the LRD-PCARRD's Development Thrusts, UPLB Graduate School Seminar, IAS, UPLB .

Faylon, P.S. (1983 O 24). Goat production R&D for the highland farming systems, Seminar-Workshop for the highland farming systems, La Trinidad, Benguet.

Faylon, P.S. (1983 My 23). Feeding of goats raised in the backyard, COCOFED Seminar for its Farmer-Members, San Pablo City.

Faylon, P.S., Deriquito, M.R. (1982 O 28-30). Livestock manure as organic fertilizer: The traditional approach for efficient animal waste management, Organic Farmers Association of Iloilo, "Regional Organic Farming Workshop", Iloilo City.

Faylon, P.S. , Momongan, V.G. (1982 N 9-14). Effect on the performance of breeding goats by the levels of dry ipil-ipil leaves and urea in the ration, 2nd Convention, AAAP, and 19th Annual Convention, PSAS, PICC, Metro Manila, Philippines.

Faylon, P.S. (1982 N 17-19). Feeds and feeding of goats, Poultry and Livestock Association of Negros, "Feeds and Feeding Seminar",Bacolod City.

Faylon, P.S. (1982 N 15- D 10). Interaction between nutrition and reproduction in cattle and goats, LDC-MA, "Training Programs on AI and Pregnancy Diagnosis for Cattle and Goats", Cebu City.

Faylon, P.S. (1982 My 10-28). Technology generation, verification, packaging and dissemination for improved carabeef production, 1st National Training Program on Backyard Carabao Production, UPLB/PCARRD/NDP/FAO, UPLB-DAS,College, Laguna.

Faylon, P.S. (1982 Jl 22). Raising of breeding goats in confinement, PSAS Seminar, Cagayan de Oro City.

Faylon. P.S. (1982 Ja). Coconut based-livestock production systems, National Coconut Commodity Research Team Meeting, College, Laguna.

Faylon P.S. (1982 Ag 6). PCARRD's technology transfer systems to improved goat production, Graduate Seminar, Dept. of Animal Science, UPLB.

Faylon, P.S. (1982). The role of economic analysis on experimental data from livestock researches, PCARRD-SERD Seminar, "Economic Data Requirements and Analysis for Experiments".

Faylon, P.S. (1982). Technical and economic feasibility of raising goats in confinement, Livestock Development Council, Ministry of Agriculture Workshops,.

Faylon, P.S. (1982). An overview of the animal science research in the Philippines, Training-Workshop, "Research Methods and Techniques in Animal Science",.

Faylon, P.S. (1981 D 5). Cattle feedlot fattening, Stockholder Meeting of C-Square Development Inc., Quezon City.

## **Publications**

- 2007 Faylon, P.S. URS Graduates : Responding to Global Challenges. University of Rizal System, 2007 Mr 27.
- 2005 Faylon, P.S. Cushioning the Impacts of Globalization on the Livestock Growers in Periurban Areas. BUCAF, 2005 F 23.
- 2004 Faylon, P.S. Securing the Future in Agriculture and Natural Resources Through Sciencebased Knowledge and Technology Management. , 2004.
- 1987 Faylon, P.S. , Villar, E.C., Perez, M.L., Moog, F.A., Trung, L.T., Palad, G.A., Valenzuela, F.G. Technology assessment for sheep production. Philippine Journal of Veterinary and Animal Sciences, 1987, 13(4):67.
- 1987 Faylon, P.S., and Ranjhan, S.K. On-farm Testing of Animal Research Technologies Generated in the R&D Institution. The Case of Carabao Development. Proceedings of On-farm Animal Research/Extension and Its Economic Analysis. Winrock International Institute of Agricultural Development, SEARCA and IDRC, 1987.
- 1986 Faylon, P.S., Villar, E.C., Perez, M.L., Moog, F.A., Trung, L.T., Palad, O.A., Valenzuela, F.G. Technology assessment for goat production. Philippine Journal of Veterinary and Animal Sciences, 1986, 12(4).
- 1985 Faylon, P.S. , Momongan, V.G. Effects of levels of dry ipil-ipil leaves and urea on the performance of breeding goats. Philippine Journal of Veterinary and Animal Sciences, 1985, 11(1 & 2):9.
- 1984 Faylon, P.S. Focus on Rainfed Resources. PCARRD Monitor, 1984, 12(8 & 9):8.
- 1984 Faylon, P.S. Research and Development Program in Rainfed Agriculture in the Philippines. Philippines Journal of Crop Science, 1984, 9(2):8.
- 1982 Faylon, P.S. Coconut based livestock production systems in the Philippines. Asian Livestock, 1982, 7(7):51.
- 1981 Faylon, P.S. Carabeef production - The Philippine experience. Asian Livestock, 1981, 6(10):92.

**Name** Manuel Mariano Garcia  
**Place of Birth** Dumaguete City  
**Date of Birth** November 24, 1938  
**Gender** Male  
**Civil Status** Married  
**Home Address** 26 Castlehorpe Crescent, Ottawa, Ontario, Canada

**Organizational Affiliations**

International Consultant, Gar-Del International/ Food Development Center,

**Education**

Ph.D. in Microbiology, University of Guelph, Guelph, Ontario, Canada 1967

MS in Soils, UP College of Agriculture, College, Laguna 1962

B.S. Agriculture, UP College of Agriculture, College, Laguna 1959

**Fields of Specialization**

Food Standards

Preharvest Food Safety

Animal Health Programs

Microbiology

**Employment**

Research Instructor, Soils Department, UP College of Agriculture, 1960-1962

Research Scientist, Agriculture and Agri-Food Canada, Nepean, Ontario, 1967-1997

**Honors / Awards**

Fellowship, University of the Philippines 1960-1962

Scholarship Competition, National Development Board 1963

Scholarship Competition, Fulbright-Smithmuntz 1963

Scholarship (Dean's Grant), National Research Council of Canada 1965-1967

In "American Men of Science", 1969

Outstanding Filipinos in Canada, Mabuhay Award in Science, 1972

Outstanding Filipinos Overseas Presidential Award in Agriculture, DOT-Jaycees 1977

Outstanding Alumnus Award, St Paul College Diamond Anniversary 1980

Elected to Sigma Xi Research Society, 1984

Most Outstanding University of the Philippines Alumnus in Canada, 1985

Research Scientist Award, Agriculture and Agri-Food Canada 1986

UNDP-TOKTEN Award, 1993

Chosen International Expert to Review China's Animal Quarantine Law, 1994

Filipino Achievers in the U.S. and Canada, Isabelo Crisostomo 1996

Outstanding Filipino Overseas Presidential Pamana Award, 1998

Distinguished Alumni Award, University of Los Banos 1999

ESEP Graduate for IBS,UPLB, 1988  
Distinguished Alumni Award, University of the Philippines Los Banos 1999  
Balik Scientist Award, DOST 2004  
Balik Scientist Award, DOST 2010

## **Trainings**

Symposium on Advance rapid Tests and Automation in Food Microbiology, Metro, Manila Phil. 2007  
China Animal and Plant Inspection and Quarantine, Nanjing China 2007  
Chinese Academy of Inspection and Quarantine, Beijing, China 2006  
Annual Convention of PSM, Davao, City 2005  
Philippine Association of Food Technologists, Manila 2004  
1st International Workshop on ATP Bioluminescence, Mexixo, City 2003  
ASEAN International Food Conference, Manila 2000  
Primer Congreso Internacional de Microbial Industrial, Universidad de Javeriana, Santafe de Bogota, Colombia 1998  
4th Asia Pacific Food Analysis Conference, Chiang Mai, Thailand 1998  
5th Food Analysis Workshop of the Asia Pacific Food Analysis, Network, Brisbane, Australia 1997  
Interdepartmental Committee on Agri-Food Safety, Ottawa , Canada 1996  
4th Food Analysis Workshop of the Asia Pacific Food Analysis Network, Brisbane, Australia 1996  
Australian Institute of Food Science and Technology, Gold Coast, Australia 1996  
Seminar International de Infectologia Bovina, Santafe de Bogata , Colombia 1996  
Philippine Society for Microbiology Annual Meeting, Cagayan, De Oro City 1995  
3rd International Conf Asia-Pacific Food Analysis Network, Metro, Manila Phil. 1995  
Health Canada Workshop on Risk Analysis for Raw Foods, Ottawa , Canada 1995  
Pan American Collaborative Workshop on Rapid Tests in Microbiology, Hermosillo, Mexico 1994  
44th Can Animal Dis Conference, Nepean, Ontario 1994  
4th AAFC Joint Meeting in Agri-Food Safety Research, ADRI, Nepean, Ontario,Canada 1994  
3rd AGCAN Joint Meeting in Agri-Food Safety Research, ADRI, Nepean, Ontario,Canada 1993  
2nd Agri Can Joint Meeting in Agri-Food Safety Research, ADRI, Nepean, Ontario 1992  
UNU Brucellosis Research Network, Chicago, Illinois 1991  
Seminar on Campylobacters and food safety, St.Mary Hospital, University Hongkong 1991  
Joint Seminar of Institute of Microbiology, Valdivia, Chile 1988  
4th International Workshop on campylobacter Infections, Goteborg, Sweden 1987  
36th Annual Meeting of the Can Soc Microbiol, Toronto, Ontario, Canada 1986

65th Annual Workshop on Campylobacter infections, Ottawa , Canada 1985  
Brucellosis Symposium, ADRI, Agriculture Canada, Nepean Ontario 1985  
Canadian Society of Microbiologists, Kingston, Ontario 1984  
2nd International Workshop on Campylobacter infections, Brussels, Belgium 1983  
Canadian Society of Microbiologists, Victoria, B.C 1980  
12th International Congress of Microbiologist, Munich, Germany 1978  
ASM 74th Annual Meeting, Chicago, Ill 1974  
Canadian Society of Microbiologists, Edmonton, Alberta 1973  
Canadian Veterinary Annual Meeting, Ottawa, ON 1969  
67th Annual Meeting, American Society for Microbiology, New York, N.Y 1967

### **Papers Presented**

- Garcia, M.M. (2005). Predictive Microbiology and Applications in Food Safety, Annual Convention of PSM, Davao City.
- Garcia, M.M. (2004). Integrated Approaches to Food Safety Upstream: Preharvest and Fresh Produce Food Safety, PAFT Annual Convention Manila.
- Huang, H., Brooks, B., Nielsen, K., Garcia, M. (1998). Production of Monoclonal Antibodies for Capture of Thermophilic Campylobacter spp. Using Immunomagnetic Beads, Annual Meeting of American Association of Immunologists, San Francisco, California.
- Garcia, M.M., Lutze, C.L., Eaglesome, M.D., Denes, A.S., Holst, E. (1998). Positive Correlation Between Protein Shift, Antigenic Variation and Genomic Rearrangement in the S-layer of Campylobacter Fetus Subspecies Venerealis During Bovine Infection, PSM Meeting.
- Garcia, M.M. (1998). Reference and Test Materials in Proficiency Testing Programs for Food Microbiology, 4th Asia Pacific Food Analysis Conference, Chiang Mai, Thailand.
- Garcia, M.M. (1998). Microbiological hazards in Food Safety, ASIAN Food Conference, Manila.
- Garcia, M.M. (1997). Overview of Rapid Methods for Microbiological Analyses in Food Safety, 5th Food Analysis Workshop of the Asia Pacific Food Analysis Network. Brisbane, Australia.
- Garcia, M.M., Brooks, B.W., Nielsen, K.H., Denes, A.S., Pitzak, E.M. (1996). Development of Rapid Detection Methods for Food Borne Pathogens, International Conference on Food Preservation and security, Metro Manila Philippines.
- Garcia, M.M. (1996). Global Impact of I-ACCP, 29th Annual Convention of the Australian Institute of Food Science and Technology Gold Coast, Australia .
- Garcia, M.M., Charlebois, R.G. (1996). Integrated Approach to Food Safety in Canada, 29th Annual Convention of the Australian Institute of Food Science and technology Gold Coast, Australia.
- Garcia, M.M. (1996). Pests Bring Chemistry and Physics Closer to the Nags, 4th Food Analysis Workshop of the Asia Pacific Food Analysis Network Brisbane, Australia.
- Garcia, M.M. (1995). Campylobacteria in poultry. Risk Analysis Considerations, Workshop on Risk Analysis Management of Microbial Contaminants in Raw Foods of Animal Origin, Bureau of Microbial Hazards, Health Canada.
- Garcia, M.M., Smith, P.Y., Tsang, R., Nielsen, K.H. (1995). Optimization of

- Concitions for the Irrnunobead Trapping of Low Numbers of Salmonella, 3rd Int'l Conf Asia-Pacific Food Analysis Network, Metro Manila, Philippines.
- Brooks, B., Robertson, R., Henning, D., Garcia, M.M. (1995). Production and Wstern Blot Characterization of Monoclonal Antibodies Specific for Campylobacter jejuni and Campylobacter coli, 3rd International Conference Asia-Pacific Food Analysis Network, Metro Manila, Philippines.
- Garcia, M.M. (1995). Innovative and Rapid Methods in Microbiology, PSM meeting, Cagayan de Oro,Philippines.
- Lu, P., Brooks, B.W., Robertson, R.H., Tsang, R.S., Garcia, M.M. (1994). Characterization of Monoclonal Antibodies Against Campylobacter Jejuni and Development of an Immunoassay for the Rapid Detection of Foodborne Termotolerant Campylobacter Species, 4th AAFC Joint Meeting on Agri-Food Safety Research, ADRI, Nepean, Canada.
- Denes, A.S., Cormier, M.L., Garcia, M.M., Lutze, C.L. (1994). DNA Fingerprinting of Campylobacter Fetus using the Surface Array Protein Probe Gene, 44th Canadian Animal Dis Conference, ADRI, Nepean, Canada.
- Garcia, M.M., Lutze, C.L., Eaglesome, M.D., Denes, A.S., Holst, E. (1994). Positive Correlation Between Protein Shift, Antigenic Variation and Genoiicl Rearrangement in the S-layer of Campylobacter fetus subspecies Venereali During Bovine Infection, 44th Can Animal Dis Canadian, Nepean, Canada.
- Sampath, M., Eaglesome, M.D., Garcia, M.M. (1994). Development of a Polymerase Chain Reaction (PCR) for the Detection of Canipylvacter Fetus in Bovine Semen , 44th Can Animal Dis Conference, ADRI, Nepean, Canada .
- Garcia, M.M., Brooks, B.W., Nielsen, K.H.,et.al. (1994). Developmetit of Rapid Detection Methods for Food-Borne Pathogens in HACCP Programs, International Conference on Food Preservation and Security, Metro Manila, Philippines.
- Garcia, M.M., Lutze, C.L., Eaglesome, M.D., Denes, A.S. (1994). Positive Correlation Between Protein Shift, Antigenic Variation and Genomi Rearrangement in the S-layer of Campylobacter Fetus Subspecies Venerealis During Bovine Infection, PSM meeting, Cagayan de Oro, Philippines.
- Brooks, B.W., Robertson, R.H., Henning, D., Garcia, M.M. (1993). Monoclonal Antibodies to Cummoii Components of Thcrmophilic Camylobacter, Joint Meeting of the Soc Ind Microbiol and Can Soc Microbiol Toronto, Canada.
- Nielsen, K.H., Garcia, M.M., et.al. (1993). Detection of Low Numbers of Food-borne Pathogens by Immunomagnetic Beal Monoclonal-Based Assays , 3rd AGCAN Joint Meeting in Agri-Food Safety Research, ADRI, Nepean, Canada .
- Garcia, M.M., Brooks, B., et.al. (1993). Detection of Salmonella lipopolysaccharide by ELISAs, 3rd AGCAN Joint Meeting in AgriFood Safety Research, ADRI, Nepean .
- Tsang, R.S., Nielsen, K.H., Brooks, B. et.al. (1993). Comparative Imnwnochemical and Immuno-electron Microscopic Studies of Anti-Salmonella LPS and AntiCampylobacter LPS monoclonal Antibodies Implications for Diagnostic Applications, 3rd AGCAN Joint Meeting in Agri-Food Safety Research, ADRI, Nepean, Canada .
- Spencer, J.L., Modler, H.W., Chambers, J.R. Garcia, M.M. (1993). Resistance against caecal colonization by enteropathogens in chicks and poults fed Vermicompost, 3rd AGCAN Joint Meeting in Agri- Food Safety Research, ADRI, Nepean, Canada .
- Spencer, J.L., Garcia, M.M., Modler, H.W. (1993). Reduced cecal colonization of Salnu nella typhimurium in chicks fed vermicompost. 3 , 5th World Veterinary

Poultry Assn Congr, Sydney Australia .

Garcia, M.M. (1992). Probiotics: Potential for Reducing the Salmonella and Campylobacteria Carrier State in Poultry, International Roundtable Animal Feed Biotech Res Sci Reg. Ottawa.

Summaen, P., Wexler, H.M., Garcia, M.M., Finegold, S.M. (1992). The morphological re spouse of Bilophila wadsworthia to Imminepem: Correlation of Penicillin-binding proteins, ICAAC Annual Meeting, Chicago, Ill.

Gerardo, S.H., Garcia, M.M., Finegold, S.M. (1992). Adherence characteristics of Iiliphila wadsworthia , ASM 92nd Annual Meeting, New Orleans .

Eaglesome, M.D., Garcia, M.M. (1992). Survival of Campylobacter fetus subsp. Venerealis in Antibiotic-Treated Processed Bovine Semen, International Congr Animal Reproduction The Hague, Netherlands.

Spencer, J.L., Richambers, J.R., Modler, H.W., Patni, N.K., Garcia, M.M., Langford, C.F. (1992). Influence of Compost Litter and Dietary Carbohydrates on Tray Smission of Salmonella Typhimurium in Broiler Chicks, 129th Annual Meetin, Am Vet Med Assn, Boston.

Garcia, M.M., Radia, A., Smith, P.Y.E., Tsang, R.S., Nielsen, K.H. (1992). Immunomagnetic Monoclonal-based Assays for Rapid and Sensitive Detection of Food-Borne Pathogens, 2nd Agri Can Joint Meeting in AgriFood Safety Rescarch, ADRI, Nepean, Canada.

Eaglesome, M.D., Garcia, M.M., Miller, S.A. (1991). A hamster Assay to Evaluate the Effect of Campylobacter Fetus on the Fertilizing Capacity of bovine Spermatozoa, Society of Theriogenology, San Diego .

Eaglesome, M.D., Garcia, M.M., Bielanski, A. (1991). The Effect of Pseudomonas Aeroginosa in Semen on Bovine Fertility, Social Theriogenology, San Diego.

Cippola, A.L., Brooks, B.W., Garcia, M.M., et.al. (1991). Persistence Infection in Heifers Intracervically Inoculated with Canrbylobacter fetus subsp. venerealis. Bacteriological and Molecular Analysis, 24th World Congress of Veterinary Medicine, Rio de Janeiro, Brazil.

Nielsen, K., Tsang, R., Garcia, M.M., Brooks, B., Surujballi, O. (1991). Detection of Salmonella LPS by ELISA , 24th World Congress of Veterinary Medicine, Rio de Janeiro, Brazil .

Fraser, A.D., Garcia, M.M., Brooks, B.W. (1989). Are Campylobacter jejuni and C. coli capnophilic, 5th International Workshop on Campylobacter Infections, Puerto Vallarta, Mexico .

Harboe, M., Harald, G.W., Garcia, M.M., et.al. (1989). A Protein G Based Enzyme Immunoassay (EIA)for Anti-MPB70 Antibodies in Bovine Tuberculosis, World Association of Veterinary Laboratory Diagnosticians,5th International Symposium, Guelph, Ontario, Canada .

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- 1969 Garcia, M.M., McKay, K.A. On the growth and survival of pathogenic microorganisms in soil. *Abstract Canadian Veterinary Journal*, 1969, 10:201.

**Name** **Victoria Pecho Chavez- Lapitan**  
**Place of Birth** Tanauan, Batangas City  
**Date of Birth** August 26, 1962  
**Gender** Female  
**Civil Status** Married  
**Home Address** MP Farm, Tagpuan St., Bayog, Los Baños 4030, Laguna

**Organizational Affiliations**

Senior Science Research Specialist, Philippine Rice Research Institute - Los Baños, Pili Drive, UPLB Campus, College 4031, Laguna

**Education**

PhD in Agricultural Science, United Graduate School of Agricultural Sciences, Graduate School of Iwate University, Japan 2005 - 2009 S

Ph.D. in Agronomy (6 units earned), University of the Philippines - Los Baños, College 4031, Laguna 2002 - 2003

MS Agronomy (Crop Physiology), University of the Philippines at Los Baños, College 4031, Laguna 1992 - 1997

BS Agriculture (Agronomy), University of the Philippines - Los Baños, College 4031, Laguna 1980 - 1985

Secondary, Tanauan Institute, Tanauan, Batangas 1975 - 1979

Elementary, Sambat Elementary School, Sambat, Tanauan, Batangas 1969 - 1975

**Fields of Specialization**

Microtechnique i.e. organ, anther, embryo, callus, meristem, cell tissue and protoplast culture

Agriculture

Agronomy

**Employment**

Science Research Specialist II, Philippine Rice Research Institute - Los Baños, 1999 F 16 - Je 30

Science Research Specialist I, Philippine Rice Research Institute - Los Baños, 1996 Ja 1-1999 F 15

Research Fellow, Philippine Rice Research Institute - Los Baños, 1995 Ja1-1995 D 31

University Research Associate II, IPB, UPLB-AVRDC and DOST funded projects, 1991 F 16-1994 D31

University Research Associate I, IPB, UPLB - Israel Govt Funded Project, 1989 N 1-1991 F 15

Research Assistant III, IPB, UPLB - Israel Govt. funded project, 1988 Ja1-1989 O31

Research Assistant II, IPB-UPLB-PCARRD funded project, 1987 Ja1-1987 D31

Research Assistant I, IPB, UPLB-PCARRD funded project, 1986 Je1-1986 D31

Assistant Farm Supervisor, Beam Seed Co., Inc., 1995, O1-1986, My31

Student Assistant, IRRI, Los Baños, 1984 Ja3-1985 F 28



### **Association Membership**

Member, Gamma Sigma Delta, The Honor Society of Agriculture  
Secretary, Crop Science Society of the Philippines (CSSP)  
Member, Philippines Association for Plant Tissue Culture (PAPTC)  
Secretary, Federation of Crop Science Societies of the Philippines (FCSSP)  
Acting Secretary, Asian Crop Science Association (ACSA)  
Member, Philippine Society for Biotechnology and Molecular Biology (PSBMB)  
Member, University of the Philippine Society of Agronomy Major Students (UPHILSAMS)  
Member, Sigma Alpha Sorority (Agie Chapter)  
Secretary, Hasik Bagong Buhay Christian Ministry

### **Honors / Awards**

Valedictorian, Sambat Elementary School 1975  
Outstanding Research & Dev't Award for Basic Research (Eduardo A. Quisumbing Medal), DOST-NAST 2010 Ji 19  
CSSP Finalist for Best Paper, CSSP 2010 Mr 15-20  
Scholarship Award, Japan Society for the Promotion of Science (JSPS) RONPAKU (Ph.D. Dissertation) 2005 Ap - 2009 S  
Scholarship Award, PhilRice 2006 Je - 2009 Ap  
Scholarship Award, IRRI 2006 Ap - 2009 D  
Scientific Productivity Award, ISI Journal 2008 & 2009  
1st Runner-Up, PSBMB Best Poster, PSBMB 1999  
PAPTC Best Paper, PAPTC 1999  
New Genetic Material, Genetic Resources Registration Office 1995  
Outstanding Research Team, UPLB 1994 Mr 3  
CSSP Finalist for Best Paper, FCSSP 199 N 7-9  
Best Research Team, IPB 1989 N 8-10  
CSSP Best Paper, FCSSP 1988 Ap 27-29  
UP System Presidential Award for Outstanding Research Team, University of the Philippines, Diliman 1987 Je 17  
Outstanding Research Team, IPB 1987 Je 5

### **Trainings**

40th Scientific Conference of CSSP, Grand Regal Hotel, Davao City 2010 Mr 15-20  
6th International Rice Genetics Symposium, Manila Hotel, Manila, Philippines 2009, N 16-19  
Study Visit in Japan thru the Japan Society for Promo of Science RONPAKU (PhD Dissertation) Prog, Japan 2009 Ag 3-27  
Study Visit in Japan thru the Japan Society for the Promo of Science RONPAKU (PhD Dissertation) Prog, Japan 2008 S15 - D 13  
Japanese Breeding Meeting, Shiga Prefectural University, Hikone-ken, Japan 2008 O 10-12

Study Visit in Japan thru the Japan Society for Promo of Science RONPAKU (PhD Dissertation) Prog., Japan 2007 S 3 - D 1

Japanese Breeding Meeting, Faculty of Agriculture, Yamagata University, Tsuruoka, Japan, 2007 S 22-23

Study Visit in Japan thru the Japan Society for Promo of Science RONPAKU (PhD Dissertation) Prog, Japan 2006 S 4 - D 2

Japanese Breeding Meeting, Matsuyama City, Japan 2006 S 21-23

18th FCSSP Scientific Conference, Lapasan, Cagayan de Oro City 2005 My 2-6

SABRAO Scientific Congress, International Convention Center, Tsukuba, Japan 2005 Ag

Study Visit in Japan thru the Japan Society for Promo of Science RONPAKU (PhD Dissertation) Prog, Japan 2005 Je13 - S 10

17th FCSSP Scientific Conference, Aklan State University, Banga, Aklan 2005 Ap 22-25

4th International Crop Science Conference (4ICSC), Brisbane, Australia, 2004 S 26 - O 1

35th Scientific Conference of CSSP, Waterfront Insular Hotel, Lanang, Davao City 2004 Mr 8-12

Training Workshop on Project Planning, Monitoring and Evaluation, PhilRice-Maligaya, Science City of Muñoz, Nueva Ecija 2002 Mr 6-8

Symposium of Bt Technology: Facts and Issues, SEARCA Umali Auditorium 2002 Mr 5

Workshop on Bacterial Blight of Rice, PhilRice-Los Baños 2002 F 15

Convention Year 2002 of PAPTC, Development Academy of the Philippines, Tagaytay City 2002 O 21-25

32nd Scientific Conference of CSSP, Bohol Tropics Resort, Tagbilaran City, Bohol 2002 Ap 23-26

Asian Agriculture Congress 2001, An International Symposium, Westin Philippine Plaza Hotel, Manila, Philippines 2001 Ap 24-27

Integrating & Enhancing the Research Priority Setting for Agri Biotech in the Phils. Workshop I, SEARCA, Los Baños, Laguna 1999 D 10

Introductory Training Course on Plant Biotechnology, PhilRice-Maligaya 1999 My 24-28

15th Annual Scientific Conference of FCSSP, Family Country Hotel Convention Centre, General Santos City 1999 My 10-15

World Food Security and Crop Production Technologies for Tomorrow, Kyoto, Japan 1998 O 7-9

Frontier Research of Plant Genome Functions, an International Symposium sponsored by NIAR/COE, Tokyo, Japan 1998 O 20-21

Biotech under JICA Project, MAFF, Tsukuba, Ibaraki, Japan 1998 Je 15 - D 22

Cultural Exchange Prog sponsored by Japan Overseas Cooperation Volunteers (JOCV), Nagasaka, Nagata, Nihonmatsu, Fukushima, Japan 1998 O 31

11th National Rice R&D Review and Planning Workshop, PhilRice-Maligaya, Nueva Ecija 1998 Mr

13th Annual Scientific Conference of FCSSP, Hotel Supreme, Baguio City 1997 My 25-29

12th Annual Scientific Conference of FCSSP, Villa Victoria Beach Resort, Davao City 1996 My 13-18

9th National Rice R & D Review and Planning Workshop, PhilRice-Maligaya, Muñoz, Nueva Ecija 1996 Mr 5-7

3rd International Rice Genetics Symposium, EDSA Plaza Hotel, Manila, Philippines 1995 O 16-20

10th Annual Scientific Conference of FCSSP, Asia World Resort Hotel, Puerto Princesa, Palawan 1994 My 16-20

16th Annual Scientific Meeting of the National Academy of Science and Technology, PICC, Manila 1994 Jl 13-14

Training on Youth Research Apprenticeship Program (YRAP) Research Supervisor, IPB, UP Los Baños 1994 My 1-31

15th Annual Scientific Meeting of the National Academy of Science and Technology, PICC, Manila 1993, Jl 7-8

9th Annual Scientific Conference of FCSSP, Aklan State College of Agriculture, Banga, Aklan, 1993 My 10-14

DOST- PCARRD - PCASTRD - UPLB - NAST - IRRI Symposium on Biotechnology: A Modern Research Tool, E.O. Tan Hall, PCARRD, Los Baños, Laguna 1992 Je 9

14th Annual Scientific Meeting of the National Academy of Science and Technology, PICC, Manila 1992 Je 24

8th Annual Scientific Conference of FCSSP, Western Mindanao State University, Zamboanga City 1992 My 24-29

Symposium on Biotechnology: Prospects and Environmental Concerns, Entomology Lecture Hall, UP Los Baños 1992 F 26

7th Annual Scientific Conference of FCSSP, Bureau of Soils and Water Management Diliman, Quezon City 1991 N 7-9

Seminar on Perkin Elmer DNA Thermal Cycler (PCR Technology), Hotel Nikko Manila Garden 1991 N 29

13th Annual Scientific Meeting of the National Academy of Science and Technology, PICC, Manila 1991 Jl 9-10

9th Vegetable Planning Workshop, IPB, CA, UP Los Baños, College, Laguna 1990 O 24-26

1st Cellular and Molecular Plant Biology Workshop, IPB, CA, UPLB, College, Laguna 1990 O 19 & 23

8th Vegetable Planning Workshop, IPB, CA, UP Los Baños, College, Laguna 1989 N 8-10

7th Vegetable Planning Workshop, IPB, CA, UPLB, College, Laguna 1989 N 8-10

Hybrid Rice Production Training Course for Technical Personnel, PhilRice-Maligaya 1989 Ja 1-31

Plant Tissue Culture Training - Resource person, IPB, UP Los Baños 1989 Ja 1-31

4th Annual Scientific Conference of FCSSP, Apo view Hotel, Davao City 1988, Ap 27-30

1st National Symposium on Plant Tissue Culture in Philippine Agriculture and Forestry, IPB, UP Los Baños, College, Laguna 1988 My 26-28

Seminar on Integrated Pest Management on Citrus, Bureau of Plant Industry, Lipa

City 1987, O 13-15

Seminar-Workshop on Organizational Self-Renewal, IPB, CA, UP Los Baños, Research Management Center, College of Economic and Management, UP Los Baños 1987 S 28 - O 2

6th National Fruit Symposium, Department of Agriculture-7 Regional Office Compound, Velez, Cebu City 1987 S 24-26

3rd Annual Scientific Conference of FCSSP, UP Los Baños, College, Laguna 1987 Ap 28-30

1st Annual Scientific Conference of FCSSP, Central Luzon State University, Muñoz, Nueva Ecija 1985 My 7-10

### **Papers Presented**

Lapitan, V.P.C (2011 JL 13-14). Application of dihaploid breeding technology in variety development and QTL mapping in rice (*Oryza sativa* L.), Transactions of the National Academy of Science and Technology. Abstracts of Papers.

Lapitan, V.C., Redona, E.D., Abe, T., and Brar, D.S. (2010). Mapping of quantitative trait loci using a doubled-haploid population from the cross of indica and japonica cultivars of rice., 40th CSSP Annual Scientific Conference, Grand Regal Hotel, Davao City.

Lapitan, V.C., Redona, E.D., Abe, T., and Brar, D.S. (2008). Molecular and morphological evaluation of doubled haploid (DH) lines derived from anther culture of indica (PSB Rc10) x japonica (Nipponbare) rice hybrids., Japanese Breeding Meeting, Shiga Prefectural University, Hikone-ken, Japan,.

Lapitan, V.C., Redoña, E.D., Brar, D.S., and Abe T., (2007). Production and characterization of doubled haploid lines from the cross of indica (PSBRc 10) x japonica (Nipponbare) in rice, Japanese Breeding Meeting, Faculty of Agriculture, Yamagata University, Tsuruoka, Japan.

Lapitan, V.C., Brar, D.S. and Abe T. (2006). Analysis of genetic diversity using molecular markers in donors of grain quality traits in rice (*Oryza sativa* L.), Japanese Breeding Meeting, Ehime University, Matsuyama City, Japan.

Lapitan, V.P.C., Cayaban Jr., E.B., San Valentin, G.O., and Sebastian, L.S. (2004). Utilization of anther culture for rice improvement in the Philippines., 4th International Crop Science Conference (4ICSC) in Brisbane, Australia.

Lapitan, V.P.C., Cayaban, E.B., and Roferos, L.T. (2003). Utilization of anther culture technique for the development of inbreds for transplanted irrigated lowland rice., 17th FCSSP Scientific Conference, Aklan State University, Banga, Aklan.

Lapitan, V.P.C., and San Valentin, G.O. (2002). Utilization of anther culture technique in the generation of new genetic traits for adverse conditions., Convention Year 2002 of PAPTC, Development Academy of the Philippines, Tagaytay City.

Lapitan, V.P.C., Washida, H. and Tada, Y. (1999). Transfer of soybean glycinin gene into rice (*Oryza sativa* L.) via *Agrobacterium tumefaciens*-mediated transformation., 15th Annual Scientific Conference of FCSSP, Family Country Hotel Convention Centre, General Santos City.

Lapitan, V.P.C., Ebor R.V., Villegas, V.N., Peralta, M.T.B., Sebastian, L.S., Garcia, M.R.C., Sajise, J.U., and Calapardo, M.R. (1999). Genetic transformation of rice (*Oryza sativa* L.) using Pin2 and GNA genes for insect resistance., 26th Annual Scientific Conference of PSBMB, PhilRice-Maligaya, Science City of Muñoz, Nueva Ecija.

Lapitan, V.P.C., Pateña, L.F., Rasco-Gaunt, S.M., Bariring, A.L., and Barba, R.C. (1997). Seed production and in vitro conservation systems for garlic and shallot.,

Proc. Int. Symp. Biotechnology Tropical and Subtropical Species, Brisbane Parkroyal, Queensland, Australia..

Lapitan, V.P.C., and Villegas, V.N. (1997). Influence of nitrogen fertilization on anther culture response of seven rice (*Oryza sativa* L.) genotypes., 13th Annual Scientific Conference of FCSSP, Hotel Supreme, Baguio City.

Lapitan, V.P.C., and Villegas, V.N. (1996). Effect of carbon source on doubled haploid production from F1 rice genotypes., 12th Annual Scientific Conference of FCSSP, Villa Victoria Beach Resort, Davao City.

Lapitan, V.P.C., Peralta, M.T.B., and Villegas, V.N. (1996). Effect of culture media and duration of cold pre-treatment on callus induction and plant regeneration from anther culture of different rice genotypes., 12th Annual Scientific Conference of FCSSP, Villa Victoria Beach Resort, Davao City.

Lapitan, V.P.C., Pateña, L.F., Bariring, A.L., Tejano, M.P., Tandang, C.A., Torio, M.G., and Barba, R.C. (1996). In vitro system of producing garlic (*Allium sativum*) planting materials, 12th Annual Scientific Conference of FCSSP, Villa Victoria Beach Resort, Davao City.

Lapitan, V.P.C., Pateña, L.F., Bariring, A.L., Tejano, M.P., Tandang, C.A. and Barba, R.C. (1996). (AVNET II) ASEAN Vegetable Network Phase 2. Germplasm, 12th Annual Scientific Conference of FCSSP, Villa Victoria Beach Resort, Davao City..

Lapitan, V.P.C., Pateña, L.F., Tejano, M.P. and Bariring, A.L. (1995). Production of G3 bulb from tissue cultured shallot, 11th Annual Scientific Conference of FCSSP, Siliman University, Dumaguete City.

Lapitan, V.P.C., Pateña, L.F., Rasco-Gaunt, S.M., Beltran-Miranda, M.E. (1994). Basic seed production in shallot (*Allium cepa* var group *aggregatum*) via in vitro bulblet formation, 10th Annual Scientific Conference of FCSSP, Asia World Resort Hotel, Palawan.

Lapitan, V.P.C., and Pateña, L.F. (1994). Improved efficiency of induction of somatic embryogenesis and plant regeneration in long-term callus cultures of maize (*Zea mays* L.), 10th Annual Scientific Conference of FCSSP, Asia World Resort Hotel, Palawan.

Lapitan, V.P.C., Cantoy, R.P.T. II, Pateña, L.F. (1994). Use of tissue culture for corn improvement, Gamma Sigma Delta Honor society of Agriculture 1994 Youth Research Apprenticeship Program (YRAP).

Lapitan, V.P.C., Pateña, L.F., and Miranda, M.B. (1994). Growth of tissue-cultured shallot (*Allium cepa* var group *aggregatum*) and garlic (*Allium sativum* L.) under greenhouse condition, 10th Annual Scientific Conference of FCSSP, Asia World Resort Hotel, Palawan.

Lapitan, V.P.C. and Zamora, A.B. (1991). In vitro selection for salt resistance in tomato (*Lycopersicon esculentum* Mill) cv Improved Pope., 13th Annual Scientific Meeting of the National Academy of Science and Technology, PICC, Manila.

