

revised 9/7/2012

CHECKLIST FOR CLEARANCE

Name: SHEILA MARIE TABULINA ANGUSTIA

Type of clearance:  Full  Temporary  DFA  BI  NBI

Purpose \_\_\_\_\_

Date of travel: \_\_\_\_\_ Place of travel: \_\_\_\_\_

STATUS OF SCHOLARSHIP	REQUIREMENTS
Graduate (service <i>not yet</i> completed)	<input checked="" type="checkbox"/> Formal request <input type="checkbox"/> NBI/DFA clearance <input type="checkbox"/> Formal request
PERSONAL TRIP	<input type="checkbox"/> Endorsement from employer vouching for return <input type="checkbox"/> Post-dated check / Bond / Full repayment (for long-term) <input type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker
TRAININGS, CONFERENCES, SEMINARS, ETC/RESEARCH VISIT	<input checked="" type="checkbox"/> Endorsement from employer vouching for return <input checked="" type="checkbox"/> Invitation and/or acceptance to conference/training/workshop, etc <input checked="" type="checkbox"/> Abstract of paper <input checked="" type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker
BUSINESS TRIP	<input type="checkbox"/> Endorsement from employer vouching for return <input type="checkbox"/> Post-dated check / Bond / Full repayment (for long-term) <input type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker
FOR FOREIGN STUDY/DEGREE PROGRAM	<input type="checkbox"/> Endorsement from employer vouching for return <input type="checkbox"/> Acceptance to the program <input type="checkbox"/> Approved timetable/program of study <input type="checkbox"/> Post-dated check / Bond <input type="checkbox"/> Full repayment, if no endorsement from employer <input type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker



Republic of the Philippines  
National Police Commission  
**PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
**DNA ANALYSIS BRANCH**  
Camp Crame, Quezon City

add: pnpdnac@yahoo.com.ph Tel No. 7230401 local 4516 email



October 05, 2015

ERMIE M BACARRA  
Chief, HRID DOST

Dear Madam:

I am SHEILA MARIE TABULINA ANGUSTIA, a graduate student of DLSU-Manila and a scholar of the DOST. Also, I am presently connected with the Philippine National Police as a Forensic DNA Analyst.

My abstract for entitled Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information, Mutation Analysis and Forensic Assessment was accepted in the Twenty Sixth International Symposium on Human Identification for a poster session. May I then respectfully request for a travel clearance to attend the said conference. I will be leaving the country for United States on October 9, 2015 and be back on October 20, 2015 as one of the delegates of the Philippine National Police.

Attached with this letter are the Letter of Invitation for the Twenty Sixth International Symposium on Human Identification and the letter of acceptance of my abstract. Also, a copy of the abstract, guarantee letter from the PNP, deed of undertaking from my co-worker and a copy of her ITR was included for your perusal.

I promise that I will come back as soon as the conference have concluded and pay the necessary damages that will be incurred thru the PNP Crime Laboratory in case of default on my scholarship contract.

Hoping for your kind consideration.

Respectfully yours,

SHEILA MARIE TABULINA ANGUSTIA  
Police Chief Inspector

Endorsed by:

JUDYCEL ABALOS MACAPAGAL  
Police Chief Inspector  
OIC, DNA Analysis Branch



Republic of the Philippines  
National Police Commission  
**PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
**DNA ANALYSIS BRANCH**  
Camp Crame, Quezon City  
add: pnpdnac@yahoo.com.ph Tel No. 7230401 local 4516 email



October 05, 2015

To Whom It May Concern:

This is to certify that PCINSP SHEILA MARIE T ANGUSTIA is attending the Twenty Sixth International Symposium on Human Identification to be held at Gaylord Texan Resort in Grapevine, Texas USA on October 12-15, 2015 . Being one of the poster presenter on the said conference, she will be leaving the country on October 09, 2015 as a delegate of the Philippine National Police. The PNP Crime Laboratory guarantees that PCINSP ANGUSTIA will be coming back to the Philippines on October 20, 2015 after the program has concluded. Also, the PNP Crime Laboratory acknowledges that the office will be held liable for the bond between PCINSP ANGUSTIA and Department of Science and Technology in case of her default and therefore will ensure that she will be true to her word . The office will gladly answer any questions or concerns regarding this matter and you may contact us thru 7230401 local4516.

Thank you for your kind consideration.

Respectfully yours,

JUDYCEL ABALOS MACAPAGAL  
Police Chief Inspector  
Chief, DNA Analysis Branch



Republic of the Philippines  
National Police Commission  
**PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
Camp Crame, Quezon City

E-mail Address: oarmd\_cl@yahoo.com Tel. No.: (02) 723-0401 Local 4406



PNPCL-A

August 24, 2015



## CERTIFICATE OF DUTY STATUS

TO WHOM IT MAY CONCERN:

THIS IS TO CERTIFY that PCINSP SHEILA MARIE TABULINA ANGUSTIA O-16757 is a bona fide member of this Unit and still in the active service as of this date.

This certification is being issued upon the request of subject PCO for travel abroad.

*[Signature]*  
**REA A VILLAVICENCIO**  
Police Senior Superintendent  
Chief, ARMD

Verified by:

Aileen Grace V Gaoat  
Police Officer 2  
Admin PNCO

Form No.: CLF-ARMD-14  
Revision No.: 0



**Promega Corporation**  
2800 Woods Hollow Road  
Madison, WI 53711-5399  
United States

tel: 608.274.4330 • fax: 608.277.2516 • [www.promega.com](http://www.promega.com)

August 4, 2015

SHEILA MARIE ANGUSTIA  
DNA Analysis Branch, PNP Crime Laboratory  
Camp Crame, Quezon City Philippines 1111  
Passport Number: EB9430189  
Date of Birth: MARCH 07, 1980  
Country of Nationality: PHILIPPINES

Dear Ms. Angustia,

I am writing to invite your participation in the *Twenty Sixth International Symposium on Human Identification* from October 12 – 15, 2015. This conference will be held at the Gaylord Texan Resort in Grapevine, Texas. The cost for registration is \$755. Those registering prior to August 1, 2015 will receive a discounted price of \$655. A link to the registration form can be found on the official conference website, [www.ishinews.com](http://www.ishinews.com)

The International Symposium on Human Identification sponsored by Promega is the largest meeting of its kind to focus solely on the use of DNA for human identification. The conference will feature talks by thought leaders in the forensic community, a variety of practical workshops and more than 100 scientific posters.

The general session talks at the symposium from October 13 through October 15 will include discussions STR loci and CODIS integration, Low Copy Number evidence and its admissibility in court, Advances in DNA technologies and more. Pre and Post conference workshops will cover such diverse topics as Mixture Interpretation, Utilizing Data from Next Generation Sequencers, Identification Strategies for Skeletal Remains and others. The program of talks and events is available on line at [www.ishinews.com](http://www.ishinews.com)

Should you have any questions concerning the conference, please don't hesitate to contact me at the numbers listed below. I hope that you are able to attend our symposium. We would greatly value your participation.

Sincerely,

A handwritten signature in black ink that reads "Carol Bingham".

Carol Bingham  
Symposium Director  
Promega Corporation  
Phone: 608-277-2670  
[carol.bingham@promega.com](mailto:carol.bingham@promega.com)



Promega

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711-5399  
United States

tel: 608.274.4330 • fax: 608.277.2516 • [www.promega.com](http://www.promega.com)

August 4, 2015

SHEILA MARIE TABULINA-ANGUSTIA  
PHILIPPINE NATIONAL POLICE  
DNA ANALYSIS BRANCH, PNP CRIME LABORATORY  
CAMP CRAME, QUEZON CITY NCR 1111

Dear Sheila Marie,

Thank you for your abstract submission for the *Twenty-sixth International Symposium on Human Identification*. On behalf of the review committee, I am pleased to inform you that your abstract entitled ***Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information, Mutation Analysis and Forensic Assessment*** has been accepted for a poster presentation. Two poster sessions will be scheduled during the conference. Odd numbered posters will be presented on Tuesday, October 13<sup>th</sup> from 3:30-5:30pm. Even numbered posters will then be presented on Wednesday, October 14<sup>th</sup> from 3:30-5:30pm. You will be notified of your assigned poster number by August 17<sup>th</sup>. You must be registered to attend the symposium by this date to receive a poster assignment.

Poster boards will be 4 feet high by 8 feet wide. Poster materials need not take up the entire board and can be affixed to the board as a single large format document or as a collection of smaller pieces of data. Push pins will be provided on site. We've partnered with PosterSmith to provide you with a free fabric poster. Orders placed prior to September 14<sup>th</sup> will receive a complimentary poster and shipping. Orders placed after September 14<sup>th</sup> are eligible for a \$15 discount with code "ISHI2015". Visit this link to order your poster: <http://postersmith.com/poster/conference/ISHI2015>.

Poster abstracts will be included in the *Proceedings from the Twenty-sixth International Symposium on Human Identification* to be published on the Promega website following the meeting. **Please let me know if you do not plan to present your poster at the symposium.**

ISHI 26 will take place October 12 – 15, 2015 at the Gaylord Texan Resort and Convention Center, 1501 Gaylord Trail, Grapevine, Texas, 76051, [www.marriott.com/hotels/travel/dalgt-gaylord-texan-resort-and-convention-center/](http://www.marriott.com/hotels/travel/dalgt-gaylord-texan-resort-and-convention-center/). A block of rooms has been reserved for this conference at the Gaylord Texan for the special rate of \$224/night + tax for single or double occupancy. Hotel rooms may be booked here or directly by phone (866/782.7897). Mention **ISHI 26** to receive the special rate.

Once again, thank you for adding to the value that this symposium has for the genetic identification community. If you have any questions concerning the meeting, please contact me Tel: 608-277-2670, Fax: 608-273-6455, E-mail: carol.bingham@promega.com. I am delighted that you will participate in this year's symposium.

Sincerely,



Carol Bingham  
Symposium Director

## **Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information, Mutation Analysis and Forensic Assessment**

Sheila Marie T. Angustia, Aquilina P. Pia, Franklin L. de la Cruz, Ma. Carmen Ablan-Lagman and Lorna H. Santos

Y- chromosomal STR markers were found to be significant in analyzing forensic DNA samples due to its male specificity, high sensitivity and paternal mode of inheritance. They have shown to be advantageous in analyzing male DNA in mixtures containing high female DNA fraction and as supplementary markers for kinship testing. To be useful in the Philippine population, markers must first be assessed for its variability and mutability.

In this study, twenty-three Y- chromosomal STR markers (DYS19, DYS385a/b, DYS389I/II, DYS390, DYS391, DYS392, DYS393, DYS437, DYS438, DYS439, DYS448, DYS456, DYS458, DYS635, Y-GATA-H4 DYS481, DYS533, DYS549, DYS570, DYS576, and DYS643) were used in characterizing the Philippine male population. Biostatistical properties (allelic frequency, haplotype diversity, gene diversity and discrimination capacity) was gathered and evaluated in 629 unrelated Filipino males to determine the usefulness of twenty-three Y STR markers in routine forensic analysis. Analyzing the data reveals that additional markers renders an increase in haplotype diversity, discrimination capacity and resolving power which exemplifies the forensic usefulness of additional markers in discriminating haplotypes from the Philippine population. Also, additional markers have demonstrated its ability to resolve common haplotypes to unique profiles. Information gathered from this study was submitted to the YHRD database.

Mutability of Y STR markers impacts interpretation of DNA profiles gathered during examination. While conventional Y STR markers having low mutation rates are useful in establishing relatedness among male individuals, rapidly mutating Y STR markers (RM Y STR) characterized by high mutation rates can be used to differentiate male persons from the same paternal lineage. Therefore, markers need to be correctly classified to determine its suitability on the case being investigated. In this research, mutability studies were conducted to obtain accurate data on mutation rates by scanning Y STR mutation on the Philippine population. Using one hundred thirty-three father and son transmission from previously confirmed paternity related cases, a total of eleven mutational events have been recorded with three mutations observed at DYS635. Among the 3,059 meiotic transfers covered, the 11 recorded mutations can be translated to an average overall mutation rate of  $3.59 \times 10^{-3}$  for the Philippine population. In addition, DYS635 which possesses high mutation rate ( $2.26 \times 10^{-2}$ ) is recommended to be reclassified as rapidly mutating.

KNOW ALL MEN BY THESE PRESENT:

I, SHEILA MARIE TABULINA ANGUSTIA and MARIE CERISE-ELYN FELIX AGUILAR, both of  
(Scholar) (Co-Maker)

legal age, Filipino citizens and residents of B2 L2 Ph5 San Marino City Subd. Brgy. Salawag, Dasmariñas, Cavite  
(Scholar's Address)

and 32 F Liberty Ave. Brgy. Socorro, Quezon City, respectively, Philippines do hereby depose and say:  
(Co-Maker's Address)

That I, SHEILA MARIE TABULINA ANGUSTIA, is a scholar-graduate under the DOST-PCIEERD  
(Scholar) Scholarship Program.

That I, SHEILA MARIE TABULINA ANGUSTIA, hereby intend to leave the country to  
(Scholar)

attend the Twenty Sixth International Symposium on Human Identification to be held at Gaylord Texan Resort in Grapevine Texas USA on October 12-15, 2015.  
(Duration)

That I, SHEILA MARIE TABULINA ANGUSTIA, hereby commit to return to the Philippines  
(Scholar)

on October 20, 2015. In case of my failure to do so, I hereby undertake  
(Date of Return)

to pay the financial support provided to me during my scholarship under the DOST-PCIEERD Scholarship Program.

That I, MARIE CERISE-ELYN FELIX AGUILAR, officemate  
(Co-Maker) promise to pay the  
(Relationship to Scholar)

financial support given to SHEILA MARIE TABULINA ANGUSTIA under the DOST-PCIEERD Scholarship Program  
(Scholar)

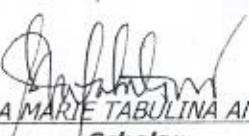
should SHEILA MARIE TABULINA ANGUSTIA fail to return to the Philippines to fulfill his/her scholarship  
(Scholar)

financial or service obligation. Moreover, I am declaring that I am not an accompanying party of this travel.

This Deed of Undertaking shall serve as our Promissory Note in favor of the DOST-PCIEERD Scholarship Program  
to pay  
whatever financial support given to me, SHEILA MARIE TABULINA ANGUSTIA,  
(Scholar)

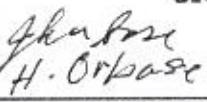
in case of my failure to return to the Philippines on October 20, 2015.  
(Date of Return)

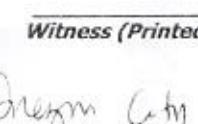
IN WITNESS WHEREOF, we have here to set our hands this 05 day of October in 2015.

  
SHEILA MARIE TABULINA ANGUSTIA  
Scholar  
CTC # 28713203  
Date of Issue March 19, 2015

  
MARIE CERISE-ELYN FELIX AGUILAR  
Co-Maker  
CTC # 28713201  
Date of Issue March 19, 2015

SIGNED IN THE PRESENCE OF:

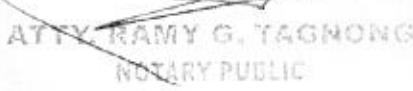
  
Jocelyn H. Orpase  
Witness (Printed Name and Signature)

  
Witness (Printed Name and Signature)

BEFORE ME THIS OCT 05 2015 in Quezon City personally appeared  
and presented themselves to be the same  
persons who executed this instrument and acknowledge the same to be their true and voluntary act and deed.

Witness my hand and seal

Doc. No. 466  
Page No. 246

  
ATTY. RAMY G. TAGNONG  
NOTARY PUBLIC

revised 9/7/2012

### CHECKLIST FOR CLEARANCE

Name: SHEILA MARIE TABULINA ANGELICA

Type of clearance:  Full  DFA  
 Temporary  BI  
 NBI

Purpose: TRAVEL ABROAD TO ATTEND CONFERENCE

Date of travel: OCTOBER 09, 2015 - October 20, 2015 Place of travel: TEXAS, USA

STATUS OF SCHOLARSHIP	REQUIREMENTS
Graduate (service completed)	<input checked="" type="checkbox"/> Formal request <input type="checkbox"/> NBI/DFA clearance <input type="checkbox"/> Formal request
	<b>PERSONAL TRIP</b> <input type="checkbox"/> Endorsement from employer vouching for return <input type="checkbox"/> Post-dated check / Bond / Full repayment (for long-term) <input type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker
	<b>TRAININGS, CONFERENCES, SEMINARS, ETC/RESEARCH VISIT</b> <input checked="" type="checkbox"/> Endorsement from employer vouching for return <input checked="" type="checkbox"/> Invitation and/or acceptance to conference/training/workshop, etc <input checked="" type="checkbox"/> Abstract of paper <input checked="" type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker
	<b>BUSINESS TRIP</b> <input type="checkbox"/> Endorsement from employer vouching for return <input type="checkbox"/> Post-dated check / Bond / Full repayment (for long-term) <input type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker
	<b>FOR FOREIGN STUDY/DEGREE PROGRAM</b> <input type="checkbox"/> Endorsement from employer vouching for return <input type="checkbox"/> Acceptance to the program <input type="checkbox"/> Approved timetable/program of study <input type="checkbox"/> Post-dated check / Bond <input type="checkbox"/> Full repayment, if no endorsement from employer <input type="checkbox"/> Deed of undertaking (ASTHRDP) + cert of employment/ITR of comaker



Republic of the Philippines  
National Police Commission  
**PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
**DNA ANALYSIS BRANCH**  
Camp Crame, Quezon City

add: pnpdnac1@yahoo.com.ph Tel No. 7230401 local 4516 email



October 05, 2015

ERMIE M BACARRA  
Chief, HRID DOST

Dear Madam:

I am SHEILA MARIE TABULINA ANGUSTIA, a graduate student of DLSU-Manila and a scholar of the DOST. Also, I am presently connected with the Philippine National Police as a Forensic DNA Analyst.

My abstract for entitled Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information, Mutation Analysis and Forensic Assessment was accepted in the Twenty Sixth International Symposium on Human Identification for a poster session. May I then respectfully request for a travel clearance to attend the said conference. I will be leaving the country for United States on October 9, 2015 and be back on October 20, 2015 as one of the delegates of the Philippine National Police.

Attached with this letter are the Letter of Invitation for the Twenty Sixth International Symposium on Human Identification and the letter of acceptance of my abstract. Also, a copy of the abstract, guarantee letter from the PNP, deed of undertaking from my co-worker and a copy of her ITR was included for your perusal.

I promise that I will come back as soon as the conference have concluded and pay the necessary damages that will be incurred thru the PNP Crime Laboratory in case of default on my scholarship contract.

Hoping for your kind consideration.

Respectfully yours,

SHEILA MARIE TABULINA ANGUSTIA  
Police Chief Inspector

Endorsed by:

JUDYCEL ABALOS MACAPAGAL  
Police Chief Inspector  
OIC, DNA Analysis Branch

## **Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information, Mutation Analysis and Forensic Assessment**

Sheila Marie T. Angustia, Aquilina P. Pia, Franklin L. de la Cruz, Ma. Carmen Ablan-Lagman and Lorna H. Santos

Y- chromosomal STR markers were found to be significant in analyzing forensic DNA samples due to its male specificity, high sensitivity and paternal mode of inheritance. They have shown to be advantageous in analyzing male DNA in mixtures containing high female DNA fraction and as supplementary markers for kinship testing. To be useful in the Philippine population, markers must first be assessed for its variability and mutability.

In this study, twenty-three Y- chromosomal STR markers (DYS19, DYS385a/b, DYS389I/II, DYS390, DYS391, DYS392, DYS393, DYS437, DYS438, DYS439, DYS448, DYS456, DYS458, DYS635, Y-GATA-H4 DYS481, DYS533, DYS549, DYS570, DYS576, and DYS643) were used in characterizing the Philippine male population. Biostatistical properties (allelic frequency, haplotype diversity, gene diversity and discrimination capacity) was gathered and evaluated in 629 unrelated Filipino males to determine the usefulness of twenty-three Y STR markers in routine forensic analysis. Analyzing the data reveals that additional markers renders an increase in haplotype diversity, discrimination capacity and resolving power which exemplifies the forensic usefulness of additional markers in discriminating haplotypes from the Philippine population. Also, additional markers have demonstrated its ability to resolve common haplotypes to unique profiles. Information gathered from this study was submitted to the YHRD database.

Mutability of Y STR markers impacts interpretation of DNA profiles gathered during examination. While conventional Y STR markers having low mutation rates are useful in establishing relatedness among male individuals, rapidly mutating Y STR markers (RM Y STR) characterized by high mutation rates can be used to differentiate male persons from the same paternal lineage. Therefore, markers need to be correctly classified to determine its suitability on the case being investigated. In this research, mutability studies were conducted to obtain accurate data on mutation rates by scanning Y STR mutation on the Philippine population. Using one hundred thirty-three father and son transmission from previously confirmed paternity related cases, a total of eleven mutational events have been recorded with three mutations observed at DYS635. Among the 3,059 meiotic transfers covered, the 11 recorded mutations can be translated to an average overall mutation rate of  $3.59 \times 10^{-3}$  for the Philippine population. In addition, DYS635 which possesses high mutation rate ( $2.26 \times 10^{-2}$ ) is recommended to be reclassified as rapidly mutating.



Promega

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711-5399  
United States

tel: 608.274.4330 • fax: 608.277.2516 • [www.promega.com](http://www.promega.com)

SHEILA MARIE ANGUSTIA  
DNA Analysis Branch, PNP Crime Laboratory  
Camp Crame, Quezon City Philippines 1111  
Passport Number: EB9430189  
Date of Birth: MARCH 07, 1980  
Country of Nationality: PHILIPPINES

August 4, 2015

Dear Ms. Angustia,

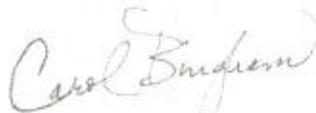
I am writing to invite your participation in the *Twenty Sixth International Symposium on Human Identification* from October 12 – 15, 2015. This conference will be held at the Gaylord Texan Resort in Grapevine, Texas. The cost for registration is \$755. Those registering prior to August 1, 2015 will receive a discounted price of \$655. A link to the registration form can be found on the official conference website, [www.ishinews.com](http://www.ishinews.com)

The International Symposium on Human Identification sponsored by Promega is the largest meeting of its kind to focus solely on the use of DNA for human identification. The conference will feature talks by thought leaders in the forensic community, a variety of practical workshops and more than 100 scientific posters.

The general session talks at the symposium from October 13 through October 15 will include discussions STR loci and CODIS integration, Low Copy Number evidence and its admissibility in court, Advances in DNA technologies and more. Pre and Post conference workshops will cover such diverse topics as Mixture Interpretation, Utilizing Data from Next Generation Sequencers, Identification Strategies for Skeletal Remains and others. The program of talks and events is available on line at [www.ishinews.com](http://www.ishinews.com)

Should you have any questions concerning the conference, please don't hesitate to contact me at the numbers listed below. I hope that you are able to attend our symposium. We would greatly value your participation.

Sincerely,



Carol Bingham  
Symposium Director  
Promega Corporation  
Phone: 608-277-2670  
[carol.bingham@promega.com](mailto:carol.bingham@promega.com)



Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711-5399  
United States

tel: 608.274.4330 • fax: 608.277.2516 • [www.promega.com](http://www.promega.com)

August 4, 2015

SHEILA MARIE TABULINA-ANGUSTIA  
PHILIPPINE NATIONAL POLICE  
DNA ANALYSIS BRANCH, PNP CRIME LABORATORY  
CAMP CRAME, QUEZON CITY NCR 1111

Dear Sheila Marie,

Thank you for your abstract submission for the *Twenty-sixth International Symposium on Human Identification*. On behalf of the review committee, I am pleased to inform you that your abstract entitled ***Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information, Mutation Analysis and Forensic Assessment*** has been accepted for a poster presentation. Two poster sessions will be scheduled during the conference. Odd numbered posters will be presented on Tuesday, October 13<sup>th</sup> from 3:30-5:30pm. Even numbered posters will then be presented on Wednesday, October 14<sup>th</sup> from 3:30-5:30pm. You will be notified of your assigned poster number by August 17<sup>th</sup>. You must be registered to attend the symposium by this date to receive a poster assignment.

Poster boards will be 4 feet high by 8 feet wide. Poster materials need not take up the entire board and can be affixed to the board as a single large format document or as a collection of smaller pieces of data. Push pins will be provided on site. We've partnered with PosterSmith to provide you with a free fabric poster. Orders placed prior to September 14<sup>th</sup> will receive a complimentary poster and shipping. Orders placed after September 14<sup>th</sup> are eligible for a \$15 discount with code "ISHI2015". Visit this link to order your poster: <http://postersmith.com/poster/conference/ISHI2015>.

