



PSBMB NEWSLETTER

Philippine Society for Biochemistry and Molecular Biology

December 2007

PSBMB Members Meet at WVSU for 33rd Annual Convention Focusing on Biotech Solutions for Health

Bernadette dL. Libranda-Ramirez, Overall Chair, 33rd Annual Convention

PSBMB members and convention participants converged at the West Visayas State University in La Paz, Iloilo City last 7-8 December 2006 for the 33rd Annual Convention. The 6th RevUp on Molecular Biology for High School Teachers was also conducted at the same venue on 9 December 2006. (See also RevUp 6 story on p. 2.)



Convention organizers and speakers celebrate the conclusion of the 33rd PSBMB Annual Convention at West Visayas State University.

Last year's theme, Biotechnology Solutions for Health, aptly highlighted the role of biotechnology in our day-to-day quest for better well-being, for the prevention and treatment of diseases and our attempts to conserve nature and our environment. With 107 participants, the Convention opened with joint Welcome Remarks from Dr. Lourdes C. Arañador, President, WVSU and Dr. Bernadette L. Ramirez, Overall Chair of the 33rd Annual Convention. This was followed by a Keynote Address by Congressman Ferjanel G. Biron from Iloilo, who was also the Senior Vice-Chair of the Committee on Health at the Philippine Congress.

The first plenary session on the sub-theme Biotechnology in Drug Discovery and Development, chaired by Dr. Nina Rosario L. Rojas, from the Ateneo de Manila University, opened with two

speakers: Dr. Michael A. Kron from the Biotechnology & Bioengineering Center, Medical College of Wisconsin, Milwaukee, USA with his talk on Biotech Solutions for Drug Discovery; and Dr. Gisela P. Concepcion of the Marine Science Institute, University of the Philippines Diliman with her talk on Biotherapeutics Development for Immuno-suppression and Cancer in a Philippine Setting.

The second plenary session, Biotech Solutions for Infectious, Genetic and Metabolic Diseases, was chaired by Dr. Cynthia P. Palmes-Saloma from the National Institute of Molecular Biology and Biotechnology, University of the Philippines Diliman. The speakers were Dr. Celia T. Torres-Villanueva (NIMBB), Dr. Eva Maria C. Cutiungco-de la Paz (Institute of Human Genetics, NIH, UP Manila) and Dr. Edgar Posecion (Satellite Newborn Screening Center in Western Visayas, WVSU) on their respective topics: DNA Vaccines against Infectious Diseases of Domestic Animals, Biotech Solutions for Genetic Diseases: Molecular Diagnostics and Newborn Screening.

(cont'd on p. 6.)

PSBMB heads to PhilRice for 34th Annual Convention

The 34th Annual Convention will be held on 29 Nov. – 1 Dec. 2007 with the theme "AgriBiotech: Initiatives and Innovations for Industry." Key features include an ecotour to the Banaue Rice Terraces and Concurrent Workshops on developing a consortium in graduate BMB education and on intellectual property issues in biotechnology. See you there!

Region 6 High School Teachers Brave Typhoon Seniang for RevUp 6

Leslie Michelle M. Dalmacio, Chair, RevUp 6: Iloilo

High school Biology and Chemistry teachers in the Western Visayas Region came together for the 6th RevUp, a day-long workshop held at the WVSU campus on 9 December 2006, the day after the 33rd PSBMB Annual Convention. The workshop ended just before Category I Typhoon Seniang (International Code: Utor) crossed the Visayas, hitting hard the provinces of Mindoro, Aklan, and Romblon.

The seminar is the sixth in the series of RevUp seminar-workshops conducted by PSBMB. RevUp6 is a joint activity of PSBMB and the Department of Biochemistry and Molecular Biology (DBMB) and Institute of Biotechnology and Molecular Biology (IBMB) of the University of the Philippines- Manila, and West Visayas State University (WVSU).

Seventy-seven teachers from 35 secondary schools and universities in the region attended the seminar. Participants came from Iloilo, Aklan, Antique, Capiz, Guimaras, and Bacolod City and other parts of Negros Occidental.

Dissemination of information about the seminar as well as invitation to the schools in the region was facilitated by the Dept. of Education Regional office. Registration for the seminar started in October and 63 teachers pre-registered. Majority of the teacher participants (83%) were from Public High Schools and only 17% of the participants were from Private Schools. Since the seminar was intended as an advocacy program for the improvement of teaching molecular biology in secondary schools, participation from the Public High Schools was encouraged. Only 1-2 teacher/s per school were allowed to register to give a chance to most of the high schools in the region to have delegates.