Lapitan, V.P.C., Del Rosario D.A., Sumague, A., Zamora, A.B. (1990). Improvement of salt tolerance in tomato, Tissue Culture Networking/Workshop Meeting, Davis, California.

Lapitan, V.P.C. and Zamora, A.B. (1990). Improvement of salt tolerance in tomato, 1st Cellular and Molecular Plant Biology Annual Review Workshop, IPB, CA, UP Los Baños.

Lapitan, V.P.C., Zamora, A.B. (1989). Tissue culture and in vitro selection for salt tolerance in tomato, 8th Vegetable Planning Workshop, IPB, CA, UP Los Baños.

Chavez, V.P., and Zamora, A.B. (1988). Meristem budding technique: A modified approach for disease elimination in pummelo., 1st National Symposium on Plant Tissue Culture in Philippine Agriculture and Forestry, IPB, CA, UP Los Baños, College, Laguna.

Chavez, V.P., Zamora, A.B., Damasco O.P. and Ramos, C.S. (1988). Production of tristeza and leaf mottling disease-free pummelo by meristem budding., 4th Annual Scientific Conference of FCSSP, Apo View Hotel, Davao City.

Chavez, V.P., Ramos, C.S., Damasco, O.P. and Zamora, A.B. (1987). Non-aseptic and aseptic budding of pummelo meristems for the elimination of citrus tristeza virus, 3rd Annual Scientific Conference of FCSSP, UP Los Baños, College, Laguna.

Chavez, V.P., Mendoza, T.C. (1985). Seed quality of three field legumes as affected by sugarcane intercropping, 1st Annual Scientific Conference of FCSSP, Central Luzon State University, Nueva Ecija.

Chavez, V.P. (1985). Yield and yield component of three field legumes as affected by sugarcane intercropping, BS Thesis. University of the Philippines Los Baños.

Lapitan, V.P.C., Del Rosario, D.A., Sumaque, A., Zamora, A.B. (). Improvement of salt tolerance in tomato, Tissue Culture Networking/Workshop Meeting, Davis, California.

## Publications

- 2011 Lapitan, V.P.C Application of dihaploid breeding technology in variety development and QTL mapping in rice (*Oryza sativa* L.). Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2011 JL 13-14, 33(1).
- 2009 Lapitan, V.C., Redona, E.D., Abe, T., Brar, D.S. Mapping of quantitative trait loci using a doubled-haploid population from the cross of indica and japonica cultivars of rice. *Crop Science*, 2009, 49:1620 - 1628.
- 2009 Lapitan, V.C., Redoña, E.D., Abe, T., Brar, D.S. Molecular characterization and agronomic performance of DH lines from the F1 of indica and japonica cultivars of rice (*Oryza sativa* L.). *Field Crops Research*, 2009, 112:222 - 228.
- 2007 Lapitan, V.C., Brar, D.S., Abe, T., Redoña, E.D. Assessment of genetic diversity of Philippine rice cultivars carrying good quality traits using SSR markers. *Breeding Science*, 2007, 57:263 - 270.
- 2005 Lapitan, V.P.C., Washida, H., Tada, Y. Transfer of soybean glycinin gene into rice (*Oryza sativa* L.) via *Agrobacterium*-mediated transformation. *Philippine Journal of Crop Science*, 2005, 30(2):39 - 46.
- 1999 Lapitan, V.P.C., Villegas, V.N. Anther culture response of some rice genotypes (*Oryza sativa* L.) with varying amylose content to nitrogen fertilization. *Philippine Journal of Crop Science*, 1999, 24(2 - 3):79 - 84.
- 1998 Lapitan, V.P.C., Pateña, L.F., Rasco-Gaunt, S.M., Bariring, A.L., Barba, R.C. Seed production and in vitro conservation systems for garlic and shallot. *Acta Hort.*, 1998, 461:503 - 513.
- 1994 Lapitan, V.P.C., Cantoy, R.P.T. II, Pateña, L.F. Use of tissue culture for corn improvement. Gamma Sigma Delta Honor society of Agriculture/ Youth Research Apprenticeship Program (YRAP), 1994.
- 1994 Lapitan, V.P.C., Tandang, C.A., Pateña, L.F. Callus induction and organogenesis in pechay (*Brassica chinensis* L.) cv. Black Behi.. *Philippine Journal of Crop Science*, 1994, 19(3):169 - 175.

- 1992 Lapitan, V.P.C., Pateña, L.F. Bulblet formation in vitro, a new approach to garlic (*Allium sativum* L.) basic seed production. *Philippine Journal of Crop Science*, 1992, 17(2):89 - 94.
- 1991 Lapitan, V.P.C., Pateña, L.F., Rosario, T.L. In vitro system of producing shallot (*Allium cepa* var group *aggregatum*) planting materials. *Philippine Journal of Crop Science*, 1991, 16(3):95 - 101.
- 1986 Chavez, V.P., Mendoza, T.C. Seed quality of three field legumes as affected by sugarcane intercropping. *Philippine Journal of Crop Science*, 1986, 11(1):61 - 66.
- 1985 Chavez, V.P. Yield and yield component of three field legumes as affected by sugarcane intercropping. BS Thesis. University of the Philippines Los Baños, 1985.

**Name** Auxencia A. Limjap

**Gender** Female

**Civil Status** Single

**Organizational Affiliations**

Associate Professor 5, De La Salle University, Taft Ave., Manila

Chairperson, Science Education Department, De La Salle University, Andrew Building 1608, DLSU, Taft Avenue, Manila

Chairperson, Science Education Dept., De La Salle University, Taft Ave., Manila

**Education**

Ph.D. in Science Education, DLSU, Taft Ave., Malate, Manila 1996

**Fields of Specialization**

Educational, Government and International Policies

Mathematics and Science Education

**Association Membership**

Member, National Research Council of the Philippines (NRCP)

**Honors / Awards**

Best Paper Award 'Students' Conceptual Understanding..., CLSU, Science City of Muñoz, Nueva Ecija 2009 My 29

Most Outstanding UST-EHS Alumni or Totus Tuus Award, UST Education High School and UST EHS General Alumni Association ,Inc. 2009

Outstanding Paper Award during EASE Biennial Conference held in Howard International House, Taipei, T, 1st East-Asian Science Education 2009 O 21-23

**Trainings**

OSAKA-DLSU Science and Technology Congress 2009, De La Salle University, Manila 2009 S 21-23

1st Philippine Conference on ICT in Teacher Education, De La Salle University, Manila 2009 O 26-31

7th Biennial Conference of the Philippine council of Mathematics Teacher Educators, MATHED, Inc., Palawan State University 2009 O 23-24

1st East Asian Science Educational Biennial Conference, Howard International House, Taipei, Taiwan 2009 O 21-23

MSP 2009 Annual Convention, Mindanao University of Science and Technology, Cagayan De Oro City 2009 My 21-22

**Researches**

**Completed**

Towards Transformative Teaching and Learning in the College of Education: The Training Design and Modules

Introduction to Set Theory and Logic

An Exploratory Investigation of the Mathematical Thinking of Students in Trigonometry

Developing Conceptual Understanding of the Limit of a Function in Introductory Calculus



Filipino Students' Use of Metacognitive Skills in Mathematical Problem Solving: An Emergent Model

Content and Language Integrated Learning

An Analysis of the Mathematical Thinking of Selected Pupils in Jaime Hilario Integrated School, Bagac, Bataan

Readiness of the Teacher Education Institutes (TEIs) in Implementing the New Teacher Education Curriculum (NTEC) in Mathematical Education

### **Ongoing**

Evaluating the Implementation and Effectiveness of GIS-Based Environment Laboratory Activities in GE Classes

Unfolding Teachers' and Students' Beliefs on Learning and Teaching and their Lived Teaching Experiences: Towards an Effective Teacher Development Program

### **Papers Presented**

Limjap, A.A. (2009 S 21-23). Changes in Students' Understanding of the Function Concept, OSAKA-DLSU Science and Technology Congress 2009, De La Salle University, Manila.

Limjap, A.A. (2009 S 21-23). Investigating the van Hiele Levels of Geometric Understanding of High School Students on Quadrilaterals, OSAKA-DLSU Science and Technology Congress 2009, De La Salle University, Manila.

Limjap, A.A. (2009 O 26-31). Constructivist Principles of Educational Technology, ICT Integration in Classrooms, UNESCO Next Generation of Teachers, 1st Philippine Conference on ICT in Teacher Education, De La Salle University, Manila.

Limjap, A.A. (2009 O 23-24). An Analysis of the Mathematical Thinking of Selected Primary Level Pupils, 7th Biennial Conference of the Philippine Council of Mathematics Teacher Educators, MATHED, Inc., An International Conference on Mathematics Education, Palawan State University.

Limjap, A.A. (2009 O 23-24). Generating the van Hiele Levels of Geometric Understanding of High School Students on Quadrilaterals using the Inductive-Deductive Approach, 7th Biennial Conference of the Philippine Council of Mathematics Teacher Educators, MATHED, Inc., An International Conference on Mathematics Education, Palawan State University.

Limjap, A.A. (2009 O 23-24). Mathematical Investigation as a Teaching Strategy in High School Algebra, 7th Biennial Conference of the Philippine Council of Mathematics Teacher Educators, MATHED, Inc., An International Conference on Mathematics Education, Palawan State University.

Limjap, A.A. (2009 O 23-24). Using Metacognitive Skills in the Mathematical Problem Solving Heuristics among Senior High School Students, 7th Biennial Conference of the Philippine Council of Mathematics Teacher Educators, MATHED, Inc., An International Conference on Mathematics Education, Palawan State University.

Partosa, J., Limjap, A.A. (2009 O 21-23). Pre-Service Biology Teacher's Knowledge Structures of Photosynthesis, 1st East Asian Science Educational Biennial Conference, Howard International House, Taipei, Taiwan.

Limjap, A.A. (2009 O 23-24). An Investigation of Pattern Recognition Skills of Selected First Year High School Students, 7th Biennial Conference of the Philippine Council of Mathematics Teacher Educators, MATHED, Inc., An International Conference on Mathematics Education, Palawan State University.

Limjap, A.A. (2009 O 23-24). Alternative Conceptions of Filipino High School

Students in Translating Algebraic Word Problems to Mathematical Equations, 7th Biennial Conference of the Philippine Council of Mathematics Teacher Educators, MATHTED, Inc., An International Conference on Mathematics Education, Palawan State University.

Limjap, A.A. (2009 N 26). Using Visualization to Solve Problems in Algebra, Thomas Aquinas Research Complex (TARC) Auditorium, UST.

Limjap, A.A. (2009 My 21-22). Problem-Based Learning and Change in Students' Conceptual Understanding of Fractions, MSP 2009 Annual Convention, Mindanao University of Science and Technology, Cagayan De Oro.

Limjap, A.A. (2009 F 20). Transformative Learning in Mathematics Education, University of Sto. Tomas Thomas Aquinas Research Complex.

Limjap, A.A. (2009 AP2-4). Fostering Cognitive Model Reasoning and Conceptual Understanding of Immunoglobulin Concepts Through Computer Animation with Case-Based Pedagogy, 44th Annual National Biology Teachers Association of the Phil., Inc. (BIOTA) Convention and Scientific Sessions, University of Makati, Makati City.

Limjap, A.A. (2009 Ag 26). Transformative Education, National Conference on Class 3012: Educating for the Future, Far Eastern University Teachers Academy.

Limjap, A.A. (2009 S 21-23). Perceived Self-Efficacy, Metacognitive Skills and Problems Solving Ability of Selected Chemical Engineering Students in Differential Calculus, OSAKA-DLSU Science and Technology Congress, De La Salle University, Manila.

Limjap, A.A. (2009 Ag 26). Metacognitive Skills And Beliefs About Problem Solving of Selected Preservice Mathematics Teachers, 46th Annual Convention of the Psychological Association of the Philippines, Siliman University, Dumaguete City.

## **Publications**

- 2011 Mabilangan, R., Limjap, A., Belecina, R. Problem Solving Heuristics of High School Students on Non-Routine Problems: A Case Study (In Press, Refereed, Local). Alipato,, 2011.
- 2011 Limjap, A.A. Filipino Pupils, (In Press, ISI & Scopus). The Asia-Pacific Education Researcher 20:3 (2011), 2011.
- 2011 Bunag, E., Limjap, A. A Metacognitive Approach to Remediating Students'™ Misconceptions Concerning Solving Linear Equations in One Variable. 8th Biennial MATHTED Conference: An International Conference on Mathematics Education Proceedings, ISSN 2243-9226, 2011.
- 2011 Santos, R., Guidote, A, & Limjap, A. High School Chemistry Experiments: The Green Chemistry and Filipino Approach. Science & Technology Congress 2011 with the theme Green S&T Advances: 100 years & beyond Proceedings, ISBN971555512-8, 2011.
- 2011 Limjap, A.A. Preconceptions Concerning Solving Linear Equations in One Variable. Science & Technology Congress 2011 with the theme Green S&T Advances: 100 years & beyond, Proceedings, ISBN971555512-, 2011.
- 2011 Limjap, A., Lapinid, M., et al An overview of the Design, Implementation and Evaluation of UbD Learning Plans in Elementary Algebra in Selected Diocesan Schools in Zambales and Bataan. Science & Technology Congress 2011 with the theme Green S&T Advances: 100years & beyond, Proceedings, ISBN971555512-8, 2011.
- 2010 Palmario, C.F., Ong Keh, T.A., Sia, R.J., Limjap, A.A. An Investigation of Pattern Recognition Skills of Selected First Year High School Students. 15th Osaka

University-DLSU Joint Academic Research Workshop, Proceedings ISBN971555512-8., 2010.

- 2009 Limjap, A.A. Percieved self-efficacy, metacognitive skills and problem solving ability of selected chemical engineering students in differential calculus. Proceedings of the 11th Science and Technology Congress/ ISSN 190891154, 2009.
- 2009 Guzon, A.F., Limjap, A.A. Investigating the van Hiele Levels of Students on Quadrilaterals. Proceedings of 11th Science and Technology Congress, ISSN 190891154, 2009.
- 2009 Marcelino,D., Diaz,R., Limjap,A. Fundamental Concepts of Mathematics. Quezon City:Phoenix Publishing House,Inc. ISBN 978-971-06-2990-9, 2009.
- 2008 Bernardo, A.B.I., Limjap, A.A. Student Perception of Science Classes in the Philippines. Asia-Pacific Education Review, 2008, 9(3):285-295.
- 2008 Estimo, N., Limjap, A.A. Investigation of College Students' Cognitive Performance in Trigonometry in a Problem Based Learning Environment. Proceedings of the 10th Science and Technology Congress/ISSN 19081154, 2008.
- 2008 Tupas, S.V., Go, J.T., Limjap, A.A. An evaluation of students' level of conceptual and procedural understanding in solid mensuration. Proceedings of the 10th Science and Technology Congress, ISSN 190891154, 2008.

**Name** Jose Ernie C. Lope  
**Place of Birth** Maasin, Iloilo  
**Date of Birth** December 17, 1973  
**Gender** Male  
**Civil Status** Single  
**Home Address** JB4-203 Hardin ng Aurora E. Jacinto St., UP Campus, Quezon City

**Organizational Affiliations**

, Department of Mathematics, College of Science, University of the Philippines, Diliman, Quezon City

**Education**

PhD. in Mathematics, Sophia University, Chiyoda-ku, Tokyo, Japan 2001 Mr  
 M.S. in Mathematics, Sophia University, Chiyoda-ku, Tokyo, Japan 1998 Mr  
 Certificate in Japanese Language and Culture Program, Osaka University of Foreign Studies, Minoo-shi, Osaka, Japan 1995 S  
 B.S. in Mathematics (Summa Cum Laude), University of the Philippines - Diliman, Quezon City, Philippines 1994 Ap  
 First Honorable Mention; Best in Math; Best in Chemistry; Best in Physics, Philippine Science High School, Quezon City, Philippines 1991 Mr

**Fields of Specialization**

Mathematics  
 Physics

**Honors / Awards**

1st Place, Du Pont Talent Search for Young Scientist, NAST 2002  
 Postdoctoral Research Grant, Austrian Exchange Service (OAD) 2003 - 2004  
 National Champion, Philippine Mathematics Olympiad 1991  
 Honorable Mention, International Mathematics Olympiad 1991  
 Winner, Search for the Math Wizard, UP Diliman  
 Science Award, Bank of the Philippine Island (BPI) 1994  
 Scholarship Grant, Department of Science and Technology (DOST) 1991 - 1994  
 Scholarship Grant, Japanese Ministry of Education 1995 - 2001  
 Travel Grant for Young Mathematicians, International Mathematical Union (IMU) 2002  
 Outstanding Young Scientist (Mathematics), NAST-DOST 2006

**Trainings**

Workshop on Applied Mathematics, Chungnam National University, Korea 2005 N 11-12  
 Microlocal Analysis and Related Topics, RIMS, Kyoto University, Japan 2004 O 25-29  
 SEAM-GMU Conference on Mathematics and Its Applications, Gadjah Mada University, Indonesia 2003 JI 14-17

Mathematical Society of the Philippines Annual Convention, Ateneo de Manila University, Quezon City, Philippines 2002 My 25-26

4th Sino-Philippines Mathematics Symposium, Fu Jen Catholic University (Taiwan) 2002 Mr 20-24

Workshop 1999 Partial Differential Equations, Potsdam University, Germany 1999 Jl 19-23

Conference on Partial Differential Equations and Applications, Wuhan University (China) 1999 Ap 5-9

## Researches

### On-going

Analysis and implementation of a fourth-order multigrid method for solving the laplace equation

Structure of solutions of a volevic system of singular equations

Solvability of a degenerate elliptic equation related to mean curvature flow

Unique solvability of totally characteristics equations with several space variables

Comparison of image analysis techniques to describe coral reef cover at the hundred islands, Philippines

## Papers Presented

Lope, J.E.C. (2005 O 21-23). On non-linear totally characteristic equations with several space variables, 6th Taiwan-Philippines Symposium in Analysis.

Lope, J.E.C. (2005 N 11-12). Solvability of a degenerate elliptic equation related to mean curvature flow, Workshop on Applied mathematics, Chungnam National University, Korea.

Lope, J.E.C. (2004 O 25-29). Walter's method applied to system of singular equations with general singular equations, Microlocal Analysis and Related Topics, RIMS, Kyoto University, Japan.

Lope, J.E.C. (2004 Ag 17-20). Volevic system of singular equations with general singularity, Degenerate PDEs and Singular Geometries, Potsdam university, Germany.

Lope, J.E.C. (2003 Jl 14-17). On the holomorphic solution of singular first-order equations with several space variables, SEAM-GMU Conference on Mathematics and Its applications, Gadjah Mada University, Indonesia.

Lope, J.E.C. (2003 Ag 25-29). On the holomorphic solution of a class of singular nonlinear partial differential equations, Recent Trends in Microlocal Analysis, RIMS, Kyoto University, Japan.

Lope, J.E.C. (2002 My 25-26). Solutions to partial differential equations (Special Expository Lecture), Mathematical Society of the Philippines Annual Convention, Ateneo de Manila University, Quezon City, Philippines.

Lope, J.E.C. (2002 Mr 20-24). A Note on the Analytic Continuation of Solutions to Nonlinear Partial Differential Equations, 4th Sino-Philippines Mathematics Symposium, Fu Jen Catholic University (Taiwan).

Lope, J.E.C. (2002 Ag 20-28). Analytic continuation of solutions to partial differential equations, International Congress of Mathematicians, Beijing, China.

Lope, J.E.C. (2001 O 22-26). A Note on the Analytic Continuation of Solutions to Nonlinear Partial Differential Equations, Microlocal Analysis and Related Topics, RIMS, Kyoto University (Japan).

Lope, J.E.C. (2001 F 19-23). A Sharp Existence and Uniqueness Theorem for

Linear Fuchsian Partial Differential Equations , Spring School 2001 Partial Differential Equations, Potsdam University (Germany).

Lope, J.E.C. (2000 O 16-20). A Sharp Existence and Uniqueness Theorem for Linear Fuchsian Partial Differential Equations, Microlocal Analysis and Asymptotic Analysis of PDE, RIMS, Kyoto University (Japan).

Lope, J.E.C. (1999 JI 19-23). Existence and Uniqueness Theorems for a Class of Linear Fuchsian Partial Differential Equations , Workshop 1999 Partial Differential Equations, Potsdam University (Germany).

Lope, J.E.C. (1999 Ap 5-9). Existence and Uniqueness Theorems for a Class of Linear Fuchsian Partial Differential Equations, Conference on Partial Differential Equations and Applications, Wuhan University (China).

Lope, J.E.C. (1998 O 5-9). Existence and Uniqueness Theorems for a Class of Linear Fuchsian Partial Differential Equations, Daisu Kaiseki to Tokushu Kansu (in Japanese), RIMS, Kyoto University (Japan).

## **Publications**

- 2005 Lope, J.C. On the holomorphic solution of nonlinear first order equations with several space variables. Surikaisekikenkyusho (RIMS) Kokyuroku, 2005, 1412:160-167.
- 2005 Lope, J.C., et. al. On the unique solvability of a Volterra system of linear equations with general singularity. Z. Anal. Anwendungen 24, 2005, 2:317-326.
- 2005 Lope, J.C. Walter's method applied to fuchsian partial differential equations. Surikaisekikenkyusho (RIMS) Kokyuroku, 2005, 1431:37-44.
- 2004 Lope, J.C., et. al. Approximate fixed points on almost convex sets. Tamkang J. Math 35, 2004, 3:255-259.
- 2004 Lope, J.C., et. al. Existence and uniqueness of the solution to fuchsian equations involving generalized analytic functions. Complex Var. Theory Appl. 49, 2004, 13:957-965.
- 2003 Lope, J.C., et. al. On the unique solvability of a Volterra system of singular partial differential equations. Matimyas Mat. 26, 2003, 1-3:47-55.
- 2002 Lope, J.C., et. al. On the analytic continuation of solutions to nonlinear partial differential equations. Journal of Math. Pures Appl., 2002, 9:811-826.
- 2002 Lope, J.C., et. al. A note on the analytic continuation of solutions to nonlinear partial differential equations. Surikaisekikenkyusho (RIMS) Kokyuroku, 2002, 1261:56-67.
- 2001 Lope, J.C. A sharp existence and uniqueness theorem for linear fuchsian partial differential equations. Tokyo Journal of Mathematics, 2001, 24(2):477-486.
- 1999 Lope, J.C. Existence and uniqueness theorems for a class of linear fuchsian partial differential equations. Journal of Mathematical Sciences, University of Tokyo, Tokyo, Japan, 1999, 6(3):527-538.

**Name** Gemma Teresa Tamayo Narisma  
**Place of Birth** Davao del Norte  
**Date of Birth** April 12, 1972  
**Gender** Female  
**Civil Status** Single  
**Home Address** 21 Jetta St., Village East Executive Homes, Felix Avenue,  
Cainta, Rizal

**Organizational Affiliations**

Assistant Professor, Physics Department, Ateneo de Manila University,  
Head, Regional Climate Systems Program, Manila Observatory,

**Education**

MSc. in Environmental Science, University of the Philippines, Diliman, Quezon City 2008

Ph.D. in Atmospheric Science, Macquarie University, NSW 2109, Australia 2005

B.S. in Applied Physics, University of the Philippines, Diliman, Quezon City 1984

**Fields of Specialization**

Environmental Science

Atmospheric Science

Climate Change and Variability Analysis

Environmental Physics focus on climate system

Climate Analysis

**Employment**

Research Associate, Center for Sustainability and the Global Environment, Nelson Institute for Environmental Studies, University of Wisconsin, Madison, 2004 O-2008 Je-

Research Scientist, Manila Observatory, 1997 Je-2001 Ja-

Instructor, Physics Department, Ateneo de Manila University, 1995 Ja - 2001 O-

**Association Membership**

Member, Americal Geophysical Union

Member, Samahang Pisika ng Pilipinas (SSP)

**Honors / Awards**

Loyola Schools Publications Award, Ateneo de Manila University 2011

International Postgraduate Research Award, Macquarie University 2002-2004

Macquarie University Research Award, Macquarie University 2001

Overseas Postgraduate Research Award, Macquarie University 2001

Heyden Chair Research Award, Ateneo de Manila University 1999

Outstanding Young Scientist, National Academy of Science and Technology 2010

**Trainings**

29th National Physics Congress (Philippines), NIP, UP Diliman, Quezon City 2011-24-26

The International Workshop on CORDEX-East Asia, Seogwipo, Jeju, Korea 2011 S 22-23

Asia-Oceania Geosciences Society 8th Annual Meeting and Geosciences World Community Exhibition, Taipei International Convention Centre, Taiwan 2011 Ag 8-12

Impact of Future Global Warming in the Philippines Southwest Monsoon, The 2nd International MAHASRI'HyARC Workshop on Asian Monsoon and Water Cycle, Nahatrang, Vietnam 2011 Ag 22-23

A modeling & diagnostic analysis of the relative impacts of land cover change & advection on local climate, Havener Auditorium, IRRI, Los Baños, Philippines 2010 My 13

Climate Change and Variability: Shifting Risk 2009 Workshop on Climate Variability and Water, Shifting Risks for Agriculture and Energy, Pacific Disaster Center, Kihei, Maui, Hawaii 2009 O 14-15

6th NCCR Climate Summer School : Land Surface- Atmosphere Interactions in a Changing Climate, Grindelwald, Switzerland 2007 Ag 26-31

The American Geophysical Union Fall Meeting, San Francisco, 2006 D 5-9

American Geophysical Union Chapman Conference on Ecosystem Interactions with Land Use Change, Santa Fe, New Mexico 2003 Je 14-18

## **Researches**

### **Completed**

The relative impacts of deforestation and global climate change in the Philippines

Performance evaluation of regional climate models with satellite observation data assimilation

The effect of urbanization on tropical cyclone rainfall: Case study of Tropical Storm Ketsana

Urbanization and its effects on flooding in the Urban Metro Manila Watershed

The potential impacts of urban expansion on the Philippine southwest monsoon rainfall

A climatological analysis of the southwest monsoon rainfall in the Philippines

Spatio-temporal validation of satellite -based rainfall estimates in the Philippines

## **Papers Presented**

Cruz, F.T., Narisma, G.T. Dado, J.B. (2011 S 22-23). Assessing model performance at varying spatial resolutions, The International Workshop on CORDEX-East Asia, Seogwipo, Jeju, Korea.

Jamandre, C., Narisma, G.T. (2011 O 24-26). Evaluation of satellite-based rainfall estimates over the Philippines, 29th National Physics Congress (Philippines), National Institutes of Physics (NIP).

Cruz, F.T., Villafuerte, M.Q., Narisma, G.T. (2011 O 24-26). Characterization of the historical southwest monsoon rainfall in the Philippines, 9th National Physics Congress (Philippines), National Institutes of Physics (NIP).

Cruz, F.T., Narisma, G.T. Dado, J.B. (2011 O 24-26). Modeling local climate extremes, 29th National Physics Congress (Philippines), National Institutes of Physics (NIP).

Dado, J.B., Cruz, F.T., Narisma, G.T. (2011 O 24-26). Near-surface atmospheric dynamics of changing crops to forests in the Philippines, 29th National Physics Congress (Philippines), National Institutes of Physics (NIP).



- Cruz, F.T., Narisma, G.T., Dado, J.B., Villafuerte, M.Q., II. (2011 Mr 21-26). Evaluation of Simulated Climate Extremes in the Philippines, International Conference on Coordinated Regional Climate Edownscaling Experiment-CORDEX, International Center for Theoretical Physics, Trieste, Italy.
- Cruz, F.T., Narisma, G.T.T., Dado, J.B., Villafuerte, M.Q., II (2011 Mr 21-26). Evaluation of simulated climate extremes in the Philippines, International Conference on the coordinated Regional Climate Downscaling Experiment, CORDEX, International Center for Theoretical Physics, Treste, Italy.
- Jamandre. C., Narisma, G.T. (2011 Ag 8-12). Spatio - temporal validation of satellite based rainfall data in the Philippines, Asia-Oceana Geosciences Society 8th Annual Meeting and Geosciences World Community Exhibition.
- Jamandre, C., Narisma, G.T.T. (2011 Ag 8-12). Modelling the Effects of Changing Agricultural Land to Forests in the Philippines, Asia-Oceana Geosciences Society 8th Annual Meeting and Geosciences World Community Exhibition, Taipei International Convention Center, Taiwan.
- Villafuerte, M., Narisma, G.T. (2011 Ag 8-12). The Potential Impact of Global Warming on Southwest Monsoon Rainfall in the Philippines, Asia-Oceana Geosciences Society 8th Annual Meeting and Geosciences World Community Exhibition, Taipei International Convention Center, Taipei.
- Villafuerte, M.Q., Narisma, G.T.T. (2011 Ag 22-24). Impact of Future Global Warming in the Philippines Southwesy Monsoon, 2nd International MAHASRI/Hy ARC Workshop on Asian Monsoon and Water Cycle, Nahatrang, Vietnam.
- Narisma, G.T.T. (2009 O 28-30). A Global Diagnostic Analysis of the relative impacts of land cover change and advection of local climate, 27th Samahang Pisika ng Pilipinas Physics Congress, Tagaytay City.
- Narisma, G.T.T. (2007 Ja 13-18). Abrupt changes in rainfall in the twentieth century, 87th American Meteorological Society Annual Meeting, San Antonio Texas.
- Narisma, G.T., Foley, J.A. (2007 Ag 26-31). Climatic Impacts of Deforestation in the Pantropics: Sensitivity to Soil Conditions, 6th NCRR Climate Summer School : Land Surface- Atmosphere Interactions in a Changing Climate, Grindelwald, Switzerland.
- Narisma, G.T., (2006 D 5-9). Abrupt changes in rainfall in the twentieth century, The American Geophysical Union Fall Meeting, San Francisco, USA.
- Narisma, G.T., Pitman, A.J. (2003 Je 14-18). The role of biospheric feedbacks in human-induced land cover change, American Geophysical Union Chapman Conference on Ecosystem Interactions with Land Use Change, Santa Fe, New Mexico.
- Pitman, A.J., Narisma, G.T. (2003 Ap 14-16). Increasing CO2 or land cover change, Airs, Waters Placers: Ecosystem Health Conference, School of Environmental and Life Sciences, University of New castle, Australia.
- Villarin, J.T., Narisma, G.T. (1999 O). Estimating the ggravity of particulate pollution due to transport in Metro Manila, 17th National Physics Congress (Philippines).
- Sta Maria, M.R., Narisma, G.T., Estoque, J.T., Villarin, J.T. (1999 O). El Nino-La Nina Dynamics Over Southeast Asia, 17th National Physics Congress.
- Saloma, C., Narisma, G.T. (1993 Jl). Imaging 2-D images having fractal edges:characteristics, 15th Annual meetingh of National Academy of Science and Technology, Republic of the Philippines.
- Narisma G.T. et al. (). Recovery of lost signal features without a priori knowledge,

**Publications**

- 2011 West, P.C., Narisma, G.T. Barford, C.C., Kukharik, C.J., Foley, J.A. An alternative approach for qualifying climate regulation by ecosystems. *Frontiers in Ecology and the Environment*, 2011, 9(2):126-133, doi:10.1890/090015.
- 2011 Beltran-Przekurat, A., Pielke, R.A. Sr., Eastman, J.L., Narisma, G.T., Pitman, A.J., Lei, M., Niyogi, D. Using the factor separation method for land-use lan-cover change impacts on weather and climate process with the Regional Atmospheric Modeling System. *The Factor Separation Methods in the Atmosphere Applications and Future Prospects*, Cambridge University Press, 2011.
- 2007 Narisma, G.T., Foley, J.A., Licker, R., Ramankutty Abrupt changes in rainfall during the twentieth century. *Geophysical Research Letters*, 2007, 34(LO6710):doi:10.1029/2006GL028628.
- 2007 Pitman, A.J., Narisma, G.T., McAneney, J. The impact of climate change on the risk of forest and grassland fires in Australia. *Climatic Change*, 2007, 84:doi:10.1007/s10584-007-9243-6.
- 2006 Narisma, G.T., Pitman, A.J. Exploring the sensitivity of the Australian climate to regional land cover change scenarios under increasing CO2 concentrations and warmer temperatures. *Earth Interactions (Paper No.70)*, 2006, 10.
- 2006 Gero, A., Pitman, A.j., Narisma, G.T., Jacobson, C., Pielke, R.A. The impact of land cover change on storms in the Sydney Basin. *Global and Planetary Change*, 2006, 54:57-58.
- 2005 Pitman, A.J., Narisma, G.T. The role of land surface processes in regional climate change: a case study of future land cover change over South Western Australia. *Meteorology and Atmospheric Physics*, 2005, 89(1-4):235-249.
- 2005 Peel, D., Pitman, A.J., Hughes, L., Narisma, G.T. The impact of an explicit representation of Eucalyptus on the simulation of the January climate of Australia. *Environmental Modelling and Software*, 2005, 20:595-612.
- 2004 Narisma, G.T., Pitman, A.J. The effect of including biospheric feedbacks on the impact of land cover change over Australia. *Earth Interactions (paper 5)*, 2004, 8:doi:10.1175/1087-3562(2004)008.
- 2004 Pitman, A.J., Narisma, G.T., Pielke, R.A. Sr., Holbrook, N.J. The impact of land cover change on the climate of Southwest Western Australia. *Journal of Geophysics Research*, 2004, 109:doi: 10.1029/2003JD004347.
- 2003 Narisma, G.T., Pitman, A.J. The impact of 200 years of land cover change on th Australian near-surface climate. *Journal of Hydrometeorology*, 2003, 4:424-436.
- 2003 Narisma, G.T., Pitman, A.J., Eastman, J., Waterrson, I.G., Pielke, R., Sr., Beltran-Przekurat, A. The role of biospheric feedbacks in the simulation of the impact of historical land cover change on the Australian January climate. *Geophysical Research Letters*, 2003, 30(6-1-6-4):10.1029/2003GL018261.
- 2000 Lim, M., Narisma, G., Saloma, C. Spectral extrapolation by simplex projection. *Opt Commun*, 2000, 176:373-385.
- 1995 Saloma, C., Narisma, G. Modelling spatially-extended complex systems from experimentaldata: Sennsitivity to sampling intervals. *Journal of Applied Physics*, 1995, 77:1374-1377.
- Villarin, J.T., S.J., Narisma, G.T. *Endangered Climate. Stellar Origins, Human Ways: Reading in Science , Technology and Society* (Cuyegkeng, Ma. Assunta C., ed., Ateneo de Manila University Press, :211-229.

