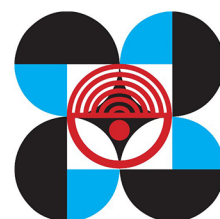


Specialized Philippine Enterprise Reference of Experts and Scientists (SPHERES)

INFORMATION RESOURCES AND ANALYSIS DIVISION
Science and Technology Information Institute
Department of Science and Technology
Gen. Santos Ave., Bicutan, Taguig City, Philippines



ABOUT THE SPECIALIZED PHILIPPINE ENTERPRISE REFERENCE OF EXPERTS AND SCIENTISTS (SPHERES)

The Division of Documentation of the National Institute of Science and Technology published the first volume of the Philippine Men of Science in 1964. It contained one hundred one bio-bibliographies of living men and women in the field of science and technology. It keeps track of our scientists and their contributions for the information and benefit of all. The compilation aims to provide interested users a useful and effective reference.

In 2012, the 24th volume of the Philippine Men of Science was uploaded online to make it more visible and accessible to users. Subsequently, the publication was renamed as the Philippine Men and Women of Science in 2013 to adopt a gender-sensitive title.

Today, the publication is given a new name – Specialized Philippine Enterprise Reference of Experts and Scientists (SPHERES).

The SPHERES brand introduces a new function with a new focus. When it comes to Filipino scientists and experts and their bio-bibliographic information, this compilation serves as a specialized reference for the public. Now with a gender-neutral emphasis and an inclusive sphere of influence, SPHERES is the name to remember.

Each volume of SPHERES consists of two issues annually.

EDITORIAL BOARD AND STAFF:

Richard P. Burgos, Director

Alan C. Taule, Chief, Information Resources and Analysis Division

Maribel B. Palafox, Supervising Science Research Specialist

Haziel May C. Natorilla, Science Research Specialist II (Scientist Database Manager)

For any inquiries on our publication:

Telefax: (632) 837-2071 to 82, local 2135

E-mail: spheres@stii.dost.gov.ph

WWW: <http://spheres.dost.gov.ph/>



© 2017. Specialized Philippine Enterprise Reference of Experts and Scientists by the Information Resources and Analysis Division, Science and Technology Information Institute. This resource is licensed under a CC BY-NC-ND 3.0 License.

The public may download and share the work for free with other people for nonprofit, non-commercial uses only with appropriate credit and may not modify the work in any manner. Attribution to the Information Resources and Analysis Division, Science and Technology Information Institute as the publisher is required at all times.

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

CONTENTS

EXPERTS AND SCIENTISTS	PAGE
Abad, Lucille V.	1
• Nuclear Chemistry	
• Material Characterization	
• Polymer Chemistry	
• Nanomaterials	
• Mechanical Properties	
• Thin Films and Nanotechnology	
• Advanced Materials	
• Biomaterials	
• Polymeric Materials	
• Polymerization	
• Thermal Analysis	
• Polymer Synthesis	
• Differential Scanning Calorimetry (DSC)	
• Thermogravimetry (TGA)	
• Polymeric Biomaterials	
• Biodegradable Polymers	
• Thermal Properties	
• Polymer Processing	
• Biopolymers	
• Plastics	
• Crosslinking	
• Polymer Technology	
• Natural Fibers	
• Gel Permeation Chromatography (GPC)	
• Carbohydrate Polymers	
• Grafting	
• Bioplastics	
• Gelation	
• Optimization in Formulation Development	
Advincula, Rigoberto C.	6
• Biopolymers	
• Polymeric Biomaterials	
• Analytical Chemistry	
• Biomaterials	
• Conducting Polymers	
• Polymer Engineering	
• Material Characterization	
• Nanoscience	
• Polymer Chemistry	
• Organic Chemistry	

CONTENTS

EXPERTS AND SCIENTISTS	PAGE
<ul style="list-style-type: none">• Nanoparticle Synthesis• Polymer Rheology• Biodegradable Polymers• Elastomers• Polymer Science• Polymer Characterization	
Aguda, Baltazar D.	25
<ul style="list-style-type: none">• Systems Biology (Biomedical System Modeling)	
Aguilar, Glenn D.	27
<ul style="list-style-type: none">• University Administration and Management• Naval Architecture• Computer Graphics	
Aldemita, Rhodora Romero	34
<ul style="list-style-type: none">• Polymerase Chain Reaction• Plant Biotechnology• Plant Biology• Genetic Engineering• Plant Genetics• Plant Breeding• Plant Molecular Biology• Plant Tissue Culture• Plants• Transgenics• Agricultural Biotechnology• Plant Genomics• Plant DNA Extraction• Micropropagation• Agrobacterium Mediated Plant Transformation• Transgenic Technology• Transgenic Plants• Somatic Embryogenesis• Organogenesis• Callus Induction• Agrobacterium	

CONTENTS

EXPERTS AND SCIENTISTS	PAGE
Atabay, Edwin C.	38
• Veterinary Medicine	
• Animal Reproductive Biotechnology	
Ella, Evangeline Salcedo	41
• Chromatography	
• Botany	
• Antioxidant Activity	
• Plant Tissue Culture	
• Biochemistry	
• Chemical Kinetics	
• Phytochemistry	
• Oxidative Stress	
Opeña, Jhoana	44
• Agronomy	
• Sustainable Agriculture	
• Plant Physiology	
• Plant Biotechnology	
• Plant Biology	
• Crop Production	
• Plant Nutrition	
• Fertilizers	
• Crop Management	
• Integrated Pest Management	
• Crop Science	
• Crop Protection	
• Agroecology	
• Conservation Agriculture	
• Crop Physiology	
• Field Experimentation	
• Seedling	
• Seeds	
• Weed Management	
• Rice	
• Crop Modeling	
• Fertigation	
• Crop Growth Modelling	
• Herbicides	
• Agricultural Plant Science	
• Weed Science	
• Farming Systems	
• Weed Ecology	

CONTENTS

EXPERTS AND SCIENTISTS	PAGE
<ul style="list-style-type: none">• Herbicide Resistance• Weed Control• Weed Biology• Weed Ecophysiology• Herbology	
Ramos, Joie M.	47
<ul style="list-style-type: none">• Molecular Biology• Genetics	
Relleve, Lorna S.	49
<ul style="list-style-type: none">• Antioxidant Activity• Polymer Chemistry• Bioactivity• Ionizing Radiation• Hydrogel• Gamma Irradiation• Radiation Chemistry• Radiation Processing• Polysaccharide Degradation• Biochemistry• Phytochemistry	
San Jose-Maldia, Lerma	52
<ul style="list-style-type: none">• Evolutionary Biology• Forest Ecology• Molecular Genetics• Bioinformatics• Molecular Ecology• Genetics• Phylogeography• Microsatellite Genotyping	
Simbahan, Jessica F.	55
<ul style="list-style-type: none">• Microbiology• Cell Biology• Molecular Biology• Polymerase Chain Reaction (PCR)• Biochemistry• Molecular Cloning• Genomics• Environmental Microbiology• Microbial Ecology	

CONTENTS

EXPERTS AND SCIENTISTS	PAGE
<ul style="list-style-type: none">• Microbial Biotechnology• Bacteria• DNA Sequence Analysis• Gel Electrophoresis	
Sumalapao, Derick Erl Perida	58
<ul style="list-style-type: none">• Applied Mathematics• Statistics• Operation Research• Mathematical Modelling• Clinical Medicine• Systems Biology• Randomized Clinical Trials	
Tranquilan-Aranilla, Charito	61
<ul style="list-style-type: none">• Material Characterization• Nanomaterials• Biomaterials• Radiation Chemistry• Polymer Chemistry• Hydrogel• Irradiation• Gelation• Degradation• Agar• Radiation processing of polymers• Bioburden or Sterility of Hydrogels	
Vergara, Georgina V.	64
<ul style="list-style-type: none">• Genetics• Physiology• Genotyping• Genetic Diversity• Molecular Plant Breeding• Rice• Starch• Hydroponics• Crop and Soil Science• Plant Breeding	

CONTENTS

EXPERTS AND SCIENTISTS	PAGE
Villarante, Nelson R.	66
• Organic Chemistry Synthesis	
• Environmental Chemistry	
• Synthetic Organic Chemistry	
• Physical Chemistry	
• Catalysis	
• Pharmaceutical Organic Synthesis	
• Photochemistry	

Name Lucille V. Abad

Gender Female

Organizational Affiliations

Supervising Science Research Specialist, DOST - Philippine Nuclear Research Institute, Diliman, Quezon City

Education

Master of Science in Chemistry, University of Santo Tomas, Manila 1993

Fields of Specialization

Nuclear Chemistry

Material Characterization

Polymer Chemistry

Nanomaterials

Mechanical Properties

Thin Films and Nanotechnology

Advanced Materials

Biomaterials

Polymeric Materials

Polymerization

Thermal Analysis

Polymer Synthesis

Differential Scanning Calorimetry (DSC)

Thermogravimetry (TGA)

Polymeric Biomaterials

Biodegradable Polymers

Thermal Properties

Polymer Processing

Biopolymers

Plastics

Crosslinking

Polymer Technology

Natural Fibers

Gel Permeation Chromatography (GPC)

Carbohydrate Polymers

Grafting
Bioplastics
Gelation
Optimization in Formulation Development

Honors / Awards

Dangal ng Bayan, Honor Awards Program, Civil Service Commission 2011
First Prize, for the Radiation dose indicator, Likha Awards (Creative Research - Government in the Health, Education and Environment Category) 2002

Papers Presented

- 2011 April 13-15 Abad, L.V., Relleve, L.S., Aranilla, C.T., Arcadio, C.T., & Dela Rosa, A.M. (2011 April 13-15). Characterization of Radiation Modified K-Carageenan Oligomers for Bio-based Materials Development, 26th Philippine Chemistry Congress, Waterfront Hotel, Lahug, Cebu City, Philippines.
- 1998 February 19-21 Dela Rosa, A.M., Abad, L.V., Relleve, L.S., Charito, A.T., & Pascual, C.L. (1998 February 19-21). Radiation-modified natural polymers for biomedical applications, DOST-JSPS workshop on materials and polymer chemistry; Subic Bay - Olongapo, Zambales, Philippines.

Publications

- 2017 Barba, B.J.D., Aranilla, C.T., Relleve, L.S., Cruz, V.R.C., Vista, J.R., & Abad, L.V., Hemostatic granules and dressing prepared from formulations of carboxymethyl cellulose, kappa-carrageenan and polyethylene oxide crosslinked by gamma radiation. *Radiation Physics and Chemistry*, 2017:doi: 10.1016/j.radphyschem.2017.08.009.
Abad, L.V., Dean, G.F.O., Magsino, G.L., Dela Cruz, R.M.M., Tecson, M.G., Abella, M.E.S., & Hizon, M.G.S., Semi-commercial Scale Production of Carrageenan Plant Growth Promoter by E-beam Technology. *Radiation Physics and Chemistry*, 2017:doi: 10.1016/j.radphyschem.2017.07.009.
- 2016 Sen, M., Quoc Hien, N., Van Phu, D., Quang Luan, L., Zaman, K., Abad, L.V., Relleve, L.S., Aranilla, C.T., Racadio, C.D.T., Dela Rosa, A.M., Tahtat, D., Mahlous, M., Benamer, S., & Nacer Khodja, A., Antimicrobial and antioxidant properties of oligosaccharides. In: Chapter 9, *The Radiation Chemistry of Polysaccharides*. International Atomic Energy Agency, 2016, 48(8):257-282.
Abad, L.V., Aurigue, F.B., Relleve, L.S., Montefalcon, D.R.V., & Lopez, G.E.P., Characterization of low molecular weight fragments from gamma irradiated κ -carrageenan used as plant growth promoter. *Radiation Physics and Chemistry*, 2016, 118:75-80.
Madrid, J.F., Barsbay, M., Abad, L.V., & Güven, O., Grafting of N,N-dimethylaminoethyl methacrylate from PE/PP nonwoven fabric via radiation-induced RAFT polymerization and quaternization of the grafts. *Radiation Physics and Chemistry*, 2016:doi: 10.1016/j.radphyschem.2016.01.004.

- Tranquilan-Aranilla, C., Barba, B.J.D., Vista, J.R.M., & Abad, L.V., Hemostatic efficacy evaluation of radiation crosslinked carboxymethyl kappa-carrageenan and chitosan with varying degrees of substitution. *Radiation Physics and Chemistry*, 2016, 124:124-129.
- Abad, L.V., Al-Assaf, S., Coqueret, X., Duarte, C., Kume, T., Lacroix, M., Zaman, K., Sáfrány, A., Sen, M., Tahtat, D., & Ulanski, P., *The Radiation Chemistry of Polysaccharides*. International Atomic Energy Agency, Vienna, 2016.
- 2015
- Relleve, L., & Abad, L., Characterization and antioxidant properties of alcoholic extracts from gamma irradiated κ -carrageenan. *Radiation Physics and Chemistry*, 2015, 112:40-48.
- Barba, B.J.D., Tranquilan-Aranilla, C., & Abad, L.V., Hemostatic potential of natural/synthetic polymer based hydrogels crosslinked by gamma radiation. *Radiation Physics and Chemistry*, 2015, 118:111-113.
- Dupio, M.G.B., Nunez, G.M., Abad, L.V., Aranilla, C.T., & Magdaluyo, E.R., Synthesis and Characterization of Poly(Glycerol Sebacate)-co-Lactic Acid via Gamma Irradiation. *Advanced Materials Research*, 2015, 1098:75-79.
- Madrid, J.F., & Abad, L.V., Modification of Microcrystalline Cellulose by Gamma Radiation-Induced Grafting. *Radiation Physics and Chemistry*, 2015.
- 2014
- Abad, L.V., Aranilla, C.T., Relleve, L.S., & Dela Rosa, A.M., Emerging applications of radiation-modified carrageenans. *Nuclear Instruments and Methods in Physics Research Section B*, 2014, 336:167-172.
- Rañada, M.L., Akbulut, M., Abad, L.V., & Güven, O., Molecularly imprinted poly(N-vinyl imidazole) based polymers grafted onto nonwoven fabrics for recognition/removal of phloretic acid. *Radiation Physics and Chemistry*, 2014, 94:93-97.
- Madrid, J.F., Nuesca, G., & Abad, L.V., Amine functionalized radiation-induced grafted water hyacinth fibers for Pb^{2+} , Cu^{2+} and Cr^{3+} uptake. *Radiation Physics and Chemistry*, 2014, 97:246-252.
- Abad, L.V., Aranilla, C.T., Magsino, G.L., & Asis, C.A., Roadmap towards registration and technology transfer of radiation processed plant growth promoters/elicitors: The Philippine experience. *Roadmap Towards Registration and Technology Transfer of Radiation Processed Plant Growth Promoters/Elicitors: The Philippine Experience*. Chapter 15 (IAEA-TECDOC--1745). International Atomic Energy Agency (IAEA), 2014:136-144.
- 2013
- Abad, L.V., Relleve, L.S., Racadio, C.D., Aranilla, C.T., & Dela Rosa, A.M., Antioxidant activity potential of gamma irradiated carrageenan. *Applied radiation and isotopes*, 2013, 79C:73-79.
- Madrid, J.F., Nuesca, G., & Abad, L.V., Gamma radiation-induced grafting of glycidyl methacrylate (GMA) onto water hyacinth fibers. *Radiation Physics and Chemistry*, 2013, 85:182-188.
- Aranilla, C.T., Castanos, I.D.V., Quirit, L.L., Relleve, L.S., & Abad, L.V., Synthesis of Kappa-carrageenan oligomers via synergistic action of gamma radiation and hydrogen peroxide. *Philippines Nuclear Journal*, 2013:16-24.

- 2011 Racadio, C.D.T., Aranilla, C.T., Feliciano, C.P., Lim, W.G., Relleve, L.S., Cruz, V.R.C., & Abad, L.V., Factors affecting the bioburden level of PVP-Carrageenan hydrogels. *Philippine Nuclear Journal*, 2011, 16:41-50.
Abad, L.V., Saiki, S., Nagasawa, N., Kudo, H., Katsumura, Y., & Dela Rosa, A.M., NMR analysis of fractionated irradiated κ -carrageenan oligomers as plant growth promoter. *Radiation Physics and Chemistry*, 2011, 80(9):977-982.
- 2010 Abad, L.V., Kudo, H., Saiki, S., Nagasawa, N., Tamada, M., Fu, H., Muroya, Y., Lin, M., Katsumura, Y., Relleve, L.S., Aranilla, C.T., & Dela Rosa, A.M., Radiolysis studies of aqueous κ -carrageenan. *Nuclear Instruments and Methods in Physics Research Section B*, 2010, 268(10):1607-1612.
- 2009 Abad, L.V., Kudo, H., Saiki, S., Nagasawa, N., Tamada, M., Katsumura, Y., Aranilla, C.T., Relleve, L.S., & Dela Rosa, A.M., Radiation degradation studies of carrageenans. *Carbohydrate Polymers*, 2009, 78(1):100-106.
- 2008 Abad, L., Okabe, S., Shibayama, M., Kudo, H., Saiki, S., Aranilla, C., Relleve, L., & Dela Rosa, A., Comparative studies on the conformational change and aggregation behavior of irradiated carrageenans and agar by dynamic light scattering. *International Journal of Biological Macromolecules*, 2008, 42(1):55-61.
- 2007 Abad, L.V., Saiki, S., Kudo, H., Muroya, Y., Katsumura, Y., & Dela Rosa, A.M., Rate constants of reactions of κ -carrageenan with hydrated electron and hydroxyl radical. *Nuclear Instruments and Methods in Physics Research Section B*, 2007, 265(1):410-413.
- 2006 Abad, L., Okabe, S., Koizumi, S., & Shibayama, M., Small-angle neutron scattering study on irradiated kappa carrageenan. *Physica B Physics of Condensed Matter*, 2006, 381(1-2):103-108.
- 2005 Deocarís, C.C., Abad, L.V., Enriquez, E.P., De Guzman, Z.M., Aliganga, A.A., Tangonan, M.B., Tolentino, M.M., Ignacio, L.V., & Deocarís, C.C., Radiolytic damage to freeze-dried human amniotic membrane. *Philippine Journal of Science*, 2005, 134(1):45-50.
Relleve, L., Nagasawa, N., Quang, L.L., Yagi, T., Aranilla, C.T., Abad, L.V., Kume, T., Yoshii, F., & Dela Rosa, A.M., Degradation of carrageenan by radiation. *Polymer Degradation and Stability*, 2005, 87(3):403-410.
Abad, L.V., Nasimova, I.R., Aranilla, C.T., & Shibayama, M., Light scattering studies of irradiated κ - And ι -carrageenan. *Radiation Physics and Chemistry*, 2005, 73(1):29-37.
- 2004 Abad, L.V., Nasimova, I.R., Relleve, L.S., Aranilla, C.T., Dela Rosa, A.M., & Shibayama, M., Dynamic light scattering studies of irradiated kappa carrageenan. *International Journal of Biological Macromolecules*, 2004, 34(1-2):81-88.
- 2003 Abad, L.V., Relleve, L.S., Aranilla, C.T., & Dela Rosa, A.M., Properties of radiation synthesized PVP-kappa carrageenan hydrogel blends. *Radiation Physics and Chemistry*, 2003, 68(5):901-908.
- 2002 Abad, L.V., Relleve, L.S., Aranilla, C.T., Aliganga, A.K., San Diego, C.M., & Dela Rosa, A.M., Natural antioxidants for radiation vulcanization of natural rubber latex. *Polymer Degradation and Stability*, 2002, 76(2):275-279.

- 2001 Relleve, L., Dela Rosa, A., Abad, L., Aranilla, C., & Aliganga, A.K.,
Biological activities of radiation degraded carrageenan. Proceedings of the
Takasaki Symposium on Radiation Processing of Natural Polymers,
Takasaki, Japan, 2001.
- 1998 Dela Rosa, A.M., Abad, L.V., Relleve, L.S., Charito, A.T., & Pascual, C.L.,
Radiation-modified natural polymers for biomedical applications.
Advanced polymers for the 21st century, 1998, 30(21):41-52.