Poster abstracts will be included in the *Proceedings from the Twenty-sixth International Symposium on Human Identification* to be published on the Promega website following the meeting. Please let me know if you do not plan to present your poster at the symposium.

ISHI 26 will take place October 12 – 15, 2015 at the Gaylord Texan Resort and Convention Center, 1501 Gaylord Trail, Grapevine, Texas, 76051, [www.marriott.com/hotels/travel/dalgt-gaylord-texan-resort-and-convention-center/](http://www.marriott.com/hotels/travel/dalgt-gaylord-texan-resort-and-convention-center/). A block of rooms has been reserved for this conference at the Gaylord Texan for the special rate of \$224/night + tax for single or double occupancy. Hotel rooms may be booked [here](#) or directly by phone (866/782.7897). Mention ISHI 26 to receive the special rate.

Once again, thank you for adding to the value that this symposium has for the genetic identification community. If you have any questions concerning the meeting, please contact me Tel: 608-277-2670, Fax: 608-273-6455, E-mail: [carol.bingham@promega.com](mailto:carol.bingham@promega.com). I am delighted that you will participate in this year's symposium.

Sincerely,

Carol Bingham  
Symposium Director



Republic of the Philippines  
National Police Commission  
**PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
**DNA ANALYSIS BRANCH**  
Camp Crame, Quezon City  
add: pnpdnac@ yahoo.com.ph Tel No. 7230401 local 4516 email



October 05, 2015

To Whom It May Concern:

This is to certify that PCINSP SHEILA MARIE T ANGUSTIA is attending the Twenty Sixth International Symposium on Human Identification to be held at Gaylord Texan Resort in Grapevine, Texas USA on October 12-15, 2015 . Being one of the poster presenter on the said conference, she will be leaving the country on October 09, 2015 as a delegate of the Philippine National Police. The PNP Crime Laboratory guarantees that PCINSP ANGUSTIA will be coming back to the Philippines on October 20, 2015 after the program has concluded. Also, the PNP Crime Laboratory acknowledges that the office will be held liable for the bond between PCINSP ANGUSTIA and Department of Science and Technology in case of her default and therefore will ensure that she will be true to her word . The office will gladly answer any questions or concerns regarding this matter and you may contact us thru 7230401 local4516.

Thank you for your kind consideration.

Respectfully yours,

JUDYCEL ABALOS MACAPAGAL  
Police Chief Inspector  
Chief, DNA Analysis Branch

## Deed of Undertaking

KNOW ALL MEN BY THESE PRESENT:

I, SHEILA MARIE TABULINA ANGUSTIA and MARIE CERISE-ELYN FELIX AGUILAR, both of  
(Scholar) (Co-Maker)

legal age, Filipino citizens and residents of B2 L2 Ph5 San Marino City Subd. Brgy. Salawag, Dasmariñas, Cavite  
(Scholar's Address)

and 32 F Liberty Ave. Brgy. Socorro, Quezon City, respectively, Philippines do hereby depose and say:  
(Co-Maker's Address)

That I, SHEILA MARIE TABULINA ANGUSTIA, is a scholar-graduate under the DOST-PCIEERD  
(Scholar) Scholarship Program.

That I, SHEILA MARIE TABULINA ANGUSTIA, hereby intend to leave the country to  
(Scholar)

attend the Twenty Sixth International Symposium on Human Identification to be held at Gaylord Texan Resort in Grapevine Texas USA on October 12-15, 2015.  
(Duration)

That I, SHEILA MARIE TABULINA ANGUSTIA, hereby commit to return to the Philippines  
(Scholar)

on October 20, 2015. In case of my failure to do so, I hereby undertake  
(Date of Return)

to pay the financial support provided to me during my scholarship under the DOST-PCIEERD Scholarship Program.

That I, MARIE CERISE-ELYN FELIX AGUILAR, officemate promise to pay the  
(Co-Maker) (Relationship to Scholar)

financial support given to SHEILA MARIE TABULINA ANGUSTIA under the DOST-PCIEERD Scholarship Program  
(Scholar)

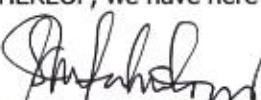
should SHEILA MARIE TABULINA ANGUSTIA fail to return to the Philippines to fulfill his/her scholarship  
(Scholar)

financial or service obligation. Moreover, I am declaring that I am not an accompanying party of this travel.

This Deed of Undertaking shall serve as our Promissory Note in favor of the DOST-PCIEERD Scholarship Program to pay  
whatever financial support given to me, SHEILA MARIE TABULINA ANGUSTIA  
(Scholar)

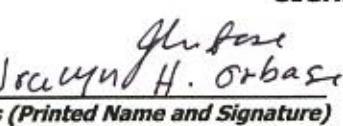
in case of my failure to return to the Philippines on October 20, 2015.  
(Date of Return)

IN WITNESS WHEREOF, we have here to set our hands this 05 day of October in 2015.

  
SHEILA MARIE TABULINA ANGUSTIA  
Scholar  
CTC # 28713203  
Date of Issue March 19, 2015

  
MARIE CERISE-ELYN FELIX AGUILAR  
Co-Maker  
CTC # 28713201  
Date of Issue March 19, 2015

SIGNED IN THE PRESENCE OF:

  
Jocelyn H. Orbosa  
Witness (Printed Name and Signature)

Witness (Printed Name and Signature)

BEFORE ME THIS OCT 05 2015 in Geyran City personally appeared  
and presented themselves to be the same  
persons who executed this instrument and acknowledge the same to be their true and voluntary act and deed.

Witness my hand and seal

Doc. No. 466  
Page No. 246  
Book No. 77  
Series of 2015

ATTY. RAMY G. TAGNONG  
NOTARY PUBLIC  
IBP NO. 03285  
PTR NO. 9237219, JAN 23, 2015 QC  
ATTORNEY'S ROLL NO. 44756  
UNTIL DECEMBER 2015

10 August 2015

**MS. SHEILA MARIE T. ANGUSTIA**  
DNA Section, PNP Crime Laboratory  
Camp Crame, Quezon City

Dear **Ms. Angustia**:

We wish to extend our congratulations to you for having successfully completed your degree, M.S. in Biology from De La Salle University under the DOST Accelerated S&T Human Resource Development Program (DOST-ASTHRDP). We also acknowledge receipt of your diploma, transcript of records as well as CD and bound copies of your manuscript entitled, **"Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information, Mutation Analysis and Forensic Assessment"**

Please be reminded that you are required to render return service within the country for two (2) years equivalent to the time you have enjoyed the scholarship. We would like to stress that a **full clearance will be issued only upon completion of your service obligation as supported by a certificate of employment and/or service record.** Temporary clearances may be issued upon submission of pertinent documents (Please see attached).

We wish to inform you that in order to keep track of our graduates, we have put up the e-Scholars on-line facility on the PCIEERD website. May we therefore request you to register in the said facility so that you can encode your profile to our system. Please visit the PCIEERD website at <http://pcieerd.dost.gov.ph> or <http://apps.pcieerd.dost.gov.ph/eScholars/> to register.

We hope for your success in your future endeavors and we expect to be continually updated about the progress of your professional career, especially regarding your research related activities.

Thank you and best regards.

Very truly yours,

*cpd*  
**CARLOS PRIMO C. DAVID, Ph.D.**  
Executive Director

/HRIDDI-15-0805-14

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-15-0814-23

Released on: 08.14.15 / 2:24:14 PM

OED - 081215-106

(15 working days)

TASK MONITORING FORM  
Human Resource and Institution  
Development Division  
(HRIDD)

<b>SUBJECT:</b>	<i>Submission of Bound and CD copy of thesis manuscript, TOR &amp; Diploma</i>		
Reference No.			
Barcode No.	I-15-0805-14		
Requesting Party	Sheila Marie T. Angustia		
Deadline	2015-08-27		
Date Expected to be acted	Date Actually Acted	Steps	Remarks
	08-06-15	Received Letters	
08-06-15	08-07-15	Add action to DTS and prepare Action Slip	
08-06-15	08-07-15	Forward to Supervising	
08-07-15	08-07-15	Forward to Staff	
08-07-15		Draft reply	
08-20-15		Correct by EMB	
08-27-15		To Finalize	
08-27-15		To Sign	
08-28-15		Forward to RCS	
08-28-15		Forward to RCLG	
08-27-15		Forward to records	
08-27-15		Release	

*Action Slip*

Date of Letter	2015-08-04	Remarks	Acted by
Date/Time In/Out			
AM	PM		
2015-08-07 / 10:48:00		forwarded to JGM	Joy
	8/7	Chitki / Long, pls. balle	J
	8/7	Atk. awry, sat + sun	
8/8-9		congratulatory letter	
8/10		Long, pls. initial, print	Long
8/10		trns! fw initial, print	J
8/11	8-10	pls. check your size revised	Long

Office of the EXECUTIVE DIRECTOR (OED)  
ROUTING SLIP

To: ERMIIE

	Remarks
<input checked="" type="checkbox"/> Appropriate action	
<input type="checkbox"/> Handle	
<input type="checkbox"/> Comment	
<input type="checkbox"/> Review	
<input type="checkbox"/> Prepare draft	
<input type="checkbox"/> Reply	
<input type="checkbox"/> Discuss with me	
<input type="checkbox"/> Note & file	
<input type="checkbox"/> Note & return	
<input type="checkbox"/> Information	
<input type="checkbox"/> Give Status	

CP. C. David.

Date: 04 AUG 2015

04 August 2015

Dr. Carlos Primo C. David  
Executive Director, PCIEERD

Attn: Engr. Ermie M. Bacarra  
Chief, HRIDD

Dear Sir:

As I express my sincerest appreciation and deepest gratitude for the help and support your institution has given me by granting me the opportunity to finish my graduate studies and be a scholar of the Pres. Gloria Macapagal Arroyo Graduate Scholarships in Science and Technology, I would like to inform you that I have graduated and earned my Masters Degree in Biology last June 2014. With your assistance, I was able to be certified as a Forensic DNA Specialist at the PNP Crime Laboratory.

Also, I would like to express my apologies for not being able to submit all the requirements immediately. I never intend to forget my obligations to your institution, I was just caught up with responsibilities at home as I had just given birth and at work as I handle numerous criminal and civil cases.

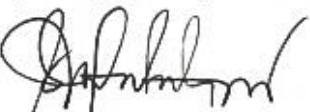
Anyhow, along with this letter are the requirements which include the following:

- Bound and CD copies of thesis manuscript
- Transcript of Record
- Diploma

Again, I would like to thank you and all the members of your institution who were always there to support people in doing things that they love to do.

Thank you and Mabuhay po kayo!

Very Truly yours,

  
Sheila Marie T. Angustia  
Forensic DNA Analyst  
PNP Crime Laboratory

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



I-15-0805-14

Received on: 08.05.15 / 3:09:41 PM

18 October 2013

**MS. SHEILA MARIE T. ANGUSTIA**

Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear **Ms. Angustia**:

This is to acknowledge receipt of your letter dated October 15, 2013 providing us with an update on the status of your studies, along with the following documents:

1. Letter of request for the deferment of your repayment endorsed by adviser
2. Timetable endorsed by your adviser, Dr. Ma. Carmen Ablan-Lagman
3. Certification of your enrollment for the previous terms to present
4. Progress report on the conduct of your thesis
5. Transcript of records

Based on your timetable, your thesis final defense is scheduled on November 4, 2013 and you are expected to obtain the degree this second term of SY 2013-2014. In this regard, we are deferring your repayment for the said term to enable you to finish the M.S. degree.

Furthermore, we wish to remind you that you are required to submit the following documents upon completion of the degree:

1. Bound and CD copies of your dissertation manuscript
2. Transcript of records
3. Diploma

We hope that you will work diligently for the successful completion of your M.S. program.

Very truly yours,

  
**Ermie M. Bacarra**  
Chief, HRIDD

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-13-1824-07

Received: 10/24/2013 / 03:11:12

Rout by   
Per SHEILA MARIE T. ANGUSTIA

October 15, 2013

ERMIE M BACARRA  
Chief, HRIDD

Dear Madam;

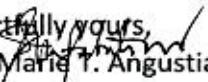
May I respectfully request for the deferment of the repayment of my scholarship. I understand that I had been deficient in informing your office about the status of my studies and I would like to apologize for that.

I am done with all the academic requirements of my course and now on the final stage of my thesis writing. I have revised the research design and finished with the wet laboratory part. I have written the manuscript and submitted it to my adviser for correction. My thesis defense was scheduled on November 4, 2013. The abstract of this research was accepted to the Asian Forensic Science Network and was due for oral presentation on the conference to be held at Singapore on November 11-13. Also, I have submitted the data of this research to the YHRD database. As part of the submission process, the PNP Crime Laboratory have undergone quality assurance test which I passed this October 10, 2013. In an email sent by Prof. Lutz Roewer, the curator of YHRD database, he mentioned that I will be included as an author of the worldwide PPY23 study considering the submission of DNA profiles and Y STR mutation rates in the Philippine population.

Last semester, I have enrolled for the thesis defense. Based on the rules of De La Salle University, once enrolled with the Final Thesis writing, the student has one academic year to complete and I am now on my second semester. I am planning to finish it by this term but of course, that will be subject to the acceptance of the final defense panel.

Attached herewith is a copy of my final thesis manuscript, final Research Timetable, progress report, certificate of enrolment from AY 2009 – present, and transcript of records.

Hoping for your kind consideration.

Respectfully yours,  
  
Sheila Maria T. Angustia

Endorsed by:

  
Ma. Carmen Ablan-Lagman Ph.D.  
Thesis Adviser  
De La Salle University

## FINAL RESEARCH TIMETABLE

### SCHEDULE OF ACTIVITIES:

2<sup>nd</sup> Term AY 2013-1014

October 2013 – Preparation of Final Thesis Research Manuscript

November 4, 2013 – Final Defense Presentation (De La Salle University – Manila)

November 11-13, 2013 – Oral Presentation (Asian Forensic Science Network)

November 2013 – Final Revision of Thesis Research Paper

3<sup>rd</sup> term AY 2013-2014

Submission/ Acceptance of Completed Final Research Paper

Prepared by:

  
Sheila Marie T. Angustia  
MS Student  
De La Salle University

Endorsed by:

  
Ma. Carmen Ablan-Lagman  
Thesis Adviser  
De La Salle University

**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND  
EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT  
(PCIEERD)**

**Scholar's Thesis/ Dissertation Progress Report  
for the  1st  2nd  3rd  4th Quarter / Year 2013**

**THESIS/ DISSERTATION TITLE:**

Characterization of the Philippine Y STR Population Involving 23 Loci:  
Population Information , Mutation Analysis And Forensic Assessment

<b>GRANTEE:</b> SHEILA MARIE ANGUSTIA	<b>DEGREE PROGRAM:</b> MS BIOLOGY
<b>DATE STARTED:</b> 3 <sup>rd</sup> Term 2010-2011	<b>EXPECTED DATE OF COMPLETION:</b> December 2013

**OBJECTIVES:**

The goal of this research was to type 23 Y STR loci using the two latest commercially available multiplex systems (Y Filer by Applied Biosystems and Powerplex Y23 by Promega (PPY23)) in order to establish a more comprehensive reference population database for the Philippine population.

Specifically, this study aims to evaluate biostatistical population parameters (allele frequency, individual locus genetic diversity, haplotype diversity and discrimination capacity) from Philippine population database and compare the data from the previously reported NCR population database (Tan et al, 2002) to find out the effects of having an increased population size as well as sampling area. In addition, this study also intends to assess the forensic relevance of extending the number of loci as well as to evaluate the usefulness of six additional markers included in the newly released 23 Y STR system set.

Due to the crucial impact of mutation on kinship analysis, father and son transmissions were also examined to determine the overall mutation rate in the Philippine population as well as to identify the locus that exhibits the highest mutation rate. Further, this study aims to report the existence of non uniform alleles which includes duplications, deleted and null alleles. Lastly, two widely used commercial Y STR multiplex systems were evaluated for concordance.

**SCHEDULE OF ACTIVITIES:**

1<sup>st</sup> Term

2<sup>nd</sup> Term AY 2013-1014

October 2013 – Preparation of Final Thesis Research Manuscript

November 4, 2013 – Final Defense Presentation (De La Salle University – Manila)

November 11-13, 2013 – Oral Presentation (Asian Forensic Science Network)

November 2013 – Final Revision of Thesis Research Paper

3<sup>rd</sup> term AY 2013-2014

Submission/ Acceptance of Completed Final Research Paper

**RESULTS AND DISCUSSION:**

The present study reports the generation of an expanded reference database consisting of 629 Y-STR profiles with representative samples from fourteen regions of the Philippines

involving the analysis of 23 Y STR loci (DYS19, DYS385a/b, DYS389I/II, DYS390, DYS391, DYS392, DYS393, DYS438, DYS439, DYS481, DYS533, DYS549, DYS570, DYS576 and DYS643 DYS437, DYS448, DYS456, DYS458, DYS635, and Y-GATA-H4). Haplotype analysis of the Philippine population involving 23 Y STR markers system yields a haplotype diversity of 0.99992 with a standard error of 0.00230. This defines the presence of 612 haplotypes from the sample of 629 individuals. Out of the 612 haplotypes, 596 haplotypes were found to be unique, 15 haplotypes were found to be shared by two individuals and 1 haplotype was shared by three individuals. The discrimination capacity was calculated to be 97.30%. Eleven mutations observed from this study were all single step and is consistent with the strand slippage model for generating mutations for STR. The overall mutation rate calculated from this study is  $3.6 \times 10^{-3}$  (95% CI (1.8-6.4)  $\times 10^{-3}$ ) and no bias for gains nor losses were recorded. Mutation data gathered from this study add up to the increasing data on Y STR mutation uploaded in the YHRD database. While diversity studies show the advantage of having more loci in discriminating Y STR profiles, concordance studies shows that both multiplex systems can be used to successfully type profiles and that the results of the Y Filer kit can be compared directly with the results of PPY23. Information gathered from this study assists forensic interpretation by improving forensic probability calculation and by understanding the diversity of Filipino male population. ( Pls. Refer to the thesis manuscript for detailed result)

The data obtained from this study was submitted to the YHRD Database as recommended by International Journal of Forensic Genetics for publication of research. In addition, a part of this research contributed to the PPY23 worldwide study spearheaded by Prof Lutz Roewer of Institute of Legal Medicine and Forensic Sciences in Berlin, Germany for which the researcher will be included as an author.

#### PROBLEMS ENCOUNTERED/ PROPOSED SOLUTIONS:

##### 1. Materials and Methods:

In my previous proposal, materials and method include protocols and equipment that seemed "not advisable" as stated by the one who reviewed my proposal. The reason why I used it in my proposal is because, during that time, those materials and equipment are the only ones available in our lab; yet, those materials are the ones being used for routine forensic typing done by the PNP Crime Lab. Fortunately, while I was revising my thesis proposal, the PNP Crime Laboratory where I am presently connected and conducting my thesis upgraded its capability from traditional gel based genetic analyzer (ALF Express) to capillary electrophoresis (ABI 3500) thus; I had to overhaul the methodology that I have indicated on my proposal. Initially, my topic deals on population and mutation analysis of 14 Y-STR loci that was available in the laboratory. As the PNP upgraded its capability to ABI genetic analyzer, the entire DNA analysis protocols were modified. Instead of using homemade PCR cocktails, we had to try different commercial DNA kits that would suit our needs and determine what to use in our routine analysis. Because I want my study to be in line with what we do in the PNP DNA Laboratory, we had to establish our laboratory protocols first before I use it on my thesis samples.

##### 2. Reconstruction of PNP Building:

Transfer to a makeshift laboratory and moving back to the new DNA building as well as setting up the new laboratory took so much of my time. Nevertheless, I still continued

This portion is to be filled up by adviser and returnd to PCIEERD in a sealed envelope together with scholar's report

PERCENTAGE OF TOTAL WORK COMPLETED:

85% of the work is completed. She has drafted a 1st draft of the thesis for defense.

COMMENTS:

The defense is targeted for Nov. 4, 2013.  
Given the needed time for revisions and finalizing the manuscript, the degree is expected to be obtained this term.

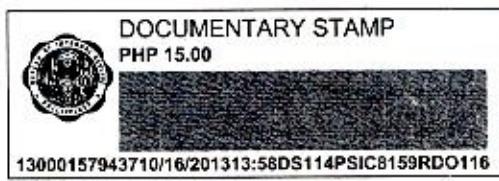
  
Ma. Carmen Abian-Lagman Ph.D.  
Thesis Adviser  
De La Salle University

doing my research and processed 629 unrelated male DNA profiles for the population and have analyzed 133 father and son transmission using 23 Y STR markers with the protocol established in our laboratory.

REMARKS:

Prepared By:

  
SHEILA MARIE T. ANGUSTIA



## DE LA SALLE UNIVERSITY-MANILA

Office of the University Registrar  
2401 Taft Avenue  
Manila 1004, Philippines

### TRANSCRIPT GUIDE

#### Grading system

	<i>Undergraduate</i>	<i>Diploma/Certificate</i>	<i>Master</i>	<i>Doctoral</i>
4.0	Excellent	Excellent	Excellent	Excellent
3.5	Superior	Superior	Superior	Superior
3.0	Very Good	Very Good	Very Good	Very Good
2.5	Good	Good	Good	Good
2.0	Satisfactory	Satisfactory	Satisfactory	No Credit
1.5	Fair	Fair	No Credit	No Credit
1.0	Passed	No Credit	No Credit	No Credit
0.0	Failed	Failed	Failed	Failed
Audit	Audit	Audit	Audit	Audit
Inc.	Incomplete	Incomplete	Incomplete	Incomplete
W	Withdrawn	Withdrawn	Withdrawn	Withdrawn

#### Accreditation

De La Salle University-Manila is an accredited member of the Philippine Accrediting Association of Schools, Colleges and Universities (PAASCU).

#### Calendar

De La Salle University-Manila operates under the trimestral system. Its academic calendar consists of three (3) regular trimesters of about 14 weeks each.

#### Last School Attended

This section of the document displays only the school and the degree earned used in support of admission to the current program. In the case of transfer students—those with incomplete studies—the previous school is likewise reflected.

#### Transfer Credit

Transfer credit is awarded for a course taken at an accredited institution which is equivalent to a course offered at De La Salle University-Manila.

Transfer credits appear on the student's record with the name of the institution, course title, and number of credits.

Only the grades in courses taken in De La Salle University-Manila shall be included in the computation of the Grade Point Average.

#### Transcript Entries

Only courses taken at De La Salle University-Manila and transfer credits appear on the Transcript of Records.

#### Credit Hour

One unit of credit is equivalent to 18 hours of lecture or 54 hours of laboratory for the period of a complete term.

#### Verification

For verification of students and graduates, visit <http://www.dlsu.edu.ph/offices/registrar>.

#### Authenticity

The Transcript of Records is considered official only if without erasures/alteration and affixed with the following:

- Original signature in ink of the University Registrar or authorized representative;
- University Seal;
- Barcode; and
- Documentary stamp (electronically imprinted on this side of the document with the seal of the Republic of the Philippines)

Alteration of this document may be a criminal offense and may be subject to prosecution to the full extent of law.

**Human Resource and Institution  
Development Division  
(HRIDD)**

**Action Slip**

Subject:	request for deferment / repayment		Reference No.
			Barcode No.
From:	Mrs. Sheila Marie Argentia		To:
Date of Letter:	10/15/13		Deadline:
Date/Time In/Out			Remarks
AM	PM		
10/18		draft (attended summary & status) <span style="float: right;">Lenny</span> christie please initial	
10/18		CHRISTIE - TRAINING	
10/19 - 10/20		SAT-SUN	
10/21		not all correct initialized	
10/21		reviewed as corrected	
10/21		initialized	
10/21		lion / christy wala po ba bawang gants sa radio do christy can sign for me? wala pa po	
10/22		Maam, i think kays po dapat magsign na nito Kasi po "APPROVAL" po niya. I suggest that if Approval and disapproval kays po nignon. M. Christie gusto natin po	
10/22		10/22 - ok - christie - to prepare list of bmt signatures	
10/23		final	

18 October 2013

**MS. SHEILA MARIE T. ANGUSTIA**

Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear **Ms. Angustia**:

This is to acknowledge receipt of your letter dated October 15, 2013 providing us with an update on the status of your studies, along with the following documents:

1. Letter of request for the deferment of your repayment endorsed by adviser
2. Timetable endorsed by your adviser, Dr. Ma. Carmen Ablan-Lagman
3. Certification of your enrollment for the previous terms to present
4. Progress report on the conduct of your thesis
5. Transcript of records

Based on your timetable, your thesis final defense is scheduled on November 4, 2013 and you are expected to obtain the degree this second term of SY 2013-2014. In this regard, we are deferring your repayment for the said term to enable you to finish the M.S. degree.