The seminar provided the high school biology/chemistry teachers with the basic concepts, recent advances and applications of molecular biology and biotechnology. The topics covered in the



seminar were: Molecules of Life, Molecular Genetic Mechanisms, Comparative Genomics, Biotechnology, and Genetic Basis of Diseases. The invited lecturers, Dr. Ameurfina D. Santos, Prof. Rhodora C. Estacio, Dr. Bernadette L. Ramirez, Dr. Virginia D. Monje, Dr. Nemencio A. Nicodemus and Dr. Michael A. Kron are known experts in the field of Molecular Biology and Biotechnology and did not fail to sustain the interest of the participants.

The teachers actively participated in the seminar, asking various questions in the open forum after each lecture and making it lively and fun. Dr. Jose Nevado served as facilitator in the open forum. Candy packages (from Columbia Food Products, Inc.) were given as tokens to those who asked good questions.

(cont'd on p. 7)

Left: RevUp in session; Top: some members of the RevUp team.

CHED Workshop by PSBMB: Faculty Upgrading in Biochemistry

Virginia D. Monje

Chair, Course 4: Faculty Upgrading in Molecular Biochemistry

The CHED workshop last 22-26 October 2007 was part of CHED's program on Faculty Upgrading of Chemistry in Higher Education. The program covered 5 courses for five major fields of chemistry with Course 4 as Molecular Biochemistry. CHED partnered with the Federation of Philippine Chemistry Societies (FPCS), whose member societies contributed to the other courses. CHED, FPCS, and the Institute of Chemistry of the University of the Philippines-Diliman partnered with PSBMB for the Molecular Biochemistry Course.

The course was designed to carry out the following objectives: (1) to upgrade the teaching of molecular biochemistry courses in the BS Chemistry program; (2) to share best practices of teaching biochemistry courses, both in lecture and lab; and (3) to improve the biochemistry curriculum/course syllabi of the schools offering BS Chemistry.

For the PSBMB, this workshop was also the 7th REVUP or the REView and UPdate Workshop series of PSBMB, to upgrade the teaching of biochemistry and molecular biology in the secondary and tertiary levels nationwide.

Despite 2 days of bad weather, the 5-day schedule of activities was carried out as planned, except for minor switching of lecture schedules of Dr. Antonio Laurena with that of Dr. Cynthia P. Saloma, due to the untimely death of her father. Out of the expected participating teachers from 46 schools offering B. S. Chemistry, 28 pre-registered, and only 26 representing 22 schools nationwide, showed up for the workshop. Although almost half of the schools were unable to send their representatives, all regions were represented except Regions I, V, XII and XIII.

The biochemistry workshop was conducted in 4 units of the UP Diliman College of Science namely: Computational Services & Research Center (CSRC), the Institute of Chemistry (IC), the National Institute of Molecular Biology and Biotechnology (NIMBB) and the Natural Science Research Institute (NSRI). Most participants felt that they got a good dose of upgrading from the lectures, and lots of tips on how to make a biochemistry class fun and exciting from the pen and paper exercises and the lab demos. They particularly enjoyed the simple 2-min lab demo exercise on enzyme kinetics using acetylcholine esterase.

Many of them said it was their first exposure to actual molecular biology techniques such as PCR, DNA sequencing and ELISA. They most welcomed the session on computer exercises which they can readily adopt in their classrooms – got

excited over 3D structure analysis of biomolecules and learning how to browse the web for literature search and to use a variety of analytical tools like BLAST, ExPaSy and OMIM. Those who experienced first-time-computer-hands-on were purely ecstatic.



CHED Course 4 participants pose with Dr. Gie Monje (center front, in white blazer).

The workshop kit was also a hit with the participants. Aside from the lecture handouts and the Pocket Ks of mini booklets on crop biotech from the International Service for the Acquisition of Agri-biotech Applications (ISAAA), they loved the CD containing 20 files of teaching aids, e.g., animations of key biochemistry processes and the Virtual Lab from the Howard Hughes Medical Institute, which showed interactive basic molecular biology techniques online. Each school also received the book *Biochemistry* by Garret and Grisham courtesy of Thomson Publishing.

