Four science research projects were selected as entries of the DOST-PSHS System to the National Science and Technology Fair (NSTF) of the Department of Education (DepEd), to be held in January 2015. These entries were selected from 60 science research projects of PSHS scholars that were presented during the PSHS System-wide Science Research Summit (SRS) on Dec. 5 to 7, 2014 at Green Canyon Resort, Clark, Pampanga.

Winners of the NSTF will represent the Philippines to the Intel International Science and Engineering Fair 2015.

The 60 science research projects that were judged during the SRS were chosen by the PSHS System Committee on Science Fairs.

There were four categories of research projects: Life Sciences Individual, Life Sciences Team, Physical Science Individual and Physical Science Team. One research project per category comprised the four entries of PSHS System to the NSTF.

The winning entries are as follows:

**Life Sciences Individual**
Evaluation of Coconut Shell Wood Vinegar as an Insecticide Against the Coconut Scale Insect by Juancho Raymundo of Main Campus

**Life Sciences Team**
Luminescent Activity of *Photobacterium leiognathi* Isolated from Squid Ink and its Potential as Bioindicator for Oil Contamination by Joseph Neos Cruz, Jailah Mae Valentin and Celine Bueno of Central Luzon Campus

**Physical Science Individual**
Physico-Chemical Qualities and Fecal Coliform Content of Water at Lake Selutton, Municipality of Lake Sebu, South Cotabato by Hannan Magda of Central Mindanao Campus

**Physical Science Team**
Polyaniline-based Fish Freshness Sensor through Digital Imaging Colorimetry by Marjorie Gold Maningas, Je-anne Alodia Presado and Janella Umbina of Central Luzon Campus (afs)

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**PSHS System, SEI Team Up for Biotechnology**

Two (2) of the DOST agencies for education: Philippine Science High School (PSHS) System and Science Education Institute (SEI) teamed up for promoting Biotechnology in education, during the celebration of the 10th National Biotechnology Week which spanned from November 24 to 28. A one-day seminar workshop was held on the 26th at PSHS Main Campus in Quezon City.

Three Science and Technology professionals and four PSHS scholars presented to 55 students and more than 30 teachers from 19 science high schools in Metro Manila.


Biotechnology Coalition of the Philippines Director for Research, Dr. Saturnina C. Halos led the Mini-plenary session for teachers where she focused on teaching the basic concepts of Biotechnology in K-12.

PSHS scholars Johann Paolo Abog, Kelly Nicole Magonon and Karen Amora from Main Campus and Kendell Ann Kempis from Eastern Visayas Campus presented their Biotechnology related research projects. Said projects were conceptualized and performed at the UP National Institute of Molecular Biology and Biotechnology during the scholars’ Summer Science Internship Program 2014- a 120 hour immersion in S&T profession.

In the afternoon, the teachers underwent a laboratory activity for DNA extraction.

(continued on page 3)
The skills or competencies maybe functions of intelligence quotient while the attitude pertains to the emotional quotient; and the ability to discern and being sensitive or conscientious composes the spiritual quotient of the person.

It is not enough that a person has high intelligence quotient, if this is not accompanied with a healthy emotional make up or what we call ATTITUDE. As in the arrow, the body connects the arrow tip and the tail. All three must be present - relevant skills, right attitude, and conscientiousness in order for one to reach his/her desired destination or goal in life.

The archer knows that if he/she uses an arrow with defective parts, he/she may not hit the bulls-eye or goal. They successfully went through.

On Nov. 27 to 28, capping off the educational tour was a visit to PSHS Central Luzon Campus (PSHS-CLC) in Clark Freeport Zone, Pampanga. At the venue where the group had an overnight stay, the PSHS-CLC’s Bids and Awards Committee Chairman Mr. Arnold Pitpitunge shared his experiences in handling the campus’ procurement. As a young campus of 5 years old, he described his experience in procurement as “learning by doing.” He learned not to be afraid to ask questions and to coordinate with the right agencies for support. These he advised to the group. (afs)

PSHS Eastern Visayas Campus (EVC) Director Dr. Reynaldo Garnace and three scholars: Cathlene Roi M. Jose, Arnold P. Olayvar and Sean Francis N. Ballais, presented in the recently-held Japan Super Science Fair (JSSF) 2014. On November 7 to 14, 2014, JSSF 2014 was conducted at Ritsumeikan High School in Kyoto, Japan with 29 participating countries including the Philippines.