Furthermore, we wish to remind you that you are required to submit the following documents upon completion of the degree:

1. Bound and CD copies of your dissertation manuscript
2. Transcript of records
3. Diploma

We hope that you will work diligently for the successful completion of your M.S. program.

Very truly yours,

**ERMIE M. BACARRA**  
Chief, HRIDD



*ask for clarity to sign  
similar letters (repayment)*



18 October 2013

**MS. SHEILA MARIE T. ANGUSTIA**

Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear **Ms. Angustia**:

This is to acknowledge receipt of your letter dated October 15, 2013 providing us with an update on the status of your studies, along with the following documents:

1. Letter of request for the deferment of your repayment endorsed by adviser
2. Timetable endorsed by your adviser, *Dr. Ma. Carmen Ablan Lagman*
3. Certification of your enrollment for the previous terms to present
4. Progress report on the conduct of your thesis
5. Transcript of records

Based on your timetable, as endorsed by your adviser, Dr. Ma. Carmen Ablan Lagman, your thesis final defense is scheduled on November 4, 2013 and you are expected to obtain the degree this second term of SY 2013-2014. In this regard, we are deferring your repayment for the said term to enable you to finish the M.S. degree.

Furthermore, we wish to remind you that you are required to submit the following documents upon completion of the degree:

1. Bound and CD copies of your dissertation manuscript
2. Transcript of records
3. Diploma

We hope that you will work diligently for the successful completion of your M.S. program.

Very truly yours,

**ERMIE M. BACARRA**

Chief, HRIDD



Friday 18th October 2013, 10.01 am

[Scholars](#) | [Seminars](#) | [Experts](#) | [Gallery](#)

## Angustia Sheila Marie Tabulina

[Edit](#)

### Scholarship

Degree Program: MS  
Program: ASTHRDP  
Field: Biology  
School: DLSU  
Batch: 2009  
Date of Entry May 2009  
Expected Completion: March 2012  
Duration: 2 yrs  
Status: Non-Complying  
Thesis title: CHARACTERIZATION OF THE PHILIPPINE Y STR POPULATION INVOLVING 23 LOCI: POPULATION INFORMATION, MUTATION ANALYSIS AND FORENSIC ASSESSMENT

Semestral Status: 1TERM SY 2009-2010-ENROLLED  
2TERM SY 2009-2010-ENROLLED  
3TERM SY 2009-2010-ENROLLED  
1TERM SY 2010-2011-ENROLLED  
2TERM SY 2010-2011-LOA  
3TERM SY 2010-2011-ENROLLED  
1TERM SY 2011-2012-LOA  
2TERM SY 2011-2012-LOA  
3TERM SY 2011-2012-ENROLLED  
1TERM SY 2012-2013-NON-COMPLYING  
2TERM SY 2012-2013-NON-COMPLYING  
3TERM SY 2012-2013-NON-COMPLYING  
1TERM SY 2013-2014-NON-COMPLYING

### Personal Information

Birthday: 03/07/1980  
Age: 0  
Civil Status: Married  
Gender: Female  
Home Address: B2 L15 PHS SAN MARINO CITY SUBD., DASMARINAS, CAVITE  
Region:  
Telephone #: 0926-851-4298/0922-851-4298/723-0401-loc. 4516  
City Address: DNA SECTION, PNP CRIME LABORATORY, CAMP Crame, QUEZON CITY  
Telephone #:  
Email Address: sheirie@yahoo.com

### Employment

Present Position:  
Employer:  
Length of Service:

October 15, 2013

ERMIE M BACARRA  
Chief, HRIDD

Dear Madam;

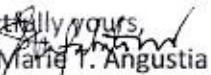
May I respectfully request for the deferment of the repayment of my scholarship. I understand that I had been deficient in informing your office about the status of my studies and I would like to apologize for that.

I am done with all the academic requirements of my course and now on the final stage of my thesis writing. I have revised the research design and finished with the wet laboratory part. I have written the manuscript and submitted it to my adviser for correction. My thesis defense was scheduled on November 4, 2013. The abstract of this research was accepted to the Asian Forensic Science Network and was due for oral presentation on the conference to be held at Singapore on November 11-13. Also, I have submitted the data of this research to the YHRD database. As part of the submission process, the PNP Crime Laboratory have undergone quality assurance test which I passed this October 10, 2013. In an email sent by Prof. Lutz Roewer, the curator of YHRD database, he mentioned that I will be included as an author of the worldwide PPY23 study considering the submission of DNA profiles and Y STR mutation rates in the Philippine population.

Last semester, I have enrolled for the thesis defense. Based on the rules of De La Salle University, once enrolled with the Final Thesis writing, the student has one academic year to complete and I am now on my second semester. I am planning to finish it by this term but of course, that will be subject to the acceptance of the final defense panel.

Attached herewith is a copy of my final thesis manuscript, final Research Timetable, progress report, certificate of enrolment from AY 2009 – present, and transcript of records.

Hoping for your kind consideration.

Respectfully yours,  
  
Sheila Marie T. Angustia

Endorsed by:

  
Ma. Carmen Ablan-Lagman Ph.D.  
Thesis Adviser  
De La Salle University



Office of the  
University  
Registrar



REF. NO. OUR-CO-13-AR-2550

2401 Taft Avenue, Manila, Philippines 1004

Tel. No.: (632) 523-4333  
Fax No.: (632) 523-4333  
Website: [www.dlsu.edu.ph/offices/registrar](http://www.dlsu.edu.ph/offices/registrar)  
E-mail : [registrar@dlsu.edu.ph](mailto:registrar@dlsu.edu.ph)

\*\*\*\* THIS DOCUMENT IS NOT VALID WITHOUT SEAL AND BARCODE \*\*\*\*

\*\*\*\* THIS DOCUMENT IS NOT VALID WITHOUT SEAL AND BARCODE \*\*\*\*

## CERTIFICATION

This is to certify the following about **SHEILA MARIE TABULINA ANGUSTIA**:

1. That, the above was admitted to De La Salle University in Academic Year 2009-10;
2. That, the above is in the program Master of Science in Biology; and
3. That, the above is enrolled for the terms indicated below:

Academic Year/Term	Start Date	End Date
2009-10/1	25 May 2009	05 September 2009
2009-10/2	14 September 2009	19 December 2009
2009-10/3	11 January 2010	19 April 2010
2010-11/1	31 May 2010	06 September 2010
2010-11/2	13 September 2010	18 December 2010
2010-11/3	05 January 2011	13 April 2011
2011-12/1	25 May 2011	31 August 2011
2011-12/2	07 September 2011	17 December 2011
2011-12/3	04 January 2012	17 April 2012
2012-13/2	12 September 2012	18 December 2012
2012-13/3	10 January 2013	19 April 2013
2013-14/1	27 May 2013	07 September 2013
2013-14/2	11 September 2013	21 December 2013

This certification is being issued upon the request of the above for whatever legal purpose it may serve.

*Voltaire M. Mistades*  
**VOLTAIRE M. MISTADES, Ph.D.**  
University Registrar

12 October 2013



DOCUMENTARY STAMP  
PHP 15.00

## FINAL RESEARCH TIMETABLE

### SCHEDULE OF ACTIVITIES:

#### 2<sup>nd</sup> Term AY 2013-1014

October 2013 – Preparation of Final Thesis Research Manuscript

November 4, 2013 – Final Defense Presentation (De La Salle University – Manila)

November 11-13, 2013 – Oral Presentation (Asian Forensic Science Network)

November 2013 – Final Revision of Thesis Research Paper

#### 3<sup>rd</sup> term AY 2013-2014

Submission/ Acceptance of Completed Final Research Paper

Prepared by:

  
Sheila Marie T. Angustia  
MS Student  
De La Salle University

Endorsed by:

  
Ma. Carmen Ablan-Lagman  
Thesis Adviser  
De La Salle University

PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND  
EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT  
(PCIEERD)

Scholar's Thesis/ Dissertation Progress Report  
for the  1st  2nd  3rd  4th Quarter / Year 2013

<b>THESIS/ DISSERTATION TITLE:</b> Characterization of the Philippine Y STR Population Involving 23 Loci: Population Information , Mutation Analysis And Forensic Assessment	
GRANTEE: SHEILA MARIE ANGUSTIA	DEGREE PROGRAM: MS BIOLOGY
DATE STARTED: 3 <sup>rd</sup> Term 2010-2011	EXPECTED DATE OF COMPLETION: December 2013
<b>OBJECTIVES:</b> <p>The goal of this research was to type 23 Y STR loci using the two latest commercially available multiplex systems (Y Filer by Applied Biosystems and Powerplex Y23 by Promega (PPY23)) in order to establish a more comprehensive reference population database for the Philippine population.</p> <p>Specifically, this study aims to evaluate biostatistical population parameters (allele frequency, individual locus genetic diversity, haplotype diversity and discrimination capacity) from Philippine population database and compare the data from the previously reported NCR population database (Tan et al, 2002) to find out the effects of having an increased population size as well as sampling area. In addition, this study also intends to assess the forensic relevance of extending the number of loci as well as to evaluate the usefulness of six additional markers included in the newly released 23 Y STR system set.</p> <p>Due to the crucial impact of mutation on kinship analysis, father and son transmissions were also examined to determine the overall mutation rate in the Philippine population as well as to identify the locus that exhibits the highest mutation rate. Further, this study aims to report the existence of non uniform alleles which includes duplications, deleted and null alleles. Lastly, two widely used commercial Y STR multiplex systems were evaluated for concordance.</p>	
<b>SCHEDULE OF ACTIVITIES:</b> 1 <sup>st</sup> Term 2 <sup>nd</sup> Term AY 2013-2014 October 2013 – Preparation of Final Thesis Research Manuscript November 4, 2013 – Final Defense Presentation (De La Salle University – Manila) November 11-13, 2013 – Oral Presentation (Asian Forensic Science Network) November 2013 – Final Revision of Thesis Research Paper 3 <sup>rd</sup> term AY 2013-2014 Submission/ Acceptance of Completed Final Research Paper	
<b>RESULTS AND DISCUSSION:</b> The present study reports the generation of an expanded reference database consisting of 629 Y-STR profiles with representative samples from fourteen regions of the Philippines	

involving the analysis of 23 Y STR loci (DYS19, DYS385a/b, DYS389I/II, DYS390, DYS391, DYS392, DYS393, DYS438, DYS439, DYS481, DYS533, DYS549, DYS570, DYS576 and DYS643 DYS437, DYS448, DYS456, DYS458, DYS635, and Y-GATA-H4). Haplotype analysis of the Philippine population involving 23 Y STR markers system yields a haplotype diversity of 0.99992 with a standard error of 0.00230. This defines the presence of 612 haplotypes from the sample of 629 individuals. Out of the 612 haplotypes, 596 haplotypes were found to be unique, 15 haplotypes were found to be shared by two individuals and 1 haplotype was shared by three individuals. The discrimination capacity was calculated to be 97.30%. Eleven mutations observed from this study were all single step and is consistent with the strand slippage model for generating mutations for STR. The overall mutation rate calculated from this study is  $3.6 \times 10^{-3}$  (95% CI (1.8-6.4)  $\times 10^{-3}$ ) and no bias for gains nor losses were recorded. Mutation data gathered from this study add up to the increasing data on Y STR mutation uploaded in the YHRD database. While diversity studies show the advantage of having more loci in discriminating Y STR profiles, concordance studies shows that both multiplex systems can be used to successfully type profiles and that the results of the Y Filer kit can be compared directly with the results of PPY23. Information gathered from this study assists forensic interpretation by improving forensic probability calculation and by understanding the diversity of Filipino male population. ( Pls. Refer to the thesis manuscript for detailed result)

The data obtained from this study was submitted to the YHRD Database as recommended by International Journal of Forensic Genetics for publication of research. In addition, a part of this research contributed to the PPY23 worldwide study spearheaded by Prof Lutz Roewer of Institute of Legal Medicine and Forensic Sciences in Berlin, Germany for which the researcher will be included as an author.

#### PROBLEMS ENCOUNTERED/ PROPOSED SOLUTIONS:

##### 1. Materials and Methods:

In my previous proposal, materials and method include protocols and equipment that seemed "not advisable" as stated by the one who reviewed my proposal. The reason why I used it in my proposal is because, during that time, those materials and equipment are the only ones available in our lab; yet, those materials are the ones being used for routine forensic typing done by the PNP Crime Lab. Fortunately, while I was revising my thesis proposal, the PNP Crime Laboratory where I am presently connected and conducting my thesis upgraded its capability from traditional gel based genetic analyzer (ALF Express) to capillary electrophoresis (ABI 3500) thus; I had to overhaul the methodology that I have indicated on my proposal. Initially, my topic deals on population and mutation analysis of 14 Y-STR loci that was available in the laboratory. As the PNP upgraded its capability to ABI genetic analyzer, the entire DNA analysis protocols were modified. Instead of using homemade PCR cocktails, we had to try different commercial DNA kits that would suit our needs and determine what to use in our routine analysis. Because I want my study to be in line with what we do in the PNP DNA Laboratory, we had to establish our laboratory protocols first before I use it on my thesis samples.

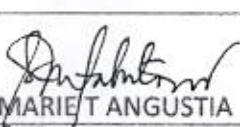
##### 2. Reconstruction of PNP Building:

Transfer to a makeshift laboratory and moving back to the new DNA building as well as setting up the new laboratory took so much of my time. Nevertheless, I still continued

doing my research and processed 629 unrelated male DNA profiles for the population and have analyzed 133 father and son transmission using 23 Y STR markers with the protocol established in our laboratory.

REMARKS:

Prepared By:

  
SHEILA MARIE T ANGUSTIA

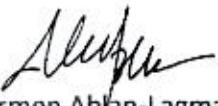
This portion is to be filled up by adviser and return<sup>d</sup> to PCIEERD in a sealed envelope together with scholar's report

PERCENTAGE OF TOTAL WORK COMPLETED:

85% of the work is completed. She has drafted a 1st draft of the thesis for defense.

COMMENTS:

The defense is targeted for Nov. 4, 2013.  
Given the needed time for revisions and finalizing the manuscript, the degree is expected to be obtained this term.

  
Ma. Carmen Abian-Lagman Ph.D.  
Thesis Adviser  
De La Salle University

11 July 2013

**MS. SHEILA MARIE ANGUSTIA**

Department of Chemistry  
De La Salle University  
2401 Taft Ave., Manila

Dear **Ms. Angustia**:

This is a follow-up to our letter dated 23 May 2013 requesting you to submit the following documents for our evaluation:

- (1) Letter of request for deferment of your repayment **endorsed by your adviser**
- (2) Final research timetable **endorsed by your adviser**
- (3) Revised thesis proposal
- (4) Progress report on the conduct of your thesis (form attached)
- (5) Certificate of enrollment for the SY 2012-2013
- (6) Summary of M.S. grades

The first term of SY 2013-2014 has started. However, as of this date, we have not received the documents nor have you sent any communication to us. In this regard, may we request that you communicate with us regarding the matter at the soonest possible time.

We hope that you will give this matter your utmost attention.

Very truly yours,

*JONATHAN G. MUÑOZ*  
Supervising Science Research Specialist

FOR : ERMIE M. BACARRA  
Chief, HRIDD

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-13-0715-17

Released on 07.15.2013 / 10:02:43 AM

26 April 2013

**MS. SHEILA MARIE ANGUSTIA**

Blk 2 Lot 15 Phase 5 San Marino City Subd.  
Dasmariñas, Cavite

Dear **Ms. Angustia**:

This is a follow-up to our letter dated 23 January 2013 requesting you for an update on the status of your studies. As of this date, we have not received any response from you. We wish to remind you that you are now considered a non-complying scholar since first term of SY 2012-2013. In this regard, may we request that you communicate with us regarding the matter at the soonest possible time.

We hope that you will give this matter your utmost attention.

Very truly yours,

*JONATHAN G. MUÑOZ*

Supervising Science Research Specialist

HRIDD

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-13-0429-40

Released on: 04.29.2013 / 02:57:36 PM



Republic of the Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING  
TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)**

23 January 2013

**MS. SHEILA MARIE ANGUSTIA**

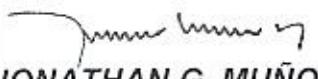
M.S. Biology Student  
Biology Department  
De La Salle University  
Taft Ave., Manila

Dear **Ms. Angustia**:

We would like to follow-up on your response to our letter dated 13 September 2012 (copy attached herewith) regarding your M.S. scholarship under the DOST Accelerated Science and Technology Human Resource Development Program. As of this date, we have not received any documents nor have you sent any communication to us regarding the matter. In this regard, may we request for an update on the status of your studies and the submission of the documents mentioned in the said letter.

Further, we would like to reiterate that non-submission of the documents would mean repayment of the grant. Please be guided accordingly.

Very truly yours,



**JONATHAN G. MUÑOZ**

Supervising Science Research Specialist



Republic of the Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING  
TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)**

23 January 2013

**MS. SHEILA MARIE ANGUSTIA**

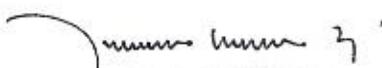
M.S. Statistics Student  
School of Statistics  
University of the Philippines  
Diliman, Quezon City

Dear **Ms. Angustia**:

We would like to follow-up on your response to our letter dated 13 September 2012 (copy attached herewith) regarding your M.S. scholarship under the DOST Accelerated Science and Technology Human Resource Development Program. As of this date, we have not received any documents nor have you sent any communication to us regarding the matter. In this regard, may we request for an update on the status of your studies and the submission of the documents mentioned in the said letter.

Further, we would like to reiterate that non-submission of the documents would mean repayment of the grant. Please be guided accordingly.

Very truly yours,

  
**JONATHAN G. MUÑOZ**  
Supervising Science Research Specialist



Republic of the Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING  
TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)**

### CERTIFICATION

This is to certify that:

MS. SHEILA MARIE T. ANGUSTIA,

Name of Scholar

DOST Accelerated S&T HRD Program

Type of Scholarship

M.S. in Chemistry,

Course

De La Salle University

School

is hereby cleared in connection with her travel to Singapore from November 10-17, 2013 and to the United States from November 17-22, 2013 to attend the 5<sup>th</sup> AFSN Annual Meeting and Symposium and to the 19<sup>th</sup> Annual National CODIS Conference respectively. This further certifies that Ms. Angustia still has to comply with the requirements stipulated in the scholarship contract signed with us until such time that she is given full clearance by our office.

This clearance is being issued for whatever purpose it may serve. Done this 18<sup>th</sup> day of October, 2013.

Certified by:

  
**ERMIE M. BACARRA**

Chief, Human Resources and Institution  
Development Division (HRIDD)

#### IMPORTANT:

Please always bring the original copy of this travel clearance for presentation to the NBI/DFA/BI (as applicable), when required.

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-13-1018-00

Issued on: 18.10.2013 / 03:54:44

**Human Resource and Institution  
Development Division  
(HRIDD)**

### Action Slip



Republic of the Philippines  
National Police Commission  
**NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE**  
CRIME LABORATORY  
Camp Crame, Quezon City



**DNA ANALYSIS BRANCH**

October 17, 2013

ERMIE M BACARRA  
Chief, HRIDD  
DOST

Dear Madam:

I am SHEILA MARIE T ANGUSTIA, a masteral student of DLSU-Manila and a scholar of the DOST. Also, I am presently connected with the Philippine National Police as a Forensic DNA Analyst.

My abstract entitled "Population and Mutation Analysis of 23 Y Chromosomal STR Loci in the Philippines" was accepted in the 5<sup>th</sup> AFSN Annual Meeting and Symposium for oral presentation and poster session. May I then respectfully request for a travel clearance to attend the said conference. I will be leaving the country for Singapore on November 10, 2013 and be back on November 17, 2013. In addition, I have received a letter of invitation to attend the 19<sup>th</sup> Annual National CODIS Conference to be held at the NCED Conference Center & Hotel in Norman, OK from November 18-21, 2013. Being one of the CODIS analysts, I will be leaving the country on November 17, 2013 going to Oklahoma, US as one of the delegates of the Philippine National Police. Therefore, I would also like to request for travel authority on the said dates in addition to my request for travel clearance from November 10-17, 2013. I will be leaving the country on November 17, 2013 to attend the conference in the US and be back on November 22, 2013.

Attached with this letter are the Letters of Invitation for the 19<sup>th</sup> Annual National CODIS Conference and the 5<sup>th</sup> AFSN Annual Meeting and Symposium as well as the Acceptance Letter of my abstract from AFSN. Also, a copy of the abstract and guarantee letters from the PNP was included for your perusal.

I promise that I will come back as soon as the conferences have concluded and pay the necessary damages that will be incurred thru the PNP Crime Laboratory in case of default on my scholarship contract.

Hoping for your kind consideration.

Respectfully yours,

PCINSP SHEILA MARIE T ANGUSTIA  
MS Student  
DLSU-Manila

Endorsed by:

LORNA H SANTOS  
Police Chief Inspector  
Chief, DNA Analysis Branch



Republic of the Philippines  
National Police Commission

**NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE**  
CRIME LABORATORY  
Camp Crame, Quezon City



**DNA ANALYSIS BRANCH**

October 16, 2013

To Whom It May Concern:

This is to certify that PCINSP SHEILA MARIE T ANGUSTIA is attending the Asian Forensic Science Network (AFSN) Annual Meeting and Symposium to be held at Singapore on November 11-14, 2013. Being one of the presenter on the said conference, she will be leaving the country on November 10, 2013 as a delegate of the Philippine National Police. The PNP Crime Laboratory guarantees that PCINSP ANGUSTIA will be coming back to the Philippines on November 17, 2013 after the program has concluded. Also, the PNP Crime Laboratory acknowledges that the office will be held liable for the bond between PCINSP ANGUSTIA and Department of Science and Technology in case of her default and therefore will ensure that she will be true to her word. The office will gladly answer any questions or concerns regarding this matter and you may contact us thru 7230401 local 4516.

Thank you for your kind consideration.

Respectfully yours,

**LORNA H SANTOS**  
Police Chief Inspector  
Chief, DNA Analysis Branch



Republic of the Philippines  
National Police Commission

**NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
**Camp Crame, Quezon City**



**DNA ANALYSIS BRANCH**

October 17, 2013

To Whom It May Concern:

This is to certify that PCINSP SHEILA MARIE T ANGUSTIA is attending the 19<sup>th</sup> Annual National CODIS Conference to be held at the NCED Conference Center & Hotel in Norman, OK from November 18-21, 2013. Being one of the CODIS analyst, she will be leaving the country on November 17, 2013 as one of the delegates of the Philippine National Police. The PNP Crime Laboratory guarantees that PCINSP ANGUSTIA will be coming back to the Philippines on November 22, 2013 after the program has concluded. Also, the PNP Crime Laboratory acknowledges that the office will be held liable for the bond between PCINSP ANGUSTIA and Department of Science and Technology in case of her default and therefore will ensure that she will be true to her word. The office will gladly answer any questions or concerns regarding this matter and you may contact us thru 7230401 local 4516.

Thank you for your kind consideration.

Respectfully yours,

**LORNA H SANTOS**  
Police Chief Inspector  
Chief, DNA Analysis Branch



# AFSN 2013

11 – 14 November 2013 | Resorts World Sentosa Convention Centre, Singapore  
[www.afsn2013.sg](http://www.afsn2013.sg)

Organised by



## 5TH ASIAN FORENSIC SCIENCES NETWORK ANNUAL MEETING & SYMPOSIUM

16 October 2013

**Ms Sheila Marie Angustia**  
**Forensic DNA Analyst, Crime Laboratory,**  
**Philippine National Police**  
**Philippines**

Dear Ms Sheila Marie Angustia,

On behalf of the Asian Forensic Sciences Network Organising Committee and Host Institute, Health Sciences Authority, Singapore, we are pleased to inform you that the following abstract has been accepted for the 5<sup>th</sup> AFSN Annual Meeting & Symposium.

Topic	DNA
Title	Population And Mutation Analysis Of 23 Y Chromosomal Str Loci In The Philippines
Mode of Presentation	Oral Presentation

We look forward to welcoming you in Sunny Singapore.