(cont'd on p. 7)

Photo Gallery from the CHED Faculty Upgrading



Workshop for Molecular Biochemistry /RevUp 7



33rd PSBMB: Iloilo (from p. 1)

In the third plenary session, Biotech Issues and Solutions with Social Impact, we listened to Dr. Marita V.T. Reyes (Department of Biochemistry & Molecular Biology, College of Medicine, UP Manila), Dr. Maria Corazon de Ungria (Natural Sciences Research Institute, UP Diliman), Dr. John Donnie A. Ramos (Research Center for the Natural Sciences, University of Santo Tomas) and Ms. Maoi Arroyo (Hybridigm Consulting, Inc) for their respective talks on: The Ethical Considerations in Genetic Research, Biotech Solutions for Forensic Science and Paternity Testing, Functional and Antigen-Specific Monoclonal Antibodies with Constant Region Mutations Generated by DNA Immunization and Leveraging R & D towards a Philippine Biotech Industry.

The fourth plenary session, Biotech Solutions for Aquaculture, Agriculture and Food Production has talks by Dr. Leobert dela Peña (Fish Health Section, Aquaculture Department, SEAFDEC, Iloilo), Dr. Felix G. Ayson (Aquaculture Biotechnology Department, SEAFDEC, Iloilo), Dr. Rhodora R. Aldemita (PHILRICE) and Dr. Francisco B. Elegado (BIOTECH, UP Los Baños) on Biotech Solutions for Fish and Shrimp Diseases, Biotech Solutions for Aquaculture Production: Growth Hormone- and IGF Fortified Animal Feeds, Biotech Solutions for Nutrition: Golden Rice and Biotech Solutions for Preventive Health: Functional Foods and Probiotics.

The fifth plenary session, Biotech Potentials in the Marine Environment, we listened to Dr. Rex Sadaba (Division of Biological Sciences, UP Visayas), and Dr. Cynthia P. Palmes-Saloma (NIMBB, UP Diliman) for the topics on Marine Fungi in Mangroves and Cloning and Expression of Fluorescent Proteins from Marine Organisms, respectively.

The final session was the Young Scientists Forum, chaired by Dr. Gisela P. Concepcion and in which five undergraduate students presenting their research projects competed for Young Scientist Award. The students were: Kevin Ang (Division of Biological Sciences, UST), Joy Charisse O. Bulan (NIMBB, UP Diliman), Cherry Mae G. Ignacio (NIMBB, UP Diliman) and Dianne Aster T. Yunque (NIMBB, UP Diliman). Ms. Yunque won the competition for her work with Mr. Marvin A. Altamia and Dr. Cynthia P. Saloma on "Nonbioluminescent soft corals (*Alcyoniidae*) from Taklong Island, Guimaras as potential sources of novel green fluorescent proteins."

Poster presentations supplemented the scientific program, with 26 research projects showcased at the Poster Sessions. Best poster went to "Bioactive peptides from *Gemmula speciosa* venom: Isolation, purification, and sequencing" by Ma. Diarey B. Tianero, Glory D. Ranches, Francisco Heralde III, Ron Kaiser, Ma. Pamela David, Baldomero M. Olivera, and Gisela P. Concepción, presented by Ms. Ranches. The following two papers tied for 2nd place: "Cross-reactivity studies between house dust mite allergens and *Ascuris lumbricoides* antigens" by Gardette R. Valmonte and John Donnie A. Ramos, and "Continuous and discontinuous B-cell epitope prediction of the apical membrane antigen 1 (AMA1) in *Plasmodium falciparum* and its implications in variant-specific antibody response" by Francesca Diane M. Liu, Eduardo A. Padlan, and Gisela P. Concepcion. Third place went to "Novel design and assembly of a fused double gene construct of 1-aminocyclopropane-1-carboxylic acid (Acs2) synthase and papaya ringspot virus (PRSV) coat protein genes for RNA interference (RNAi) by Neil H. Tan Gana, Antonio C. Laurena, Evelyn Mae Tecson-Mendoza, and Roberta N. Garcia.

The unique hospitality and culture of our Ilonggo hosts from WVSU were highlighted during the Fellowship Night. PSBMB members feasted on Ilonggo music, dance and native food fare. *Palangga namon Iloilo!*

The Convention partners contributed largely to making the 33rd Convention the success that it was. The Convention partners included the Administration of the WVSU, the PSBMB Board of Directors, the Organizing Committees (PSBMB, WVSU and the RevUp Committees) and the various donors and sponsors. Special mention goes to Dr. Fred Guillergan (College of Medicine, WVSU), Chair of the Local Committee and the rest of the local organizing committee members for their unwavering support. The generous support of the donors and sponsors namely Institute of Biotechnology & Molecular Biology (National Institutes of Health, University of the Philippines Manila), Congressman Ferjenel G. Biron, Chemline Scientific Enterprises, Omnibus Bio-medical Systems, Inc, Hybridigm Consulting, Inc, Fil-Anaserve, Inc, Enzed Trade, exclusive Traders, Philab, Mr. Alfonso Tan, and Original Biscocho Haus is gratefully acknowledged.

