



UNIVERSITY OF THE PHILIPPINES MANILA
The Health Sciences Center
8/F Central Block Building, Philippine General Hospital
Taft Avenue, Manila 1000



TEACHING

Titles of courses taught

Course number and Title
NatSci 1: "Natural Science I"
Chem 14: "General Chemistry I"
Chem 18: "General Chemistry II"
Chem 27: "Fundamentals of Quantitative Analytical Chemistry"
Chem 31: "Organic Chemistry"
Chem 32: "Organic and Biomolecules"
Chem 114: "Advanced Inorganic Chemistry"
Chem 127: "Advanced Analytical Chemistry"
Chem 151: "Quantum Chemistry"
Chem 156: "Physical Chemistry I"
BC 170: "Computational Tools in Biochemistry"
BNF 231: "Architecture, Dynamics, and Structure of Nucleic Acids and Proteins "
BNF 232: "Macromolecular Modeling and Chemoinformatics"

RESEARCH

Publication
Billones, JB* ; Carrillo MCO; Organo, VG; Macalino, SJY; Emnacen, IA; Sy, JBA, Virtual Screening Against <i>M. tuberculosis</i> 7,8-Diaminopelargonic Acid Synthase (<i>MtbBioA</i>) and <i>In Silico</i> Toxicity Evaluation of Top Hits, <i>Current Enzyme Inhibition</i> , 10(2) 2014 . (Scopus Journal)
Billones, JB* ; Valle, AMF. <i>Structure-based Design of Inhibitors Against Maltosyltransferase GlgE</i> , <i>Oriental Journal of Chemistry</i> , 30(3) 2014 . (ISI Journal)
Billones, LT; Billones, JB.* <i>A Univariate Analysis of Molecular Properties and Inhibitory Activity of Dihydrothiophenones Against Dihydroorotate Dehydrogenase of Malaria Parasite</i> , <i>Journal of Chemical and Pharmaceutical Research</i> , 6(8), 2014 , 209 – 217. (Scopus Journal)
Billones, JB* ; Carrillo MCO; Organo, VG; Macalino, SJY; Emnacen, IA; Sy, JBA, "Virtual Screening against <i>Mycobacterium tuberculosis</i> Lipoate Protein Ligase B (<i>MtbLipB</i>) and <i>In Silico</i> ADMET Evaluation of Top Hits", <i>Oriental Journal of Chemistry</i> , 29(4) 2013 , 1457-1468. (ISI Journal)
Billones, LT; Billones, J.B.* <i>Multiple Linear Regression Model of Shiga Toxin Inhibitory Activity of Dihydroquinazoline Derivatives of Retro-2^{cycl}</i> . <i>Philippine Science Letters</i> , 6(2), 2013 , 231 – 240. (ISI Journal)
Reyes, AMM, Billones, JB.* <i>Quantitative Structure-Activity Relationship Study of Curcumin Analogues as Anti-proliferative Agents of Human Prostate Cancer Cell Line (PC-3)</i> , <i>Kimika</i> , 24(1) 2013 , 8-17.
Yang, CTM; Billones JB.* "Towards Antituberculosis Drugs: Molecular Docking of Curcumin and Its Analogues to Pantothenate Synthetase", <i>Philippine Journal of Science</i> 141 (2): December 2012 (ISI Journal)
Uy, V.C.C.; Billones, J.B.* "Towards Antituberculosis Drugs: Virtual Screening for Potential Inhibitors of Pantothenate Synthetase of <i>Mycobacterium tuberculosis</i> ". <i>Philippine Science Letters</i> Volume 5, No. 2, 2012 , 122-130. (ISI Journal)
Billones, J.B.* ; Ratilla, E.M.A.; Heath, G.A. "Variation in both Metal and Ligand Frontier Orbital Levels in Series of $[RuCl_{6-n}(PrCN)_n]^-$ ($n=0-6$) complexes" <i>Inorganic Chemistry Communications</i> Volume 14, Issue 11, November 2011 , Pages 1788-1793. (ISI Journal)
Billones, J.B.* ; Buenaobra, S.M. "Quantitative Structure-Activity Relationship (QSAR)