Dr. Garnace delivered a talk entitled: “Haiyan in review: Its Challenges and Opportunities”. Jose gave an oral presentation of his research entitled, “Antibacterial Activity of the Acetonic and Methanol Leaf Extract of Ylang Ylang (cananga odorata) Against Multi-Drug Resistant Bacteria”. Olayvar and Ballais-did a poster presentation for their research on “Effects of Saponin Extract from Crown of Thorns Starfish (acanthaster planci) Against Selected Human Pathogens” and “Wireless Gesture-based Software Solution for Computers Through the Use of Web Cameras” respectively. Shared by Dr. Garnace, “JSSF is comprised of oral and poster presentation of researches, science zone activities, cultural presentations and exchange, industrial tours and games. The sessions were conducted in Ritsumeikan High School. Other educational tours were held around Kyoto.”

Added by Dr. Garnace, “the school was equipped with all the amenities needed for the conduct of the science fair.” (afs)

PSHS supports 4,584 Scholars, SY 2014-2015

The state-run Philippine Science High School (PSHS) System has supported a total of 4,584 scholars from Grades 7 to 10, for SY 2014-2015.

The PSHS System, operating under one System of governance and management, provides scholarships to students with high aptitude in science and mathematics. It is based on a curriculum that emphasizes science and mathematics and the development of well-rounded individuals. It prepares its students for careers in Science & Technology (S&T).

Before their entry to PSHS, all scholars together with their parents/guardians enter into a contract. One of the provisions stated in the contract is that, upon the scholar’s graduation he/she MUST only take up S&T related courses in college which is duly listed by PSHS. Non-compliance to the said provision means reimbursement of scholarship fund.

This particular provision aims to ensure the strict implementation of the objective of the program and that is to produce a critical mass of professionals and leaders in S&T who will contribute in nation building. Hence, before entering PSHS, the scholar applicant and the parent/s must think carefully because being a scholar of the PSHS entails accountability and responsibility. (mro)
OED Goes Lakhay-Aral sa Norte

At REFMAD Farms in Burgos, Ilocos Norte. The OED staff were delighted to see and taste the famous dragon fruit and the different products made out of it.

At Cormel Foods in Laoag City. Ms. Catherine Abadilla (photo above) briefs the OED staff how their family business started and the different products that they produce. Photos below show some samples of their fruit wine named after DOST Sec. Montejo and former SEC. Nina Alabastro; and the famous sukang Iloko made of sugar cane and banana.

At BAPAMIN Enterprises in Batac, Ilocos Norte. Photo above, sweet sorghum business entrepreneurs, Engr. & Mrs. Antonio Arcangel enjoined the OED personnel for a toss of sweet sorghum juice. Photos below show some of the products made out of sweet sorghum.

PSHS to put up campus in MIMAROPA Region in 2016

Governor Eduardo C. Firmalo and some members of the Sangguniang Panlalawigan of the province of Romblon visited the PSHS Ilocos Region Campus thru the invitation of Dr. Larry Cabatic last November 7, 2014.

Gov. Firmalo was joined by Romblon’s SP Members namely, Mr. Felix Ylagan, Mr. Samuel Romero and Ms. Juliet Fiel and his Chief of Staff, Ms. Trina Firmalo.

The ocular visit aimed to immerse their officials into PSHS campus operations and facilities as MIMAROPA Region was chosen as the site of PSHS to be established in 2016 through BOT Resolution No. 2014-10-33.

USEC Fortunato Dela Pena was also present to share his valuable experiences in campus establishment. The officials of the LGU of San Ildefonso, Ilocos Sur informally shared their significant insights as well, over a luncheon fellowship.

Dr. Cabatic, who headed IRC for over 10 years, personally toured the Governor and his party around the campus showing them the different facilities.

Before the campus tour, the Governor and his party and USEC Dela Pena dropped by Pagudpud, Ilocos Norte where the joint GAD Activity of OED, IRC, CVC and CARC with 128 participants was being held. In his brief message before the participants, during a simple tribute prepared for outgoing DOST USEC Dela Pena, he thanked the PSHS System leadership for the warm welcome accorded to him and his party and he expressed his joy of becoming a part of the PSHS family soon. (mro)

PSHS System, SEI

From page 1

A method of DNA Extraction was taught to the teachers using ordinary household supplies such as water, liquid detergent and rubbing alcohol.