**Name** Nimfa B. Ogena

**Gender** Female

**Civil Status** Married

**Organizational Affiliations**

Director, University of the Philippines Population Institute (UPPI), Diliman, Quezon City

Associate Dean for Academic Affairs., College of Social Sciences and Philosophy, UP Diliman, Quezon City

Professor, University of the Philippines Population Institute (UPPI), UP Diliman., UP, Diliman, Quezon City

Population Census Consultant, National Statistics Office (NSO) and UN Funds for Population (UNFPA),

**Education**

Ph.D. in Sociology and Demography, Pennsylvania State University, USA

Diploma in International Relations and Development., Institute of Social Studies, The Hague, The Netherlands

Master of Arts in Demography, Population Institute, College of Social Science and Philosophy, University of the Philippines (UP), Diliman, Quezon City

Bachelor of Science in Statistics, University of the Philippines, Statistical Center, UP Manila

**Fields of Specialization**

Statistics

Sociology

Demography

**Employment**

Associate Dean for Academic Affairs, College of Social Sciences and Philosophy, UP Diliman, 2006 N-present-

Population Census Consultant, National Statistics Office (NSO) and United Nations Fund for Population (UNFPA), -

Member, Ad Hoc Committee for the 2008 National Demographic and Health Survey (NDHS) Preparation of Final Rep, -

Member, Core Group on No.2 MDG: Achieve universal primary education, National Academy of Science and Technol, -

Focal Person on Population Management, National Research Council of the Philippines (NRCP), -

Chairperson, Technical Working Group on Migration Statistics under the Technical Committee on Population and Hous, -

Board Member and Public Relation Officer, Society of Balik (Returning) Scientist Awardees (SBSA), 1999-present-

Member, Board of Directors, University of the Philippines Alumni Association (UPAA) School of Statistics Chapter, 2006 M - present-

Professor, University of the Philippines Alumni Association (UPPI), UP Diliman, 2005 JI - present-

## **Association Membership**

Member, National Research Council of the Philippines (NRCP)

Member, Board of Directors, University of the Philippines Alumni Association (UPAA) School of Statistics Chapter

Board Member and Public Relations Officer, Society of Balik (Returning) Scientist Awardees (SBSA)

Chairperson, Technical Working Group on Migration Statistics, Technical Committee on Population and Housing, National Statistics Coordination Board (NSCB)

Focal Person on Population Management, National Research Council of the Philippines (NRCP)

Member, Core Group on No. 2 MDG: Achieve universal primary education, National Academy of Science and Technology (NAST)

Member, AdHoc Committee, 2008 National Demographic and Health Survey Preparation of Final Report

## **Honors / Awards**

Fellow Awards, Packard-Gates Fellowship 2004-2005

Gawad Chancellor Awardee, University of the Philippines, Diliman 2002

Four (4) UP Diliman International Publication Awards, UPD 2008

UP Diliman Centennial Professorial Chair Award (Batch 1), UPD 2007 D 31- 2008 Ja 1

Rafael Salas Centennial Professorial Award, UP Diliman 2009

Outstanding Alumni, Muntinlupa National High School, MNHS 2008

## **Trainings**

Baseline Study for the Joint Programme on Youth, Employment and Migration (YEM), International Organization for Migration (IOM) 2010 My-N

Forum of New Members, Pi Gamma Mu International Honor Society in Social Sciences, Philippines Beta C, DLSU, Manila 2008 N 21

Symposium 3: Neurology of Ageing during the UP Manila's 15th Grand Scientific Symposium, The Brain, Hyatt Hotel Pedro Gil and Casino Manila 2008 F 1-2

NAST Roundtable Discussion on Ageing, Trader's Hotel, Manila 2008 D 18

Conference of Marriage, Culture and Poverty in Southeast Asia, Jakarta, Indonesia 2008

Symposium on Adolescents, Fertility and Sexuality, University of Rizal System, Institute of Social Work and Community Development, Rodriguez, Rizal 2003 S 30

16th SRTC Annual Conference, Improvement of Labor Migration Statistics Towards the Protection of Migr, Discovery Suites, Ortigas Center, Pasig City 2003 O

PCCI Chamber Management Workshop, Waterfront Insular Hotel, Davao City 2003 N 4-5

DOST-SEI Research Dissemination Forum, Studies in Science and Technology Human Resources, Richmond Hotel, Ortigas Center, Pasig City 2003 N 24

National Conference of Workplace Reproductive health Coalitions of the TUCP, Metro Convention Center 2003 JI 23-29

## **Researches**

### **Completed**

State of the Philippine Population Report Philippines  
Development and Piloting of Workforce Projection and Validation Tool  
Enhanced Analysis of the Results of the 2005 and 2007 Integrated HIV Behavioral and Serological Survey (IHBS)

Inventory and Assessment of Health Information System (HIS) for Family Health in the Philippines (SO3 areas and NonSO3 areas)  
Baseline Study for the Joint Programme on Youth, Employment and Migration (YEM).  
Factors affecting the delay of marriage in the Philippines  
A Summative Evaluation of PopDevEd: Population and Development Education Teaching Modules for Catholic Schools  
Pangasinan facilities and willingness to pay surveys.  
Situation Analysis of the Philippine Population  
TB in the Philippine Workforce

#### **On-going**

For the Chapter on the Philippines, which will appear in the book entitled Asian Urbanization in the New Millennium  
For a chapter on Makati City, one of four cities covered in the survey of non profit organizations, which will appear in the book tentatively entitled between the state and the market: Nonprofit organizations in the Philippines  
Information Technology Development Program  
Theme and Geographic coordinator and sexuality III in the Philippines

#### **Ongoing**

Transnational mobility and Filipino's perception on marital union and family formation

#### **Papers Presented**

Ogena, N.B. (2008 S 18-20). How do Filipino age? A socio demographic perspective, 2nd National Congress of Alzheimer's Disease Association of the Philippines (Theme: Dementia Prevention), Manila Hotel.

Ogena N.B. (2008 N 21). Demography in everyday life, Forum of New Members, Pi Gamma Mu International Honor Society in Social Sciences, Philippines Beta Chapter, DLSU, Manila.

Ogena, N.B. (2008 My 7-9). Philippine Population and Education Prospects: The Challenge of Universal Primary Education for All, 6th National Social Science Congress, Philippine Social Science Center, Commonwealth Ave., and at the Ateneo de Manila University, Quezon City.

Ogena, N.B., Kabamalan, M.M., Sasota, R.S. (2008 JI 23-26). Marriage as ideal, cohabitation as practical: Revisiting meaning of marriage in the Philippines, 8th International Conference on Philippine Studies (ICOPHIL), Philippine Social Science Center.

Ogena, N.B. (2008 F 1-2). When Filipinos 100 Years. The Demographics of Ageing, Symposium 3: Neurology of Ageing during the UP Manila's 15th Grand Scientific Symposium "The Brain and Behavior: Optimizing Function from Birth and Beyond", Hyatt Hotel Pedro Gil and Casino Manila.

Ogena, N.B. (2008 D 18). The demographics of ageing, NAST Roundtable Discussion on Ageing, at Trader's Hotel, Manila.

Ogena, N.B. (2008 Ag 21). Marital timing in the Philippines: evidence from the 2003 NDHS, Conference of Marriage, Culture and Poverty in Southeast Asia, Jakarta, Indonesia.

Ogena, N.B. (2003 S 30). Population, poverty and environment linkages in the Philippines, Symposium on Adolescents, Fertility and Sexuality, University of Rizal System, Institute of Social Work and Community Development Rodriguez, Rizal.

Ogena, N.B. (2003 O). Available labor statistics and indicators in the Philippines: Their relevance in assessing population and migration dynamics, 16th SRTC Annual Conference, Improvement of Labor Migration Statistics Towards the Protection of Migrant Workers and Economic Competitiveness, Discovery Suites, Ortigas Center, Pasig City.

Ogena, N.B. (2003 N 5-7). Mobilizing unions for reproductive health programmes and services, TUCP National Conference, Cebu Midtown Hotel, Cebu City.

Ogena, N.B. (2003 N 4-5). Population and development implications for business in the Philippines, PCCI Chamber Management Workshop, Waterfront Insular Hotel, Davao City.

Ogena, N.B. (2003 N 24). Demographic estimates of S & T human resources in the Philippine government, DOST-SEI Research Dissemination Forum, Studies in Science and Technology Human Resources, Richmond Hotel, Ortigas Center, Pasig City.

Ogena, N.B. (2003 JI 23-29). The Philippine population and development trends/challenges, National Conference of Workplace Reproductive Health Coalitions of the Trade Union Congress of the Philippines, Metro Convention Center.

Ogena, N.B. (2003 JI 16-17). Populations and development, CSSP Extramural Program on Social Science/Social Studies, Development and Governance, Palawan State University, Puerto Princesa City, Palawan.

Ogena, N.B. (2003 JI 14). Pushing the population and development challenge: The Filipino Family and Social Responsibility., UPPI-PLCPD Participatory Round of Discussion on POPDEV Bill, Balay Kalinaw, University of the Philippines Diliman, Quezon City.

Ogena, N.B. (2003 Je 15-17). The adolescent's social, demographic and economic environment: Perceptions and Realities., 5th National Social Science Center, Diliman, Quezon City.

Ogena, N.B. (2003 F 16-19). Urban commuting patterns in the Philippines: Personal Health and Security Implications, Workshop on Urbanization, National Center for Epidemiology and Population Health, Australia National University.

Ogena, N.B. (2003 D 5-6). Urbanward migration and occupation mobility in the Philippines: Who among female migrants in Metro Manila Davao will be Upward Mobile., 6th Philippine Studies Conference, Philippine Social Science Center, Diliman, Quezon City.

Ogena, N.B. (2003 D 11). Population and International Migration in the Philippines: Trends Issues and Policy Implications, 3rd Roundtable Discussion of the Series of Migration Conference, AIM Conference Center, Legaspi Village, Makati City.

Ogena, N.B. (2003 Ap 22-25). Migration and Its Effects on Socio Economic Conditions, CSSP Extramural Program, CSSP Audio Visual Room.

Ogena, N.B. (2003 Ag 01). The young adult fertility and sexuality study implications for sex education, Workshop on the Population Education Concepts and Message Based on the 2002 Basic Education Curriculum, Camp, Baguio City.

- Ogena, N.B. (2002 O 01). International migration policies in the Philippines, Institute of Southeast Asian Studies(ISEAS)in Singapore.
- Ogena, N.B. (2002 Mr 13). The Non Profit Organizations in Makati, Metro Manila, Philippine Non-Profit Sector Project(PNSP)Regional Research Dissemination Workshop,UP Diliman, Quezon City.
- Ogena, N.B. (2002 Ap 17-20). Social Science Research Methodology, CSSP Extramural Program , CSSP Audio Visual Room.
- Ogena, N.B. (2001 O 2). YoungAdult Female Migration Process, Determinants and Differentials in Two Metropolitan Areas of the Philippines, 1995-1999, 8th National Convention on Statistics held at the Westin Philippine Plaza, Manila.
- Ogena, N.B. (2001 Ap 16-18). Migration of Wives to Philippine Cities at the Turn of the Century: The Family as Migration Decisions Partners, Asia Pacific Network (APN)Workshop on Migration and the 'Asian Family' in a Globalizing World, Singapore.
- Ogena, N.B. (2001 Ag 18-21). Attitudes toward Marriage in the Philippines Attitudes toward Marriage in the Philippines, Annual Meeting of the American Sociological Association, held at Anaheim, California.
- Ogena, N.B. (2001). An Impact Evaluation of the Matching Grants Program in the Philippines, Population Council, Manila. LPP-Matching Grant Program Performance and Evaluation Report: Dasmarinas, Cavite, Philippines, Population Council, Manila.
- Ogena, N.B. (2000 N 9). How are Filipino Youths Changing? The Shifting lifestyles of our nation's young, Philippine Center for Population and Development, Inc. for its Media Dialogue on "Changing Lifestyles of the Filipino Adolescents" held at Via Mare Penthouse, Tektite Building, Ortigas Center, Pasig City.
- Ogena, N.B. (2000 Ag 16-20). Changing Attitude Toward Marriage in the Philippines, Thailand and Vietnam, Annual Meeting of the Rural Sociological Society Meeting, Washington D.C..
- Ogena, N.B. (2000 Ag 13-17). Changing Attitudes Toward Marriage and Partnering in the Philippines, Thailand and Vietnam, 63rd Annual Meeting of the Rural Sociological Society, Washington D.C..
- Ogena, N.B. (). The Proposed Key Indicators for POPDEV Planning at the Local Level, Commission on Population as part of POPCOM Consultancy Work in connection with the POPDEV Planning at the Local Level (PPLL)Project.

## **Publications**

- 2010 Ogena, N.B. Population Growth and Its Implications on the Realization of the MDGs. Transactions of the National Academy of Science and Technology, 2010, 32(2):181-195.
- 2008 Ogena, N.B., Cabilao-Valencia, M., Roma, G.M.R. Filipina Marriage Migration Streams to Japan, Taiwan and South Korea. Cross-Border Marriage: Process and Dynamics, Doo-Sub Kim (Ed.), Seoul, Korea: Institute of Population and Aging Research (IPAR), Hanyang University, 2008.
- 2008 Ogena, N.B. Human Capital Projections for the Philippines: Issues and Challenges for the 21st Century. Philippine Population Review, 2008, 7.
- 2008 Ogena, N.B. Human Capital Projections for the Philippines: Issues and Challenges for the 21st Century. Philippine Population Review, 2008, 7.
- 2008 Ogena, N.B., Valencia, M.C., Roma, G.M.R. Filipina Marriage Migration Streams to Japan, Taiwan and South Korea. Cross-Border Marriage: Process and

- Dynamics Seoul, Korea: Institute of Population and Aging Research (IPAR),(Doo-Sub Kim (Ed.), Hanyang University, 2008.
- 2007 Williams, L., Kabamalan, M.M.M., Ogena, N.B. Cohabitation in the Philippines: Attitudes and Behaviors among Young Women and Men. *Journal of Marriage and Family*, 2007, 69:1244-1256.
- 2007 Ogena, N.B. The Low and Slow Ageing in the Philippines: Auspicious or Challenging?. *The Impact of Ageing: A Common Challenge for Europe and Asia.*(In Gabriele Sinigoj, Gavin Jones, Katsuiku Hirokawa, Sepp Linhart (Eds.) Vienna: LIT Publishing, 2007:410 p..
- 2005 Ogena, N.B. Overview of ARH in the Philippines. *Adolescent Reproductive Health (ARH) Modules for High School Students: A Guide for Teacher and Guidance Counselors*, 2005.
- 2005 Ogena, N.B. Urbanization in the Philippines. *Asian Urbanization in the New Millennium*, 2005:222-242.
- 2004 Ogena, N.B. Policies on International Migration : Philippine Issues and Challenges. *International Migration in Southeast Asia: Impacts and Challenges*, 2004.
- 2004 Ogena, N.B. Profile of the Filipino Youth. *Youth Sex and Risk Behaviors in the Philippines*, 2004.
- 2004 Ogena, N.B. A Development Concept of Adolescents in the Philippines.The Case of Adolescents in the Philippines. *Philippine Population Review*, 2004:1-8.
- 2003 Ogena, N.B., Reolalas, A.T. Poverty, Fertility, and Family Planning in the Philippines: Effects and Counterfactual Simulations. *National Demographic and Health Survey Further Analysis/ Quezon City: UPPI/DRDF/NSO/Macro International*, 2003.
- 2002 Ogena, N.B. Master in Population Studies (MPopS): A new 12-Month Graduate program at the University of the Philippines. *Philippine Population Review*, 2002, 1(1):124-132.
- 2002 Ogena, N.B. Migration and urban life satisfaction in Metro Manila.. *Sustainable Urbanization and Human Environmental Security in Asia:Final Report/National Institute of Population and Social Security Research*, 2002, 304::379-396.
- 2001 Ogena, N.B. State of the Philippine Population Report 2000. *Time to Act: Needs, Options, Decisions,Commission on Population, Republic of the Philippines* , 2001 Ja.
- 2001 Ogena, N.B. The Study of the Effects of Migration on the Environment: Metro Manila and Metro Davao. *Sustainable Urbanization and Human and Environmental Security in Asia: Interim Report, National Institute of Population and Social Security Research, Tokyo Japan. Research Series No. 301*, 2001(301):3-172.
- 2000 Ogena, N.B. International Migration, Human Resource Development and the Occupational Structure in the Philippines. *Proceedings of the International Workshop on International Migration and Human Resource Development in the APEC Member Economies, APEC-HRDNEDM and the Institute for Developing Economies, JETRO. Chiba, Japan, 2000 Mr.*
- 2000 Ogena, N.B. A Quantitative Approach for Examining Female Status and Development Interrelationships: With application to Pre-Beijing data from the Philippines. *Social Science Diliman*, 2000 JI-D, 1(2):130-162.
- 1999 Ogena, N.B. How are the Filipino youth changing? The shifting lifestyles of our nation's young, 1970-1990s.. *Philippine Social Science Review*, 1999 Ja-D, 56.



- 1999 Ogena, N.B., DeJong, G. Migration and Occupational Mobility in Thailand. *Asian Pacific Migration Journal*, 1999, 8(4):418-446.
- 1999 Ogena, N.B., Marquez, M.N., Quiray, Z.E. Women's Role in Sustainable Development: Religious Differentials in the Philippines. National Institute of Population and Social Security Research, Tokyo Japan, 1999(296):95-108.
- 1999 Ogena, N.B., Marquez, M.N., Quiray, Z. Migration and Urban Life Adaptation in the Philippines: Findings from Focus Group Discussions. National Institute of Population and Social Security Research, Tokyo Japan, 1999(296):83-94.
- 1998 Ogena, N.B. Underestimation of Migration Statistics in the Philippines: What do we do next?. *Conference Papers for the National Convention on Statistics*, 1998, 2:61-63.
- 1997 Ogena, N.B. Migration and the Rural Family: Sources of Support and Strain in a Mobile Society. Institute for Population and Social Research, 1997.
- 1997 Ogena, N.B. Globalization with Equity: Policies for Growth in Thailand. Institute for Population and Social Research, 1997.
- 1997 Ogena, N.B. Premarital Sexual Behavior of Young Single Female Factory Workers in Thailand: Selection of Context?. Faculty of Social Sciences, Chiang Mai University, 1997.
- 1996 Ogena, N.B. Technology and Labor Market Changes in Thailand. Thailand Research Fund, 1996.
- 1995 Ogena, N.B. Migration and Union Formation among Puerto Rican Women. *International Migration Review*, 1995, 29(3).
- 1991 Ogena, N.B. Labor Force Behavior in the Process of Socio-Economic Attainment: New Scales Added to Classical Models. *Social Science Research*, 1991, 20(3):256-270.
- Ogena, N.B. The Philippines. Chapter on: Asian Urbanization in the New Millennium, :2005.

**Name** Agnes T. Padre  
**Place of Birth** Manila  
**Date of Birth** March 18, 1954  
**Gender** Female  
**Civil Status** Married  
**Home Address** Park Drive, Marymount Village, Anos, Los Baños, Laguna

**Organizational Affiliations**

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

**Education**

PhD Soil Science, Chiba University, Chiba, Japan 2006 S

MS Agricultural Chemistry, University of the Philippines at Los Baños, College, Los Baños Laguna 1981

BS Chemistry, University of Santo Tomas, España, Manila 1975

**Fields of Specialization**

Agricultural Chemistry

Soil Health Science

**Employment**

Associate Scientist, International Rice Research Institute, 1976-present-

Research Assistant, University of Santo Tomas Research Center, 1975 JI-D-

Research Assistant, Soil Microbiology Dept., IRRI, 1976 Ja-1982-

Senior Research Assistant /Associate Scientist, Crop, Soil and Water Sciences Division (CSWS), IRRI, 1983-2002-

Associate Scientist, Crop and Environmental Sciences Division (CESD), IRRI, 2002-2006-

Associate Scientist, Crop and Environmental Sciences Division (CESD), IRRI, 2006-present-

**Honors / Awards**

Special Achievement Award, International Rice Research Institute 1992 D 18

**Trainings**

2nd International Rice Congress, New Delhi, India 2006 O 8-12

Japan Society of Soil Microbiology Conference, Tohoku University, Japan 2006 Je 10-12

Development of Environmental Sustainability Indicators, The Impact of Rice Production on Environmental Sustainability, IRRI, Los Banos, Laguna 2006 F 13-14

20th Convention and 47th Seminar on Quality Standards for the Laboratory, DOST, Bicutan, Taguig, metro Manila 2006 D 8

Theory and Laboratory Training for Soil Quality Parameter "Hot Water Extractable C and N, IRRI, Los Banos, Laguna 2004 Mr 2-5

16th International Symposium on Environmental Biogeochemistry, Oirase, Aomori Prefecture, Japan 2003 S 1-6

IRRC-RTOP Startup Workshop "Reaching Toward Optimum Productivity", IRRI, Los Banos, Laguna 2001 F 5-9

RTDP Review and Planning Workshop, Thanjavur, India 1999 S 5-12

Research Management and Enhancement Course, SEARCA, College, Laguna/Univ. of Malaysia, Serdang, Selangor, Malaysia 1994 Ag 1-26

Training on Measurements of Nitrogen Use Efficiency, NARC, Tsukuba, Japan 1992 N

Training on Various Techniques in Measuring Biological Nitrogen Fixation, NifTAL Project, University of Hawaii at Mailea, Maui, Hawaii 1987

UNESCO Regional Symposium & Workshop on "Biotechnology of Nitrogen Fixation in the Tropics", University Pertanian, Malaysia 1986 Ag 25-29

### Papers Presented

Ladha J. K., Tirol-Padre, A., Reddy, P. M. and Ventura, W. B. (1992 D 6-12). Prospects and problems of biological nitrogen fixation in rice production: A critical assessment, 9th International Congress on Nitrogen Fixation, Cancun, Mexico.

Ladha, J.K., Tirol, A.C., Ventura, W., Caldo, G., Daroy, M.L., Watanabe, I. (1985). Rice plant-associated N<sub>2</sub>-fixation and selection of rice varieties with higher N<sub>2</sub> fixation, In: Nitrogen fixation research progress: Proceedings of the 6th International Symposium on Nitrogen Fixation, H J Evans et al (ed.), Dordrecht, Martinus Nijhoff.

### Publications

- 2012 Gaihre, Y.K., Tirol-Padre, A., Wassmann, R., et al. Spatial and Temporal Variations in Methane Fluxes from Irrigated Lowland Rice Fields. *The Philippine Agricultural Scientist*, 2012, 94(4):35-42.
- 2011 Ladha, J.K., Reddy, C.K., Padre, A.T. et al. Role of nitrogen fertilization in sustaining organic matter in cultivated soils. *Journal of Environmental Quality*, 2011, 40(6):1756-66.
- 2008 Haefele, S.M., Jabbar, S.M.A., Siopongco, J.D.L.C. , Tirol-Padre, A., Amarante, S.T., Sta Cruz, P.C., Cosico, W.C. Nitrogen use efficiency in selected rice (*Oryza sativa* L.) genotypes under different water regimes and nitrogen levels. *Field Crops Research*, 2008, 107:137-146.
- 2007 Tirol-Padre, A., Ladha, J.K., Regmi, A.P., Bhandari, A.L., Inubushi, K. Organic amendments affect soil parameters in two long-term rice-wheat experiments. *Soil Science Society of America Journal*, 2007, 71:442-452.
- 2007 Bhushan, L., Ladha, J.K., Gupta, R.K., Singh, S., Tirol-Padre, A., Sahrawat, Y.S., Gathala, M., Pathak, H. Saving of water and labor in rice-wheat system with no-tillage and direct seeding technologies. *Agronomy Journal*, 2007, 99:1288-1296.
- 2007 Tirol-Padre, A., Ladha, J.K., Regmi, P. et al. (2007) Organic Amendments Affect Soil Parameters in Two Long-Term Rice-Wheat Experiments. *Soil Science Society of America Journal*, 2007, 71(2):442.
- 2006 Padre, A.T., Ladha, J.K. Integrating rice and wheat productivity trends using SAS mixed-procedure and meta-analysis. *Field Crops Research*, 2006, 95(1):75-88.
- 2006 Tirol-Padre, A., Ladha, J.K. Integrating rice and wheat productivity trends using the SAS mixed-procedure and meta-analysis. *Field Crops Research*, 2006, 95(1):75-88.
- 2005 Tsuchiya, K., Inubushi, K., Ladha, J.K. Enhancing soil quality through residue management in a rice-wheat system in Fukuoka, Japan. *Soil Science Plant*

- Nutrition, 2005, 51(6):849-860.
- 2004 Ladha, J.K., Padre, A.T. Assessing the reliability of permanganate-oxidizable C as an index of soil labile C. *Soil Science Society of America Journal*, 2004, 68(3):969-978.
- 2004 Arvind K. Shukla, Jagdish K. Ladha, V. K. Singh, B. S. Dwivedi, Vethaiya Balasubramanian, Raj K. Gupta, S. K. Sharma, Yogendra Singh, H. Pathak, P. S. Pandey, Agnes T. Padre, R. L. Yadav Calibrating the Leaf Color Chart for Nitrogen Management in Different Genotypes of Rice and Wheat in a Systems Perspective. *Journal of Environmental Quality*, 2004, 96(6).
- 2003 Ladha J.K., Dawe, D., Pathak, H., Yadav, R.L., Singh, B., Singh, Y., Singh, P., Kundu, A.L., Sakal, R., Ram, N., Regmi, A.P., Gami, S.K., Bhandari, A.L., Amin, R., Yadav, C.R., Bhattarai, E.M., Das, S., Aggarwal, H.P., Gupta, R.K., Hobbs, P.R. How extensive are yield declines in long-term rice-wheat experiments in Asia. *Field Crops Research*, 2003, 81:159-180.
- 2003 Sharma P.K., Ladha, J.K., Verma, T.S., Bhagat, R.M. Rice-wheat productivity and nutrient status in a lantana (*Lantana spp.*) amended soil. *Biol. Fertil. Soils*, 2003, 37:108-114.
- 2003 Ladha J.K., D. Dawe, H. Pathak, A.T. Padre, R.L. Bijay Singh, Y., Singh, Y., Singh, Y., Singh, P., Kundu, A. L., Sakal, R., Ram, N., Regmi, A.P., Gami, S. K., Bhandari, A.L., Amin, R., Yadav, C. R., Bhattarai, E. M., Das, S., Aggarwal, H. P., Gupta, R. K., Hobbs, P. R. How extensive are yield declines in long-term rice-wheat experiments in Asia?. *Field Crops Res.*, 2003, 81:159-180.
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- 2003 Ladha, J.K., Pathak, H., Tirol-Padre, A. et al. Productivity trends in intensive rice-wheat cropping systems in Asia. *ASA Special Publication Number 65.*, 2003:45-76.
- 2002 Chalk, P.M., Ladha, J. K. and Padre, A. T. Efficacy of three <sup>15</sup>N labelling techniques for estimating below-ground N in *Sesbania rostrata*. *Biol. Fertil. Soils*, 2002, 35:387-389.
- 2002 Bhandari, A.L., Ladha, J.K., Pathak, H., Padre, A.T., Dawe, D. and Gupta, R. K. Yield and soil nutrient changes in a long-term rice-wheat rotation in India. *Soil Sci. Soc. Am. J.*, 2002, 66:162-170.
- 1999 Pascua, S.R., Ventura, W., Agustin, E.O., Padre, A. T., Valencia, D. A., Marcos, T. F., Sta. Cruz, P.C., Obien, S. R., Ladha, J. K. Yield trends and apparent nutrient balances in intensified and diversified rice-based cropping systems of Ilocos Norte, Philippines. *Experimental Agriculture*, 1999, 35:181-199.
- 1999 Agustin, E.O., Ortal, C.I., Pascua, S.R., Sta. Cruz, P.C., Padre, A.T., Ventura, W., Obien, S.R., Ladha, J. K. Role of Indigo (*Indigofera tinctoria*) in improving the productivity of rainfed lowland rice-based cropping systems. *Experimental Agriculture*, 1999, 35:201-210.
- 1998 Ladha, J.K., Tirol-Padre, A., Punzalan, G., Castillo, E., Singh, U. and Reddy, C. K. Non-destructive estimation of shoot nitrogen at flowering stage in different rice genotypes. *Agron. J.*, 1998, 90:33-40.
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- 1997 Singh, U., Ladha, J. K., Castillo, E. G., Punzalan, G., Tirol-Padre, A. and Duqueza,

- M. Genotypic variation in nitrogen use efficiency in medium-and long duration rice. *Field Crops Res.*, 1997, 68:35-53.
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- 1990 Tirol-Padre, A., Ladha, J.K. Effect of planting method and optimum seeding rate on biomass production and nitrogen fixation in *Sesbania rostrata*. *International Rice Research Newsletter*, 1990, 15:15-16.
- 1989 Ladha J. K., Tirol-Padre, A., Punzalan, G. Garcia, M. and Watanabe, I. Effect of inorganic N and organic fertilizers on nitrogen-fixing (acetylene-reducing) activity associated with wetland rice plants. In: F. A. Skinner et al. (Eds.) *Nitrogen fixation with non-legumes*, Kluwer Academic Publishers, 1989:263-272.
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- 1988 Tirol-Padre, A., J. K., Ladha, Punzalan, G. C. and Watanabe, I. A plant sampling procedure for acetylene reduction assay to detect rice varietal differences in ability to stimulate N<sub>2</sub> fixation. *Soil Biol. Biochemistry*, 1988, 20:175-183.
- 1987 Ladha, J.K., Tirol-Padre, A., Daroy, M. L. G., Punzalan, G. and Watanabe, I. The effects on N<sub>2</sub> fixation (C<sub>2</sub>H<sub>2</sub> reduction), bacterial population and rice plant growth of two modes of straw application to a wetland rice field. *Biol. Fertil. Soils*, 1987, 5(2):106-111.
- 1987 Ladha, J.K., Tirol-Padre, A., Punzalan, G. C. and Watanabe, I. Nitrogen-fixing (C<sub>2</sub>H<sub>2</sub>-reducing) activity and plant growth characters of 16 wetland rice varieties. *Soil Science and Plant Nutrition.*, 1987, 33(2):187-200.
- 1986 Roger, P.A., Tirol, A.C., Ardales, S. and Watanabe, I. Chemical composition of cultures and natural samples of N<sub>2</sub>-fixing blue-green algae from rice fields. *Biol. Fertil. Soils*, 1986, 2(3):131-146.
- 1986 Ladha, J. K., Tirol, A. C., Daroy, M. L. G., G. Caldo, G., Ventura, W. B., Watanabe, I. Plant-associated N<sub>2</sub>-fixation (C<sub>2</sub>H<sub>2</sub>-reduction) by five rice varieties, and relationship with plant growth characters as affected by straw incorporation. *Soil Science Plant Nutrition*, 1986, 32:91-106.
- 1986 Ladha, J. K., Tirol, A. C., Caldo, G., and Watanabe, I. Rice plant-associated N<sub>2</sub>-fixation as affected by genotype, inorganic fertilizer, and organic manure. In: *Trans. XIII Congress of the International Society of Soil Science*, Hamburg, 1986, 2:589-599.
- 1986 Barraquio, W.L., Daroy, M.L., Tirol, A.C., Ladha, J.K. and Watanabe, I. Laboratory acetylene reduction assay for relative measurement of N<sub>2</sub>-fixing activities associated with field-grown wetland rice plants. *Plant Soil*, 1986, 90:359-372.
- 1986 Ladha, J.K., Padre, A.T., Nayak, D.N. et al. Nitrogen fixation by single and mixed heterotrophic bacteria in flooded paddy soils amended with hydrogen peroxide treated straw (hemicellulose). *Proceedings of the IV International Symposium of Microbial Ecology*, Aug 24-29, 1986, Ljubljana, Yugoslavia., 1986:603-609.
- 1984 App, A. A., Santiago, S. T., Daez, C., Menguito, C., Ventura, W. B., Tirol, A. C., Po, J., Watanabe, I., De Datta, S. K. and Roger, P. A. Estimation of the nitrogen balance for irrigated rice and the contribution of phototrophic nitrogen fixation. *Field Crops Research*, 1984, 9:17-27.
- 1983 Grant, I.F., Tirol, A.C., Aziz, T., Watanabe, I. Regulation of invertebrate grazers as

- a means to enhance biomass and nitrogen fixation of Cyanophyceae wetland rice fields. *Soil Science Society of America Journal*, 1983, 47:669-675.
- 1982 Tirol, A.C., Roger, P. A., Watanabe, I. Fate of nitrogen from a blue-green alga in a flooded rice soil. *Soil Science Plant Nutrition*, 1982, 28(4):559-569.
- 1981 Padre, A. T. Mineralization of blue-green algal nitrogen in a rice paddy soil and its availability to the rice plant . MS Thesis, 1981.
- 1981 Tirol, A.C., Santiago, S.T., Watanabe, I. Effect of the insecticide carbofuran on microbial activities in flooded soil. *Journal of Pest. Science Japan*, 1981, 6:83-89.
- 1981 Roger, P.A., Kulasooriya, S.A., Tirol, A.C., Craswell, E.T. Deep placement: A method of nitrogen fertilizer application compatible with algal nitrogen fixation in wetland rice soils. *Plant and Soil*, 1981, 57:137.
- 1978 Siddaramappa, R.A., Tirol, A. C., Seiber, J. Heinrichs, N.E. A., and I. Watanabe, I. The degradation of carbofuran in paddy water and flooded soil of untreated and retreated rice fields. *J. Environ. Sci. Health*, 1978, B13:369-380.
- Padre, A. T. Managing C and N for sustaining soil quality and productivity of rice in rice-rice and rice-wheat systems . PhD Dissertation, .

**Name** Michelle Grace V. Paraso  
**Place of Birth** Manila  
**Date of Birth** May 22, 1973  
**Gender** Female  
**Civil Status** Married

**Organizational Affiliations**

Associate Professor 2, University of the Philippines at Los Baños, College, Laguna

**Education**

PhD in Environmental Science, University of the Philippines Los Baños, College, Laguna 2011

M.Sc.in Veterinary Medicine, Swedish University of Agricultural Sciences, Uppsala, Sweden, 2001

Doctor of Veterinary Medicine, University of the Philippines Los Baños, College, Laguna 1997

**Fields of Specialization**

Environmental Science (Aquatic Ecotoxicology)

Veterinary Pharmacology (Toxicology)

Veterinary Physiology (Endocrine Physiology)

**Association Membership**

Member, SEARCA Fellows Association of the Philippines (SFAP)

Member, Philippine Veterinary Medical Association of the Philippines (PVAM)

Member, National Research Council of the Philippines (NRCP)

Member, Philippine Society of Animal Science (PSAS)

**Honors / Awards**

Outstanding Young Scientist Award, NAST-DOST 2012

Best Paper in Anatomy, Physiology and Biochemistry Category (Vitellogenin induction and gonad abnor, Philippine Society of Animal Science 2011

International Publication Award for the Scientific article, A survey of waste management practices o, UP System 2008

Academic Excellence Award, UPLB Graduate School 2011

PCAMRD-ASTHRDP PhD Dissertation Grant, DOST 2010

SEARCA Scholarship for Graduate Study, SEARCA 2008

Metro Manila Commission Professorial Chair, UP System 2007

UP Diamond Jubilee Professorial Chair (2002 JI 1-2006 Je 30), UP System 2007

Dr Jose A. Solis-Dr Stewart Parker Professorial Chair, UP System 2007

Swedish International Foundation for Learning and Higher Education (STINT)Scholarship, STINT 1999

International Publication Award for the Scientific Article, Effects of waterborne exposure..., UP System 2008

International Publication Award for the research article, Pathologic effects of different biological, UP System 2007

UPLB Alumni Association Leadership Award, UPLB  
Governor Jose A. Lina Leadership Award,  
Alumni Medal of Excellence, UPCVM  
Professor Jose A. Solis Memorial Award in Veterinary Anatomy,

## **Trainings**

Quantum Geographical Information System (sponsored by FAO), Joya Lofts and Towers, Makati City 2011 JI 19

15th Talakayan Series on Environment and Development(TSED), UPLB 2011 JI 19

Training on Research Methods, SESAM Simulation Laboratory, UPLB 2011 Ap 6-9

Global Environmental Leadership: Experiences from Sweden, Japan and Australia, SESAM Lecture Hall, UPLB 2010 Je 24

Environment (ASEAN 2015 Environmental Standards and its Implications in Philippine Livestock and Pou, NRCP Cluster Workshop on ASEAN Community 2015, Traders Hotel, Manila 2010 D 6

Understanding Climate Change, Laguna Science Polytechnic University (LSPU)Laboratory High School, Los Baños, Laguna 2008 S 25

Seminar on Constructed Wetlands as Option for Water Pollution Control in Laguna de Bay and other Pol, SESAM Lecture Hall, UPLB, Laguna 2008 JI 8

Advocacy on Environmental Animal Health and Production in Laguna Province, Philippines, TREES, CFNR, UPLB Laguna 2008 JI 30

3rd REAP Conference "Economics in Action for Climate Change Mitigation and Adaptation, New Horizontal Hotel, Mandaluyong City 2008 JI 10

Developing Tomorrow's Leaders in Agriculture and Rural Development: Responding to the Challenge s of, SEARCA, Los Baños, Laguna 2008 D 27-28

Environmental Animal Health and Production in Laguna Province, Philippines, Project Output: Key Findings and Results, SESAM Seminar Room, UPLB, College, Lagauna 2007 O 4

Nikon Microscope Seminar II: Flourescence Microscopy, Manila Pavillon Hotel 2006 D 6

Masterfoods Continuing Education Seminar, Westin Philippine Plaza, Manila 2004 O 14

UP System Consultation Workshop on Endocrine Disrupters, Continuing Education Center, UPLB 1999 Mr 10

Seminar Workshop in College Teaching, ACCI Auditorium, UPLB 1998 Je 5

Basic Animal Anatomy, Animal Health Technician Training, UP College of Veterinary Medicine 1998 1nd 1999

Veterinary Practitioners Association of the Philippines (VPAP) Animal Congress, Hotel International, Manila 1997 Je

## **Researches**

### **Completed**

Vitellogenin induction and gonad abnormalities in male common carp (*Cyprinus carpio* Linnaeus) introduced to Laguna de Bay

17B-estradiol and organochlorine pesticide levels in water samples from the east and west sites of Laguna de Bay



## Papers Presented

- Paraso, M.G.V. (2011 Ag 3). Estrogenic contamination at Laguna de Bay and its potential impact on fish health, SARCA Social Graduate Seminar, SEARCA Drilon Hall , Los Baños, Laguna.
- Paraso, M.G.V. (2007 O 18-19). Reproductive effects of 17 $\alpha$ -ethinylestradiol on zebrafish, *Danio rerio*, 44th PSAS Annual Scientific Seminar and Convention, CSB International Conference Center and Hotel, Malate, Manila.
- Paraso, M.G.V. (2007 O 18-19). Reproductive effects of 17  $\alpha$ -ethinylestradiolon Zzebrafish, *Danio rerio*, 44th PSAS Annual SScientific Seminar and Convention, CSB International Conerence Center and Hotel, Malate Manila.
- Paraso, M.G.V. (2007 F 21-23). Zebrafish (*Danio rerio*) as a Bioindicator of Environmental Pollution , Philippine Veterinary Medical Association (PVMA) Annual Convention, Sofitel Hotel, Manila.
- Paraso, M.G.V. (2007 F 21-23). Zebrafish (*Danio rerio*)as bioindicator of invironmental Pollution, Philippine Veterinary Medical Association (PVMA)Annual Convention, Sofitel Hotel, Manila.
- Pararo, M.G.V. (2004 O 2023). The effects of d-mannose given via drinking water on white blood cell counts and antibody titer of broiler chickens vaccinated against Newcastle disease, 7th World Buffalo Congress and 41st PSAS SScientific Annual Convention, Shang-rila Hotel, Makati City.
- Paraso, M.G.V. (2001 O 26-28). Vitellogenin induction and gonad abnormalities in male common carp (*Cyprinus carpio*)introduced in Laguna de Bay, 48th Philippine Society of Animal Science (PSAS) National and 29th Visayas SScientific Seminar and Annual Convention, L'Fisher Hotel, Bacolod City.
- Paraso, M.G.V. (2001 Mr 23). Gonadal morphology and reproductive success in adult zebrafish after oral exposure ti di(2-ethylhexyl) phtalate, genistein and 17  $\alpha$  -ethinylestradiol, Center for Reproductive Biology (CRU)International Symposium,SLU Ultana Campus, Uppasala, Sweden.