Name Rigoberto C. Advincula

Gender Male

Organizational Affiliations

Professor, Department of Macromolecular Science and Engineering and Department of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio 44106

Education

Doctor of Philosophy in Chemistry, Department of Chemistry, University of Florida, Gainesville, FL 1994

Bachelor of Science in Chemistry, Institute of Chemistry, University of the Philippines, Diliman, Quezon City 1987

Fields of Specialization

Biopolymers
Polymeric Biomaterials
Analytical Chemistry
Biomaterials
Conducting Polymers
Polymer Engineering
Material Characterization
Nanoscience
Polymer Chemistry
Organic Chemistry
Nanoparticle Synthesis
Polymer Rheology
Biodegradable Polymers
Elastomers
Polymer Science
Polymer Characterization

Employment

Professor, Department of Macromolecular Science and Engineering and Department of Biomedical Engineering, Case Western Reserve University, Cleveland, Ohio, 2012-Present

Professor,
Department of Chemistry and Department of Chemical Engineering,
University of Houston, 2007-2011

Associate Professor, Department of Chemical Engineering, University of Houston, 2005-2007

Assistant Professor, Dept. of Chemistry, University of Alabama at Birmingham, Birmingham, AL, 1997-2002

Tri-Campus Materials Program Faculty and Adjunct Professor, Dept. of Materials Eng. and Dept. of Biomedical Engineering, University of Alabama at Birmingham, Bi, 1997-2002

Post-Doctoral Research Fellow (Advisors: Curt Frank and Wolfgang Knoll), Department of Chemical Engineering, Stanford University, Standford, CA, 1996-1997

Alexander Von Humboldt Research Fellow (Advisor: Wolfgang Knoll), Max Planck Institute for Polymer Research, Mainz, Germany, 1995-1996

Visiting Scientist, Institut Charles Sadron and IPCMS- Group Materiaux Organique, CNRS, Strasbourg, France, 1993-

Visiting Scientist, Institut Charles Sadron and IPCMS- Group Materiaux Organique, CNRS, Strasbourg, France, 1991-

Teaching Assistant, Department of Chemistry, University of Florida, 1989-1993

Association Membership

Chair, University of Houston Research Council

Chair, Polymer Chemistry Division, American Chemical Society (ACS)

Council Member, Global Future Council, World Economic Forum

Chair, Nanotechnology and Corrosion TEG 474X Technical Committee of NACE

Member, NAKFI Imaging Science Report Review Committee, Keck Foundation and National Academies (NAS, NAE, IM)

Member (elected), IUPAC Division 4 (Polymer) Council

Reviewer (elected), National Institute of Health (NIH) College of CSR Reviewers

Editor, Reactive and Functional Polymers, Elsevier

Editor, Macromolecular Research, Springer

Associate Editor, Polymer Reviews, Taylor & Francis

Regional Editor, Journal of Bioactive and Compatible Polymers, Sage

Editorial Advisory Board, Macromolecules

Editorial Advisory Board, Chemistry of Materials

Editorial Advisory Board, ACS Applied Materials and Interfaces

Editorial Advisory Board, Polymers for Advanced Technologies (PAT)

Editorial Board, Journal of Applied Polymer Science

Editorial Board, Macromolecular Rapid Communications

Editorial Board, Macromolecular Physics and Chemistry

President, Philippine American Academy of Scientist and Engineers (PAASE)

Board of Directors, Philippine American Academy of Scientist and Engineers (PAASE)

Board of Trustee, Philippine Development Foundation (PhilDev)

Chair, Case School of Engineering Executive Council, Case Western Reserve University

Associate Chair and Graduate Chair, Department of Macromolecule Science and Engineering

Special Adviser, Engineers Without Borders (EWB), Case Western Reserve University Chapter

Special Adviser, Engineers Without Borders (EWB), Case Western Reserve University Chapter

CLiPS Platform V Leader, National Science Foundation (NSF) Science and Technology Center (STC)

Chair, Alabama Local Section, American Chemical Society (ACS)

Member, American Chemical Society (ACS)

Member, Materials Research Society (MRS)

Member, American Association for the Advancement of Science (AAAS)

Member, National Association of Corrosion Engineers (NACE)

Member, Philippine American Association of Scientists and Engineers (PAASE)

Member, Society of Plastic Engineers (SPE)

Member, Society of Petroleum Engineers

Member, Society of Protective Coatings (SSPC)

Grant Peer-Reviewer and Panelist, National Science Foundation (NSF) - Materials, Chemistry, Engineering, EPM, BIOMAT, CEMRI, MRSEC, STC, MRI, MWN, IGERT, CAREER, SBIR, STTR

Grant Peer-Reviewer and Panelist, National Academy of Sciences (NAKFI)

Grant Peer-Reviewer and Panelist, National Institute of Health (NIH) - Nano Panel, SBIR Panel

Grant Peer-Reviewer and Panelist, Department of Energy (DOE)

Grant Peer-Reviewer and Panelist, Department of Defense (DOD)

Grant Peer-Reviewer and Panelist, American Chemical Society - Petroleum Research Fund (ACS-PRF)

Grant Peer-Reviewer and Panelist, Department of State, King Abdulla University of Science & Technology (KAUST)

Journal Peer Reviewer, Nature

Journal Peer Reviewer, Nature Materials

Journal Peer Reviewer, Journal of American Chemical Society (JACS)

Journal Peer Reviewer, Advanced Materials

Journal Peer Reviewer, Macromolecules

Journal Peer Reviewer, Chemistry of Materials

Journal Peer Reviewer, Langmuir

Journal Peer Reviewer, Journal of Physical Chemistry

Journal Peer Reviewer, Nano Letters

Journal Peer Reviewer, Macromolecular Rapid Communications

Journal Peer Reviewer, ACS Nano - American Chemical Society

Honors / Awards

Visiting Professor, Chulalongkorn University, Thailand 2016

Development Award, Case School of Engineering 2014

UPAA Outstanding Alumni Award, University of the Philippines Alumni Association 2013

Herman Mark Scholar Award, Polymer Chemistry Division, American Chemical Society 2013

Invited Colloquium Paper, European Physical Journal 2011

Fellow, Polymer Materials Science and Engineering (PMSE) Division, American Chemical Society (ACS) 2011

Fellow, Polymer Chemistry Division, American Chemical Society (ACS) 2011

NSF Hybrid Flexible Electronics and Photonics Workshop (Invited), National Science Foundation 2010

Excellence in Science and Technology Award, Philippine Dev-USA Foundation 2010

Visiting Professor, Austrian Institute of Technology (AIT), Austria 2010

Visiting Professor, National Taiwan University, National Chung Hsing University, Taiwan 2010

Fellow, American Chemical Society (ACS) 2010

Keck Futures Initiative in Imaging Science (Invited Participant), National Academy of Science, National Academy of Engineering, and Institute of Medicine 2010

Koh Science Award, Philippine-American Academy of Scientists and Engineers 2010

Best Poster Award (co-author), ACS Colloids Division 2010

Researcher of the Year 2009 Honorable Mention, Bioscience Technology Magazine 2009

Balik Scientist Awardee, Department of Science and Technology 2009

Excellence in Undergraduate Research Mentoring Award, University of Houston 2009

Visiting Professor, Adjunct Professor, Department of Chemistry, University of Santo Thomas 2009

Visiting Professor, University of Paris, East Paris Institute of Chemistry and Materials Science - Institut de Chimie et des Matériaux Paris-Est, France 2009

Visiting Professor, Adjunct Professor, University of the Philippines, Institute of Chemistry and Department of Chemical Engineering 2009

Visiting Professor, Austrian Institute of Technology (AIT), Austria 2009

Best Poster Award (co-author), SPE, Polyolefins Conference, Houston 2009

Visiting Professor, Adjunct Professor, University of the Philippines, Institute of Chemistry and Department of Chemical Engineering 2008

Engineering Research and Development Technology (ERDT) Fellow, Philippines 2008

NSF Molecular Electronics Workshop (Invited), National Science Foundation 2007

Technical Focus Lecturer Award, American Coatings Association (FSCT), ICE 2007

Research Excellence and Scholarship Award, University of Houston 2007

Advincula Asteroid 23017 named by the Massachusetts Institute of Technology, Lincoln Laboratory Near-Earth Asteroid Program for Intel Finalist Mentorship, Intel Science Award Finalist Mentor, Intel 2007

Technical Focus Lecturer Award, American Coatings Association (FSCT), ICE 2007

Visiting Professor, Center of Excellence (COE) Program, Waseda University 2007 December

Visiting Professor, Department of Chemistry, National University of Singapore 2006

Visiting Professor, Max Planck Institute for Polymer Research, Germany
2006

Visiting Professor, University of Montreal, CSACS, Canada 2006 August

Visiting Professor, McGill University, CSACS, Canada 2006 July

Best Poster Award (co-author), ACS Colloids Division 2005

Visiting Professor, Department of Chemistry, National University of
Singapore 2004

Keck Futures Nanoscience Initiative (Invited), National Academy of
Science, National Academy of Engineering, and Institute of Medicine 2004

Visiting Professor of Nanotechnology, Department of Organic and Polymer
Materials, Tokyo University of Agriculture and Technology (TUAT), Japan
2003

Arthur Doolittle Award, American Chemical Society, PMSE Division 2003

NSF Materials Chemistry Workshop (Invited), National Science
Foundation 2002

NSF-CAREER Award, National Science Foundation 1999

Visiting Professor, Max Planck Institute for Polymer Research, Germany
1999

Visiting Professor, Venture Business Laboratory TUAT, VBL Program,
Japan 1997

Alexander Von Humboldt Research Fellow, Germany 1995

Elected, Phi Beta Kappa Honor Society 1995 April

University National Scholarship, B.S. in Chemistry, National Science and
Technology Authority (NSTA), Philippines 1983

Nominated to the Carl Marvel Creativity Award, American Chemical
Society

Nominated to the Stanley Israel Award, American Chemical Society

Nominated to the Norman Hackerman Award, Welch Foundation

Trainings

Technopreneurship and Innovation, Ateneo de Davao University, Davao
City 2016 April 18

Researches

Ongoing

Topologically interesting polymers: design, synthesis and property study

OLED preparation and Surface Initiated Polymerization

Electropolymerized, Molecularly-Imprinted Polymer Sensors

Virus Nanoparticle Assemblies

Corrosion-resistant Coatings

Thiophene Dendrons and Dendrimers

Publications

2011

Roderick Pernites, Ramakrishna Ponnampati, Mary Jane Felipe, Rigoberto Advincula, Electropolymerization molecularly imprinted polymer (E-MIP) SPR sensing of drug molecules: Prepolymerization complexed terthiophene and carbazole electroactive monomers Roderick Pernites, Ramakrishna Ponnampati, Mary Jane Felipe, Rigoberto Advincula. *Biosensors & Bioelectronics*, 2011, 26(5):2766-2771.

Charlisa R. Daniels, Carmen Reznik, Rachel Kilmer, Mary Jane Felipe, Maria Celeste R. Tria, Katerina Kourentzi, Wen-Hsiang Chen, Rigoberto C. Advincula, Richard C. Willson, Christy F. Landes, Permeability of anti-fouling PEGylated surfaces probed by fluorescence correlation spectroscopy. *Materials Letters*, 2011, 88(1):938-942.

Carlos D. Grande, Maria Celeste Tria, Guoqian Jiang, Ramakrishna Ponnampati, Fabio Zuluaga, Rigoberto Advincula, Grafting of polymers from electrodeposited macro-RAFT initiators on conducting surfaces. *Composites Science and Technology*, 2011, 71(9):938-942.

Rigoberto C. Advincula, Engineering molecularly imprinted polymer (MIP) materials: Developments and challenges for sensing and separation technologies. , 2011.

2010

Akira Baba, Prasad Taranekar, Ramakrishna R. Ponnampati, Wolfgang Knoll, Rigoberto C. Advincula, Electrochemical Surface Plasmon Resonance and Waveguide-Enhanced Glucose Biosensing with N-Alkylaminated Polypyrrole/Glucose Oxidase Multilayers. *Acs Applied Materials & Interfaces*, 2010, 2(8):2347-2354.

Piched Auragudom, Andrew A. Tangonan, Manoj A. G. Namboothiry, David L. Carroll, Rigoberto C. Advincula, Sukon Phanichphant, T. Randall Lee, Defect-free Poly(9,9-bis(2-ethylhexyl)fluorene-2,7-vinylene) for Polymer Light-Emitting Diode (PLED) Devices. *Journal of Polymer Research*, 2010, 17(3):347-353.

Yuya Umemoto, Seong-Ho Kim, Rigoberto C. Advincula, Kuniaki Tanaka, Hiroaki Usui, Effect of Self-Assembled Monolayer Modification on Indium-Tin Oxide Surface for Surface-Initiated Vapor Deposition Polymerization of Carbazole Thin Films. *Japanese Journal of Applied Physics*, 2010, 49(4).

Paralee Waenkaew, S. Phanichphant, R. C. Advincula, Layer-by-layer deposition of polyelectrolyte ultrathin films. *Nano/Micro Engineered and Molecular Systems*, 2010.

Jin Young Park, Ramakrishna Ponnampati, Prasad Taranekar, Rigoberto C. Advincula, Carbazole Peripheral Poly(benzyl ether) Dendrimers at the Air-Water Interface: Electrochemical Cross-Linking and Electronanopatterning. *Langmuir*, 2010, 26(9):6167-6176.

Chuanjun Xia, Xiaowu Fan, Jason Locklin, Rigoberto C. Advincula, ChemInform Abstract: A First Synthesis of Thiophene Dendrimers. *Cheminform*, 2010, 33(41).

Nicel C. Estillore, Jin Young Park, Rigoberto C. Advincula, Langmuir-Schaefer (LS) Macroinitiator Film Control on the Grafting of a

- Thermosensitive Polymer Brush via Surface Initiated-ATRP. *Macromolecules*, 2010, 43(16):6588-6598.
- 2009 Toshinori Fujie, Jin Young Park, Atsushi Murata, Nicel C. Estillo, Maria Celeste R. Tria, Shinji Takeoka, Rigoberto C. Advincula, Hydrodynamic Transformation of a Freestanding Polymer Nanosheet Induced by a Thermoresponsive Surface. *Acs Applied Materials & Interfaces*, 2009, 1(7):1404-1413.
- Carmen Reznik, Nicel Estillo, Rigoberto C. Advincula, Christy F. Landes, Single Molecule Spectroscopy Reveals Heterogeneous Transport Mechanisms for Molecular Ions in a Polyelectrolyte Polymer Brush. *Journal of Physical Chemistry B*, 2009, 113(44):14611-14618.
- Jin Young Park, Ming Liu, Jimmy Mays, Mark Dadmun, Rigoberto Advincula, Nano-donuts from pH-dependent block restructuring in amphiphilic ABA triblock copolymer vesicles at the air-water interface. *Soft Matter*, 2009, 5(4).
- Wei Wang, Shishan Zhang, Rigoberto C. Advincula, T. Randall Lee, Electric Potential Stability and Ionic Permeability of SAMs on Gold Derived from Bidentate and Tridentate Chelating Alkanethiols. *Journal of Physical Chemistry C*, 2009, 113(9):3717-3725.
- Hatice Duran, Kenta Ogura, Kenji Nakao, Sullivan D. B. Vianna, Hiroaki Usui, Rigoberto C. Advincula, Wolfgang Knoll, High-Vacuum Vapor Deposition and in Situ Monitoring of N Carboxy Anhydride Benzyl Glutamate Polymerization. *Langmuir*, 2009, 25(18):10711-10718.
- Rodolphe Obeid, Jin-Young Park, Rigoberto C. Advincula, Françoise M. Winnik, Temperature-dependent interfacial properties of hydrophobically end-modified poly(2-isopropyl-2-oxazoline)s assemblies at the air/water interface and on solid substrates. *Journal of Colloid and Interface Science*, 2009, 340(2):142-152.
- 2008 Jin Young Park, Nils Koenen, Michael Forster, Ramakrishna Ponnampati, Ullrich Scherf, Rigoberto Advincula, Interplay of Vesicle and Lamellae Formation in an Amphiphilic Polyfluorene-*b*-polythiophene All-Conjugated Diblock Copolymer at the Air/Water Interface. *Macromolecules*, 2008, 41(16):6169-6175.
- Timothy M. Fulghum, Nicel C. Estillo, Cong-Duan Vo, Steven P. Armes, Rigoberto C. Advincula, Stimuli-Responsive Polymer Ultrathin Films with a Binary Architecture: Combined Layer-by-Layer Polyelectrolyte and Surface-Initiated Polymerization Approach. *Macromolecules*, 2008, 41(2):429-435.
- Chengyu Huang, Guoqian Jiang, Rigoberto Advincula, Electrochemical Cross-Linking and Patterning of Nanostructured Polyelectrolyte/Carbazole Precursor Ultrathin Films. *Macromolecules*, 2008, 41(13):4661-4670.
- Carmen Reznik, Qusai Darugar, Andrea Wheat, Tim Fulghum, Rigoberto C. Advincula, Christy F. Landes, Single Ion Diffusive Transport within a Poly(styrene sulfonate) Polymer Brush Matrix Probed by Fluorescence Correlation Spectroscopy. *Journal of Physical Chemistry B*, 2008, 112(35):10890-10897.
- Gyeong Sook Bang, Hojong Chang, Ja-Ryong Koo, Takhee Lee, Rigoberto C. Advincula, Hyoyoung Lee, High-Fidelity Formation of a Molecular-

Junction Device Using a Thickness-Controlled Bilayer Architecture. *Small*, 2008, 4(9):1399-1405.

Akira Kawakami, Kiyoi Katsuki, Rigoberto C. Advincula, Kuniaki Tanaka, Kenji Ogino, Hiroaki Usui, Interface Control by Surface-Initiated Deposition Polymerization and Its Application to Organic Light-Emitting Devices. *Japanese Journal of Applied Physics*, 2008, 47(4):3156-3161.

Chatthai Kaewtong, Guoqian Jiang, Tim Fulghum, Akira Baba, Buncha Pulpoka, Rigoberto Advincula, Azacalix[3]arene- π -Carbazole Conjugated Polymer Network Ultrathin Films for Specific Cation Sensing. *Chemistry of Materials*, 2008, 20(15):4915-4924.

Timothy M. Fulghum, Prasad Taranekar, Rigoberto C. Advincula, Grafting Hole-Transport Precursor Polymer Brushes on ITO Electrodes: Surface-Initiated Polymerization and Conjugated Polymer Network Formation of PVK. *Macromolecules*, 2008, 41(15):5681-5687.

Derek L. Patton, Prasad Taranekar, Timothy Fulghum, Rigoberto Advincula, Electrochemically Active Dendritic-Linear Block Copolymers via RAFT Polymerization: Synthesis, Characterization, and Electrodeposition Properties. *Macromolecules*, 2008, 41(18):6703-6713.

Saengrawee Sriwichai, Akira Baba, Suxiang Deng, Chengyu Huang, Sukon Phanichphant, Rigoberto C. Advincula, Nanostructured Ultrathin Films of Alternating Sexithiophenes and Electropolymerizable Polycarbazole Precursor Layers Investigated by Electrochemical Surface Plasmon Resonance (EC-SPR) Spectroscopy. *Langmuir*, 2008, 24(16):9017-9023.

Chatthai Kaewtong, Guoqian Jiang, Mary Jane Felipe, Buncha Pulpoka, Rigoberto Advincula, Self-Assembly and Electrochemical Oxidation of Polyamidoamine- π -Carbazole Dendron Surfmer Complexes: Nanoring Formation. *ACS Nano*, 2008, 2(8):1533-1542.

Prasad Taranekar, Jin Young Park, Akira Baba, Timothy Fulghum, Ramakrishna Ponnampati, Rigoberto C. Advincula, Hybrid CdSe Nanoparticle- π -Carbazole Dendron Boxes: Electropolymerization and Energy-Transfer Mechanism Shift. *Advanced Functional Materials*, 2008, 18(14):2071-2078.

Mi-Kyoung Park, Giorgos Sakellariou, Stergios Pispas, Nikos Hadjichristidis, Rigoberto Advincula, On the quantitative adsorption behavior of multi-zwitterionic end-functionalized polymers onto gold surfaces. *Colloids and Surfaces A-physicochemical and Engineering Aspects*, 2008, 326(3):115-121.

Prasad Taranekar, Chengyu Huang, Timothy M. Fulghum, Akira Baba, Guoqian Jiang, Jin-Young Park, Rigoberto C. Advincula, Nanocomposite Films of a Polyfluorene Copolymer and Carbazole- π -Thiol-Capped Gold Nanoparticles: Electrochemical Crosslinking and Energy-Transfer Properties. *Advanced Functional Materials*, 2008, 18(2):347-354.

2007

Guoqian Jiang, Akira Baba, Rigoberto Advincula, Nanopatterning and Fabrication of Memory Devices from Layer-by-Layer Poly(3,4-ethylenedioxythiophene)- π -Poly(styrene sulfonate) Ultrathin Films. *Langmuir*, 2007, 23(2):817-825.

Renu Ravindranath, Parayil Kumaran Ajikumar, Sheeja Bahulayan, Nurmawati Bte Muhammad Hanafiah, Akira Baba, Rigoberto C. Advincula, Wolfgang Knoll, Suresh Valiyaveetil, Ultrathin Conjugated

Polymer Network Films of Carbazole Functionalized Poly(p-Phenylenes) via Electropolymerization. *Journal of Physical Chemistry B*, 2007, 111(23):6336-6343.

G. Jiang, A. Baba, H. Ikarashi, R. Xu, J. Locklin, K. R. Kashif, K. Shinbo, K. Kato, F. Kaneko, R. Advincula, Signal Enhancement and Tuning of Surface Plasmon Resonance in Au Nanoparticle/Polyelectrolyte Ultrathin Films (Citations: 9). *Journal of Physical Chemistry C*, 2007, 111(50):18687-18694.

Prasad Taranekar, Timothy Fulghum, Derek Patton, Ramakrishna Ponnampati, Gabriel Clyde, Rigoberto Advincula, Investigating Carbazole Jacketed Precursor Dendrimers: Sonochemical Synthesis, Characterization, and Electrochemical Crosslinking Properties. *Journal of The American Chemical Society*, 2007, 129(41):12537-12548.

Maria C. Advincula, Don Petersen, Firoz Rahemtulla, Rigoberto Advincula, Jack E. Lemons, Surface analysis and biocorrosion properties of nanostructured surface sol-gel coatings on Ti6Al4V titanium alloy implants. *Journal of Biomedical Materials Research Part B-applied Biomaterials*, 2007, 80B(1):107-120.

F. T. Limpoco, Rigoberto C. Advincula, Scott S. Perry, Solvent Dependent Friction Force Response of Polystyrene Brushes Prepared by Surface Initiated Polymerization. *Langmuir*, 2007, 23(24):12196-12201.

Haining Ji, Brandon S. Farmer, William K. Nonidez, Rigoberto C. Advincula, Grant D. Smith, S. Michael Kilbey, Mark D. Dadmun, Jimmy W. Mays, Anionic Synthesis of Epoxy End-Capped Polymers. *Macromolecular Chemistry and Physics*, 2007, 208(8):807-814.

Prasad Taranekar, Timothy Fulghum, Akira Baba, Derek Patton, Rigoberto Advincula, Quantitative Electrochemical and Electrochromic Behavior of Terthiophene and Carbazole Containing Conjugated Polymer Network Film Precursors: EC-QCM and EC-SPR. *Langmuir*, 2007, 23(2):908-917.

Paralee Waenkaew, Prasad Taranekar, Sukon Phanichphant, Rigoberto C. Advincula, Electro-Copolymerization of Layer-by-Layer Deposited Polythiophene and Polycarbazole Precursor Ultrathin Films. *Psychology & Marketing*, 2007, 28(15):1522-1527.

Haining Ji, Georgios Sakellariou, Rigoberto C. Advincula, Grant D. Smith, S. Michael Kilbey, Mark D. Dadmun, Jimmy W. Mays, Synthesis and characterization of well-defined [polystyrene-b-poly(2-vinylpyridine)]_n star-block copolymers with poly(2-vinylpyridine) corona blocks. *Journal of Polymer Science Part A-polymer Chemistry*, 2007, 45(17):3949-3955.

Rigoberto C. Advincula, Supramolecular Polymers, Polymeric Betains, Oligomers. *Advances in Polymer Science*, 201 Springer: Berlin, Heidelberg, New York. 2006. x + 302 pp. \$259.00. ISBN 3-540-31923-9. *Journal of The American Chemical Society*, 2007, 129(4):1009-1010.

2006

Maria C. Advincula, Firoz G. Rahemtulla, Rigoberto C. Advincula, Earl T. Aday, Jack E. Lemons, Susan L. Bellis, Osteoblast adhesion and matrix mineralization on sol-gel-derived titanium oxide. *Dalton Transactions*, 2006, 27(10):2201-2212.

Rigoberto C. Advincula, Hybrid organic-inorganic nanomaterials based on polythiophene dendronized nanoparticles. *Dalton Transactions*, 2006.

P. Taranekar, J.-Y. Park, D. Patton, T. Fulghum, R. Advincula, Conjugated Polymer Nanoparticles via Intramolecular Crosslinking of Dendrimeric Precursors. *Advanced Materials*, 2006, 18(18).

Prasad Taranekar, Mansour Abdalbaki, Ramanan Krishnamoorti, Sukon Phanichphant, Paralee Waenkaew, Derek Patton, Timothy Fulghum, Rigoberto Advincula, Structure and BandGap Design of a New Series of Light-Emitting Poly(cyanofluorene-*alt*-*o*/*m*/*p*-phenylenevinylene)Based Copolymers for Light-Emitting Diodes. *Macromolecules*, 2006, 39(11):3848-3854.

Subbiah Jegadesan, Swaminathan Sindhu, Rigoberto C. Advincula, Suresh Valiyaveetil, Direct Electrochemical Nanopatterning of Polycarbazole Monomer and Precursor Polymer Films: Ambient Formation of Thermally Stable Conducting Nanopatterns. *Langmuir*, 2006, 22(2):780-786.

P. Taranekar, A. Baba, R. Advincula, Dendrimer Precursors for Nanomolar and Picomolar Real-Time Surface Plasmon Resonance/Potentiometric Chemical Nerve Agent Sensing Using Electrochemically Crosslinked Ultrathin Films. *Advanced Functional Materials*, 2006, 16(15):2000-2007.

Akira Baba, Jason Locklin, Risheng Xu, Rigoberto Advincula, Nanopatterning and Nanocharge Writing in Layer-by-Layer Quinque thiophene/Phthalocyanine Ultrathin Films. *Journal of Physical Chemistry B*, 2006, 110(1):42-45.

Derek L. Patton, Rigoberto C. Advincula, A Versatile Synthetic Route to Macromonomers via RAFT Polymerization. *Macromolecules*, 2006, 39(25):8674-8683.