	<i>Study of Cyclooxygenase-2 (COX-2) Inhibitors</i> Philippine Journal of Science 140 (2): 125-132, December 2011 (<i>ISI Journal</i>)	
	Villavicencio, R.G.; Billones, J.B.* ; "Computational Studies of Dipyridodiazepinones as Human Immunodeficiency Virus (HIV) Reverse Transcriptase Inhibitors", Philippine Journal of Science, Volume 138, (1): 105-113, June 2009 , (<i>ISI Journal</i>)	7
	Martin, C.B.; Billones, J.B.* , "Quantitative Structure-Activity Relationship Study of c-Src Kinase Inhibitors", UP Manila Journal, 2008 .	
	Billones, J.B. (Editor) "The 10 th EURASIA International Conference on Chemical Sciences Book of Abstracts (ISBN: 978-971-93848-1-6)", Manila, Philippines, Published by Kapisanang Kimika ng Pilipinas (KKP), January 2008 .	
	Custer C. Deocarist*, Maria Cereza R. Velasco, Earl Louis Sempio, Junie B. Billones and Alejandro Q. Nato, Jr. "An Evolutionary Perspective on the Possible Involvement of Plasminogen in the Pathology of Bovine Spongiform Encephalopathy". Phil J Vet Med Anim Sci. (28)2: 58 – 68, 2002	
	Nicolas, M.G*.; Fujiki, K.; Noche, R.R.; Billones, J.B. ; Abendanio, M.; Kanai, A. <i>Molecular Aspects of Age-Related Macular Degeneration in Humans</i> . In Micronutrients and Health: Molecular Biological Mechanisms, AOCSS Press, Champaign, Illinois, pp229-235, 2001 .	
	Billones, J.B.* ; Ratilla, E.M.A.; Heath, G.A. "Non-Additive Ligand Effects in Series of L-Substituted Ruthenium Halide Complexes [L=CH ₃ CN, AsMe ₃ , CO]", Kimika. Vol 16, No.1, 19-23, 2000 .	

	Poster / Oral Presentation	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Virtual Screening and in silico toxicity testing of compounds against <i>M. tuberculosis</i> Lipoate protein ligase B (MtbLipB)", 15 th Annual Drug Discovery Leaders Summit, Geneva, Switzerland, June 2-3, 2014 . (Poster)	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Structure based pharmacophore screening, molecular docking, and in silico toxicity evaluation of compounds against Mycobacterium tuberculosis 7,8-diaminopelargonic acid aminotransferase (Mtb BioA)", International Conference on Molecular Chemistry and Biochemistry 2014, Narita, Japan, May 29-30, 2014 . (Oral)	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Virtual Screening and in silico toxicity property prediction of compounds against <i>M. tuberculosis</i> Lipoate protein ligase B (MtbLipB)", International Conference on Molecular Chemistry and Biochemistry 2014, Narita, Japan, May 29-30, 2014 . (Oral)	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Towards antituberculosis drugs: structure-based pharmacophore screening, docking and toxicity assessment of compounds against L,D-transpeptidase 2 (LdtMt2)", International Conference on Molecular Chemistry and Biochemistry 2014, Narita, Japan, May 29-30, 2014 . (e-poster)	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Structure-based pharmacophore screening, molecular docking and in silico toxicity evaluation of compounds against L,D-transpeptidase 2 (LdtMt2)", Cambridge Healthtech Ninth Annual Drug Discovery Chemistry, San Diego, California, USA, April 23-25, 2014 . (poster)	
	Billones JB . "Computer-Aided Drug Discovery of Compounds Against TB", Plenary lecture during 16 th NIH Anniversary, Bayanihan Center Unilab, Mandaluyong City, February 27, 2014 .	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Pharmacophore based screening, molecular docking, and in silico toxicity evaluation of compounds against <i>M. tuberculosis</i> lipoate protein ligase b (LipB)", 29 th Philippine Chemistry Congress, Naga City, April 8-12, 2014 . (Oral)	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Structure based pharmacophore screening, molecular docking, and in silico toxicity evaluation of compounds against L,D-transpeptidase 2 (LdtMt2)", 29 th Philippine Chemistry Congress, Naga City, April 8-12, 2014 . (Oral)	
	De Chavez D*, Billones J . Structure-based pharmacophore generation and virtual screening of possible inhibitors of <i>Plasmodium falciparum</i> signal peptide peptidase", 29 th Philippine Chemistry Congress, Naga City, April 8-12, 2014 . (Poster)	
	Billones J* , Carrillo MC, Organo V, Macalino SJ, Emnacen I, Sy JB. "Structure based	