## Publications

- 2011 Paraso, M.G.V., Librojo-Basilio N.T., Vega, R.S.A., Rebancos, C.A., Ocampo, P.P., Capitan, S.S. Melanomacrophage centers and hepatosomatic index in common carp, (*Cyprinus carpio* Linnaeus 1758) (*Actinopteri*gii:Cyprinidae) introduced to the east and west sites of Laguna de Bay, Philippines. *Philippine Journal of Veterinary Medicine*, 2011, 48(2):95-100.
- 2010 Paraso, M.G.V., Espaldon, M.V.O., Alcantara, A.J., Sevilla, C.C., Alaira, S.A., Sobremisana, M.J., Ravalo, R.O., Macan, K.R.D., Valdez, C.A. A survey of waste management practices of selected swine and poultry farms in Laguna, Philippines. *Journal of Errvironntental Sciences and Management*, 2010, 13(2):44-52.
- 2009 Maranan, R.F.R., Paraso, M.G.V., Alcantara, A.J., Espaldon, M.V.O., Alaira, S.A., Sevilla, C.C., Valdez, C.A. Operations and waste management of slaughterhouses in the Province of Laguna. *Journal of Environmental Science and Management*, 2009, 11(2):32-41.
- 2009 Michelle Grace V. Paraso, Leif Norrgren, Henrik Holbech. Reproductive Effects of 17  $\alpha$ -ethinylestradiol on zebrafish (*Dania reria*). *Philippine Journal* , 2009.
- 2009 Belino, P.B., Custodio, H.C., Laygo, Q.S., Magbanua, Jr. A.B., Morales, L.R., Paraso, M.G.V., Rebugio, J.F., Rebancos, C.M. Social acceptability of indigenous nontraditional food as alternative food sources. *Journal of Nature Studies*, 2009, 8(1):97-101.

- 2008 Paraso, M.G.V., Ramos, J.P., Collado, G.F.S. Librojo-Basilio, N.T. Effects of waterborne exposure to 0.5 ppm and 2 ppm coconut fatty alcohol sulfate on zebrafish (*Danio rerio*) reproduction. *Philippine Journal of Veterinary Medicine*, 2008, 45:127-132.
- 2008 Alcantara, A.J., Sobremisana, M.J., Espaldon, M.V.O., Alaira, S.A., Sevilla, C.C., Valdez, C.A., Paraso, M.G.V., Dela Cruz, A.E. GIS-aided animal production impacts analysis on the environment in Laguna Province. *Journal of Environmental Science and Management*, 2008, 11(2):42-57.
- 2008 Espaldon, M.V.O., Alcantara, A.J., Sevilla, C.C., Valdez, C.A., Paraso, M.G.V., Alaira, S.A., Dela Cruz, A.E., Sobremisana, M.J. GIS-aided Study of Environmental Animal Health and Production in Laguna Province, Philippines. University of the Philippines Los Banos, College, Laguna, Philippines, 2008.
- 2008 Valdez, C.A., Espaldon, M.V.O., Alcantara, A.J., Sevilla, C.C., Paraso, M.G.V., dela Cruz, A.E., Alaira, S.A., Sobremisana, M.J. Improving animal health and diseases monitoring and control through geo-referencing. Policy Brief Series 2008-01, School of Environmental Science and Management, UPLB, College, Laguna, 2008.
- 2008 Sevilla, C.C., Espaldon, M.V.O., Alcantara, A.J., Valdez, C.A., Paraso, M.G.V., dela Cruz, A.E., Alaira, S.A., Sobremisana, M.J. Mapping of vulnerable areas for an intensified animal production system. Policy Brief Series 2008-02, School of Environmental Science and Management, UPLB, College, Laguna, 2008.
- 2008 Espaldon, M.V.O., Alcantara A.J., Sevilla, C.C., Valdez, C.A., Paraso, M.G.V., dela Cruz, A.E., Alaira, S.A., Sobremisana, M.J. GIS application in animal health and environment. Policy Brief Series 2008-03, School of Environmental Science and Management, UPLB, College, Laguna, 2008.
- 2008 Alcantara, A.J., Espaldon, M.V.O., Sevilla, C.C., Valdez, C.A., Paraso, M.G.V., dela Cruz, A.E., Alaira, S.A. and Sobremisana MJ. Mapping of potential rules to global warming and nutrient loading of animal production. Policy Brief Series 2008-04. School of Environmental Science and Management. UPLB, College, Laguna, 2008.
- 2008 Maranan, R.F.R., Paraso, M.G.V., Alcantara, A.J., Espaldon, M.V.O., Alaira, S.A., Sevilla, C.C. Valdez, C.A. Operations and waste management of slaughterhouses in the Province of Laguna. *Journal of Environmental Science and Management*, 2008, 2(3):2-4.
- 2007 Marte, B.R.G., Mamacus, R.B., Paraso, M.G.V. Pathologic effects of different biological oxygen demand levels on the juvenile catfish (*C/arias gariepinus*) . *Philippine Journal of Veterinary Medicine* , 2007, 44(1):29-36.
- 2007 Paraso, M.G.V., Jimenez, L.R. Selected blood chemistry values of juvenile ostriches (*Struthio camelus*) raised in Sto. Tomas, Davao del Norte. *Philippine Journal of Veterinary Medicine*, 2007, 44(1):58-60.
- 2005 Lopido,L.R.C., Anunciado, R.V.P., Valle- Paraso, M.G.R. The effects of D-(+)-mannose on white blood cell counts and antibody titer of broiler chickens vaccinated against Newcastle disease. *Philippine Journal of Veterinary and Animal Sciences*, 2005, 31(1):141-145.
- 2005 Valle-Paraso, M.G.R., Vidamo, P.J.S., Anunciado, R.V.P. Effects of Aloe vera (*Aloe barbadensis*) on the white blood cellcount and antibody titer of broiler chickens vaccinated against Newcastle disease. *Philippine Journal of Veterinary Medicine*, 2005, 42(1):49-52.
- 2004 Santiago-Flores, M.L.A.S., Maala, C.P., Baysic, B.B.,Valle-Paraso, M.G.R., Alviola,

- III. P.L. Characterization of hair cuticles of Philippine Vivverids (Family Vivveridae, Order Carnivora) using a scanning electron microscope. *Philippine Journal of Veterinary Medicine*, 2004, 41(2):57-62.
- 2004 Presa, J.D., Valle-Paraso, M.G.R., Luis, E.S., Anunciado, R.V.P. Reproductive effects of Gulipas (*Sida cordifolia*) on immature female Sprague-Dawley Rats. *Philippine Journal of Veterinary Medicine*, 2004, 41(1):25-31.
- 2002 Valle, M.G.R., Walawala, J.R. Hematological values of juvenile ostriches (*Struthius can:elus*) raised in Nasugbu, Batangas. *Philippine Journal of Veterinary Medicine*, 2002, 39:78-80.
- 2002 Maala, C.P.M., Alviola, III P.L., Valle-Paraso, M.G.R., Lopez, L.P. Characterization of the cuticular and hair medullary patterns from some body regions of the lesser flat-headed bats (*Tylarcterrrs pachypus*). *Philippine Journal of Veterinary Medicine*, 2002, 39:1-5.
- 2001 Valle, M., Orn, S., Holbech, Gessbo, A., Norrgren, L. Oral exposure in zebrafish; An alternative route of exposure to endocrine disrupting chemicals. *Tema Nord*, Nordic Council of Ministers, Copenhagen, 2001, 597:42-47.
- 2001 Norrgren, L., Forlin, L., Holbech, H., Valle, M., Orn, S. Zebrafish (*Danio rerio*) - A model species for evaluation of endocrine disrupting chemicals. *TemaNord*, Nordic Council of Ministers, Copenhagen, 2001, 514:27-28.
- 1998 Valle, M.G.R., Maala, C.P.M., Alviola, III P.L. Characterization of hair cuticles from different regions of the body of the Philippine domestic pig (*Srrs philippine+rsis*) and wild pig (*Sirs barbatus*) using the scanning electron microscope. *Philippine Journal of Veterinary Medicine*, 1998, 35(1 & 2):60-66.
- 1998 Valle, M.G.R., Maala, C.P.M., Alviola, III P.L. Characterization of hair cuticles from different regions of the body of the Philippine domestic pig (*Srrs philippine+rsis*) and wild pig (*Sirs barbatus*) using the scanning electron microscope. *Philippine Journal of Veterinary Medicine*, 1998, 35(1 & 2):60-66.

**Name** Teresita P. Pareja  
**Gender** Female  
**Civil Status** Married  
**Home Address** 344 Amore Subd., Mulawin, Tanza, Cavite

**Organizational Affiliations**

Full Professor 4, DLSU, Dasmariñas, Cavite  
Faculty, Languages and Literature Department De La Salle University,  
Dasmariñas, Cavite  
College Faculty Research Coordinator, DLSU, Dasmariñas, Cavite

**Education**

Doctor of Philosophy (Major in Applied Linguistics), Philippine Normal  
University, Manila 1999  
Masters of Arts in Education (Major in Educational Management), Saint Joseph  
College, Cavite City 1990  
Bachelor of Arts, San Sebastian College-Recoletos (Major in English), Cavite  
City 1978

**Fields of Specialization**

Applied Linguistics  
Social Sciences

**Employment**

Teacher 3, Tanza National Comprehensive High School, 1982-My 1993  
Officer-in-Charge, University Faculty Research Office, DLSU -D, 2001- 2002  
Languages Department, Department Chair , 1996-1998  
Research Associate , UFRO-DLSU-D , 2001 - 2004  
College Research Council Chair, CLA-DLSU-D , 1999 - 2004  
Subject Coordinator , TNCHS , 1983 - 1990  
Teacher Demonstrator (High School Level), SEDP , 1992 My  
Teacher Demonstrator (High School Level), TNCHS, 1990 Ja

**Association Membership**

Regular Member, National Research Council of the Philippines  
Member, Research and Education Development Training Institute  
Member, Philippine Association of Graduate Education

**Honors / Awards**

Most Outstanding Faculty Member of the College of Liberal Arts, SY 2005-2006,  
De La Salle University 2006  
Outstanding Teaching Performance, College of Liberal Arts and in the Graduate  
School of Education, Arts and Sciences School Year 2004-2005  
Most Outstanding Faculty, College of Liberal Arts 2005-2006  
Invaluable Services as Faculty of the GSEAS,, DLSU Dasmariñas SY 2002-2003  
Professorial Chair Holder in the College of Liberal Arts School Year 2002-2003,

DLSU Dasmariñas

Promptness Award, DLSU Dasmariñas School Year 2003-2004

Promptness Award, DLSU Dasmariñas School Year 2002-2003

## **Trainings**

Institutional Faculty Development, De La Salle University-Dasmariñas SY 2000-2001

The Teacher as a Reader and the Reader as a Teacher, Nilda Sunga Training Center, Vision 21, Crossroad 77 Mother Ignacio Ave.Q.C. 2008 My 16-17

Seminar on Thesis Writing, Multi-purpose Hall, Alumni Building, DLSU-D 2007 Je 28

Seminar on Issues and Concerns in the Philippine Education System, Tanghalan Julian Felipe 2006 S 6

Seminar on Language and Literature, Severino de Las Alas Auditorium 2006 S 16

GSEAS PITECHS 2006, DAP 2006 Ja 20-21

Research Theories and Methodologies, Jose Basa Hall 2005 S 12

Research on Seminar Instructional Materials Development , Mariano Alvarez Hall 2005 S 10

Retooling Action Research, Severino De Las Hall Auditorium, De La Salle University-Dasmariñas 2005 Ag 20

GSEAS Faculty Student Colloquium, Severino de Las Alas Hall, DLSU, Dasmariñas, Cavite 2004 S 25

Research Planning Congress @ DLS-D, Severino De Las Alas Hall, DLSU-D 2004 S 17

Thesis/Dissertation Retooling Seminar, Bulwagang Jose Basa, DLSU-D 2004 JI 17

Basic Research Seminar, Luis Aguado Viewing Room, Aklatang Emilio Aguinaldo 2004 Je 11

Asia-Pacific Conference on Higher Education Research (APCHER), Manila Hotel 2004 Ag 18-20

Macromedia Fireworks 4 (Advanced Topics), Mariano Alvarez Hall, DLSU-D 2003 S 26

Language Testing, The Linguistic Society of the Philippines, Philippine Normal University 2003 O 24-25

Communicative Language Teaching Demonstration, Julian Felipe Hall, DLSU-D 2003 JI 2

An International Conference on Applied Linguistics and Languages Education: Theory and Practice, Manila Midtown Hotel 2002 D 9-11

Seminar-Workshop on Research Proposal Writing in the Humanities, De La Salle University-Manila 2001 S 26-28

Faculty Training Program on Information Technology, Module 6, Internet and Intranet, De La Salle University-Dasmariñas 2001 Mr 26

Faculty Training Program on Information Technology Module 5 ? Microsoft Outlook 2000, De La Salle University-Dasmariñas 2001 Mr 12

Seminar on DLSU System Vision-Mission, De La Salle University-Dasmariñas 2001 Ja 27

Institutional Faculty Development Programs, De La Salle University-Dasmariñas

2001 Ja 23

Seminar on Phenomenological Research, De La Salle University-Dasmariñas 2001 Ja 22

Lasallian Family Seminar, Option for the Poor: A Lasallian Tradition, De La Salle University-Dasmariñas 2001 Ag 30

Seminar-Workshop on the use of PROQUEST 500 and Emerald Full Text, De La Salle University-Dasmariñas 2001 Ag 29

Sourcing of Research Information Using the Internet and CD Rom, De La Salle University-Dasmariñas 2000 S 1

Computer Based Training on Data Collection and Statistical Analyses for Educational Researches, UP Los Baños College, Laguna 2000 N 6-10

Thesis/Dissertation Advising, De La Salle University-Dasmariñas 2000 JI 2

Innovative Approaches to the Teaching of Writing, De La Salle University-Manila 1998 O 21-24

U.S. Governance and Civil Society, De La Salle University-Manila 2001 My 18-19

Reading for Critical Thinking, Ateneo de Manila University 2000 S 2

## **Researches**

### **Completed**

Critical discourse analysis of the coverage of ABU jailbreak in seven Philippine Broadsheets: An application to teaching critical reading

Day-care workers' skills in guiding young children towards early literacy: A basis for training program

Philippine cities competitiveness ranking Project 2005 (Collaborative Research)

Enhancing coherence in writing among selected Freshman Criminology Students of De La Salle University-Dasmariñas

Chavacano variations of Cavite City and Ternate, Cavite: A contrastive analysis

Language needs assessment of selected Senior High School Students from selected Feeder Schools of De La Salle University-Dasmariñas, Province of Cavite

Selected students' oral proficiency in storytelling

Underlying reasons for student's hesitancy to participate in class discussion

The Extent of Emergent Literacy Among Day-Care Children, and Early Diagnostic-Reading and Corrective Instruction for Day-Care Centers in the Province of Cavite

## **Papers Presented**

Pareja, T. P. (2009 Ja 31-F 1). Enhancing Criminology Students' Coherence in Writing Narratives, 1st Philippine International English Conference and the 11th UK Education Fair, Convention Center, Mall of Asia Complex, Pasay City Philippines.

Pareja, T.P. (2008 O 23-24). Day-Care Workers's Skills in guiding Young Children towards Early Literacy: A Basis for Training Program , CHED Calabarzon Research Council Conference, Pontel Fino Hotel, Batangas City .

Pareja, T.P. (2008 Mr 12). Basic Research for National Development, 75th NRCP General Membership Assembly, Manila Hotel, Rizal Park, Manila .

Pareja, T.P. (2007 F 1-3). Critical Discourse Devices: Cathedral for Critical Reading of Selected Prose Materials , Reading Asia Forging Identities in Literature, Ateneo de Manila University, Philippines .

Pareja, T.P. (2007 Ap 8). A Classroom Discourse Analysis of Selected Literature of

Philippine Classes in DLSU, D Summer 2007 and Teaching Strategies in Creative Writing, Luis Aguado, AEA, DLSU-D

Pareja, T.P. (2006 F 18). The Social Contexts of language Obsolescence, Bulwagang Jose Basa.

Pareja, T.P. (2005 Je 29). A Continuing Tradition: The Chavacano of Cavite (Varieties of Chavacano Spoken in Cavite City and Ternate, Cavite: A Contrastive Analysis), A Conference on Local History and Culture, Tanghalan Julian Felipe, De La Salle University-Dasmariñas.

Pareja, T.P. (2004 S 25). Chavacano Variations of Cavite City and Ternate, Cavite: A Contrastive Analysis, Severino De Las Alas Hall, De La Salle University-Dasmariñas.

Pareja, T.P. (2004 O 26). Reflective Teaching: A Guide to Classroom Research, Luis Aguado Viewing Room, De La Salle University-Dasmariñas.

Pareja, T.P. (2004 N 8-9). Tagapanayam sa Pandivisyon Seminar-Workshop sa Pananaliksik Pagpapakilos sa Filipino-Sekondari , Mataas na Paaralang Pambansa ng Bucal Bucal Maragondon, Cavite .

Pareja T.P. (2003 S 3). ESP Instructional Materials Preparation, Luis Aguado Viewing Room, Aklatang Emilio Aguinaldo Languages Department, De La Salle University-Dasmariñas.

Pareja, T.P. (2003 N 4). Publication Manual of the American Psychological Association, Tanghalang Julian Felipe, Behavioral Science Department, De La Salle University-Dasmariñas.

Pareja, T.P. (2003 Ja 23). Inaugural Lecture on Language Needs Assessments of Selected Senior High School Students from Selected Feeder Schools of De La Salle University- Dasmariñas, Province of Cavite, SY 2001-2002, Luis Aguado Viewing Room, De La Salle University-Dasmariñas.

Pareja, T.P. (2002 O 24). Research As A Tool in Improving Guidance Services , Luis Aguado Hall, AEA, Guidance Counseling Office DLSU-D .

Pareja, T.P. (2001 N 29-D 1). Learning to Teach, Teaching to Learn: Issues, Options, and Directions in Language and Literature Education , 6th English in South East Asia Conference, Ateneo de Manila University Loyola Campus, Manila .

Pareja, T.P. (2001 N 29 - D 1). Development and Validation of ESP Materials for Criminology Students , 6th English in South East Asia Conference Learning to Teach, Teaching to Learn: Issues, Options, and Directions in Language and Literature Education, Ateneo de Manila University Loyola Campus, Manila .

Pareja, T.P. (2001 Ag 27). Journal and Manual Writing , Boardroom, Aklatang Emilio Aguinaldo, Behavioral Science Department DLSU-D .

Pareja, T.P. (2000 S 27). Developing An Action Research Plan , CIHM Conference Room, College of International Hospitality Management, DLSU-D .

Pareja, T.P. (2000 O 17). Action Research , Conference Viewing Room, AEA College of Science DLSU-D .

Pareja, T.P. (2000 Jl 12). How To Conduct An Action Research , CIHM Conference Room, College of International Hospitality Management, DLSU-D .

Pareja, T.P. (2000 Je 9). Action Research , Don Severino De Las Alas Hall, College of Liberal Arts, DLSU-D .

Pareja, T.P. (2000 Je 8). Action Research , Meeting Room, College of Technology, DLSU-D .

Pareja, T.P. (2000 Je 5). Retooling Action Research , Mariano Alvarez Hall, College of Education DLSU-D .

Pareja, T.P. (1998 O 1). Enhancing Research and Critical Thinking Among Faculty and School Administrators of the Third Millenium, University of Perpetual Help Rizal Auditorium, Las Piñas City.

### **Publications**

- 2008 Pareja, T.P. An Evaluation of Day-Care Skills in Guiding Young Children Towards Early Literacy: A Basis for Training Programs. , 2008 Mr, 2(2).
- 2007 Pareja, T.P. Selected Discourse Devices: Cathedral for Enhancing Learners' Critical Reading Skills . Journal of Humanities (Refereed Journal) , 2007 O, 2(1).
- 2007 Pareja, T.P. ESP for Criminology Students (book) . National Publication, Anvil Publishing Inc., Manila, Second Publication: 2007 , 2007.
- 2006 Pareja, T.P. Enhancing Students' Coherence in Writing. GSEAS Graduate Journal (Refereed Journal), 2006 My, 11(1).
- 2005 Pareja, T.P. Varieties of chavacano spoken in Cavite City and ternate, Cavite: A Contrastive Analysis. SINAG / ISSN 0117-1316-1, 2005 Mr, 9(2).
- 2003 Pareja, T.P. Selected Students, Oral-Proficiency in Storytelling . SINAG, 2003 O, 8(3).
- 2003 Pareja, T.P. Language Needs Assessment of Selected Senior High School Students from Selected Feeder Schools of De La Salle University, Dasmariñas in the Province of Cavite, School Year 2001-2002. SINAG, 2003 Mr, 2(2).
- 2001 Pareja, T.P. ESP for Criminology Students (book) . De La Salle University Press, Manila,(National Publication, 1st Publication) , 2001.



**Name** Maricar S. Prudente

**Gender** Female

**Civil Status** Single

**Organizational Affiliations**

Full Professor 7, Science Education Department De La Salle University, Taft Aveue, Manila

Participating Scientist, International Mussel Watch Project, Asia-Pacific Phase,

**Education**

Ph.D. in Environmental Chemistry and Ecotoxicology, Ehime University, Japan, Japan 1999 Mr 15

MST Physics, De La Salle University, Taft Avenue, Manila 1988 D

BSE Natural Science, Biology, Pamantasan ng Lungsod ng Manila, Manila 1979 Mr

**Fields of Specialization**

Environmental Pollution

Environmental Education and Science Education

Environmental Chemistry and Ecotoxicology

**Employment**

Full Prof. 5, De La Salle University, 2006 F 4-2008 Ja 30-

Full Prof. 3, De La Salle University, 2004, F 4- 2006, F 4-

Full Professor 2, De La Salle University, 2003 F 4 -2004 F 4-

Full Prof. 1, De La Salle University, 2001 Ja 3- 2003 F 3-

Associate Prof. 5, De La Salle University, 2000 S 13 - 2001 D-

Associate Prof. 4, De La Salle University, 1999 S 13-2000 S 12-

Assistant Prof. 6, De La Salle University, 1997 Je 2-1999 S12-

Faculty Member, College of St. Benilde, 1988 My - 1997 Ap-

Director, Lasallian Institute for Development And Educational Research, 2006 My - present-

Chairperson, Science Education Department , DLSU-Manila, 2000 My - 2004 Ag-

Director, Summer Institute, DLSDU-Manila, 2000-

Area Coordinator, Natural Sciences, College of St. Benilde, 1993 My - 1997 Ap-

Director, Academic Services, College of St. Benilde, 1989 My - 1991 S-

Science Area Coordinator, Sta. Isabel College, 1980 Je - 1987 Ap-

Director for Discipline, Sta. Isabel College, 1983, Je - 1987 Ap-

**Association Membership**

Scientific & Technical Advisory Panel Secretariat, United Nations Environment Programme

ROSTER of Expert, United Nations Environment Programme

Global Environment Facility, United Nations Environment Programme

Member, Society of Environmental Toxicology and Chemistry (SETAC, USA)  
Member, Japan Society for Environmental Chemistry  
Member, DOST- JSPS Philippine Ronpaku Fellows  
Board Member, DOST- JSPS Philippine Ronpaku Fellows  
Board of Advisors, American Biographical Institute (ABI)  
Member, Philippine Association of Japan Ministry of Education Scholars (PHILAJAMES)  
Member, Philippine Association of Physics Instructors

#### **Honors / Awards**

Cited in the Marquis Who's Who in Science Engineering, Marquis Who's Who in Science Engineering 2006  
Outstanding Women of 2003, American Biographical Institute 2003 Ja  
St. Miguel Febres Cordero Research Award, De La Salle University-Manila 2001 Ag 9  
Outstanding Women of 2000, American Biographical Institute 2000 Ja  
Ronpaku Fellow, Japan Society for the Promotion of Science (JSPS) 1996 - 1999  
Teacher Trainee, Japan Ministry of Education and Culture (MONBUSHO) 1991 S - 1993 Mr

#### **Trainings**

3rd International Joint Seminar of JSPS Multilateral Core Univ. Program on Coastal Marine Science, Jogjakarta, Indonesia 2007  
5th UNU-ORI International Workshop on Marine Environment, by United Nations University, Japan, Otsuchi, Japan 2004

#### **Researches**

International Cooperative Research on Contamination by Persistent Organohalogenes in the Philippines Environment: Levels, Profiles, Fate and Exposure Pathways

International Mussel Watch Project, Asia-Pacific Phase

##### **Complete**

Endline Study of Mathematics and Science Teaching in the Philippines

Exploring Mathematics and Science Teaching in the Philippines

Science and Mathematics Teaching-Learning Processes and Strategies in Preservice Teacher Education Programs

The Contexts and Practices of Science and Math Education in the Philippines

Global Pollution Monitoring Using Migratory Shorebirds

##### **Completed**

International Cooperative Research on Pollution of Persistent Organic Pollutants in Human Breastmilk Collected from Southeast Asia

##### **On-going**

JSPS-DOST Multilateral Cooperative Research on Pollution of Persistent Organic Pollutants in the Marine and Coastal Environments of Southeast Asia (POME)

#### **Papers Presented**

Prudente, M.S. (2007). Butyltin Contamination in the Aquatic Environments of the Philippines, 3rd International Joint Seminar of JSPS Multilateral Core University

Program on Coastal Marine Science, Jogjakarta, Indonesia/ Sponsored by Ocean Research Institute of the University of Tokyo, Japan and Japan Society for the Promotion of Science.

Prudente, M.S., Tanabe, S. (2004). Trace Elements and POPs in Waders from Calatagan Bay, Philippines, 5th UNU-ORI International Workshop on Marine Environment, Otsuchi, Japan. Sponsored by United Nations University, Japan and the University of Tokyo, Japan.

Prudente, M.S. (2004). Promoting Reflective Level Teaching and Learning: Issues and Challenges, 1st International Conference on Learner-Centered Education, Westin Philippine Plaza Hotel, Manila (sponsored by DLSU-College of St. Benilde).

Prudente, M.S., Aguja, S., Kunisue, T., Tanabe, S. (2004). Persistent Organic Pollutants in Human Breast Milk, Proceedings of the National Workshop 2004 on Asian Regional Research Programme on Environmental Technology (ARRPET) sponsored by Swedish International Development Cooperation Agency (Sida), De La Salle University, Philippines.

Prudente, M.S., Aguja, S., Kunisue, T., Tanabe, S. (2002). Persistent Organic Pollutants in Human Breast Milk, Proceedings of the International Conference on Environmental Threats to the Health of Children sponsored by WHO and Chulabhorn Research Institute, Bangkok, Thailand.

Prudente, M.S. (2002). Monitoring of Persistent and Toxic Substances in the Coastal and Urban Areas in the Philippines, Proceedings of the 1st Technical Working Group Meeting (Region 8-Southeast Asia and South Pacific)/ Regionally Based Assessment of Persistent Toxic Substances sponsored by UNEP (United Nations Environment Programme), Singapore.

Prudente, M.S., Kan-Atireklap, S., Subramanian, A., Tanabe, S. (1998). Marine pollution monitoring of butyltins and organochlorines in the coastal waters of Thailand, Philippines and India, Proceedings of the Joint International Conference on Man and The Ocean, International Symposium on Marine Environment sponsored by Ocean Research Institute (ORI), The University of Tokyo, Iwate Prefecture Government and the United Nations Environment Programme (UNEP), Tokyo, Morioka and Kamaishi, Japan.

Prudente, M.S., Tanabe, S., Iwata, H., Miyazaki, N., Subramanian, A. (1998). Butyltin and organochlorine contamination in marine mammals from the North Pacific and Asian coastal waters, Proceedings of the 4th IOC-WESTPAC International Scientific Symposium on The Role of Ocean Sciences for Sustainable Development sponsored by IOC-WESTPAC and ORI, University of Tokyo, Okinawa, Japan.

Prudente, M.S., Takahashi, S., Shibata, D., Takemoto, N., Nakamura, I., Tanabe, S. (1998). Butyltin and organochlorine residues in tunas collected from Japanese Coastal Waters, the Pacific and Indian Oceans, Proceedings of the International Conference on Trace Metals in the Aquatic Environment, Kuala Lumpur, Malaysia.

## **Publications**

- 2009 Prudente, M.S., Malavannan G., Kunisue T., Isobe T., Sudaryanto, A., Takahashi, S., Subramanian, A., Tanabe, S. Organohalogen compounds in human breast milk from mothers living in Payatas and Malate, the Philippines: levels, accumulation kinetics and infant health risk. *Environmental Pollution* (Barking, Essex : 1987), 2009, 157(6):1924 - 1932.
- 2009 Prudente, M.S., Saha M., Togo, A., Mizukawa K., Murakami M., Takada, H., Zakaria, M.P., Chiem, N.H., Tuyen B.C., Boonyatumanond R., Sarkar S.K., Bhattacharya, B., Mishra, P., Tana, T.S. Sources of sedimentary PAHs in tropical Asian waters: differentiation between pyrogenic and petrogenic sources by alkyl

- homolog abundance . *Marine Pollution Bulletin*, 2009, 58(2):189 - 200.
- 2008 Prudente, M.S., Bernardo, A., Limjap, A., Roleda, L. Students' Perceptions of Science Classes in the Philippines. *Asia Pacific Education Review*, 2008, 9(9):285 - 295.
- 2008 Prudente, M.S. Monitoring of Butyltin compounds in the aquatic environments of the Philippines. *Coastal Marine Science*, 2008, 32(1):108 - 115.
- 2007 Prudente, M.S., Ramu, K., Kajiwara, N., Sudaryanto, A., Isobe, T., Takahashi, S., Subramanian, A., Ueno, D., Zheng, G.J., Paul, L., K.S., Takada H., Mohamad, Z.P., Viet Pham, H., Tana Touch, S., Tanabe, S. Asian Mussel Watch Program: contamination status of polybrominated diphenyl ethers and organochlorines in coastal waters of Asian countries. *Environmental Science & Technology*, 2007, 41(13):4580 - 4586.
- 2007 Prudente, M.S., Malarvannan, G., Tanabe, S. Persistent Toxic Substances in the Philippine Environment. In: *Persistent Organic Pollutants in Asia: Sources, Distributions, Transport and Fate, Developments in Environmental Science*, (A. Li, S. Tanabe, G. Jiang, JP. Giesy and P.K.S. Lam eds.), Elsevier Ltd., 2007, 7:559 - 585.
- 2006 Ueno Da., Alae M., Marvin C., Muir Derek C.G., Macinnis Go., Reiner E., Crozier P., Furdui V.I; Subramanian A., Fillmann G., Lam Paul K.S., Zheng G.J.; Muchtar M., Razak H., Chung K., Chung K.; Tanabe S. Distribution and transportability of hexabromocyclododecane (HBCD) in the Asia-Pacific Region using skipjack tuna as bioindicator. *Environmental Pollution*, 2006, 144(1):238 - 247.
- 2006 Prudente, M.S., Kajiwara N., Kamikawa S., Ramu K., Ueno D., Yamada T.K., Subramanian A., Lam Paul K.S., Jefferson T.A., Chung Kyu-Hyuck, and Tanabe S. Geographical distribution of polybrominated diphenyl ethers (PBDEs) and organochlorines in small cetaceans from Asian waters . *Chemosphere*, 2006, 64(2):287 - 295.
- 2005 Prudente, M.S., Tanabe, S., Kunisue, T., Yasunaga, G., Watanabe, I., and Miyazaki, N. Accumulation of trace elements and organochlorines in resident and migratory waders from Calatagan Bay, Philippines. *Coastal Marine Science*, 2005, 29(2):133 - 140.
- 2005 Prudente, M.S., Ueno D., Watanabe M., Subramanian A., Tanaka H., Fillmann G., Lam Paul K.S., Zheng G.J., Muchtar M., Razak H., Chung Kyu-Hyuck, Tanabe, S. Global pollution monitoring of polychlorinated dibenzo-p-dioxins (PCDDs), furans (PCDFs) and coplanar polychlorinated biphenyls (coplanar PCBs) using skipjack tuna as bioindicator. *Environmental Pollution (Barking, Essex : 1987)*, 2005, 136(2):303 - 313.
- 2005 Prudente, M.S., Kan-atiyeklap, S., Tanabe, S., Subramanian, A. Marine Pollution Monitoring of Butyltins and Organochlorines in the Coastal waters of Thailand, the Philippines and India. In: *Mankind and the Oceans*, (Miyazaki, N. Adeel, Z. and Ohwada, K. eds.), United Nations University Press, Tokyo, Japan, 2005:68 - 91.
- 2004 Prudente, M.S., Hagino, Y., Takada, H., Zakaria, M.P., Landfill leachate as a source of phenolic endocrine disrupting chemicals to South East Asian waters. *Environmental Science and Technology*, 2004.
- 2004 Prudente, M.S., Isobe Kei O., Zakaria M.P., Chiem Nguyen H., Minh Le Y., Boonyatumanond R., Saha M., Sarkar S., and Takada H. Distribution of linear alkylbenzenes (LABs) in riverine and coastal environments in South and Southeast Asia. *Water Research*, 2004, 38(9):2448 - 2458.
- 2004 Prudente, M.S., Kunisue T., Watanabe M., Iwata H., Subramanian A., Monirith I., Minh T.B., Baburajendran R., Tana T.S., Viet P.H., Tanabe, S. Dioxins and related

- compounds in human breast milk collected around open dumping sites in Asian developing countries: bovine milk as a potential source. *Archives of Environmental Contamination and Toxicology*, 2004, 47(3):414 - 426.
- 2004 Prudente, M.S., Ueno D., Kajiwara N., Tanaka H., Subramanian A., Fillmann G., Lam Paul K.S., Zheng Gene J., Muchitar M., Razak H., Chung Kyu-Hyuck, Tanabe S. Global pollution monitoring of polybrominated diphenyl ethers using skipjack tuna as a bioindicator. *Environmental Science & Technology*, 2004, 38(8):2312 - 2316.
- 2004 Prudente, M.S., Ueno D., Inoue S., Takahashi S., Ikeda K., Tanaka H., Subramanian A.N., Fillmann G., Lam P.K.S., Zheng J., Muchtar M., Chung K., and Tanabe S. Global pollution monitoring of butyltin compounds using skipjack tuna as a bioindicator. *Environmental Pollution (Barking, Essex : 1987)*, 2004, 127(1):1 - 12.
- 2004 Prudente, M.S., Isobe, K., Zakaria, M., Chiem, N., Minh, L., Ruchaya, B., Mahua, S., Santosh, S., Takada, H. Distribution of Linear Alkylbenzenes (LABs) in riverine and coastal environments in South and Southeast Asia. *Water Research*, 2004, 38:2449 - 2459.
- 2004 Prudente, M.S., Aguja, S., Kunisue, T., Tanabe, S. Persistent Organic Pollutants in Human Breast Milk. *Proceedings of the National Workshop 2004 on Asian Regional Research Programme on Environmental Technology (ARRPET)*, sponsored by Swedish International Development Cooperation Agency (SIDA), DLSU, Philippines, 2004.
- 2003 Prudente, M.S., Ueno D., Takahashi S., Tanaka H., Subramanian, A.N., Fillmann, G., Nakata H., Lam, P.K.S., Zheng, J., Muchtar, M., Chung, K.H., Tanabe, S. Global pollution monitoring of PCBs and organochlorine pesticides using skipjack tuna as a bioindicator . *Archives of Environmental Contamination and Toxicology*, 2003, 45(3):378 - 389.
- 2003 Prudente, M.S., Monirith In., Ueno D., Takahashi S., Nakata H., Sudaryanto A., Subramanian A., Karuppiyah S., Ismail A., Muchtar M., Zheng J., Richardson B.J., Hue Ngyen D., Tana Touch S., Tkalin A.V. and Tanabe S. Asia-Pacific mussel watch: monitoring contamination of persistent organochlorine compounds in coastal waters of Asian countries. *Marine Pollution Bulletin*, 2003, 46(3):281 - 300.
- 2003 Prudente, M.s., Kunisue T., Watanabe M., Subramanian A., Sethuraman A., Titenko A.M., Qui V., Tanabe S. Accumulation features of persistent organochlorines in resident and migratory birds from Asia. *Environmental Pollution (Barking, Essex : 1987)*, 2003, 125(2):157 - 172.
- 2003 Prudente, M.S., Minh, N. H., Minh, T. B., Watanabe, M., Kunisue, T., Monirith, I., Tanabe, S., Sakai, S., Subramanian, A., Sasikumar, K., Viet, P.H., Tuyen, B. C. and Tana, T. S. "Open Dumping Site in Asian Developing Countries: A Potential Source of Polychlorinated Dibenzo ? p ? Dioxins and Polychlorinated Dibenzofurans".. *Environmental Science and Technology*, 2003, 37(8):1493 - 1501.
- 2003 Prudente, M.S., Monirith, I., Ueno, D., Takahashi, S., Nakata, H., Sudaryanto, A., Subramanian, A., Karuppiyah, S., Ismail, A., Muchtar, M., Zheng, J., Richardson, B.J., Hue, N.D., Tana, T.S., Tkalin, A.V. and Tanabe, S. "Asia-Pacific Mussel Watch: monitoring contamination of persistent organochlorine compounds in Coastal Waters of Asian Countries.. *Marine Pollution Bulletin*, 2003, 46:281 - 300.
- 2002 Prudente, M.S., Sudaryanto A., Takahashi S., Monirith I., Ismail A., Muchtar M., Zheng J., Richardson B.J., Subramanian A., Hue Nguyen D., and Tanabe S. Asia-Pacific mussel watch: monitoring of butyltin contamination in coastal waters of Asian developing countries.. *Environmental Toxicology and Chemistry / SETAC*, 2002, 21(10):2119 - 2130.