Renu Ravindranath, Parayil Kumaran Ajikumar, Rigoberto C. Advincula, Wolfgang Knoll, Suresh Valiyaveetil, Fabrication and Characterization of Multilayer Films from Amphiphilic Poly(*p*-phenylene)s. *Langmuir*, 2006, 22(21):9002-9008.

Timothy M. Fulghum, Derek L. Patton, Rigoberto C. Advincula, Fuzzy Ternary Particle Systems by Surface-Initiated Atom Transfer Radical Polymerization from Layer-by-Layer Colloidal Core~Shell Macroinitiator Particles. *Langmuir*, 2006, 22(20):8397-8402.

Georgios Sakellariou, Rigoberto Advincula, Jimmy W. Mays, Nikos Hadjichristidis, Homopolymer and block copolymer brushes on gold by living anionic surface-initiated polymerization in a polar solvent. *Journal of Polymer Science Part A-polymer Chemistry*, 2006, 44(2):769-782.

Prasad Taranekar, Chengyu Huang, Rigoberto C. Advincula, Pinacolyl methyl phosphonate (PMP) detection by molecularly imprinted polymers (MIP): A labile covalent bonding approach. *Polymer*, 2006, 47(19):6485-6490.

Timothy Fulghum, S. M. Abdul Karim, Akira Baba, Prasad Taranekar, Takafumi Nakai, Toshio Masuda, Rigoberto C. Advincula, Conjugated Poly(phenylacetylene) Films Cross-Linked with Electropolymerized Polycarbazole Precursors. *Macromolecules*, 2006, 39(4):1467-1473.

Subbiah Jegadesan, Prasad Taranekar, Swaminathan Sindhu, Rigoberto C. Advincula, Suresh Valiyaveetil, Electrochemically Nanopatterned Conducting Coronas of a Conjugated Polymer Precursor: SPM Parameters and Polymer Composition. *Langmuir*, 2006, 22(8):3807-3811.

- Derek L. Patton, Matthew Mullings, Timothy Fulghum, Rigoberto C. Advincula, A Facile Synthesis Route to Thiol-Functionalized β -Telechelic Polymers via Reversible Addition Fragmentation Chain Transfer Polymerization. *Macromolecules*, 2005, 38(20):8597-8602.
- Xiaowu Fan, Chuanjun Xia, Rigoberto C. Advincula, On the Formation of Narrowly Polydispersed PMMA by Surface Initiated Polymerization (SIP) from AIBN-Coated/Intercalated Clay Nanoparticle Platelets. *Langmuir*, 2005, 21(6):2537-2544.
- Mitchel D. Millan, Jason Locklin, Timothy Fulghum, Akira Baba, Rigoberto C. Advincula, Polymer thin film photodegradation and photochemical crosslinking: FT-IR imaging, evanescent waveguide spectroscopy, and QCM investigations. *Polymer*, 2005, 46(15):5556-5568.
- Suxiang Deng, Jason Locklin, Derek Patton, Akira Baba, Rigoberto C. Advincula, Thiophene Dendron Jacketed Poly(amidoamine) Dendrimers: Nanoparticle Synthesis and Adsorption on Graphite (Citations: 11). *Journal of The American Chemical Society*, 2005, 127(6):1744-1751.
- Jason Locklin, Dawen Li, Stefan C. B. Mannsfeld, Evert-Jan Borkent, Hong Meng, Rigoberto Advincula, Zhenan Bao, Organic Thin Film Transistors Based on Cyclohexyl-Substituted Organic Semiconductors. *Chemistry of Materials*, 2005, 17(13):3366-3374.
- Mi-Kyoung Park, Suxiang Deng, Rigoberto C. Advincula, Sustained Release Control via Photo-Cross-Linking of Polyelectrolyte Layer-by-Layer Hollow Capsules. *Langmuir*, 2005, 21(12):5272-5277.
- Maria Advincula, Xiaowu Fan, Jack Lemons, Rigoberto Advincula, Surface modification of surface sol-gel derived titanium oxide films by self-assembled monolayers (SAMs) and non-specific protein adsorption studies. *Colloids and Surfaces B-biointerfaces*, 2005, 42(1):29-43.
- Prasad Taranekar, Akira Baba, Timothy M. Fulghum, Rigoberto Advincula, Conjugated Polymer Network Films from Precursor Polymers: Electrocopolymerization of a Binary Electroactive Monomer Composition. *Macromolecules*, 2005, 38(9):3679-3687.
- Seiji Inaoka, Daniel B. Roitman, Rigoberto C. Advincula, Cross-Linked Polyfluorene Polymer Precursors: Electrodeposition, PLED Device Characterization, and Two-Site Codeposition with Poly(vinylcarbazole). *Chemistry of Materials*, 2005, 17(26):6781-6789.
- S. Jegadesan, R. C. Advincula, S. Valiyaveetil, Nanolithographic Electropolymerization of a Precursor Polymer Film to Form Conducting Nanopatterns. *Advanced Materials*, 2005, 17(10):1282-1285.
- Kazunari Shinbo, Yoshifumi Ikeda, Chuanjun Xia, Keizo Kato, Futao Kaneko, Rigoberto C. Advincula, Luminescence and photoelectric properties of thiophene dendrimer spin-coated films. *Current Applied Physics*, 2005, 5(4):314-316.
- Kiyoi Katsuki, Hiroshi Bekku, Akira Kawakami, Jason Locklin, Derek Patton, Kuniaki Tanaka, Rigoberto Advincula, Hiroaki Usui, Preparation of Carbazole Polymer Thin Films Chemically Bound to Substrate Surface by Physical Vapor Deposition Combined with Self-Assembled Monolayer. *Japanese Journal of Applied Physics*, 2005, 44(1B):504-508.

2004

K. Shinbo, N. Watanabe, K. Kato I, F. Kaneko, R. C. Advincula, Preparation and NO₂ gas properties of layer-by-layer alternate films of copper phthalocyanine derivatives. *Filtration & Separation*, 2005.

Haining Ji, William K. Nonidez, Rigoberto C. Advincula, Grant D. Smith, S. Michael Kilbey, Mark D. Dadmun, Jimmy W. Mays, MALDI-TOF MS Characterization of Carboxyl-End-Capped Polystyrenes Synthesized Using Anionic Polymerization. *Macromolecules*, 2005, 35(24):9950-9956.

Sergey Vyazovkin, Ion Dranca, Xiaowu Fan, Rigoberto Advincula, Kinetics of the Thermal and Thermo-Oxidative Degradation of a Polystyrene-Clay Nanocomposite. *Psychology & Marketing*, 2004, 25(3):498-503.

Chuanjun Xia, Xiaowu Fan, Jason Locklin, Rigoberto C. Advincula, Anthony Gies, William Nonidez, Characterization, Supramolecular Assembly, and Nanostructures of Thiophene Dendrimers. *Journal of the American Chemical Society*, 2004, 126(28):8735-8743.

Mi-Kyoung Park, Suxiang Deng, Rigoberto C. Advincula, pH-Sensitive Bipolar Ion-Permeable Ultrathin Films. *Journal of The American Chemical Society*, 2004, 126(42):13723-13731.

Akira Baba, Shengjun Tian, Fernando Stefani, Chuanjun Xia, Zhehui Wang, Rigoberto C. Advincula, Diethelm Johannsmann, Wolfgang Knoll, Electropolymerization and doping/dedoping properties of polyaniline thin films as studied by electrochemical-surface plasmon spectroscopy and by the quartz crystal microbalance. *Journal of Electroanalytical Chemistry*, 2004, 562(1):95-103.

Shuangxi Wang, Ximeng Wang, Lijuan Li, Rigoberto C. Advincula, Design, Synthesis, and Photochemical Behavior of Poly(benzyl ester) Dendrimers with Azobenzene Groups throughout Their Architecture (Citations: 7). *Journal of Organic Chemistry*, 2004, 69(26):9073-9084.

Sergey Vyazovkin, Ion Dranca, Xiaowu Fan, Rigoberto Advincula, Degradation and Relaxation Kinetics of Polystyrene-Clay Nanocomposite Prepared by Surface Initiated Polymerization. *Journal of Physical Chemistry B*, 2004, 108(34):11672-11679.

Jason Locklin, Derek Patton, Suxiang Deng, Akira Baba, Mitchel Millan, Rigoberto C. Advincula, Conjugated Oligothiophene-Dendron-Capped CdSe Nanoparticles: Synthesis and Energy Transfer. *Chemistry of Materials*, 2004, 16(24):5187-5193.

Akira Baba, Ken Onishi, Wolfgang Knoll, Rigoberto C. Advincula, Investigating Work Function Tunable Hole-Injection/Transport Layers of Electrodeposited Polycarbazole Network Thin Films. *Journal of Physical Chemistry*, 2004, 108(49):18949-18955.

Derek Patton, Jason Locklin, Matthew Meredith, Yu Xin, Rigoberto Advincula, Nanocomposite Hydrogen-bonded multilayer ultrathin films by simultaneous sexithiophene and Au Nanoparticle Formation. *Chemistry of Materials*, 2004, 16(24):5063-5070.

Chuanjun Xia, Rigoberto C. Advincula, Akira Baba, Wolfgang Knoll, Electrochemical Patterning of a Polyfluorene Precursor Polymer from a Microcontact Printed (µCP) Monolayer. *Chemistry of Materials*, 2004, 15(16).

- Mi-Kyoung Park, Ken Onishi, Jason Locklin, Frank Caruso, Rigoberto C. Advincula, Self-Assembly and Characterization of Polyaniline and Sulfonated Polystyrene Multilayer-Coated Colloidal Particles and Hollow Shells (Citations: 29). *Langmuir*, 2003, 19(20):8550-8554.
- Xiaowu Fan, Chuanjun Xia, Rigoberto C Advincula, Intercalation of polymerization initiators into montmorillonite nanoparticle platelets: free radical vs. anionic initiator clays. *Colloids and Surfaces A-physicochemical and Engineering Aspects*, 2003, 219(1):75-86.
- S. Tian, A. Baba, J. Liu, Z. Wang, W. Knoll, M.-K. Park, R. Advincula, Electroactivity of Polyaniline Multilayer Films in Neutral Solution and Their Electrocatalyzed Oxidation of Î²-Nicotinamide Adenine Dinucleotide. *Advanced Functional Materials*, 2003, 13(6):473-479.
- Xiaowu Fan, Chuanjun Xia, Rigoberto C. Advincula, Grafting of Polymers from Clay Nanoparticles via In Situ Free Radical Surface-Initiated Polymerization: Monocationic versus Bicationic Initiators. *Langmuir*, 2003, 19(10):4381-4389.
- Rigoberto Advincula, Surface Initiated Polymerization from Nanoparticle Surfaces. *Journal of Dispersion Science and Technology*, 2003, 24(3&4):343-361.
- Jason Locklin, Kazunari Shinbo, Ken Onishi, Futao Kaneko, Zhenan Bao, Rigoberto C. Advincula, Ambipolar Organic Thin Film Transistor-like behavior of Cationic and Anionic Phthalocyanines Fabricated Using layer-by-layer Deposition from Aqueous Solution. *Chemistry of Materials*, 2003, 15(17):1404-1412.
- Xiaowu Fan, Chuanjun Xia, Timothy Fulghum, Mi-Kyoung Park, Jason Locklin, Rigoberto C. Advincula, Polymer Brushes Grafted from Clay Nanoparticles Adsorbed on a Planar Substrate by Free Radical Surface-Initiated Polymerization. *Langmuir*, 2003, 19(3):916-923.
- Rigoberto Advincula, Mi-Kyoung Park, Akira Baba, Futao Kaneko, Photoalignment in Ultrathin Films of a Layer-by-Layer Deposited Water-Soluble Azobenzene Dye. *Langmuir*, 2003, 19(3):654-665.
- Kazunari Shinbo, Syunsuke Miyabayashi, Hajime Kobayashi, Hidehiko Shimizu, Keizo Kato, Futao Kaneko, Takahiro Kawakami, Masato Tanaka, Takashi Wakamatsu, Rigoberto C. Advincula, Fabrication and Surface Plasmon Excitation Properties of Polystyrene Submicron and Micron Sphere Thin Films. *Japanese Journal of Applied Physics*, 2003, 42(Part 1):2506-2510.
- Kazunari Shinbo, Syunsuke Miyabayashi, Kazushi Yoshizawa, Hidehiko Shimizu, Keizo Kato, Futao Kaneko, Masato Tanaka, Takashi Wakamatsu, Rigoberto Advincula, SURFACE PLASMON RESONANCE AND EMITTED LIGHT PROPERTIES OF POLYSTYRENE SPHERE FILMS. *Molecular Crystals and Liquid Crystals*, 2003, 407.
- Kazunari Shinbo, Ken Onishi, Shunsuke Miyabayashi, Kazuki Takahashi, Shigenobu Katagiri, Keizo Kato, Futao Kaneko, Rigoberto C. Advincula, Fabrication and electrochemical properties of layer-by-layer deposited films containing phthalocyanine dyes. *Thin Solid Films*, 2003, 438:177-181.
- Futao Kaneko, Toshiharu Sato, Mitsuru Terakado, Takayuki Nakano, Kazunari Shinbo, Keizo Kato, Nozomu Tsuboi, Takashi Wakamatsu, Rigoberto C. Advincula, Emission Light and Multiple Surface Plasmon

2002

Excitations at Prism/Ag/Merocyanine Langmuir-Blodgett Films. *Japanese Journal of Applied Physics*, 2003, 42(Part 1):2511-2515.

Keizo Kato, Junichi Kawashima, Kazunari Shinbo, Futao Kaneko, Akira Baba, Rigoberto Advincula, TTENUATED TOTAL REFLECTION AND EMISSION PROPERTIES OF SELF-ASSEMBLED LAYER-BY-LAYER FILMS CONTAINING AZOBENZENE DYE. *Molecular Crystals and Liquid Crystals*, 2003, 407.

Kazunari Shinbo, Keizo Kato, Futao Kaneko, Ken Onishi, Rigoberto Advincula, Xiaowu Fan, FABRICATION AND ELECTROCHROMIC PROPERTIES OF LAYER-BY-LAYER SELF-ASSEMBLED ULTRATHIN FILMS CONTAINING WATER-SOLUBLE PHTHALOCYANINE. *Molecular Crystals and Liquid Crystals*, 2003, 407.

Ji Ho Youk, Jason Locklin, Andrew Prussia, Rigoberto Advincula, Energy Transfer in Poly(3-thiopheneacetic acid) and Oligothiophene Polyelectrolyte~Surfactant Complexes. *Langmuir*, 2003, 19(19):8119-8121.

Qingye Zhou, Shuangxi Wang, Xiaowu Fan, Rigoberto Advincula, Jimmy Mays, Living Anionic Surface-Initiated Polymerization (LASIP) of a Polymer on Silica Nanoparticles. *Langmuir*, 2002, 4(12):2067-2070.

Xiaowu Fan, Qingye Zhou, Chuanjun Xia, Walter Cristofoli, Jimmy Mays, Rigoberto Advincula, Living Anionic Surface-Initiated Polymerization (LASIP) of Styrene from Clay Nanoparticles Using Surface Bound 1,1-Diphenylethylene (DPE) Initiators. *Langmuir*, 2002, 18(11).

Akira Baba, Mi-Kyoung Park, Rigoberto C. Advincula, Wolfgang Knoll, Simultaneous Surface Plasmon Optical and Electrochemical Investigation of Layer-by-Layer Self-Assembled Conducting Ultrathin Polymer Films (Citations: 13). *Langmuir*, 2002, 15(12):4648-4652.

Ji Ho Youk, Mi-Kyoung Park, Jason Locklin, Rigoberto Advincula, Jinchuan Yang, Jimmy Mays, Preparation of Aggregation Stable Gold Nanoparticles Using Star-Block Copolymers. *Langmuir*, 2002, 18(17):2455-2458.

X Fan, C Xia, R Advincula, Surface structural characterization and mechanical testing by nanoindentation measurements of hybrid polymer/clay nanostructured multilayer films (Citations: 5). *Journal of Materials Research*, 2002, 17(7):1622-1633.

Kazunari Shinbo, Akira Baba, Futao Kaneko, Takashi Kato, Keizo Kato, Rigoberto C Advincula, Wolfgang Knoll, In situ investigations on the preparations of layer-by-layer films containing azobenzene and applications for LC display devices (Citations: 2). *Materials Science and Engineering*, 2002, 22(2):319-325.

Rigoberto Advincula, Qingye Zhou, Shuangxi Wang, Jimmy Mays, George Sakellariou, Stergios Pispas, Nikos Hadjichristidis, Polymer Brushes by Living Anionic Surface Initiated Polymerization on Flat Silicon (SiO_x) and Gold Surfaces: Homopolymers and Block Copolymers. *Langmuir*, 2002, 18(22):8672-8684.

Seiji Inaoka, Rigoberto Advincula, Synthesis and Oxidative Cross-Linking of Fluorene-Containing Polymers To Form Conjugated Network Polyfluorenes: Poly(fluoren-9,9-diyl-alt-alkan- α , ω -diyl). *Macromolecules*, 2002, 35(7):2426-2428.

Xiaowu Fan, Jason Locklin, Ji Ho Youk, Wally Blanton, Chuanjun Xia, Rigoberto Advincula, Nanostructured Sexithiophene/Clay Hybrid Multilayers: A Comparative Structural and Morphological Characterization (Citations: 5). *Chemistry of Materials*, 2002, 14(5):2184-2191.

Kazunari Shinbo, Jun Ishikawa, Akira Baba, Futao Kaneko, Keizo Kato, Rigoberto C. Advincula, Alignments of Nematic Liquid Crystal Molecules on Azo-Dye-Containing Alternate Self-Assembled Films Investigated Using Attenuated Total Reflection Method (Citations: 1). *Japanese Journal of Applied Physics*, 2002, 41(Part 1).

Akira Baba, Rigoberto C. Advincula, Wolfgang Knoll, In Situ Investigations on the Electrochemical Polymerization and Properties of Polyaniline Thin Films by Surface Plasmon Optical Techniques. *Journal of Physical Chemistry B*, 2002, 106(7):1581-1587.

Futao Kaneko, Takashi Kato, Akira Baba, Kazunari Shinbo, Keizo Kato, Rigoberto C Advincula, Photo-induced fabrication of surface relief gratings in alternate self-assembled films containing azo dye and alignments of LC molecules. *Colloids and Surfaces A-physicochemical and Engineering Aspects*, 2002, 198.

Chuanjun Xia, Rigoberto C. Advincula, Akira Baba, Wolfgang Knoll, In Situ Investigations of the Electrodeposition and Electrochromic Properties of Poly(3,4-ethylenedioxythiophene) Ultrathin Films by Electrochemical Surface Plasmon Spectroscopy. *Langmuir*, 2002, 18(9):3555-3560.

Prasad Taranekar, Xiaowu Fan, Rigoberto Advincula, Distinct Surface Morphologies of Electropolymerized Polymethylsiloxane Network Polypyrrole and Comonomer Films. *Langmuir*, 2002, 18(21):7943-7952.

Chuanjun Xia, Jason Locklin, Ji Ho Youk, Timothy Fulghum, Rigoberto C. Advincula, Distinct Aggregation and Fluorescence Properties of a Water-Soluble Oligothiophene (6TN) Bolaform Amphiphile (Citations: 4). *Langmuir*, 2002, 18(3):955-957.

Mi-Kyoung Park, Ji Ho Youk, Stergios Pispas, Nikos Hadjichristidis, Rigoberto Advincula, Adsorption Behavior of Polystyrene-Polyisoprene Diblock Copolymers with Zwitterionic Groups Using Quartz Crystal Microbalance: Effect of Different Microstructures. *Langmuir*, 2002, 18(21):8040-8044.

Derek Patton, Mi-Kyoung Park, Shuangxi Wang, Rigoberto C. Advincula, Evanescent Waveguide and Photochemical Characterization of Azobenzene-Functionalized Dendrimer Ultrathin Films. *Langmuir*, 2002, 18(5):1688-1694.

Suxiang Deng, Rigoberto C. Advincula, Polymethacrylate Functionalized Polypyrrole Network Films on Indium Tin Oxide: Electropolymerization of a Precursor Polymer and Comonomer. *Chemistry of Materials*, 2002, 14(10):4073-4080.

Jason Locklin, Ji Ho Youk, Chuanjun Xia, Mi-Kyoung Park, Xiaowu Fan, Rigoberto C. Advincula, Nanostructured Ultrathin Films of Water-Soluble Sexithiophene Bolaform Amphiphiles Prepared by Layer-by-Layer Self-Assembly. *Langmuir*, 2002, 18(3):877-883.

Mi-Kyoung Park, Rigoberto C. Advincula, In-Plane Photoalignment of Liquid Crystals by Azobenzene~Polyelectrolyte Layer-by-Layer Ultrathin Films. *Langmuir*, 2002, 18(11):4532-4535.

Jun Ishikawa, Akira Baba, Futao Kaneko, Kazunari Shinbo, Keizo Kato, Rigoberto C Advincula, Photo-induced in-plane alignment of LC molecules on layer-by-layer self-assembled films containing azo dyes evaluated by attenuated total reflection measurements. *Colloids and Surfaces A-physicochemical and Engineering Aspects*, 2002, 198:917-922.

Rigoberto C. Advincula, Nano-Surface Chemistry Edited by Morton Rosoff (Long Island University). Marcel Dekker, Inc.: New York and Basel. 2002. xii + 678 pp. ISBN: 0-8247-0254-9. *Journal of The American Chemical Society*, 2002, 124(42):12630-12631.

2001

Chuanjun Xia, Rigoberto C. Advincula, Decreased Aggregation Phenomena in Polyfluorenes by Introducing Carbazole Copolymer Units. *Macromolecules*, 2001, 34(17):5854-5859.

Mi-Kyoung Park, Chuanjun Xia, Rigoberto C. Advincula, Peter SchÄ¼tz, Frank Caruso, Cross-Linked, Luminescent Spherical Colloidal and Hollow-Shell Particles (Citations: 14). *Langmuir*, 2001, 17(24):7670-7674.

Ji Ho Youk, Jason Locklin, Chuanjun Xia, Mi-Kyoung Park, Rigoberto Advincula, Preparation of Gold Nanoparticles from a Polyelectrolyte Complex Solution of Terthiophene Amphiphiles. *Langmuir*, 2001, 17(15):4681-4683.

Rigoberto C. Advincula, Eric Fells, Mi-kyoung Park, Molecularly Ordered Low Molecular Weight Azobenzene Dyes and Polycation Alternate Multilayer Films: Aggregation, Layer Order, and Photoalignment. *Chemistry of Materials*, 2001, 13(9):2870-2878.

Chuanjun Xia, Rigoberto C. Advincula, Surface Grafting of Conjugated Polymers onto Self-assembled Monolayer Modified Conducting Substrates by Electrochemistry. *Chemistry of Materials*, 2001, 13(5):1682-1691.

Qingye Zhou, Xiaowu Fan, Chuanjun Xia, Jimmy Mays, Rigoberto Advincula, Living Anionic Surface Initiated Polymerization (SIP) of Styrene from Clay Surfaces. *Chemistry of Materials*, 2001, 13(8):2465-2467.

Chuanjun Xia, Rigoberto C. Advincula, Ladder-Type Oligo(p -phenylene)s Tethered to a Poly(alkylene) Main Chain: The Orthogonal Approach to Functional Light-Emitting Polymers. *Macromolecules*, 2001, 34(20):6922-6928.