	pharmacophore screening, molecular docking, and in silico toxicity evaluation of compounds against Mycobacterium tuberculosis 7,8-diaminopelargonic acid aminotransferase (Mtb BioA)", 29 th Philippine Chemistry Congress, Naga City, April 8-12, 2014 . (Poster)	
	Cordova, S.P.S.; Billones, J.B. "Virtual Screening for MTB LipB Inhibitors and Derivatization of Top Hit by De Novo Evolution", 15 th Asian Chemical Congress, Resorts World Sentosa, Singapore, August 19-23, 2013 . (Poster)	
	Billones, J.B. "Drug Hunting: The CSI Way", 28 th Philippine Chemistry Congress, Silliman University, Dumaguete City, April 10-12, 2013 . (Oral)	
	Billones, J.B. ; Organo, V; Carillo, M.C.; Macalino, S.J.; Emnacen, I. "Structure-based Pharmacophore Screening and Molecular Docking of Compounds to M. tuberculosis Lipoate Protein Ligase B (LipB)", 28 th Philippine Chemistry Congress, Silliman University, Dumaguete City, April 10-12, 2013 . (Poster)	
	Uy, V.C.C.; Billones, J.B. "Towards Antituberculosis Drugs: Structure-Based Pharmacophore Generation and Virtual Screening for Potential Inhibitors of Pantothenate Synthetase of Mycobacterium tuberculosis", ICBE, Macau, China, May 28-30, 2012 . (Poster)	
	Yang, C.T.M.; Billones J.B. "Towards Antituberculosis Drugs: Molecular Docking of Curcumin and Its Analogues to Pantothenate Synthetase", 38 th Annual Philippine Society for Biochemistry and Molecular Biology Convention, UST, Manila, Philippines 1000, 8-9 December 2011 . (Poster)	
	Billones, J.B. ; Ratilla, E.M.A.; Heath, G.A. "Ligand Effects on The Electrode Potentials, Electronic Spectra, and Calculated Frontier Orbital Levels of Truncated Series of Nitrile-Substituted Ruthenium Hexahalides $[RuX_{6-n}(CH_3CH_2CH_2CN)_n]^z$ (X = Cl, Br) 14 th Asian Chemical Congress, Bangkok, Thailand, September 5-8, 2011 . (Poster)	
	Panibe, J; Billones, J. "Molecular Design of Sunflower (Helianthus annuus) Trypsin Inhibitor-1(SFT-1) Peptide Analogues as Dengue Virus NS2B-NS3 Serine Protease Inhibitor", National Institutes of Health 11 th Anniversary, Pan Pacific Hotel, Manila, 12-13 February 2009 (poster) and NIMBUS 2009 Conference, SMX Mall of Asia, Manila, November 27, 2009 (oral).	
	Panibe, J; Billones, J. "Molecular Design of Sunflower (Helianthus annuus) Trypsin Inhibitor-1(SFT-1) Peptide Analogues as Dengue Virus NS2B-NS3 Serine Protease Inhibitor", 30 th Annual Scientific Meeting of the National Academy of Science and Technology, Manila Hotel 19 July 2008 (Awarded Best Poster)	
	Villavicencio, R.G.; Billones, J.B. ; "Computer-Aided Design of Novel Non-nucleoside Reverse Transcriptase Inhibitors", presented during the 10 th EURASIA International Conference on Chemical Sciences and 23 rd Philippine Chemistry Congress, Philippine International Convention Center, Manila, Philippines, January 7-11, 2008 . [Poster, International]	
	Billones, J.B. ; Ratilla, E.M.A.; Heath, G.A. "Behavior of Frontier Orbital Domain in Ruthenium Chloro-Nitrile Complexes $[RuCl_{6-n}L_n]^{n-3}$ (n = 0-6)", 1 st Asian Conference on Coordination Chemistry, Okazaki Conference Center, Aichi, Japan, July 29 – August 2, 2007 . [Poster, International]	
	Villavicencio, R.G.; Billones, J.B. ; "Molecular Design of Novel Human Immunodeficiency Virus Reverse Transcriptase Inhibitors", 22 nd Philippine Chemistry Congress, DAP Convention Center, Tagaytay City, Philippines, April 10-13, 2007 . [Oral, National]	
	Billones, J.B. ; Aranas, M.B. "Knowledge-Based Identification of Human Leukocyte Antigen Class I Molecules that Interact with an Epitope on Dengue Virus Serotype 2"; 2006 Bioinformatics Seminar sponsored by PCASTRD DOST: "Bioinformatics: A Key to Greater Possibilities", SEARCA, UPLB Campus, Los Banos, Laguna, December 14, 2006 . [Oral, National]	
	Billones, J.B. ; Buenaobra, S.; "Quantitative Structure-Activity Relationship Study of Cyclooxygenase-2 (COX-2) Inhibitors", 2 nd National Bioinformatics Conference and Convention of the Network for Integrative Multidisciplinary Bioinformatics Utilization Strategies (NIMBUS), University of Santo Tomas, España, Manila, Philippines, October 21, 2005 . [Oral, National]	
	Billones, J. B.; "QSAR: The New Heart of Drug Design", 30 th Philippine Society for Biochemistry and Molecular Biology Annual Convention, University of the Philippines Manila, December 1 – 2, 2003 . [Oral, National]	
	Montales M.T.; Billones, J. B. ; "P53 Mutational Rates and Spontaneity as Adenoma Progresses to Carcinoma: Clues to Colorectal Cancer Development", 30 th Philippine Society for Biochemistry and Molecular Biology Annual Convention, University of the	