**Mr Lim Kong Boon**

President

Asian Forensic Sciences Network (AFSN)

**Dr Lam Kian Ming**

Chair

5th AFSN Annual Meeting & Symposium  
 Organising Committee

5TH AFSN ANNUAL MEETING & SYMPOSIUM ORGANISERS

ASIAN FORENSIC SCIENCES NETWORK



[www.asianforensic.net](http://www.asianforensic.net)

HEALTH SCIENCES AUTHORITY



11 Outram Road  
 Singapore 199078  
[www.hsa.gov.sg](http://www.hsa.gov.sg)

5TH AFSN ANNUAL MEETING & SYMPOSIUM SECRETARIAT

The Meeting Lab Pte Ltd  
 695E East Coast Road  
 Singapore 459059  
 Tel: +65 6345 4402  
 Fax: +65 6346 4403  
[leowardeng@themetinglab.com](mailto:leowardeng@themetinglab.com)  
[samanthusin@themetinglab.com](mailto:samanthusin@themetinglab.com)  
[www.afsn2013.sg](http://www.afsn2013.sg)



# AFSN2013

11 – 14 November 2013 | Resorts World Sentosa Convention Centre, Singapore  
[www.afsn2013.sg](http://www.afsn2013.sg)

Organised by



## 5TH ASIAN FORENSIC SCIENCES NETWORK ANNUAL MEETING & SYMPOSIUM

02 October 2013

Ms Sheila Marie Angustia  
DNA Section PNP Crime Laboratory  
DNA Analysis Branch  
Philippines

Dear Ms Sheila Marie Angustia,

On behalf of the Asian Forensic Sciences Network Organising Committee and Host Institute, Health Sciences Authority, Singapore, we warmly invite all of you to the 5<sup>th</sup> Asian Forensic Sciences Network (AFSN) Annual Meeting & Symposium taking place from 11 – 14 November 2013 at the Resorts World Sentosa Convention Centre, Singapore.

This year we have prepared a stimulating four-day scientific programme comprising plenary lectures, workshops and scientific sessions. Together with the opportunity to present your ideas through oral and poster presentations, this meeting will be an excellent and ideal platform for our colleagues to convene and exchange the latest information on advances and challenges in forensic science.

Please note that there are no registration fees tied to the conference.

We look forward to welcoming you in Sunny Singapore.

Mr Lim Kong Boon

President

Asian Forensic Sciences Network (AFSN)

Dr Lam Kian Ming

Chair

5th AFSN Annual Meeting & Symposium  
Organising Committee

5TH AFSN ANNUAL MEETING  
& SYMPOSIUM ORGANISERS

ASIAN FORENSIC SCIENCES  
NETWORK



[www.asianforensic.net](http://www.asianforensic.net)

HEALTH SCIENCES AUTHORITY



11 Outram Road  
Singapore 169078  
[www.hsa.gov.sg](http://www.hsa.gov.sg)

5TH AFSN ANNUAL MEETING  
& SYMPOSIUM SECRETARIAT

The Meeting Lab Pte Ltd  
695E East Coast Road  
Singapore 499059  
Tel: +65 6346 4402  
Fax: +65 6346 4403  
[leowardang@themetinglab.com](mailto:leowardang@themetinglab.com)  
[samanthaoh@themetinglab.com](mailto:samanthaoh@themetinglab.com)  
[www.afsn2013.sg](http://www.afsn2013.sg)

## ABSTRACT

SHEILA MARIE T. ANGUSTIA. Population and Mutation Analysis of 23 Y Chromosomal STR Loci in the Philippines. Philippine National Police

Y- chromosomal STR markers have shown to be advantageous in analyzing male DNA in mixtures containing high female DNA fraction and as supplementary markers for paternity testing. To be useful however, STR markers must first be evaluated in the population for which they will be used. Twenty-three Y- chromosomal STR markers (DYS576, DYS389I, DYS448, DYS389II, DYS19, DYS391, DYS481, DYS549, DYS533, DYS438, DYS437, DYS570, DYS635, DYS390, DYS439, DYS392, DYS643, DYS393, DYS458, DYS385a/b, DYS456 and Y-GATA-H4) were assessed for its variability and mutability in the Philippine population. Haplotype and allele frequencies were determined in 510 unrelated Filipino males while mutation data were gathered from the analysis of 120 confirmed father and son pairs. Among the 2,760 meiotic transfers covered, 10 mutations were recorded with an average overall mutation rate of  $3.62 \times 10^{-3}$  in the population. Among the loci examined, three mutational events were observed on the DYS635 locus. Four mutations resulted in a gain of repeat in the son and 6 resulted in a loss of repeat. A haplotype with a duplicated allele in both father and son were observed on DYS576 locus while haplotype with four alleles were found on the DYS385. In addition a variant of DYS456 was observed to fall outside the marker range. Information gathered from this study will aid forensic interpretation by improving forensic probability calculation and by understanding the diversity of Filipino male population. Furthermore, information obtained from this research verified the usefulness and informative power of this set of markers for routine casework.

Monday 11 Nov (pre-symposium)	Tue 12 Nov	Wed 13 Nov	Thu 14 Nov	Fri pre-symposium workshop 15 Nov	Sat post-symposium workshop 16 Nov
2000-2015 Workshop Session meeting					
		0900-0930 Dr Belitsch - EUROPEAN COOPERATION THROUGH REGIONAL WORKING GROUPS			0900-0930 Prof Wilson - OPTIMISING DNA RECOVERY FROM BONES AND HAIR
		0902-0930 Mu Syed A Rahmat - VALIDATION OF HOME EXTRACTION USING AUTOMATIC EXPRESS AND STA PRETELLER EXPRESS KIT COMPARED WITH ORGANIC EXTRACTION METHOD		0930-0945 Dr Mitchell - ASSESSING WEIGHT-OF-EVIDENCE TO COMPLEX MIXTURES: OCME APPROACH PART 2	0945-1015 Dr Reuter - (EUROPE) REQUIREMENTS FOR MISSING ANALYSIS AND PRACTICAL RECOMMENDATIONS FOR MISSING PERSONS
		0955-1010 Ms Argiraki - POPULATION AND MUTATION ANALYSIS OF 22 Y CHROMOSOMAL STR LOCUS IN THE GREEK POPULATION		0945-1035 Dr Belitsch - LOW TEMPLATE AND MIXTURE ANALYSIS: THE GERMAN APPROACH	1015-1045 Dr M - LIQUID IDENTIFICATION SEQUENCING CHEMISTRY
1015-1045 BREAK	Opening Ceremony - Plenary Lecture Prof Parsons - PLENARY LECTURE: MITOCHONDRIAL DNA IN PHYLOGENY AND EVOLUTION	1015-1042 - Tea Break		1025-1055 - BREAK	1045-1115 - BREAK
1045-1125 Dr Arnsdorf - MATERNAL PATERNITY TESTING IN MOSLEM SOCIETY: SPECIAL CONSIDERATION OF CHAT TECHNOLOGY APPLICATION (CASE REPORT)		1045-1105 Dr Senn - EVALUATION OF STOCHASTIC VARIATIONS IN LOW TEMPLATE STR PROFILES FOR FORENSIC CASEWORK APPLICATIONS	Plenary Lecture + ACM (break half)	1055-1135 Prof Sudlowicz - CONSIDERATIONS AND LIMITATIONS OF LOW TEMPLATE ANALYSIS	1115-1145 Hunting Sequence Chemistry
1125-1135 Ms Ling He - CASE STUDY: MATCH OF FATHERAL/PATERNAL RELATIONSHIP IN A SINGLE PARENT PATERNITY/MATERNITY TESTING AMONG CLOSELY RELATED INDIVIDUALS		1130-1135 - Reception Chemistry 1135-1145 x 60' Len Senn 1135-1135 - Oregon		1135-1215 LiTech NEW STR CHEMISTRIES	1145-1245 Dr Sudlowicz, Mr. Willemsen, Dr. Loos LiTech Troubleshooting Forum
1135-1145 Ms Adens - DNA EVIDENCE IN COURT: A CASE REPORT					1245-1330 Prof Sudlowicz - DNA REPAIR AND WHOLE GENOME AMPLIFICATION
1145-1225 Prof Akhteruzzaman - DNA-BASED MASS DISASTER VICTIM IDENTIFICATION: THE TAZREEN FASHIONS EXPERIENCE IN BANGLADESH		1215-1245 Gian Carlo Iannone - PERU CRIMINAL OFFENDER DNA DATABASE		1255-1355 Diger STR Chemistry	
LUNCH 1225-1300	LUNCH 1225-1400	LUNCH 1230-1400	LUNCH	1255-1330 - Lunch	1330 Closing Lunch and Discussion
Quality assurance (half/half)	1400-1430 Prof Parsons - MITOCHONDRIAL DNA DATABASING	1400-1430 Prof Parsons - AUSTRALIAN DNA DATABASE AND THE EUROPEAN TREATY		1400-1442 Protege STR Chemistry	
	1440-1500 Prof Wilson - MITOCHONDRIAL DNA			1440-1500 Janine Tim - VALIDATION OF REDUCED VOLUME BIFFECT AMPLIFICATION OF REFERENCE SAMPLES	
	1500-1530 Photo-taking	1440-1520 Prof Budowle - FAMILY SEARCHING OF DNA DATABASES		1550-1550 Dr Carter Lee - COMPARATIVE STUDY OF DNA EXTRACTION FROM CLOACAE, EZ1, MAXWELL-12, AND AUTOMATE EXPRESS	
	1530-1600 Tea Break	1520-1550 Tea Break	Lab tour / office tour / cultural tour	1525-1550 - BREAK	
	1550-1655 Prof Budowle - RAPIDDNA AND ADVANCEMENTS IN DNA EXTRACTION TECHNOLOGY	1550-1620 Prof Milner - MICROBIAL BIOCHEMICS IN ANTR-RAX AND IVY BIOCHEMIES		1550-1640 Ms Dennis - DNA RECOVERY FROM CHALLENGING SAMPLES: CASE STUDIES FROM NEW YORK CITY	
	1650-1700 Dr Belitsch - QUALITY STANDARDS AND CONTAMINATION	1650-1700 Ms Dennis - LOW TEMPLATE DNA TESTING: OCME APPROACH		1645-1700 Mrs Tan Mai Phu - QUALITY ASSURANCE IN DATABASING	
	1700-1730	1700-1730 Dr Mitchell - ASSESSING WEIGHT-OF-EVIDENCE TO COMPLEX MIXTURES: OCME APPROACH PART 1			
1630 Welcome reception		1830 Cocktail for Conference Dinner			



To: Sheila Marie T. Angustia

From: Jennifer Wendel  
Chief, CODIS Unit

Date: August 20, 2013

Re: 19th Annual National CODIS Conference  
November 18-21, 2013

The Federal Bureau of Investigation's CODIS Unit is pleased to announce that the 19th Annual National CODIS Conference will be held at the NCED Conference Center & Hotel in Norman, OK. This year's attendees at the conference will be limited to Domestic and International CODIS Users and there will be no public day or vendor participation. There is no registration fee to attend but registration is required.

This year's conference will be slightly different than years past. Please see schedule below. The Technical Leaders portion will be conducted in collaboration with NIST:

Monday, November 18, 2013; 9:00 am – 5:00 pm – International CODIS Users Meeting and Discussion  
(Moderated by Tim Zolandz of the CODIS Unit)

Tuesday, November 19, 2013; 9:00 am – 5:00 pm – CODIS Conference

Wednesday, November 20, 2013 9:00 am – 5:30 pm – Joint CODIS/Technical Leaders Meeting (Mixture focus)

Thursday, November 21, 2013 – 9:00 am – 5:00 pm – Technical Leaders meeting (Mixtures and QAS)

International participants are welcome to attend all four days. The NIST Applied Genetics Group is conducting an interlaboratory study with five DNA mixture scenarios. Your laboratory is invited to participate in this study. Results will be discussed at the November 20-21 Technical Leader Summit. For more information, please see <http://www.cstl.nist.gov/strbase/interlab/MIX13.htm> or contact Mike Coble at [michael.coble@nist.gov](mailto:michael.coble@nist.gov) or 301-975-4330.

Registration is limited to 500 attendees. Priority will be given to sponsored domestic laboratory CODIS administrators, other users from domestic CODIS laboratories, and then to users from international CODIS laboratories.

To register for the conference, please use the registration form attached to this letter. You will receive an email confirming your registration.

To aid in your planning, information on accommodations at the NCED Conference Center & Hotel is included on the registration form. Reservations must be made by **September 27, 2013** to receive the conference rate. Please direct any questions to Corie Chick at 703-930-6051 or [Corie.L.Chick@saic.com](mailto:Corie.L.Chick@saic.com).

On behalf of the FBI Laboratory and the CODIS Unit, I look forward to your participation.

Sincerely,

A handwritten signature in black ink that reads "Jennifer C Wendel".

Jennifer Wendel  
Chief, CODIS Unit



Republic of the Philippines  
National Police Commission

**NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
**Camp Crame, Quezon City**



**DNA ANALYSIS BRANCH**

October 17, 2013

ERMIE M BACARRA  
Chief, HRIDD  
DOST

Dear Madam:

I am SHEILA MARIE T ANGUSTIA, a masteral student of DLSU-Manila and a scholar of the DOST. Also, I am presently connected with the Philippine National Police as a Forensic DNA Analyst.

My abstract entitled "Population and Mutation Analysis of 23 Y Chromosomal STR Loci in the Philippines" was accepted in the 5<sup>th</sup> AFSN Annual Meeting and Symposium for oral presentation and poster session. May I then respectfully request for a travel clearance to attend the said conference. I will be leaving the country for Singapore on November 10, 2013 and be back on November 17, 2013. In addition, I have received a letter of invitation to attend the 19<sup>th</sup> Annual National CODIS Conference to be held at the NCED Conference Center & Hotel in Norman, OK from November 18-21, 2013. Being one of the CODIS analysts, I will be leaving the country on November 17, 2013 going to Oklahoma, US as one of the delegates of the Philippine National Police. Therefore, I would also like to request for travel authority on the said dates in addition to my request for travel clearance from November 10-17, 2013. I will be leaving the country on November 17, 2013 to attend the conference in the US and be back on November 22, 2013.

Attached with this letter are the Letters of Invitation for the 19<sup>th</sup> Annual National CODIS Conference and the 5<sup>th</sup> AFSN Annual Meeting and Symposium as well as the Acceptance Letter of my abstract from AFSN. Also, a copy of the abstract and guarantee letters from the PNP was included for your perusal.

I promise that I will come back as soon as the conferences have concluded and pay the necessary damages that will be incurred thru the PNP Crime Laboratory in case of default on my scholarship contract.

Hoping for your kind consideration.

Respectfully yours,

PCINSP SHEILA MARIE T ANGUSTIA  
MS Student  
DLSU-Manila

Endorsed by:

LORNA H SANTOS  
Police Chief Inspector  
Chief, DNA Analysis Branch

October 15, 2013

ERMIE M BACARRA  
Chief, HRIID

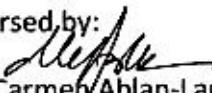
Dear Madam;

As part of the Philippine National Police Crime Laboratory's program for enhancement and technical development, personnel are encouraged to attend conferences on their area of expertise. My research which is part of my masteral studies has been accepted in the Asian Forensic Science Network (AFSN) Conference to be held at Singapore for oral presentation. In this regard, may I respectfully request for a DOST clearance which I will be using in compliance with the requirements for the passport renewal and processing of my papers so that I could attend the said conference. I promise that I will come back as soon as that conference is finished and pay the necessary damages that will be incurred thru the PNP Crime Laboratory in case of default on my scholarsip contract. Attached herewith is the letter of invitation from the AFSN.

Hoping for your kind consideration.

Respectfully yours,

  
Sheila Marie T. Angustia

Endorsed by:  
  
Ma. Carmel Ablan-Lagman Ph.D.  
Thesis Adviser  
De La Salle University

  
PCINSP LORNA H SANTOS  
Chief, DNA Analysis Branch  
PNP Crime Laboratory



Republic of the Philippines  
National Police Commission

**NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE**  
**CRIME LABORATORY**  
Camp Crame, Quezon City



**DNA ANALYSIS BRANCH**

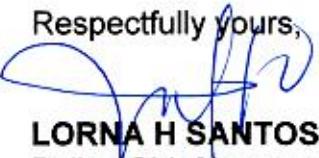
October 17, 2013

To Whom It May Concern:

This is to certify that PCINSP SHEILA MARIE T ANGUSTIA is attending the 19<sup>th</sup> Annual National CODIS Conference to be held at the NCED Conference Center & Hotel in Norman, OK from November 18-21, 2013. Being one of the CODIS analyst, she will be leaving the country on November 17, 2013 as one of the delegates of the Philippine National Police. The PNP Crime Laboratory guarantees that PCINSP ANGUSTIA will be coming back to the Philippines on November 22, 2013 after the program has concluded. Also, the PNP Crime Laboratory acknowledges that the office will be held liable for the bond between PCINSP ANGUSTIA and Department of Science and Technology in case of her default and therefore will ensure that she will be true to her word. The office will gladly answer any questions or concerns regarding this matter and you may contact us thru 7230401 local 4516.

Thank you for your kind consideration.

Respectfully yours,

  
**LORNA H SANTOS**  
Police Chief Inspector  
Chief, DNA Analysis Branch



Republic of the Philippines  
National Police Commission  
**NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE**  
CRIME LABORATORY  
Camp Crame, Quezon City



**DNA ANALYSIS BRANCH**

October 16, 2013

To Whom It May Concern:

This is to certify that PCINSP SHEILA MARIE T ANGUSTIA is attending the Asian Forensic Science Network (AFSN) Annual Meeting and Symposium to be held at Singapore on November 11-14, 2013. Being one of the presenter on the said conference, she will be leaving the country on November 10, 2013 as a delegate of the Philippine National Police. The PNP Crime Laboratory guarantees that PCINSP ANGUSTIA will be coming back to the Philippines on November 17, 2013 after the program has concluded. Also, the PNP Crime Laboratory acknowledges that the office will be held liable for the bond between PCINSP ANGUSTIA and Department of Science and Technology in case of her default and therefore will ensure that she will be true to her word. The office will gladly answer any questions or concerns regarding this matter and you may contact us thru 7230401 local 4516.

Thank you for your kind consideration.

Respectfully yours,

**LORNA H SANTOS**  
Police Chief Inspector  
Chief, DNA Analysis Branch



# AFSN 2013

11 – 14 November 2013 | Resorts World Sentosa Convention Centre, Singapore  
[www.afsn2013.sg](http://www.afsn2013.sg)

Sponsor



## 5TH ASIAN FORENSIC SCIENCES NETWORK ANNUAL MEETING & SYMPOSIUM

16 October 2013

Ms Sheila Marie Angustia  
Forensic DNA Analyst, Crime Laboratory,  
Philippine National Police  
Philippines

5TH AFSN ANNUAL MEETING  
& SYMPOSIUM ORGANISERS

ASIAN FORENSIC SCIENCES  
NETWORK



[www.asianforensic.net](http://www.asianforensic.net)

HEALTH SCIENCES AUTHORITY



11 Outram Road  
Singapore 169078  
[www.hsa.gov.sg](http://www.hsa.gov.sg)

Dear Ms Sheila Marie Angustia,

On behalf of the Asian Forensic Sciences Network Organising Committee and Host Institute, Health Sciences Authority, Singapore, we are pleased to inform you that the following abstract has been accepted for the 5<sup>th</sup> AFSN Annual Meeting & Symposium.

Topic	DNA
Title	Population And Mutation Analysis Of 23 Y Chromosomal Str Loci In The Philippines
Mode of Presentation	Oral Presentation

5TH AFSN ANNUAL MEETING  
& SYMPOSIUM SECRETARIAT

The Meeting Lab Pte Ltd  
695E East Coast Road  
Singapore 499059  
Tel: +65 6346 4402  
Fax: +65 6346 4403

[leonard@themetinglab.com](mailto:leonard@themetinglab.com)  
[samanthachan@themetinglab.com](mailto:samanthachan@themetinglab.com)  
[www.afsn2013.sg](http://www.afsn2013.sg)

We look forward to welcoming you in Sunny Singapore.

**Mr Lim Kong Boon**

President

Asian Forensic Sciences Network (AFSN)

**Dr Lam Kian Ming**

Chair

5th AFSN Annual Meeting & Symposium  
Organising Committee

## ABSTRACT

SHEILA MARIE T. ANGUSTIA. Population and Mutation Analysis of 23 Y Chromosomal STR Loci in the Philippines. Philippine National Police

Y- chromosomal STR markers have shown to be advantageous in analyzing male DNA in mixtures containing high female DNA fraction and as supplementary markers for paternity testing. To be useful however, STR markers must first be evaluated in the population for which they will be used. Twenty-three Y- chromosomal STR markers (DYS576, DYS389I, DYS448, DYS389II, DYS19, DYS391, DYS481, DYS549, DYS533, DYS438, DYS437, DYS570, DYS635, DYS390, DYS439, DYS392, DYS643, DYS393, DYS458, DYS385a/b, DYS456 and Y-GATA-H4) were assessed for its variability and mutability in the Philippine population. Haplotype and allele frequencies were determined in 510 unrelated Filipino males while mutation data were gathered from the analysis of 120 confirmed father and son pairs. Among the 2,760 meiotic transfers covered, 10 mutations were recorded with an average overall mutation rate of  $3.62 \times 10^{-3}$  in the population. Among the loci examined, three mutational events were observed on the DYS635 locus. Four mutations resulted in a gain of repeat in the son and 6 resulted in a loss of repeat. A haplotype with a duplicated allele in both father and son were observed on DYS576 locus while haplotype with four alleles were found on the DYS385. In addition a variant of DYS456 was observed to fall outside the marker range. Information gathered from this study will aid forensic interpretation by improving forensic probability calculation and by understanding the diversity of Filipino male population. Furthermore, information obtained from this research verified the usefulness and informative power of this set of markers for routine casework.



# AFSN 2013

11 – 14 November 2013 | Resorts World Sentosa Convention Centre, Singapore  
[www.afsn2013.sg](http://www.afsn2013.sg)

Sponsored by



## 5TH ASIAN FORENSIC SCIENCES NETWORK ANNUAL MEETING & SYMPOSIUM

02 October 2013

Ms Sheila Marie Angustia  
DNA Section PNP Crime Laboratory  
DNA Analysis Branch  
Philippines

Dear Ms Sheila Marie Angustia,

On behalf of the Asian Forensic Sciences Network Organising Committee and Host Institute, Health Sciences Authority, Singapore, we warmly invite all of you to the 5<sup>th</sup> Asian Forensic Sciences Network (AFSN) Annual Meeting & Symposium taking place from 11 – 14 November 2013 at the Resorts World Sentosa Convention Centre, Singapore.

This year we have prepared a stimulating four-day scientific programme comprising plenary lectures, workshops and scientific sessions. Together with the opportunity to present your ideas through oral and poster presentations, this meeting will be an excellent and ideal platform for our colleagues to convene and exchange the latest information on advances and challenges in forensic science.

Please note that there are no registration fees tied to the conference.

We look forward to welcoming you in Sunny Singapore.

Mr Lim Kong Boon

President

Asian Forensic Sciences Network (AFSN)

Dr Lam Kian Ming

Chair

5th AFSN Annual Meeting & Symposium  
Organising Committee

5TH AFSN ANNUAL MEETING  
& SYMPOSIUM ORGANISERS

ASIAN FORENSIC SCIENCES  
NETWORK



[www.asianforensic.net](http://www.asianforensic.net)

HEALTH SCIENCES AUTHORITY



11 Outram Road  
Singapore 169078  
[www.hsa.gov.sg](http://www.hsa.gov.sg)

5TH AFSN ANNUAL MEETING  
& SYMPOSIUM SECRETARIAT

The Meeting Lab Pte Ltd  
695E East Coast Road  
Singapore 459059  
Tel: +65 6346 4402  
Fax: +65 6346 4403  
[leonard@themeetinglab.com](mailto:leonard@themeetinglab.com)  
[samantha@themeetinglab.com](mailto:samantha@themeetinglab.com)  
[www.afsn2013.sg](http://www.afsn2013.sg)



To: Sheila Marie T. Angustia  
From: Jennifer Wendel  
Chief, CODIS Unit  
Date: August 20, 2013  
  
Re: 19th Annual National CODIS Conference  
November 18-21, 2013

The Federal Bureau of Investigation's CODIS Unit is pleased to announce that the 19th Annual National CODIS Conference will be held at the NCED Conference Center & Hotel in Norman, OK. This year's attendees at the conference will be limited to Domestic and International CODIS Users and there will be no public day or vendor participation. There is no registration fee to attend but registration is required.