Chuanjun Xia, Xiaowu Fan, Mi-kyoung Park, Advincula, R.C., Ultra thin Film Electrodeposition of Polythiophene Conjugated Networks through a Polymer Precursor Route. *Langmuir*, 2001, 17(25):7893-7898.

Akira Baba, Rigoberto C. Advincula, Wolfgang Knoll, Simultaneous observation of the electropolymerisation process of conducting polymers by surface plasmon resonance spectroscopy, surface plasmon enhanced light scattering and cyclic voltammetry. *Studies in Interface Science*, 2001, 11:55-70.

Shuangxi Wang, Rigoberto C. Advincula, Design and Synthesis of Photoresponsive Poly(benzyl ester) Dendrimers with all Azobenzene Repeating Units. *Organic Letters*, 2001, 3(24):3831-3834.

- Qingye Zhou, Xiaowu Fan, Chuanjun Xia, Jimmy Mays, Rigoberto Advincula, Living Anionic Surface Initiated Polymerization (SIP) of Styrene from Clay Surfaces. *Chemistry of Materials*, 2001, 13(9):3057-3057.
- Kazunari Shinbo, Jun Ishikawa, Akira Baba, Futao Kaneko, Keizo Kato, Rigoberto Advincula, Photo-induced in-plane Alignments of Liquid Crystal Molecules on Alternate Self-assembled Ultrathin Films Containing Azo-dye and Evaluation by the Attenuated Total Reflection Measurement. *Molecular Crystals and Liquid Crystals*, 2001, 370(1):193-196.
- 2000 Akira Baba, Futao Kaneko, Rigoberto C. Advincula, Ultrathin Films of Oriented Bacteriorhodopsin: Nanostructured Films for Investigating the Polyelectrolyte adsorption processes characterized in situ using the quartz crystal microbalance technique: alternate adsorption properties in ultrathin polymer films. *Colloids and Surfaces A-physicochemical and Engineering Aspects*, 2000, 173(1):39-49.
- Houston Byrd, Charles E. Holloway, Jessica Pogue, Sandy Kircus, Rigoberto C. Advincula, Wolfgang Knoll, Ultrathin Film Self-Assembly of Hybrid Organic~Inorganic Metal Coordination Polymers. *Langmuir*, 2000, 16(26):10322-10328.
- Shigetaka Hayano, Toshio Masuda, Hoyning Ji, Rigoberto C. Advincula, On the role of catalyst components in the living metathesis polymerization of substituted acetylenes by MoOCl₄-based systems (Citations: 1). *Polymer Bulletin*, 2000, 44(2):129-136.
- Akira Baba, Futao Kaneko, Kazunari Shinbo, Keizo Kato, Satoshi Kobayashi, Rigoberto Advincula, Photo-Induced Alignments of Liquid Crystal Molecules on Alternate Self-Assembly Films Evaluated by the Attenuated Total Reflection Measurement. *Molecular Crystals and Liquid Crystals*, 2000, 347(1):15-24.
- Mi-Kyoung Park, Rigoberto Advincula, Masatoshi Kidowaki, Kunihiro Ichimura, Synthesis and langmuir-blodgett(LB) film properties of functional±,ĩ%-diamine amphiphilic materials. *Macromolecular Symposia*, 2000, 154(1):149-162.
- 1999 Silvia Dante, Rigoberto Advincula, Curtis W. Frank, Pieter Stroeve, Photoisomerization of Polyionic Layer-by-Layer Films Containing Azobenzene (Citations: 13). *Langmuir*, 1999, 15(1):193-201.
- 1998 Rigoberto Advincula, Curtis Frank, Daniel Roitman, Jim Sheats, Ron Moon, Wolfgang Knoll, Supramolecular Thin Film Architectures for Photonic Applications (Citations: 1). *Molecular Crystals and Liquid Crystals*, 1998, 316(1):103-112.
- 1997 Rigoberto Advincula, Wolfgang Knoll, Supramolecular thin films via the Langmuir-Blodgett-Kuhn (LBK) technique. *Colloids and Surfaces A-physicochemical and Engineering Aspects*, 1997, 123:443-455.
- 1996 Rigoberto Advincula, Emil Aust, Wolfgang Meyer, Wolfgang Knoll, In Situ Investigations of Polymer Self-Assembly Solution Adsorption by Surface Plasmon Spectroscopy. *Langmuir*, 1996, 12(15):3536-3540.
- Rigoberto Advincula, Emil Aust, Wolfgang Meyer, Werner Steffen, Wolfgang Knoll, Langmuir â€“ Blodgett â€“ Kuhn Multilayer Assemblies of NLO Active Amphiphiles and Ionene Polymers: Importance of

Complementary Charges. *Polymers for Advanced Technologies*, 1996, 7(7):571-576.

Rigoberto Advincula, Emil Aust, Wolfgang Meyer, Werner Steffen, Wolfgang Knoll, *Langmuir - Blodgett - Kuhn Multilayer Assemblies of NLO Active Amphiphiles and Ionene Polymers: Importance of Complementary Charges*. *Polymers for Advanced Technologies*, 1996, 7(7):571-576.

1993

R. C. Advincula, R. S. Duran, J. LeMoigne, A. Hilberer, Substituted polyacetylenes at the air-water interface. *Macromolecules*, 1993, 26(15):3895-3903.

H. Fadel, V. Percec, Q. Zheng, R. S. Duran, R. C. Advincula, Liquid crystalline poly(vinyl ether)s with bulk smectic C* phases at the air/water interface. *Macromolecules*, 1993, 26(7):1650-1655.

Name Baltazar D. Aguda

Gender Male

Organizational Affiliations

Visiting Associate Professor and Long-Term Visitor, Mathematical Biosciences Institute Ohio State University, Ohio, USA

Education

Ph.D. in Chemistry, University of Alberta Canada, 1986

B.Sc. in Agricultural Chemistry, University of the Philippines, Los Baños, 1978

Fields of Specialization

Systems Biology (Biomedical System Modeling)

Honors / Awards

Balik Scientist Awardee, Department of Science and Technology 2009

Publications

- 2011 J. L. Voorhees, T. D. Eubank, B. Aguda, C. Marsh, Chronic psychological stress affects terminal blood cell differentiation. *Evaluation and Program Planning*, 2011, 25:S194-S194.
- 2010 C. Nomiya, S. Medina, M. Kawamura, N. Enderes, E. Moleta, K. Doi, First Grade, A. Quinn, W. Lehano, C. Loo, J. Fujikawa, J. De Gracia B. Aguda, *Counselors.*, 2010.
- 2009 Visone, R., Rassenti, L.Z., Veronese, A., C. Taccioli, C., Costinean, S., Aguda, B.D., Volinia, S., Ferracin, M., Palatini, J., Balatti, V., Alder, H., Negrini, M., Karyotype-specific microRNA signature in chronic lymphocytic leukemia. *Blood*, 2009, 114(8):3872-3879.
- R. Visone, L. Z. Rassenti, A. Veronese, C. Taccioli, S. Costinean, B. D. Aguda, S. Volinia,, Karyotype-specific microRNA signature in chronic lymphocytic leukemia. *Blood*, 2009, 114(8):3872-3879.
- Keng Boon Wee., Uttam Surana., Aguda B, Oscillations of the p53Akt Network: Implications on Cell Survival Death. *Plos One*, 2009, 4(2).
- V. A. Trabosh, K. A. Divito, B. D. Aguda, C. M. Simbulan-Rosenthal, D. S. Rosenthal, Sequestration of E12/E47 and suppression of p27KIP1 play a role in Id2-induced proliferation and tumorigenesis. *Carcinogenesis*, 2009, 30(7):1252-1259.
- 2008 Melissa Piper Hunter, Noura Ismail, Xiaoli Zhang, Baltazar D. Aguda, Eun Joo Lee, Lianbo Yu, Tao Xiao, Jeffrey Schafer, Mei-Ling Ting Lee, Thomas D. Schmittgen, S. Patrick Nana-Sinkam, David Jarjoura, Detection of microRNA Expression in Human Peripheral Blood Microvesicles. *Plos One*, 2008, 3(11).
- B. D. Aguda, Y. Kim, M. G. Piper-Hunter, A. Friedman, C. B. Marsh, MicroRNA regulation of a cancer network: Consequences of the feedback loops involving miR17-92, E2F, and Myc. *Proceedings of the National Academy of Science*, 2008, 105(50):19678-19683.

- 2007 J.Nam., B.Rath., B.Aguda., S.Agarwal, 21 Differentiation of Mesenchymal stem cells into chondrocytes in 3D scaffolds - an analysis of biochemical Responses by mathematical models. *Osteoarthritis and Cartilage*, 2007, 15:C26-C26.
Aguda, B.D., Goryachev, A.B., From pathways databases to network models of switching behavior. *PLoS Comp Biology (PubMed)*, 2007., 3:1674-8N.
- 2006 Keng Boon Wee., Aguda B, Akt versus p53 in a Network of Oncogenes and Tumor Suppressor Genes Regulating Cell Survival and Death. *Biophysical Journal*, 2006, 91(3):857-865.
- 2005 Gheorghe Craciun, Baltazar Aguda, Avner Friedman, Mathematical Analysis of a Modular Network Coordinating the Cell Cycle and Apoptosis. , 2005.
- 2003 Baltazar D. Aguda, Christopher K. Algar, A Structural Analysis of the Qualitative Networks Regulating the Cell Cycle and Apoptosis. *Cell Cycle*, 2003, 2(6):538-543.
- 1999 Aguda, B.D., Tang, Y., The Kinetic origins of the restriction point in the mammalian cell cycle. *Cell Proliferation*, 1999, 32(5):321-335.
B. D. Aguda, A quantitative analysis of the kinetics of the G2 DNA damage checkpoint system. *Proceedings of the National Academy of Science*, 1999, 96(20):11352-11357.
Aguda, B.D., Instabilities in phosphorylation-dephosphorylation cascades and cell cycle checkpoints. , 1999.
Aguda, B.D., Kick starting the cell cycle : From growth-factor to initiation of DNA replication. , 1999.

Name Glenn D. Aguilar

Gender Male

Organizational Affiliations

President, Iloilo Federation for Information Technology,

Professor, University of the Philippines Visayas,

Senior Lecturer, Environmental and Animal Sciences, Building 115, Room 2014, Unitec Institute of Technology, Private Bag 92025, Victoria Street West, Auckland 1142

Education

Bachelor of Science in Fisheries (cum laude), University of the Philippines Visayas, Iloilo City 1984

Master of Science in Engineering (Ocean Engineering), University of Washington, U.S.A. 1988

Doctor of Philosophy in Engineering (Naval Architecture and Engineering), University of Tokyo, Tokyo, Japan 1991

Fields of Specialization

University Administration and Management

Naval Architecture

Computer Graphics

Employment

Chancellor, University of the Philippines Visayas, 2005-

Vice Chancellor, University of the Philippines Visayas, 1999-

Association Membership

Member, New Zealand Biosecurity Institute

Member, Society of Naval Architects and Marine Engineers

Member, Citizen Science Association

Honors / Awards

UP Scientist I, UP Scientific Productivity System 2007

Outstanding Professional of the Year, Professional Regulatory Council 2006

Outstanding UP Alumnus for Professional Achievements in Fisheries, UP Alumni Association 2004

Fulbright Research Scholar, Oregon State University 2004-2005

First Place winner, 5th National Science and Technology Fora and Competition for Outstanding R&D in Industry and Energy, Philippine Council for Industry, Energy and Emerging Technology Research and Development, Department of Science and Technology 2004 March 19

AFMA Outstanding Paper Award, Knowledge based system for the selection and monitoring of marine fishery reserves. National Research symposium, Bureau of Agricultural Research, Department of Agriculture 2001 October 4

Marquis Who's Who in the World, U.S.A. 2000-2005

Graduate Paper Award, Society of Naval Architects and Marine Engineers, U.S.A. 1988

Cum Laude, University of the Philippines Diliman 1984

President Ferdinand E. Marcos Scholarship in Fisheries, Bureau of Fisheries and Aquatic Resources (BFAR) 1980-1984

Gerry Roxas Leadership Award, Gerry Roxas Foundation 1980

Valedictorian, CPU Developmental High School 1980

Ten Outstanding High School Students of Iloilo (Gov. Conrado Norada Award), Iloilo 1980

Researches

Completed

Establishment of Internet connection in offices, classrooms and laboratories within the UPV Campuses

Developed 5 programs for the knowledge based design of fishing boats

Developed 3 programs on the IRIS 3030 - one for online digitization of scanned images, another for curve fairing and the third for developable surface definition

Papers Presented

- 2016 O'Sullivan, R., Smith, H., Cook, J., Waipara, J., Adams, N., Aguilar, G., & Fraser, D. (2016). An assessment of the risk of spread of plague skink and Argentine ants by commercial businesses providing services or goods to selected inhabited islands of the Hauraki Gulf, New Zealand, New Zealand Biosecurity Institute NETS 2016, Auckland, New Zealand.
- 2016 Aguilar, G., Fraser, D., & Kumar, S. (2016). Mapping the potential range of the brown marmorated stink bug in New Zealand, New Zealand Biosecurity Institute NETS 2016, Auckland, New Zealand.
- 2014 July 30 - Marshall, A., Morgan, S., Cook, J., Waipara, N., Aguilar, G., Galbraith, M., August 1 & Fraser, D. (2014 July 30 - August 1). Distribution of Argentine ant (*Linepithema humile*) and Rainbow skink (*Lampropholis delicata*) in selected locations in the Rodney district, Auckland, New Zealand Biosecurity Institute National Education and Training Seminar (NETS2014), New Plymouth.
- 2014 July 30 - Killick, S., Wairepo, J., Waipara, N., Cook, J., Aguilar, G., Galbraith, M., August 1 & Fraser, D. (2014 July 30 - August 1). Detecting the spread of a known rainbow skink (*Lampropholis delicata*) population over an island, New Zealand Biosecurity Institute National Education and Training Seminar (NETS2014), New Plymouth.

- 2013 July 8-12 Waqa-Sakiti, H., Aguilar, G., & Winder, L. (2013 July 8-12). Ensemble species distribution modelling of Coleoptera in Viti Levu, Fiji, 12th Pacific Science Inter-Congress, University of the South Pacific, Laucala Bay Campus, Suva, Fiji.
- 2013 July 31 - August 2 - Aguilar, G., Gilchrist, R., & Blake, J. (2013 July 31 - August 2). Screening of algorithms for ensemble modelling of marine and terrestrial invasive species to New Zealand, NZBI National Education and Training Seminar (NETS), Shantytown, Greymouth.
- 2013 July 31 July - August 2 Blanchon, D., Nessia, H., McClymont, M., Dale, A., Perrott, J., Aguilar, G., & Waipara, N. (2013 July 31 July - August 2). The good news and bad news about the African club moss, NZBI National Education and Training Seminar (NETS), Shantytown, Greymouth.
- 2012 July 18-20 Gardner, L., Graham, R., Cook, J., Waipara, N., Fraser, D., Aguilar, G., & Galbraith, M. (2012 July 18-20). The distribution of Argentine ant (*Linepithema humile*) in selected locations on Kawau Island, NETS 2012 Biosecurity Conference, Taupo, New Zealand.
- 2012 July 18-20 Graham, R., Gardner, L., Cook, J., Waipara, N., Fraser, D., Aguilar, G., & Galbraith, M. (2012 July 18-20). Evaluation of two methods; baited pottles and visual assessment, for the effective identification of the presence/absence of Argentine Ants (*Linepithema humile*) on Kawau Island, NETS 2012 Biosecurity Conference, Taupo, New Zealand.
- 2012 July 18-20 Wairepo, J., Cook, J., Waipara, N., Fraser, D., Aguilar, G., & Galbraith, M. (2012 July 18-20). Presence / Absence of Rainbow Skinks (*Lampropholis delicata*) on Kawau Island, NETS 2012 Biosecurity Conference, Taupo, New Zealand.
- 2006 October 21 Aguilar, G.D. (2006 October 21). Development of a data center for oil spill incidents in the Philippines: the case of Semirara and Guimaras, 17th DSAO (Data Sharing for Asia Oceanic Countries) Task Group Conference, Beijing, China.
- 2003 October 22-23 Aguilar, G.D. (2003 October 22-23). The RORO system of the Philippine Archipelago, Joint meeting of the Asian Marine transportation Cooperation Program (JSPS), Hiroshima University.
- 2003 July 28-29 Aguilar, G.D. (2003 July 28-29). Strengthening of fishing craft provisions in the Fisheries Code: redefining the boat sizes, Conference in Revision of the Fisheries Code, Institute for Small-scale Industries (ISSI) UP Diliman, Quezon City.
- 2002 May 21-23 Sahigehiro, R., Aguilar, G.D., Kuroda, T., & Kawai, A. (2002 May 21-23). Simulation studies on maneuvering motions of Philippine outrigger craft in wind, Asia Pacific Workshop on Marine Hydrodynamics (APHydro 2002) and Asia Pacific Maritime Congress 90th anniversary of KSNAJ, Kobe, Japan.
- 2001 September 24-27 Aguilar, G.D. (2001 September 24-27). The national integrated research development and extension agenda and program for Philippine capture fisheries, International Seminar on Responsible Capture fisheries in Coastal

Waters of Asia: Case Studies and Researches for sustainable Development and Management of Tropical Fisheries. UPV Miag-ao, Iloilo.

- 1999 November Aguilar, G.D. (1999 November). The selection tool: a system for simple decision making, 7th National Convention on Statistics. National Statistics Coordination Board.
- 1996 June 4-7 Aguilar, G.D., Koyama, T., & Yamato, H. (1996 June 4-7). Knowledge base construction using combined knowledge acquisition and knowledge modelling approaches, 9th International conference in Engineering Application of Artificial Intelligence and Expert Systems, Fukuoka, Japan.

Publications

- 2016 Aguilar, G., Winder, L., & Waqa-sakiti, H., Using Predicted Locations and an Ensemble Approach to Address Sparse Data Sets for Species Distribution Modelling: Long-horned Beetles (Cerambycidae) of the Fiji Islands. Unitec e-Press, 2016, 1:1-15.
- 2015 Aguilar, G., Geographic Information Systems (GIS), geo-information and apps: using the workflow approach to optimize solutions for your mapping needs. New Zealand Biosecurity Institute Auckland Northland Branch, Auckland, New Zealand, 2015.
- Galbraith, M., Krzyzosiak, J., Aguilar, G., Jones, G., & Oliver, R., Changes in the breeding status of the southern black-backed gull (*Larus dominicanus*) colonies on Rangitoto Island, Hauraki Gulf, New Zealand. *Notornis*, 2015, 62:192-201.
- Aguilar, G., Blanchon, D., Foote, H., Pollonais, C., & Mosee, A., Queensland Fruit Fly Invasion of New Zealand: Predicting Area Suitability Under Future Climate Change Scenarios. Unitec ePress Perspectives in Biosecurity Research Series, 2015, 2:1-12.
- Aguilar, G.D., Farnworth, M.J., & Winder, L., Mapping the stray domestic cat (*Felis catus*) population in New Zealand: species distribution modelling with a climate change scenario and implications for protected areas. *Applied Geography*, 2015, 63:146-154.
- Fraser, D., Aguilar, G., Nagle, W., Galbraith, M., & Ryall, C., The House Crow (*Corvus splendens*): A Threat to New Zealand?. *International Journal of Geo-Information*, 2015, 4(2):725-740.
- Aguilar, G., Modelling Invasions: Use of Species Distribution Models. *Biology in Context*, Unitec Institute of Technology, 2015.
- Galbraith, M., Krzyzosiak, J., Aguilar, G., & Jones, G., Changes in the breeding status of the southern black-backed gull (*Larus dominicanus*) on Rangitoto Island (Hauraki Gulf, New Zealand) since 1920. *Birds New Zealand (South Auckland region)*, Papakura, Auckland, 2015.
- 2014 Nessia, H.R., Dale, A.R., Perrot, J.K., Waipara, N.W., Aguilar, G.D., & Blanchon, D.J., Comparison of species richness and frequency cover of forest floor plants and lichens in sites invaded and uninvaded by the invasive club moss *Selaginella kraussiana* (Kunze) A. Braun. *Plant Protection Quarterly*, 2014, 29(2):66-70.
- 2013 Sanders, L.J., Aguilar, G.D., & Bacon, C.J., A spatial analysis of the geographic distribution of musculoskeletal and general practice healthcare clinics in Auckland, New Zealand. *Applied Geography*, 2013, 44:69-78.

- Aguilar, G., & Farnworth, M., Distribution characteristics of unmanaged cat colonies over a 20 year period in Auckland, New Zealand. *Applied Geography*, 2013, 37:160-167.
- Graham, M., Veitch, D., Aguilar, G., & Galbraith, M., Monitoring terrestrial bird populations on Tiritiri Matangi Island, Hauraki Gulf, New Zealand, 1987-2010. *New Zealand Journal of Ecology*, 2013, 37(3):359-369.
- 2011 Aguilar, G., Farnworth, M., Fraser, D., & Galbraith, M., GIS research for biodiversity management and animal welfare. Unitec Research Symposium 2011, Mt Albert, 2011.
- Aguilar, G.D., & Farnworth, M.J., Stray cats in Auckland, New Zealand: Discovering geographic information for exploratory spatial analysis. *Applied Geography*, 2011, 34:230-238.
- Blanchon, D., Elliott, C., Ennis, I., Hayward, G., Galbraith, M., & Aguilar, G., A lichen species list for Motu Kaikoura, Fitzroy Harbour, Great Barrier Island. *Auckland Botanical Society Journal*, 2011, 66(2):102-107.
- Aguilar, G., Development of GIS learning objects for an enhanced conceptual understanding and skills development of complex computing tasks. Unitec Research Symposium 2011, Mt Albert, 2011.
- Martin, J., Galbraith, M., & Aguilar, G., Modelling of the potential distribution of an invasive species in NZ: the rosy wolf snail. New Zealand Biosecurity Institute National Education and Training Seminar 2011, Takapuna, Auckland, 2011.
- Slingsby-Jones, C., Galbraith, M., & Aguilar, G., Potential impact and distribution of the common house gecko *Hemidactylus frenatus* in New Zealand. New Zealand Biosecurity Institute National Education and Training Seminar 2011, Takapuna, Auckland, 2011.
- Gilchrist, R., Galbraith, M., & Aguilar, G., Modelling the potential distribution of an invasive species in New Zealand: the yellow crazy ant *Anoplepis gracilipes*. New Zealand Biosecurity Institute National Education and Training Seminar 2011, Takapuna, Auckland, 2011.
- Blake, J., Galbraith, M., & Aguilar, G., Modelling the invasive risk potential posed by the Northern Pacific seastar (*Asterias amurensis*) in New Zealand. New Zealand Biosecurity Institute National Education and Training Seminar 2011, Takapuna, Auckland, 2011.
- Fraser, D., Aguilar, G., Galbraith, M., & Nagle, B., The Indian House Crow (*Corvus splendens*): A Threat to New Zealand?. New Zealand Biosecurity Institute National Education and Training Seminar 2011, Takapuna, Auckland, 2011.
- 2010 Aguilar, G.D., & Villamor, S., Habitat mapping for conservation and management of Nogas Island, Philippines. In: GIS/spatial analyses in fishery and aquatic sciences, Nishida, T., and Caton, A.E. (Eds.), 2010, 4.
- 2008 Babaran, R., Ishizaki, M., Anraku, K., Aguilar, G., & Matsuoka, T., Status of scientific exchange in capture fisheries under the JSPS-DOST CUP Program. *Memoirs of Faculty of Fisheries Kagoshima University*, 0453087X, 2008, Special Is.
- 2006 Aguilar, G.D., The Philippine Indigenous Outrigger Boat: Scaling Up, Performance and Safety. *Marine Technology Society Journal*, 2006, 40(3):69-78.