- 2000 Prudente, M.S., Minh T.B., Watanabe M., Tanabe S., Miyazaki N., Jefferson T.A., Subramanian A., Karuppiyah, S. Widespread contamination by tris(4-chlorophenyl) methane and tris(4-chlorophenyl) methanol in cetaceans from the North Pacific and Asian coastal waters.. *Environmental Pollution (Barking, Essex : 1987)*, 2000, 110(3):459 - 468.
- 2000 Prudente, M.S., Minh T.B., Nakata H., Watanabe M., Tanabe S., Miyazaki N., Jefferson T.A., and Subramanian A. Isomer-specific accumulation and toxic assessment of polychlorinated biphenyls, including coplanar congeners, in cetaceans from the North Pacific and Asian coastal waters.. *Archives of environmental contamination and toxicology*, 2000, 39(3):398 - 410.
- 2000 Prudente, M.S., Yasunaga, G., Watanabe, I., Subramanian, A., Qui, V. and Tanabe, S. "Trace Elements Accumulation in Waders from Asia".. *Toxicological and Environmental Chemistry*, 2000, 77:75 - 92.
- 2000 Prudente, M.S., Minh, T.B., Nakata, H., Watanabe, M., Tanabe, S., Miyazaki, N., Jefferson, T.A., and Subramanian, A. "Isomer-specific Accumulation and toxic assessment of polychlorinated biphenyls, including coplanar congeners in cetaceans from the North Pacific and Asian Coastal waters".. *Archives of Environmental Contamination and Toxicology.*, 2000, 39(2000):398 - 410.
- 2000 Prudente, M.S., Kan-Atireklap, S., Subramanian, A. and Tanabe, S. "Marine pollution monitoring of butyltins and organochlorines in the coastal waters of Thailand, Philippines and India".. *Ocean and Coastal Management*, 2000, 43:819 - 839.
- 1999 Prudente, M.S., Ichihashi, H., Kan-atireklap, S., Watanabe, I. and Tanabe, S. "Butyltins, organochlorines and metal levels in green mussel *Perna viridis* from the coastal waters of the Philippines".. *Fisheries Science*, Tokyo, Japan, 1999, 65(3):441 - 447.
- 1998 Prudente, M.S., Tanabe, S., Watanabe, M., Subramanian, A., Miyazaki, N., Suarez, P., Tatsukawa, R. Organochlorine contamination in some odontoceti species from the North Pacific and Indian Ocean. *Marine Environmental Research*, Elsevier Science Ltd., Great Britain, 1998, 44:415 - 427.
- 1998 Prudente, M.S., Tanabe, S., Mizuno, T., Hasegawa, J., Iwata, H. and Miyazaki, N. "Butyltin contamination in marine mammals from North Pacific and Asian coastal water".. *Environmental Science and Technology*, American Chemical Society, USA., 1998, 32:193 - 198.
- 1997 Prudente, M.S., Kim, E.Y., Tanabe, S. and Tatsukawa, R. "Metal levels in some commercial fish species from Manila Bay, the Philippines.. *Marine Pollution Bulletin*, Elsevier Science Ltd., Great Britain., 1997, 34:671 - 674.
- 1997 Prudente, M.S., Lee, D.B., Tanabe, S. and Tatsukawa, R. "Organochlorine residues in soils and sediments from Manila and nearby provinces, Philippines".. *Toxicological and Environmental Chemistry*, OPA, The Netherlands., 1997, 60:171 - 181.
- 1994 Prudente, M.S., Ichihashi, H. and Tatsukawa, R. "Heavy metal concentrations in sediments from Manila Bay, Philippines and inflowing rivers".. *Environmental Pollution*, Elsevier Science Ltd., Great Britain., 1994, 86:83 - 88.
- Prudente, M.S., Nguyen Hung M., Tu Binh M., Watanabe M., Kunisue T., Monirith I., Tanabe S., Sakai S., Subramanian A., Sasikumar K., Pham Hung V., Bui Cach T., Tana Touch S. Open dumping site in Asian developing countries: a potential source of polychlorinated dibenz-p-dioxins and polychlorinated dibenzofurans. *Environmental Science & Technology*, .

**Name** Stella Luz A. Quimbo  
**Place of Birth** Manila, Philippines  
**Date of Birth** November 11, 1969  
**Gender** Female  
**Civil Status** Married  
**Home Address** 28 Ma. Eva St., Tierra Pura Subd., Tandang Sora, Quezon City

**Organizational Affiliations**

Assistant Professor, School of Economics, University of the Philippines, Diliman, Quezon City

Program Manager, Quality Improvement Demonstration Study, UPECON Foundation

**Education**

Ph.D. in Economics, School of Economics, University of the Philippines, Diliman, Quezon City 2000

M.A. in Economics, University of the Philippines, Diliman, Quezon City 1993

B.S. Business Economics (Summa Cum Laude), University of the Philippines, Diliman, Quezon City 1991

**Fields of Specialization**

Health Economics (health care financing, quality of care, health status of children, provider payment systems)

Education

Poverty

Access to health care

Tobacco Taxation

**Association Membership**

Member, Philippine Economic Society

**Honors / Awards**

UP Diliman Centennial Professorial Chair, University of the Philippines 2007 JI-2008 Je

Postdoctoral Fellowship, Brown University, University of the Philippines & UPECON Foundation 2002

RP-Japan Friendship Program, Tokyo, Japan, Japan 1994 F

Teaching Fellowship, University of the Philippines School of Economics 1991-1993

Summer Program for ASEAN Students, Nikko Securities, Tokyo, Japan 1991 Ap

Most Outstanding Social Science Student, Phi Gamma Mu Honor Society 1991 Mr

Most Outstanding Female Graduate, University of the Philippines Alumni Association 1991 Mr

Outstanding Young Scientist, National Academy of Science and Technology (NAST) 2009

## Trainings

Econometrics Seminar, Ronald Coase Institute and the School of Economics, and Finance, University of Hongkong 2008 D 8-11

International Forum on Quality and Safety of Health Care, Paris, France 2008 Ap 23

Workshop on the Economics of Tobacco and Tobacco Taxation, Sponsored by the Bloomberg Global Initiative to Reduce Tobacco Use, Alexandria, Cgypt 2007 N

Annual Meeting of the Population Association of America, Los Angeles, USA 2006 Mr

PhilHealth Scientific Symposium, Manila 2006 F 23

Forum 9: Poverty, Equity, and Health Research of the Global Forum for Health Research, Mumbai, India 2005 S

4th World Congress of the International Health Economics Association,, San Francisco, USA

## Researches

### Completed

PHILTips provider study

Information Asymmetry in Health Care Markets: An Analysis of Provider Switch Decisions among Tuberculosis Patients

Correlation Study on basic social services in investing in people, The Philippine 20/20 initiative

### On-going

Evidence of a causal link between health outcomes, insurance coverage and a policy to expand access: Experimental data from children in the Philippines

The economics of tobacco and tobacco taxation (Philippines)

Health, education, and the household: Explaining poverty

### Ongoing

The surprising fee structure of better quality:Quality measurement, value and efficiency

## Papers Presented

Peabody, J., Solon, O., Quimbo, S.L.A, Woo, K., Shimkhada, R. (2008 Ap 23). Are Quality Bonuses Effective Evidence from Selected Philippine Public Hospitals , International Forum on Quality and Safety of Health Care, Paris, France.

Quimbo, S.A., Casorla, A., Baquilod, M., Medalla, F. (2008 Ag 14). The Economics of Tobacco Taxation: The Philippine Case, Dissemination of Economics-related Tobacco control Research in the Philippines, Trader's Hotel.

Quimbo, S.A., Yee, K., Solon, O., Peabody, J.W. (2007 O 29-N 2). Improving Access to Care for Indigent Children: Increasing Enrollment in the Phil. Health Indigent Program, Forum 11, Beijing, China.

Quimbo, S.A. (2007 N). Workshop on the Economics of Tobacco and Tobacco Taxation, Sponsored by the Bloomberg Global Initiative to Reduce Tobacco Use, Alexandria, Cgypt.

Quimbo, S.A., Florentino, J., Peabody, J., Shimkhada, R., Pabelo, C., Solon, O. (2007 N). Under-utilization of Social Insurance Among the poor: Evidence from the Philippines, 45th Annual Meeting of the Philippine Economic Society, Manila.

Quimbo, S. (2006 Mr 10). Linking, Quality of Care with Provider Payment, UP



Shool of Economics Friday Seminar Series.

Peabody, J, Solon, O., Butrick, E., De Salvo, K., Quimbo, S.A. (2006 Mr). Health Status of Filipino Children: Biologic and Subjective Measures Used in the Quality Improvement Demonstration Study (QIDS), Annual Meeting of the Population Association of America, Los Angeles, USA .

Quimbo, S.A. (2006 F 23). Quality of Care and Provider Payment, PhilHealth Scientific Symposium, Manila.

Quimbo, S.A. (2005 S). Are There Premiums for Physician Ability in TB Treatment? Evidence from the Philippines, Forum 9: Poverty, Equity, and Health Research of the Global Forum for Health Research in Mumbai, India.

Quimbo S. (2005 JI 1). Is There a Premium for Ability in Health Care Markets? Evidence from the Philippines, UP School of Economics Friday Seminar Series.

Quimbo, S.A. (2003 Je). Information Asymmetry in Health Care Markets: An Analysis of Provider Switch Decisions among Tuberculosis Patients, 4th World Congress of the International Health Economics Association, San Francisco, USA .

## **Publications**

- 2011 Quimbo, S.L.A., Solon, O. Evidence of a Causal Link between Health Outcomes, Insurance Coverage, and a Policy to Expand Access: Experimental Data from Children in the Philippines. *Health Economics*, 2011 My, 20(5):620-630.
- 2011 Quimbo, S.L.A. Pushing on a String: How Policy Might Encourage Private Doctors to Compete with the Public Sector on the Basis of Quality. *Economics Letters*, 2011 F, 110(2):101-103.
- 2011 Quimbo, S.L.A. Financial Incentives and Measurement Improved Physicians Quality of Care in the Philippines. *Health Affairs*, 2011 Ap, 30(4):773- 781.
- 2010 Quimbo, S.A., Peabody, J.W., Javier, X., Shimkhada, R., Solon, O. Pushing on a string: How policy might encourage private doctors to compete with the public sector on the basis of quality. *Economics Letters* (forthcoming), 2010.
- 2010 Quimbo, S.A., Peabody, J.W., Shimkhada, R., Solon, O. Evidence of a causal link between health outcomes, insurance coverage and a policy to expand access: Experimental data from children in the Philippines. *Health Economics* (forthcoming), 2010.
- 2009 Solon, O., Woo, K., Quimbo, S.A., Peabody, J.W., Florentino, J., Shimkhada, R. A novel method for measuring health care system performance: Experience from QIDS in the Philippines. *Health Policy and Planning*, 2009, 24(3):167-174.
- 2009 Kraft, A.D., Quimbo, S.A., Solon, O., Shimkhada, R., Florentino, J., Peabody, J.W. The health and cost impact of care delay and the experimental impact of insurance in reducing these delays in children. *Journal of Pediatrics*, 2009, 155(2):281-5.e1.
- 2009 Solon, O., Peabody, J.W., Woo, K., Quimbo, S.A., Florentino, J., Shimkhada, R. A cost-effective approach to improving access to care using policy navigators. *Health Policy*, 2009, 92(1):89-95.
- 2008 Quimbo, S.A., Florentino, J., Shimkhada, R., Pabelo, C., Solon, O., Peabody, J.W. The Under-Utilization of Social Insurance Among the Poor through Improved Awareness: Evidence from the Philippines. *PLOS One*, 2008 O, 3(10).
- 2008 Quimbo, S.A., Peabody, J.W., Shimkhada, R., Woo, K., Solon, O. Should we have confidence if a physician is accredited? A Study of the Relative Impacts of Accreditation and Insurance Payments on Quality of Care in the Philippines. *Social Science and Medicine*, 2008, 67:505-510.

- 2008 Kraft, A., Capuno, J., Quimbo, S.A., Tan, C. Information, Incentives and Practice Patterns: The Case of TB DOTS Services and Private Physicians in the Philippines. *Singapore Economic Review* , 2008, 53(1):43-56.
- 2008 Shimkhada, R., Peabody, J.W., Quimbo, S.A., Solon, O. The Quality Improvement Demonstration Study: An example of evidence-based policy making in the Philippines. *Health Research Policy and Systems*, 2008, 6(5).
- 2008 Solon, O., Riddell, T.J., Quimbo, S.L.A, Butrick, E., Aylward, G.P., Bacote, M.L., Peabody, J.W. Associations Between Cognitive Function, Blood Lead Concentration and Nutrition Among Children in the Central Philippines . *The Journal of Pediatrics*, 2008, 152(2):237-243.
- 2007 Riddell, T.J., Solon, O. Quimbo, S.L.A, Tan, C.M., Butrick, E., Peabody, J.W. Elevated blood levels among Children living in the Rural Philippines. *Bulletin of the World Health Organization*, 2007, 85(9):649-732.
- 2007 Quimbo, S.A. Pricing, Technology Choice, and Information in Health Care Markets. *Philippine Journal of Development*, 2007, 33(1-2).
- 2006 Quimbo, SA Enhancing the private provision of care through premiums for ability: The case of tuberculosis care in the Philippines. *Health Economics*, 2006, 15:1237-1244.
- 2005 Peabody, J.W., Liu, A., Alisse, L., Sarol, J.A., Ren, Y.J., Munoz, J.A., Carillo, C., Wig, N., Qulmbo, S.L.A. Using Vignettes to compare the quality of care in five countries. *World Bank, DCPW Working Paper Series #43*, 2005 D.
- 2003 Solon, O., Panelo, C., Quimbo, S. Financing health care for poor Filipinos. *World Bank Working Paper Series No. 2004-8*, 2003 JI.
- 2003 Quimbo, S.A. Which learning inputs really matter to school children? Estimating schooling outcomes as a function of "effective" inputs. *Philippine Review of Economics*, 2003 D, 110(2).
- 2003 Panelo, C., Shikhada, R., Solon, O., Quimbo, S.A., Florentino, J., Peabody, J.W. Understanding predictors of postdischarge deaths: A prospective evaluation of children under 5 years discharged from Philippine district hospitals. *Journal of Tropical Pediatrics*, 2003.
- Solon, O., Peabody, J.W., Woo, K., Qulmbo, S.A., Florentino, J., Shimkhada, R. A cost-effective approach to improving access to care using policy navigators. *Health Policy*, .
- Solon, O., Woo, K., Quimbo, S.A., Peabody, J.W., Florentino, J., Shimkhada, R. A novel method for measuring health care system performance: Experience from QIDS in the Philippines. *Health Policy and Planning*, .
- Butrick, E., Peabody, J.W., Solon, O., De Salvo K.B., Quimbo, S.L.A. A comparison of biomarkers and a single-item subjective health status measure among children in a developing country. *Population Health Metrics*, .
- Peabody, J.W., Shimkhada, R., Quimbo, S., Florentino, J., Bacote, M.F., MuCulioch, C., Solon, O. A randomized experiment introducing incentives to improve quality of care. *Health Affairs*, .
- James, C., Peabody, JW, Solon, O, Quimbo, S, Hanson, K. An Unhealthy Public Private Tension: The Impact of Physician Pharmacy Ownership on Prescribing Practices and Patient Spending. *Health Affairs*
- Kraft, A.D., Quimbo, S., Solon, O., Shimkhada, R., Florentino, J., Peabody, J.W. The health and cost impact of care delay and the experimental impact of insurance in reducing these delays in children. *Journal of Pediatrics*, .

**Name** Marita V.T. Reyes  
**Place of Birth** Quezon, Nueva Ecija  
**Date of Birth** May 30, 1941  
**Gender** Female  
**Civil Status** Married  
**Home Address** 32 Examiner St. West triangle, Quezon City 1104

**Organizational Affiliations**

Chairman, National Ethics Committee, c/o PCHRD, DOST Administration Bldg, General Santos Ave. Bicutan, Taguig City,

Professor, Dept. of Biochemistry & Molecular Biology, UP College of Medicine, 547 P. Gil, Ermita, Manila

Chairman, Philippine Health Research Ethics Board, c/o PCHRD, DOST Administration Bldg, General Santos Ave. Bicutan, Taguig City,

Clinical Professor (after 65), Dept of Biochemistry and Molecular Biology, UP College of Medicine, 547 P. Gil, Ermita, Manila, 1000 PO Box 593 Manila

**Education**

Doctor of Medicine, University of the Philippines Manila, 547 Pedro Gil St. Ermita, Manila 1964 Ap

Bachelor in Arts-Medicine (cum laude), University of the Philippines Diliman, Diliman, Quezon City 1962 Ap

Associate in Arts (with honors), University of the Philippines Diliman, Diliman, Quezon City 1959 Ap

**Fields of Specialization**

Biochemistry

Medicine

Bioethics

**Employment**

Assistant Instructor - Assistant Professor 2, University of the East Ramon Magsaysay Memorial Medical Center, 1965 JI 1-1975 My 31-

**Association Membership**

Regular Member, National Research Council of the Philippines

Member, Strategic Advisory Committee of Empowerment

Member, Research Training Steering Committee on Empowerment (TSC)

Member, Steering Committee, Forum for Ethical Review Committees in Asia & the Western Pacific

Country Representative, Asia-Pacific Association on Problem-based Learning in the Health Professions

President, Asia-Pacific Association on Problem-based Learning in Health Professions Education

Honorary Chairman, Organizing Committee, 4th Asia-Pacific Conference on Problem-Based Learning in the Health Sciences

Associate Member, Asia-Pacific IMBN

Covener, Bioethics Panel, Asia Pacific Conference in Reproductive Health PNGOC  
Member, Documentation Committee  
Member, Organizing Committee  
Member, Commission on Ethics, Philippine Medical Association  
Member, Task Force on Pharmacovigilance (BFAD, HPDDB, PHREB, UP Manila)  
Chairman, Philippine Research Ethics Board, Philippine National Health Research System  
Member, DOST-Science Career Council-Special Technical Committee  
Expert Panel Member, DOST-PCASTRD Technology Transfer Program  
Member, PCHRD-NAST Task Force on Human Cloning  
Member, PCHRD Research Fellowship Technical Committee  
Chairman, PCHRD National Ethics Committee  
Member, PCHRD National Ethics Committee  
Member, PCHRD Technical Panel on Pharmaceuticals  
Chairman, PCASTRD Technical Panel on Biotechnology  
Member, Scientific and Technical Review Panel (STRP) National Committee on Biosafety of the Philippines DOST  
Editor-in-Chief, Journal of Medical Education (APMC)  
Member, Sub-Committee on Health, IACGBR c/o Department of Environmental and Natural Resources  
Member, Special Technical Committee on Medical Sciences (Scientific Career Council, DOST)  
Member, Advisory Board, HHRD Policy Project, DOH  
Member, Commission on Medical Education  
Member, APMC Accreditation Committee  
Editor, APMC Journal on Medical Education  
Editor, Womens Journal on Law and Culture, Women Lead  
Member, Core Group on Development of Video on Violence Against Women  
Member, National Facilitation Committee for the New Millennium & Century Project  
Member, Committee on Research Coordination  
Member, Phi Kappa Phi Honor Society  
Fellow (Founding), Philippine Society of Endocrinology & Metabolism  
Member, Radioisotopes Society of the Philippines  
Member, Philippine Biochemical Society  
Secretary, Philippine Biochemical Society  
Vice President, Philippine Biochemical Society  
Member, Philippine Biochemical Society Board of Directors  
Fellow, Philippine Society of Human Genetics  
Regular Member, National Research Council of the Philippines  
Associate Member, National Research Council of the Philippines

Member, American Association for the Advancement of Science  
Member, Steering Committee, FERCAP-Philippines  
Secretary, Philippine Bioethics Network  
Member, Philippine Medical Women's Association Quezon City Chapter  
Member, Manila Medical Society  
Member, UP Medical Foundation  
Board of Trustees, UP Medical Foundation  
Vice President, UP Medical Foundation  
President, UP Medical Foundation  
Member, UPHEIPS Foundation  
Board of Trustees, UPHEIPS Foundation  
Vice-President, UPHEIPS Foundation  
Board of Directors, UP Medical Alumni Society  
Member, UP Medical Alumni Society Awards Committee  
Member, UP Medical Alumni Society Board of Judges for the Annual Awards  
Co-Chairman, UP Alumni Association, Committee on Public Issues  
Member, UP Alumni Association, Awards Committee  
Member, PGH Centennial Advisory Council  
Member, Dr. Flora Pascasio Research Foundation  
President, COOP-INSIGHT (Cooperative for Integrative Services in Gender Health and Technology)  
Member, Board of Directors, COOP-INSIGHT  
Member, Board of Directors, Women's Health Care Foundation  
Member, PCHR Task Force on Ethics in Genetic Engineering  
Member, PCHR Task Force on Vaccine Production  
Covener, PCHR-1998 National Congress in Health Research Priorities (for NCR)  
Member, Award Screening Committee: Regional Researcher of the Year Award  
Member, Board of Judges, 2001 Most Outstanding Research in Advanced Technology, PCASTRD  
Member, DOST Task Force on Biotechnology, c/o PCASTRD  
Member, Search Committee for the Position of PCHR Executive Director  
Member, Search Committee for the Position of PCHR Deputy Director  
Chairman, Technical Working Group on Ethics, Philippine National Health Research System  
Chairman, Committee on the Search for the Silver Stars of Women's Health  
Member, Search Committee for the Position of PCHR Executive Director  
Member, Ad Hoc Committee on the Revision of the National Research Ethics Guidelines  
Consultant, Philippine College of Occupational Medicine (PCOM)  
Chairman, Ad Hoc Ethics Committee, Philippine College of Physicians

## Honors / Awards

Florante I. Albano Chair for Professor of Biochemistry, 1997-2000  
Distinguished Service Award, DOST-PCASTRD, 20th Anniversary Celebration 2007 D 12  
Golden Anniversary Class Leadership Award , UP High Class 56 2006 F 25  
Centennial Award for Medical Education, University of the Philippines College of Medicine (UPCM) Centennial Celebration 2006 N 22  
Professional Award in Medicine, UP Manila Alumni Association 2005 O 21  
Gloria T. Aragon Centennial Award for Most Illustrious Faculty of the College of Medicine, UPCM 2005 O 21  
NRCP Achievement Award in Medicine, National Research Council of the Philippines 2005 Mr 5  
Outstanding Alumna in Medical Education, UP Medical Alumni Society 2002 D  
One of the Outstanding Women in Health Science, National Academy of Science and Technology 1999  
Florante I. Albano Chair for Professor of Biochemistry, UPCM 1997 Je  
Eusebio Garcia Professorial Chair in Biochemistry, UPCM 1995 Je  
Outstanding Awardee in Education, Philippine Society of Biochemistry and Molecular Biology 1995 D 8  
UP Investment Portfolio Professorial Chair in Biochemistry 1, UP College of Medicine 1994 Je  
Outstanding Basic Science Teacher, St. Louis-UPMASA 1994 Je 13  
UPMASA Professorial Chair in Biochemistry, UP College of Medicine (UPCM) 1993 Je  
Eusebio Garcia Professorial Chair in Biochemistry, UPCM 1986 Je  
UP- University of UNEA Professorial Chair in Biochemistry, UPCM 1982 Je

## Trainings

PMAC Training for Physicians of the Women's Health Care Foundation, Jose Fabella Medical Center, Manila 2008 O 20-22  
Fund Raising Skill-Building Workshop, Packard Foundation Philippine Partners, Venture for Fund Raising 2008 D 09-11  
SIDCER Surveyors' Training, "Role of Surveyors in Fulfilling the Promise", MOPH, Richmond Hotel, Bangkok, Thailand 2007 D 02  
GCP Training for Ethics Committee Members, Krungsri River Hotel, Ayutthaya, Thailand, FERCAP 2006 N 28  
Accounting Seminar for Non-Accountant Administrators, AG Sison Conference Room, UP College of Medicine, UP Medical Foundation 2006 My 11  
Training Course for Potential TDR Clinical Trial Auditors, The Pearl Manila 2006 D 11-13  
An International Course on Surveying and Evaluating Ethical Review Practices, Seoul National University Medical Center and Asian Medical Center 2006 Ap 23-27  
Echo Seminar on RA 9184 (Government Procurement Reform Act) and its IRR, Office of the Vice Chancellor for Administration, UP Manila Social Hall 2005 Ja 29  
1st Training Seminar on Social Marketing, AIM Conference Room 2005 Ja 25-26

1st Workshop on Effective Ethics Committees: Requirements and Considerations, Columbus Room, Discovery Suites, 25 ADB Ave., Ortigas Center, c/o Pfizer 2002 Ag

Training for Accreditors in Medical Education, St. Paul's College Manila c/o PAASCU & APMC 2001 N 21-22

Training Workshop on Communication, PCASTRD, Communication Planning, c/o Dr. Ma. Celeste Cadiz, Ms. Virginia Novenario 2000 My 25-26

Faculty Computer Literacy Course, UP Manila, CAS Rm 114 c/o Prof. Ma. Sheila Abad 1996 My 20-22

Summer Seminar in Health Care Ethics, University of Washington, Seattle c/o Dr. Albert Jonsen 1996 Ag 5-9

Short Course on the Applications of Restriction Fragment Length Polymorphism Analysis, MBB Program 1994 F21-25

Trainers Training Course for Integrating Reproductive Health Care, Law and Research, ReproCen, DAP, Tagaytay c/o Dr. Ruth Mackin 1993 D 03-05

Basic Biotechnology Course, MBB Program, UP Diliman c/o Prof. Avshalom Mizrahi 1992 O 26-N 11

Introduction to Patient Care (IPC), c/o Ms. Agnes Gonzales, UP College of Medicine 1987 My-N

Strategies for the Implementation of Innovations in Medical Education, RTTC University of New South Wales, Sydney, Australia 1987 F 08-20

Workshop on the Preparation of Learning Modules, NTTC-HP Module Bank Staff 1984 Ag 14

Short Course in Medical Genetics, Jackson Laboratory, Bar Harbor, Maine, USA 1982 JI 17-30

Workshop on Teaching-Learning, NTTC-HP, NTTC Conference Room 1981 Je 05-06

Management Seminar, UNILAB Management Group DAP, Tagaytay City 1981 My 01-03

Workshop on Student Evaluation, c/o Dr. Jose Ramirez, UERMMM (Antipolo, Rizal) 1975 My

Radioisotopes Technique Training Course, Philippine Atomic Energy Commission 1975 F-Mr

Teacher Training Workshop, c/o Dr. Presentacion Peralta, UERMMM (Baguio City) 1974 My 20-24

Seminar-Workshop on Medical Research, UERMMM c/o Dr. Fernando Sanchez 1973 S-N

Special Course on Collective Bargaining, Asian Labor Education Center University of the Philippines 1969 N

## **Researches**

### **Completed**

Use of variable number of tandem repeats (VNTRs) in the diagnosis of inborn errors of metabolism

Correlation of class ranking with immigration of UP Medicine Alumni

Urinary proteins in glomerulonephritis

Niacin metabolism

Comparison of serum HBV DNA and HbeAg/Ab as markers for infectivity of HbsAg + Mothers to their infants

DNA and monoclonal antibodies in HBV infection and other related diseases

Preliminary studies on the fetal cord blood as a means for the early detection of metabolic defects

Preliminary studies on the correlation between maternal and newborn thiamine nutriture

HBV DNA integration in lymphocytes and liver cells

Establishment of the Serum PHP assay in the assessment of hepatic fibrosis

Determination of blood enzymes and metabolites among normal Filipinos

Standardization of biochemical tests for screening and diagnosis of inborn errors of metabolism

Use of VNTRs in the diagnosis of inborn errors of metabolism

Use of VNTRs in the diagnosis of malignancies

Applicability of the TPP Effects (Dreyfus Method) on the Assessment of thiamine nutriture

### **Papers Presented**

Reyes, M.V.T. (2008 S 27). Current Ethical Issues in Philippine Medicine, King George Garden, Santiago City.

Reyes, M.V.T. (2008 O 24). Challenges to Reproductive Health and Rights, UP-PGH Department of Psychiatry and Behavioral Medicine, Function Room, PGH Dietary Department, PGH, Manila .

Reyes, M.V.T. (2008 O 2). Teaching Ethics and Values in the Health Professions, UPMASA-PGH Science Hall, Manila.

Reyes, M.V.T. (2008 N 15). Stem Cell, Cord, Cloning, Genetics: Are We Ready to Face the Challenges?, Traders Hotel, Manila.

Reyes, M.V.T. (2008 Mr 27). Duties of PMAC Providers: Ethical Issues in Post Abortion Care, Astoria Plaza, No. 15 J. Escriva Drive, Ortigas Business District, Pasig City.

Reyes, M.V.T. (2008 Je 17). Nation Building through Caring: Locating the Health Professions in Nation-Building, SMX Convention Hall, Mall of Asia Complex.

Reyes, M.V.T. (2008 F 11). Health Research Ethics in the Philippines: Current Standards, Practices and Challenges , UP Manila - NIH, NIH Conference Room.

Reyes, M.V.T. (2008 D 06). Ethics and Values in the Workplace, Emilio Aguinaldo College, Manila.

Reyes, M.V.T. (2008 Ap 20). Modernizing Medical Education for 21st Century Medicine, 27th Annual Scientific Convention of the Physiology Society of the Philippines, Angels Hills, Tagaytay City.

Reyes, M.V.T. (2008 Ap 16). Patients' Rights, Professional Ethics and Keeping Promises, University Church, College of Medicine, Central Philippines University.

Reyes, M.V.T. (2008 Ag 16). Ethical Issues in Human Research, Royal University of Santo Tomas, Manila.

Reyes, M.V.T. (2007 O 5). Ethical Considerations in Genetic Testing and Counseling, The Philippine Society of Oncology , 23rd Annual Convention, Garden Ballroom, EDSA Shangri-La Hotel, Mandaluyong City .

Reyes, M.V.T. (2007 O 27). Ethical Issues in Dementia Care, Monthly Seminar,



Bantay Matanda, Christ the King Seminary, E. Rodriguez Ext., Quezon City.

Reyes, M.V.T. (2007 N 8). Defining the GCP Regulatory Framework, UP Manila- NIH in collaboration with WHO, BFAD, DOH and FERCAP, Orchid Garden Suites, Vito Cruz, Manila.

Reyes, M.V.T. (2007 N 28). Linking the Stakeholders: Towards Developing a National Quality system in Health Research, The 7th FERCAP Annual International Conference, Udon Thani, Thailand.

Reyes, M.V.T. (2007 My 09). Challenges in Research Ethics in an Academic Institution, UERM Memorial Medical Center College Auditorium.

Reyes, M.V.T. (2007 Mr 30). An Orientation to Gender and Development, Heritage Hotel, Manila.

Reyes, M.V.T. (2007 F 03). Clinical Applications of Genetic mapping in Diabetes Mellitus, Hotel Philippine Plaza, Manila .

Reyes, M.V.T. (2007 D 22). Sexual and Reproductive Health Rights, Reproductive Health and Project Evaluation, Samar Room, Sofitel Philippine Plaza Hotel

Reyes, M.V.T. (2007 Ag 11). Molecular Diabetes 101: Gene Mapping and Diabetes Mellitus, Century Park Hotel, Pablo Ocampo, Sr. St., Manila.

Reyes, M.V.T. (2006 S 21). Ethical Issues in the Diagnosis and Care of Patients with Dementia, Philippine Plaza Hotel, Roxas Blvd, CCP Complex.

Reyes, M.V.T. (2006 S 18). The Physician as a Researcher, Health Research: PHREB in cooperation with Pfizer Philippines, RITM Conference Room, Alabang, Muntinlupa City

Reyes, M.V.T. (2006 Mr 17). Responsibility, Integrity and Ownership of Research, Pan Pacific Hotel, Malate Manila.

Reyes, M.V.T. (2006 D 8). Ethical Considerations in Genetic Research, West Visayas State University, La Paz, Iloilo City .

Reyes, M.V.T. (2006 Ap 18). The Responsibility for a Beloved and Honorable Profession, West Visayas State University, College of Medicine, West Visayas State University Cultural Center, Iloilo City.

Reyes, M.V.T. (2005 S 20). Heroism and the UP College of Medicine, Class' 64 Lecture Room, UP College of Medicine.

Reyes, M.V.T. (2005 O 20). Ethics and Leadership, Department of Internal Medicine College of Medicine and the Philippine General Hospital, Manila .

Reyes, M.V.T. (2005 O 18). Molecular Biology and the Future of Clinical Medicine, Molecular Biology and Nutrition UST Faculty of Medicine and Surgery, Room 217, Medicine Bldg., UST .

Reyes, M.V.T. (2005 O 03). The Public Role of the Faculty, UP Manila Social Hall.

Reyes, M.V.T. (2005 N 18). Medical Ethics Revisited, Amigo Terrace Hotel, Iloilo City.

Reyes, M.V.T. (2005 N 08). Sex and Sexuality in the Senior Years, Women's Health Care Foundation (WHCF), Silver Conference Room.

(2005 Je 16). Medical Professionalism and the Drug Industry, Philippine Psychiatric Association, Linden Suites, Pasig City.

Reyes, M.V.T. (2005 Ja 20). Challenges and Thrusts of Philippine Medical Education, Isla Ballroom, EDSA Shangri-La, Ortigas, Mandaluyong City.

Reyes, M.V.T. (2005 D 04). The Changing Role of Women in Philippine Society, EDSA Shangri-La Hotel, Palawan Room.

Reyes, M.V.T. (2004 Mr 31). When Does Human Life Begin, Holiday Inn, Ortigas Center.

Reyes, M.V.T. (2004 Jl 21). Gender and Mental Health, Isla Ballroom, EDSA Shangri-La.

Reyes, M.V.T. (2003 O 18). End of Life Issues: Euthanasia and Advanced Directives, 19th Annual Convention Philippine Society of Oncologists EDSA Shangri-La .

Reyes, M.V.T. (2003 N 28). Globalization of Clinical Research in the Philippines, 24th Philippine Pharmaceutical College National Covention EDSA Shangri-La .

Reyes, M.V.T. (2003 My 19). Bioethics in Medicinal Plant Research and Development, Philippine Council of Health Research and Development Social Hall, UP Manila .

Reyes, M.V.T. (2003 Je 9). Ethical Issues in Reproductive Health, 95th UP Foundation Week Celebration, Arts and Sciences Lobby, UP Diliman, Quezon City .

Reyes, M.V.T. (2003 F 21). Revitalization of the General Education Program: the UP Experience, Colleges and Schools Convention, Audiovisual Room, Philippine Normal University (PNU), Manila .

Reyes, M.V.T. (2003 Ap 28). Ethical Perspectives in Emergency Contraception for Victims- Survivors Of Sexual Assault , East Avenue Medical Center.

Reyes, M.V.T. (2003 Ag 7-10). Ethical Issues in HIV/AIDS Management and Control, 1st Visayas Convention on HIV/AIDS, Regions 6, 7 & 8.

Reyes, M.V.T. (2000 O 21). Bioethics in HIV/AIDS: Engendering an Ethical Framework in HIV/AIDS Prevention and Control , 21st Century National AIDS Association of the Philippines, Westin Plaza, Manila .

Reyes, M.V.T. (1999 Jl 22-23). Biotechnology in health and medicine, Seminar on Understanding and Appreciating Biotechnology.

Reyes, M.V.T. (). Bioethical Issues in Pediatrics, 24th Postgraduate Course in Pediatrics, UERM Memorial Medical Center, Century Park Hotel

## **Publications**

- 2006 Reyes, M. V.T. National ethical guidelines for health research. Philippine National Health Research System, 2006 S.
- 2006 Reyes, M.V.T. Gene Talk 2. Flora Pascasio MD Research Foundation, 2006 S.
- 2006 Reyes, M.V.T. Public Policy. Trade and Health, Labor Migration, 2006 Ja-Je, 10(1).
- 2006 Reyes, M. V.T. Proceedings of a policy dialogue. Rights of Conscience Act of 2006, Center for Integrative and Development Studies, 2006.
- 2005 Reyes, M. V.T. Guide for Guidance Counselors and High School Teachers: Adolescent reproductive health modules on: Physical changes, reproductive health . ReproCen, Supported by Ford, 2005.
- 2002 Reyes, M.V.T., de Castro, L., Perez, E., Tomas, C. Teaching modules in medical ethics. ReproCen (supported by Ford Foundation), 2002.
- 2001 Reyes, M.V.T., Lee, L., Tanega, A. Gene Talk:. Proceedings of the Flora Pascasio MD Postgraduate Courses in Genetics, 2001 Jl.
- 1999 Reyes, M.V.T. Biotechnology in health and medicine. Proceedings, Seminar on Understanding and Appreciating Biotechnology, 1999 Jl 22-23:77-81.