This year's conference will be slightly different than years past. Please see schedule below. The Technical Leaders portion will be conducted in collaboration with NIST:

Monday, November 18, 2013; 9:00 am – 5:00 pm – International CODIS Users Meeting and Discussion  
(Moderated by Tim Zolandz of the CODIS Unit)

Tuesday, November 19, 2013; 9:00 am – 5:00 pm – CODIS Conference

Wednesday, November 20, 2013 9:00 am – 5:30 pm – Joint CODIS/Technical Leaders Meeting (Mixture focus)

Thursday, November 21, 2013 – 9:00 am – 5:00 pm – Technical Leaders meeting (Mixtures and QAS)

International participants are welcome to attend all four days. The NIST Applied Genetics Group is conducting an interlaboratory study with five DNA mixture scenarios. Your laboratory is invited to participate in this study. Results will be discussed at the November 20-21 Technical Leader Summit. For more information, please see <http://www.cstl.nist.gov/strbase/interlab/MIX13.htm> or contact Mike Coble at [michael.coble@nist.gov](mailto:michael.coble@nist.gov) or 301-975-4330.

Registration is limited to 500 attendees. Priority will be given to sponsored domestic laboratory CODIS administrators, other users from domestic CODIS laboratories, and then to users from international CODIS laboratories.

To register for the conference, please use the registration form attached to this letter. You will receive an email confirming your registration.

To aid in your planning, information on accommodations at the NCED Conference Center & Hotel is included on the registration form. Reservations must be made by **September 27, 2013** to receive the conference rate. Please direct any questions to Corie Chick at 703-930-6051 or [Corie.L.Chick@saic.com](mailto:Corie.L.Chick@saic.com).

On behalf of the FBI Laboratory and the CODIS Unit, I look forward to your participation.

Sincerely,

A handwritten signature in black ink that reads "Jennifer C Wendel".

Jennifer Wendel  
Chief, CODIS Unit

October 15, 2013

ERMIE M BACARRA  
Chief, HRIDD

Dear Madam;

As part of the Philippine National Police Crime Laboratory's program for enhancement and technical development, personnel are encouraged to attend conferences on their area of expertise. My research which is part of my masteral studies has been accepted in the Asian Forensic Science Network (AFSN) Conference to be held at Singapore for oral presentation. In this regard, may I respectfully request for a DOST clearance which I will be using in compliance with the requirements for the passport renewal and processing of my papers so that I could attend the said conference. I promise that I will come back as soon as that conference is finished and pay the necessary damages that will be incurred thru the PNP Crime Laboratory in case of default on my scholarsip contract. Attached herewith is the letter of invitation from the AFSN.

Hoping for your kind consideration.

Respectfully yours,

  
Sheila Marie T. Angustia

Endorsed by:  
  
Ma. Carmel Ablan-Lagman Ph.D.  
Thesis Adviser  
De La Salle University

  
PCINSP LORNA H SANTOS  
Chief, DNA Analysis Branch  
PNP Crime Laboratory



Republic of the Philippines  
National Police Commission

**NATIONAL HEADQUARTERS PHILIPPINE NATIONAL POLICE**  
CRIME LABORATORY  
Camp Crame, Quezon City



**DNA ANALYSIS BRANCH**

October 16, 2013

To Whom It May Concern:

This is to certify that PCINSP SHEILA MARIE T ANGUSTIA is attending the Asian Forensic Science Network (AFSN) Annual Meeting and Symposium to be held at Singapore on November 11-14, 2013. Being one of the presenter on the said conference, she will be leaving the country on November 10, 2013 as a delegate of the Philippine National Police. The PNP Crime Laboratory guarantees that PCINSP ANGUSTIA will be coming back to the Philippines on November 17, 2013 after the program has concluded. Also, the PNP Crime Laboratory acknowledges that the office will be held liable for the bond between PCINSP ANGUSTIA and Department of Science and Technology in case of her default and therefore will ensure that she will be true to her word. The office will gladly answer any questions or concerns regarding this matter and you may contact us thru 7230401 local 4516.

Thank you for your kind consideration.

Respectfully yours,

**LORNA H SANTOS**  
Police Chief Inspector  
Chief, DNA Analysis Branch



# AFSN2013

11 – 14 November 2013 | Resorts World Sentosa Convention Centre, Singapore  
[www.afsn2013.sg](http://www.afsn2013.sg)

Organised by



## 5TH ASIAN FORENSIC SCIENCES NETWORK ANNUAL MEETING & SYMPOSIUM

16 October 2013

Ms Sheila Marie Angustia  
Forensic DNA Analyst, Crime Laboratory,  
Philippine National Police  
Philippines

Dear Ms Sheila Marie Angustia,

On behalf of the Asian Forensic Sciences Network Organising Committee and Host Institute, Health Sciences Authority, Singapore, we are pleased to inform you that the following abstract has been accepted for the 5<sup>th</sup> AFSN Annual Meeting & Symposium.

Topic	DNA
Title	Population And Mutation Analysis Of 23 Y Chromosomal Str Loci In The Philippines
Mode of Presentation	Oral Presentation

5TH AFSN ANNUAL MEETING & SYMPOSIUM ORGANISERS

ASIAN FORENSIC SCIENCES NETWORK



[www.asianforensic.net](http://www.asianforensic.net)

HEALTH SCIENCES AUTHORITY



11 Outram Road  
Singapore 169078  
[www.hsa.gov.sg](http://www.hsa.gov.sg)

5TH AFSN ANNUAL MEETING & SYMPOSIUM SECRETARIAT

The Meeting Lab Pte Ltd  
695E East Coast Road  
Singapore 459059  
Tel: +65 6346 4402  
Fax: +65 6346 4403

[leonardeng@themetinglab.com](mailto:leonardeng@themetinglab.com)  
[samanthaoh@themetinglab.com](mailto:samanthaoh@themetinglab.com)  
[www.afsn2013.sg](http://www.afsn2013.sg)

Mr Lim Kong Boon

President

Asian Forensic Sciences Network (AFSN)

Dr Lam Kian Ming

Chair

5th AFSN Annual Meeting & Symposium  
Organising Committee



# AFSN 2013

11 – 14 November 2013 | Resorts World Sentosa Convention Centre, Singapore  
[www.afsn2013.sg](http://www.afsn2013.sg)

Organised by



## 5TH ASIAN FORENSIC SCIENCES NETWORK ANNUAL MEETING & SYMPOSIUM

02 October 2013

Ms Sheila Marie Angustia  
DNA Section PNP Crime Laboratory  
DNA Analysis Branch  
Philippines

Dear Ms Sheila Marie Angustia,

On behalf of the Asian Forensic Sciences Network Organising Committee and Host Institute, Health Sciences Authority, Singapore, we warmly invite all of you to the 5<sup>th</sup> Asian Forensic Sciences Network (AFSN) Annual Meeting & Symposium taking place from 11 – 14 November 2013 at the Resorts World Sentosa Convention Centre, Singapore.

This year we have prepared a stimulating four-day scientific programme comprising plenary lectures, workshops and scientific sessions. Together with the opportunity to present your ideas through oral and poster presentations, this meeting will be an excellent and ideal platform for our colleagues to convene and exchange the latest information on advances and challenges in forensic science.

Please note that there are no registration fees tied to the conference.

We look forward to welcoming you in Sunny Singapore.

Mr Lim Kong Boon

President

Asian Forensic Sciences Network (AFSN)

Dr Lam Kian Ming

Chair

5th AFSN Annual Meeting & Symposium  
Organising Committee

5TH AFSN ANNUAL MEETING & SYMPOSIUM ORGANISERS

ASIAN FORENSIC SCIENCES NETWORK



[www.asianforensic.net](http://www.asianforensic.net)

HEALTH SCIENCES AUTHORITY



11 Outram Road  
Singapore 169078  
[www.hsa.gov.sg](http://www.hsa.gov.sg)

5TH AFSN ANNUAL MEETING & SYMPOSIUM SECRETARIAT

The Meeting Lab Pte Ltd  
635E East Coast Road  
Singapore 459059  
Tel: +65 6346 4402  
Fax: +65 6346 4403  
[leonardsg@themetinglab.com](mailto:leonardsg@themetinglab.com)  
[samanthaoh@themetinglab.com](mailto:samanthaoh@themetinglab.com)  
[www.afsn2013.sg](http://www.afsn2013.sg)

**Human Resource and Institution  
Development Division  
(HRIDD)**

### Action Slip

23 May 2013

**MS. SHEILA MARIE ANGUSTIA**

Blk 2 Lot 15 Phase 5 San Marino City Subd.  
Dasmariñas, Cavite

Dear **Ms. Angustia**:

This is to acknowledge receipt of your letter dated 20 May 2013 providing us with an update on the status of your studies.

Based on our records, you were due to finish the M.S. degree in the third term of SY 2010-2011 but were not able to finish as expected and have not updated us about the status of your studies. You were therefore on a "Non-Complying" status since the first term of SY 2012-2013. You are now due for repayment.

We have noted that you intend to enroll in the first term of SY 2013-2014. In this regard, may we request you to submit the following documents for our evaluation:

- (1) Letter of request for deferment of your repayment **endorsed by your adviser**
- (2) Final research timetable **endorsed by your adviser**
- (3) Revised thesis proposal
- (4) Progress report on the conduct of your thesis (form attached)
- (5) Certificate of enrollment for the SY 2012-2013
- (6) Summary of M.S. grades

We hope to receive the said documents as the soonest possible time. We would like to reiterate that all requests should be duly endorsed by your adviser.

Very truly yours,

  
**ERMIE M. BACARRA**  
Chief, HRIDD

HRIDD I-13-0521-15

Philippine Council for Industry, Trade and  
Technology Research and Development



0-17-052875  
121-00010 05/28/2013 05:07:45 PM

20 May 2013

JONATHAN G MUNOZ  
Supervising Science Research Specialist  
PCIEERD

Dear Sir:

I sincerely apologize for the delayed response. In my letter dated August 3, 2012, I have signified that I am requesting for extension and that I am revising my thesis to adopt on the needs of the PNP Crime Laboratory considering that my materials and reagents will be provided by them.

I do not intend to ignore your letters; however, I was not able to immediately submit the requirements needed by your office to evaluate my request for extension. For the past months, I have been performing some preliminary experiments which include validation of protocols and profiling of DNA samples from PNP Crime Laboratory to ensure that my research procedures would be feasible. During those months, I cannot come up with a manageable time frame that will be approved and endorsed by my thesis adviser due to circumstances at hand.

I understand that on my previous proposal, my methodologies include protocols and equipment that seemed "not advisable" as stated by the one who reviewed my proposal. The only reason why I used it in my proposal is because, during that time, those materials and equipment are the only ones available in our lab; yet, those materials are the ones being used for routine forensic typing done by the PNP Crime Lab. Therefore, it will be more reasonable to use such considering that the main objective of my research is to develop, validate and assess Y STR profiling procedure to be used for routine DNA typing of forensic evidence.

Fortunately, while I was revising my thesis proposal, the PNP Crime Laboratory where I am presently connected and conducting my thesis upgraded its capability from traditional gel based genetic analyzer (ALF Express) to capillary electrophoresis (ABI 3500) thus; I had to overhaul the methodology that I have indicated on my proposal. Initially, my topic deals on population and mutation analysis of 14 Y-STR loci that was available in the laboratory. As the PNP upgraded its capability to ABI genetic analyzer, the entire DNA analysis protocols were modified. Instead of using homemade PCR cocktails, we had to try different commercial DNA kits that would suit our needs and determine what to use in our routine analysis. Because I want my study to be in line with what we do in the PNP DNA Laboratory, we had to establish our laboratory protocols first before I use it on my thesis samples.

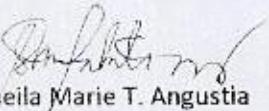
Another reason for the delay is that by first quarter of 2012, the DNA building had to be reconstructed as part of the PNP Modernization Program so we had to transfer to a makeshift laboratory. By the end of that year, we had to move back to the new DNA building and set-up the laboratory. Nevertheless, I still continued doing my research and currently processed 300 unrelated male DNA profiles for the population and 110 father and son pairs using 23 Y STR markers with the protocol established in our laboratory. Despite some comments reflected on the review of my thesis proposal, I am still pursuing my topic because the data that I will be getting on this research will be used for our likelihood ratio calculations as well as in the formulation of our laboratory SOPs for

routine examination of forensic evidence considering that the Philippine National Police Crime Laboratory is the one mandated by the law and performs the routine handling of forensic evidence. Other comments given on my proposal will be addressed as I submit my proposal paper.

For the past semesters, I have been enrolling at the DLSU-Manila to maintain access in the laboratory and I intend to enrol again this term to finalize my thesis. Enrollment for residency at DLSU will start on May 22. I am scheduled for a consultation with my thesis adviser next week. I will secure letter of endorsement and submit all the requirements needed for my request for extension right after the consultation.

Again, I would like to extend my apology for not communicating with you immediately. I am hoping for your understanding and kind consideration.

Very truly yours,



Sheila Marie T. Angustia

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



I-13-0521-15

REF ID: 06.21.13 / 3:35:23 PM



Wednesday 22nd May 2013, 11:08 am

[Scholars](#) | [Thesis](#) | [Proposals](#) | [Projects](#) | [Seminars](#) | [Experts](#) || [Logout](#)

## Angustia Sheila Marie Tabulina

[Edit](#)

### Scholarship

Degree Program:	MS
Program:	ASTHRDP
Field:	Biology
School:	DLSU
Batch:	2009
Date of Entry	May 2009
Expected Completion:	March 2012
Duration:	2 yrs
Status:	Non-Complying -
Thesis title:	POPULATION AND MUTATION ANALYSIS OF 14 Y-CHROMOSOMAL STR LOCI IN THE PHILIPPINES
Semestral Status:	1TERM SY 2009-2010-ENROLLED 2TERM SY 2009-2010-ENROLLED 3TERM SY 2009-2010-ENROLLED 1TERM SY 2010-2011-ENROLLED 2TERM SY 2010-2011-LOA 3TERM SY 2010-2011-ENROLLED 1TERM SY 2011-2012-LOA 2TERM SY 2011-2012-LOA 3TERM SY 2011-2012-ENROLLED 1TERM SY 2012-2013-NON-COMPLYING 2TERM SY 2012-2013-NON-COMPLYING 3TERM SY 2012-2013-NON-COMPLYING TERM2 SY 2010-2011 - LOA TERM1 SY 2011-2012 - LOA TERM2 SY 2011-2012 - LOA

### Personal Information

Birthday:	03/07/1980
Age:	0
Civil Status:	Married
Gender:	Female
Home Address:	B2 L15 PH5 SAN MARINO CITY SUBD., DASMARINAS, CAVITE
Region:	
Telephone #:	0926-851-4298/0922-851-4298/723-0401-loc. 4516
City Address:	DNA SECTION, PNP CRIME LABORATORY, CAMP Crame, QUEZON CITY
Telephone #:	
Email Address:	sheirie@yahoo.com

### Employment

Present Position:	
Employer:	
Length of Service:	
Basic Salary:	

23 January 2013

**MS. SHEILA MARIE ANGUSTIA**

M.S. Biology Student  
Biology Department  
De La Salle University  
Taft Ave., Manila

Dear **Ms. Angustia**:

We would like to follow-up on your response to our letter dated 13 September 2012 (copy attached herewith) regarding your M.S. scholarship under the DOST Accelerated Science and Technology Human Resource Development Program. As of this date, we have not received any documents nor have you sent any communication to us regarding the matter. In this regard, may we request for an update on the status of your studies and the submission of the documents mentioned in the said letter.

Further, we would like to reiterate that non-submission of the documents would mean repayment of the grant. Please be guided accordingly.

Very truly yours,

**JONATHAN G. MUÑOZ**  
Supervising Science Research Specialist

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-13-0124-14

Entered on: 01.24.2013 / 03:27:14 PH

NAME : ANGUSTIAN, SHEILA MARIE  
COURSE : MS-BIOLOGY  
SCHOOL : DE LA SALLE UNIVERSITY  
DATE OF ENTRY : 1ST TERM SY 2009-2010  
EXPECTED DATE OF COMPLETION : 3RD TERM SY 2010-2011

SUMMARY OF STATUS

SCHOOL YEAR	1ST TERM	2ND TERM	3RD TERM
SY 2009-2010	ENROLLED	ENROLLED	ENROLLED
SY 2010-2011	ENROLLED	LOA	ENROLLED
SY 2011-2012	LOA	LOA	ENROLLED
SY 2012-2013	AWOL	AWOL	AWOL



Republic of the Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING  
TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)**

September 13, 2012

MS. SHEILA MARIE ANGUSTIA  
M.S Biology Student  
Biology Department  
De La Salle University  
Taft Avenue, Manila

Dear Ms. Angustia:

This pertains to your MS scholarship under the **DOST Accelerated Science and Technology Human Resource Development Program**. We have noted that, based on your record, your scholarship contract ended in the third term of SY2011-2012. May we therefore request for an update on the status of your studies.

Per our follow up with you last June 14, 2012 through email, we learned that you are planning to request for an extension of your scholarship this first semester of SY2012-2013 since you will need to change the protocols of your M.S thesis. Subsequently, we advised you to submit the following requirements to evaluate your request for extension:

1. Letter of request for extension duly endorsed by your adviser
2. Research timetable endorsed by your adviser
3. Registration form for the first term of SY2012-2013
4. Progress report for the thesis you enrolled in the previous semester (form attached)

We believe that as a DOST scholar, you are fully aware of the repayment provision of the contract you signed with us in case of non-completion of your MS degree program.

Please be guided accordingly.

Very truly yours,

  
ERMIE M. BACARRA  
Member, DOST-ASTHRDP Technical  
Working Group Committee  
Chief, PCIEERD Human Resource and Institution  
Development Division

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-12-0914-31

Received on 09-14-2012 at 03:14:53 PM

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development (EERD)

Office of the Executive Director (OED)  
ROUTING SLIP

To: ENGR. RAMIE

	Remarks
<input checked="" type="checkbox"/> Appropriate action	please. Thanks!
<input type="checkbox"/> Handle	Aileen
<input type="checkbox"/> Comment	
<input type="checkbox"/> Prepare draft	
<input type="checkbox"/> Reply	
<input type="checkbox"/> Discuss with me	
<input type="checkbox"/> Note & file	
<input type="checkbox"/> Note & return	
<input type="checkbox"/> Information	
<input type="checkbox"/> Give Status	

Date: 23 FEB 2012

28 February 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This has reference to the thesis proposal that you have submitted to us, entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" for which you are requesting funding as part of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We have referred your proposal to the DNA Forensic Laboratory at UP Diliman since the laboratory has done extensive work along this line. We are forwarding herewith their comments and we suggest that the concerns/points raised be addressed and or your proposal revised accordingly. We will defer the processing of your thesis allowance pending submission of your response to the issues raised or a revised proposal.

Very truly yours,

  
ERMIE M. BACARRA  
Chief, HRIID

28 February 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This has reference to the thesis proposal that you have submitted to us, entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" which you are requesting for funding under your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We have sent the proposal for comments to a technical expert and we are sending herewith the technical evaluation for your reply and appropriate action. We will defer the processing of your thesis allowance pending submission of your response to the issues raised in the evaluation. If need be, please revise proposal accordingly.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

28 February 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This has reference to the thesis proposal that you have submitted to us, entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

*We have sent the proposal for evaluation comments to a technical expert panel.*  
*We are sending herewith the technical evaluation of your thesis proposal for your reference and perusal.*  
*We will defer the processing of your thesis allowance pending submission of your revised proposal.* *Please respond to the issues raised in the evaluation. If need be,*  
*please resubmit your proposal accordingly.*

Please be guided accordingly.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

*something wrong  
w/ the cutting &  
posting*

- Review of Related literature

The candidate did not provide an exhaustive review of related literature.

-A good proportion of the literature that was cited were sourced from the internet including the websites of commercial manufacturers. Although these sites provide information for the products which are currently available in the market, it would have been better if the candidate cited the actual research papers that were published in the development of the methods and/or selection of STR markers that were subsequently used for commercial production.

• It would benefit the candidate to read more recent literature. Moreover, the citations of some of the articles did not include the year of publication and there are errors in the manner of citing published literature.

• Interestingly, the candidate failed to cite any paper which have been published on V-STR databasing in Philippine populations as well as the use of these markers for forensic applications in the Philippines. Work on databasing Y-STR markers was initiated by Dr J Miranda of the National Institute of Molecular Biology and Biochemistry of UP Diliman in 2001. Dr Miranda and co-workers already generated a *Philippine population database of many of the STR markers w/c were included by the candidate. Papers on Y-STR loci in the Philippines*

Philippine population database of many of the STR markers which were included by the candidate. Papers on Y-STR profiling in Philippine populations are:

- a) Miranda, J.J, M Benecke, et al. (2001) "Y-chromosomal short tandem repeat haplotypes at the loci DYS393, DYS19, DYS392, and DYS385-I/II, DYS390, DYS389-I/II, and DYS391 in a Filipino population sample" Journal of Forensic Science 46(5): 1250-3
- b) Tan, M. M., G. C. Calacal, et al. (2003) "y chromosome STR alele frequency distribution among Filipino males in the NCR for Forensic Applications," Philippine Journal of Science 132(2). 95-101.
- c) Lessig, R, S Willuweit et al. (2003). "Asian online Y-STR Haplotype Reference Database, Legal Medicine (Tokyo) 5 Supp 1: 5160-3.
- d) Calacal, GC, FC Delfin, et al. (2005), "Identification of exhumed remains of fire tragedy victims using conventional methods and autosomal/Ychromosomal short tandem repeat DNA profiling" American Journal of Forensic Medicine and Pathology 26(3): 285-91.
- e) Delfin, FC, BJ Madrid, et al. (2005). "Y-STR analysis for detection and objective confirmation of child sexual abuse." International Journal of Legal Medicine 119(3): 158-63
- f) Salvador, JM, KA Tabbada, et al. (2008), "Population data of 10 Y-chromosomal STR loci in Cebu province, Central Visayas (Philippines)" Journal of Forensic Science 53(1): 256-8.

- g) Loo, JH, JA Trejaut, et al. (2011). "Genetic affinities between the Yami tribe people of Orchid Island and the Philippine Islanders of the Batanes archipelago" 8MC Genetics 12; 21.
- h) Scholes, C, K Siddle, et al. (2011). "Genetic diversity and evidence for population admixture in Batak Negritos from Palawan." American Journal of Physics Anthropology 146(1): 62-72.
- i) Delfin, F, JM Salvador, et al. (2011) "The Y-chromosome landscape of the Philippines: extensive heterogeneity and varying genetic affinities of Negrito and non-Negrito groups" European Journal of Human Genetics 19(2): 224-30.
- j) Maiquilla, SM, JM Salvador, et al. (2011). "Y-STR DNA analysis of 154 female child sexual assault cases in the Philippines." International Journal of Legal Medicine 125 (6): 817-824.

The candidate did not include a list of searchable Y-STR databases of Asian populations including Philippine populations that are available online. These sites which are already being used for casework and paternity testing are:

- a) <http://www.yhrd.org>
- b) <http://usystrdatabase.org>
- c) <http://www.smgf.org/ychromosome/search.jspx>

- Methodology
- Preparatory Stage

The candidate did not provide the reason for selecting the 14 Y-STR markers which she has included in her study. In the Review of Related Literature, she cited the recommendation of the Scientific Working Group on DNA Analysis Methods (SWGDAM) that is US-based but failed to trace back the original scientists, mostly European who were responsible for selecting these Y-STR markers based on their forensic utility. Notably, three of the markers namely DVS321, Y-A71 and Y-A72 were not recommended

by SWGDAM. The candidate did not include any citation for these markers and literature searches made by this evaluator was unsuccessful. This evaluator suspects that Y-A71 and Y-A72 actually refers to YGATA-A7.1 (otherwise known as DYS460) and Y-GATA-A7.2 (also known as DYS461) respectively. DYS321 is not included in all the online searchable Y-STR databases which limits its utility in forensic casework. DYS460 and DVS461 are only included in one database (<http://www.smgf.org/ychromosome/search.jspx>).

The proposed sample size of 350 persons for establishing a population database is acceptable. However, the candidate did not provide information as to how these volunteer~ were going to be selected, whether informed consent will be obtained and what information will be requested from each volunteer. Moreover, information on who has access to the individual genotype of the volunteers and how this database is to be managed we are not included in the proposal.

In the second stage of the study, the issue of selecting father and son pairs is important. How will the candidate screen for 'true fathers and sons'? Will there be additional testing, e.g. autosomal STR testing for cases when mismatches are 'discovered'? How will the candidate handle the information of nonpaternity which could be discovered

unexpectedly? Is the candidate obliged to reveal this information to the persons concerned?

Moreover, the candidate did not cite papers which have already reported the mutation rates of the common Y-STR markers, many of which are included in the present study. In fact, the US National Institute of Standards and Technology (NIST) has published mutation rates for each of these loci, the values of which are available on their website. For a more exhaustive discussion of Y-STR mutation rates, the paper published by Burgarella, C. and M. Navascues<sup>2</sup>, is recommended. In this paper, the authors performed a meta-analysis using pedigree data for 80 loci and individual haplotypes for 110 loci, from 29 and 93 published studies, respectively. The mean predicted Y-STR mutation rate is  $2.12 \times 10^{-3} \pm 1.58 \times 10^{-3}$ .