- 2004 Aguilar, G.D., Philippine fishing boats. In DA-BFAR (Department of Agriculture-Bureau of fisheries and Aquatic Resources). In turbulent seas: The status of Philippine marine fisheries. Coastal Resource Management Project, Cebu City, Philippines, 2004:118-121.
- Aguilar, G.D., Present and future role of the College of Fisheries and Ocean Sciences in fisheries and coastal resource management. In: Villareal, L.V., V. Kelleher, & U. Tietze, eds. Guidelines on the collection of demographic and socio-economic information on fishing communities for use in coastal and aquatic resources management. FAO Fisheries Technical Paper, No. 439, 2004:69-79.
- 2003 Aguilar, G.D., The RORO system of the Philippine Archipelago. Proceedings of the Joint meeting of the Asian Marine transportation Cooperation Program (JSPS), Hiroshima University, 2003.
- Aguilar, G.D., Strengthening of fishing craft provisions in the Fisheries Code: redefining the boat sizes. Proceedings of the conference in Revision of the Fisheries Code, Institute for Small-scale Industries (ISSI) UP Diliman, Quezon City, 2003.
- Aguilar, G.D. & Tiapson, R.J., Fishery policy helper: A Database Management system of Fishery Related Policies. UPV Journal of Natural Sciences, 2003, 8:226-234.
- Aguilar, G.D., Ambatang, R.J., Tiapson, R., Cagalaban, G., & Giner, J., Knowledge based tools for supporting fisheries management. UPV Journal of Natural Sciences, 2003, 8(1-2):192-204.
- Shigehiro, R., Aguilar, G.D., Kuroda, T., & Kagaruki, H., Characteristics of maneuvering motions of Philippine outrigger craft in wind. Proceedings of the International conference on Marine Simulation and Ship Maneuverability MARSIM'03, Japan, 2003.
- 2002 Aguilar, G., Shigehiro, R., Yamakoshi, Y. & Kuroda, T., Safety related characteristics of Philippine indigenous outrigger crafts. Fisheries Science, 2002, 68(Supplement):1819-1882.
- Shigehiro, R., Aguilar, G.D., Kuroda, T., & Kawai, A., Simulation studies on maneuvering motions of Philippine outrigger craft in wind. Asia Pacific Workshop on Marine Hydrodynamics (APHydro 2002) and Asia Pacific Maritime Congress 90th anniversary of KSNAJ, Kobe, Japan, 2002.
- Shigehiro, R., Aguilar, G., & Kuroda, T., Evaluation methods of seakeeping performance for training ships from the viewpoint of passenger comfort. Fisheries Science, 2002, 68(Supplement):1827-1830.
- Shigehiro, R., Aguilar, G.D., Kuroda, T., Kawai, A., & Matsuda, A., Characteristics of maneuvering motions of Philippine outrigger craft. Journal of the Kansai Society of Naval Architects, 2002, Japan No.:113-120.
- 2001 Aguilar, G.D., Shigehiro, R., & Kuroda, T., Resistance characteristics of the Philippine outrigger fishing crafts. UPV Journal of Natural Science, 2001, 6(1-2):46-54.
- Shigehiro, R., Aguilar, G.D., & Kuroda, T., Turning performance of outrigger craft in the Philippines. UPV Journal of Natural Sciences, 2001, 6:55-68.
- 2000 Aguilar, G.D., Some maritime transport concerns. Public Policy, 2000, 4(1):93-119.

- 1999 Aguilar, G.D., The selection tool: a system for simple decision making. Proceedings of the 7th National Convention on Statistics. National Statistics Coordination Board, 1999.
- 1998 Aguilar, G.D., Development of a ubiquitous ship design and general arrangement system. College of Fisheries, UP Visayas, Miagao, Iloilo. Terminal Report, 1998.
- Aguilar, G.D., Development of small craft hull forms using an intranet base marine vehicle design and model testing equipment. College of Fisheries UP in the Visayas, Miagao, Iloilo. Terminal Report, 1998:45p.
- 1997 Aguilar, G.D., Comparative analysis of hull forms of selected Philippine indigenous fishing craft. UPV Journal of Natural Sciences, 1997, 2(1):17-43.
- Aguilar, G.D., Computer modelling of indigenous fishing crafts. UPV Journal of Natural Sciences, 1997, 2(1):44-59.
- 1996 Aguilar, G.D., Current approaches for sharing design information. UPV Journal of Natural Sciences, 1996, 1(2):150-159.
- Aguilar, G.D., Koyama, T., & Yamato, H., Knowledge base construction using combined knowledge acquisition and knowledge modelling approaches. Proceedings of the 9th International conference in Engineering Application of Artificial Intelligence and Expert Systems, Fukuoka, Japan, 1996:283-288.
- Aguilar, G.D., Yamato, H., & Koyama, T., An approach to knowledge acquisition for the hull form design of fishing craft, (3rd report). Implementation of a hull form definition system using hull variation and shape aggregation techniques. Journal of the Japan Society of Naval Architects, 1996:755-765.
- Aguilar, G.D., Yamato, H., & Koyama, T., Development of a hull form definition with a related knowledge based on advisory system. Journal of Marine Science and Technology, 1996, 1(2):138-148.
- 1993 Aguilar, G.D., Koyama, T., & Yamato, H., An approach to knowledge acquisition for the hull form design of fishing crafts, 2nd report: Object oriented methodology for the rapid development of procedural tools and interactive elicitation for hull selection. Journal of the Japan Society of Naval Architects, 1993.

Name Rhodora Romero Aldemita

Gender Female

Education

Doctor of Philosophy in Botany, Purdue University, West Lafayette, Indiana 1996

Master of Science in Agronomy, University of the Philippines Los Baños, Laguna, Philippines 1988

Bachelor of Science in Agriculture, University of the Philippines Los Baños, Laguna, Philippines 1980

Fields of Specialization

Polymerase Chain Reaction

Plant Biotechnology

Plant Biology

Genetic Engineering

Plant Genetics

Plant Breeding

Plant Molecular Biology

Plant Tissue Culture

Plants

Transgenics

Agricultural Biotechnology

Plant Genomics

Plant DNA Extraction

Micropropagation

Agrobacterium Mediated Plant Transformation

Transgenic Technology

Transgenic Plants

Somatic Embryogenesis

Organogenesis

Callus Induction

Agrobacterium

Employment

Postdoctoral Fellow, Albert-Ludwigs Universität, Freiburg, Germany, 2003
June-2005 December

Senior Program Officer, International Service for the Acquisition of Agri-Biotech Applications, Present

Association Membership

President, Outstanding Young Scientists Inc.

Vice President, Outstanding Young Scientists Inc.

Public Relations Officer, Outstanding Young Scientists Inc.

Secretary, Outstanding Young Scientists Inc.

Luzon Representative, Outstanding Young Scientists Inc.

Chair, Biological Sciences Division, Outstanding Young Scientists Inc.

President, Crop Science Society of the Philippines

Vice President, Crop Science Society of the Philippines

Auditor, Crop Science Society of the Philippines

Member, Crop Science Society of the Philippines

Vice President, Biotechnology Coalition of the Philippines

Elected Member, Philippine-American Academy for Scientists and Engineers

Regular Member, National Research Council of the Philippines

Chair, Division VI, National Research Council of the Philippines

Public Relations Officer, Philippine Association of Plant Tissue Culture

President, Philippine Society for Biochemistry and Molecular Biology

Board Member, Philippine Society for Biochemistry and Molecular Biology

Board Member, Philippine Society for Plant Pathology Central Luzon Chapter

Elected Member, Asia Pacific International Molecular Biology Network

Member (TOWNS awardees exclusive), The Outstanding Women in the Nation's Service (TOWNS) Foundation

Elected Member, Gamma Sigma Delta Honor Society for Agriculture, Purdue University Chapter

Elected Member, Philippine Association for the Advancement of Science

Member, International Association of Plant Tissue Culture

Member, Philippine Society for the Advancement of Genetics

Member, Philippine Phytopathological Society

Honors / Awards

Gregorio Y. Zara Award for Basic Research, Philippine Association for the Advancement of Science, Inc. 2007

PhilRice Most Outstanding Senior Researcher, Philippine Rice Research Institute 1998

Outstanding Young Scientist (Botany), National Academy of Science and Technology 1997

The Outstanding Women in the Nations' Service, TOWNS Foundation, Metro Bank International, and the International Lions Club

Third World Academy of Science (TWAS) - National Academy of Science and Technology (NAST) Prize in Biology, TWAS, Trieste, Italy and the NAST

Papers Presented

1990 May 14-18 Zapata, F.J., Aldemita, R.R., Ella, E.S. (1990 May 14-18). Isolated microspore culture of rice at the International Rice Research Institute, Second International Rice Genetics Symposium, Manila, Philippines.

Publications

2015 Aldemita, R.R., Reaño, I.M., Solis, R.O., & Hautea, R.A., Trends in Global Approvals of Biotech Crops (1992-2014). *GM Crops and Food*, 2015, 6(3):150-166.

2014 Tome, K.G.N., Navarro, M.J., & Aldemita, R.R., Academics and Scientists as Biotech Communicators: Perspectives, Capabilities, and Challenges in Southeast Asia. *Crop Protection Newsletter*, 2014, 39(2):44-57.

2009 Evangelista, F.C., Aldemita, R.R., & Ungson, L.B., Callusing and Regeneration Potential of Rice (*Oryza sativa* L.) Genotypes Towards the Development for Salt Tolerance. *Philippine Journal of Science*, 2009, 138(2):169-176.

2007 Aldemita, R.R., & Hodges, T.K., Gene expression in transgenic rice with corn pollen-specific promoter Zmg13. *Crop Protection Newsletter*, 2007, 32(3):3-16.

2001 Aldemita, R.R., Ilar, G.Y., Avellanoza, E.S., & Gueco, L.S., Optimum conditions in the use of young inflorescence for transgenic plant regeneration of rice (*Oryza sativa* L.). *The Philippine Agriculturist*, 2001, 84(2):181-191.

2000 Aldemita, R.R., Romero, G.O., Desamero, N.V., Redona, E.D., Tabien, R.E., Solis, R.R., Sebastian, L.S., & Obien, S.R., Rice Molecular Breeding at PhilRice. *Biochemical Society Transactions*, 2000, 28(5):A289.

1998 Aldemita, R.R., Studies to improve transient *gusA* expression in *A. tumefaciens*-mediated transformation of rice. *Acta Horticulturae*, 1998, 461:409-416.

1996 Aldemita, R.R., Genetic engineering of rice: *Agrobacterium tumefaciens*-mediated transformation of rice and evaluation of a corn pollen-specific promoter using the *gusA* gene in transgenic rice (Order No. 9638129). Purdue University, ProQuest Dissertations & Theses Global. (304261959), 1996:<https://search.proquest.com/docview/304261959>.

Aldemita, R.R., & Hodges, T.K., *Agrobacterium tumefaciens* mediated transformation of *Japonica* and *Indica* rice varieties. *Planta*, 1996, 199(4):612-617.

1989

Zapata, F.J., & Aldemita, R.R., Induction of Salt Tolerance in High-Yielding Rice Varieties through Mutagenesis and Anther Culture. In: Current Options for Cereal Improvement. Maluszynski, M. (Ed.) Kluwer Academic Publishers, Dordrecht, 1989:193-202.

Name Edwin C. Atabay

Gender Male

Organizational Affiliations

Senior Science Research Specialist, Philippine Carabao Center, PCC at CLSU, Science City of Munoz, Nueva Ecija

Education

PhD. in Veterinary Medicine, Hokkaido University, Japan 2003

Fields of Specialization

Veterinary Medicine

Animal Reproductive Biotechnology

Honors / Awards

PSAS Best paper Award under Physiology and Anatomy Category, PSAS Convention in Cebu City 2009 O 21-23

Silver Award (2nd place, Basic Research Category), 2011

Fulbright-DA Philippines Scholarship Grant to undergo Advance Research on Animal Reproductive Biotec, bb

2011 Second Place Basic Research Category, 22nd Regional Symposium on Research and Development CLARR, mm

Best Paper In Applied Research For The Paper Entitled "Optimized Extenders In The Cryopreservation, bb

Researches

Cryotop and Solid Surface Vitrification Cryodevices are Suitable for the Cryopreservation of In vitro-matured Buffalo (*Bubalus bubalis*) Oocytes by

Completed

Evaluation of Population Status of Tamaraw (*Bubalus mindorensis*) by Long-term Community-Based Monitoring in Mindoro Island of the Philippines by Shinya Ishihara, Rodel M. Boyles, Hisashi Matsubayashi, Arnel N. Del-Barrio, Merben R. Cebrian Usdoi, Aiko Ish

Optimized Extenders for The Cryopreservation Of Buck Semen For Artificial Insemination by Ma. Asuncion G. Beltran, Eufrocina P. Atabay, Edwin C. Atabay, Emilio M. Cruz, Flocerfida P. Aquino and Libertado C. Cruz. on final revision for publication in Phil

The Effects of holding water buffalo and bovine ovaries at various temperatures during transport and storage in in vitro embryo production

ON-GOING

Enhancing cryviability of in vivo-derived goat embryos by optimizing embryonic stage and in-vitro culture of morula to blastocyst before freezing

Cryopreservation of In-vitro matured buffalo oocytes by slow freezing and vitrification methods

Ultra rapid vitrification of in vitro matured buffalo oocytes by minimum volume cooling methods

Use of vitrified buffalo oocytes as recipient cytoplasts in the production of clone embryos

Cloning by somatic cell nuclear transfer in buffaloes

Ongoing

Optimizing Chemically-defined Culture Medium for the Production of Bovine Embryos In Vitro

Enhancing In-Vitro Production of Embryos from Vitrified Buffalo and Bovine Oocytes by Intracytoplasmic Sperm Injection (ICSI) Technique

Cryopreservation of In Vitro-Matured Goat Oocytes

Papers Presented

2009 October 21-23 Atabay, E.C., Atabay, E.P., de Vera, R.B., Aquino, F.P., Duran, D.H., & Cruz, L.C. (2009 October 21-23). The effects of holding water buffalo and bovine ovaries at various temperature during transport and storage on in vitro embryo production, Annual Scientific convention of the Philippines.

2011 (2011). Cryopreservation of In Vitro Matured Buffalo (*Bubalus bubalus*) Oocytes by Slow Freezing or Vitrification, Manila.

2010 (2010). Production of Nuclear Transfer Buffalo Embryos Using Oocytes Stored at Low Temperatures, Kuala Lumpur.

2010 Atabay, E.C. (2010). Effect of Holding Water Buffalo and Bovine Ovaries at Various Temperatures During Transport and Storage on In Vitro Embryo Production, Kuala Lumpur.

2009 (2009). Selection of Water buffalo Oocytes with Developmental Competence In Vitro. Cebu City. 2009, Cebu City.

2012 October 20-28 Atabay, E.C. (2012 October 20-28). Cryopreservation of Goat Semen for Artificial Insemination and In-Vitro-Embryo Production by Edwin C. Atabay, Eufrocina Atabay, Marizon Beltran, Floerfida Aquino, and Libertado Cruz, in the proceedings of the during the Joint Conference of the Philippine Society of Animal Science and 9th Asian Reproductive Biotechnology last October 20 to 28, 2012 in Shangri-La Hotel, Manila, Shangri-La Hotel, Manila.

Livestock Biotechnology: Current R&D Program and Direction, by Eufrocina P. Atabay. Presented during the Information Seminar on Agricultural Biotechnology for DA Public Information Officers in line with the celebration of National Biotechnology 2012 last Nov. 8- 10, 2012 at Punta Villa Resort, Iloilo City, bb.

2012 November 12-15 (2012 November 12-15). Livestock Biotechnology: Current R&D Program and Direction, National Biotechnology Philippine Carabao Center, Science City of Munoz, Nueva Ecija.

Livestock Biotechnology: Current R&D Program and Direction, by Eufrocina P. Atabay. Presented during the Information Seminar on Agricultural Biotechnology for Rural Broadcasters (Visayas and Mindanao Chapters) in line with the celebration of National Biotechnology 2012 last Nov. 20-21, 2012 at Cebu City, bb.

Publications

- 2012 Atabay, E.C. et al., Cryopreservation of Goat Semen for Artificial Insemination and In-Vitro-Embryo Production. Proceedings of Joint Conference of the Philippine Society of Animal Science and 9th Asian Reproductive Biotechnology.
- 2011 Atabay, E.C., Atabay, E.P., de Vera, R.V., Aquino, F.P., Mamuad, F.V., & Cruz, L.C., Production of Nuclear Transfer Buffalo Embryos Using Oocytes Stored at Low Temperatures. Philippine Journal of Veterinary and Animal Science, 2011, 37:1-10.
- Atabay, E.C., Atabay, E.P., Mamuad, F.V., & Cruz, L. C., Chemical and Electrical Activation of Swamp Buffalo (*Bubalus bubalus*) Oocytes for the Production of Parthenogenetic Embryos In Vitro. Philippine Journal of Veterinary Medicine, 2011, 48:43-48.
- 2010 Atabay, E.P., Atabay, E.C., Aquino, F.P., Duran, D.H., de Vera, R.V., & Cruz, L.C., Cryopreservation of on In Vitro Matured Buffalo (*Bubalus bubalus*) Oocytes by Slow Freezing or Vitrification. Philippine Journal Veterinary Medicine, 2010, 47(2):103-109.
- Atabay, E.P., Atabay, E.C., de Vera, R.V., Aquino, F.P., Duran, H.D., & Cruz, L.C., Effect of Holding Water Buffalo and Bovine Ovaries at Various Temperatures During Transport and Storage on In Vitro Embryo Production. Philippine Journal of Veterinary and Animal Science, 2010, 36(1):81-93.
- 2007 Nagano, M., Atabay, E.P., Atabay, E.C., Hishinuma, M., Katagiri, S., & Takahashi, Y., Effects of isolation method and pre-treatment with ethylene glycol or raffinose before vitrification on in vitro viability of mouse preantial follicles. Journal of Biomedical Research, 2007, 28(3):153-160.
- 2004 Atabay, E.C., Takahashi, Y., Katagiri, S., Nagano, M., Koga, A., & Kanai, Y., Vitrification of bovine oocytes and its application to intergeneric somatic cell nucleus transfer. Theriogenology, 2004, 61(1):15-23.
- 2001 Atabay, E.C., Diaz, M.A.M., Dochi, O., & Takahashi, Y., Factors Affecting Enucleation Rates of Bovine and Porcine Oocytes After Removal of Cumulus Cells by Vortexing. Journal of Reproduction and Development, 2001, 47(6):365-371.
- dela Peña, E.C., Takahashi, Y., Atabay, E.C., Katagiri, S., & Nagano, M., Vitrification of Mouse Oocytes in Ethylene Glycol-Raffinose Solution: Effects of Preexposure to Ethylene Glycol or Raffinose on Oocyte Viability. Cryobiology, 2001, 42(2):103-111.

Name Evangeline Salcedo Ella

Gender Female

Organizational Affiliations

Senior Associate Scientist, International Rice Research Institute, DAPO Box 7777, Metro Manila, Philippines

Education

Doctor of Philosophy in Botany, University of the Philippines Los Baños, Laguna, Philippines 2011

Master of Science in Agricultural Chemistry, University of the Philippines, Diliman, Quezon City 1981

Fields of Specialization

Chromatography

Botany

Antioxidant Activity

Plant Tissue Culture

Biochemistry

Chemical Kinetics

Phytochemistry

Oxidative Stress

Association Membership

Member, Crop Science Society of the Philippines

Regular Member, National Research Council of the Philippines

Member, Chemical Society of the Philippines

Member, Integrated Chemists of the Philippines

Honors / Awards

First Prize for Best Scientific Poster Agricultural Sciences Category, National Academy of Science and Technology 2015 July

First Prize for Best Scientific Poster Agricultural Sciences Category, National Academy of Science and Technology 2014 July

Achievement Award for Research, Crop Science Society of the Philippines 2013 March

Best Paper Award Upstream Research Category, Crop Science Society of the Philippines 2008 May

2006 IRRI Award for Outstanding Scientific Achievement, International Rice Research Institute 2007 April

Best Poster Award, International Symposium on Rice, in Hyderabad, India
2004 October

Best Paper Award Upstream Research Category, Federation of Crop
Science Societies in the Philippines 1997 May

Papers Presented

- 2008 April 13-18 Ella, E.S., & Ismail, A.M. (2008 April 13-18). Effect of floodwater depth, temperature and seed age on survival of germinating rice seedlings under flooded conditions, 5th International Crop Science Congress and Exhibition, International Crop Science Congress, Jeju, Korea.
- 1990 May 14-18 Zapata, F.J., Aldemita, R.R., Ella, E.S., & Cho, M.S. (1990 May 14-18). Isolated microspore culture of rice at the International Rice Research Institute, Second International Rice Genetics Symposium.

Publications

- 2009 Ismail, A.M., Ella, E.S., Vergara, G.V., & Mackill, J., Mechanisms Associated With Tolerance to Flooding During Germination and Early Seedling Growth in Rice (*Oryza Sativa*). *Annals of Botany*, 2009, 103(2):197-209.
- 2008 Ismail, A., Ella, E.S., Vergara, G., Holt-Stevens, D.F., Pamplona, A., & Mackill, D., Physiological basis of tolerance of flash flooding during germination and early seedling establishment In rice. In: Improving productivity and livelihood for fragile environments. IRRI Technical Bulletin. Ed. Hardy B., 2008:1-7.
- 2006 Ella, E.S., & Ismail, A.M., Seedling Nutrient Status before Submergence Affects Survival after Submergence in Rice. *Crop Science*, 2006, 46(4):1673-1681.
- 2003 Ella, E.S., Kawano, N., Yamauchi, Y., Tanaka, K., & Ismail, A.M., Blocking ethylene perception enhances flooding tolerance in rice seedlings. *Functional Plant Biology*, 2003, 30(7):813-819.
Ella, E.S., Kawano, N., & Ito, O., Importance of active oxygen-scavenging system in the recovery of rice seedlings after submergence. *Plant Science*, 2003, 165(1):85-93.
- 2002 Kawano, N., Ella, E., Ito, O., Yamauchi, Y., & Tanaka, K., Metabolic changes in rice seedlings with different submergence tolerance after desubmergence. *Environmental and Experimental Botany*, 2002, 47(3):195-203.
Kawano, N., Ella, E., Ito, O., Yamauchi, Y., & Tanaka, K., Comparison of Aadaptability to Flash Flood between Rice Cultivars Differing in Flash Flood Tolerance. *Soil Science and Plant Nutrition*, 2002, 48(5):659-665.
- 2000 Ito, O., Cabuslay, G., & Ella, E.S., Drought and submergence in rice production. In: Rice Rice Breeding and Genetics - research priorities and challenges, Publisher: Science Publishers, Inc., Ed. Nanda, J.S., 2000:73-97.
Quimio, C.A., Torrizo, L.B., Setter, T.L., Ellis, M., Grover, A., Abrigo, E.M., Oliva, N.P., Ella, E.S., Carpena, A.L., Ito, O., Peacock, W.J., Dennis, E., & Dattal, S.K., Enhancement of Submergence Tolerance in Transgenic Rice Overproducing Pyruvate Decarboxylase. *Journal of Plant Physiology*, 2000, 156(4):516-521.