- 1999 Reyes, M.V.T. Research priority areas and type of research needed in the National Capital Region, 1999-2004. PCHRD-DOST, 1999.
- 1998 Reyes, M.V.T. Towards the development of a National Policy on human cloning. *The Journal of Reproductive Health, Rights and Ethics*, 1998-1999, 4-5.
- 1998 Reyes, M.V.T., Tojos, L., Ho, L. Handbook on domestic violence. , 1998 Ap.
- 1998 Reyes, M. V.T. Setting the S & T priorities in the National Capital Region. PCHRD, 1998.
- 1997 Reyes, M.V.T., Sanchez, F.S., Reyes, A.L.T., Tantengco, A.T., Cuyegkeng, E.L. Towards an innovative medical curriculum, A guide for Philippine Medical Schools. APMC, 1997.
- 1985 Reyes, M.V.T., Nocon, V.G. *Experimental Biochemistry: Basic concepts and selected techniques*. University of the Philippines College of Medicine, 1985.
- 1984 Reyes, M.V.T., Pascasio, F., Briones, T., Tantengco, A., Garcia, F.P. *Applied human genetics*. APMC, Manila, Philippines, 1984.
- 1984 Reyes, M.V.T., Mendoza, E., Cruz, L.J. *Proceedings of the Fourth FAOB Symposium*. Manila, Philippines, 1984.

**Name** Felicito Rodriguez  
**Place of Birth** Los Banos, Laguna  
**Date of Birth** May 2, 1948  
**Gender** Male  
**Civil Status** Married  
**Home Address** A3 Sampaguita St. UPCO Housing UPLB, College, Laguna  
4031

**Organizational Affiliations**

University Researcher, Institute of Plant Breeding, UPLB, College, Laguna 4031  
Affiliate Faculty, Institute of Human Nutrition and Food, College of Human Ecology,  
UPLB, College, Laguna

**Education**

B.S. Agricultural Chemistry, University of the Philippines Los Baños, UPLB,  
College, Laguna 4031 1974

**Fields of Specialization**

Analytical Chemistry

**Employment**

System Administrator, Institute of Plant Breeding, CSC, UPLB, 2007 Ja-2009 Mr-

**Association Membership**

Member, Kapisanan ng mga Kimiko sa Pilipinas, LB Chapter  
Member, Philippine Association of Laboratory Instrument Users  
Member, National Research Council of the Philippines

**Honors / Awards**

Outstanding Junior Researcher, Institute of Plant Breeding 2002 Je  
First Place Research Paper Category, Ilocos Agriculture and Resources  
Research and Development Consortium 2007

**Trainings**

37th KKP-ST Annual Convention, SEARCA Auditorium, UPLB, College, Laguna  
2008  
National Congress of the Philippine Fruits Association, Oasis Hotel, Splash  
Mountain, Lalakay, Los Baños, Laguna 2008  
5th Asian Food and Nutrition Safety Conference, Shangrila Mactan, Cebu City  
2008  
Convention of the Crop Science Society of the Philippines, Cebu City and KKP-LB  
Annual Convention, SEARCA, UPLB, College, Laguna 1998  
FCSSP Annual Scientific Conference, Davao City, Davao City 1992  
Isolation of concaavalin A-like structure from Sword bean, Nagoya University,  
Nagoya, Japan 1989 O 20- N 17  
2nd National Chemistry Congress, Iloilo City 1986  
Use on isotachopheresis for the analysis of linamarin in cassava, Ochanomizu  
Women's University, Tokyo, Japan 1981 O 22-N 17

## Researches

### Completed

Development of Objective Indices (Biochemical, Physiological and Physical) for Varietal Identification of Mango

Morpho-biochemical Pathway of KNO<sub>3</sub> in Mango Flower Induction

Enhancing Capacity for nematode Management in Small-scale banana Cropping Systems

Integrated R and R Program on Biofuels: Subprogram on Utilization of Sweet Sorghum and Cassava as Feedstocks for Ethanol Production. Project 3.1 Development of Production technology Protocol for Sweet Sorghum

Harnessing UPLBs Human Resource Development Through an Internally Managed Research Grant from DA-BAR.- Project 1. Collecting, Propagation, Characterization and Conversion of Species and Genetic Diversities of Philippine Mangiferas

### Papers Presented

Rodriguez, F. (2011 JL 13-14). Changes on the Antioxidant Activity and Total Phenolics Content of Different Leafy and Fruit Vegetables Affected by Storage Time and Temperature, 33rd NAST Annual Scientific Meeting.

Francia, S.C., Hurtada, W.A, Barrion, A.S.S. (2009). Functional Components of Polished and Unpolished Pigmented Rice Varieties, 76th Annual Convention of the National Research Council of the Philippines.

Rodriguez, M.S., Narciso, J.O., Hautea, D.M., (2008). Total Phenolics and Flavonoid Contents and Proximate Compositions of Fruits from Bt Positive, Bt Negative and Non-transgenic Mara and DLP Varieties of Eggplant (*Solanum melongena* L.), 5th Asian Food and Nutrition Safety Conference held at the Shangrila Mactan, Cebu City.

Rodriguez, M.S., Magdalita, P.M., Hautea, D.M. (2008). Proximate Composition of Ripe Papayas (*Carica papaya* L) from Several Wet Markets from Two Provinces in the Philippines, National Congress of the Philippine Fruits Association held at the Oasis Hotel, Splash Mountain, Lalakay, Los Baños, Laguna.

Rodriguez, M.S., Valencia, L. D.C., Magdalita, P.M., Hautea, D.M. (2008). Changes in the Proximate Composition of Five Varieties of Papaya (*Carica papaya* L) Accompanying Ripening, National Congress of the Philippine Fruits Association, Oasis Hotel, Splash Mountain, Lalakay, Los Baños, Laguna.

Hurtada, W.A., Nagares, N.dL. (2008). Nutritional Content of Rice Composites, 37th KKP-ST Annual Convention, SEARCA Auditorium, UPLB, College, Laguna.

Nagares, NdL, Hurtada, WA, Dizon, El, Barrion, ASS, Yee, MG (2008). Sensory Characteristics and Acceptability of Rice Composites as Staple, 37th KKP-ST Annual Convention. SEARCA Auditorium, UPLB, College, Laguna.

Hurtada, W.A., Barrion, A.S.S., Nagares, D.L. (2008). Cooking parameters and some physic-chemical properties of rice composites as potential staple of Filipinos, 37th KKP-ST Annual Convention, SEARCA Auditorium, UPLB, College, Laguna.

Legacion, P.D.H., RODRIGUEZ, F., Hurtada W.A. (2006). Changes in the Antioxidant Activity, Total Phenolics and Saponin Contents of Different Varieties of Sesame (*Sesamun indicum* L) Seeds After Roasting, Proceedings of the Scientific Session of the 35th KKP-ST Annual Convention.

Agustin, E.M., Villaraza, R.M., Hurtada, W.A., Barrion, A.S.S. (2006). Localization of the Alkaloid Content of the Different Varieties of Ampalaya (*Momordica charantia* L), Proceedings of the Scientific Session of the 35th KKP-ST Annual Convention.

Sagun, GG, Hurtada AW (2006). The Effect of Temperature, Cooking Time and Salt Concentration on the Thiocyanate Content of Cabbage (*Brassica capitata* L), Proceedings of the Scientific Session of the 35th KKP-ST Annual Convention.

Protacio, CM., Serrano, EP, Quinto, E, Marquez, IP (2004). Unraveling the Role of Potassium Nitrate in Mango Flowering, 17th Regional Symposium on R & D Highlights, Plenary Hall, Rizal technological University, Boni Avenue, Mandaluyong City.

Protacio, CM., Serrano, EP, Quinto, JE, Marquez, IP and Absulio, W. (2004). Unraveling the Role of Potassium Nitrate in Mango Flowering, 32nd Anniversary of PCARRD at PCARRD, Los Baños, Laguna.

Protacio, CM, Serrano, EP, Quinto, JE and Marquez, IP (2003). Unraveling the Role of Potassium Nitrate in Mango Flowering, 35th Annual Convention of the Crop Science Society of the Philippines, Davao City.

Mendoza, EMT, Baldiviano, PF and Namuco, LO (2001). Indices for the Varietal Identification of Mango Var Carabao at Seedling Stage, DA-BAR Anniversary, DA-BAR, Diliman, Quezon City.

Mendoza, EMT, Baldiviano, PF and Namuco, LO (2000). Pagkilala sa Pananim ng Manggang Kalabaw, STARRDEC 13th Regional Symposium on Research and Development Highlights, Marinduque State College, Tanza, Boac, Marinduque.

Laureles, LR, Caraos, MA, Santos, GA, Mendoza, EMT (1998). Fatty Acid and Triacylglycerol Composition of Coconut (*Cocos nucifera*) Varieties and hybrids, Convention of the Crop Science Society of the Philippines, Cebu City and KKP-LB Annual Convention, SEARCA, UPLB, College, Laguna.

Baldiviano, PF, Mendoza, EMT, Laurena, AC (1997). Phenolic compounds in Coconut (*Cocos nucifera*, L) and Mango (*Mangifera indica*), Bulletin of the Philippine Biochemical and Molecular Biology.

Mendoza, EMT, Laurena, AC, Laureles, LR and Santos, GA (1997). Screening of the Triacylglyceride Composition of Coconut (*Cocos nucifera*, L) Cultivars and Hybrids, Bulletin of the Philippine Biochemical and Molecular Biology.

Garcia, R.N., Mendoza, E.M.T., Laureles, L.R. (1996). Determination of some biochemical factors in mung bean (*Vigna radiata* (L) Wilczek) and rice bean (*V. umbellata*, L.) associated with bruchid resistance, NAST Scientific Meeting, FNRI, Bicutan, Taguig, Metro Manila.

Mendoza, E.M.T., Laureles, L.R., Garcia, R.N. (1995). Determination of Some Biochemical Factors in Mung bean (*Vigna radiata* (L) Wilczek) and Rice bean (*V. umbellata*, L.) Associated with Bruchid Resistance, FCSSP Annual Scientific Conference.

Mendoza, E.M.T., Laurena, A.C., Samonte, J.L., Mabesa, L.B., Uritani, I. (1992). Polyphenols in Cooking Banana-Changes during Ripening and Cooking and Relation to Astringency, FCSSP Annual Scientific Conference, Davao City.

Laurena, A.C., Barroga, C.F., Sembrano, A.G.T., Revilleza, M.J.R., Villena, E.T., Mendoza, E.M.T. (1986). Biochemical Assessment of Five Underutilized Philippine Indigenous Legumes: Sabawel, Samsamping, Tapilan, Jack bean and Sword bean, 2nd National Chemistry Congress, Iloilo City.

## **Publications**

- 2011 Rodriguez, F. Differential Response of Open-Pollinated and Hybrid Tomato Varieties to PGPR Inoculation under Field Condition. Transactions of the National Academy of Science and Technology. Abstract of Papers, 2011 JL 13-14, 33(1).
- 2011 Rodriguez, F. Changes on the Antioxidant Activity and Total Phenolics Content of

- Different Leafy and Fruit Vegetables Affected by Storage Time and Temperature. Transactions of the National Academy of Science and Technology. Abstract of Papers, 2011 JL 13-14, 33(1).
- 2011 Rodriguez, F. Total Phenolics, Flavonoids, Tannins, Alkaloid and Saponin Contents and Antioxidant Activity of Locally Grown Fruits. Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2011 JL 13-14, 33(1).
- 2009 Carpena, A.L., Manguiat, P.H., Del Rosario, E.E., Lalusin, A.G., Gueco, L.S., Reaño, C.E., Quillooy, R.B. Development and release in the Philippines of Sweetpotato variety NSIC Sp-31. Philippine Agricultural Scientists, 2009, 92(1):100-105.
- 2007 Tangqueco, R.E., Laude, R.P., Cueno, M.E. Total free sugars, oil and total phenolics content of stored coconut (*Cocos nucifera* L.) Water. Philippine Journal of Crop Science, 2007, 136(2):103-108.
- 2004 Tecson-Mendoza, E.M., Baldiviano-Josue, P.F., Namuco, L.O. Indices for varietal identification of mango (*Mangifera indica* L.). Philippine Agricultural Scientists, 2004, 87(1):41-48.
- 2003 Delfin, E.F., Paterno, E.S., Ocampo, A.M. Growth, yield and nutrient uptake of mung bean (*Vigna radiata*, L.) grown in Antipolo clay amended with lime, nitrogen and phosphorous fertilizers and microbial inoculants. Philippine Agricultural Scientist, 2003, 86(1):75-83.
- 2002 Laureles, L.R., Reaño, C.E., Santos, G.A., Laurena, A.C., Mendoza, E.M.T. Variability in fatty acid and triacylglycerol composition of the oil of coconut (*Cocos nucifera* L.) hybrids and parentals. Journal of Agricultural and Food Chemistry, 2002, 50(6):1581-1586.
- 1999 Baldiviano, P.F., Mendoza, E.M.T. Variation in polyphenol profile and content of leaves from different strains of mango (*Mangifera indica* L.) var carabao. Philippine Journal of Crop Science, 1999, 24(1):54-57.
- 1999 Mendoza, E.M.T., Laureles, L.R., Caraos, M.A., Reaño, C.E., Santos, G.A., Laurena, A.C. Storage lipid variability in promising coconut (*Cocos nucifera*, L) hybrids and cultivars: Fatty acid/triacylglycerol composition. Philippine Journal of Crop Science, 1999.
- 1998 Mendoza, E.M.T. Alkaloids of several Philippine indigenous food legumes: Determination and removal. Philippine Journal of Crop Science, 1998, 23(2):121-125.
- 1992 Mendoza, E.M.T., Laurena, A.C., Samonte, J.L., Mabesa, L.B., Uritani, I. Polyphenols in cooking banana: Changes during ripening and cooking and relation to astringency. Philippine Journal of Crop Science, 1992, 17(3):155-161.
- 1991 Laurena, A.C., Rodriguez, F.M., Sabino, N.G., Zamora, A.F. Amino acid composition, relative nutritive value and in vitro protein digestibility of several Philippine indigenous legumes. -, 1991, 41:59-68.
- 1991 Lubag, A.J.M., Revilleza, M.J.R., Mendoza, E.M.T., Mabesa, L.B., Salazar, A.M. Changes in carbohydrates during kernel development and after harvest of a Philippine super sweet corn cultivar. Philippine Journal of Crop Science, 1991, 16:19-23.
- 1990 Rodriguez, F.M., Mendoza, E.M.T. Physicochemical basis for hardseededness in Mung Bean (*Vigna radiata* (L) Wilczek). Journal of Agricultural and Food Chemistry, 1990, 38:29-32.
- 1990 Mendoza, E.M.T., Revilleza, M.J.R. Proximate chemical composition of several Philippine indigenous food legumes. The Philippine Agriculturist, 1990, 73(1):69-

74.

- 1988 Mendoza, E.M.T., Barroga, C.F., Revilleza, M.J.R., Laurena, A.C. Factors affecting the nutritional quality and acceptability of mung bean (*Vigna radiata* (L) Wilczek). Transactions of the National Academy of Science and technology (Philippines), 1988, 10:305-322.
- 1982 Mendoza, E.M.T., Mujer, C.V. Ramirez, D.A. Ontogeny of some chemical constituents in makapuno and normal coconut (*Cocos nucifera*, L) endosperms. Kalikasan, Philippine Journal of Biology, 1982, 11:99-107.



**Name** Wilfredo P. Ronquillo  
**Place of Birth** Malate, Manila  
**Date of Birth** July 13, 1948  
**Gender** Male  
**Civil Status** Married  
**Home Address** 17 Ma. Dizon St., Gloria Heights Subd., Antipolo City, Rizal

**Organizational Affiliations**

Professorial Lecturer IV (part Time), Archaeological Studies Program University of the Philippines, Diliman, Quezon City, 1996

Board Member, UNESCO/ICOMOS International Committee on the Underwater Cultural Heritage, Inc., Fremantle, Western Australia. 1998

Curator II/Chief, Archaeology Division, National Museum, P. Burgos St., Manila

President,, Indo-Pacific Prehistory Association 2006-2008,

Member, Editorial Board, Society of Philippine Archaeologists, Katipunan Arkeologist ng Pilipinas, Inc., Manila, O 2003

Vice -President, Indo-Pacific Prehistory Association, Australian National University, Canberra, Australia 2002-2006

First President, Katipunan Arkeologist ng Pilipinas, Inc.,

Member, Board of Editors, Hukay: Bulletin of the University of the Philippines Archaeological Studies Program, Diliman

Professorial Lecturer IV (Part Time), Department of Anthropology University of the Philippines Diliman, Quezon City. Since 1994, Diliman, Quezon City, 1994

Member, National Cave Management and Conservation Committee, Protected Areas and Wildlife Bureau, Department of Environment and Natural Resources

**Education**

MS Anthropolgy, University of Pennsylvania, Philadelphia, Pa., USA 1981

A.B. Anthropology, University of the Philippines, Diliman, Quezon City 1972

**Fields of Specialization**

Anthropology

Archeology

**Employment**

Conferred Scientist II, DOST/CSC, 2002 N-

Museum Curator II/Chief, National Museum of the Philippines, -

**Association Membership**

Member, University of the Philippines Alumni Association

Member, University of the Pennsylvania Alumni Association

Member, Indo-Pacific Prehistory Association, Australian University, Canberra, Australia

Member, Australian Inst. for Maritime Arch., Western Australian Maritime Museum, Fremantle, W. Australia

Regular Member, National Research Council of the Philippines, Division of Social

## Sciences

Board of Trustee (1997 - 99, 2001-02; 2006-08), National Research Council of the Philippines Foundation, Inc.

Executive Committee Member, Chairman for the Section on Anthropology and Linguistics, Social Science Division, NRCP

Board Member (1985-1988), Philippine Association of Museums, Incorporated

Voting Member, ICOMOS International Committee on the Underwater Cultural Heritage, Inc.(1993-1997).

Member, Society of Historical Archaeology, Tucson, Arizona, U.S.A.

First President, 1999-2001, Katipunan Arkeologist ng Pilipinas, Inc.

Chairman, Philippine Associations of Museums, Inc. 2003-2004

President, Indo-Pacific Prehistory Association, Australian National National University, Canberra, Australia

## Honors / Awards

M.Sc. in Anthropology (major in Archaeology), Ford Foundation Scholarship Grant 1978

Certificate of Recognition, Outstanding Individual PBL Rural Service Worker, Ministry of Education and Culture, Manila 1982 F 26

Certificate of Completion, Applied Project and Logistics Management, International Management Executive Center, Makati, Metro Manila 1983 S

Certificate of Completion, Applied Personnel HRD and Records Management, International Management Executive Center, Makati, Metro Manila 1983 S

Certificate of Appreciation, The Butuan Museum Foundation, Inc. Butuan City 1988 Ag 30

Plaque of Appreciation, Philippine Dental Association, Manila 1990 Ap 26

Plaque of Appreciation, Rotary Club of New Manila East District 378, Quezon City 1991 My 14

Certificate of Training, Civil Service Commission Junior Executive Training Program, CSC-NCR, Quezon City 1991 Je 28

Plaque of Appreciation, Philippine Dental Association, Inc, Manila 1993 F 2

Plaque of Appreciation as Guest Lecturer, The Philippine Association of Hospitals Dentists, Mandaluyong, Metro Manila 1993 My 16

Plaque of Appreciation as Guest Lecturer, The Occupational Dentist Association of the Philippines, Greenhills, Metro, Manila 1993 D 09

Certificate of Appreciation in Supporting the Completion of the Mt. Pinatubo Recovery Action Plan, U.S. Army Corps of Engineers 1993

Loyalty Award, 25 Years of Dedicated and Very Satisfactory Service in the National Museum, National Museum Week and the Museum and Galleries Month in Manila 1999 O

Plaque of Appreciation as a Gesture and Sincere Appreciation for His Support as Resource Speaker, Aggao Nac Cagayan Festival 2003, Cagayan Colleges, Tuguegarao 2003 Je 25

Certificate of Appreciation, as Lecturer in the Tour Guides, National Museum, Department of Tourism and the National Commission for Culture and Arts 2004

Certificate of Appreciation as Lecturer on, Annual Conference of the Katipunan

Arkeologist ng Pilipinas, U.P. Diliman, Q.C. 2004 D 10

Certificate of Appreciation as Lecturer, Scientific Forum Organized by the Scientific Career System, Philippine Plaza, Manila 2005 JI 16

## Trainings

Cultural Heritage Program on Cebu Life from the Ground: Archaeology and Cultural Property, Bryant George Hall, Eduardo Aboitiz Development Studies Center, Cebu City 2008 Ap 24

Control Methods Against Wood Insect and Fungal Attack on Bamboo, Rattan, Twigs and Vines, CLSU Training Center, Science City of Munoz, Nueva Ecija 2007 JI 19-20

Stone Boat Shape Burials, Statuettes and Carvings in the Philippines, Changhewng Country, Chollanam-do Province, South Korea 2007 O 06-08

Sharing Our Archaeological Heritage: The Philippine Experience, Hotel New York, Johor Bahru, Malaysia 2007 N 11-15

Building Prehistoric Research in Southeast Asia, Paris, France 2007 D 10-12

New Discoveries in Philippine Archaeology in the Past Ten Years, The 1st Studies Conference of Japan, Tokyo Green Palace Hotel, Tokyo, Japan 2006 N 11-12

Human Origins Patrimony in Southeast Asia, Museum National d' Historie Naturelle, Paris, France 2005 O 24-28

The Philippine Between Asian and Oceania, Bulwagang Sala'am, Romulo Hall, Asian Center, University of the Philippines, Q.C. 2005 Mr 2-3

Rice Research and Technology Towards National Productivity and Growth, Samar and Leyte Rooms Westin Plaza, Manila 2005 JI 16

Foreign Service Institute FSO Cadetship Course Batch XIII., 2005 Ag 26-S 13

Lecture on the Philippine Prehistoric Foundation, National Museum 2005 Ag 26

Scientific Forum for Career Scientist, National Museum of the Philippines, P. Burgos street, Manila 2004 D 13

5th Annual Conference Of the Katipunan Arkeologist ng Pilipinas, Balay Chanselor, University of the Philippines Diliman, Quezon City 2004 D 10

Tour Guides, Training, Quezon, Palawan 2004 Ag 25-27

Philippine Archaeology in Retrospect, Lecture and Exhibition of Artifacts from the Archaeology Div, Multi Purpose Hall, UP Baguio, Baguio City 2004 Ag 04

Philippine Association of Museums, Inc., 2003-2004

Scientific Symposium, Hotel Rembrandt 2003 S 19

4th Annual Conference of the Katipunan Arkeologist, La Mesa Dam Conference Hall, Quezon City 2003 O 23-25

The Pivotal Role of Cagayan Province in Philippine Prehistory, Aggao Nac Cagayan Festival 2003 Je 25

Highlights of Philippines Prehistory, Ateneo de Manila University Class, Ateneo Campus, Loyola Heights, Q.C. 2003 D 16

DENR-NM Drafting on a Memorandum of Agreement re Wildlife Conservation and Protection Act RA 9147, 2003

DENR-PAWB finalization of Implementing Rules and Regulation re National Caves Management, 2003

Museums and Repositories and Purveyors of the Cultural Heritage of the Country,

Tambunting Hall, Museum of the Filipino People, National Museum, Manila 2003

17th Congress of the Indo-Pacific Prehistory Association, Academia Sinica, Taipei, Taiwan 2002 S 8-17

A Forum on, Mercedes B. Conception Seminar Room, PSSC Center, Diliman Quezon City 2002 O 19

Systematic in Archaeology, 3rd Annual Conference: Semantics and Systematic, Tambunting Hall, Museum of the Filipino People, National Museum, Manila 2002 O 17-18

Visayas Archaeological Roundtable Meeting, Peak Hotel and Suites, Cebu City 2002

SEAMEO-SPAFA Seminar on Archaeological Impact Assessment in Southeast Asia, Bangkok and Lop Buri, Thailand 2001 My 21-24

3rd International Symposium on the World Megalithic Culture, Southern Cholla Province and Seoul, South Korea 2000 O 6-10

UNESCO Meeting on the Southeast Asian Sub-Regional Workshop, Sukhothai, Thailand 2000 F 14-19

Meeting in the Curriculum, Status and Direction of the Archaeological Studies Program, University of the Philippines, Diliman, Quezon City 1999 N 18-19

International Colloquium on Archaeology in Southeast Asia in the 3rd Millennium., Penang, Malaysia in conjunction with the 30th Anniversary Celebration of University Sains Malaysia 1999 S 25-O 1

Symposium on Premodern Southeast Asian Earthenware, Singapore 1998 JI 9-11

A Special Exhibition: The Cultural Exchange between East and West in the 16th and 17th Century, Galleon Trade and the V.O.C, Tobacco and Salt Museum, Shibuya-ku, Tokyo, Japan 1998 JI 11-O 6

16th Congress of the Indo Pacific Prehistory Association., Melaka, Malaysia 1998 JI 1-7

Session on the Philippine Prehistory, U.P. Regional Conference on Southeast Asia in the 20th Century., Third World Studies Center, College of Social Science and Philosophy, U.P. Diliman, Q.C. 1998 Ja 28-30

San Diego Galleon Exhibition, Museum for Volkerkunde, Berlin, Germany 1997 S 04

Opening of Underwater Archaeology Exhibit from the Philippines, Commerzbank Building, Frankfurt, Germany 1997 S 03

SEAMEO-SPAFA Conference on Current Development Of Southeast Asian Archaeology and Museums Studies, National Museum, Manila, Philippines 1997 My 6-10

Workshop on the Preparation of Criteria for Cave Categorization, Protected Areas and Wildlife Bureau Conference Room, Ninoy Aquino Park, Diliman Q.C. 1997 D 03

12th SEAMEO-SPAFA Governing Board Meeting, Melaka, Malaysia 1997 Ag 3-7

6th International Conference of the European Association of Southeast Asian Archaeologist, Leiden, Netherlands 1996 S 2-10

UNESCO Meeting of Experts on the Protection of Underwater Cultural Heritage, UNESCO Headquarters, Paris, France 1996 My 22-24

Archaeological Discoveries, 5th International Philippine Studies Conference, Hilton Hawaiian Village, Honolulu, Hawaii 1996 Ap 14-16

SEAMEO-SPAFA Consultative Meeting for the 3rd Five year Development Plan, Krungsri River Hotel, Ayutthaya, Thailand 1995 D 11-15

Conceptualization, Development and Subsequent creation of the Archaeological Studies Program, University of the Philippines, Diliman, Quezon City 1995

13th Conference of the International Association of Historians of Asia, Sophia University, Tokyo Japan 1994 S 5-09

15th Conference on Local and National History, Palawan State College, Puerto Princesa City, Palawan 1994 O 19-21

8th SEAMEO-SPAFA Governing Board Meeting., SPAFA Centre, Bangkok, Thailand 1993 S 29- O 03

National Research Council of the Philippines Division of the Social Sciences Workshop, NRCP Compound, Taguig, Metro, Manila 1993 S 23

SEAMEO-SPAFA's Conference on the Development of Archaeology in Southeast Asia, SPAFA Centre, Bangkok, Thailand 1993 Mr 8-14

Curricular Proposal of the Diploma in Museum Studies Program, Department of Arts Studies, University of the Philippines 1993 Mr 03

59th Annual Meeting of the National Research Council of the Philippines, Hotel, Nikko Manila Garden, Makati, Metro Manila 1992 Mr 21

Philippine Association of Museums, Inc., Third Biennial Conference Museum Workers, San Agustin Monastery, Intramuros, Manila 1992 JI 5-23

SEAMEO-SPAFA's Consultative Workshop on Underwater Archaeological Research, Jakarta, Banten and Serang, Indonesia 1992 Je 29-JI 05

10th Annual Conference of the Australian Institute of Maritime Archaeology, Adelaide, South Australia 1991 S 23-29

JET-STREAM PROGRAM, Civil Service Commission, National Capital Region, Quezon City 1991 Je 10-28

Regional Conference on the Silk Roads Maritime Silk Trade with Manila, Intramuros, Manila 1991 F 5-6

Thai 2nd International Colloquium for Archaeology, Silpakorn University, Bangkok, Thailand 1991 D 9-11

CIDA-ASEAN Training of ASEAN Museum Professionals in Museology, The Canadian Museums Association, Ottawa, Ontario and the Royal British Columbia Museum, Victoria 1990 S 10-N 30

Meeting of the State of Southeast Asian Archaeology: 10th-17th Centuries, Research Centre for Southeast Asian Ceramics, University of Adelaide, South Australia 1989 S 12

8th Annual Conference of the Australian Institute for Maritime Archaeology, Perth, Australia 1989 S 04-10

6th Intra-ASEAN Archaeological Excavation and Conservation Programme, Brunei, Darussalam 1989 O 22-N 15

3rd National Convention in Productivity in Public Service, Civil Service Commission and the Development Academy of the Philippines 1988 O 11-12

Indo-Pacific Prehistory Association Congress, Tokyo, Japan 1987 S 4-8

Museum Survey Team Visit to the People's Republic of China, Beijing, Shanghai, Xian, Hangzhou and Guangzhou 1987 S 16-29

SEAMEO-SPAFA Seminar on the Pre-history of the Southeast Asia, Bangkok, Surat Thani, Phangnga, and Krabi, Thailand 1987 J-12-25

Third Intra-ASEAN Archaeological and Conservation Programme, Butuan City, Philippines 1986 N 16-D 10

SEAMEO-SPAFA Training Course in Ethnoarchaeology, Manila and Bohol, Philippines 1986 JI 22-S 22

SEAMEO-SPAFA Consultative Workshop on Archaeological and Environmental Studies, Srivijaya: Jakarta, Padang, Prapat, and Medan, Indonesia 1985 S 16-30

Intra-ASEAN Archaeological and Conservation Programme, Bujang Valley, Kedah, Malaysia 1985 O 04-27

Philippine Organizing Committee for the 12th Indonesian Pacific Prehistory Association Conference, Cagayan Province, Philippines 1985 Ja 26-F 04

SEAMEO-SPAFA Consultative Workshop on Research in Maritime Shipping and Trade Networks, Southeast Asia, Indonesia 1984 N 20-27

SEAMEO-SPAFA Training Course in Prehistory, Manila and Anda, Bohol, Philippines 1984 Mr-Apr 20

SEAMEO-SPAFA Training Course in Scientific Illustration, Manila and Candijay, Bohol Philippines 1984 Ag 01-S30

SCUBA Diving Training Course, Professional Association Of Diving Instructor Open Water SCUBA Diver Cardholder 1983 N 18- D 5

9th Congress of the International Association of Historians of Asia, Philippine Social Science Council, Quezon City 1983 N

SEAMEO-SPAFA Personnel Exchange Program, A Tour of Museums and Archaeological Sites in North and Northeastern Thailand 1983 My 2-15

SEAMEO-SPAFA Ceramics Workshop, Cebu City, Philippines 1983 F 15-20

SEAMEO-SPAFA Training Course in Ethnoarchaeology, Manila and Iguig, Cagayan Province, Philippines 1982 Ja 15-My 15

SEAMEO-SPAFA Training Course in Prehistory, Manila and Penablanca, Cagayan Province, Philippines 1981 Ja 15-My 15

1st ASEAN Summer Field School in Archaeology, San Piro, Batangas, Philippines 1973 My 2- 31

## **Researches**

### **Completed**

Significant Finds from a Decade of Philippine Archaeological Research: 1996-2006

## **Papers Presented**

Ronquillo, W.P. (2003). Philippine Earthenware Pottery from the Early Prehistoric Period, Singapore Symposium on Premodern Southeast Asian Earthwares, Singapore University Press and National University of Singapore.

Ronquillo, W.P. (1997 My 6-10). SEAMEO-SPAFA Conference on Current Development of Southeast Asian Archaeology and Museum Studies, National Museum, Manila, Philippines.

Ronquillo, W.P. (1991 D 9-11). A Disappearing Cultural Resource in Recent Researches in Archaeology in Thailand, 2nd Franco-Thai Colloquium for Archaeology, Silpakorn University, Bangkok, Thailand.

Ronquillo, W.P. (1989). Archaeology in the Philippines. Sixth Intra ASEAN Archaeological Excavation Workshop, Kota Batu, Brunei, Darrusalam.

Ronquillo, W.P. (1987 D). The Butuan Archaeological Finds: Profound Implications for Philippine and Southeast Asia Prehistory, Japanese Society for Oceanic.

## Publications

- 2008 Ronquillo, W.P. Terminal pleistocene to mid-holocene occupation and an early cremation burial at Ille Cave, Palawan, Philippines. *Antiquity* 82, 2008:318-335.
- 2007 Evangelista, A.E., Ronquillo, W.P. Japanese technical assistance to Philippine archaeological research. *Archaeological Studies on the Cultural Diversity in Southeast Asia and its Neighbors*, Tokyo, Japan, 2007:415-426.
- 2007 Ronquillo, W.P. Plank and flat-bottom wooden boat-making at Penablanca, Cagayan Province, Northern Philippines. *Archaeological Studies on the Cultural Diversity in Southeast Asia and its Neighbors*, Tokyo, Japan, 2007:203-216.
- 2004 Solheim, W.G., Paz, V., Ronquillo, W.P. The contributions of Wilhelm G. Solheim to Philippine prehistory and archaeology. *Southeast Asian Archaeology: The University of the Philippines Press*, Diliman, Q.C., Philippines, 2004:26-33.
- 2004 Ronquillo, W.P. Upper pleistocene homo sapiens from the Tabon cave(Palawan,The Philippines) description and dating of new discoveries. *Academie de Sciences*, 2004.
- 2003 Ronquillo, W.P. Philippine terrestrial archaeology (1998-2001) and future trends in Philippine archaeological research. *Philippine Quarterly of Culture and Society*, San Carlos University, Cebu City, 2003, 3:98-118.
- 2003 Ronquillo, W.P., Pawlik, A.F. The Palaeolithic in the Philippines. *Lithic Technology*, 2003, 28(2):70-93.
- 2002 Dizon, E., Detroit, F., Semah, F., Hameau, S., Ronquillo, W.P., Cabanis, E. Notes on the morphology and age of the Tabon cave fossil homo sapiens. *Current Anthropology*, 2002 Ag-O, 41(4):660-666.
- 2001 Ronquillo, W.P., Beyer, H.O. *Encyclopedia of archaeology: History and discoveries*, Vol III, N-Z. ABC-CUO, Inc., Santa Barbara, California. Edited by Tim Murray, 2001:157--159.
- 2001 Ronquillo, W.P. *Encyclopedia of archaeology: History and discoveries*. ABC-CLIO, Inc. Santa Barbara, California, 2001, 3/:157-159.
- 2001 Ronquillo, W.P. Tabon caves. In *Encyclopedia of archaeology: History and discoveries*. ABC-CLIO, Inc.. Santa Barbara, California, 2001, 3/:1255-1258.
- 1999 Ronquillo, W.P., Dizon, E.Z. An archaeological resource management manual for the National Museum of the Philippines. *National Museum Papers*, National Museum of the Philippines, Manila, 1999, 9(2):28-37.
- 1998 Ronquillo, W.P. The realm of the ASEAN: One region, one culture, in winning the challenges of the new millennium. *A Commemorative Book*, Office of ASEAN Affairs, Department of Foreign Affairs, Republic of the Philippines, 1998 JI 20-29:83-87.
- 1998 Ronquillo, W.P. Corridor to the archipelago, chapter three, the earliest Filipinos. *Kasaysayan, The Story of the Filipino People*, Asia Publishing Company Limited, A Joint Venture of Reader's Digest and A-Z Direct Marketing, Inc., 1998,2
- 1998 Ronquillo, W.P. Man comes to the archipelago, chapter two, the earliest Filipinos. *Kasaysayan, The Story of the Filipino People*, Asia Publishing Company Limited., 1998, 2.
- 1998 Ronquillo, W.P. The Butuan boats, in *Encyclopedia of underwater archaeology*. British Museum, London, U.K., 1998.
- 1998 Ronquillo, W.P. The first settlement,(chapter four, the earliest Filipinos). *Kasaysayan, the Story of the People*, Asia Publishing Company Limited, 1998, 2

- 1998 Ronquillo, W.P. Tools from the sea,(chapter five, the earliest Filipinos. Kasaysayan,The Story of the Filipino People,Asia Publishing Company, 1998, 2.
- 1998 Ronquillo, W.P. The Austronesian connection,(chapter eighteen, the earliest Filipinos). Kasaysayan, The Story of the Filipino People, Asia Publishing Company, 1998, 2.
- 1996 Ronquillo, W.P., Ogawa, H. The Calatagan archaeological project: A summary report. Journal of Southeast Asian Archaeology, Tokyo, Japan , 1996, 16:133-147.
- 1995 Ronquillo, W.P. Anthropological and cultural values of caves. Philippine Quarterly of Culture and Society, University of San Carlos, Cebu City. , 1995, 23:138-150.
- 1993 Ronquillo, W.P., Valdes, C.O. The Archaeology of the San Diego in Saga of the San Diego. Concerned Citizens for the National Museum, Inc., 1993 O:13-20.
- 1993 Ronquillo, W.P., Santiago, R.A., Asato, S., Tanaka, K. The 1992 archaeological reexcavation of the Balobok Rockshelter, Sanga Sanga, Tawi Tawi Province, Philippines: A preliminary report. Journal of Historiographical Institute, Okinawa Prefectural Library. No. 18, Okinawa, Japan, 1993 Mr, 18:1-40.
- 1992 Ronquillo, W.P. Management objectives for Southeast Asian maritime archaeology. SPAFA Journal, SPAFA Regional Centre, Bangkok, Thailand, 1992 My-Ag, 2(2):10-15.
- 1992 Ronquillo, W.P., Evangelista, A.E., Flores, R.G. Report on a jar burial site in Cagayan Province, Northern Luzon, Philippines, in the National Museum Papers. National Museum and the Concerned Citizens for the National Museum, Inc. Manila., 1992, 3(1).
- 1992 Ronquillo, W.P. Management objectives for Philippine maritime archaeology. Bulletin of the Australian Institute for Maritime Archaeology, 1992, 16(1):1-6.
- 1992 Ronquillo, W.P. Community museums in the Philippines: Their potential in enhancing the natural and cultural heritage of the country. Philippine Quarterly of Culture and Society, San Carlos University, Cebu City. , 1992, 20:317-323.
- 1991 Ronquillo, W.P. Philippine archaeological heritage: A disappearing cultural resource, in recentes recherches en archaeologie en Thailande. 2nd Franco-Thai Colloquium for Archaeology, Silpakorn University, Bangkok, Thailand , 1991 D 9-11.
- 1990 Ronquillo, W.P. Philippine underwater archaeology: Present research projects and new developments. Bulletin of the Australian Institute for Maritime Archaeology, 1990, 14(1):21-24.
- 1987 Highlights of Philippine Prehistory, 1986. A Country Report of the Philippines. SPAFA's Final Report on the Seminar in Prehistory of Southeast Asia (T -WI 1), Bangkok, Surat Than~ Phangna, Phuket and Krabi, Thailand, 1987 Ja 12-25.
- 1987 Ronquillo, W.P. The Butuan Archaeological Finds: Profound implications for Philippine and Southeast Asian Prehistory, in man and culture in Oceania, No.3 Special Issue. The Japanese Society for Oceanic Studies, Tokyo, Japan , 1987 D:71-78.
- 1985 Ronquillo, W.P. Archaeological Research in the Philippines 1951-1983. Bulletin of the Indo/Pacific Prehistory Association No.6, Australian National University, Canberra, Australia, 1985:74-88.