RevUp 6: Iloilo (from p. 2)

Pen-and-paper exercises were also conducted to reinforce what was taught in the lectures. The arrival of typhoon Senyang did not dampen the spirits of the teacher participants as most of them still diligently went through the pen-and-paper exercises. Each participant was provided with a seminar kit containing lecture handouts, resource materials on Biotechnology, and a cd on Molecular Biology classroom activities.

Based on the evaluation of the seminar by the teacher participants, 79% strongly agreed that the lectures were relevant to their teaching, while 82.5% of the participants strongly agreed that the lectures increased their knowledge in molecular biology. About 70% strongly agreed that the pen and paper exercises were relevant and useful to their teaching and ~86% felt that the kit was adequate and useful.

Regarding the speakers, ~86% strongly agreed that the speakers were able to deliver their lectures effectively and 81% thought that the speakers were able to emphasize important points in the lectures.

With regard to the venue of the seminar, 83% agreed strongly that it was comfortable and conducive for the seminar. The food was satisfying and adequate according to 71% of the participants. And according to 87% of the participants, the organizing committee was well-prepared and accommodating.

RevUp6 could not have been possible without the support of Congressman Ferjenel G. Biron, who sponsored the meals of the participants and organizers of the seminar. Generous support was

also provided by Dean Alberto Roxas of the UP College of Medicine, Omnibus Bio-Medical Systems Inc., Mars Laboratory Instruments Center, Exclusive Traders Inc., Fil-Anaserve Inc., Columbia International Food Products Inc., and Mrs. Virginia Luansing.

The resource materials on biotechnology were kindly provided by the Biotechnology Coalition of the Philippines (BCP) and the International Service for the Acquisition of Agri-Biotech Applications (ISAAA). The companion cds on Molecular Biology classroom activities were provided by Dr. Michael A. Kron of the Medical College of Wisconsin, USA.

CHED Faculty Upgrading Project (from p.3)

Asked what they like best about the workshop, they unanimously replied "the facilitators" who were a pool of research associates and instructors from NIMBB, IC and NSRI. Many also express bolstered confidence in teaching nucleic acids and enzyme kinetics but wished for more exposure (another workshop, perhaps?) to metabolism and computational biology. Not satisfied with 'just observing' lab demonstrations, several participants wished to experience actual hands-on lab exercises. Ahhh! If only the CHED budget could afford labs!

We thank the donors who supported this CHED-sponsored workshop: the Offices of the UP Diliman Chancellor Dr. Sergio Cao, Dean of the College of Science Dr. Caesar Saloma, Thomson Publishing, BioMart Asia Inc, and ISAAA. At the closing merienda-cena hosted by Chancellor Sergio Cao, the participants were asking when the next CHED workshop would be.

Views from this corner (from p. 8)

Dr. Giselle Concepcion, our Public Relations Officer and spectacular advocate for science and technology in the country; Dr. Badette Ramirez and Ms. Leslie Dalmacio once more; Dr. Grace Yu, who brings her energy, efficiency, and joy to her assignments, such as chairing the physical arrangements for the 33rd Convention; Dr. Peter Torres, our elections and membership committee

chair and holder of institutional memory; and Dr. Cynthia Saloma, who has brought in new ideas to our activities. Of course we still miss Dr. Gloria Bernas, who should have been with us this term.

It has been an honor and a joy to learn from and work with all of you, and I thank you from the bottom of my heart.

The PSBMB Newsletter: Visit us at www.psbmb.org.

Editor: Nina Rosario L. Rojas (nrojas@ateneo.edu) **Contributors:** Virginia Dia-Monje, Benadette Libranda-Ramirez, Leslie M. Dalmacio
Lay-out Design: Olivia Erin M. Buenafe. **Web and Logo Design:** Einstein Arts (www.einsteinarts.com)

Web Hosting: Edumar Madlangbayan (www.dumyweb.com).

34th Annual Convention design: Roel C. Rabara

Mailing Address: c/o Nina Rosario L. Rojas, Department of Chemistry, Ateneo de Manila University, Loyola Heights, Quezon City 1108

Telefax: +63-2-426-1323.