Simultaneously, in a different room, the students had a hands-on activity for DNA fingerprinting wherein a sample situation of a murder case was given to them. The facilitators gave a DNA sample obtained from the crime scene and DNA samples of three suspects. By comparing the sequencing of the DNA samples, the students were able to identify which sample is identical to the sample obtained from the crime scene. (afs)

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Lakbay-Isip sa Norte: Surfacing Gender Sensitivities Through A Thinking Outside the Box Workshop

Wearing color-coded t-shirts were the GAD participants from OED (blue), IRC (purple), CVC (orange) and CARC (white) in a group shot with the DOST-PSHS team leaders led by Executive Director Dr. Larry Cabatic, CVC Campus Director Dr. Salvador Romo, IRC-OIC Dr. Ronnalee Ortega, and the guest speakers MMSU president, Dr. Miriam Pascua; Ms. Corazon Lillian Celia Rin of Ilocos Norte PSWD and Dr. Lourdes Floria, PAGASA awardee 2014. Right photo is Dr. Cabatic giving his inspirational talk to the participants.

DOST-PSHS System Executive Director, Dr. Larry L. Cabatic, admonished the Pisay Team, both teaching and non-teaching personnel, ‘to serve as models for the students who are the center of “being” in the PSHS.’

Dr. Cabatic opened the 3-day Gender and Development Workshop held in Pagudpud, Ilocos Norte last November 5-7, 2014 participated in by the teams from the Office of the Executive Director (OED), Ilocos Region Campus (IRC), Cagayan Valley Campus (CVC) and Cordillera Administrative Region Campus (CARC) totalling to 128.

The joint GAD activity aimed not only to strengthen a culture of teamwork despite belonging to physically distant offices but also to promote ideas and exercises that encourage “thinking outside the box” and reflect on their roles as public servants while they are allowed to rejuvenate their energies.

The participants were further inspired and encouraged by the invited speakers namely Dr. Miriam Pascua, President of MMSU, Batac, Ilocos Norte; Dr. Lourdes Floria, PAG-ASA Awardee 2014 and Principal of Zaragoza Elementary School of Bacnotan, La Union; and Ms. Corazon Lillian Celia Rin of Ilocos Norte PSWD.

The different sports competition held in the afternoon of Nov. 6 promoted camaraderie and sportsmanship among the participating offices/campuses.

As part of the learning process, the OED personnel went also on a one-day Lakbay-Aral to selected DOST-assisted projects in Ilocos Norte such as the dragon fruit plantation in Burgos; Sweet Sorghum Processing in Batac; and Carmel Foods in Laoag for their wine and vinegar making. (mro)

Chief/Admin Officers on a 5-day Educational Tour

November 24 – 28, 2014–PSHS System Chief Administrative Officers (CAOs) convened for a 5-day educational tour of Northern Luzon. Tagged as “Lakbay Aral for Chief/Administrative Officers”, the group consisted of 14 personnel including PSHS System Chief Administrative Officer Ms. Ma Concepcion B. Sakai, Accountant Ms. Ma. Lourdes Amira P. Soguilon and Budget Officer Ms. Lorna C. Marquez of the Office of the Executive Director (OED).

The tour started on Nov. 24 at PSHS Main Campus in Diliman, Quezon City where the OED office is also located.

PSHS System Executive Director Dr. Larry L. Cabatic and Deputy Executive Director Dr. Rod Allan A. De Lara welcomed the participants and wished them a safe and productive trip.

Dr. Cabatic underscored the building of trust among PSHS employees and complementation of campuses as the prime reason for pursuing this educational tour.

In the afternoon of Nov. 24, the group arrived at PSHS Cagayan Valley Campus (PSHS-CVC) in Bayombong, Nueva Vizcaya. The morning after, PSHS-CVC Director Dr. Salvador B. Romo discussed the accomplishments of their campus with highlights on exceeding their targets, as set in their Office Performance Commitment Review (OPCR). Dr. Romo stressed on investing in professional development of faculty and staff, conduct of outreach programs, purchase of reference materials and equipment, establishment of campus cooperative,