- 1984 Ronquillo, W.P., Peralta, J.T., Santiago, R.A. Prehistoric maritime trade in the Philippines. Country Report of the Philippines. SPAFA Final Report on the Consultative Workshop on the Research on Maritime Shipping and Trade Networks in SEAs(I-W7), Cisarua, West Java, Indonesia, 1984 N 20-27.
- 1981 Ronquillo, W.P. The technological and functional analyses of the lithic flake tools from rabel cave, Northern Philippines. Anthropological Paper No. 13, National Museum, Manila, Philippines, 1981.
- Ronquillo, W.P. Philippine earthenware pottery. In Pang Alay:Ritual Pottery in Ancient Philippines,Ayala Foundation,Inc.,16-25.

**Name** Raul K. Suarez  
**Gender** Male  
**Civil Status** Single

**Organizational Affiliations**

Research Associate (honorary), Department of Zoology, University of British Columbia, Vancouver, B.C., Canada V6T 2A9

Editor, Journal of Experimental Biology,

Associate Editor, Theoretical Biology and Medical Modeling,

Associate Professor, Department of Ecology Evolution and Marine Biology University of California, Santa Barbara, California 93106-9610

**Education**

Ph.D Zoology, University of British, Columbia, Vancouver 1981

MS Zoology, University of the Philippines, Diliman, Quezon City 1976

BS Biology, Ateneo de Manila University, Manila 1973

**Fields of Specialization**

Ecological consequences and evolutionary implications of metabolic biochemistry:

Evolutionary Design of Functional Capacities

Energetics of Locomotion

Zoology

Comparative Physiology & Biochemistry

**Employment**

Research Associate, Department of Zoology, University of British Columbia, Vancouver, B.C., 1984-90-

Postdoctoral Research Scholar, Department of Pharmacology, Stanford University School of Med, 1982-83-

Senior Lecturer, University of the Philippines-Southeast Asian Fisheries Development Center, 1981-82-

Teaching Assistant, Department of Zoology, University of British Columbia, Vancouver, B.C., 1976-80-

Instructor, Department of Zoology, University of the Philippines, Los Banos, Laguna, Philippines, 1975-76-

Research Assistant, Department of Zoology, University of the Philippines, Diliman, Quezon City, 1973-74-

Senior Researcher, Aquaculture Department, Southeast Asian Fisheries Development Center, Tigbauan, Iloilo, 1981-82-

**Association Membership**

Member, Philippine-American Academy of Science and Engineering

Editorial Board Member, International Journal of Zoology

**Honors / Awards**

1995 Plenary Speaker, International Congress of Comparative Physiology and Biochemistry, Birmingham,, mm

Balik Scientist Award, DOST 2008

Balik Scientist Award, DOST 2011

## Trainings

Roles of hierarchical and metabolic regulation in orchid bee metabolic scaling, University of California, Riverside 2009

Hummingbird flight: Bioenergetics to behavior, Ottawa-Carleton Institute of Biology, Ottawa, Ca 2008

Roles of hierarchical and metabolic regulation in the allometric scaling of Panamanian orchid bees, Dept. of Ecology and Evolution, Univ. of California, Santa Cruz 2008

Sustaining the highest mass-specific metabolic rates in the animal kingdom, Dept. of Physiology 2005

Biotechnology Laboratory short course: Techniques in Molecular Biology, University of British Columbia 2004

Evolutionary design of biochemical pathways: lessons from the birds and the bees, Smithsonian Tropical Research Institute, Balboa, Panama 2001

Upper Limits to Metabolic Rates, Dept. of Zoology, Arizona State University, Tempe, Arizona 1999

Molecules, muscles and meadows: in search of the third secret of life, Dept. of Ecology and Evolutionary Biology, Princeton University, Princeton, New Jersey 1998

Upper limits to mass-specific metabolic rates, Department of Marine Biology, Scripps Institution of Oceanography, La Jolla, San Diego, CA Arizon 1998

Molecules, muscles and meadows: in search of the third secret of life, Dept. of Ecology and Evolutionary Biology, Princeton University, Princeton, New Jersey 1998

Molecules, Muscles and Meadows, Hopkins Marine Station, Stanford University, Pacific Grove, California 1997

Molecules, muscles and meadows: in search of the third secret of life, Dept. of Biology, Queens University, Kingston, Ontario, Canada 1997

Evolutionary Design of Functional Capacities at the Biochemical Level, Department of Ecology and Evolutionary Biology, University of California, Irvine, CA. 1996

Sustaining the Highest Mass-specific Metabolic Rates in the Animal Kingdom, University of California, Santa Cruz 1996

Sustaining the Highest Mass-specific Metabolic Rates in the Animal Kingdom, University of California, Santa Cruz 1996

Are Metabolic Pathways Designed Optimally?, Department of Marine Biology, Scripps Institution of Oceanography, La Jolla, San Diego, CA. 1995

Molecules, muscles and meadows: in search of the third secret of life, Department of Biology, University of Miami, Coral Gables, Miami, Florida 1994

Molecules, muscles and meadows: in search of the third secret of life, Department of Biology, University of New Mexico, Las Cruces, NM 1994

Molecules, muscles and meadows: in search of the third secret of life, Department of Biological Sciences, University of California, Santa Barbara, CA 1994

Sustaining the Highest Mass Specific Metabolic Rates Among Vertebrates, Arizona State University, Arizona State University, Tempe, AZ 1994

Molecules, muscles, and meadows: in search of the third secret of life, Department of Biology, University of Houston, Houston, Texas 1993

Molecules, muscles, and meadows: in search of the third secret of life, Department of Biology, University of Houston, Houston, Texas 1993

Hummingbird flight, Department of Biological Sciences, Florida International University 1993

Hummingbird flight., Department of Biological Sciences, Wilfrid Laurier University, Waterloo, Ontario, Canada 1992

1992 Hummingbird flight: sustaining the highest mass-specific metabolic rates among vertebrates, Department of Biology, Utah State University, Logan, Utah 1992

Fuel selection in rufous hummingbirds. Department of General Physiology, University of Sao Paul, Sao paulo, Brazil 1991

1991 Sustaining the highest mass-specific metabolic rates in the Animal Kingdom, Department of Physiology, UCLA Medical School, Los Angeles, California 1991

Hummingbird flight: energy metabolism, ecological and evolutionary implications, Concord Field Station, Museum of Comparative Zoology, Harvard University, Mass, USA 1991

Hummingbird flight: energy metabolism and ecological implications, Department of Biological Science, Simon Fraser University, Burnaby, B.C. 1990

Glucose metabolism in teleost fishes, Department of Developmental and Cell Biology, University of California at Irvine, Irvine, CA 1989

Sustaining the highest mass-specific VO<sub>2</sub>max in the vertebrate world, Department of Biological Sciences, University of Calgary, Calgary, Alberta 1988

2nd International Congress of Comparative Physiology and Biochemistry, Baton Rouge, Louisiana 1988

University of British Columbia/Society for the Prevention of Cruelty to Animals Short Course in Anim, University of British Columbia, Vancouver, B.C. 1988

Glucose metabolism in teleost fishes, Bamfield Marine Station, Bamfield, B.C. 1987

Control of carbohydrate metabolism in salmonid fishes, Department of Animal Science, University of British Columbia, Vancouver 1987

Hormonal Control of Gene Expression; Molecular Biology Techniques for Physiologists, American Physiological Society 38th Annual Fall Meeting, San Diego, California 1987

### **Papers Presented**

Suarez, R.K., Darveau, C.A., Hochachka, P.W. (deceased) (2005). Roles of hierarchical and metabolic regulation in the allometric scaling of metabolism in Panamanian orchid bees, 35th International Congress of Physiological Sciences, San Diego, CA.

Darveau, C.-A., Suarez, R.K., Andrews, R.D., Hochachka, P.W. (2002). Allometric cascade: a multiple-causes model of body mass effects on metabolism, American Physiological Society Meeting, San Diego, California.

Suarez, R.K. (1995). Plenary Speaker, International Congress of Comparative Physiology and Biochemistry, Birmingham.

Suarez, R.K. (1992). Applying the concept of symmorphosis to energy metabolism in muscles: how much enzyme is enough, but not too much?, Integrative Biology of Exercise (APS Conference), Colorado Springs, Colorado.

Suarez, R.K., Lighton, J.R.B., Moyes, C.D., Brown, G.S., Gass, C.L., Hochachka, P.W. (1990). Fuel selection in rufous hummingbirds: ecological implications of metabolic biochemistry, American Physiological Society 41st Annual Fall Meeting, Orlando, Fla..

Suarez, R.K. (1989). Are muscle mitochondria created equal?, Canadian Society of Zoologists, York University, Ontario, Canada.

Moyes, C.D., Buck, L.T., Hochachka, P.W., Suarez, R.K. (1988). Oxidative properties of mitochondria from carp and dogfish red and white muscle, 2nd International Congress of Comparative Physiology and Biochemistry, Baton Rouge, Louisiana.

West, T., Suarez, R.K., C. Doll, C., Hochachka, P.W. (1988). Glucose utilization in trout muscle during submaximal swimming activity as determined with <sup>14</sup>C-2-deoxyglucose, 2nd International Congress of Comparative Physiology and Biochemistry, Baton Rouge, Louisiana.

Suarez, R.K., A.E. Buie and P.W. Hochachka (1987). Enzymes, ion channels, and ion pumps in anoxia-sensitive and anoxia-tolerant brains, American Physiological Society 38th Annual Fall Meeting, San Diego, CA..

Suarez, R.K., Brown, G.S., Hochachka, P.W., (1986). Metabolic sources of energy for hummingbird flight, International Congress of Physiology, Vancouver, B.C..

Suarez, R.K., Mansour, T.E. (1983). Purification of phosphofructokinase (PFK) from the liver fluke *Fasciola hepatica*, Federation of the American Societies for Experimental Biology, San Francisco, CA.

## **Publications**

- 2010 Suarez, R.K., Sajise, P.E. Deforestation, Swidden Agriculture and Philippine Biodiversity. *Philippines Science Letters*, 2010, 3:91-99.
- 2009 Suarez, R.K., Welch, K.C., Jr., S. Hanna, S., Herrera, L.G. Enzymatic flux capacities and metabolic flux rates during hovering flight of the nectar bat, *Glossophaga soricina*: Further evidence of convergence with hummingbirds.. *Comp. Biochem. Physiol*, 2009, 15(3A):136-140.
- 2009 Suarez, R.K., Welch, K.C. Jr Stoking the Brightest Fires of Life Among Vertebrates. *Cardio-Respiratory Control in Vertebrates: Comparative and Evolutionary Aspects*, (M.L. Glass and S.C. Wood eds.) Springer-Verlag, 2009:381-394.
- 2009 Thompson, S.N., Suarez, R.K. Metabolism. In: *Insect Encyclopedia*, R.T. Carde and V.H. Resh (eds.), 2nd edition, Academic Press, New York, 2009:623-626.
- 2009 Navas, A., Suárez, R. One-year follow-up of toric intraocular lens implantation in forme fruste ketatocunus. *Journal of Cataract and Refractive Surgery*, 2009, 35(11):2024-2027.
- 2009 Suarez, R.K., C. Welch, K.C.Jr., Hanna, S.K. Flight muscle enzymes and metabolic flux rates during hovering flight of the nectar bat, *Glossophaga soricina*: Further evidence of convergence with hummingbirds. *Current Opinion in Chemical Biology*, 2009, 15(2):136-140.
- 2009 Reiser, P.J., Suarez, R.K., Welch K.C., Jr. Extremely Low Maximal Force-Generating Ability in Hummingbird Flight Muscle Fibers. *Biophysical Journal*, 2009, 96(3):213 -213a.
- 2008 Suarez, R.K. International science: Function, dysfunction and flowers in a grassy field Philippines, G.P. Concepcion, E.A. Padlan and C. Saloma (eds.), Univ. of the Philippines Press. In: *Selected Essays on Science and Technology for a Better*, 2008..

- 2008 Welch, K.C., Jr., R.K. Suarez, R.K. Altitude and temperature effects on the energetic cost of hover-feeding in migratory rufous hummingbirds, *Selasphorus rufus*. *Canadian Journal of Zoology*, 2008, 86:161-16.
- 2008 Welch, K.C., Jr., G. Herrera and R.K. Suarez Dietary sugar as a direct fuel for flight in the nectarivorous bat *Glossophaga soricina*. *Journal of Experimental Biology*, 2008, 211(3):310-316.
- 2008 Reigosa, V., Valdés Sosa, M. Butterworth, B. Torres, P. Santos, E., Suárez, R., Lage, A., Rodríguez, M., Estévez, N., Hernández, D. Large-scale prevalence studies of learning disabilities in Cuban school-children population. *Clinical Neurophysiology*, 2008, 119(9):e111-e111.
- 2008 Suarez, R.K., Jimenez, M., Romo, R., Mendez, M., Vargas, M., Fernandez-Sanchez, M. Down's syndrome risk prevalence related to tobacco smoking in ART patients. *Fertility and Sterility*, 2008, 90:S180-S180.
- 2008 M. J. Gonzalez, R. Romo, M. Jimenez, R. Suarez, V. Mendez, M. Fernandez-Sanchez Nurse approach to patient's mood previous to embryo transfer and BhCG test. *Fertility and Sterility*, 2008, 90:S180-S181.
- 2007 Welch, K.C., Jr., Altschuler, D.L., Suarez, R.K. Oxygen consumption rates in hovering hummingbirds reflect substrate-dependent differences in P/O ratios: Carbohydrate as a premium formula, 2007, 210:2146-2153.
- 2007 Welch, K.C., Jr., Suarez, R.K. Oxidation rate and turnover of ingested sugar in hovering Anna's (Calypte anna) and rufous hummingbirds (*Selasphorus rufus*). *Journal of Experimental Biology*, 2007, 210:2154-2162.
- 2007 Lucas, M., Suarez, R., Marcos, A., Solano, F., A. Venegas, M. I. Garcia-Sanchez, L. Ortiz, G., Izquierdo, G. Arg113His mutation of vanishing white matter is not present in multiple sclerosis. *Multiple Sclerosis*, 2007, 13(3):424-427.
- 2007 Paravisini, A., Suarez, R., Gil, J., Fernandez-Cruz, E. Efficacy of Omalizumab in the treatment of 3 patients with severe refractory atopic dermatitis. *World Allergy Organization Journal*, 2007.
- 2007 Herrera, M.G., Suarez, R.K., 13.5 Dietary sugar fuels flight in nectarivorous bats. *Current Opinion in Chemical Biology*, 2007, 148:S53-S53.
- 2006 Welch, K.C. Jr., Bakken, B.H., del Rio, C.M., Suarez, R.K. Hummingbirds fuel hovering flight with newly ingested sugar. *Physiological and Biochemical Zoology*, 2006, 79:1082-1087.
- 2006 Aguilar, G., Santacruz, C., Linares, M., Rivera, J.L., Lopez, L., Lopez, J., Suarez, R., Zenteno, J.C., Garfias, Y., Martinez, M.C.J. Cd30 Expression on IL4 Producing T-Cells from patients with Allergic Conjunctivitis. *Clinical Neurology*, 2006, 119:S205-S206.
- 2005 Suarez, R.K., Darveau, C.-A., Hochachka, P.W. Roles of hierarchical and metabolic regulation in the allometric scaling of metabolism in Panamanian orchid bees. *Journal of Experimental Biology*, 2005, 208:3603-3607.
- 2005 Darveau, C.-A., Hochachka, P.W., Roubik, D.W., Suarez, R.K. Allometric scaling of flight energetics in Panamanian orchid bees: Evolution of flux capacities and flux rates. *Journal of Experimental Biology*, 2005, 208:3593-3602.
- 2005 Darveau, C.-A., Roubik, D.W., O'Brien, D.M., Welch, K., Hochachka, P.W., Suarez, R.K. Allometric scaling of flight energetics in Panamanian orchid bees: a comparative phylogenetic approach. *Journal of Experimental Biology*, 2005, 208:3581-3591.
- 2005 Suarez, R.K., Darveau, C.A., Welch, Jr., K., O'Brien, D.M., Roubik, D.W., Hochachka, P.W. Energy metabolism in orchid bee flight muscles: carbohydrate

- fuels all. *Journal of Experimental Biology*, 2005, 208:3573-3579.
- 2005 Suarez, R.K., Darveau, C.A. Multi-level regulation and metabolic scaling. *Journal of Experimental Biology*, 2005, 208:1627-1634..
- 2005 Somero, G.N., Suarez, R.K. PETER HOCHACHKA : Adventures in Biochemical Adaptation. *Annual Review of Physiology*, 2005, 67(1):25-37.
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**Name** **Dindo Agustin Ancajas Tabanao**  
**Place of Birth** Badian, Cebu  
**Date of Birth** August 28, 1973  
**Gender** Male  
**Civil Status** Single  
**Home Address** Philippine Rice Research Institute, Maligaya, Muñoz 3119, Nueva Ecija

**Organizational Affiliations**

Supervising Science Research Specialist, Philippine Rice Research Institute, Maligaya, Muñoz, Nueva Ecija

**Education**

Ph.D. in Applied Plant Sciences - Plant Breeding and Molecular genetics, University of Minnesota, Saint Paul, Minnesota, USA 2006

MS Plant Breeding, Minor in Statistics, University of the Philippines at Los Baños, College, Laguna 2000

B.S. in Agriculture Major in Agronomy (Cum Laude), University of the Philippines at Los Baños, College, Laguna 1994

**Fields of Specialization**

Plant breeding (irrigated lowland rice, upland rice, insect and disease resistance, drought tolerance)

Molecular genetics (marker-assisted selection, genomewide selection, gene mapping, DNA fingerprinting, structural genomics, SNP discovery)

Statistics (experimental design, mixed model analysis, genotype by environment interaction) Population genetics (genetic variance, kinship, linkage disequilibrium, population structure, association analysis)

**Association Membership**

Member, Philippine Society of Biochemistry and Molecular Biology

Member, Crop Science Society of the Philippines

Member, Crop Science Society of America

Member, Gamma Sigma Delta Honor Society of Agriculture, UPLB Chapter

Member, Phi Kappa Phi Honor Society, UP Chapter

Member, Phi Sigma Honor Society for the Biological Sciences, UP Chapter

**Honors / Awards**

AFMA R&D Paper Award, Bureau of Agricultural Research 2011

Third Place, Best Poster, Federation of Crop Science Societies of the Philippines 2011

Outstanding Research Staffer (Level 3), Philippine Rice Research Institute 2010

Research Fellowship (Wageningen University), Generation Challenge Program 2008-2009

Special Citation NAST Talent Search for Young Scientist, NAST 2007

Scholastic Achievement Award, Philippine Rice Research Institute 2006

Plant Genome Annotation Workshop Scholarship, The Institute for Genomic research (TIGR) 2006

Summer Institute in Statistical genetics Scholarship, University of Washington Seattle 2006  
Operation Student Connection, American Seed Research Foundation 2004  
Summer Institute in Statistical Genetics Scholarship, North Carolina State University 2004  
Graduate Research Assistantship, University of Minnesota, Dept. of Agronomy and Plant Genetics 2003-2004  
Scholarship Achievement Award, PRRI 2001  
Pioneer International Scholarship, Pioneer Hi-Bred 2002-2005  
Travel Grant (to attend the Int. Plant and Animal Genome Conference, PAG IX), The Rockefeller Foundation 2001  
Award of Excellence, Gamma Sigma Delta Honor Society of Agriculture 1994

### **Trainings**

Insights and Opportunities in Microarray-Based Studies: Doing Research at the UP-Manila NIH Microarr, National Institute of Health, UP Manila 2011 S 2  
Insights and Opportunities in National Institutes of Health, Microarray-Based Studies:, UP Manila Research at the' UP Manila-NIH 2011 S 2  
Seminar on Rice Biotechnologies at PhilRice, DENR Social Hall, Diliman, Quezon City 2011 N 17  
Stakeholders' Workshop on Genomics Research and Development Program of DOST, Bicutan, Taguig City 2011 N 17  
Seminar on Rice Biotechnologies, DENR Social Hall, Diliman, Quezon City 2011 N 17  
Establishment of Community-Based Seed Banks, NOMIARC, Malaybalay City, Bukidnon 2011 My 9-13  
Forum on Modern Agricultural Biotechnology: Philippine Experience and Opportunities, SM Mall of Asia, Pasay City 2010 N 22  
23rd National Rice R&D Conference, Philippine Rice Research Institute, Munoz, Nueva Ecija 2010 Mr  
Rice Variety Development Review and Planning Workshop, Ibay's Zion Apartelle, Baguio City, Benguet 2010 F 17-19  
6th International Symposium on Rice Genetics Philippines, Manila Hotel, Manila, Philippines 2009 N  
17th International Plant and Animal Genome, San Diego, CA, USA 2009 Ja  
GCP Workshop on iMAS Testing, ICRISAT, Patancheru, India 2009 Ag 24-26  
Generation Challenge Program Workshop on Reference Sets of Food Crop Germplasm for Internatio, Montpellier, France 2008 N 13-17  
Crop Science Society of the Philippines 38th Annual Scientific Conference, Iloilo City, Philippines 2008 My 12-16  
ICIS Developer's Workshop, International Rice Research Institute, Los Baños, Laguna 2008 Mr 3-7  
21st National Rice R&D Conference, Philippine Rice Research Institute, Munoz, Nueva Ecija 2008 Mr 11-13  
International Workshop and Hands-on Training on Marker-Assisted Selection, Barwale Knowledge and Study Center, Jalna, Maharashtra, India 2008 Ag 4-8  
Rice Breeding Course: Laying the Foundation for the Second Green Revolution, International Rice Research Institute, Los Baños, Laguna 2007 O 1-12

Rice Breeding Course: Laying the Foundation for the Second Green Revolution, International Rice Research Institute, Los Baños, Laguna 2007 O 1-12

Federation of Crop Science Societies of the Philippines Annual Scientific Conference, Tagaytay City, Cavite 2007 Je 13-15

Federation of Crop Science Societies of the Philippines Annual Scientific Conference, Tagaytay City, Cavite 2007 Je 13-15

Supporting Intellectual Property Management at Public Institutions in Southeast Asia, Philippine Rice Research Institute, Muñoz, Nueva Ecija 2007 Ag 3

Supporting Intellectual Property Management at Public Institutions in Southeast Asia, Philippine Rice Research Institute, Munoz, Nueva Ecija 2007 Ag 3

Plant Genome Annotation Workshop, The Institute for Genomic Research, Rockville, Maryland, U.S.A. 2006 Je 26-30

Summer Institute in Statistical Genetics (Molecular phylogenetics), University of Washington, Seattle, Washington, U.S.A. 2006 Je 19-21

International Plant and Animal Genome XIV, San Diego, California, U.S.A. 2006 Ja

International Plant and Animal Genome XIII, San Diego, California, U.S.A. 2005 Ja

14th National Rice R&D Conference, Philippine Rice Research Institute, Munoz, Nueva Ecija 2001 Mr 7-9

International Plant and Animal Genome IX, San Diego, California, U.S.A. 2001 Ja

International Rice Information System, International Rice Research Institute, Laguna 2001 F 5-9

4th International Rice Genetics Symposium, International Rice Research Institute, Los Baños, Laguna 2000 O

12th National Research Symposium, Diliman, Quezon City 2000 O

Asia Pacific Conference on Plant Tissue, National University of Singapore, Culture and Agribiotechnology Queenstown, Singapore 2000 N

Crop Science Society of the Philippines 30th Annual Scientific Conference, Batac, Ilocos Norte 2000 My

National Academy of Science and Technology 22nd Annual Scientific Meeting, Manila Hotel, Manila 2000 JI

Philippine Society for Biochemistry and Molecular Biology 27th Annual Scientific Convention, Tigbauan, Iloilo 2000 D 6-8

International Workshop on the Integration of Biodiversity & Genome Technology for Crop Improvement, Epochal Tsukuba International Congress Center, Tsukuba, Japan 2000 D 1-N 28

Database Management Workshop and Selection of Breeding Materials, Ubon Rice Research Center Center, Ubonratchathani, Thailand 1999 O 4-8

International Crop Information System (ICIS) Workshop, International Rice Research Institute, Los Baños, Laguna 1999 Mr 8-12

1st Philippine Rice R, D, and E Scholars' Forum, Philippine Rice Research Insitute, Muñoz, Nueva Ecija 1999 JI 26-27

National Academy of Science and Technology 21st Annual Scientific Meeting, Manila Hotel, Manila 1999 JI

Philippine Society for Biochemistry and Molecular Biology 26th Annual Scientific Meeting, Munoz, Nueva Ecija 1999 D 9-11

8th SABRAO General Congress and Annual Meeting of the Korean Breeding Society,

Seoul, South Korea 1997 S 23-26

## **Researches**

### **Completed**

Application of molecular markers in varietal fingerprinting and protection, Biotechnology Research for Rice Varietal Development at PRRI

The use of relatedness information in linkage disequilibrium mapping: pedigree information versus molecular marker information (Principal Investigator, USD 25,000)

Haplotype Polymorphism in POLyploid Wheats and their Diploid Ancestors

Accelerating the development and adoption of high-yielding rice varieties and associated technologies for the major ecosystems of the Philippines (Team member, PHP 136,360,290)

Marker-assisted recurrent selection for high yield in rice (2007-2010)

Recurrent and genomewide selection for enhancing yield in rice (Proj Lead, USD 30,000)  
Donor: Duration: April 2009-March 2012

Marker-assisted selection for disease resistance genes in inbred line development (2007-2010)

GCP Genotyping Support Services (Proj Lead, USD 15,000)

Marker-aided backcrossing for resistance to bacterial leaf blight and tungro virus in rice hybrids and parentals (2008-2010)

Genomic tools in breeding for drought tolerance (2008-2010)

### **Ongoing**

Mutation breeding and molecular genetics of adaptation to high temperature in rice

Molecular Genetics and Transfer of Tungro Resistance in ARC11554 to Modern Varieties (2011-2015)

Marker-assisted selection for disease resistance genes in inbred variety development (2011- 2015)

Marker-assisted selection for disease resistance genes in hybrid variety development (2011- 2015)

Genomewide selection for grain yield (2011-2015)

Genetic analysis of plant adaptation to diverse water-limiting environments (2011-2015)

Breeding of inbred rice for upland areas and drought adaptation (2011-2015)

Multi-environment and adaptability tests of elite breeding lines in upland areas (2011-2015)

Marker-assisted pyramiding of bacterial blight and tungro resistance genes from transgenic and landrace donors (2008-2010)

Institutionalizing the Department of Agriculture (DA)DNA Library-DNA Barcoding of Philippine Crop

Genetic diversity of Philippine traditional varieties and wild rice species at grain quality and genomewide loci

## **Papers Presented**

Tabanao, D.A., et al. (2009). Relatedness and population structure in analysis of linkage disequilibrium in barley, 13th Quarantine Trait Locus and Marker Assisted Selection Workshop.

Tabanao, D.A., et al. (2008). Purifying Selection and gene conversion in polyploid wheat evolution, 11th International Wheat Genetics Symposium.

Tabanao, O.A., Sebastian, L.S., Bernardo, R.N. (2001). Estimation of coancestry in rice

using microsatellite DNA profiles, International Plant and Animal Genome Conference,.

Sebastian, L.S., Hipolito, L.R., Garcia, J.S., Tabanao, O.A., Maramara, G.V., Caldo, R.A. (1998 Ap 27-My 2). Analysis of allelic composition of Philippine-bred varieties using PCR-based markers, 3rd Asian Crop Science Conference, Taiwan.

Sebastian, L.S., Caldo, R.A., Hipolito, L., Tabanao, O. (1997 S 23-26). Morphological and molecular diversity of Philippine modern rice varieties and their progenitors, 8th SABRAO General Congress and Annual Meeting of the Korean Breeding Society, Seoul, South Korea.

## **Publications**

- 2011 Tabanao, D.A., Unay, J.J., Rico, E.P. Jr, Garcia, N.S., Espejo, E.O., Bovines, L.M. Improving the bacterial blight resistance of Mestiso hybrid rice through gene pyramiding. *Philippine Agricultural Scientist*, 2011.
- 2010 Dilla, C.J., Redona, E.D., Tabanao, D.A., Singson, N.M., Bartolome, V.I. Genetic variation of released rice varieties in different countries. *Philippine Journal of Crop Science*, 2010, 35(S1):23.
- 2010 Unay, J.J., Rico, E.P., Castillo, J.M., Garcia, N.S., Borines, L.M., Vera Cruz, C., Tabanao, D.A. Improving the bacterial blight resistance of public rice hybrids. *Philippine Journal of Crop Science*, <http://agris.fao.org/agris-search/search/display.do?f=2010/PH/PH1010.xml;PH2010000523>, 2010, 35(1):89.
- 2010 Akhunov ED, Akhunova AR, Anderson OD, Anderson JA, Blake N, Clegg MT, Coleman-Derr D, Conley EJ, Crossman CC, Deal KR, Dubcovsky J, Gill BS, Gu YQ, Hadam J, Heo H, Huo N, Lazo GR, Luo M-C, Ma YQ, Matthews DE, McGuire PE, Morrell PL, Qualset CO, Renfro J, Tabanao D, Talbert LE, Tian C, Toleno DM, Warburton ML, You FM, Zhang W, Dvorak J Nucleotide diversity maps reveal variation in diversity among wheat genomes and chromosomes. *BMC Genomics*, 2010, 11(702):1-22.
- 2010 Perez LM, Pastor HM, Domingo JM, Tabanao DA, Manigbas NL DNA Fingerprinting in Hybrid Rice: Its Application in Varietal Purity Testing.. Philippine Rice Research Institute, Science City of Munoz, Nueva Ecija. ISBN 978-971-9081-75-3. 74p, 2010.
- 2010 Castillo, J.M., Rico, E.P., Pastor, H.M., Rigor, A.T., Tabanao, D.A. Association analysis of adaptation to water-limiting conditions in rice. *Philippine Journal of Crop Science* <http://agris.fao.org/agris-search/search/display.do?f=2010%2FPH%2FPH1010.x>, 2010, 35(s1):90.
- 2010 Nino, M., Godoy, J., Tun, J., Rico, E., Rigor, A., Tabanao, D.A. Genomewide markers in breeding for grain yield in rice. *Philippine Journal of Crop Science* <http://agris.fao.org/agris-search/search/display.do?f=2010%2FPH%2FPH1010.xml%3BPH2010000555>, 2010, 35(S1):105.
- 2009 Lou, M.C., Deal, K.R., Akhunov, E.D., Akhunova, A.R., Anderson, A.D., Tabanao, D.A., et al. Genome comparisons reveal a dominant mechanism of chromosome number reduction in grasses and accelerated genome evolution in Triticeae. *Proceedings of the National Academy of Science*, 2009, 106:15780-15785.
- 2009 Yu, J., Zhang, Z., Zhu, C., Tabanao, D.A., Pressoir, G., Tuinstra, M.R., Kresovich, S., Todhunter, R.J., Buckler, E.S. Simulation appraisal of the adequacy of number of background markers for relationship estimation in association mapping. *Plant Genome*, 2009, 2:63-77.
- 2009 Philippine Rice Research Institute (2009) Manalo JA IV, Beronio RA, Briones CT, Sebastian LS, Movillon MM, Angeles AT, Agarcio JMS, Benavente AA, Bibal CN, Bonto JP, Diaz CL, Mamucod HF, Joshi EE, Gonzales DB, Gergon EB, Loresca KRB, Tabanao, D.A.A., Newingham, M.C.V., Manigbas, N.L., Baltazar, M.A.M., Mula, L.F.G., Babb, M.G.M., Romero, M.V., Desamero, N.V., Bajit, R.B. Kamalig: Treasure Trove of Rice. (Authors listed in Certificate of Copyright Registration and Deposit. Philippine Rice

- Research Institute, Science City of Munoz, Nueva Ecija. ISBN 9789719081678, 2009:141p.
- 2009 Tun, J., Tabanao, D.A., Godoy J, Rico, E., Rigor, A. Identification of quantitative trait loci associated with yield traits of rice (*Oryza sativa* L.). *Philippine Journal of Crop Science* .[http://agris.fao.org/agrissearch/search\\_display.do?f=2010%2FPH%2FPH1004.xml%3BPH2O09001705](http://agris.fao.org/agrissearch/search_display.do?f=2010%2FPH%2FPH1004.xml%3BPH2O09001705), 2009, 34(S1):100.
- 2009 Godoy, J.G., Pastor, H., Tabanao, D., Rico, E., Rigor, A. Targeted introgression of tungro and bacterial blight resistance in popular cultivars using transgenic donors. *Philippine Journal of Crop Science* <http://agris.fao.org/agris-search|searchisplay.do?f=2010%2FPH%2FPH1004.xml%3BPH2O09001706>, 2009, 34(s1):10.
- 2009 Pastor, H.M., Domingo, J.M., Manigbas, N.L., Tabanao, D.A., Perez, L.M. Development of molecular protocol for seed purity analysis of hybrid rice seeds using microsatellite DNA markers. *Philippine Journal of Crop Science*,<http://agris.fao.org/agris-search/display.do?f=2010%2FPH%2FPH0916.xml%3BPH2O09001433>, 2009, 34.(S1):36.
- 2008 Dela Cruz, A.A., Baliwag, N.M., Rico, E.P., Leung, H., Vera Cruz, C.M., Redoña, E.D. Development of improved hybrid rice parental lines with bacterial blight resistance. *Philippine Journal of Crop Science*, [http://agris.fao.org/agris-search/search\\_display.do?f=2009%2FPH%2FPH0903.xml%3BPH2009000139](http://agris.fao.org/agris-search/search_display.do?f=2009%2FPH%2FPH0903.xml%3BPH2009000139), 2008, 33(S1):56.
- 2008 Godoy, J.G., Pastor, H., Tabanao, O. Marker-assisted pyramiding of transgenic resistance to bacterial blight and tungro in popular rice cultivars. *Philippine Journal of Crop Science*, 2008, 33(1):59.
- 2008 Tabanao, D.A., Pastor, H.M., dela Cruz, A.A., Godoy, J.G.V. Marker-assisted backcrossing using a uniformly-sized SSR-based chromosome bin system in rice. *Philippine Journal of Crop Science*, <http://agris.fao.org/agris-search/search/display.do?f=2009%2FPH%2FPH0903.xml%3BPh2009000142>, 2008, 33(1):58.
- 2008 Ravelo, G.B., Abdula, S.A., Truong, H.X., Batay-an, E.H., Tabanao, D.A., Babb, G.M., Sebastian, L.S. The tungro-resistant Matatag lines in the Philippines.. In Tiongco ER, Angeles ER, Sebastian LS (ed.)*The Rice Tungro Virus Disease: A Paradigm in Disease Management*. Philippine Rice Research Institute, Nueva Ecija, Philippines, 2008:p. 142-151.
- 2007 Tabanao, D.A., Bernardo, R. Multilocus epistasis, linkage, and genetic variance in breeding populations with few parents. *Theoretical and Applied Genetics*, 2007, 115(335-342).
- 2007 Yu, J., Tabanao, O., Zhang, Z., Pressoir, G., Kresovich, S., Buckler, E. Experimental design in association mapping with diverse germplasm. *International Plant and Animal Genome Conference*, [http://www.inti-pag.org/15/abstracts/PAG15\\_P05a\\_214.html](http://www.inti-pag.org/15/abstracts/PAG15_P05a_214.html), 2007.
- 2007 Tabanao, D., Godoy, J.G., Ravelo, G. Developing a marker-assisted recurrent selection program for rice in the Philippines. *Philippine Journal of Crop Science* <http://agris.fao.org/agris-search/search/display.do?f=2008%2FPH%2FPH0813.xml%3BPH2O08000681>, 2007, 32(S1):103.
- 2005 Tabanao, D.A., Bernardo, R. Genetic variation in maize breeding populations with different numbers of parents. *Crop Science*, 2005, 45:2301-2306.
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- 1996 Andaya, V.C., Tabanao, D., Maramara, G., Sebastian, L.S. Correlation of molecular diversity with heterosis in nine lowland rice varieties. *Philippine Journal of Crop Science*, <http://agris.fao.org/agris-searchsearchdisplay.do?doi=1996%2FPH%2FPH96009.xm1%3BPH9610427>, 1996, 21(s1):4.
- 1994 Carpena, A.L., Zapata, F.J., Tabanao, D.A. Utilizing anther culture in breeding for tungro resistance in rice. *Philippine Agriculturist*, 1994, 77:437-446.