- 1999 Ella, E.S., & Setter, T.L., Importance of seed carbohydrates in rice seedling establishment under anoxia. *Acta Horticulturae*, 1999, 504(504):209-216.
Ito, O., Ella, E., & Kawano, N., Physiological basis of submergence tolerance in rainfed lowland rice ecosystem. *Field Crops Research*, 1999, 64(1-2):75-90.
- 1997 Setter, T.L., Ellis, M., Laureles, E.V., Ella, E.S., Senadhira, D., Mishra, S.B., Sarkarung, S., & Datta, S., Physiology and Genetics of Submergence Tolerance in Rice. *Annals of Botany*, 1997, 79(Supplement):67-77.
- 1994 Setter, T.L., & Ella, E.S., Relationship between Coleoptile Elongation and Alcoholic Fermentation in Rice exposed to Anoxia. I. Importance of Treatment Conditions and Different Tissues. *Annals of Botany*, 1994, 74:265-271.
Setter, T.L., Ella, E.S., & Valdez, A.P., Relationship between Coleoptile Elongation and Alcoholic Fermentation in Rice Exposed to Anoxia. II. Cultivar Differences. *Annals of Botany*, 1994, 74(3):273-279.
- 1993 Ella, E.S., & Zapata, F.J., Suspension initiation in indica rice requires proline. *International Rice Research Notes*, 1993, 18(1):17-18.
- 1992 Ella, E.S., & Zapata, F.J., Effect of maltose and gelling agent on protoplast culture response in indica rice. *International Rice Research Newsletter*, 1992, 17(6):5-6.
- 1991 Zapata, F.J., Aldemita, R.R., Ella, E.S., & Cho, M.S., Isolated microspore culture of rice at the International Rice Research Institute. *Rice Genetics II. Proceedings of the Second International Rice Genetics Symposium*, 1991.
Ella, E.S., & Zapata, F.J., Effect of abscisic acid and zeatin on plant regeneration from scutellum-derived callus of rice (*Oryza sativa* L. cv. *Nona Bokra*). *Philippine Journal of Crop Science*, 1991, 16(1):3-6.
- 1989 Ella, E.S., & Zapata, F.J., Some Physiological Factors Affecting Callus Production from Rice Grains. *Philippine Journal of Crop Science*, 1989, 14(3):123-125.
- 1988 Zapata, F.J., & Ella, E.S., Specific gravity of the grain-factor to consider in rice tissue culture. *Journal of Plant Physiology*, 1988, 132(3):294-297.

Name Jhoana Opeña

Gender Female

Organizational Affiliations

Associate Scientist, Weed Science Unit, Crop and Environmental Sciences Division, International Rice Research Institute (IRRI), Los Baños, Laguna

Education

Master of Science in Agronomy / Weed Science (ongoing), Charles Sturt University - Wagga Wagga, Boorooma St, North Wagga Wagga NSW 2650, Australia 2020

Master of Science in Agronomy, Minor in Rural Sociology, University of the Philippines Los Baños, Laguna, Philippines 2013

Fields of Specialization

Agronomy

Sustainable Agriculture

Plant Physiology

Plant Biotechnology

Plant Biology

Crop Production

Plant Nutrition

Fertilizers

Crop Management

Integrated Pest Management

Crop Science

Crop Protection

Agroecology

Conservation Agriculture

Crop Physiology

Field Experimentation

Seedling

Seeds

Weed Management

Rice

Crop Modeling

Fertigation

Crop Growth Modelling
Herbicides
Agricultural Plant Science
Weed Science
Farming Systems
Weed Ecology
Herbicide Resistance
Weed Control
Weed Biology
Weed Ecophysiology
Herbology

Employment

Associate Scientist, Weed Science Unit, Crop and Environmental Sciences Division, International Rice Research Institute (IRRI), 2016 July-2017 June
Adjunct Associate Professor, University of the Philippines Los Baños, 2015 May-2017 July
Assistant Scientist, Weed Science Unit, Crop and Environmental Sciences Division, International Rice Research Institute (IRRI), 2011 March-2016 June
Researcher, Faculty of Crop Protection, University of the Philippines Los Baños, 2006 May-2011 March

Honors / Awards

Marcos R. Vega Memorial Award in Weed Science, International Rice Research Institute 2016 March 8-11
Best Undergraduate Thesis in Weed Science, Pest Management Council of the Philippines 2006 May

Researches

Ongoing

Impacts of the pasture legume phase on the seedbank, establishment, and growth of barnyard grass (*Echinochloa crusg-galli*) in drill-sown rice.

Papers Presented

- 2014 de Leon, M.J., Opeña, J., & Chauhan, B.S. (2014). Role of Plant Geometry in Managing Weeds in Mechanical Transplanted Rice, 4th International Rice Congress, Bangkok, Thailand.
- 2014 Opeña, J., Quilty, J.R., Correa, T., Jr., & Chauhan, B.S. (2014). Weed Seed Bank and Population Dynamics in a Sprinkler-Irrigated Rice-Based Cropping Systems, 4th International Rice Congress, Bangkok, Thailand.

- 2012 Opeña, J., & Chauhan, B.S. (2012). Effect of cultivars, tillage systems, and herbicides in managing weeds in dry-seeded rice systems, International Rice Research Institute Young Scientist Conference, IRRI, Philippines.

Publications

- 2015 Chauhan, B., Opeña, J., & Ali, J., Response of 10 elite "Green Super Rice" genotypes to weed infestation in aerobic rice systems. *Plant Production Science*, 2015, 18(2):228-233.
Ahmed, S., Opeña, J., & Chauhan, B., Seed Germination Ecology of Doveweed (*Murdannia nudiflora*) and Its Implication for Management in Dry-Seeded Rice. *Weed Science*, 2015, 63:491-501.
- 2014 Opeña, J., Chauhan, B., & Baltazar, A., Seed Germination Ecology of *Echinochloa glabrescens* and Its Implication for Management in Rice (*Oryza sativa*). *PLoS ONE*, 2014, 9(3):e92261.
Opeña, J., Quilty, J., Correa, T., Jr., & Chauhan, B., Weed population dynamics, herbicide efficacies, and crop performance in a sprinkler-irrigated maize-rice cropping system. *Field Crops Research*, 2014, 167:119-130.
- 2013 Chauhan, B., & Opeña, J., Implications of plant geometry and weed control options in designing a low-seeding-seed drill for dry-seeded rice systems. *Field Crops Research*, 2013, 141:225-231.
Chauhan, B., & Opeña, J., Weed management and grain yield of rice sown at low seeding rates in dry-seeded systems. *Field Crops Research*, 2013, 141:9-15.
Chauhan, B., & Opeña, J., Management of Volunteer Corn Seedlings in Dry-Seeded Rice. *American Journal of Plant Sciences*, 2013, 4(12):2381-2385.
Chauhan, B., & Opeña, J., Effect of Plant Geometry on Growth and Yield of Corn in the Rice-Corn Cropping System. *American Journal of Plant Sciences*, 2013, 4(10):1928-1931.
Chauhan, B.S., & Opeña, J.L., Effect of Plant Spacing on Growth and Grain Yield of Soybean. *American Journal of Plant Sciences*, 2013, 4(10):2011-2014.
- 2012 Chauhan, B., & Opeña, J., Growth of Purple Nutsedge (*Cyperus rotundus*) in Response to Interference with Direct-Seeded Rice.. *Weed Technology*, 2012, 26:506-509.
Chauhan, B., & Opeña, J., Effect of tillage systems and herbicides on weed emergence, weed growth, and grain yield in dry-seeded rice systems. *Field Crops Research*, 2012, 137:56-59.

Name Joie M. Ramos

Gender Female

Organizational Affiliations

Associate Scientist, International Rice Research Institute,

Fields of Specialization

Molecular Biology

Genetics

Employment

Associate Scientist, International Rice Research Institute, 2012 July-Present

Researches

Completed

Identification of QTLs for agronomic traits under lowland drought stress in crosses of *Oryza sativa* x *O. glaberrima*

Papers Presented

2014 January 11-15 Kitazumi, A., Amas, R., Ramos, J., Alpuerto, J., Ohyanagi, H., Gregorio, G.B., Vera Cruz, C.M., Jena, K.K., Kurata, N., & de los Reyes, B.G. (2014 January 11-15). Analysis of the Low Temperature Stress Transcriptome of the CC-Genome *Oryza officinalis*, International Plant and Animal Genome Conference XXII, San Diego, California, USA.

2013 March 17-19 Hechanova, S.L.S., Ramos, J., Vinarao, R.B., Del Valle, M.M., Marathi, B., & Jena, K.K. (2013 March 17-19). Molecular Analysis and Production of Multiple-Gene Pyramided Lines for Disease and Insect Resistance in Indica Rice, International Plant and Animal Genome Conference Asia XXI, Singapore.

2012 January 14-18 Kitazumi, A., Ramos, J., Hechanova, S.L., Mohanty, B., Jena, K.K., Kurata, N., Brar, D.S., & de los Reyes, B.G. (2012 January 14-18). Vertical Comparison of Stress-Related Transcription Factors in the Genus *Oryza*, International Plant and Animal Genome Conference XX, San Diego, California, USA.

Publications

2016 Ramos, J.M., Furuta, T., Uehara, K., Chihiro, N., Angeles-Shim, R.B., Shim, J., Brar, D.S., Ashikari, M., & Jena, K.K., Development of chromosome segment substitution lines (CSSLs) of *Oryza longistaminata* A. Chev. & Röhr in the background of the elite *japonica* rice cultivar, Taichung 65 and their evaluation for yield traits. *Euphytica*, 2016, 210(2):151-163.

Kim, S.-R., Ramos, J., Ashikari, M., Virk, P.S., Torres, E.A., Nissila, E., Hechanova, S.L., Mauleon, R., & Jena, K.K., Development and validation of allele-specific SNP/indel markers for eight yield-enhancing genes using whole-genome sequencing strategy to increase yield potential of rice, *Oryza sativa* L. *Rice*, 2016, 9(12):doi: 10.1186/s12284-016-0084-7.

2015 Marathi, B., Ramos, J., Hechanova, S.L., Oane, R.H., & Jena, K.K., SNP genotyping and characterization of pistil traits revealing a distinct phylogenetic relationship among the species of *Oryza*. *Euphytica*, 2015, 201:131-148.

- 2014 Bandillo, N.B., Carpena, A.L., Ramos, I.M., & Brar, D.S., Phenotypic and Molecular Characterization of Tungro Resistant Introgression Lines Derived from the Cross *Oryza sativa* L. x *Oryza rufipogon* Griff.. Philippine Journal of Crop Science, 2014, 39(1):1-10 ref.28.
- 2011 Bimpong, I.K., Chin, J.H., Ramos, J., & Koh, H.-J., Application of subspecies-specific marker system identified from *O. sativa* to *O. glaberrima* accessions and *O. sativa* x *O. glaberrima* F₁ interspecific progenies. International Journal for Biotechnology and Molecular Biology Research, 2011, 2(1):1-22.
- Bimpong, I.K., Serraj, R., Chin, J.H., Ramos, J., Mendoza, E.M.T., Hernandez, J.E., Mendioro, M.S., & Brar, D.S., Identification of QTLs for Drought-Related Traits in Alien introgression Lines derived from crosses of Rice (*Oryza sativa* cv IR64) x *O. glaberrima* under Lowland drought stress. Journal of Plant Biology, 2011, 54:237-250.
- 2010 Bimpong, I.K., Carpena, A.L., Mendioro, M.S., Fernandez, L., Ramos, J., Reversat, G., & Brar, D.S., Evaluation of *Oryza sativa* x *O. glaberrima* derived progenies for resistance to rootknot nematode and identification of introgressed alien chromosome segments using SSR markers. African Journal of Biotechnology, 2010, 9(26):3988-3997.

Name Lorna S. Relleve

Gender Female

Organizational Affiliations

Senior Science Research Specialist, Philippine Nuclear Research Institute -
Department of Science and Technology, Commonwealth Ave., Diliman,
Quezon City

Fields of Specialization

Antioxidant Activity

Polymer Chemistry

Bioactivity

Ionizing Radiation

Hydrogel

Gamma Irradiation

Radiation Chemistry

Radiation Processing

Polysaccharide Degradation

Biochemistry

Phytochemistry

Papers Presented

2011 April Abad, L.V., Relleve, L.S., Aranilla, C.T., Arcadio, C.T., & Dela Rosa, A.M. (2011
13-15 April 13-15). Characterization of Radiation Modified K-Carageenan Oligomers
for Bio-based Materials Development, 26th Philippine Chemistry Congress,
Waterfront Hotel, Lahug, Cebu City, Philippines.

2002 Yoshii, F., Nagasawa, N., Kume, T., Yagi, T., Ishii, K., Relleve, L.S., Tita, P.,
December Quynh, T.M., Luan, L.Q., & Hien, N.Q. (2002 December 16-20). Radiation
16-20 Degradation of Marine Polysaccharides by Low Energy Electron Beam, FNCA
2002 workshop on application of electron accelerator.

1998 Dela Rosa, A.M., Abad, L.V., Relleve, L.S., Charito, A.T., & Pascual, C.L. (1998
February 19- February 19-21). Radiation-modified natural polymers for biomedical
21 applications, DOST-JSPS workshop on materials and polymer chemistry; Subic
Bay - Olongapo, Zambales, Philippines.

Publications

2017 Barba, B.J.D., Aranilla, C.T., Relleve, L.S., Cruz, V.R.C., Vista, J.R., & Abad,
L.V., Hemostatic granules and dressing prepared from formulations of
carboxymethyl cellulose, kappa-carrageenan and polyethylene oxide
crosslinked by gamma radiation. Radiation Physics and Chemistry, 2017:doi:
10.1016/j.radphyschem.2017.08.009.

- 2016 Abad, L.V., Aurigue, F.B., Relleve, L.S., Montefalcon, D.R.V., & Lopez, G.E.P., Characterization of low molecular weight fragments from gamma irradiated κ -carrageenan used as plant growth promoter. *Radiation Physics and Chemistry*, 2016, 118:75-80.
- Sen, M., Quoc Hien, N., Van Phu, D., Quang Luan, L., Zaman, K., Abad, L.V., Relleve, L.S., Aranilla, C.T., Racadio, C.D.T., Dela Rosa, A.M., Tahtat, D., Mahlous, M., Benamer, S., & Nacer Khodja, A., Antimicrobial and antioxidant properties of oligosaccharides. In: Chapter 9, *The Radiation Chemistry of Polysaccharides*. International Atomic Energy Agency, 2016, 48(8):257-282.
- 2015 Relleve, L., & Abad, L., Characterization and antioxidant properties of alcoholic extracts from gamma irradiated κ -carrageenan. *Radiation Physics and Chemistry*, 2015, 112:40-48.
- 2014 Abad, L.V., Aranilla, C.T., Relleve, L.S., & Dela Rosa, A.M., Emerging applications of radiation-modified carrageenans. *Nuclear Instruments and Methods in Physics Research Section B*, 2014, 336:167-172.
- 2013 Abad, L.V., Relleve, L.S., Racadio, C.D., Aranilla, C.T., & Dela Rosa, A.M., Antioxidant activity potential of gamma irradiated carrageenan. *Applied radiation and isotopes*, 2013, 79C:73-79.
- Aranilla, C.T., Castanos, I.D.V., Quirit, L.L., Relleve, L.S., & Abad, L.V., Synthesis of Kappa-carrageenan oligomers via synergistic action of gamma radiation and hydrogen peroxide. *Philippines Nuclear Journal*, 2013:16-24.
- 2011 Racadio, C.D.T., Aranilla, C.T., Feliciano, C.P., Lim, W.G., Relleve, L.S., Cruz, V.R.C., & Abad, L.V., Factors affecting the bioburden level of PVP-Carrageenan hydrogels. *Philippine Nuclear Journal*, 2011, 16:41-50.
- 2010 Abad, L.V., Kudo, H., Saiki, S., Nagasawa, N., Tamada, M., Fu, H., Muroya, Y., Lin, M., Katsmura, Y., Relleve, L.S., Aranilla, C.T., & Dela Rosa, A.M., Radiolysis studies of aqueous κ -carrageenan. *Nuclear Instruments and Methods in Physics Research Section B*, 2010, 268(10):1607-1612.
- 2009 Abad, L.V., Kudo, H., Saiki, S., Nagasawa, N., Tamada, M., Katsumura, Y., Aranilla, C.T., Relleve, L.S., & Dela Rosa, A.M., Radiation degradation studies of carrageenans. *Carbohydrate Polymers*, 2009, 78(1):100-106.
- 2008 Abad, L., Okabe, S., Shibayama, M., Kudo, H., Saiki, S., Aranilla, C., Relleve, L., & Dela Rosa, A., Comparative studies on the conformational change and aggregation behavior of irradiated carrageenans and agar by dynamic light scattering. *International Journal of Biological Macromolecules*, 2008, 42(1):55-61.
- 2005 Relleve, L., Nagasawa, N., Quang, L.L., Yagi, T., Aranilla, C.T., Abad, L.V., Kume, T., Yoshii, F., & Dela Rosa, A.M., Degradation of carrageenan by radiation. *Polymer Degradation and Stability*, 2005, 87(3):403-410.
- 2004 Abad, L.V., Nasimova, I.R., Relleve, L.S., Aranilla, C.T., Dela Rosa, A.M., & Shibayama, M., Dynamic light scattering studies of irradiated kappa carrageenan. *International Journal of Biological Macromolecules*, 2004, 34(1-2):81-88.
- 2003 Yoshii, F., Nagasawa, N., Kume, T., Yagi, T., Ishii, K., Relleve, L.S., Tita, P., Quynh, T.M., Luan, L.Q., & Hien, N.Q., Radiation Degradation of Marine Polysaccharides by Low Energy Electron Beam. *Proceedings of the FNCA 2002*

- workshop on application of electron accelerator. Radiation system for liquid samples, 2003.
- Abad, L.V., Rellve, L.S., Aranilla, C.T., & Dela Rosa, A.M., Properties of radiation synthesized PVP-kappa carrageenan hydrogel blends. *Radiation Physics and Chemistry*, 2003, 68(5):901-908.
- 2002 Abad, L.V., Rellve, L.S., Aranilla, C.T., Aliganga, A.K., San Diego, C.M., & Dela Rosa, A.M., Natural antioxidants for radiation vulcanization of natural rubber latex. *Polymer Degradation and Stability*, 2002, 76(2):275-279.
- Deocaris, C.C., Rellve, L.S., Cruz, Isidro, S.M., Pocsidio, G.N., Chung, F.C., & Samonte, R.V., Radiation-sterilized carabao serum as an *in vitro* tissue culture supplement. *Philippine Journal of Science*, 2002, 131(2):119-126.
- 2001 Rellve, L., Dela Rosa, A., Abad, L., Aranilla, C., & Aliganga, A.K., Biological Activities of Radiation-Degraded Carrageenan. *Proceedings of the Takasaki Symposium on Radiation Processing of Natural Polymers*, Takasaki, Japan, 2001.
- 1999 Rellve, L., Yoshii, F., Dela Rosa, A., & Kume, T., Radiation-modified hydrogel based on poly(N-vinyl-2-pyrrolidone) and carrageenan. *Die Angewandte Makromolekulare Chemie*, 1999, 273(1):63-68.
- 1998 Dela Rosa, A.M., Abad, L.V., Rellve, L.S., Charito, A.T., & Pascual, C.L., Radiation-modified natural polymers for biomedical applications. *Advanced polymers for the 21st century*, 1998, 30(21):41-52.

Name Lerma San Jose-Maldia

Gender Female

Organizational Affiliations

Assistant Professor, Department of Forest Biological Sciences, College of Forestry and Natural Resources, University of the Philippines Los Baños, College, 4031 Laguna

Education

Doctor of Agricultural Science, Nagoya University Graduate School of Bioagricultural Sciences, Nagoya, Japan 2010

Master of Agricultural Science, Nagoya University Graduate School of Bioagricultural Sciences, Nagoya, Japan 2004

Bachelor of Science in Forestry, University of the Philippines Los Baños, College, 4031 Laguna, Philippines 1999

International Exchange Program/"Inter-relationship of Human and Nature, Mu Academy Kaisho Forest Learning Center for Sustainability, Seto City, Aichi, Japan 2006

Fields of Specialization

Evolutionary Biology

Forest Ecology

Molecular Genetics

Bioinformatics

Molecular Ecology

Genetics

Phylogeography

Microsatellite Genotyping

Employment

Assistant Professor, University of the Philippines Los Baños, 2014 February-Present

Assistant Professorial Lecturer, De la Salle University - Manila, 2013 September-Present

Post doctoral Researcher, Forestry and Forest Products Research Institute, Tsukuba, 2010 September-2013 March

Intern, United Nation Center for Regional Development, 2009 August-2009 October

Teaching Assistant, Nagoya University, 2007 April-2010 March

Part-time translator, Nagoya International Center, 2006-2010

University Extension Associate, Training Center For Tropical Resources Ecosystems Sustainability, University of the Philippines Los Baños, 1999-2000

Honors / Awards

Japan Ministry of Education, Culture, Sports, Science and Technology Scholarship for Doctoral Degree, Japanese Government 2006-2010

Soroptimist International Scholarship for International Exchange Program, Soroptimist June- December 2006

Masters Degree Scholarship, Matsushita Electrical Ind. - Panasonic Scholarship Inc. 2001-2004

Papers Presented

2012 San Jose-Maldia, L., Matsumoto, A., Ueno, S., Kanazashi, A., Yoshimaru, H., & Tsumura, Y. (2012). Phylogeographic structure of *Quercus serrata* in Japan inferred from chloroplast DNA variation, 123rd Japanese Forest Society Congress, Utsunomiya, Japan.

2012 San Jose-Maldia, L., Matsumoto, A., Ueno, S., Kanazashi, A., & Tsumura, Y. (2012). Genetic differentiation between the Japanese white oak *Quercus crispula* and *Quercus crispula* var. *horikawae* revealed by nuclear microsatellite analysis, IUFRO 2012 Conference Genetics of Fagaceae and Nothofagaceae.

Publications

2017 Kitamura, K., Namikawa, K., Kawahara, T., Matsumoto, A., & San Jose-Maldia, L., Genetic Structure of Remnant *Quercus serrata* Populations at the Northernmost Limit of their Distribution in Japan. *Acta Phytotaxonomica et Geobotanica*, 2017, 68(1):1-15.

2016 Ata, J.P., Luna, A.C., Tinio, C.E., Quimado, M.O., San Jose-Maldia, L., Abasolo, W.P., & Fernando, E.S., Rapid assessment of Plant Diversity in of Ultramafic Soil Environments in Zambales and Surigao del Norte, Philippines. *Asian Journal of Biodiversity*, 2016, 7(1):1-16.

Hernandez, J.O., Malabrigo, P.L., Jr., Quimado, M.O., San Jose-Maldia, L., & Fernando, E.S., Xerophytic Characteristics of *Tectona philippinensis* Benth. & Hook. f. *Philippine Journal of Science*, 2016, 145(3):259-269.

2014 Kimura, M.K., Uchiyama, K., Nakao, K., Moriguchi, Y., San Jose-Maldia, L., & Tsumura, Y., Evidence for cryptic northern refugia at last glacial period and anagenetic divergence in southernmost population of *Cryptomeria japonica*. *Annals of Botany*, 2014, 114(8):1687-1700.

