THE EVOLUTION OF THE MEDICAL TECHNOLOGY PROFESSION

**Definition of Medical Technology**

- \_\_\_\_\_\_\_\_\_ defined it as “the application of principles of natural, physical and biological sciences to the performance of laboratory procedures which aid in the diagnosis and treatment of diseases”

- \_\_\_\_\_\_\_\_\_ defined it as “the branch of medicine concerned with the performance of laboratory determinations and analyses used in the diagnosis and treatment of diseases and maintenance of health”

- The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ defines it as “an auxiliary branch of laboratory medicine which deals with the examination by various chemical, microscopic, bacteriologic, and other medical procedures, techniques which will aid the physician in the diagnosis, study and treatment of disease and in the promotion of health in general”

**History of Medical Technology**

**-** \_\_\_\_\_\_\_\_\_\_, a medical technologist, traces the beginning of medical technology back to 1500 BC when intestinal parasites such as *Taenia* and *Ascaris* were mentioned in early writings.

- \_\_\_\_\_\_\_\_\_\_\_, a book for the treatment of diseases contains descriptions of the threes stages of hookworm infection.

- \_\_\_\_\_\_\_\_\_\_\_\_\_, a medical technologist, believes that medical technology began in the Medieval Period (1096-1438) as supported by the fact that urinalysis was a fad.

- Early Hindu doctors made the “scientific observation” that the urine of certain individuals attracted ants, and that such urine has a \_\_\_\_\_\_ taste.

-\_\_\_\_\_\_\_ calling themselves doctors reaped fortunes from diagnosing diseases by the appearance of the urine.

- \_\_\_\_\_\_\_\_\_ prefers to date medical technology from the 14th century when a prominent Italian physician at the \_\_\_\_\_\_\_\_\_\_\_\_ employed \_\_\_\_\_\_\_\_\_\_\_\_ to perform tasks now under the domain of medical technology.

- \_\_\_\_\_\_\_\_\_\_\_\_\_ invented and improved the compound microscope. He was the first to describe red blood cells, to see protozoa, and to classify bacteria according to shape.

-\_\_\_\_\_\_\_\_\_ was described as the “greatest” of the early microscopist. His work in embryology and anatomy definitely marked him as the “\_\_\_\_\_\_\_\_\_\_”.

- However, many believed that pathology was practiced only from the time of \_\_\_\_\_\_\_\_. He was one of the youngest of the medical specialists. He founded the \_\_\_\_\_\_\_\_\_\_\_ in Berlin in 1847.

- In 1848, \_\_\_\_\_\_\_\_ performed the first quantitative test for urine sugar.

- \_\_\_\_\_\_\_\_, for staining microorganisms were produced about the middle of the 15th century. Hence, bacterial staining and microscopic study on bacteria were made possible.

**Establishment of Laboratories**

- The first chemical laboratory related to medicine was established at the \_\_\_\_\_\_\_\_\_\_\_by \_\_\_\_\_\_\_\_. \_\_\_\_\_\_\_\_\_\_\_ pioneered laboratory instruction in this well-equipped laboratory.

- In 1878, \_\_\_\_\_\_\_\_\_\_ established another laboratory at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. He gave the first laboratory course in pathology offered in an American school. Then in 1885, \_\_\_\_\_\_\_ became the first professor of pathology at John Hopkins University.

- The first clinical laboratory opened in 1896 at the \_\_\_\_\_\_\_\_\_\_\_\_ by \_\_\_\_\_\_\_\_\_\_\_. In this laboratory, routine examinations were carried out, special attention being given to the search for malarial parasites in the blood. A clinical laboratory was also opened at the University of Pennsylvania in 1896 (\_\_\_\_\_\_\_\_\_\_\_\_\_).

- In 1908, \_\_\_\_\_\_\_\_\_\_\_ wrote the book “\_\_\_\_\_\_\_\_\_\_\_\_\_”. It was retitled “\_\_\_\_\_\_\_\_\_\_\_\_” in its 6th edition by \_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_. This book became the standard reference for laboratories.

- In 1919 census, 100 technicians, all male were employed in the United States. This increased to 3500 in 1920. In 1922, 3035 hospitals had clinical laboratories.

- About 1915, the state legislature of Pennsylvania enacted a law requiring all hospitals and institutions to have an adequate laboratory and to employ a full time laboratory technician.

- \_\_\_\_\_\_\_\_\_ was an important factor in the growth of clinical laboratories and produced a great demand for technicians. The demand for technicians in clinical laboratories continued, so practicing physicians with knowledge in laboratory works began to teach their assistants to do some of the tests for them.

-One of the first schools for training laboratory workers was established at the University of Minnesota. A course bulletin was titled “Courses in Medical Technology for Clinical and Laboratory Technicians” was issued in 1922. Certainly, the University of Minnesota was the first to offer a degree level program in 1923.

