



Lorenzo Rodriguez, O.P. : Trailblazing Pharmacy Education, Research, Practice and Services in the Philippines

Carol Geraldine C. Pablo

Faculty of Pharmacy, University of Santo Tomas, Manila, Philippines

A dean for twenty two years, Fr. Lorenzo Rodriguez, O.P., achieved stellar works at the Faculty of Pharmacy. His crowning achievements were his contributions to pharmaceutical education with the establishment of two new courses, the re-setting up of the Pharmacy Botany Garden, the creation of the Research Council and Center and the organization of the journal *Acta Manilana*. He also dedicated luminaries to the Hall of Fame and published several articles and books in pharmaceutical education, botany and pharmaceutical history. He was an avid historian and an ardent admirer of plants and gardens and had a deep passion for the pharmacy profession. He was an active member of many organizations in both scientific and religious fields. His outstanding achievements led to the quality improvement of the pharmaceutical education, practice, and services.

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Introduction

The University of Santo Tomas Faculty of Pharmacy is the oldest pharmaceutical school in the Philippines. It is the fifth oldest faculty founded in the University with the Faculty of Medicine and Surgery in 1871 and the second civil faculty founded after the Faculty of Civil Law which was founded in 1734. The history is steeped in benchmark activities, great luminaries, establishments and activities that were held in highest esteem. As the Faculty celebrates its 145th year foundation this 2016, various activities are tracing roots to its majestic history as we look forward to its reinvention and transformation through continuing varied activities. It is worth noting the fact that most of these great contributions to the Faculty were initiated and envisioned by the post-war illustrious Dean Fr. Lorenzo Rodriguez, O.P., the “big man” in Pharmacy, the administrator par excellence, the noted historian and the prolific researcher.

Fr. Lorenzo Rodriguez, O.P. was born in Donhierro de la Vega, Segovia, Spain on November 14, 1903. He entered into the Dominican Order and made his novitiate at the Convento de Santo Domingo in Ocaña, Spain (1921-1922) and made his simple profession in the Order of Preachers in 1922. He took up courses in Humanities in Colegio de la Mejorada in Olmedo, Valladolid and Philosophy and Theology in the Convent of Santo Domingo de Ocaña (1926-1927). He continued his theological studies at the Priory of Rosaryville, Louisiana in the United States (1927-1930) where he was ordained as a priest of the Dominican Order in 1930. He studied Pharmacy in San Francisco, California in 1930 until 1931. He continued his studies in University of Santo Tomas, Manila where he obtained his Bachelor of Science in Pharmacy in 1931 and later his Licenciante certificate in Pharmacy in 1934.

He was assigned as lecturer of Physics and Natural Sciences in San Juan de Letran and became Rector of Letran, Intramuros until 1946. Fr. Lorenzo Rodriguez, O.P., became the dean of the Faculty of Pharmacy of the University of Santo Tomas, Manila right after World War II (1946-1968). As the country was picking up the pieces of post-war life, one could easily surmise the bulk of organizational work he had to tackle in the Faculty of Pharmacy. And this he was able to accomplish fully well as proven by his achievements. As an administrator, Fr. Lorenzo Rodriguez, O.P., rallied around and surged to create a faculty that initiated so many changes in the UST Faculty of Pharmacy. This included the improvement of the pharmaceutical curriculum, establishment of two courses, the re-establishment of the botany garden. He shared his love of plants through

articles and preparation of manuals and motivated the interest in research through several publications, presentations and establishment of a research institution in the university.

The Pharmacy Curriculum: Its Historical Development

His first order of business as the post-war dean of the University Faculty of Pharmacy was the improvement of the pharmacy curriculum. In his oral presentation in the Annual Pharmaceutical Convention in Bacolod City, he shared his position on the proposed curriculum change from a four-year to a five-year course, as long as the amendments were better. He recommended that graduates be given the chance to choose their majors that were correlated courses with emphasis on the different pharmaceutical services (Rodriguez, 1949). In 1952, in another annual convention of pharmacists, he reiterated that he was not in agreement to adding another year to the existing four-year curriculum unless the following opportunities would bring the students the following changes in the curriculum: harmonization of basic professional and essential subjects; the diversification of courses and majors or specializations, all along the line of education and practice; and that the plan if carried out would not be retroactive, or would not affect ongoing curriculum. He also enumerated ten specialization courses that would contribute a great deal to the advancement of Pharmacy, but would depend on the universities concerned (Rodriguez, 1952).