- Laboratory procedures

Sections of the methodology needs to be revised. The actual method to be used for extraction of DNA from buccal samples, is unclear. The candidate described two procedures namely the Chelex extraction and silica-based DNA extraction methods. Is the candidate proposing to use both methods to extract buccal DNA? What would determine the selection of extraction method? Will the candidate quantitate the amount of DNA in each sample before PCR amplification?

The basis for the PCR reaction parameters described in the proposal, was also not discussed. Did the candidate get the cycling parameters online or from a well-refereed journal? Do all the STR markers have the same cycling parameter?

The candidate also proposes to perform the DNA fragment analysis on either an ALF Express or an A613130. Since the ALF Express is one of the older fragment analyzers that can only run 5 single assay samples, further validation of procedures using this machine may not be advisable. To date, only a handful of forensic DNA laboratories actually use ALF Express since this machine is no longer being

Burgarella, C and M. Navascues (2011) "Mutation rate estimates for 110 Y-chromosome STRs combining population and father-son pair data." *European Journal of Human Genetics* 19(1): 70-5.

Produced by its manufacturer. Moreover, the use of multiplex probes, e.g. more than one reaction in a single amplification instead of a single assay, is recommended because the use of multiplex assays not only reduces the amount of sample that is used up per analysis, but also makes the entire process more efficient. The candidate included in her objective the validation of cost-effective procedures for routine analysis of casework samples.

Lastly, one main concern regarding the submitted proposal in its present form, is the issue of novelty of this work. The candidate proposes to generate the Y-STR database of the Philippine population using YSTR markers, most of which had been analyzed previously. Mutation rate estimation also requires larger datasets and the proposed 150 father and son duos is insufficient to generate this data. More importantly, mutation rates for most of the selected markers included in the proposal, are already available.



**DNA ANALYSIS LABORATORY**  
**Natural Sciences Research Institute, Miranda Hall**  
**University of the Philippines**  
**Diliman, 1101 Quezon City**

---

Telefax No. 925-2965 Tel. No. 981-8500 local 3605 Mobile: 0-918-913-6284 Email: [updnalab@gmail.com](mailto:updnalab@gmail.com) [www.dnaforensic.org](http://www.dnaforensic.org)

22 February 2012

Ms. Ermie M. Bacarra  
Chief, HRDO  
PCIEERD  
Fax Number: 8376154

Dear Ms. Bacarra,

I am writing in response to your letter dated 2 February 2012 requesting for a technical evaluation of the MSc thesis proposal submitted by Ms. Sheila Angustia entitled 'Population and Mutation Analysis of 14 Y-chromosomal STR loci in the Philippines'. In addition, you requested an evaluation of this project in relation to the re-entry proposal of Ms Jazelyn Salvador entitled 'Y-chromosomal DNA variation of the Filipino population using Rapidly Mutating (RM) Y-chromosome Specific Short Tandem Repeat (STR) Markers'. Please note for your consideration that I am Ms. Salvador's thesis co-supervisor for her MSc thesis and that the re-entry proposal will be conducted at the DNA Analysis Laboratory, UP Diliman of which I am head. Hence my hesitation to review this proposal which I have communicated to your staff on the phone.

Having been asked to proceed with the technical evaluation regardless of the points I have raised, I am now submitting a technical evaluation on the said proposal. Please contact me if you need more information.

Sincerely,

*Maria Corazon Q. De Ungria*  
Dr Maria Corazon Q. De Ungria  
Head  
Email: [mariadeungria@gmail.com](mailto:mariadeungria@gmail.com)

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



I-12-0223-22  
Received on 02-23-2012 / 03:41:34 PM

**Technical Evaluation of the Thesis Proposal:**  
**'Population and Mutation Analysis of 14 Y-chromosomal STR loci in the Philippines'**  
**by Sheila Angustia**

The candidate proposes to generate a database of 14 Y-chromosomal STR markers for the Philippine population using buccal samples from 350 male volunteers for paternity testing and forensic casework. In addition, the candidate proposes to determine the mutation rate of these markers using 150 father and son pairs. Knowing the effective mutation rates would improve forensic probability calculation and the understanding of diversity data<sup>1</sup>.

Overall, there is scientific merit in establishing a local database for Y-chromosomal STR markers since this is one of the most powerful forensic tool for male identification. Knowledge of the mutation rate of Y-STR markers is also important to know the stability of these markers which are solely inherited along the male line. Theoretically, the Y-chromosomal STR profile of a man should be identical to his son, and his grandsons, his paternal cousins and uncles etc. However, if a Y-STR marker has a higher mutation rate, then one has to account for the reason behind a 'mismatch' between the Y-STR DNA profile of a boy and an alleged father. Is the mismatch due to a mutation hence the pair is really a father-son duo; or is the mismatch indicative of non-paternity? In crime scene investigations involving sexual assault charges, the presence of male DNA in a female victim can support the allegation of sexual contact between the alleged perpetrator and the victim. Whether the contact is consensual or not is another question, as long as the supposed victim is not a minor.

However, having evaluated the present proposal, I have the following comments:

• **Review of Related Literature**

The candidate did not provide an exhaustive review of related literature.

• A good proportion of the literature that was cited were sourced from the internet including the websites of commercial manufacturers. Although these sites provide information for the products which are currently available in the market, it would have been better if the candidate cited the actual research papers that were published in the development of the methods and/or selection of STR markers that were subsequently used for commercial production.

• It would benefit the candidate to read more recent literature. Moreover, the citations of some of the articles did not include the year of publication and there are errors in the manner of citing published literature.

• Interestingly, the candidate failed to cite any paper which have been published on Y-STR databasing in Philippine populations as well as the use of these markers for forensic applications in the Philippines. Work on databasing Y-STR markers was initiated by Dr J Miranda of the National Institute of Molecular Biology and Biochemistry of UP Diliman in 2001. Dr Miranda and co-workers already generated a

---

<sup>1</sup> Angustia, S. Thesis proposal (2011) 'Population and Mutation Analysis of 14 Y-chromosomal STR loci in the Philippines'.

Philippine population database of many of the STR markers which were included by the candidate. Papers on Y-STR profiling in Philippine populations are:

- a) Miranda, JJ, M Benecke, et al. (2001). "Y-chromosomal short tandem repeat haplotypes at the loci DYS393, DYS19, DYS392, and DYS385-I/II, DYS390, DYS389-I/II, and DYS391 in a Filipino population sample." *Journal of Forensic Science* 46(5): 1250-3.
- b) Tan, M. M., G. C. Calacal, et al (2003). "Y chromosome STR allele frequency distribution among Filipino males in the NCR for Forensic Applications." *Philippine Journal of Science* 132(2): 95-101.
- c) Lessig, R, S Willuweit, et al. (2003). "Asian online Y-STR Haplotype Reference Database." *Legal Medicine (Tokyo)* 5 Suppl 1: S160-3.
- d) Calacal, GC, FC Delfin, et al. (2005). "Identification of exhumed remains of fire tragedy victims using conventional methods and autosomal/Y-chromosomal short tandem repeat DNA profiling." *American Journal of Forensic Medicine and Pathology* 26(3): 285-91.
- e) Delfin, FC, BJ Madrid, et al. (2005). "Y-STR analysis for detection and objective confirmation of child sexual abuse." *International Journal of Legal Medicine* 119(3): 158-63.
- f) Salvador, JM, KA Tabbada, et al. (2008). "Population data of 10 Y-chromosomal STR Loci in Cebu province, Central Visayas (Philippines)." *Journal of Forensic Science* 53(1): 256-8.
- g) Loo, JH, JA Trejaut, et al. (2011). "Genetic affinities between the Yami tribe people of Orchid Island and the Philippine Islanders of the Batanes archipelago." *BMC Genetics* 12: 21.
- h) Scholes, C, K Siddle, et al. (2011). "Genetic diversity and evidence for population admixture in Batak Negritos from Palawan." *American Journal of Physical Anthropology* 146(1): 62-72.
- i) Delfin, F, JM Salvador, et al. (2011). "The Y-chromosome landscape of the Philippines: extensive heterogeneity and varying genetic affinities of Negrito and non-Negrito groups." *European Journal of Human Genetics* 19(2): 224-30.
- j) Maiquilla, SM, JM Salvador, et al. (2011). "Y-STR DNA analysis of 154 female child sexual assault cases in the Philippines." *International Journal of Legal Medicine* 125 (6): 817-824.

\* The candidate did not include a list of searchable Y-STR databases of Asian populations including Philippine populations that are available online. These sites which are already being used for casework and paternity testing are:

- a) <http://www.yhrd.org/>
- b) <http://usystrdatabase.org>
- c) <http://www.smgf.org/ychromosome/search.jspx>

\* **Methodology**

\* **Preparatory Stage**

The candidate did not provide the reason for selecting the 14 Y-STR markers which she has included in her study. In the Review of Related Literature, she cited the recommendation of the Scientific Working Group on DNA Analysis Methods (SWGDAM) that is US-based but failed to trace back the original scientists, mostly European, who were responsible for selecting these Y-STR markers based on their forensic utility. Notably, three of the markers namely DYS321, Y-A71 and Y-A72 were not recommended

by SWGDAM. The candidate did not include any citation for these markers and literature searches made by this evaluator was unsuccessful. This evaluator suspects that Y-A71 and Y-A72 actually refers to Y-GATA-A7.1 (otherwise known as DYS460) and Y-GATA-A7.2 (also known as DYS461) respectively. DYS321 is not included in all the online searchable Y-STR databases which limits its utility in forensic casework. DYS460 and DYS461 are only included in one database (<http://www.smgf.org/ychromosome/search.aspx>).

The proposed sample size of 350 persons for establishing a population database is acceptable. However, the candidate did not provide information as to how these volunteers were going to be selected, whether informed consent will be obtained and what information will be requested from each volunteer. Moreover, information on who has access to the individual genotype of the volunteers and how this database is to be managed were not included in the proposal.

In the second stage of the study, the issue of selecting father and son pairs is important. How will the candidate screen for 'true fathers and sons'? Will there be additional testing, e.g. autosomal STR testing for cases when mismatches are 'discovered'? How will the candidate handle the information of non-paternity which could be discovered unexpectedly? Is the candidate obliged to reveal this information to the persons concerned?

Moreover, the candidate did not cite papers which have already reported the mutation rates of the common Y-STR markers, many of which are included in the present study. In fact, the US National Institute of Standards and Technology (NIST) has published mutation rates for each of these loci, the values of which are available on their website. For a more exhaustive discussion of Y-STR mutation rates, the paper published by Burgarella, C. and M. Navascues<sup>2</sup>, is recommended. In this paper, the authors performed a meta-analysis using pedigree data for 80 loci and individual haplotypes for 110 loci, from 29 and 93 published studies, respectively. The mean predicted Y-STR mutation rate is  $2.12 \times 10^{-3} \pm 1.58 \times 10^{-3}$ .

#### \* Laboratory procedures

Sections of the methodology needs to be revised. The actual method to be used for extraction of DNA from buccal samples, is unclear. The candidate described two procedures namely the Chelex extraction and silica-based DNA extraction methods. Is the candidate proposing to use both methods to extract buccal DNA? What would determine the selection of extraction method? Will the candidate quantitate the amount of DNA in each sample before PCR amplification?

The basis for the PCR reaction parameters described in the proposal, was also not discussed. Did the candidate get the cycling parameters online or from a well-refereed journal? Do all the STR markers have the same cycling parameter?

The candidate also proposes to perform the DNA fragment analysis on either an ALF Express or an ABI3130. Since the ALF Express is one of the older fragment analyzers that can only run single assay samples, further validation of procedures using this machine may not be advisable. To date, only a handful of forensic DNA laboratories actually use ALF Express since this machine is no longer being

<sup>2</sup> Burgarella, C. and M. Navascues (2011). "Mutation rate estimates for 110 Y-chromosome STRs combining population and father-son pair data." *European Journal of Human Genetics* 19(1): 70-5.

produced by its manufacturer. Moreover, the use of multiplex probes, e.g. more than one reaction in a single amplification, instead of a single assay, is recommended because the use of multiplex assays not only reduces the amount of sample that is used up per analysis, but also makes the entire process more efficient. The candidate included in her objective the validation of cost-effective procedures for routine analysis of casework samples.

Lastly, one main concern regarding the submitted proposal in its present form, is the issue of novelty of this work. The candidate proposes to generate the Y-STR database of the Philippine population using Y-STR markers, most of which had been analyzed previously. Mutation rate estimation also requires larger datasets and the proposed 150 father and son duos is insufficient to generate this data. More importantly, mutation rates for most of the selected markers included in the proposal, are already available.

- Evaluation of the thesis project in relation to the Re-Entry Proposal entitled 'Y-chromosomal DNA variation of the Filipino population using Rapidly Mutating (RM) Y-chromosome Specific Short Tandem Repeat (STR) Markers' submitted by Ms. Jazelyn Salvador

The proposal of Ms. Jazelyn Salvador includes the establishment of a Philippine database using 13 new Y-STR markers that have not been reported previously. These Y-STR markers DYF387S1, DYF399S1, DYF403S1a, DYF404S1, DYS449, DYS518, DYS526b, DYS547, DYS570, DYS576, DYS612, DYS626 and DYS627 were first published by Ballantyne and co-workers in 2010<sup>3</sup>, and were found to have a 6.5-fold higher mutation rate than the conventional Y-STR markers. Hence these new Y-STRs, known as rapidly mutating Y-STRs (RM-YSTRs) will enable us to differentiate paternally-related males such as fathers and sons, brothers, paternal cousins or uncles<sup>4</sup>. This is important in cases wherein suspects are paternally-related. In addition, RM-YSTR is expected to be very useful when dealing with smaller communities where inbreeding may be more common. RM Y-STR markers are therefore useful in identifying the source of male DNA at the individual level, and would complement the standard set of conventional Y-STR markers.

In fact, Ms. Salvador's project is the Philippine counterpart in a multi-center study of RM-YSTR markers initiated by Dr Manfred Kayser<sup>5</sup>. Dr Kayser is the principal investigator of the work conducted by Ballantyne and co-workers. Hence, the generation of new knowledge on the RM-YSTR markers is expected to increase the utility of DNA typing for human identification, particularly male identification in the Philippines. Notably, Ms. Salvador has a proven track record in DNA typing of Y-STR markers as she has been a co-author in three of the papers on Y-STR typing in the Philippines (see page 3 of this evaluation).

Dr Maria Corazon A. De Ungria  
University Researcher III, Natural Sciences Research Institute

<sup>3</sup> Ballantyne, K. N., Goedbloed, M., Fang, R., Schaap, O., Lao, O., Wollstein, A., et al. (2010). Mutability of Y-chromosomal microsatellites: rates, characteristics, molecular bases, and forensic implications. *American Journal of Human Genetics*, 87(3), 341-353.

<sup>4</sup> Ballantyne, K. N., V. Keerl, et al. (2011). "A new future of forensic Y-chromosome analysis: Rapidly mutating Y-STRs for differentiating male relatives and paternal lineages." *Forensic Science International Genetics*. (online access)

<sup>5</sup> Dr. Manfred Kayser, Department of Forensic Molecular Biology, Erasmus MC University Medical Center Rotterdam, 3000 CA Rotterdam, The Netherlands.

**Human Resource and Institution  
Development Division  
(HRIDD)**

### Action Slip

Subject:	Technical evaluation of thesis proposal of Sheila Angustia and the re-entry proposal of Ms. Jazelyn Salvador			Reference No. 02/23/12/0094
From:	Dr. Maria Corazon A. De Ungria			Barcode No.
Date of Letter:	February 22, 2012			Deadline:
Date/Time In/Out	AM	PM	Remarks	Acted by
02/23/12	Received forwarded to EMB 3:58 pm			Val
2-23	<i>re. ongoing action - pls acknowledge see to it that honorarium is released</i>			
2/28	<i>leng pls send the country to the competent for this resp. Send comments on - add pls process disbursement / process honorarium</i>			J
2/29	<i>done</i>			jeng
2/29	<i>leng returns pls.</i>			S
2/29	<i>pls</i>			

28 February 2012

DR. MA. CORAZON DE UNGRIA  
Head, DNA Analysis Laboratory  
Natural Sciences Research Institute  
University of the Philippines  
Diliman, Quezon City

Dear Dr. De Ungria:

This is to acknowledge receipt of your technical evaluation of the thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" of **Ms. Sheila Angustia**, a M.S. in Biology scholar under the DOST Accelerated S&T HRDP from De La Salle University.

*we have sent the comments to relayed*  
~~As per your technical evaluation, we informed Ms. Angustia to give more comprehensive review of related literature of her thesis proposal. *for her appropriate action*~~

Thank you for your usual support and cooperation.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

28 February 2012

DR. MA. CORAZON DE UNGRIA  
Head, DNA Analysis Laboratory  
Natural Sciences Research Institute  
University of the Philippines  
Diliman, Quezon City

Dear Dr. De Ungria:

This is to acknowledge receipt of your technical evaluation of the thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" of **Ms. Sheila Angustia**, a M.S. in Biology scholar under the DOST Accelerated S&T HRDP from De La Salle University.

We have relayed the comments to Ms. Angustia for her appropriate action.

Thank you for your usual support and cooperation.

Very truly yours,

  
ERMIE M. BACARRA  
Chief, HRIDD



**DNA ANALYSIS LABORATORY**  
Natural Sciences Research Institute, Mirande Hall  
University of the Philippines  
Diliman, 1101 Quezon City

Telefax No. 925-2985

Tel. No. 981-8500 local 3605

Mobile: 0-918-913-8284

Email : [updnlab@gmail.com](mailto:updnlab@gmail.com)

[www.dnaforensic.org](http://www.dnaforensic.org)

22 February 2012

Ms. Ermie M. Bacarra  
Chief, HRDD  
PCIEERD  
Fax Number: 8376154

Dear Ms. Bacarra,

I am writing in response to your letter dated 2 February 2012 requesting for a technical evaluation of the MSc thesis proposal submitted by Ms. Sheila Angustia entitled 'Population and Mutation Analysis of 14 Y-chromosomal STR loci in the Philippines'. In addition, you requested an evaluation of this project in relation to the re-entry proposal of Ms Jazelyn Salvador entitled 'Y-chromosomal DNA variation of the Filipino population using Rapidly Mutating (RM) Y-chromosome Specific Short Tandem Repeat (STR) Markers'. Please note for your consideration that I am Ms. Salvador's thesis co-supervisor for her MSc thesis and that the re-entry proposal will be conducted at the DNA Analysis Laboratory, UP Diliman of which I am head. Hence my hesitation to review this proposal which I have communicated to your staff on the phone.

Having been asked to proceed with the technical evaluation regardless of the points I have raised, I am now submitting a technical evaluation on the said proposal. Please contact me if you need more information.

Sincerely,

*Maria Corazon Q. De Ungria*  
Dr Maria Corazon Q. De Ungria  
Head  
Email: [mariadeungria@gmail.com](mailto:mariadeungria@gmail.com)

**Human Resource and Institution  
Development Division  
(HRIDE)**

**Action Slip**

Subject:	LIB,Summary of Expenses & Schedule of Activities (2012)			Reference No. 01/26/12/0109
				Barcode No.
From:	Sheila Marie T. Angustia			To:
Date of Letter:				Deadline:
Date/Time In/Out	AM	PM	Remarks	Acted by
		01/26/12	Received forwarded to cielo	Val
1/27		1/26	for their allowance po.	
1/27		1/27	next / pls. mention the	long
1-31		2/1	pls. pls. see review alignment return	see
2/2			long/celo, pls. return this to the DNA Analysis laboratory of PNP. It seems some of the proposed work has already been done done by said laboratory. Check on re-entry procedure (attached, page 3) of Ms. Jayelyn S. Ceballos.	
			Head of DNA Lab.: Mr. Mr. Cocoyan Pe Arquin	
2/2		2/2	direct	
		2/2	pls. return	
		2/2	final	
2/2			pls. see correction	



2 February 2012

DR. MA. CORAZON DE UNGRIA  
Head, DNA Analysis Laboratory  
Natural Sciences Research Institute  
University of the Philippines  
Diliman, Quezon City

Dear Dr. De Ungria:

Please find attached a thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" of **Ms. Sheila Angustia**, a M.S. in Biology scholar under the DOST Accelerated S&T HRDP from De La Salle University. We would like to know how the proposal relates to the re-entry proposal of Jazelyn Salvador, entitled "Y Chromosomal DNA Variation of the Filipino Population using Rapidly Mutating (RM) Y-Chromosome Specific Short Tandem Repeat (STR) Markers".

We would greatly appreciate it if we could hear from you soon. Thank you.

Very truly yours,

  
ERMIE M. BACARRA  
Chief, HRIDD



Republic of Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING  
TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)**

ISO 9001:2008

2 February 2012

DR. MA. CORAZON DE UNGRIA  
Head, DNA Analysis Laboratory  
Natural Sciences Research Institute  
University of the Philippines  
Diliman, Quezon City

Dear Dr. De Ungria:

Please find attached a thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" of Ms. Sheila Angustia, a M.S. in Biology scholar under the DOST Accelerated S&T HRDP. May we know if similar research have been undertaken in your laboratory.

We would greatly appreciate it if we could hear from you soon. Thank you.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

*from* *PLSU?*  
*We would like to*  
*how the proposal relates*  
*to the re-entry proposal of Jazelyn Salvador, entitled*  
*I think we can be*  
*more direct since we*  
*just received the proposal*  
*of J. Salvador.*

2 February 2012

DR. MA. CORAZON DE UNGRIA  
Head, DNA Analysis Laboratory  
Natural Sciences Research Institute  
University of the Philippines  
Diliman, Quezon City

Dear Dr. De Ungria:

Please find attached a thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" of **Ms. Sheila Angustia**, a M.S. in Biology scholar under the DOST Accelerated S&T HRDP. May we know if similar research have been undertaken in your laboratory.

We would greatly appreciate it if we could hear from you soon. Thank you.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

2 February 2012

DR. MA. CORAZON DE UNGRIA  
Head, DNA Analysis Laboratory  
Natural Sciences Research Institute  
University of the Philippines  
Diliman, Quezon City

Dear Dr. De Ungria:

*please find attached*  
~~We would like to request for an evaluation of the attached thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" of Ms. Sheila Angustia, a M.S. in Biology scholar under the DOST Accelerated S&T HRDP. Also, may we know if you have undertaken similar research in your laboratory.~~  
*has been undertaken*  
We would greatly appreciate it if we could hear from you soon. Thank you.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

**DOST Form NO. 2B**  
**DETAILED RESEARCH & DEVELOPMENT PROJECT PROPOSAL**

<b>(1) Title/Program Leader/Gender/Agency/Address/Telephone/Fax/Email:</b>	
<p><b>Project Title:</b> : Y Chromosomal DNA Variation of the Filipino Population using Rapidly Mutating (RM)  Y-chromosome Specific Short Tandem Repeat (STR) Markers</p> <p><b>Proponent:</b> Jazelyn M. Salvador, MSc/Female</p> <p><b>Agency/Address:</b> DNA Analysis Laboratory, Natural Sciences Research Institute, UP Diliman, Quezon City</p> <p><b>Telephone/Fax/Email:</b> 6329252965/ jaz.salvador@gmail.com</p>	
<b>(2) Cooperating Agencies</b>  Dr. Manfred Kayser Department of Forensic Molecular Biology, Erasmus MC - University Medical Center Rotterdam, The Netherlands	<b>(3) Research &amp; Development Station</b>  DNA Analysis Laboratory, Natural Sciences Research Institute, UP Diliman, Quezon City
<b>(4) Site of implementation/Municipality/District/Province/Region</b>  DNA Analysis Laboratory, Natural Sciences Research Institute, UP Diliman, Quezon City	
<b>(5) Classification</b>  Research: <input type="checkbox"/> Basic <input checked="" type="checkbox"/> Applied      Development: <input type="checkbox"/> Pilot Testing <input type="checkbox"/> Tech. Promotion/ Commercialization	<b>(6) Mode of Implementation</b>  <input type="checkbox"/> Single Agency <input checked="" type="checkbox"/> Multi-Agency
<input type="checkbox"/> STAND <input checked="" type="checkbox"/> Others Priority Areas <input type="checkbox"/> Export Winner <input type="checkbox"/> Basic Domestic Needs <input type="checkbox"/> Support Industries <input type="checkbox"/> Coconut Industries	<b>(8) Sector/Commodity</b>  Not Applicable
	<b>(9) Discipline</b>  Forensics

## (10) Significance

Male-specific polymorphisms on the non-recombining portion of the Y-chromosome, specifically short tandem repeat (STR) markers, have become an important tool for forensic investigations. In the Philippines, currently available Y-STR sets (8-11 Y-STRs) are used in deficient paternity testing cases; in the detection of the male DNA fraction in vaginal smears/swabs collected in sexual assault cases; and in the identification of disaster victims and missing persons by direct comparison with the Y-STR DNA haplotype of patrilineal male relatives (De Ungria et al., 2008). However, the current Y-STR sets provide limited resolution to paternally-related males and inbred communities. Recently, a set of 13 Y-STR markers termed as 'rapidly mutating (RM) Y-STR' were identified which have a 6.5-fold higher mutation rate than the standard Y-STR markers (Ballantyne et al., 2010). Based on the analysis of a worldwide set of 604 individuals from 51 populations, the higher mutation rate of these Y-STRs enables us to differentiate paternally-related males such as fathers and sons, or brothers (Ballantyne et al., 2011). RM Y-STR markers are therefore useful in identifying the source of the male DNA in the individual level. Hence, these markers would serve to complement the standard set of Y-STR markers.