	Philippines Manila, December 1 – 2, 2003 . [Oral, National]	
	Guintu, P.A.D.C.; Billones, J. B. : “ <i>Synthesis and Characterization of a Degradable Copolymer of Tartaric Acid and Glycerol</i> ”, 29 th Philippine Society for Biochemistry and Molecular Biology Annual Convention, University of the Philippines Manila, December 2 – 3, 2002 . [Oral, National]	
	Billones, J.B. ; Billones, L.T. “Electrotopological State Modeling of Estrogen Receptor (ERa) Binding” Asia-Pacific Conference on Analytical Science and 18th Philippine Chemistry Congress, EDSA Shangri La Hotel, Mandaluyong City, February 21 – 23, 2002 . [Poster, International]	
	Billones, J.B. ; Ratilla, E.M.; Heath, G.A. “ <i>From RuX₆ Through RuX_{6-n}L_n To RuL₆: Synthesis and Spectro-Electrochemical Characterization of Series of [RuX_{6-n}L_n]^z Complexes</i> ”, Asia-Pacific Conference on Analytical Science and 18th Philippine Chemistry Congress, EDSA Shangri La Hotel, Mandaluyong City, Philippines, February 21 – 23, 2002 . [Oral, International]	
	Santos, M.T.H.; Billones, J.B. “ <i>Molecular Modeling and the Design of Human Mast Cell Tryptase Multifunctional Inhibitors</i> ”, 28 th Philippine Society for Biochemistry and Molecular Biology Annual Convention, University of Santo Tomas, Manila, December 3 – 4, 2001 . [Oral, National]	
	Abueva, E.C.D.; Billones J.B. “ <i>Structure-Activity Relationship Study of 5-HT₂ Receptor Agonists and their Mode of Binding to the 5-HT₂ Receptor</i> ”, 16 th Philippine Chemistry Congress, Manila Hotel, Manila, May 22 – 24, 2000 . [Oral, National]	
	Billones, J.B. ; Ratilla, E.M.A.; Heath, G.A. “ <i>Additive and Non-Additive Ligand Effects in Mixed Halo/L Complexes of Ruthenium of [RuX_{6-n}L_n]^z (n=0-3; x=Cl,Br; L=CH₃CN, AsMe₃, PR₃)</i> ”, 13 th Philippine Chemistry Congress, Asiaworld Resort Hotel, Puerto Princesa, Palawan, Philippines May 27 – 30, 1997 . [Oral, National]	