A new five-year curriculum was adopted in June 1954 to conform to the pharmaceutical progress of that time and the trend of the profession. The curriculum was approved by the deans of all schools of pharmacy in the Philippines and the Bureau of Private Schools. New subjects included were foreign languages, library research, seminars to name a few. After the fourth year, students selected electives of related courses for their intended field of specialization. Specializations included Hospital Pharmacy, Cosmetology, Manufacturing Pharmacy and Medical Technology. In 1964, syllabus in all pharmacy subjects was introduced, and served as a helpful guide to the students and to the improvement of the Pharmacy curriculum (Rodriguez, 1971).

In 1958 and 1971, changes in the curriculum were approved with the addition of several subjects and changes in units, nomenclature, and positions of some subjects. The curriculum was again reduced to four in 1984 with the integration of some subjects, in accordance to P.D. 1926 (Fuentes, 2011). In 1992, the Department was awarded Most Outstanding School of Pharmacy by the Professional Regulatory Commission (PRC) through the Board of Pharmacy. The Faculty was cited of its exemplary records of consistently topping in the school performance belonging to

Category B (college population over 100) obtaining above average and high rating of percent in Pharmaceutical Education (Bustamante 1992). Until now, the Pharmacy department has been producing topnotchers and board examination passers with high average rating. In 2005, a more patient-centered curriculum was developed following a directive from the Philippine Association of Colleges of Pharmacy. The new subjects were labelled as Phar Care, with different nomenclature that dealt on general principles of health care, inter-personal relationships and communication with patients and professional techniques of pharmaceutical medications (Villaflor, 2005). The new curriculum was a great advantage to all students because the patients now demand convenience and focus on their needs. Pharmaceutical care which is patient-centered, outcomes-oriented pharmacy practice requires that pharmacists work with the patient and the patient's other healthcare providers to promote health, prevent diseases, and assess, monitor, initiate and modify medication use to assure that drug therapy regimens are safe and effective. On May 22, 2015, the Philippine Association of Colleges and University (PACUCOA) granted the Pharmacy program the Level IV accredited status for satisfactorily meeting all the criteria of excellent outcomes in teaching and learning, research productivity as tool of institutional effectiveness, community service, linkages and consortia, career planning and development of students, and planning process (Taray, 2015).

In 2006, apart from the Bachelor of Pharmacy program, a new five-year course was introduced with the degree of BS in Pharmacy Major in Clinical Pharmacy (Fuentes, 2011). The Bachelor of Science in Pharmacy Major in Clinical Pharmacy program is an expanded and innovative BS Pharmacy curriculum that allows Pharmacy students to undergo pedagogy courses and to acquire skills and training in the development of a Thomasian Clinical Pharmacist within the philosophy of pharmaceutical care with distinct responsibilities in patient-focused pharmacy practice. Clinical Pharmacy clerkship is an integral component of the outcomes-based teaching learning program.

There are some proposed suggestions for the harmonization of pharmacy education in Asia (Pang and Wu, 2008). This is to prepare beginning pharmacists to the rapid changes and challenges posed by the economic globalization that would benefit though international and regional communication and harmonization.

Two New Courses Established

The Medical Technology Program

One of the most popular electives track in 1957 was those in Medical Technology. With the permission of the Rector, P. Jesus Castanon, O.P., Fr. Rodriguez,

O.P., went to the US to study and see the possibilities and the difficulties of this course. The authorities at Muncie, Indiana, encouraged Fr. Rodriguez, O.P., to go ahead and establish the course in the Philippines. The committee that helped Fr. Rodriguez, O.P., bring this new course to fruition was composed of Dr. Gabriel, Dr. Gustavo Reyes, and Mrs. Lilian C. Hernandez. In 1958, it was offered as a completely new course. The Bureau of Private Education, after suggesting some changes in the curriculum, approved the first three years of the course in June 1959. The Internship for the fourth year, was given in June 1960 and the final permanent recognition was given on June 14, 1961. This was the first Medical Technology course in the Philippines (Rodriguez, 1971). In 1971, a new curriculum of Medical Technology was approved by the Council of Medical Technology-Education. In April 1993, Level II accreditation was granted by PACUCOA and in January 2000, level II second re-accredited status were granted. The same level was granted on September 2004 by the Federation of Accrediting Agencies of the Philippines (FAAP). Level II fourth accreditation was granted by PACUCOA on September 2009.

The graduates of this program enjoyed consistent topnotch performances in the Medical Technology Board Examinations. The partner hospitals of the department had swelled to eighteen tertiary hospitals for its internship program. The Department has been granted level III re-accreditation status by the PACUCOA.