**Name** Bernard John V. Tongol  
**Place of Birth** Quezon City  
**Date of Birth** September 26, 1977  
**Gender** Male  
**Civil Status** Single  
**Home Address** Department of Chemistry, College of Science, University of Santo Tomas

**Organizational Affiliations**

Assistant Professor, Department of Chemistry, College of Science, University of Santo Tomas, Espana, Manila 1015 Philippines

Researcher / Project Leader, Research Center for the Natural Sciences, University of Santo Tomas, Espana, Manila 1015 Philippines

**Education**

Ph.D. in Engineering (major in Applied Chemistry), Tohoku University, Sendai, Japan 2007 Mr

M.Sc. Chemistry, University of Santo Tomas, Manila 2001 O

B.Sc. Chemistry, University of Santo Tomas, Manila 1998 Mr

**Fields of Specialization**

Electrochemical Surface Science

Chemistry

Engineering -Applied Chemistry

Nanotechnology

Material Science

**Employment**

Chairman, Dept. of Chemistry, College of Science, University of Santo Tomas, 2010 Je-2011 My

Project Leader, Nanotechnology Project, Philippine Council for Advanced Science and Technology Research and Development-DOST, 2009 Ja - 2010 JI

Instructor, Dept. of Biochemistry, Faculty of Pharmacy, University of Santo Tomas, 2001 N -2003 Mr

Instructor, DEpt. of Medical Technology, University of Baguio, Baguio City, 1998 N - 2000 Mr

**Association Membership**

Board Member, Kapisanang Kimika ng Pilipinas - Division of Analytical Sciences (KKP-DAS)

Member, Integrated Chemist of the Philippines

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

Member, National Research Council of the Philippine (NRCP)

**Honors / Awards**

Best Research Poster, PhilAAS 2009 S

Travel Grant, ACS-PITTCON(USA) 2008 Mr

Research Grant on Nanotechnology, PCASTRD-DOST 2009 Ja

1st Place Scientific Poster Competition, during Dept. of Chemistry Research Poster Contest, UST College of Science 2010 F 1-5

Best Thesis 2011 (as Thesis Adviser, during Chemical Engineering Week, UST Dept. of Chemical Engineering 2011 F 14-19

2nd Place, Scientific Poster Competition, UST College of Science 2010 F 1-5

Benavides Outstanding Achievement Award (for Outstanding Achievement of Regional, National and Inter, UST Student Awards

Exchange Student Fellowship awarded to Lei Angeli Morenos, M.S. Chemistry thesis student of B.J.V. T, JENESYS-JSPS Programme, Japan Society for the Promotion of Science 2011 Ag-O

Fellowship Grant, Overseas Research Enrichment Program for J.L. Garcia at the National Central Unive, PCASTRD-DOST 2011 F-Ag

Research Grant awarded to Hao Yuhn Hsu, M.S. Chemistry thesis student of B.J.V. Tongol, Department of Science and Technology 2011 Je - 2012 Mr

Research Grant awarded to Lei Angeli Morenos, M.S. Chemistry thesis student of B.J.V. Tongol, Department of Science and Technology 2011 Je - 2012 Mr

Champion, National Undergraduate Research Contest 2011 for I. Climaco, J. Telan, F. Malijan (B.J.V., PIChE 2011 F

Outstanding Thesis Award (Chemistry), Molecular Assembly of 3,4 ethylenedioxythiophene and its elect, PCASTRD-DOST 2010 D 10

Research Grant (P2.1 million), Development of Au(1 11) and Pt(111) Single Crystals as Substrates..., PCASTRD-DOST 2009 Ja

Travel Grant, Research visit to the Department of Chemistry, National Central University, Taiwan, R., PCASTRD-DOST 2010 My 1-8

Best Scientific Poster, "Development of Electrocatalyst based on Pt/Ru Metallic Particles for Fuel C, PhilAAS 2009 S 10-11

Travel Grant, Environmental Protection and Energy Technology (EPET) Workshop, National Science Council, Taiwan 2011 Ag 15-28

Young Scholar Award / Travel Grant, Pacificchem 2010, Honolulu, Hawaii, USA,, American Chemical Society 2010 D

Travel Grant, Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy •(Pittcon 200, American Chemical Society (ACS) 2008 Mr 1-7

Travel Grant, 207th Meeting of The Electrochemical Society, Quebec City, Canada, The Electrochemical Society (ECS), USA 2005 My

Outstanding Young Scientist (OYS), National Academy of Science and Technology (NAST) 2010

## **Trainings**

78th General Membership Assembly, National Research Council of the Philippines, Manila Hotel, Philippines 2011 Mr 9

33rd Annual Scientific Meeting of the National Academy of Science and Technology, Manila Hotel, Philippines 2011 Ji 14

Graduate Research Colloquium, UST-GS 2011 F 5

26th Philippine Chemistry Congress, Waterfront Hotel, Cebu City 2011 Ap 13-15

Environmental Protection and Energy Technology (EPET) Workshop, National Science Council, National Tsing Hua University, Taiwan 2011 Ag 15-28

77th General Membership Assembly, NRCP, Manila Hotel, Philippines 2010 Mr 10

32nd Annual Scientific Meeting of the National Academy of Science and Technology, Manila Hotel, Philippines 2010 Ji 14-15

KKP-DAS 1st Graduate Research Symposium on Analytical Science (as Organizing Committee Member, and M, UP-Ayala Technohub Conference Room, (KKD-DAS, PCASTRD-DOST, UP Institute of Chemistry) 2010 F 15

25th Chemistry Congress, Subic Bay Exhibition and Convention Center, Olongapo City 2010 Ap 8-10

Materials Preparation using Buehler Ecomet Grinder/Polisher, Hong Kong 2009 S 6-9

29th Annual Philippine-American Academy of Science and Engineering Meeting and Symposium (29APAMS), Ateneo de Manila University, Manila 2009 Ji 13-15

## Researches

### Completed

Adsorption and Electropolymerization of 3,4-ethylenedioxythiophene on Au (100) Single Crystal Electrode in 0.1 M HClO<sub>4</sub> as proved by in-situ Electrochemical Scanning Tunneling Microscopy

Development of Fuel Cell Electrocatalyst based on PEDOT-Modified Pt(111) Nanocomposite Film Towards Ethanol Oxidation: Electrochemical and Surface Properties

Electrochemical, Electrocatalytic and Surface Studies of Poly(3,4-ethylenedioxy)thiophene- and Polypyrrole-Au, Metallic Particles Composite on Au Polycrystalline-Electrode

Electrochemical and in Situ Scanning Tunneling Microscopy Studies of 3,4-ethylenedioxythiophene (EDOT) Self Assembled Monolayers (SAM) on Au (111) Single Crystal Electrode of Electroactive Polymers and Oligomers of Thiop

Electrochemical Scanning Tunneling Microscopy of Electroactive Polymers and Oligomers of Thiophenes

Nanostructured Electrocatalysts Dispersed on Poly(3,4-ethylene dioxythiophene) (PEDOT) Matrix for Direct Ethanol Fuel Cell Applications

### On-going

Development of Au(111) and Pt(111) Single Crystals as Substrates for Nanomaterials: Preparation, Characterization, and Applications

Electrocatalytic Activity of PEDOT-Modified Au(111) Nanocomposite Film Towards Ethanol Oxidation for Fuel Cell Application

### Ongoing

Nanostructured Electrocatalysts dispersed on Graphene and Poly(3,4-ethylenedioxythiophene): Preparation, Characterization and Application

Development of Dye-Sensitized Solar Cell (DSSC) based on Pt Nanoparticles Counter Electrode Dispersed on Conductive Polymers

## Papers Presented

Suasin, F.L.P., Supan, A.J.M., Fulo, H.M., Garia, J.L., Tongol, B.J.V. (2011 Ji 13-14). Electrochemical Properties of PtRu Sn Ternary Electrocatalyst Dispersed on Poly(3,4 ethylenedioxythiophene) (PEDOT) for Fuel Application, 33rd Annual Scientific Meeting of the National Academy of Science and Technology Manila Hotel, Philippines 2011 Ji 14.

Climaco, M.I.F., Telan, G.J.D., Malijan, F.M., Garcia, J.L., Fulo, H.M., Tongol, B.J.V. (2011 JI 13-14). Fabrication of Electrocatalyst based on PEDOT-PSS Supported Pd Nanoparticles for Etahanol Electro-oxidation, 33rd Annual Scientific Meeting of the National Academy of Science and Technology Manila Hotel, Philippines.

Lapitan, L.D.S., Jr., Tongol, B.J.V., Yau, S.L. (2011 JI 13-14). Nanowire Formation and Polymer Conformations of Electropolymerized Poly(3,4 ethylenedioxythiophene)(PEDOT) on Iodine-modified Au(111)Single Crstal Electrode as Probed by In Situ STM, 33rd Annual Scientific Meeting of the National Academy of Science and Technology Manila Hotel, Philippines.

Garcia, G.L., Tongol, B.J.V., Yau, S.L. (2011 JI 13-14). Investigation of the Adsorption and Electropolymerization of 3,4, ethylenedioxythiophene on Au 100 Single Crystal Electrode Using in Situ Electrochemical Scanning Tunneling Microscopy, 33rd Annual Scientific Meeting of the National Academy of Science and Technology Manila Hotel, Philippines.

Climaco, I., Telan, J., Malijan, F., J. Garcia, J., Fulo, H.M., . Tongol, B.J.V. (2011 F 16-18). Fabrication of electrocatalyst based on PEDOT-PSS supported Pd Nanoparticles for Ethanol Electro-oxidation, 72nd Philippine Institute of Chemical Engineers (PICHE) National Convention, Colegio de San Agustin Bacolod and L'Fisher Hotel, Bacolod City, PICHE..

Tongol, B.J.V. et al. (2011 Ap 13-15). Ethanol Oxidation on Pt-Ru-Sn ternary Electrocatalyst Dispetsed on poly (3,4-ethyleneioxythiophene) (PEDOT) Modified Polycrystlline Pt and Py(111) SingleCrystal Electrode, 26th Philippine Chemistry Congress Waterfront Hotel, Cebu City.

Fulo, H.M., Tongol, B.J.V. (2011 Ap 13-15). Fabrication of palladium-tin modified graphene nanocomposite for ethanol electrooxidation: Electrochemical & Surface Studies, 26th Philippine Chemistry Congress, Waterfront Hotel, Cebu City, Philippine Federation of Chemistry Societies.

Hsu, H.Y.C., Lapitan, Jr.,L.D.S., . Fulo, H.M., Tongol, B.J.V. (2010 JI 14-15). Evaluation of the electrocatalytic activity of platinum metallic particles dispersed on poly(3,4ethylenedioxythiophene) (PEDOT)-modified gold electrode towards electro-oxidation of ethanol, 32nd National Academy of Science and Technology Annual Scientific Meeting, Manila Hotel, NAST.

Morenos, L.A.S., J.L. Garcia, J.L., Fulo, H.M., Tongol, B.J.V. (2010 JI 14-15). Development of fuel cell electrocatalysts based on poly(3,4-ethylenedioxythiophene) (PEDOT)-modified Pt(111)/nanoparticle composite film: electrochemical and surface properties, National Academy of Science and Technology Annual Scientific Meeting, Manila Hotel, NAST.

Tongol, B.J.V., Lapitan Jr. L.D.S., Yau, S.L., Wang, L., Otsubo, T., Itaya, K., (2010 D 15-20). Molecular assembly and electropolymerization of thiophene derivatives on Au(111) surface as probed by in situ electrochemical scanning tunneling microscopy, PACIFICHEM 2010, Honolulu, Hawaii, U.S.A., American Chemical Society.

Lapitan, L.D.S., Jr., Tongol, B.J.V., Yau, S.-L. (2010 Ap 8-10). Adlayer Structures of 3,4- ethylenedioxythiophene (EDOT) and its Electropolymerization on Bare Au(111) r2 Single Crystal Electrode as Probed by In Situ Electrochemical STM in 0.1 M HClO4, 25th Philippine Chemistry Congress, Subic Bay Exhibition and Convention Center, Zambales, OCTA, UST Chemistry Department, and PFCS..

Hsu, H.Y.C., Lapitan, L.D.S., Jr., Fulo, H.M., Tongol, B.J.V. (2010 Ap 8-10). Electrocatalytic Activity 1) of Poly(3,4-ethylenedioxythiophene) (PEDOT)-modified Au(111) I Metallic Particles Composite Film Towards Ethanol Oxidation for Fuel Cell Application, 25th Philippine Chemistry Congress, Subic Bay Exhibition and

Convention Center, Zambales, OCTA, UST Chemistry Dept. and PFCS.

Morenos, L.A.S., Garcia, J.L. Fulo, H.M., Tongol, B.J.V. (2010 Ap 8-10). Development of Fuel Cell Electrocatalyst Based on Poly(3,4-ethylenedioxythiophene) (PEDOT)-modified Pt(111)/ Metallic Particles Composite Film: Electrochemical and Surface Properties, 25th Philippine Chemistry Congress, Subic Bay Exhibition and Convention Center, Zambales, OCTA, UST Chemistry Department, and PFCS.

Fulo, H.M., Hsu, H.y.C., Garcia, J.L., Lapitan, L.D.S., Jr., Tongol, B.J.V. (2010 Ap 8-10). Development of Electrocatalyst based on Pt Metal Particles Deposited on PEDOT- Modified Au Substrate for Fuel Cell Application, 25th Philippine Chemistry Congress, Subic Bay Exhibition and Convention Center, Zambales, OCTA, UST Chemistry Department, and PFCS.

Fulo, H.M., Hsu, H.Y.C., Garcia, J.L., (2010 Ap 8-10). Development of Electrocatalyst based on Pt Metal Particles Deposited on PEDOT- Modified Au Substrate for Fuel Cell Application, 25th Philippine Chemistry Congress, Subic Bay Exhibition and Convention Center, Zambales. OCTA, UST Chemistry Dept., and PFCS.

Garcia, J.L, Morenos, L.A.S., Lapitan, L.D.S. Jr., H.M. Fulo, H.M., Tongol, B.J.Y. (2010 Ap 8-10). Fuel Cell Electrocatalyst Based on Dispersed Pt Particles on Poly(3,4- ethylenedioxythiophene)-Moditied Pt Electrode Towards Ethanol and Formic Acid Electro-Oxidation, 25th Philippine Chemistry Congress 2010, Subic Bay Exhibition and Convention Center, Zambales, OCTA, UST Chemistry Department, and PFCS.

Fulo, H., Garcia, J., Lapitan, L., Tongol, B.J.V. (2009 S 10-11). Development of Electrocatalyst based on PtRu Metallic Particles for Fuel Cell Application, 29th Annual Philippine-American Academy of Science and Engineering Meeting and Symposium (29APAMS), Ateneo de Manila University, Philippine-American Academy of Science and Engineering..

San Esteban, A., Dela Cruz, A., Lapitan, L., Tongol, B.J.V. (2009 Mr 13-14). Scanning Electron Microscopy and Atomic Force Microscopy Studies of Poly(3,4-ethylenedioxy)thiophene on Gold Substrate, 9th Annual Scientific Conference of the Microscopy Society of the Philippines, De la Salle University, Taft, Manila.

dela Cruz, A. San Esteban, A., Lapitan, L.D.S. Jr., Tongol, B.Y.J. (2009 Jl 8-9). Conducting Polymers as Host Matrices for the Dispersion of Gold Nanoparticles with Electrocatalytic Properties, 1st National Academy of Science and Technology Annual Scientific Meeting Manila Hotel.

Tongol, B.J.V., Lapitan, L., Yau, S.L. (2009 Jl 13-15). Au(111) Single-Crystal as Electrode Material for the Adsorption of Thiophene Nanostructures: Preparation and in Situ STM Characterization, 29th Annual Philippine-American Academy of Science and Engineering Meeting and Symposium (29APAMS), Ateneo de Manila University, Philippine-American Academy of Science and Engineering.

Lapitan, L.D.S., Jr., . Tongol, B.J.V., Yau, S.-L (2009 Jl 13-15). Au(111) Single-Crystal as Electrode Material for the Adsorption of Thiophene Nanostructures: Preparation and in Situ STM Characterization, 29th Annual Philippine-American Academy of Science and Engineering Meeting and Symposium (29APAMS), Ateneo de Manila University, PAASE.

Tongol, B.J.V., Wang, L., Yau, S.L., Otsubo, T., Itaya, K. (2009 Ap 14-16-). Direct Visualization of Single Molecules of Long Oligothiophenes on Au(111) using Electrochemical Scanning Tunneling Microscopy, 1st Asia-Pacific Conference on 'Chemistry Education and 24th Philippine Chemistry Congress, Philippine Federation of Chemistry Societies, Tagbilaran City, Bohol.

Lapitan, Jr.,L.D.S., Tongol, B.J.V., Yau, S.-L. (14-15 July 2010). Molecular

assembly and electropolymerization of 3,4-ethylenedioxythiophene (EDOT) on bare Au(111) single crystal electrode as probed by electrochemical scanning tunneling microscopy, 32nd National Academy of Science and Technology Annual Scientific Meeting, Manila Hotel, NAST..

Garcia, J.I., Tongol, B.J.V., Yau, S.L. (13-15 April 2011). Adsorption and Electropolymerization of 3,4-ethylenedioxythiophene on Au(100) Single Crystal Electrode in 0.1 M HClO<sub>4</sub> as Probed by In-Situ Electrochemical Scanning Tunneling Microscopy, 26th Philippine Chemistry Congress, Waterfront Hotel, Cebu City, Philippine Federation of Chemistry Societies.

## Publications

- 2011 Tongol, B.J.V. Fabrication of Electrocatalyst Based on PEDOT-PSS Supported Pd Nanoparticles for Ethanol Electro-oxidation. Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2011 JI 13-14, 33(1).
- 2011 Tongol, B.J.V. Nanowire Formation and Polymer Conformations of Electropolymerized Poly(3,4-ethylenedioxythiophene)(PEDOT) on Iodine-Modified Au(111) Single Crystal Electrode as Probed by In-Situ STM. Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2011 JI 13-14, 33(1).
- 2010 Wang, L., Tongol, B.J.V., Yau, S.L., Ostubo, T., Itaya, K. Substrate-induced varied conformation and molecular assemblies: In situ STM observation of *B*-substituted oligothiophene adlayer on Au (111). Langmuir, 2010 My, 26(10):7148-52.
- 2010 Lapitan, L.D.S. Jr., Tongol B.J.V., Yau, S.L. Molecular assembly and electropolymerization of 3,4-Ethyldioxythiophene on Au (111) single crystal electrode as probed by in situ electrochemical STM in 0.1 M HClO<sub>4</sub>. Langmuir, 2010 JI, 26(13):10771-7.
- 2010 Wang, L., Yau, S.L.T., Ostubo, T., Itaya, K. Direct observation of conformational changes of *beta*-substituted duodecithiophene on a Au(111)-(R3 x 22) substrate using in situ electrochemical STM in 0.1 M HClO<sub>4</sub>. Langmuir, 2010, 26(2):982-989.
- 2009 Wang, L., Yau, S.L., Ostubo, T., Itaya, K. Nanostructures and molecular assembly of *beta*-blocked long oligothiophenes up to the 96-Mer on Au(111) as probed by in situ electrochemical scanning tunneling microscopy. Journal of Physical Chemistry, 2009 JI, 113:13819-13824.
- 2009 Tongol, B.J.V., Wang, L., Yau, S.L., Ostubo, T., Itaya, K., Direct Visualization of Single Molecules of Long Oligothiophenes on Au(111) using Electrochemical Scanning Tunneling Microscopy. 1st Asia-Pacific Conference on 'Chemistry Education and 24th Philippine Chemistry Congress, Philippine Federation of Chemistry Societies Tagbilaran City, Bohol, 2009 Ap 14-16.
- 2009 De la Cruz, A., San Esteban, A.C., Lapitan, L.D.S.Jr., Tongol, B.J.V. Conductive Polymers as Host Matrices for the Dispersion of Gold Nanoparticles with Electrocatalytic Properties. Transactions of the National Academy of Science and Technology, Philippines, 2009, 31(1):115.
- 2009 Lapitan, L.D.S., Jr., Tongol, B.J.V., Yau, S.L. Au(111) Single-Crystal as Electrode Material for the Adsorption of Thiophene Nanostructures: Preparation and in Situ STM Characterization. Book of Abstracts of the 29th Annual PAASE Meeting and Symposium, 2009:53.
- 2009 San Esteban, A.C., Dela Cruz, A., Lapitan, L.D.S., Jr., Tongol, B.J.V. Scanning Electron Microscopy and Atomic Force Microscopy Studies of Poly(3,4-ethylenedioxy)thiophene on Gold Substrate. Proceedings of the 9th Annual Scientific Conference of the Microscopy Society of the Philippines

- 2009, 2009:2,15.
- 2009 Dela Cruz, A., San Esteban, A., Lapitan, L.D.S., Tongol, B.J.V. Conducting Polymers as Host Matrices for the Dispersion of Gold Nanoparticles with Electrocatalytic Properties. 31st National Academy of Science and Technology (NAST) Annual Scientific Meeting, 2009.
- 2009 Tongol, B.J.V., dela cruz, A. Conductive Polymers as Host Matrices for the Dispersion of Gold Nanoparticles with Electrocatalytic Properties. Transactions of the National Academy of Science and Technology. Abstracts of Papers, 2009, 31(1).
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- 2002 Tongol, B.J.V., Binag, C.A., Sevilla, F. Fabrication of a carbon dioxide gas sensing probe using conducting polypyrrole-based pH transducer. Harnessing Science and Technology to Meet the Global Challenge, 2002:303-313.
- 1999 Binag, C.A., Bartolome, A.J., Tongol, B.J.V., Santaiago, K.S. Electrochemically synthesized polymer-based pH sensors. Philippine Journal of Science, 1999, 128(3):247-252.
- 1999 Tongol, B.J.V., Binag, C.V., Gong, B., Lamb, R.N. Surface and Electrochemical Characteristics of Poly(o-phenylenediamine)-based pH sensor. KIMIKA, 1999, 15(1):27-33.
- 1998 Tongol, B.J.V., Binag, C.A. Electropolymerized o- phenylenediamine as a potentiometric pH sensor. Proceedings of the 14th Philippine Chemistry Congress, 1998:129-134.
- 1988 Tongol, B.J.V., Binag, C.A. Potentiometric pH sensor-based on electropolymerized poly(o-phenylenediamine). Proceedings of the 20th Annual Scientific Meeting National Academy of Science and Technology, 1988:41.



**Name** Lucille C. Villegas  
**Place of Birth** Lubao, Pampanga  
**Date of Birth** January 29, 1971  
**Gender** Female  
**Civil Status** Single  
**Home Address** Apartment 20A Ipil ipil Road, Forestry, UPLB, College, Laguna

**Organizational Affiliations**

Assistant Professor, Institute of Biological Sciences, CAS, UPLB, College, Laguna

**Education**

Ph.D. in Microbiology, University of the Philippines at Los Baños (UPLB), College, Laguna 2001

M.S. in Microbiology, UPLB, College, Laguna 1997

B.S. Biology, UPLB, College, Laguna 1992

**Fields of Specialization**

Biology

Microbiology

**Employment**

University Research Associate, Department of Plant Pathology, UP Los Banos, College, Laguna, 1992 Ag-1997 Mr-

Microbiologist, Biotechnology Laboratory, Philippine Sugar Research Institute, VMC Compound Victorias City, 2002 Ja-2006 Je-

Assistant Professor, Institute of Biological Sciences, College of Arts and Sciences, UP Los Banos, College, Laguna, 2006 Je 23-present-

**Association Membership**

Member, International Society of Sugarcane Technologists

Member, Association of Applied Biologists UK

Life Member, Philippine Society for Microbiology

Specialist Microbiologist, Philippine Academy of Microbiology

Member, Philippine Sugar Technologists Association, Inc.

Life Member, Gamma Sigma Delta Honor Society of Agriculture, UP Los Banos

Member, UPLB Alumni Association

Member, Philippine Phytopathological Society

**Honors / Awards**

International Publication Award 2008, 2008

Senior Biologist in Focus for 2008, PHILOBIOSCIENTIA, UPLB Life Sciences Society 2008

PhD Scholarship Grant, Philippine Sugar Research Institute 1997- 2001

Outstanding Young Scientist Award, National Academy of Science and Technology (NAST) 2009

## Trainings

National Academy of Science and Technology Annual Scientific Meeting, The Century of Biology, Manila Hotel, Manila 2006 Jl 12-13

International Society of Sugarcane Technologists 5th Molecular Biology Workshop, Mauritius Sugar Industry Research Institute, Reduit, Mauritius 2006 Ap 3-7

Philippine Sugar Technologists Association, Inc., Annual National Convention, Cebu International Convention Center, Cebu City 2006 Ag 2-4

34th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology, Inc, Waterfront Insular Hotel, Davao City 2005 My 11-13

Philippine Sugar Technologists Association, Inc Annual National Convention, Cebu International Convention Center, Cebu City 2005 Ag 17

Philippine Sugar Technologists Association, Inc Annual National Convention, Cebu International Convention Center, Cebu City 2004 Ag 17-20

Intern. Soc. of Sugarcane, Tech. 4th Molecular Biol. Workshop, Centre de Cooperacion Internacionale en Recherche Agro. pour le Developpment, Montpellier, France 2003 Ap 7-11

Philippine Sugar Technologists Association. Inc Annual National Convention, Bacolod Convention Plaza, Bacolod City 2003 Ag 25-29

31st Annual Convention and Scientific Meeting of the Philippine Society for Microbiology, Inc., Development Academy of the Philippines, Tagaytay City, Philippines 2002 My 9-11

Philippine Sugar Technologists Association, Inc Annual National Convention, Cebu International Convention Center, Cebu City 2002 Ag 14-16

29th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology, Inc., Fort Ilocandia Resort Hotel, Laoag Ilocos Norte 2000 My 10-12

28th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology, Inc., Asturias Hotel, Puerto Prinsesa, Palawan 1999 My 12-13

3<sup>rd</sup> International Rice Genetics Symposium, Plaza Hotel, Manila, EDSA 1996 O 16-20

Rice Tungro Meeting/Workshop, Chang Rai, Thailand 1996 Ap 7-14

Association of Applied Biologists Symposium, Cambridge University, United Kingdom 1995 Mr 29-30

5th Pest Management Council of the Philippines Annual Convention, Pryce Hotel, Cagayan de Oro City 1993 My 3-6

1st National Symposium/Workshop on Citrus Triztesa, Baguio City 1992 O 29-30

5th Asia Pacific Biotech. Cong. and 35th Annual Convention of the Phil. Soc. for Microbiology, Inc., Bohol Tropics, Bohol Philippines 2006 My 10-13

33rd Annual Convention and Scientific Meeting of the Philippine Society for Microbiology, Inc., Heritage Hotel, Manila, Philippines

## Researches

### Completed

Detection of sweet potato feathery mottle virus in Ipomoea batata L. lam.

Genetic variation of rice tungro bacilliform virus in the Philippines

Isolation, characterization and investigations into the mechanism of action of plant growth promoting bacteria in sugarcane (*Saccharum officinarum* L.)

Plant Growth Promoting Bacteria for Sugarcane

Isolation, Partial Characterization and Effect of Inoculation of Diazotrophic Endophytes on Micropropagated Sugarcane (*Saccharum officinarum* L.)

Endophytic colonization of Sugarcane by Plant Growth Promoting Bacteria Expressing the *gusA* Gene Biomarker

### **On-going**

Method of Producing Sugar Plant or Plant Parts Biotized with Growth Promoting Endophytic Bacteria

Microbial Inoculants for Graminae with Emphasis on Sugarcane

### **Papers Presented**

Villegas, L. C. and Paterno, E. S. (2008 My 7-9). Endophytic colonization of Sugarcane by Plant Growth Promoting Bacteria Expressing the *gusA* Gene Biomarker (poster), Annual Conventions and Scientific Meeting of the Philippine Society for Microbiology, Boracay Aklan, Philippines.

Villegas, L. C. (2006 Ap 3-7). Status of Sugarcane Research in the Philippines, International Society of Sugarcane Technologists 5th Molecular Biology Workshop, Mauritius Sugar Industry Research Institute, Reduit, Mauritius.

Villegas, L. C., Villalobos, K.P., Manigbas, N.L. (2003 Ag 26-29). Isolation, Partial Characterization and Effect of Inoculation of Diazotrophic Endophytes on Micropropagated Sugarcane (*Saccharum officinarum* L.), Philippine Sugar Technologists 50th Annual Convention, Bacolod Convention Plaza, Bacolod City.

Villegas, L.C., Paterno, E.S. (2002 Ag 13-16). Plant Growth Promoting Bacteria for Sugarcane, 49th Annual Convention of the Philippine Sugar Technologists. Waterfront Cebu City.

### **Publications**

- 2008 Villegas, L.C., Paterno, B.S. Growth enhancement and root colonization of sugarcane by plant growth promoting bacteria. *Philippine Journal of Crop Science*, 2008, 33(2):3-24.
- 2007 Manigbas, N.L., Villegas, L.C. Molecular markers for improving selection of sugarcane varieties with Downy Mildew resistance . *Philippine Journal of Crop Science*, 2007, 32(1):3-11.
- 2005 Manigbas, N.L., Villegas, L.C. Identification of molecular markers for resistance to downy mildew of sugarcane (*Saccharum officinarum* L.) (abstr) . *Philippine Journal of Crop Science*, 2005, 30(sup.1):54.
- 2004 Manigbas, N.L., Villegas, L.C. Microsatellite markers in hybridity tests to identify true hybrids of sugarcane. *The Philippine Journal of Crop Science*, 2004, 29(2):23-32.
- 2001 Villegas, L.C. Isolation, characterization, and investigations into the mechanism of action of plant growth promoting bacteria in sugarcane (*Saccharum officinarum* L.). Unpublished PhD Dissertation, UPLB, 2001.
- 1997 Villegas, L.C., Druka, A., Bajet, N.B., Hull, R. Genetic variation of rice tungro bacilliform virus in the Philippines. *Virus Genes* , 1997, 15(3):195 -201.
- 1997 Druka, A., Villegas, L.C., Dahal, G., Hull, R. Differentiation of isolates of rice tungro viruses from the Indian subcontinent and Southeast Asia (Abstract) . *Phytoparasitica*, 1997, 25(1):89.
- 1997 Villegas, L. C. Genetic variation of rice tungro bacilliform virus in the Pilippines. Unpublished Master's Thesis, UPLB, 1997.
- 1997 Peña, J.E., Wysoki, M., Singh, G., Godoy, F.J., Obligado, A., Rossetto, C.J., Ribeiro, I.J.A., Gallo, J.P.B., Soares, N.B., Sabino, J.C. Martins, A. L., Bortoletto,

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- 1996 Villegas, L.C., Pamulaklakin, G., Beduya, E., Bajet, N.B. Sweet potato feathery mottle virus: Its association with kamote kulot and its effect on yield. *Philippine Phytopathology*, 1996, 32(1):35-40.
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- 1994 Bajet, N.B., Eusebio, A.A., Villegas, L.C. Alcantara, B., Talens, A., Natsuaki, K., Tomaru, K., Amemiya, Y. Serological characterization of papaya ringspot virus. *Host Plant Resistance and Control of Tropical Crop Diseases and Pests, Proceedings of a Symposium (A.D. Raymundo et al.,eds.) UPLB, College, Laguna 1994:31-47.*
- 1992 Villegas, L.C. Detection of sweet potato feathery mottle virus in *Ipomoea halala* L.. Unpublished BS Thesis, UPLB, 1992.

## Specialization Index

Access to health care Quimbo, Stella Luz A.	Bioethics Reyes, Marita V.T.
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Prudente, Maricar S.

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Paraso, Michelle Grace V.

Evolutionary Design of Functional  
Capacities  
Suarez, Raul K.

Food Standards  
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Genetics  
Cao, Ernelea P.

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quality of care, health status of children,  
provider payment systems)  
Quimbo, Stella Luz A.

Heterogeneity and Architecture of  
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Microtechnique i.e. organ, anther, embryo,  
callus, meristem, cell tissue and protoplast  
culture  
Lapitan, Victoria Pecho Chavez-

Molecular genetics (marker-assisted  
selection, genomewide selection, gene  
mapping, DNA fingerprinting, structural  
genomics, SNP discovery  
Tabanao, Dindo Agustin Ancajas

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Cardenas, Meinhard Bayani R.

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Amalin, Divina M.

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tolerance)  
Tabanao, Dindo Agustin Ancajas

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Preharvest Food Safety  
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Ogena, Nimfa B.

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Tabanao, Dindo Agustin Ancajas

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Heterogeneity and Architecture of Fluvial Deposits  
Hydrogeology and Hydrology  
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**Dacuycuy, Lawrence B.**

Econometrics  
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Semiparametric and nonparametric methods in labor econometrics

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Animal Health Programs  
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Preharvest Food Safety

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Agriculture  
Agronomy  
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cell tissue and protoplast culture

**Limjap, Auxencia A.**

Educational, Government and International Policies  
Mathematics and Science Education

**Lope, Jose Ernie C.**

Mathematics  
Physics

**Narisma, Gemma Teresa Tamayo**

Atmospheric Science  
Climate Analysis  
Climate Change and Variability Analysis  
Environmental Physics focus on climate system  
Environmental Science

**Ogena, Nimfa B.**

Demography  
Sociology  
Statistics

**Padre, Agnes T.**

Agricultural Chemistry  
Soil Health Science

**Paraso, Michelle Grace V.**

Environmental Science (Aquatic Ecotoxicology)  
Veterinary Pharmacology (Toxicology)  
Veterinary Physiology (Endocrine Physiology)

**Pareja, Teresita P.**

Applied Linguistics  
Social Sciences

**Prudente, Maricar S.**

Environmental Chemistry and Ecotoxicology  
Environmental Education and Science Education  
Environmental Pollution



**Quimbo, Stella Luz A.**

Access to health care  
Education  
Health Economics (health care financing, quality of care, health status of children, provider payment systems)  
Poverty  
Tobacco Taxation

**Reyes, Marita V.T.**

Biochemistry  
Bioethics  
Medicine

**Rodriguez, Felicitó**

Analytical Chemistry

**Ronquillo, Wilfredo P.**

Anthropology  
Archeology

**Suarez, Raul K.**

Comparative Physiology & Biochemistry  
Ecological consequences and evolutionary implications of metabolic biochemistry:  
Energetics of Locomotion  
Evolutionary Design of Functional

Capacities

Zoology

**Tabanao, Dindo Agustin Ancajas**

Molecular genetics (marker-assisted selection, genomewide selection, gene mapping, DNA fingerprinting, structural genomics, SNP discovery)  
Plant breeding (irrigated lowland rice, upland rice, insect and disease resistance, drought tolerance)  
Statistics (experimental design, mixed model analysis, genotype by environment interaction)  
Population genetics (genetic variance, kinship, linkage disequilibrium, population structure, association analysis)

**Tongol, Bernard John V.**

Chemistry  
Electrochemical Surface Science  
Engineering -Applied Chemistry  
Material Science  
Nanotechnology

**Villegas, Lucille C.**

Biology  
Microbiology