2012 San Jose-Maldia, L., Matsumoto, A., Ueno, S., Kanazashi, A., Yoshimaru, H., & Tsumura, Y., Phylogeographic structure of *Quercus serrata* in Japan inferred from chloroplast DNA variation. *Proceedings of the 123rd Japanese Forest Society Congress*, Utsunomiya, Japan, 2012.

San Jose-Maldia, L., Matsumoto, A., Ueno, S., Kanazashi, A., & Tsumura, Y., Genetic differentiation between the Japanese white oak *Quercus crispula* and *Quercus crispula* var. *horikawae* revealed by nuclear microsatellite analysis. *Proceedings of the IUFRO 2012 Conference Genetics of Fagaceae and Nothofagaceae*, 2012.

2009

San Jose-Maldia, L., Uchida, K., & Tomaru, N., Mitochondrial DNA variation in natural populations of Japanese larch (*Larix kaempferi*). *Silvae Genetica*, 2009, 58(5-6):234-241.

Name Jessica F. Simbahan

Gender Female

Education

Doctor of Philosophy in Biological Science, University of Nebraska
Lincoln, 1400 R St, Lincoln, NE 68588, USA 2004

Fields of Specialization

Microbiology

Cell Biology

Molecular Biology

Polymerase Chain Reaction (PCR)

Biochemistry

Molecular Cloning

Genomics

Environmental Microbiology

Microbial Ecology

Microbial Biotechnology

Bacteria

DNA Sequence Analysis

Gel Electrophoresis

Employment

Associate Professor 3, Institute of Biology, College of Science, University of
the Philippines , 2016 August-Present

Researcher, National Institute of Molecular Biology and Biotechnology
(BIOTECH), 1981 June-2016 July

Papers Presented

2013 April Organo, N.D., Paterno, E.S., Delfin, E.F., Gregorio, G.B., Lantican, N.B., &
Simbahan, J.F. (2013 April). Chapter 18. Application of PCR-DGGE to
Examine the Microbial Community Associated with the Rhizosphere of
Rice as Affected By Salinity, 3rd Asian Conference on Plant Growth-
Promoting Rhizobacteria (PGPR) and Other Microbials, Hyatt Hotel,
Manila, Philippines.

2007 May Amano, N.Q., Jr., Pajares, I.G., Duka, I.M.A., & Simbahan, J.F. (2007 May).
Protoplast Fusion of High Ethanol Yielding and
Thermotolerant *Saccharomyces cerevisiae* Strains, 36th Annual Convention
and Scientific Meeting of the Philippine Society for Microbiology, Inc
(PSM), Manila, Philippines.

2007 May Manabat, M.C., Pajares, I.G., & Simbahan, J.F. (2007 May). Characterization of Crude Lipase and Genetic Fingerprinting of the Producing Organism *Geobacillus sp.*, M5, 36th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology, Inc (PSM), Manila, Philippines.

Publications

- 2017 Orosco, F.L., Estrada, S.M., Simbahan, J.F., Alcantara, V.A., & Pajares, I.G., Genome Shuffling for Improved Thermotolerance, Ethanol Tolerance and Ethanol Production of *Saccharomyces cerevisiae* 2013. *Philippine Science Letters*, 2017, 10(1):22-28.
- 2015 Abisado, R.G., Simbahan, J.F., Nomura, N., Migo, V.P., Tecson-Mendoza, E.M., & Trinidad, L.C., Identification and phylogenetic analysis of sulfate-reducing bacteria isolated from toxic element-contaminated sediments in the Philippines. *Philippine Journal of Science*, 2015, 144(2):129-137.
- 2013 Organo, N.D., Paterno, E.S., Delfin, E.F., Gregorio, G.B., Lantican, N.B., & Simbahan, J.F., Chapter 18. Application of PCR-DGGE to Examine the Microbial Community Associated with the Rhizosphere of Rice as Affected By Salinity. *Proceedings of the 3rd Asian Conference on Plant Growth-Promoting Rhizobacteria (PGPR) and Other Microbials*, Hyatt Hotel, Manila, Philippines, 2013.
- Alcantara, V.A., Pajares, I.G., Simbahan, J.F., & Edding, S.N., Downstream Recovery and Purification of a Bioemulsifier from *Saccharomyces cerevisiae* 2031. *Philippine Agricultural Scientist*, 2013, 96(4):349-358.
- 2012 Alcantara, V.A., Pajares, I.G., Simbahan, J.F., & Rubio, M.L.D., Substrate Dependent Production and Isolation of an Extracellular Biosurfactant from *Saccharomyces cerevisiae* 2031. *Philippine Journal of Science*, 2012, 141(1):13-24.
- 2010 Alcantara, V.A., Pajares, I.G., Simbahan, J.F., Villarante, N.R., & Rubio, M.L.D., Characterization of Biosurfactant From *Saccharomyces cerevisiae* 2031 and Evaluation of Emulsification Activity for Potential Application in Bioremediation. *Philippine Agricultural Scientist*, 2010, 93(1):22-30.
- 2007 Amano, N.Q., Jr., Pajares, I.G., Duka, I.M.A., & Simbahan, J.F., Protoplast Fusion of High Ethanol Yielding and Thermotolerant *Saccharomyces cerevisiae* Strains. *Proceedings of the 36th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology*, 2007.
- Manabat, M.C., Pajares, I.G., & Simbahan, J.F., Characterization of Crude Lipase and Genetic Fingerprinting of the Producing Organism *Geobacillus sp.*, M5. *Proceedings of the 36th Annual Convention and Scientific Meeting of the Philippine Society for Microbiology*, 2007.
- 2005 Simbahan, J., Kurth, E., Schelert, J., Dillman, A., Moriyama, E., Jovanovich, S., & Blum, P., Community Analysis of a Mercury Hot Spring Supports Occurrence of Domain-Specific Forms of Mercuric Reductase. *Applied and Environmental Microbiology*, 2005, 71(12):8836-8845.
- 2004 Schelert, J., Dixit, V., Hoang, V., Simbahan, J., Drozda, M., & Blum, P., Occurrence and Characterization of Mercury Resistance in the Hyperthermophilic Archaeon *Sulfolobus solfataricus* by Use of Gene Disruption. *Journal of Bacteriology*, 2004, 186(2):427-437.

Simbahan, J., Drijber, R., & Blum, P., Alicyclobacillus vulcanalis sp nov., a thermophilic, acidophilic bacterium isolated from Coso Hot Springs, California, USA. International Journal of Systematic and Evolutionary Microbiology, 2004, 54(5):1703-1707.

Name Derick Erl Perida Sumalapao

Gender Male

Organizational Affiliations

Assistant Professor Lecturer, Department of Mathematics, College of Science, De La Salle University, Manila, Philippines

Senior Lecturer 1, Department of Physical Sciences and Mathematics, College of Arts and Sciences, University of the Philippines Manila, Padre Faura, Ermita, Manila

Education

Bachelor of Science in Mathematics, University of the Philippines Visayas, Miagao, Iloilo 1998

Master of Science in Applied Mathematics (Operations Research), University of the Philippines, Diliman, Quezon City 2004

Doctor of Medicine, University of the Philippines Manila - Philippine General Hospital, Padre Faura, Ermita, Manila 2012

Doctor of Philosophy in Medical Microbiology, University of the Philippines, Pedro Gil St., Ermita, Manila (ongoing)

Fields of Specialization

Applied Mathematics

Statistics

Operation Research

Mathematical Modelling

Clinical Medicine

Systems Biology

Randomized Clinical Trials

Papers Presented

2017 June 6 Saranza, G., Sumalapao, D., Domingo, A., Pasco, P., Jamora, R.D., Lee, L., Westenberger, A., & Klein, C. (2017 June 6). Association analysis of single nucleotide polymorphisms near the DYT3 locus to dystonic symptoms in X-linked dystonia-parkinsonism, 21st International Congress, International Parkinson and Movement Disorder Society, Manila, Philippines.

2014 May Sumalapao, D.E.P. (2014 May). On Non-Sigmoid Shaped Negative Exponential Volumetric Models of State for Saturated Fluids and Gases Using Gauss-Newton Iterative Method, The 2014 Mathematical Society of the Philippines Annual Convention, Iloilo City, Philippines.

2011 November Saranza, G.R.M., Sumalapao, D.E.P., & Sia, I.C. (2011 November). Factors Affecting Patients' Incomplete Understanding of Prescriptions, ICIUM 2011

Third International Conference for Improving Use of Medicines, Kervansaray Lara Convention Center & Spa Hotel, Antalya, Turkey.

- 2010 July Gangcuangco, L.M.A., Sumalapao, D.E.P., Tan, M.L., & Berba, R.P. (2010 July). Changing risk factors for HIV infection among men having sex with men in Manila, Philippines, XVIII International AIDS Conference, Vienna, Austria.

Publications

- 2017 Saboriendo, S.V., Sumalapao, D.E.P., & Villarante, N.R., Therapeutic and prophylactic effect of *Andrographis paniculata* on aspirin-induced gastric ulcer. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(8):781-787.
- Saranza, G.R.M., Sumalapao, D.E.P., Batara, J.M.F., & Arceo, C.P., A mathematical approach in the management of hydrocephalus from tuberculous meningitis. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(11):1195-1200.
- De Castillo, L.L.C., Sumalapao, D.E.P., & Pascual, J.L.R., Risk factors for pneumonia in acute stroke patients admitted to the Emergency Department of a Tertiary Government Hospital. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(8):855-859.
- Alvañiz, A.F.A., de Castro, E.C., Tablizo, B.J.B., Flores, M.J.C., Maghirang, E.S.V., Esmeli, L.A.R., Pacificador, A.Y., Jr., & Sumalapao, D.E.P., Prevalence, physiologic effects, and risk factors of soil-transmitted helminth infections among grade school children. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(9):907-913.
- Lopez, C.P., Sumalapao, D.E.P., & Villarante, N.R., Hepatoprotective activity of aqueous and ethanolic *Bixa orellana* L. leaf extracts against carbon tetrachloride-induced hepatotoxicity. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(9):972-976.
- Sumalapao, D.E.P., Mesina, J.A.R.T., Cabrera, E.C., & Gloriani, N.G., Viability kinetics of *Lactobacillus casei* Shirota strain in a commercial fermented milk drink during refrigerated storage. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(11):1242-1246.
- Sumalapao, D.E.P., Alvarez, M.B.D., Alvina, L.M.C., Arevalo, M.V.P.N., & Bautista, J.G.E., Cognitive effects of varied media platforms. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(12):1254-1258.
- Espartero, M.A.C., Fernandez, A.J.M., Lazarte, J.V.L., Perez, A.D., & Sumalapao, D.E.P., Varying concentrations of sucralose and the acid-producing capability of *Lactobacillus acidophilus*. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(12):1279-1283.
- Sumalapao, D.E.P., Physiologic kinetic profile of glycemic response in a single dose of clonidine. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(7):701-706.
- Sumalapao, D.E.P., Balana, A.J.T., Obias, M.P.E.U., & Reyes, Y.I.A., Hardness of tap water samples in Manila City, Philippines through complex metric titration. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017:doi:10.5455/njppp.2017.7.0723613092017.
- Villarante, N.R., Bautista, A.P.R., & Sumalapao, D.E.P., Batch Adsorption Study and Kinetic Profile of Cr(VI) Using Lumbang (*Aleurites moluccana*)-

- Derived Activated Carbon-Chitosan Composite Crosslinked With Epichlorohydrin. *Oriental Journal of Chemistry*, 2017, 33(3):1111-1119.
- Acosta, A.G.D., Camara, C.N.M., Ongsiako, J.R.M.J., Tsoi, J.N., Flores, M.J.C., Janairo, J.I.B., Carandang, J.S.R., VI, Flores, R.G., Amalin, D.M., Abes, N.S., & Sumalapao, D.E.P., Bioaccumulation of Cadmium, Copper, Lead, and Zinc in Water Buffaloes (*Bubalus bubalis*) Infected with Liver Flukes (*Fasciola gigantica*). *Oriental Journal of Chemistry*, 2017, 33(4):1684-1688.
- Santamaria, A.R.T., Sumatra, R.J.U., Taguinod, J.C.B., Tambaon, J.J.Q., & Sumalapao, D.E.P., Dissolving Ability of Commercialized White Tea on Chocolate-stained Fabric: A Potential Stain Remover. *Annual Research and Review in Biology*, 2017, 19(4):1-6.
- Sumalapao, D.E.P., Tuppil, C.G., Urtula, A.A.C., Valdestamon, D.M., Villanueva, L.M.D., & Ledesma, N.A.A., Tolerance of Mung Bean (*Vigna radiata* L. Wilczek) to Lactic Acid, A Potential Herbicide: Growth and Morphology. *Journal of Animal and Plant Sciences*, 2017, 27(6).
- 2016 Sumalapao, D.E.P., Cruz, L.L.A., Cua, S.K.N., Dauigoy, H.V.G., & De Leon, E.A., On the pH and Acid Neutralizing Capacity Profile of Manila Bay Coastal Water Samples in Manila, Philippines. *Manila Journal of Science*, 2016, 9:104-113.
- Sumalapao, D.E.P., Distor, J.R., Ditan, I.D., Domingo, N.T.S., Dy, L.F., & Villarante, N.R., An error analysis on the biosorption kinetic models of biowaste adsorbent in an aqueous solution. *Journal of Mathematics and Computer Science*, 2016, 6(6):1157-1168.
- Sumalapao, D.E.P., Distor, J.R., Ditan, I.D., Domingo, N.T.S., Dy, L.F., & Villarante, N.R., Biosorption Kinetic Models on the Removal of Congo red onto Unripe Calamansi (*Citrus microcarpa*) peels. *Oriental Journal of Chemistry*, 2016, 32(6):2889-2900.
- 2015 Tuble, G.C., Saranza, G.M., Albay, A.B., Jr., Anlacan, V.M.M., & Sumalapao, D.E.P., Prevalence of delirium in patients admitted at intensive care units of Philippine General Hospital. *Philippine Journal of Chest Diseases*, 2015, 16(3):27-33.
- 2013 Saranza, G. R. M., Sumalapao, D.E.P., & Sia, I.C., Factors Affecting Patients' Incomplete Understanding of Prescriptions. *Acta Medica Philippina*, 2013, 47(4).
- 2010 Suguitan, A., Seña, I., Serrano, G., Sese, D., Sy, P., Sy, S., Taladua, K., Tan, C., Simbulan, J., Sobrio, M., Suarez, F., Sy, J., Tanayan, C., Tanchuling, M., Gonzales-Sumalapao, D., Temporal Effect of Varying Doses of Clonidine on the Fasting Blood Glucose Levels of Sprague Dawley Rats. *The Internet Journal of Pharmacology*, 2010, 9(2).
- 2006 Sumalapao, D.E.P., On three-parameter sigmoid-shaped negative exponential volumetric equations of state using marquardt method. *Transactions of the National Academy of Science and Technology*, 2006.

Name Charito Tranquilan-Aranilla

Gender Female

Education

Master of Science in Chemistry, University of Santo Tomas, España Blvd., Sampaloc, Manila

Doctor of Philosophy in Material Science and Engineering (on-going), Mapua Institute of Technology, Muralla Street, Intramuros, Manila

Fields of Specialization

Material Characterization

Nanomaterials

Biomaterials

Radiation Chemistry

Polymer Chemistry

Hydrogel

Irradiation

Gelation

Degradation

Agar

Radiation processing of polymers

Bioburden or Sterility of Hydrogels

Employment

Science Research Specialist, Philippine Nuclear Research Institute, Department of Science and Technology, 1994-

Researches

Completed

Production method for gel made of polysaccharide (Patent: JP-5071766)

Method of manufacturing gel using polysaccharides as raw materials (Patent: US8481719B2)

Papers Presented

2011 April 13-15 Abad, L.V., Relve, L.S., Aranilla, C.T., Arcadio, C.T., & Dela Rosa, A.M. (2011 April 13-15). Characterization of Radiation Modified K-Carageenan Oligomers for Bio-based Materials Development, 26th Philippine Chemistry Congress, Waterfront Hotel, Lahug, Cebu City, Philippines.

Publications

2017 Barba, B.J.D., Aranilla, C.T., Relve, L.S., Cruz, V.R.C., Vista, J.R., & Abad, L.V., Hemostatic granules and dressing prepared from formulations of carboxymethyl cellulose, kappa-carrageenan and polyethylene oxide

- crosslinked by gamma radiation. *Radiation Physics and Chemistry*, 2017:doi: 10.1016/j.radphyschem.2017.08.009.
- 2016 Sen, M., Quoc Hien, N., Van Phu, D., Quang Luan, L., Zaman, K., Abad, L.V., Relleve, L.S., Aranilla, C.T., Racadio, C.D.T., Dela Rosa, A.M., Tahtat, D., Mahlous, M., Benamer, S., & Nacer Khodja, A., Antimicrobial and antioxidant properties of oligosaccharides. In: Chapter 9, *The Radiation Chemistry of Polysaccharides*. International Atomic Energy Agency, 2016, 48(8):257-282.
- Tranquilan-Aranilla, C., Barba, B.J.D., Vista, J.R.M., & Abad, L.V., Hemostatic efficacy evaluation of radiation crosslinked carboxymethyl kappa-carrageenan and chitosan with varying degrees of substitution. *Radiation Physics and Chemistry*, 2016, 124:124-129.
- 2015 Dupio, M.G.B., Nunez, G.M., Abad, L.V., Aranilla, C.T., & Magdaluyo, E.R., Synthesis and Characterization of Poly(Glycerol Sebacate)-co-Lactic Acid via Gamma Irradiation. *Advanced Materials Research*, 2015, 1098:75-79.
- Barba, B.J.D., Tranquilan-Aranilla, C., & Abad, L.V., Hemostatic potential of natural/synthetic polymer based hydrogels crosslinked by gamma radiation. *Radiation Physics and Chemistry*, 2015, 118:111-113.
- 2014 Abad, L.V., Aranilla, C.T., Relleve, L.S., & Dela Rosa, A.M., Emerging applications of radiation-modified carrageenans. *Nuclear Instruments and Methods in Physics Research Section B*, 2014, 336:167-172.
- Abad, L.V., Aranilla, C.T., Magsino, G.L., & Asis, C.A., Roadmap towards registration and technology transfer of radiation processed plant growth promoters/elicitors: The Philippine experience. *Roadmap Towards Registration and Technology Transfer of Radiation Processed Plant Growth Promoters/Elicitors: The Philippine Experience*. Chapter 15 (IAEA-TECDOC--1745). International Atomic Energy Agency (IAEA), 2014:136-144.
- 2013 Abad, L.V., Relleve, L.S., Racadio, C.D., Aranilla, C.T., & Dela Rosa, A.M., Antioxidant activity potential of gamma irradiated carrageenan. *Applied radiation and isotopes*, 2013, 79C:73-79.
- Aranilla, C.T., Castanos, I.D.V., Quirit, L.L., Relleve, L.S., & Abad, L.V., Synthesis of Kappa-carrageenan Oligomers via Synergistic Action of Gamma Radiation and Hydrogen Peroxide. *Philippines Nuclear Journal*, 2013:16-24.
- 2012 Aranilla, C.T., Nagasawa, N., Bayquen, A., & Dela Rosa, A.M., Synthesis and characterization of carboxymethyl derivatives of kappa-carrageenan. *Carbohydrate Polymers*, 2012, 87(2):1810-1816.
- 2011 Racadio, C.D.T., Aranilla, C.T., Feliciano, C.P., Lim, W.G., Relleve, L.S., Cruz, V.R.C., & Abad, L.V., Factors affecting the bioburden level of PVP-Carrageenan hydrogels. *Factors affecting the bioburden level of PVP-Carrageenan hydrogels*, 2011, 16:41-50.
- 2010 Abad, L.V., Kudo, H., Saiki, S., Nagasawa, N., Tamada, M., Fu, H., Muroya, Y., Lin, M., Katsmura, Y., Relleve, L.S., Aranilla, C.T., & Dela Rosa, A.M., Radiolysis studies of aqueous κ -carrageenan. *Nuclear Instruments and Methods in Physics Research Section B*, 2010, 268(10):1607-1612.

- 2009 Abad, L.V., Kudo, H., Saiki, S., Nagasawa, N., Tamada, M., Katsumura, Y., Aranilla, C.T., Relleve, L.S., & Dela Rosa, A.M., Radiation degradation studies of carrageenans. *Carbohydrate Polymers*, 2009, 78(1):100-106.
- 2008 Abad, L., Okabe, S., Shibayama, M., Kudo, H., Saiki, S., Aranilla, C., Relleve, L., & Dela Rosa, A., Comparative studies on the conformational change and aggregation behavior of irradiated carrageenans and agar by dynamic light scattering. *International Journal of Biological Macromolecules*, 2008, 42(1):55-61.
- 2005 Relleve, L., Nagasawa, N., Quang, L.L., Yagi, T., Aranilla, C.T., Abad, L.V., Kume, T., Yoshii, F., & Dela Rosa, A.M., Degradation of carrageenan by radiation. *Polymer Degradation and Stability*, 2005, 87(3):403-410.
Abad, L.V., Nasimova, I.R., Aranilla, C.T., & Shibayama, M., Light scattering studies of irradiated κ - And ι -carrageenan. *Radiation Physics and Chemistry*, 2005, 73(1):29-37.
- 2004 Abad, L.V., Nasimova, I.R., Relleve, L.S., Aranilla, C.T., Dela Rosa, A.M., & Shibayama, M., Dynamic light scattering studies of irradiated kappa carrageenan. *International Journal of Biological Macromolecules*, 2004, 34(1-2):81-88.
- 2003 Abad, L.V., Relleve, L.S., Aranilla, C.T., & Dela Rosa, A.M., Properties of radiation synthesized PVP-kappa carrageenan hydrogel blends. *Radiation Physics and Chemistry*, 2003, 68(5):901-908.
- 2002 Abad, L.V., Relleve, L.S., Aranilla, C.T., Aliganga, A.K., San Diego, C.M., & Dela Rosa, A.M., Natural antioxidants for radiation vulcanization of natural rubber latex. *Polymer Degradation and Stability*, 2002, 76(2):275-279.
- 2001 Relleve, L., Dela Rosa, A., Abad, L., Aranilla, C., & Aliganga, A.K., Biological Activities of Radiation-Degraded Carrageenan. *Proceedings of the Takasaki Symposium on Radiation Processing of Natural Polymers*, Takasaki, Japan, 2001.
- 1999 Aranilla, C.T., Yoshii, F., Dela Rosa, A.M., & Makuuchi, K., Kappa-carrageenan-polyethylene oxide hydrogel blends prepared by gamma irradiation. *Radiation Physics and Chemistry*, 1999, 55(2):127-131.

Name Georgina V. Vergara

Gender Female

Education

Doctor of Philosophy in Plant Breeding and Genetics - Crop and Soil Sciences, Michigan State University, 220 Trowbridge Rd, East Lansing, MI 48824, USA 2003

Fields of Specialization

Genetics

Physiology

Genotyping

Genetic Diversity

Molecular Plant Breeding

Rice

Starch

Hydroponics

Crop and Soil Science

Plant Breeding

Papers Presented

- 2016 March Vergara, G.V., Collard, B.C.Y., Pamplona, A., Gregorio, G.B., Manangkil, O.E., & Padolina, T. (2016 March). Fast-tracking rice varietal testing and adoption in different ecosystems in the Philippines, Galveston, Texas, US, Conference: 36th Rice Technical Working Group (RTWG) Meeting.
- 2014 October Gregorio, G.B., Singh, R.K., Islam, R., Sajise, A.C., & Vergara, G.V. (2014 October). Salt-tolerant varieties developed to increase rice self-sufficiency in salt-affected farmlands, 4th International Rice Congress, Bangkok, Thailand.
- 2014 October Vergara, G.V., Barretto, A., & Gregorio, G.B. (2014 October). Selected Rice Landraces Screened for Performance during Vegetative Growth Using Different Salinized Culture Solutions, 4th International Rice Congress, Bangkok, Thailand.