The Biochemistry Program

In 1960, Fr. Rodriguez, O.P., formed another committee to come up with Biochemistry as a new course offering of the Faculty. Together with Dr. Antonio Gabriel, Dr. Jose Lugay, Jr. and Mr. Jose Gallardo, they submitted a formal petition to the Bureau of Private Schools on January 15, 1962. The supervisor, Mr. Fabian Cruz, came to the college and suggested several minor changes in the curriculum that were presented. The permit for the course was given year per year level from 1962 until 1966. This five year course was another first Biochemistry course in the Philippines. (Rodriguez, 1971). The department has been enjoying a steady enrolment and has been granted level I accreditation by the PACUCOA this 2014.

The three programs have been consistently and actively participating in several community programs of the university like Praject Hasik (1980), Sitio Layak (2000) and have initiated several continuous programs and activities in the following partner communities: Villa Imelda Tawid (2004-2008), Barangay Pugad, Hagonoy Bulacan (2006-2012), Barangay Ramirez, Urdaneta and Calaungan, Magallanes Cavite (2010-2014), Barangay Bagong Silangan, Quezon City and San Lorenzo Ruiz Parish, Navotas (2012- present). The faculty and student have been presenting their research outputs in several annual local and international congresses or conventions

given by Philippine Colleges of Pharmacy, Philippine Pharmaceutical Association, Inc., Federation of Asean Pharmacy Association, Asean Congress of Clinical Pharmacy, Philippine Society of Biochemistry and Molecular Biology, by Philippine Association of Schools of Medical Technology (PASMETH), Philippine Association of Medical Technologist (PAMET), to mention a few.

In 1986, the Faculty of Pharmacy opened its doors to a degree in Botany. The departments held seminars and exhibits of terrariums and dish gardens. Landscaping activities were held in the botanical garden. Tree planting activities were done in Montalban watershed. Specimens for student used and for exhibit at the Botany room were done in Batanes for algae collection and Montalban Rizal for angiosperm collections. Different endemic plants found in Mt. Makiling Laguna were also collected by the faculty and botany students. Botany students lent their helping hand in planting chosen representative plants transforming the Botanical garden into a park or garden. Four years later, the college saw the graduation of 86 students with the BS Botany degree. The course was discontinued in 2005, in view of diminishing enrolment.

The Researcher Par Excellence

Fr. Rodriguez, O.P., was an ardent historian. His fascination with plants and admiration for gardens were topics in his early papers (Rodriguez 1957c, 1961, 1962). His papers were translated into action when he pursued the re-establishment of the botanical garden. The immensity of his botanical contribution can be seen on the historical trail of papers and manuals he published, supervision of the herbarium, creation of the botanical institute, and the reopening of the UST Botanical Garden.

On Plants and Gardens

His article “On The Progress Of Phil Botanical Research” reported the relevance of research in Botany and traced the roots of botanical research such as remedies were administered by *herbolarios* in the scientific approach of Spanish missionaries, Jesuits and Dominican priests who prepared botanical manuscripts; the first public botanical garden established; and the first Filipino Pharmacist graduate whom he had dubbed the “greatest Filipino botanist”, Don Leon Ma. Guerrero and his stellar achievements. He also mentioned the books prepared by American botanists and the contributions of the government and local publications. The highlights of his paper were the numerous actual researches in those times by the National Development Science Board, the National Research Council of the Philippines, the National Museum and the Philippine Pharmaceutical Association.

Mentioned also was the contributions to research in Botany by the University of Santo Tomas Graduate School, the UST Pharmaceutical Research Council, the UST Herbarium and the UST Botanical Garden. He also named seven notable Thomasian botanists who did splendid botanical research at that time (Rodriguez, 1961).

His love of plants led him to research on the history of a Manila garden which he attributed to one of the greatest contributors to the research and progress of botanical knowledge, Don Sebastian Vidal y Soler (Rodriguez, 1962).

The Botanical Garden

The supervision and maintenance were given to the Faculty of Pharmacy with Fr. Rodriguez as the overall director of the Garden. He envisioned it as a scientific botany garden not only for pharmacy students of the university, but for all interested students and the public. He wanted the university to be known as a “university within a beautiful scientific and functional botanical garden.”

In June 28, 1948, the second Botanical Garden, after the first Botanical Garden was destroyed during the war, was started after the permission was granted by Acting Rector, Fr. Jesus Castanon and dedicated by the V.R.P Rector, Angel de Blas. The inauguration was held on December 7, 1948 with Director of the National Museum, Dr. Eduardo Quisimbing as guest speaker. The provincial at the time, V.R.P. Alberto Santamaria, O.P., planted the first tree, and was followed by the deans of all the colleges of the university who sponsored and planted commemorative trees. The garden was dedicated to the memory of the great botanists and pharmacist alumni of the university. A plaque was unveiled, bearing the names of the famous alumni: Don Leon Ma. Guerrero- first Filipino pharmacist and foremost botanist, Don Anacleto del Rosario, Don Manuel Zamora, Don Mariano Vivencio del Rosario and Fr. Fernando de Sta. Maria, O.P. The garden has an area of about one hectare. An estimated 800 species were recorded in a plant directory prepared by the Botanical Institute (Rodriguez, 1971).