- In 1931, the Denver Society of Clinical Pathologists was organized. More societies were developed. In 1936, the Americal Board of Pathology was established.

- WW II had marked effects in laboratory medicine. The use of blood increased and the “\_\_\_\_\_\_\_” of blood collection was widely used. Instrumentation advanced and these instruments paved the measurement of the intensity of color produced. Automated equipment appeared and quality control programs became common. Laboratory medicine certainly moved into and era of sophistication.

- At the end, there is a certain logical progression of the growth of the clinical laboratory. The first portion to develop was pathology which was followed in order by clinical microscopy (urinalysis) with a later addition of some studies of blood cells, physiological chemistry and bacteriology.

**History of Medical Technology in the Philippines**

- At the end of WW II, medical technology practice was introduced in the Philippines by the \_\_\_\_\_\_\_\_\_\_\_\_\_\_. The US Army established the first clinical laboratory in the Philippines at\_\_\_\_\_\_\_\_\_\_\_\_\_\_ where the Manila Public Health Laboratory is presently located. The laboratory offered training programs to high school graduates as early as February, 1944.

- The US Army left the clinical laboratory in June, 1943 and endorsed it to the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. The department rendered the laboratory non-functional for sometime.

- Realizing the need for a clinical laboratory in the Philippines, \_\_\_\_\_\_\_\_\_\_, one of the staffs of the clinical laboratory, formally organized the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the remnants of the deserted laboratory. In October 1, 1945, Dr. de Roda was assisted by \_\_\_\_\_\_\_\_\_\_\_ who was then the Manila City Health Officer.

- In 1947, the training of high school graduates to work as medical technicians was revived under Dr. Pio de Roda and \_\_\_\_\_\_\_\_\_\_\_\_\_. No definite period of training was set and no certificates were given to trainees.

- In 1954, a six-month laboratory training with certificate upon completion was given to the trainees. \_\_\_\_\_\_\_\_\_\_ prepared the syllabus for the training program.

**Medical Technology Education in the Philippines**

- The training program offered by Dr. Pio de Roda did not last long. The first B.S. degree course in Medical Technology was offered by the \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_. After two years (1956), PUC produced its first graduate, \_\_\_\_\_\_\_\_\_\_\_, now a successful ) OB-Gynecologist.

- In the school year 1957-1958, \_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_ of the Faculty of Pharmacy, \_\_\_\_\_\_\_\_\_\_\_\_\_\_ offered Medical Technology as an elective subject to the 4th and 5th year B.S. Pharmacy students.

- The popularity of medical technology among pharmacy students encouraged \_\_\_\_\_\_\_\_\_\_\_\_ to offer it as a course.

- It was in June 17, 1957, when a temporary permit was issued by the Department of Education, for first to third year students.

- In June, 1960, the permit for the internship program was issued. The full recognition of the 4-year B.S. Medical Technology course was given on \_\_\_\_\_\_\_\_\_\_.

- Many schools followed to offer B.S. Medical Technology course. According to the Commission on Higher Education, there are approximately 47 colleges and universities offering the course. The University of the Philippines offers a similar course but the degree being conferred is \_\_\_\_\_\_\_\_\_\_\_\_.

- Postgraduate studies are offered to B.S. Medical Technology graduates. The \_\_\_\_\_\_\_\_\_\_, the \_\_\_\_\_\_\_\_\_\_\_\_\_ and the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are offering MS in Medical Technology. In addition, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is offering a one-year, non-thesis degree in Master in Public Health.

**The Philippine Association of Schools of Medical Technology and Public Health (PASMETH), Inc.**

- PASMETH is the national organization of all registered schools of Medical Technology in the Philippines. It was formed in 1970 by representatives of schools of Medical Technology/Public Health in the Philippines on their desire:

1. To encourage a thorough study of the needs and problem of Medical Technology education and to offer solution for them;

2. To work for the enhancement and continuous development of Medical Technology education in order that the profession will be of maximum service to the country;

3. To take a united stand in matters which affects the interests of Medical technology education and;

4. To seek advise, aid and assistance from any government or private entity for the fulfillment of the Association’s aims and purposes.

On May 13, 1970, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ appointed \_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_ to organize an association of Deans/Heads of School of Medical Technology and Hygiene. The first organizational meeting was held at the University of Santo Tomas on June 22, 1970. The first president was \_\_\_\_\_\_\_\_\_\_\_.