List of completed funded research.

Completed research		
	Billones, JB. “Theoretical Study of the Structure and Electronic Absorption Spectra of Ruthenium Complexes and Their Intercalation in DNA” 2012 – 2013 <i>Funding Agency:</i> Emerging Inter-Disciplinary Program (EIDR), Office of the Vice President for Academic Affairs (OVPA), UP system (Amount: P 350,000)	
	Martin, C.B.; Billones, J.B. ; Carillo, M.C.O. “Synthesis, Characterization, and Antitumor Activity of Ruthenium Complexes” 2008-2009 <i>Funding Agency:</i> National Institutes of Health-Philippines (Amount: P70,000)	
	Billones, J.B. Quantitative Structure-Activity Relationship Study of Cyclooxygenase-2 (COX-2) Inhibitors. 2003– 2004 <i>Funding Agency:</i> National Institutes of Health-Philippines (Amount: P250,000)	
	Billones, J.B. and Villarante, N.R. Characterization and Antitumor Activity of Substituted Hexahalo Ruthenium Complexes”. 2001 – 2002 <i>Funding Agency:</i> National Institutes of Health, UP Manila (Amount: P250,000)	

SERVICE

List of popular publications.

Publication (Include author(s), title, year)		
	Billones, J.B. “Designing Smart Drugs for Stubborn TB Bug” <i>Philippine Star</i> (Broad sheet) January 13, 2013 .	
	Billones, J.B. ; “BioChem Informatics Center for Drug Discovery”, <i>Growth Revolution</i> (Magazine), p26, Oct 2009 – Feb 2010 .	

List of lectures/seminars/workshops/press conferences/media appearances for the public

Lecture, or other (Include title, participants, place, date)		
	Subject Matter Expert “Can We Create New Drugs Using Computers? Pinoy Scientist on Radyo Agila, 5-6 PM, Oct 27, 2013 , Simulcast Nationwide	

List of lectures/seminars/workshops for the professionals, government workers, NGOs.

Lecture		
	Resource Speaker “Computer-Aided Drug Discovery of Anti-TB Compounds”, Institutional Seminar, Institute of Molecular Medicine, Nagoya City University, Nagoya, Japan, April 2, 2014 .	