This project proposes to evaluate the use of RM Y-STRs in differentiating related males in regional populations. An RM Y-STR database of one regional population such as the National Capital Region, which is a microcosm of the Philippine population, will be constructed. The Philippine data shall be compared to those that will be generated in a worldwide multi-center study on RM Y-STRs that aims to produce a global frequency data by many participating laboratories for forensic applications. The end product of these efforts is the ability to successfully resolve a wider spectrum of forensic cases through the combined use of conserved as well as rapidly mutating Y-STR DNA markers.

## (11) Objectives

The goal of this project is to analyze 13 rapidly mutating (RM) Y-STR markers of one regional (NCR) population. Specifically, this project aims to:

- 1) validate procedures for analyzing 13 RM Y-STR markers as part of a global multi-center study to characterize the distribution and types of alleles for each marker in different populations;
- 2) generate an RM Y-STR database;
- 3) characterize the genetic variation between the Filipino population and other population based on RM Y-STR data; and,
- 4) assess the ability of 13 RM Y-STRs to differentiate closely and related males.

## (12) Review of Literature

Short Tandem Repeat (STR) analysis is the method of choice for most forensic laboratories worldwide. STRs are DNA regions characterized by the presence of a core unit 2-6 bp in length that is present in variable numbers in different individuals. These core repeat units are grouped together (in tandem) at a specific location on the chromosome. The variation in the number of STR repeats in different individual's DNA makes STRs useful for human identification.

STRs located on the non-recombining portion of the Y-chromosome (NRY) are currently used for male-specific DNA-based identification. Since no recombination occurs in this region, Y-STRs are inherited together as a haplotype rather than a genotype (Kayser et al., 1997). Y-STRs remain the same from father to son unless a mutation occurs during sperm formation at meiosis. In some cases, analysis of Y-STRs may be a more effective tool for resolving forensic cases than autosomal STR typing (Table 1).

Table 1. Advantages of Y-STR typing over autosomal STR typing (Butler, 2010).

Applications	Advantages of Y-STRs
Identification of male source in mixtures from samples in sexual assault cases	<ul style="list-style-type: none"><li>• Male-specific amplification without interference from female component of the mixture</li><li>• Facilitate the identification of the number of non-paternal males in the mixture</li></ul>
Verification of amelogenin Y-deficient males	<ul style="list-style-type: none"><li>• Remove possibility of misidentification of the sex of the sample due to the deficiency in the amelogenin marker</li></ul>
Paternity testing	<ul style="list-style-type: none"><li>• Identification of paternal relationships using reference samples of known male paternal relatives, even in the absence of the child's biological parents</li></ul>
Identification of missing persons	<ul style="list-style-type: none"><li>• Patrilineal male relatives may be used as sources of reference samples</li></ul>
Human migration and evolutionary studies	<ul style="list-style-type: none"><li>• Lack of recombination enables comparison of male individuals separated by large period of time</li></ul>
Historical and genealogical research	<ul style="list-style-type: none"><li>• Surnames and Y-DNA profile may be used to trace male relatives across different generations</li></ul>

More than 400 Y-STRs have been identified. However to make DNA testing cost-effective, only a small set of core loci are routinely analyzed. In 1997, the European forensic community settled on a core set of Y-STR markers or "minimal haplotype" that includes nine loci - DYS19, DYS385a, DYS385b, DYS389I, DYS389II, DYS390, DYS391, DYS392 and DYS393 –for forensic identity and parentage testing (Roewer *et al.*, 2000). In 2003, the U.S. Scientific Working Group on DNA Analysis Methods (SWGDAM) recommended a core set of Y-STRs that includes the nine markers in the minimal haplotype plus DYS438 and DYS439 (Butler, 2010). To date, most Philippine Y-chromosome data has been generated with these 11 Y-STR markers and are available as effective tools in forensic casework and population studies (De Ungria *et al.*, 2008; Delfin *et al.*, 2011; Salvador *et al.*, 2008; Tan *et al.*, 2003). However, due to the low mutation rates of this set of Y-STR markers, their use in individuating a person from the rest of his paternal relations, is limited. While exclusions in Y-STR analysis results can aid in forensic investigations, a match between a suspect and evidence only indicates that the suspect as well as a brother, father, son, uncle, paternal cousin or even a distant cousin from his paternal lineage could have contributed the male DNA in the evidence. In addition, the set of less mutable Y-STRs provide limited resolution of population substructures especially in populations which have encountered contraction followed by rapid expansion in their recent history or inbreeding (Ballantyne *et al.*, 2011).

Recently, 13 Y-STR markers with higher mutation rates than the current set of forensic Y-STR markers were identified (Ballantyne *et al.*, 2010). These markers are termed "rapidly mutating" (RM) Y-STRs, all with mutation rates greater than  $1 \times 10^{-2}$  (Table 2). The ability of this set of markers to differentiate closely related males, including fathers and sons or brother pairs, were assessed and compared with data generated using AmpFISTR YFiler kit (Ballantyne *et al.*, 2010). The YFiler kit includes 11 Y-STR markers that were recommended by SWGDAM plus six (6) other Y-STR markers with mutation rates ranging from  $1 \times 10^{-4}$  and  $1 \times 10^{-3}$ . Results of the earlier study showed that the probability of observing at least one mutation with the RM Y-STR set was four times higher than that of the YFiler for a given father-son pair. The usefulness of the RM Y-STR set for differentiating male relatives related between 1 and 20 generations was also assessed. Overall, the RM Y-STR set distinguished higher percentage of father-son pairs, brothers and cousins compared with YFiler set. Hence, RM Y-STRs may be used to complement currently used more conservative Y-STR markers. Less mutable Y-STR markers are useful in establishing patrilineal relationships whereas, RM Y-STR markers will be used to individuate male sources of samples.

Ballantyne *et. al.* (2011) also showed that all relatives separated by more than 11 generations were differentiated with one or more mutations with the RM Y-STR set, but only 33% were differentiated with the YFiler set. Because of its high mutation rate, RM Y-STR set may be used for microevolutionary studies and studies in the pre-history of populations that experienced bottlenecks or are characterized by inbreeding attributed to the specific social structure of some communities.

Table 2. Repeat structures and mutation rates of 13 Rapidly mutating (RM) Y-STR markers to be used in this study.

RM Y-STR Marker	Repeat Structure*	Mutation Rate
DYF387S1	(AAAG) <sub>3</sub> (GTAG) <sub>1</sub> (GAAG) <sub>4</sub> N <sub>16</sub> (GAAG) <sub>5</sub> (AAAG) <sub>13</sub>	$1.59 \times 10^{-2}$
DYF399S1	(GAAA) <sub>3</sub> N <sub>7-8</sub> (GAAA) <sub>10-23</sub>	$7.73 \times 10^{-2}$
DYF403S1a	(TTCT) <sub>10-17</sub> N <sub>2-3</sub> (TTCT) <sub>3-17</sub>	$3.10 \times 10^{-2}$
DYF403S1a	(TTCT) <sub>10-17</sub> N <sub>2-3</sub> (TTCT) <sub>3-17</sub>	$3.10 \times 10^{-2}$
DYF404S1	(TTTC) <sub>10-20</sub> N <sub>42</sub> (TTTC) <sub>3</sub>	$1.25 \times 10^{-2}$
DYS449	(TTCT) <sub>13-19</sub> N <sub>22</sub> (TTCT) <sub>3</sub> N <sub>12</sub> (TTCT) <sub>13-19</sub>	$1.22 \times 10^{-2}$
DYS518	(AAAG) <sub>3</sub> (GAAG) <sub>1</sub> (AAAG) <sub>14-22</sub> (GGAG) <sub>1</sub> (AAAG) <sub>4</sub> N <sub>3</sub> (AAAG) <sub>11-19</sub> N <sub>27</sub> (AAGG) <sub>4</sub>	$1.84 \times 10^{-2}$
DYS526b	(CCCT) <sub>3</sub> N <sub>20</sub> (CTT) <sub>11-17</sub> (CCT) <sub>6-10</sub> N <sub>113</sub> (CCTT) <sub>10-17</sub>	$1.25 \times 10^{-2}$
DYS547	(CCTT) <sub>9-13</sub> T(CTTC) <sub>4-5</sub> N <sub>56</sub> (TTTC) <sub>10-22</sub> N <sub>10</sub> (CCTT) <sub>4</sub> (TCTC) <sub>1</sub> (TTTC) <sub>9-16</sub> N <sub>14</sub> (TTTC) <sub>3</sub>	$2.36 \times 10^{-2}$
DYS570	(TTTC) <sub>14-24</sub>	$1.24 \times 10^{-2}$
DYS576	(AAAG) <sub>13-22</sub>	$1.43 \times 10^{-2}$
DYS612	(CCT) <sub>5</sub> (CTT) <sub>1</sub> (TCT) <sub>4</sub> (CCT) <sub>1</sub> (TCT) <sub>19-31</sub>	$1.45 \times 10^{-2}$
DYS626	(GAAA) <sub>14-23</sub> N <sub>24</sub> (GAAA) <sub>3</sub> N <sub>3</sub> (GAAA) <sub>5</sub> (AAA) <sub>1</sub> (GAAA) <sub>2-3</sub> (GAAG) <sub>1</sub> (GAAA) <sub>3</sub>	$1.22 \times 10^{-2}$
DYS627	(AGAA) <sub>3</sub> N <sub>16</sub> (AGAG) <sub>3</sub> (AAAG) <sub>12-24</sub> N <sub>81</sub> (AAGG) <sub>3</sub>	$1.23 \times 10^{-2}$

\*The repeat nomenclature used is in accordance with rules defined by Kayser *et al.* (Kayser *et al.*, 2004). Separation of repeat blocks by "N" represents the break point between the separate loci present within complex markers.



27 January 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This has reference to the line-item-budget (LIB) you submitted for your thesis entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We would like to inform you that we are hereby approving your research topic and we are granting you a research allowance in the amount of **Fifty Thousand Pesos (P50,000.00)**. The said grant is subject to the usual government accounting and auditing rules and regulations and will be given to you in three (3) tranches, as follows:

P25,000.00	Initial release (50%)	Upon submission of a proposal approved by the graduate committee
P15,000.00	Second release (30%)	Upon submission of a progress report for the first quarter
P10,000.00	Final release (20%)	Upon submission of a final thesis/dissertation manuscript (hardbound and CD format) with acknowledgement of support by PCIEERD

Also, may we reiterate that you are required to submit quarterly progress reports using the attached form, to include evidence of results obtained (i.e pictures, tables, graphs where applicable). Please note that we will not accept a one-time submission of accumulated progress reports covering more than one (1) quarter.

For further queries, you may contact the Human Resources and Institution Development Division (HRIDD) at telephone nos. 837-2071 local 2101.

We hope that you will work diligently on your thesis towards the successful completion of the M.S. degree. Please be guided accordingly.

Very truly yours,

AMELIA P. GUEVARA  
Executive Director

27 January 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This has reference to the line-item-budget (LIB) you submitted for your thesis entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We would like to inform you that we are hereby approving your research topic and we are granting you a research allowance in the amount of **Fifty Thousand Pesos (P50,000.00)**. The said grant is subject to the usual government accounting and auditing rules and regulations and will be given to you in three (3) tranches, as follows:

P25,000.00	Initial release (50%)	Upon submission of a proposal approved by the graduate committee
P15,000.00	Second release (30%)	Upon submission of a progress report for the first quarter
P10,000.00	Final release (20%)	Upon submission of a final thesis/dissertation manuscript (hardbound and CD format) with acknowledgement of support by PCIEERD

Also, may we reiterate that you are required to submit quarterly progress reports using the attached form, to include evidence of results obtained (i.e pictures, tables, graphs where applicable). Please note that we will not accept a one-time submission of accumulated progress reports covering more than one (1) quarter.

For further queries, you may contact the Human Resources and Institution Development Division (HRIDD) at telephone nos. 837-2071 local 2101.

We hope that you will work diligently on your thesis towards the successful completion of the M.S. degree. Please be guided accordingly.

Very truly yours,

AMELIA P. GUEVARA  
Executive Director



27 January 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This has reference to the line-item-budget (LIB) you submitted for your thesis entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel-Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We would like to inform you that we are granting you a research <sup>allowance</sup> in the amount of **Fifty Thousand Pesos (P50,000.00)**. The said grant is subject to the usual government accounting and auditing rules and regulations. The grant will be given to you in three (3) tranches, as follows:

P25,000.00	Initial release (50%)	Upon submission of a proposal approved by the graduate committee
P15,000.00	Second release (30%)	Upon submission of a progress report for the first quarter
P10,000.00	Final release (20%)	Upon submission of a final thesis/dissertation manuscript (hardbound and CD format) with acknowledgement of support by PCIEERD

Also, may we reiterate that you are required to submit quarterly progress reports using the attached form, to include evidence of results obtained (i.e pictures, tables, graphs where applicable). Please note that we will not accept a one-time submission of accumulated progress reports covering more than one (1) quarter.

For further queries, you may contact the Human Resources and Institution Development Division (HRIDD) at telephone nos. 837-2071 local 2101.

*We hope that you will diligently...  
Very truly yours,*

*Please be guided...*

AMELIA P. GUEVARA  
Executive Director

**THESIS TITLE: Population and Mutation Analysis of 14 Y Chromosome STR Loci in the Philippines**

Researcher: Sheila Marie T. Angustia  
MS Biology/ De La Salle University- Manila

**LINE ITEM BUDGET**

**I. LABORATORY SUPPLIES**

**A. Specimen Collection Materials**

QTY	DESCRIPTION	Unit Price	Total Price
2 packs	Microtubes 1.5 ml (Blue)	750.00	1500.00
1 pack	Microtubes 1.5 ml (clear)	700.00	700.00
20 packs	Cotton swabs	50.00	1000.00
2 packs	Master Clean Protection, Nitrile Gloves (Small)Blue Powder free	400.00	800.00
1 rim	Bond paper (for consent form)	250.00	250.00
	Printing expenses (for consent form)	500.00	500.00
<b>TOTAL</b>			<b>4750.00</b>

**B. Extraction Materials**

QTY	DESCRIPTION	Unit Price	Total Price
1 unit	Purelink Genomic DNA Kit 250 Reactions	50,730.00	50,730.00
2 packs	Microtubes 1.5 ml (clear)	700.00	1400.00
2 packs	Pipette tips (200ul)	900.00	1800.00
2 packs	Pipette tips (1000 ul)	1,200.00	2,400.00
2 packs	Master Clean Protection, Nitrile Gloves (Small)Blue Powder free	400.00	800.00
2 pcs	markers	75.00	150.00
<b>TOTAL</b>			<b>57280.00</b>

C. Amplification Materials

QTY	DESCRIPTION	Unit Price	Total Price
1 pack	Microtubes 1.5 ml (clear)	700.00	700.00
3 packs	Pipette tips (10ul)	650.00	1950.00
3 packs	Pipette tips (200ul)	900.00	2700.00
3 boxes	PCR Tubes 0.2ml. PC-02-C:Axygen	2,100.00	6,300.00
3 kits	BSA cat # 3961 (Promega)	2,227.50	6,681.00
3 units	K562 DD2011 (Promega)	4,536.00	13608.00
3 x 250 ng	Male DNA-Promega DD2061-9948	13,122.00	39,366.00
½ pack	Kimwipes extra small	6600.00	3300.00
2 pcs	markers	75.00	150.00
<b>TOTAL</b>			<b>78055.00</b>

D. Analysis Materials

QTY	DESCRIPTION	Unit Price	Total Price
5 packs	Pipette tips (200ul)	900.00	4500.00
½ pack	Kimwipes extra small	6600.00	3300.00
<b>TOTAL</b>			<b>7800.00</b>

II. RESEARCH/ PUBLISHING EXPENSES

DESCRIPTION	Amount	
Research/ Internet Fees	5000.00	
Photocopy	2000.00	
Printing Expenses	4000.00	
Book Binding	1500.00	
Office Supplies	3000.00	
<b>TOTAL</b>		<b>15500.00</b>

III. MISCELLANEOUS EXPENSES

DESCRIPTION	Amount	
Miscellaneous Expenses	5000.00	
<b>TOTAL</b>		<b>5000.00</b>

## SUMMARY OF EXPENSES

DESCRIPTION	AMOUNT
LABORATORY SUPPLIES	147,885.00
RESEARCH/ PUBLISHING EXPENSES	15500.00
MISCELLANEOUS EXPENSES	5000.00
<b>TOTAL</b>	<b>168,385.00</b>

Remarks:

Other laboratory materials including chelex extraction beads, PCR primers, PCR reagents, Analysis reagents and Forensic DNA Analysis Equipments will be provided by the PNP Crime Laboratory.

Endorsed by:



**Ma. Carmen Ablan-Lagman**  
Thesis Adviser

## SCHEDULE OF ACTIVITIES (2012)

	January	February	March	April	May	June	July	August	September	October
Additional Sample Collection										
PCR Optimization										
DNA Extraction/ DNA Amplification										
Data Analysis										
Statistical Analysis of Data (Population Studies)										
Statistical Analysis of Data (Mutation Analysis)										
Report Writing										

Remarks:

1. Collection, extraction, amplification and analysis of human DNA specimen have started since April 2011. A total of one hundred sixty eight samples have already been collected.
2. Fifty seven samples have been extracted, amplified and analyzed using the Alfa-Express DNA Analyzer. These samples will also be analyzed using the newly purchased ABI genetic analyzer to be delivered on March 2012.

Endorsed by:

  
 Ma. Carmen Ablan-Lagman  
 Thesis Adviser

January 9, 2012

MR. EDWIN P. SANTIAGO  
Office of the University Registrar  
De La Salle University  
2401 Taft Avenue  
Manila, Philippines 1004  
Tel. no. (632) 523-4333  
Fax no.: (632) 523-4152

Dear Mr. Santiago:

We would like to request your office to allow **MS. SHEILA MARIE T. ANGUSTIA** to enroll in your institution in the MS Biology program this third term of SY2011-2012. Ms. Angustia has been awarded scholarship under the **DOST Accelerated S&T Human Resource Development Program (ASTHRDP)**. The actual matriculation/tuition fees and other school fees shall be charged against the funds of the **DOST-ASTHRDP c/o PCIEERD** (formerly PCASTRD).

Thank you for your usual support and cooperation to PCIEERD scholarship program.

Very truly yours,

  
ERMIE M. BACARRA  
Member, DOST-ASTHRDP Technical  
Working Group Committee and  
Chief, PCIEERD Human Resource and Institution  
Development Division

Philippine Council for Industry, Energy, and Emerging  
Technology Research and Development

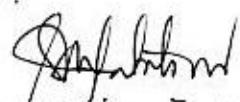


0-12-0109-10

Released on: 01.09.2012 / 03:27:31 PM

Cc: Ms. Sheila Marie T. Angustia

Raud by:

  
Sheila Marie T. Angustia

10 January 2012

*file copy*

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This is to acknowledge receipt of your thesis proposal entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We will defer the processing of your thesis allowance pending submission of a line-item-budget (LIB) and research timetable both **endorsed by your adviser**. Please specify the items to be used/purchased for the conduct of your research work.

We hope to receive the said documents at the soonest time possible. Please be guided accordingly.

Very truly yours,

  
ERMIE M. BACARRA  
Chief, HRIDD

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-12-0113-15

Released on: 01/13/2012 / 11:14:30 AM

**Human Resource and Institution  
Development Division  
(HRIDD)**

### Action Slip



Republic of the Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING  
TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)**

ISO 9001:2008

10 January 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This is to acknowledge receipt of your thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We will defer the processing of your thesis allowance pending submission of a line-item-budget (LIB) and research timetable both **endorsed by your adviser**. Please specify the items to be used/purchased for the conduct of your research work.

We hope to receive the said documents at the soonest time possible. Please be guided accordingly.

Very truly yours,

  
ERMIE M. BACARRA  
Chief, HRIDD



ISO 9001:2008

Republic of Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING  
TECHNOLOGY RESEARCH AND DEVELOPMENT (PCIEERD)**

10 January 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This is to acknowledge receipt of your thesis proposal entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We will defer the processing of your thesis allowance upon submission of a line-item-budget (LIB) and research timetable both endorsed by your adviser. Please specify the items to be used/purchased for the conduct of your research work.

We hope to receive the said documents at the soonest time possible. Please be guided accordingly.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRID

10 January 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This is to acknowledge receipt of your thesis proposal entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

We will defer the processing of your thesis allowance upon submission of a line-item-budget (LIB) and research timetable both **endorsed by your adviser**. Please specify the items to be used/purchased for the conduct of your research work.

We hope to receive the said documents at the soonest time possible. Please be guided accordingly.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD





10 January 2012

MS. SHEILA MARIE ANGUSTIA  
Department of Biology  
De La Salle University  
2401 Taft Ave., Manila

Dear Ms. Angustia:

This is to acknowledge receipt of your thesis proposal entitled "Population and Mutation Analysis of 14 Y- Chromosomal STR Loci in the Philippines" and the Proposal Defense Panel Report in compliance to the requirements of your M.S. scholarship in Biology under the DOST-Accelerated Science and Technology Human Resource Development Program.

*will defer the processing of your thesis allow upon submission*  
We would like to inform you that you will need to submit a line-item-budget (LIB) and research timetable both **endorsed by your adviser** for us to be able to process the release of your thesis support. Please specify the items to be used/purchased for the conduct of your research work.

We hope to receive the said documents at the soonest time possible. Please be guided accordingly.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

January 5, 2012

**ENGR. ERMIE M. BACARRA**

Chief, Human Resource and Institution Development Division  
PCASTRD-DOST  
Bicutan, Taguig

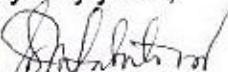
Dear Madam:

Currently, I am finalizing my laboratory tasks and working on my thesis discussion, thus, I need to have the full access of the library and other resources. In line with this, may I respectfully request for the resumption of my scholarship grant and be allowed to enroll this coming Third Term, AY 2011-2012 at De La Salle University.

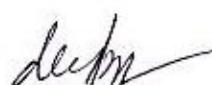
Your favorable response on this matter will be highly appreciated.

Thank you.

Very truly yours,

  
**Sheila Marie T. Angustia**  
DOST Scholar

Endorsed by:

  
**MA. CARMEN ABLAN – LAGMAN, Ph.D.**  
Thesis Adviser  
Biology Department

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



I-12-0110-05  
Received on 01/10/2012 / 08:21:19 AM

January 6, 2012

**ENGR. ERMIE M. BACARRA**

Member, DOST-ASTHRDP Technical Working Group  
Chief, Human Resources and Institution Development Division  
PCIERD-DOST Compound  
Bicutan, Taguig

Dear Madam:

I would like to inform you that my thesis proposal entitled "**POPULATION AND MUTATION ANALYSIS OF 14 Y- CHROMOSOMAL STR LOCI IN THE PHILIPPINES**" has been approved by the research panel conducted by the Biology Department DLSU-Manila. In view of the foregoing, may I respectfully request for the processing and release of my thesis allowance.

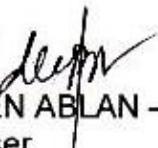
Your favorable response on this matter will be highly appreciated.

Thank you.