The first annual meeting was held at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ on May 7, 1971. The first set of officers were re-elected for second term on April 30, 1972. Others served as PASMETH presidents were:

Dr. Ibarra Panopio (1973-1974)

Dr. Angelita G. Aoeva (1974-1977)

Dr. Elizabeth M. Del Rio (1977-1980)

Dr. Gustavo U. Reyes (1980-1981)

Dr. Claro D. Cabrera (1981-1982)

Dr. Elizabeth M. Del Rio (1982-1983)

Dr. Norma B. Lerma (1983-1984)

Dr. Vivencio T. Torres (1984-1985)

Mr. Nardito Moraleta (1985-1988)

Dean Norman N. Chang (1988-1997)

Prof. Rodolfo Rabor (1997-2000)

Dean Nini Festin-Lim (2000-present)

It was finally registered with the Securities and Exchange Commission on October 6, 1985 thru the Committee on Legislation chaired by \_\_\_\_\_\_\_\_\_\_ with the help of a legal counsel, Atty. Dexter Bihis.

**The Philippine Association of Medical Technologists (PAMET)**

- is the national organization of all registered medical technologists in the Philippines

- it was organized by \_\_\_\_\_\_\_\_\_\_\_\_\_\_(recognized as the father of PAMET) in an attempt to standardize and to give dignity to the profession on September 15, 1963 at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in Sta. Cruz, Manila. The first national convention of PAMET was held at the \_\_\_\_\_\_\_\_\_\_\_\_\_ on September 20, 1964.

**The Presidents of PAMET:**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (1963-1967).** He was the first president of PAMET. He served the association for three (3) consecutive terms. His important accomplishments are:

a. Recognition of PAMET

b. Approval of House Bill No. 7082 on May 10, 1967.

2. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(1967-1970).** The second president of PAMET. He served as president for three (3) consecutive years. His important achievements are:

a. Approval of R.A. 5527 otherwise known as the Philippine Medical Technology Act of 1969.

b. Registration of PAMET with the Securities and Exchange Commission (SEC) on October 14, 1969. (Registration No. 39570).

c. Organization of PAMET chapters outside Manila like the Cebu City Chapter in 1969 and Baguio City Chapter in 1970.

d. Registration of PAMET with the International Association of Medical Laboratory Technologists (IAMET) on May 28, 1970.

e. Amendments of the PAMET Constitution and By-Laws in 1969 Annual Convention.

f. Organization of the Council of Medical Technology Education with R.A. 5527.

3. **\_\_\_\_\_\_\_\_\_\_\_(1970-1971, 1973-1977)** – Had served the association for five (5) years as president. Among his accomplishments are:

a. Approval of P.D. 498, an amendment to R.A. 5527 on June 28, 1974.

b. Accreditation of PAMET as a bonafide professional organization for medical technologists with the Professional Regulation Commission (PRC) on May 24, 1975.

c. Organization of more PAMET chapters in La Union, Pangasinan, Zambales and Zamboanga Chapters.

4. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_(1971-1973).** He is the fourth president of PAMET. As president, he worked for the:

a. Amendment to the \_\_\_\_\_\_\_\_\_\_(about salaries of medical professionals)

b. Proclamation of the \_\_\_\_\_\_\_ week of September as the Philippine Medical Technology Week.

c. Organization of more PAMET chapters like the Davao City chapter.

5. **\_\_\_\_\_\_\_\_\_\_\_\_(Jan. – Sept., 1973).** The first lady president. She has the shortest term of office but was able to work for the approval of P75.00 professional tax of Registered Medical Technologists (RMT) by the Bureau of Internal Revenue (BIR). She also worked for the upgrading of the Medical Technology profession by raising a professional code number from 20 to 3.

6. **\_\_\_\_\_\_\_\_\_\_\_\_\_(1977-Feb. 1982).** The second lady president. She did not finish her last term of office because of her plans to leave for the U.S. As president, she initiated the following:

a. Monthly seminars for the Continuing Professional Education of Medical Technologists.

b. Monthly Medical Missions which offer free laboratory services to the poor and less fortunate Filipinos.

c. Monthly quiz contest participated by the different Medical Technology Schools of the country.

d. Classification of PAMET members into different categories.

7. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(1982-1992).** The seventh president and served the PAMET from the unfinished term of Ms. V. Oca to 1992.

8. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(1992-1997).** The eight president. Several old PAMET activities were continued by Mrs. Acedera Atienza as:

a. More intensified civic involvement of PAMET thru medical missions.

b. More active participation and involvement of the whole PAMET membership in all its activities.

c. Improvement of the financial status of the association.

d. Closer coordination between PAMET and PASMETH for the upliftment of the profession.

New Projects of PAMET were introduced by Mrs. Acedera and Mrs. Atienza like:

a. Publication of the official newspaper of the association “Lab News” and the official journal of the association, “The Philippine Journal of Medical Technology”.

b. Placement program for the Medical Technology graduates in clinical laboratories, in medical companies, in school and drug companies.

c. New salary scheme for Medical Technologists

d. Inclusion of all Medical Technologists to “hazard pay”

e. Sending qualified Medical Technologists to the training program offered by Japan International Medical Technology Foundation.

9. **Mrs. Norma N. Chang** **(1997-\_\_\_\_)**