Resource Speaker	"First Annual Emerging Interdisciplinary Research (EIDR) Symposium, UP Los Baños, Nov 26, 2013 .		
Resource Speaker	"Computer-Aided Drug Discovery" Seminar Series of Philippine Society of Experimental and Clinical Pharmacology, Food and Drug Administration, Alabang, May 31, 2013 .		
Resource Speaker	"Desktop Drug Discovery and Development" 3 rd PhilBioSys eColloquium, March 25, 2013 .		
Resource Speaker	"Rational Drug Discovery and Design" NRCP Cluster Meeting, Division III, IX, X, February 19, 2013 .		
Resource Speaker	"Computer-Aided Drug Design and Development" 23 rd Annual Convention of the Philippine Society of Experimental and Clinical Pharmacology, Davao Medical School Foundation Inc, Davao City, October 19, 2012 .		
Resource Speaker	"Structural Bioinformatics: Sequence Analysis, Structure Prediction, and Modeling of Proteins" 5 th Annual Scientific Forum of Philippine Association of Career Scientists, Sulo Riviera Hotel, Diliman, Quezon City, 23 November 2011		
Resource Speaker	"Uncertainty in Analytical Measurement", Seminar sponsored by YANA Chemodities, Quezon City, 19 October 2011 .		
Resource Speaker	" <i>Molecular Modeling</i> "; Seminar; Mapua Institute of Technology, School of Chemical Engineering and Chemistry, Intramuros Manila, 27 October 2008 .		
Resource Speaker	" <i>Molecular Imaging</i> "; 2007 Chemistry Week Seminar - Workshop of the Philippine Association of Chemistry Teachers; POD-CIT Building University of the East, Manila; February 23, 2007 .		
Resource Speaker	" <i>Molecular Modeling</i> "; PACT Region-3 Seminar-Workshop on Chemistry Education; Domus Mariae International Center, University of the Assumption, City of San Fernando, Pampanga, October 19, 2006 .		
Resource Speaker	" <i>Chemistry at Your Fingertips: Introduction to Computational Chemistry</i> "; 2006 Lecture/Workshop in Inorganic Chemistry for Teachers; KKP-DICAF and Institute of Chemistry; Institute of Chemistry, University of the Philippines Diliman, Quezon City; August 19, 2006 .		
Resource Speaker	" <i>Chemistry at Your Fingertips: Introduction to Computational Chemistry</i> "; 1 st Chemistry Alumni Homecoming; LSU Garden Beach Resort, Visca, Baybay, Leyte; August 11, 2006 .		
Resource Speaker	" <i>Chemistry Experiments at the Desktop</i> "; 2006 General Assembly of the Philippine Association of Chemistry Teachers; Learning Resource Center, University of the Philippines Manila, P Faura, Ermita Manila; July 7, 2006 .		
Resource Speaker	" <i>Chemistry at Your Fingertips: Introduction to Computational Chemistry</i> "; 2005 Lecture/Workshop in Inorganic Chemistry for Teachers; KKP-DICAF; Institute of Chemistry, University of the Philippines Diliman, Quezon City; January 15, 2005		
Resource Speaker	" <i>QSAR: The New Heart of Drug Design</i> " 30 th Philippine Society for Biochemistry and Molecular Biology Annual Convention, University of the Philippines Manila, December 1 – 2, 2003		

ADMINISTRATIVE

List of administrative/other positions held

Administrative position	Year
Assistant Director , Institute of Pharmaceutical Sciences, National Institutes of Health, UP Manila	Jun 2013 - present
OIC , Institute of Pharmaceutical Sciences, National Institutes of Health, UP Manila	May-Jun, Sep 2013
Project Development Associate , Technology Transfer and	Aug 2012- present

	Business Development Office (TTBDO), UP System		
	Director , Learning Resource Center, UP Manila	Jun 2001 – Nov 2011	
	OIC , Information Management System, UP Manila	3 weeks in 2008	

Membership in academic, professional, scientific or arts organizations (national and international)

	Organization and position, if any	Since Year	
	Member International Advisory Committee, 2 nd International Conference on Global Trends in Pure and Applied Chemical Sciences (Hong Kong)	2014	
	Member National Research Council of the Philippines	2013	
	Member International Advisory Committee, International Conference on Global Trends in Pure and Applied Chemical Sciences (India)	2011	
	Member International Union of Pure and Applied Chemistry,	2008	
	Member American Chemical Society	2001	
	Member American Association for the Advancement of Sciences	2003	
	Member Kapisanang Kimika sa Pilipinas-Division of Inorganic Chemistry and Applied Fields (KKP-DICAF)	2004	
	Member National Integrative Multidisciplinary Bioinformatics Utilization Strategy (NIMBUS)	2005	
	Member Philippine Society of Biochemistry and Molecular Biology	2003	