PSBMB electronic newsletter/e-group: psbmb@yahoo.com

Views from this corner

Nina Rosario L. Rojas
President, Jan. 2006-Dec. 2007

Another year has gone by, and we, the current board of directors will be taking our leave soon. We hope we have served you well the last two years.

I am grateful for the opportunity to work with the PSBMB, especially the project chairs and the board of directors.

I'd like to thank Dr. Gie Monje for continuing her outstanding work with the RevUp series of Workshops. We have now moved to RevUp 7, and we hope our partnership with CHED and the regional DepEd offices will continue as we seek to reach more teachers and schools around the country. Thanks also to Ms. Leslie Dalmacio, for continuing to lead and coordinate the joint PSBMB-UP Manila RevUps for high school teachers. Of course, the RevUps would not be possible with the rest of the dedicated team of mentors and facilitators, and the generous sponsors and partners!

Thanks to Dr. Bernadette Libranda-Ramirez and Dr. Fred Guillergan, for organizing the 33rd Annual Convention in Iloilo. Thanks too to Dr. Fred for letting us bring RevUp to the Region 6 teachers. Thanks to Dr. Arañador and the rest of WVSU for their generosity and hospitality, and the rest of the 33rd Convention team. Our visit to Iloilo was truly memorable.

I'd like to thank Dr. Gabby Romero for his innovative, dedicated, and effective leadership of the upcoming 34th Annual Convention at PhilRice. Thank you to the rest of the team—personally, I'd like to thank Ms. Gina Maramara-Babb, Mr. Roel Rabara, Ms. Loida Perez, Dr. Tony Alfonso, Dr. Marissa Romero, and Dr. Dindo Tabanao for their work. We're looking forward to our visit to PhilRice.

I'd like to thank the rest of the PSBMB board—Dr. Vivian Tolentino, our vice-president and persuasive chair of the ways and means committee of the 34th convention; Dr. Mafel Ysrael, our tireless secretary; Dr. Miren Santos, our treasurer who has carefully watched over our funds; Dr. Gie Monje, our auditor and as mentioned, super RevUp chair;

(cont'd on p. 7)

Events to watch out for:

January 7-11, 2008:
10th Eurasia Conference on Chemical Sciences "Beyond Borders,"

Philippine International Convention Center, Manila, Philippines
<http://www.philippinechem.org/eurasiachem10/>

Speakers include the following Nobel Prize winners: Aaron Ciechanover (Israel, 2004), discovery of ubiquitin-mediated protein degradation; Yuan Lee (Taiwan, 1986), crossed molecular beam technique in chemical reaction dynamics; Hartmut Michel (Germany, 1988), 3D-structure of a photosynthetic center; and Ryoji Noyori (Japan, 2001), asymmetric synthesis. A Nobel forum is part of the program.

April 2-5, 2008:
Joint 7th Human Genome Organization (HUGO)-Pacific Meeting and 8th Asia-Pacific Conference on Human Genetics "Genomics for Better Health in the Asia-Pacific"

Shangri-La Mactan Island Resort, Cebu, Philippines
<http://www.hugo-ap2008.ph/>

June 28 - July 3, 2008:
33rd FEBS Congress and 11th IUBMB Conference "Biochemistry of Cell Regulation"

Athens, Greece
<http://www.febs-iubmb-2008.org/>

June 22-26, 2008:
4th Asia-Oceania Human Proteome Organization (AOHuPO) and 2nd Pacific Rim International Conference on Protein Science (PRICPS) Conference

Cairns Convention Center, Cairns, Queensland, Australia
<http://www.pricps2008.org/>

October 23-25, 2008:
20th FAOBMB Symposium: Gene Expression Emphasizing Regulatory RNA

National Yang-Ming University, Taiwan

August 2-7, 2009:
21st IUBMB and 12th FAOBMB Congress: "Biomolecules for Quality of Life"

Shanghai International Congress Centre, Shanghai, China

September 26 - October 1, 2010
12th IUBMB Conference, 21st FAOBMB Conference, ComBio2010 Conference

Melbourne, Australia
<http://www.asbmb.org.au/iubmb2010/>

The FAOBMB also offers travel fellowships and young scientist awards for its events. See the IUBMB Website <http://www.iubmb.org> and the FAOBMB website <http://www.faobmb.org> for more information.

For information on PSBMB events and events of our partner organizations, please see our website at <http://www.psbmb.org>.