Very truly yours,

  
**Sheila Marie T. Angustia**  
DOST Scholar

Endorsed by:

  
**MA. CARMEN ABLAN - LAGMAN, Ph.D.**  
Thesis Adviser  
Biology Department

**Human Resource and Institution  
Development Division  
(HRIDD)**

### Action Slip

Office of the Executive Director (OED)  
ROUTING SLIP

To: ENGR. ERNIE

	Remarks
<input checked="" type="checkbox"/> Appropriate action	please. Thanks!
<input type="checkbox"/> Handle	allow
<input type="checkbox"/> Comment	
<input type="checkbox"/> Prepare draft	
<input type="checkbox"/> Reply	
<input type="checkbox"/> Discuss with me	
<input type="checkbox"/> Note & file	
<input type="checkbox"/> Note & return	
<input type="checkbox"/> Information	
<input type="checkbox"/> Give Status	

f/A. P. GUEVARA

Date: 01/23

September 15, 2011

**ENGR. ERMIE M. BACARRA**

Member, DOST-ASTHRDP Technical Working Group  
Chief, Human Resources and Development Division  
PCIERD, DOST Compound  
Bicutan, Taguig City

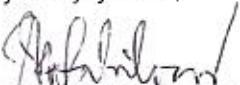
Dear Madam:

I am humbly requesting that I will be allowed to file Leave of Absence (LOA) from my scholarship grant this coming Second Term, AY 2011-2012. I believe that I will not be ready for my thesis proposal defense at this time. Some reagents and laboratory materials to be used for my research has just been funded and the supplies I am waiting needs to be transported from abroad. Rest assured that even if I will not be enrolling my thesis proposal defense this term, I will still be doing other parts of my research including sample collection and data gathering.

Your favorable response on this matter will be highly appreciated.

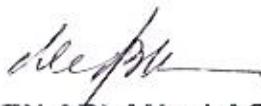
Thank you.

Very truly yours,

  
**Sheila Marie T. Angustia**  
DOST Scholar

**ENDORSEMENT**

Ms. Sheila Marie T. Angustia, a graduate student under our MS BIOLOGY program is requesting for a leave of absence on her PCASTRD DOST scholarship for the 2nd term of Academic Year 2011-2012. Her thesis proposal has been approved by the committee on April 13, 2011 but she needs time for the processing and procurement of some reagents needed for her research. In view of the foregoing, I am respectfully endorsing her letter of request



**MA. CARMEN ABLAN - LAGMAN, Ph.D.**  
Thesis Adviser  
Biology Department

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



I-11-0922-24

Printed on 09-22-2011 / 02:57:38 PM

3 October 2011

MS. SHEILA MARIE T. ANGUSTIA  
M.S Biology Student  
Biology Department  
De La Salle University  
Taft Avenue, Manila

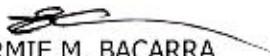
Dear Ms. Angustia:

We would like to inform you that we are approving your request for a leave of absence (LOA) from your scholarship under the DOST Accelerated S&T Human Resource Development Program in the second term of SY2011-2012 to enable you to process and purchase some chemical reagents needed for your M.S thesis. Your scholarship will resume in the third term of SY2011-2012. However, please be reminded that we have already given you the maximum no. of allowable LOAs.

We expect that you will diligently work on your thesis towards the completion of your M.S program at the end of the 3<sup>rd</sup> term of SY2011-2012

Please be guided accordingly.

Very truly yours,

  
ERMIE M. BACARRA  
Member, DOST-ASTHRDP Technical  
Working Group  
Chief, PCIEERD Human Resource and Institution  
Development Division

Cc: Dr. Carmen Ablan-Lagman

Received by :  
  
Sheila Marie T. Angustia

OFFICE ADD:

DNA SECTION, PNP CRIME  
LABORATORY CAMP CRIME, Q.C.



Republic of the Philippines  
Department of Science and Technology  
**PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY  
RESEARCH AND DEVELOPMENT (PCIEERD)**

10 June 2011

MS. SHEILA MARIE T. ANGUSTIA  
M.S Biology Student  
Biology Department  
De La Salle University  
Taft Avenue, Manila

Dear Ms. Angustia:

We are glad to know that you have successfully defended your M.S thesis proposal entitled " Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" last third term of SY2010-2011.

Since it may take time for the reagents and laboratory materials that you purchased abroad for your M.S thesis research to arrive, we are approving your request for a leave of absence from your scholarship under the DOST Accelerated S&T Human Resource Development Program in the first term of SY2011-2012. Your scholarship will resume in second term of SY2011-2012.

Please be guided accordingly.

Very truly yours,

*Raul Sabularse*  
RAUL C. SABULARSE  
Deputy Executive Director

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



0-11-0614-04

Selected on 06.14.2011 / 09:00:45 AM

Cc: Dr. Carmen Ablan-Lagman

**Human Resource and Institution  
Development Division  
(HRIDD)**

### Action Slip

10 June 2011

MS. SHEILA MARIE T. ANGUSTIA  
M.S Biology Student  
Biology Department  
De La Salle University  
Taft Avenue, Manila

Dear Ms. Angustia:

We are glad to know that you have successfully defended your M.S thesis proposal entitled "Population and Mutation Analysis of 14 Y-Chromosomal STR Loci in the Philippines" last third term of SY2010-2011.

Since it may take time for the reagents and laboratory materials that you purchased abroad for your M.S thesis research to arrive, we are approving your request for a leave of absence from your scholarship under the DOST Accelerated S&T Human Resource Development Program in the first term of SY2011-2012. Your scholarship will resume in second term of SY2011-2012.

Please be guided accordingly.

Very truly yours,

*Raul C. Sabularse*  
RAUL C. SABULARSE \_\_\_\_\_  
Deputy Executive Director

Cc: Dr. Carmen Ablan-Lagman

May 18, 2011

**ENGR. ERMIE M. BACARRA**

Member, DOST-ASTHRDP Technical Working Group  
Chief, Human Resources and Development Division  
PCIERD, DOST Compound  
Bicutan, Taguig City

< appo action. Pls reply.

*Ravel  
& June 11*

Dear Madam:

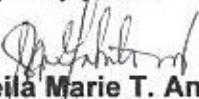
I am submitting herewith my grades this third Term, AY 2010-2011. The results showed that my thesis proposal has been approved which means that I can now proceed with my wet laboratory research as well as thesis writing.

However, I believe that I will not be able to enroll my thesis proposal defense on the first term of the upcoming school year. Some reagents and laboratory materials to be used for my research has to be transported from abroad. In view of the foregoing, I opt to file a Leave of Absence (LOA) from my scholarship grant this coming First Term, AY 2011-2012 while waiting for the said reagents and resume it on the 2<sup>nd</sup> Term AY 2011-2012 when I will already be ready to enroll my thesis defense. Rest assured that even if I will not be enrolling my thesis proposal defense this term, I will still be doing other parts of my research including sample collection.

Your favorable response on this matter will be highly appreciated.

Thank you.

Very truly yours,

  
**Sheila Marie T. Angustia**  
DOST Scholar

Philippine Council for Industry, Energy and Emerging  
Technology Research and Development



I-11-0606-26

Received on 06-06-2011 ✓ 03:56:19 PM

OED- 6/6/2011

18 May 2011

ENGR. ERMIE BACARRA

Member, DOST-ASTHRDP Technical Working Group  
Chief, Human Resources and Development Division  
PCIERD, DOST Compound  
Bicutan, Taguig City

Dear Engineer Bacarra,

Greetings of Peace!

Ms. Sheila Marie T. Angustia, a graduate student under our MS BIOLOGY program is requesting for a leave of absence on her PCASTRD DOST scholarship for the 1st term of Academic Year 2011-2012. Her thesis proposal has been approved by the committee on April 13, 2011 but she needs time for the processing and procurement of some reagents needed for her research. Attached herewith is her letter of request.

Thank You.

Sincerely,

  
MA. CARMEN ABLAN – LAGMAN, Ph.D.  
Thesis Adviser  
Biology Department

March 7, 2011

### AUTHORITY TO ENROLL

ATTENTION: Dean of Admission  
De La Salle University

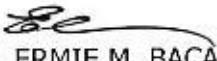
Dear Sir/Madam:

Please allow **MS. SHEILA MARIE T. ANGUSTIA** to enroll in your institution in MS Biology Program. The above-cited person has been awarded scholarship under the **DOST Accelerated S&T Human Resource Development Program (ASTHRDP)**. The actual matriculation/tuition fee and other school fees shall be charged against the funds of **DOST-ASTHRDP** c/o PCASTRD/PCIEERD.

This authorization is valid only for this third term of SY2010-2011.

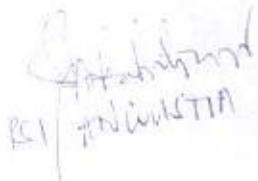
Thank you.

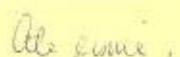
Very truly yours,

  
ENGR. ERMIE M. BACARRA  
Chief, PCIEERD Human Resource and  
Institution Development Division and  
Member, DOST-ASTHRDP Technical  
Working Group Committee

Note: Not valid if signature  
is not original

Best,

  
Sheila Marie T. Angustia

Attn: 

May I request for your  
signature. She needs to  
enroll proposal in the middle  
of the 3rd term. We already  
given her ATE at the start of  
the 3rd term po

Cute



REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
**PHILIPPINE COUNCIL FOR ADVANCED SCIENCE AND TECHNOLOGY**  
**RESEARCH AND DEVELOPMENT**



04 March 2011

**ATTY. RONALDO P. LEDESMA**

Officer-in-Charge  
Bureau of Immigration  
Magallanes Drive, Intramuros, Manila

Attention: Associate Commissioner Roy Almoro  
c/o Atty. Eliodoro Caluya

Dear Atty. Ledesma:

This has reference to the request of **MS. CHONA D. GELANI**, a recipient of a M.S. local graduate scholarship in the field of Chemistry under the PCASTRD Human Resources Development Program, who is seeking travel clearance for a personal trip to be held in Singapore from April 1-10, 2011. Kindly issue her the necessary document for this particular purpose, if there are no impediments at your end.

Ms. Gelani still has to comply with the requirements stipulated in the scholarship contract she signed with our office. Therefore, her name should not be deleted from the hold-order list we have earlier submitted to your office.

Thank you.

Very truly yours,

ERMIE M. BACARRA  
Chief, HRIDD

**IMPORTANT:**

Please bring one original copy of this travel clearance to the Bureau of Immigration before your travel date and keep another copy for presentation upon departure at airport.

**Human Resource and Institution  
Development Division  
(HRIDD)**

## Action Slip

03 March 2011

Engr. Arnie Petalcorin  
Chairman, Department of Natural Sciences  
College of Arts and Sciences  
Liceo de Cagayan University  
Cagayan de Oro City

Madam:

Greetings.

I would like to ask permission to be allowed to travel to Singapore with my three daughters on April 1-10, 2011. This out-of-the-country trip serves as our celebration for the high school graduation of my eldest daughter. I understand that, as a full-time faculty on probationary status, I am not entitled to a vacation leave. For this present semester I am required to report to school until March 31, 2011 only, and for summer, I am required to start reporting on the first day of summer classes which is April 11. Hence, this trip will not disrupt any of my classes nor affect my responsibilities as a faculty member of our department.

Attached is our itinerary. Hoping for your approval on this request.

Sincerely yours,

*Chona D. Gelani*  
CHONA D. GELANI

Approved:

*Arnie Petalcorin*  
Engr. Arnie Petalcorin  
Chair, NatSci Dept.



De La Salle University

OFFICE OF THE UNIVERSITY REGISTRAR

DLSU-Graduate  
CURRCC1

[www.dlsu.edu.ph/offices/registrar](http://www.dlsu.edu.ph/offices/registrar)

STUDENT ENROLLMENT RECORD

AY 2010-2011, Term 3

NAME ANGUSTIA, SHEILA MARIE TABULI

ID NO. 10980059  
PROGRAM MS-BIO / COS

STUDENT TYPE Old  
EAF NO. 00601495

GRADUATING  
DATE/TIME/VERSION

No 01/12/2011:15:40  
BLOCK

NO.	COURSE CODE	SECTION	UNITS	DAY(S)	TIME	ROOM	FACULTY
1.	BIO876M	THESIS WRITING 1 G24	6.0	-		LAGMAN, MA. C	

Deadline of Payment w/o Surcharge.....04 January 2011  
Deadline of Payment w/ Surcharge.....18 January 2011

LEGEND: M-MONDAY • T-TUESDAY • W-WEDNESDAY • H-THURSDAY • F-FRIDAY • S-SATURDAY

TOTAL UNITS 6.0 ( 0.0 )

ASSESSED AMOUNT

15,902.00

u/lrd/jr 1/18/2011

DE LA SALLE UNIVERSITY  
MANILA, PHILIPPINES  
TIN 000-755-743-000 NON VAT

C 027478

#2011011215462

**CREDIT MEMO**

CM-C027478

DATE: 01/12/2011

TRIMESTER: 3RD SCHOOL YEAR: 2010-2011  
ID NUMBER: 10980059 COLLEGE: COS  
NAME: ANGUSTIA, SHEILA MARIE TABULINA

<u>PARTICULARS</u>	<u>AMOUNT</u>
STUDENT OUTSIDE ENTITIES-TU	15,902.00
PCASTRD-DE	
	15,902.00
CM	15,902.00

PREPARED BY: APPROVED BY:  
AR-MAS

Organized Crime and Triad Bureau  
22/F, West Wing, Arsenal House  
Hong Kong Police Headquarter,  
No.1 Arsenal Street, Wanchai,  
Hong Kong



Forensic DNA Analyst, PNP Crime Laboratory

2010-12-15

Dear Mr/Ms Shelia Marie T. Angustia

Death Inquest into the deaths of TSE Ting-chunn  
Masa, LEUNG Song-yi Jessie, LEUNG Chung-see Doris,  
LEUNG Kam-wing, YEUNG Yee-kam, FU Cheuk-yan,  
WONG Tze-lam and YEUNG Yee-wa  
CCDI Nos.732-739 of 2010

This is to inform you that a death inquest before a jury will be held into the deaths of the abovenamed persons commencing at 9:30 a.m. on 14 February 2010 at the Coroners' Court of the Hong Kong Special Administrative Region. Twenty five days has been set aside for the inquest.

For the purpose of the inquest, the Coroner has issued witness summons to you and you are thereby requested to appear before the Coroner at the inquest to give material evidence relevant to the cause of or the circumstances connected with the deaths in question.

A copy of the witness summons is enclosed for your information. Please note that if you are willing to come to Hong Kong to give evidence, appropriate arrangements will be made for your travel to and stay in Hong Kong. When in Hong Kong you will be served with the original witness summons.

Kindly let me know as soon as practicable whether you are prepared to come to Hong Kong and to give evidence at the inquest. If you are prepared to do so, please contact me at (852) 2860-8371 or Email address [ferdinandcm@police.gov.hk](mailto:ferdinandcm@police.gov.hk) to make the necessary arrangements or if you wish to discuss the matter.

Yours sincerely,

  
(LAU Chi-ming Ferdinand)  
for Commissioner of Police

w/encl.

(死因裁判官條例)  
Coroner's Ordinance,  
(香港法例第五零四章)  
(Cap.504)

案件編號：CCDI 732 to 739 / 2010 (MC)

Case No.

告發編號：

Information No.

令狀編號：CC31 / 732 to 739 / 2010

Writ No.

【條例第 12(1)條】

[s.12(1)]

表格 3

FORM 3

證人傳票

SUMMONS TO WITNESS

致：  
Shelia Marie T. Angustia  
c/o Consulate General of the Philippines  
Fourteenth Floor, United Centre  
95 Queensway  
Admiralty  
Hong Kong

本席現根據可信的資料，覺得你能夠在研訊中作出關於  
It having been made to appear to me on credible information that you are capable of giving  
謝廷駿先生，梁頌儀女士，梁頌詩女士，梁錦榮先生，楊綺琴女士，傅卓仁先生，江子林先生，楊綺華女士  
死亡的原因或與其死亡有關的情況的關鍵性證供。  
material evidence at the inquest relevant to the cause of or the circumstances connected with the  
death of M/TSE Ting-chunn Masa, 31 years, F/LEUNG Song-yi Jessie, 14 years,  
F/LEUNG Chung-see Doris, 20 years, M/LEUNG Kam-wing, 58 years,

F/YEUNG Yee-kam, 46 years, M/FU Cheuk-yan, 39 years,  
M/WONG Tze-lam, 51 years, & F/YEUNG Yee-wa, 44 years, who died on 23.08.2010.

現傳召你在二〇一一年二月十四日星期一至三月十八日星期五上午九時十五分  
YOU ARE HEREBY SUMMONED to be and appear before me at Coroner's Court No. 15

Eastern Law Courts Building, 10/Floor, No. 29 Tai On Street, Sai Wan Ho, in Hong Kong  
on Monday, the 14<sup>th</sup> day of February 2011, to Friday, the 18<sup>th</sup> day of March 2011 at 09:15 a.m.,

到達香港西灣河太安街 29 號東區法院十樓死因裁判庭第 15 庭，到本人席前就你所知的關於  
to testify that you know relevant to the cause of or the circumstances connected with the death  
上述 謝廷駿先生，梁頌儀女士，梁頌詩女士，梁錦榮先生，楊綺琴女士，傅卓仁先生，江子林先生，楊綺華女士  
死 亡 的 原 因 或 與 该 死 亡 有 關 的 情 况 作 供 。

of the said M/TSE Ting-chunn Masa, F/LEUNG Song-yi Jessie, F/LEUNG Chung-see Doris,  
M/LEUNG Kam-wing, F/YEUNG Yee-kam, M/FU Cheuk-yan, M/WONG Tze-lam & F/YEUNG Yee-wa

二〇一〇年十二月九日  
Dated this 9<sup>th</sup> day of December 2010

(加印作實  
(L.S.)



Michael CHAN  
死因裁判官  
Coroner

January 6, 2011

**ENGR. ERMIE M. BACARRA**

Chief, Human Resource and Institution Development Division  
PCASTRD-DOST  
Bicutan, Taguig

Dear Madam:

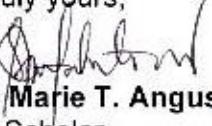
I am submitting herewith the result of my comprehensive exam taken this Second Term, AY 2010-2011. The result showed that I already passed Advanced Physiology which I unfortunately failed last term.

Upon consultation with the DLSU University Registrar I was informed that I can now enroll Thesis Writing I (Proposal Writing). In view of the foregoing, may I respectfully request for the resumption of my scholarship grant this coming Third Term, AY 2010-2011.

Your favorable response on this matter will be highly appreciated.

Thank you.

Very truly yours,

  
**Sheila Marie T. Angustia**  
DOST Scholar

**Human Resource and Institution  
Development Division  
(HRIDD)**

**Action Slip**

<b>Subject:</b>	Ms. Sheila Marie T. Angustia request for a leave of absence on her PCASTRD DOST Scholarship for the 2 <sup>nd</sup> term of Academic year 2010-2011. Contact # 09228514298		<b>Reference No.</b> 20/9/10-00123
<b>From:</b>	Ms. Sheila Marie T. Angustia	<b>To:</b>	
<b>Date of Letter:</b>		<b>Deadline:</b>	
<b>Date/Time</b> <i>In/Out</i>	<b>Remarks</b>		<b>Acted by</b>
09/20/10	Ms. Sheila Marie T. Angustia request for a leave of absence on her PCASTRD DOST Scholarship.		Val
<i>i/po</i>	<i>for comments po.</i>		<i>Cilo</i>
<i>9-21</i>	<i>pls. see note</i>		<i>mon</i>
<i>9-21</i>	<i>finalized po.</i>		
<i>9-22</i>	<i>for database pls.</i>		<i>Cilo</i>

20 September 2010

MS. SHEILA MARIE T. ANGUSTIA  
M.S Biology Student  
Biology Department  
De La Salle University  
Taft Avenue, Manila

Dear Ms. Angustia:

We would like to inform you that we are approving your request for a leave of absence from your scholarship under the DOST Accelerated S&T Human Resource Development Program this second term of SY2010-2011 to enable you to retake your comprehensive exam in Advanced Physiology.

Your scholarship will resume in the third term of SY2010-2011. Please be reminded that we will release the authority to enroll for the next term only upon submission of a copy of your comprehensive examination result with passing remarks.

**Further, we would like to reiterate that effective second semester of SY2010-2011, prior approval of PCASTRD must be sought to be able to effect any changes affecting your program/studies per our memorandum previously sent to you through email.**

Please be guided accordingly.

Very truly yours,



ERMIE M. BACARRA  
Chief, Human Resource and Institution  
Development Division and  
Member, DOST ASTHRDP Technical  
Working Group

Cc: Dr. Carmen A. Lagman  
Graduate Studies Coordinator  
DLSU Biology Department

20 September 2010

MS. SHEILA MARIE T. ANGUSTIA  
M.S Biology Student  
Biology Department  
De La Salle University  
Taft Avenue, Manila

Dear Ms. Angustia:

We would like to inform you that we are approving your request for a leave of absence from your scholarship under the DOST Accelerated S&T Human Resource Development Program this second term of SY2010-2011 to enable you to retake your comprehensive exam in Advanced Physiology.

Your scholarship will resume in the third term of SY2010-2011. Please be reminded that we will release the authority to enroll for the next term only upon submission of a copy of your comprehensive examination result with passing remarks.

*→ reminder about prior approval  
In bold letter,*  
Please be guided accordingly.

Very truly yours,

ERMIE M. BACARRA  
Chief, Human Resource and Institution  
Development Division and  
Member, DOST ASTHRDP Technical  
Working Group

Cc: Dr. Carmen A. Lagman  
Graduate Studies Coordinator  
DLSU Biology Department

14 September 2010

ENGR. ERMIE BACARRA  
Member, DOST-ASTHRDP Technical Working Group  
Chief, Human Resources and Development Division  
PCASTRD, DOST Compound  
Bicutan, Taguig City

Dear Engineer Bacarra,

Greetings of Peace!

Ms. Sheila Marie T. Angustia, a graduate student under our MS BIOLOGY program is requesting for a leave of absence on her PCASTRD DOST scholarship for the 2<sup>nd</sup> term of Academic Year 2010-2011. As a prerequisite, she needs to pass all written comprehensive exams prior to thesis writing I (Proposal Writing). Attached herewith is her letter of request.

Thank You.

Sincerely,

  
MA. CARMEN ABLAN – LAGMAN, Ph.D.  
Graduate Studies Coordinator  
Biology Department

September 14, 2010

**ENGR. ERMIE M. BACARRA**

Chief, Human Resource and Institution Development Division  
PCASTRD-DOST  
Bicutan, Taguig

Dear Madam:

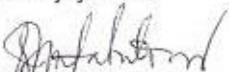
I am submitting herewith the results of my comprehensive exams taken this First Term, AY 2010-2011. The results showed that I passed all other subjects except Advanced Physiology. This subject is a two part course involving plant and animal physiology. I was informed that I passed the animal physiology, unfortunately I did not make it on plant physiology thus, I need to retake the exam on plant physiology.

Upon consultation with the DLSU University Registrar I was informed that I cannot enroll Thesis Writing I (Proposal Writing) concurrent to the re-take of the comprehensive exam. In view of the foregoing, I opt to file a Leave of Absence (LOA) from my scholarship grant this coming Second Term, AY 2010-2011 and resume it on the 3<sup>rd</sup> Term AY 2010-2011, after the re-take of my exam. Furthermore, I am fully aware that I need to shoulder the expenses for the re-take of the comprehensive exam and I am willing to take all the responsibilities it may incur.

Your favorable response on this matter will be highly appreciated.

Thank you.

Very truly yours,

  
**Sheila Marie T. Angustia**  
DOST Scholar

Human Resource and  
Institution Development Division  
(HRIDD)

## Action Slip

**From:** Ma. Luisa D. Enriquez ()  
**To:** Sheila Marie Tabulina  
**Date:** Thu, December 31, 2009 8:09:44 PM  
**Subject:** RE: genetics

Good Noon and "Happy New Year!"

Lecture grade is 3.5 (final exam score: 56/75)  
Laboratory grade is 3.5 (final exam score: 81/125)

Sorry this is late. I could not access DLSU web site for many days from my home computer.

Congratulations for a very good performance, you are the highest in class. Keep up the good work.

Dr. Enriquez

-----Original Message-----

From: Sheila Marie Tabulina [<mailto:sheirie@yahoo.com>]  
Sent: Wed 12/23/2009 6:17 PM  
To: Ma. Luisa D. Enriquez  
Subject: genetics

dear madam;

will it be okay to know my grade if it is already available? madam ellen de castro asked me to e-mail you if I would like to know my grade on your subject. I wish i passed.

thanks.. merry christmas

sheila

#### **DISCLAIMER AND CONFIDENTIALITY NOTICE**

The information contained in this e-mail, including those in its attachments, is confidential and intended only for the person(s) or entity(ies) to which it is addressed. If you are not an intended recipient, you must not read, copy, store, disclose, distribute this message, or act in reliance upon the information contained in it. If you received this e-mail in error, please contact the sender and delete the material from any computer or system.

Any views expressed in this message are those of the individual sender and may not necessarily reflect the views of De La Salle University.