Publications

- 2014 Vergara, G.V., Nugraha, Y., Esguerra, Q., Mackill, D.J., & Ismail, A.M., Variation in tolerance of rice to long-term stagnant flooding that submerges most of the shoot will aid in breeding tolerant cultivars. *AoB PLANTS*, 2014, 6(1):plu055.
- 2013 Gregorio, G.B., Islam, M.R., Vergara, G.V., & Thirumeni, S., Recent advances in rice science to design salinity and other abiotic stress tolerant rice varieties. *SABRAO Journal of Breeding and Genetics*, 2013, 45(1):31-41.

- Nugraha, Y., Vergara, G.V., Mackill, D.J., & Ismail, A.B., Response of *SUB1* introgression lines of rice to various flooding conditions. *Indonesian Journal of Agricultural Science*, 2013, 14(1):15-26.
- 2012 Ismail, A.M., Johnson, D.E., Ella, E.S., Vergara, G.V., & Baltazar, A.M., Adaptation to flooding during emergence and seedling growth in rice and weeds, and implications for crop establishment. *AoB PLANTS*, 2012:doi: 10.1093/aobpla/pls019.
- 2011 Manzanilla, D.O., Paris, T.R., Vergara, G.V., Ismail, A.M., Pandey, S., Labios, R.V., Tatlonghari, G.T., Acda, R.D., Chi, T.T.N., Duoangsil, K., Siliphouthone, I., Manikmas, M.O.A., & Mackill, D.J., Submergence risks and farmers' preferences: Implications for breeding *SUB1* rice in Southeast Asia. *Agricultural Systems*, 2011, 104:335-347.
- 2010 Ismail, A.M., Thomson, M.J., Vergara, G.V., Rahman, M.A., Singh, R.K., Gregorio, G.B., & Mackill, D.J., Designing resilient rice varieties for coastal deltas using modern breeding tools. In Chapter 12, *Tropical Deltas and Coastal Zones. Food Production, Communities and Environment at the Land-Water Interface*. No H043055, IWMI Books, Reports, International Water Management Institute, <https://EconPapers.repec.org/RePEc:iwt:bosers:h0430>, 2010:154-165.
- Singh, N., Dang, T.T.M., Vergara, G.V., Pandey, D.M., Sanchez, D., Neeraja, C.N., Septiningsih, E.M., Mendioro, M., Tecson-Mendoza, E.M., Ismail, A.M., Mackill, D.J., & Heuer, S., Molecular marker survey and expression analyses of the rice submergence tolerance gene *SUB1A*. *Theoretical and Applied Genetics*, 2010, 121(8):1441-1453.
- 2008 Septiningsih, E.M., Pamplona, A.M., Sanchez, D.L., Neeraja, C.N., Vergara, G.V., Heuer, S., Ismail, A.M., & Mackill, D.J., Development of submergence-tolerant rice cultivars: The *Sub1* locus and beyond. *Annals of Botany*, 2008, 103:151-160.
- Ismail, A.M., Ella, E.S., Vergara, G.V., & Mackill, D.J., Mechanisms Associated With Tolerance to Flooding During Germination and Early Seedling Growth in Rice (*Oryza Sativa*). *Annals of Botany*, 2008, 103(2):197-209.
- 2007 Neeraja, C.N., Maghirang-Rodriguez, R., Pamplona, A., Heuer, S., Collard, B.C.Y., Septiningsih, E.M., Vergara, G., Sanchez, D., Xu, D., Ismail, A.M., & Mackill, D.J., A Marker-Assisted Backcross Approach for Developing Submergence-Tolerant Rice Cultivars. *Theoretical and Applied Genetics*, 2007, 115:767-776.
- 2004 Vergara, G.V., Bughrara, S.S., & Jung, G., Genetic variability of grey snow mould (*Typhula incarnata*). *Mycological Research*, 2004, 108(11):1283-1290.
- 2003 Vergara, G.V., & Bughrara, S.S., Genetic Differentiation of Tetraploid Creeping Bentgrass and Hexaploid Redtop Bentgrass Genotypes by AFLP and their Use in Turfgrass Breeding. *Crop Science*, 2003, 44(3):884-890.
- 2002 Vergara, G.V., & Bughrara, S.S., AFLP Analyses of Genetic Diversity in Bentgrass. *Crop Science*, 2002, 43(6):2162-2171.
- 1992 Guiderdoni, E., Galinato, E., Luistro, J., & Vergara, G.V., Anther culture of tropical japonica indica hybrids of rice (*Oryza sativa* L.). *Euphytica*, 1992, 62(3):219-224.

Name Nelson R. Villarante

Gender Male

Organizational Affiliations

Professor 1, Department of Physical Sciences and Mathematics, College of Arts and Sciences, University of the Philippines Manila, Padre Faura St., Ermita, Manila

Education

Bachelor of Science in Chemistry (*Cum Laude*), Siliman University, Dumaguete City, Philippines

Doctor of Philosophy in Chemistry, University of the Philippines, Diliman, Quezon City

Fields of Specialization

Organic Chemistry Synthesis

Environmental Chemistry

Synthetic Organic Chemistry

Physical Chemistry

Catalysis

Pharmaceutical Organic Synthesis

Photochemistry

Association Membership

Associate Member, National Research Council of the Philippines

Publications

2017 Saboriendo, S.V., Sumalapao, D.E.P., & Villarante, N.R., Therapeutic and prophylactic effect of *Andrographis paniculata* on aspirin-induced gastric ulcer. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(8):781-787.

Lopez, C.P., Sumalapao, D.E.P., & Villarante, N.R., Hepatoprotective activity of aqueous and ethanolic *Bixa orellana* L. leaf extracts against carbon tetrachloride-induced hepatotoxicity. *National Journal of Physiology, Pharmacy and Pharmacology*, 2017, 7(9):972-976.

Villarante, N.R., Bautista, A.P.R., & Sumalapao, D.E.P., Batch Adsorption Study and Kinetic Profile of Cr(VI) Using Lumbang (*Aleurites moluccana*)-Derived Activated Carbon-Chitosan Composite Crosslinked With Epichlorohydrin. *Oriental Journal of Chemistry*, 2017, 33(3):1111-1119.

2016 Sumalapao, D.E.P., Distor, J.R., Ditan, I.D., Domingo, N.T.S., Dy, L.F., & Villarante, N.R., An error analysis on the biosorption kinetic models of biowaste adsorbent in an aqueous solution. *Journal of Mathematics and Computer Science*, 2016, 6:1157-1168.

Sumalapao, D.E.P., Distor, J.R., Ditan, I.D., Domingo, N.T.S., Dy, L.F., & Villarante, N.R., Biosorption Kinetic Models on the Removal of Congo red

- onto Unripe Calamansi (*Citrus microcarpa*) peels. *Oriental Journal of Chemistry*, 2016, 32(6):2889-2900.
- 2014 Robidillo, C.J.T., Villarante, N.R., & Trinidad, L.C., Biosorption of copper (II) by live biomasses of two indigenous bacteria isolated from copper-contaminated water. *Philippine Science Letters*, 2014, 7(2):356-371.
- 2013 Hsieh, H.-P., Chen, A.-C., Villarante, N.R., Chuang, G.J., & Liao, C.-C., Substituent effects on the photorearrangements of unsymmetrically substituted diazinobarrelenes. *Royal Society of Chemistry Advances*, 2013, 3(4):1165-1178.
- Chen, Y.-J., Wang, H.-L., Villarante, N.R., Chuang, G.J., & Liao, C.-C., Substituent effect on the photochemistry of 4,4-dialkoxylated- and 4-hydroxylated cyclohexenones. *Tetrahedron*, 2013, 69(46):9591-9599.
- Chiu, H.H.C., Arco, S.D., Ping, Z.C., & Villarante, N.R., Efficient Oxidative Desulfurization of Model Oil at Room Temperature with Ionic Liquid as Extraction Solvent. *Kimika*, 2013, 24(1):2-7.
- 2010 Alcantara, V.A., Pajares, I.G., Simbahan, J.F., Villarante, N.R., & Rubio, M.L.D., Characterization of Biosurfactant From *Saccharomyces cerevisiae* 2031 and Evaluation of Emulsification Activity for Potential Application in Bioremediation. *Philippine Agricultural Scientist*, 2010, 93(1):22-30.
- 2008 Chen, A.C., Lin, S.Y., Villarante, N.R., Chuang, G.J., Wu, T.C., & Liao, C.C., Substituent effects on the bridging modes of photochemical rearrangements of pyrazino-, quinoxalino-, and benzoquinoxalinobarrelenes. *Tetrahedron*, 2008, 64(37):8907-8921.
- 2007 Chen, A.C., Chuang, G.J., Villarante, N.R., & Liao, C.C., Chemoselective Photorearrangements of Diazinobarrelenes. Deuterium Labeling Study. *The Journal of Organic Chemistry*, 2007, 72(25):9690-9697.
- 2006 Chang, S.-Y., Huang, S.-L., Villarante, N.R., & Liao, C.-C., Photochemical Reactions of 1,3,3-Trimethylbicyclo[2.2.2]octa-5,7-dien-2-ones. *European Journal of Organic Chemistry*, 2006, 2006(20):4648-4657.
- 2001 Villarante, N.R., Armenante, P.M., Quibuyen, T.A., Fava, F., & Kafkewitz, D., Dehalogenation of dichloroethene in a contaminated soil: Fatty acids and alcohols as electron donors and an apparent requirement for tetrachloroethene. *Applied Microbiology and Biotechnology*, 2001, 55(2):239-247.

AUTHOR INDEX

Abad, Lucille V.

Advanced Materials
Biodegradable Polymers
Biomaterials
Bioplastics
Biopolymers
Carbohydrate Polymers
Crosslinking
Differential Scanning Calorimetry (DSC)
Gel Permeation Chromatography (GPC)
Gelation
Grafting
Material Characterization
Mechanical Properties
Nanomaterials
Natural Fibers
Nuclear Chemistry
Optimization in Formulation Development
Plastics
Polymer Chemistry
Polymer Processing
Polymer Synthesis
Polymer Technology
Polymeric Biomaterials
Polymeric Materials
Polymerization
Thermal Analysis
Thermal Properties
Thermogravimetry (TGA)
Thin Films and Nanotechnology

Advincula, Rigoberto C.

Analytical Chemistry
Biodegradable Polymers
Biomaterials
Biopolymers
Conducting Polymers
Elastomers
Material Characterization
Nanoparticle Synthesis
Nanoscience
Organic Chemistry

Polymer Characterization
Polymer Chemistry
Polymer Engineering
Polymer Rheology
Polymer Science
Polymeric Biomaterials

Aguda, Baltazar D.

Systems Biology (Biomedical System Modeling)

Aguilar, Glenn D.

Computer Graphics
Naval Architecture
University Administration and Management

Aldemita, Rhodora Romero

Agricultural Biotechnology
Agrobacterium
Agrobacterium Mediated Plant Transformation
Callus Induction
Genetic Engineering
Micropropagation
Organogenesis
Plant Biology
Plant Biotechnology
Plant Breeding
Plant DNA Extraction
Plant Genetics
Plant Genomics
Plant Molecular Biology
Plant Tissue Culture
Plants
Polymerase Chain Reaction
Somatic Embryogenesis
Transgenic Plants
Transgenic Technology
Transgenics

Atabay, Edwin C.

Animal Reproductive Biotechnology
Veterinary Medicine

Ella, Evangeline Salcedo

Antioxidant Activity
Biochemistry
Botany
Chemical Kinetics
Chromatography
Oxidative Stress
Phytochemistry
Plant Tissue Culture

Opeña, Jhoana

Agricultural Plant Science
Agroecology
Agronomy
Conservation Agriculture
Crop Growth Modelling
Crop Management
Crop Modeling
Crop Physiology
Crop Production
Crop Protection
Crop Science
Farming Systems
Fertigation
Fertilizers
Field Experimentation
Herbicide Resistance
Herbicides
Herbology
Integrated Pest Management
Plant Biology
Plant Biotechnology
Plant Nutrition
Plant Physiology
Rice
Seedling
Seeds
Sustainable Agriculture
Weed Biology
Weed Control
Weed Ecology
Weed Ecophysiology
Weed Management
Weed Science

Ramos, Joie M.

Genetics
Molecular Biology

Relleve, Lorna S.

Antioxidant Activity
Bioactivity
Biochemistry
Gamma Irradiation
Hydrogel
Ionizing Radiation
Phytochemistry
Polymer Chemistry
Polysaccharide Degradation
Radiation Chemistry
Radiation Processing

San Jose-Maldia, Lerma

Bioinformatics
Evolutionary Biology
Forest Ecology
Genetics
Microsatellite Genotyping
Molecular Ecology
Molecular Genetics
Phylogeography

Simbahan, Jessica F.

Bacteria
Biochemistry
Cell Biology
DNA Sequence Analysis
Environmental Microbiology
Gel Electrophoresis
Genomics
Microbial Biotechnology
Microbial Ecology
Microbiology
Molecular Biology
Molecular Cloning
Polymerase Chain Reaction (PCR)

Sumalapao, Derick Erl Perida

Applied Mathematics
Clinical Medicine
Mathematical Modelling

Operation Research
Randomized Clinical Trials
Statistics
Systems Biology

Tranquilan-Aranilla, Charito

Agar
Bioburden or Sterility of Hydrogels
Biomaterials
Degradation
Gelation
Hydrogel
Irradiation
Material Characterization
Nanomaterials
Polymer Chemistry
Radiation Chemistry
Radiation processing of polymers

Vergara, Georgina V.

Crop and Soil Science
Genetic Diversity
Genetics
Genotyping
Hydroponics
Molecular Plant Breeding
Physiology
Plant Breeding
Rice
Starch

Villarante, Nelson R.

Catalysis
Environmental Chemistry
Organic Chemistry Synthesis
Pharmaceutical Organic Synthesis
Photochemistry
Physical Chemistry
Synthetic Organic Chemistry

SPECIALIZATION INDEX

Advanced Materials

Abad, Lucille V.

Agar

Tranquilan-Aranilla, Charito

Agricultural Biotechnology

Aldemita, Rhodora Romero

Agricultural Plant Science

Opeña, Jhoana

Agrobacterium

Aldemita, Rhodora Romero

Agrobacterium Mediated Plant Transformation

Aldemita, Rhodora Romero

Agroecology

Opeña, Jhoana

Agronomy

Opeña, Jhoana

Analytical Chemistry

Advincula, Rigoberto C.

Animal Reproductive Biotechnology

Atabay, Edwin C.

Antioxidant Activity

Ella, Evangeline Salcedo

Relleve, Lorna S.

Applied Mathematics

Sumalapao, Derick Erl Perida

Bacteria

Simbahan, Jessica F.

Bioactivity

Relleve, Lorna S.

Bioburden or Sterility of Hydrogels

Tranquilan-Aranilla, Charito

Biochemistry

Relleve, Lorna S.

Simbahan, Jessica F.

Ella, Evangeline Salcedo

Biodegradable Polymers

Abad, Lucille V.

Advincula, Rigoberto C.

Bioinformatics

San Jose-Maldia, Lerma

Biomaterials

Tranquilan-Aranilla, Charito

Abad, Lucille V.

Advincula, Rigoberto C.

Bioplastics

Abad, Lucille V.

Biopolymers

Advincula, Rigoberto C.

Abad, Lucille V.

Botany

Ella, Evangeline Salcedo

Callus Induction

Aldemita, Rhodora Romero

Carbohydrate Polymers

Abad, Lucille V.

Catalysis

Villarante, Nelson R.

Cell Biology

Simbahan, Jessica F.

Chemical Kinetics

Ella, Evangeline Salcedo

Chromatography

Ella, Evangeline Salcedo

Clinical Medicine Sumalapao, Derick Erl Perida	Environmental Chemistry Villarante, Nelson R.
Computer Graphics Aguilar, Glenn D.	Environmental Microbiology Simbahan, Jessica F.
Conducting Polymers Advincula, Rigoberto C.	Evolutionary Biology San Jose-Maldia, Lerma
Conservation Agriculture Opeña, Jhoana	Farming Systems Opeña, Jhoana
Crop and Soil Science Vergara, Georgina V.	Fertigation Opeña, Jhoana
Crop Growth Modelling Opeña, Jhoana	Fertilizers Opeña, Jhoana
Crop Management Opeña, Jhoana	Field Experimentation Opeña, Jhoana
Crop Modeling Opeña, Jhoana	Forest Ecology San Jose-Maldia, Lerma
Crop Physiology Opeña, Jhoana	Gamma Irradiation Relleve, Lorna S.
Crop Production Opeña, Jhoana	Gel Electrophoresis Simbahan, Jessica F.
Crop Protection Opeña, Jhoana	Gel Permeation Chromatography (GPC) Abad, Lucille V.
Crop Science Opeña, Jhoana	Gelation Tranquilan-Aranilla, Charito Abad, Lucille V.
Crosslinking Abad, Lucille V.	Genetic Diversity Vergara, Georgina V.
Degradation Tranquilan-Aranilla, Charito	Genetic Engineering Aldemita, Rhodora Romero
Differential Scanning Calorimetry (DSC) Abad, Lucille V.	Genetics San Jose-Maldia, Lerma Ramos, Joie M. Vergara, Georgina V.
DNA Sequence Analysis Simbahan, Jessica F.	Genomics Simbahan, Jessica F.
Elastomers Advincula, Rigoberto C.	

Genotyping
Vergara, Georgina V.

Grafting
Abad, Lucille V.

Herbicide Resistance
Opeña, Jhoana

Herbicides
Opeña, Jhoana

Herbology
Opeña, Jhoana

Hydrogel
Tranquilan-Aranilla, Charito
Relleve, Lorna S.

Hydroponics
Vergara, Georgina V.

Integrated Pest Management
Opeña, Jhoana

Ionizing Radiation
Relleve, Lorna S.

Irradiation
Tranquilan-Aranilla, Charito

Material Characterization
Advincula, Rigoberto C.
Tranquilan-Aranilla, Charito
Abad, Lucille V.

Mathematical Modelling
Sumalapao, Derick Erl Perida

Mechanical Properties
Abad, Lucille V.

Microbial Biotechnology
Simbahan, Jessica F.

Microbial Ecology
Simbahan, Jessica F.

Microbiology
Simbahan, Jessica F.

Micropropagation
Aldemita, Rhodora Romero

Microsatellite Genotyping
San Jose-Maldia, Lerma

Molecular Biology
Ramos, Joie M.
Simbahan, Jessica F.

Molecular Cloning
Simbahan, Jessica F.

Molecular Ecology
San Jose-Maldia, Lerma

Molecular Genetics
San Jose-Maldia, Lerma

Molecular Plant Breeding
Vergara, Georgina V.

Nanomaterials
Tranquilan-Aranilla, Charito
Abad, Lucille V.

Nanoparticle Synthesis
Advincula, Rigoberto C.

Nanoscience
Advincula, Rigoberto C.

Natural Fibers
Abad, Lucille V.

Naval Architecture
Aguilar, Glenn D.

Nuclear Chemistry
Abad, Lucille V.

Operation Research
Sumalapao, Derick Erl Perida

Optimization in Formulation
Development
Abad, Lucille V.

Organic Chemistry
Advincula, Rigoberto C.

Organic Chemistry Synthesis
Villarante, Nelson R.

Organogenesis
Aldemita, Rhodora Romero

Oxidative Stress
Ella, Evangeline Salcedo

Pharmaceutical Organic Synthesis
Villarante, Nelson R.

Photochemistry
Villarante, Nelson R.

Phylogeography
San Jose-Maldia, Lerma

Physical Chemistry
Villarante, Nelson R.

Physiology
Vergara, Georgina V.

Phytochemistry
Relleve, Lorna S.
Ella, Evangeline Salcedo

Plant Biology
Opeña, Jhoana
Aldemita, Rhodora Romero

Plant Biotechnology
Aldemita, Rhodora Romero
Opeña, Jhoana

Plant Breeding
Vergara, Georgina V.
Aldemita, Rhodora Romero

Plant DNA Extraction
Aldemita, Rhodora Romero

Plant Genetics
Aldemita, Rhodora Romero

Plant Genomics
Aldemita, Rhodora Romero

Plant Molecular Biology
Aldemita, Rhodora Romero

Plant Nutrition
Opeña, Jhoana

Plant Physiology
Opeña, Jhoana

Plant Tissue Culture
Ella, Evangeline Salcedo
Aldemita, Rhodora Romero

Plants
Aldemita, Rhodora Romero

Plastics
Abad, Lucille V.

Polymer Characterization
Advincula, Rigoberto C.

Polymer Chemistry
Relleve, Lorna S.
Abad, Lucille V.
Advincula, Rigoberto C.
Tranquilan-Aranilla, Charito

Polymer Engineering
Advincula, Rigoberto C.

Polymer Processing
Abad, Lucille V.

Polymer Rheology
Advincula, Rigoberto C.

Polymer Science
Advincula, Rigoberto C.

Polymer Synthesis
Abad, Lucille V.

Polymer Technology
Abad, Lucille V.

Polymerase Chain Reaction
Aldemita, Rhodora Romero

Polymerase Chain Reaction (PCR)
Simbahan, Jessica F.

Polymeric Biomaterials
Advincula, Rigoberto C.
Abad, Lucille V.

Polymeric Materials
Abad, Lucille V.

Polymerization
Abad, Lucille V.

Polysaccharide Degradation
Relleve, Lorna S.

Radiation Chemistry
Relleve, Lorna S.
Tranquilan-Aranilla, Charito

Radiation Processing
Relleve, Lorna S.

Radiation processing of polymers
Tranquilan-Aranilla, Charito

Randomized Clinical Trials
Sumalapao, Derick Erl Perida

Rice
Vergara, Georgina V.
Opeña, Jhoana

Seedling
Opeña, Jhoana

Seeds
Opeña, Jhoana

Somatic Embryogenesis
Aldemita, Rhodora Romero

Starch
Vergara, Georgina V.

Statistics
Sumalapao, Derick Erl Perida

Sustainable Agriculture
Opeña, Jhoana

Synthetic Organic Chemistry
Villarante, Nelson R.

Systems Biology
Sumalapao, Derick Erl Perida

Systems Biology (Biomedical System
Modeling)
Aguda, Baltazar D.

Thermal Analysis
Abad, Lucille V.

Thermal Properties
Abad, Lucille V.

Thermogravimetry (TGA)
Abad, Lucille V.

Thin Films and Nanotechnology
Abad, Lucille V.

Transgenic Plants
Aldemita, Rhodora Romero

Transgenic Technology
Aldemita, Rhodora Romero

Transgenics
Aldemita, Rhodora Romero

University Administration and
Management
Aguilar, Glenn D.

Veterinary Medicine
Atabay, Edwin C.

Weed Biology
Opeña, Jhoana

Weed Control
Opeña, Jhoana

Weed Ecology
Opeña, Jhoana

Weed Ecophysiology
Opeña, Jhoana

Weed Management
Opeña, Jhoana

Weed Science
Opeña, Jhoana