This part of the UST Campus was said to be one of the loveliest areas and among the favorite sites of students, with its elegant and shady trees, lush shrubs, various species of plants with their names, both scientific and popular names tagged to them, its grotto, small amphitheater, quaint sun dial and other attractions (Pe, 1973).

Students of Fr. Lorenzo Rodriguez, O.P., enjoyed the garden as their “hands-on botany laboratory” where Fr. Rodriguez, O.P., sometimes conducted botany lectures. He required students to bring back to the university, after their summer

and semestral vacations, seedlings, twigs, seeds, plant cuttings, and herbarium specimen. These plant parts were added to specimens now housed in the Thomas Aquinas Research Complex (TARC). Some exotic plants e.g. pitcher plants, grapes, cherries, apples, different species of orchids, and even Ephedra species, cannabis, datura plants and coca plant, to name a few. were planted and propagated during Fr. Lorenzo Rodriguez's term. Fr. Rodriguez, O.P., was also involved in the propagation of "pepita maravillosa del Tonkin – *Ipomea muricata* (Convolvulaceae) which was a "plant of interest" for him and two other faculty members in their research (Solevilla, 2013).

In the mid 70s, there had been a renewed interest on the medicinal uses of Philippine plants. Researchers from the UST Research Center saw the need for a Philippine Pharmacopeia Monograph that included a good number of Philippine plants and which was later published by the National Council of the Philippines. A literature survey of the medicinal plants in the Pharmacy Garden was prepared (Santos et al., 1975).

In 2001, the garden was revitalized through the joint initiative of Rev. Fr. Roberto Pinto, O.P., Dr. Lilian Sison, Dean of the Graduate School, with the support of the faculty of Research Center for National Science, College of Science and Pharmacy Department of Botany. A butterfly sanctuary was built and the botanical garden was then again designed to showcase the lowland flora of the Philippines for the purpose of education, species conservation, and scientific research and for aesthetic and personal inspiration. The botanical garden was an active member of the Botanic Gardens Conservation International (Del Rosario, 2013).

This botanical achievement has not gone unnoticed in the current administration. Rev. Father Herminio Dagohoy has granted the Faculty of Pharmacy the supervision of the garden and was made official last October 12, 2015. A Pharmacy garden committee was tasked to design an operational and strategic plan to re-establish and reinvent the former grandeur of the garden. The medicinal garden will be rearranged according to the Department of Health's list of medicinal plants and this will be made ready in part for the Pharmacy week celebration this December 2015.

The UST Herbarium

The UST herbarium has been collecting and preserving botanical specimens of lasting interest and value. It was one of the few that survived the ravages of the war. The Herbarium is like a perpetual garden to study, to admire and to compare and to use it for Botanical studies. The supervision of UST Herbarium was given

to Father Rodriguez O.P. after the war. During the war, it was located in the UST Museum and three Americans worked on it during the Internment time and reclassified and arranged properly (Rodriguez 1971). About 2,800 specimens which were gathered by students of the Faculty of Pharmacy taking up Systematic Botany and Pharmacognosy in an effort to compile an inventory of medicinal plants were transferred and deposited at the Botany section of the Research Center in 1988. The plant materials collected swelled to about 12,000 specimens (Tresvalles, 1995). This comprehensive data bank of plants, preserved and stored for reference, were catalogued by encryption of plant entries in a computer program developed by computer science students. This database will be helpful to Thomasian researchers and would eliminate the tedious task of going through over the fragile specimens (Tejada, 2000).

Botanical Institute of the University of Santo Tomas

Founded on December 9, 1961, the Botanical Institute was created to interest the faculty members and students alike in the study of the Philippine medicinal plants. This complemented the Research council's works under its direction. The students had always worked under the directives of the faculty members. Some of the specific studies made by the students of the institute were the reclassification of the garden plants and a new plant directory (Rodriguez 1971).

Fr. Rodriguez was the head of the Department of Botany when he prepared a botany book and a laboratory manual that detailed the history of botany, the plant part body, the unit structure and function as well as different discussions on the different part of a plant (Rodriguez et al., 1971a). The manual was a laboratory guide in General Botany (Botany 1 and 2). This two-part laboratory guide was featured on the first part with the preparatory exercises on the use of the compound microscope and plant morphology. The second part was exercises on the 72 plant kingdoms (Rodriguez 1972b).

His published article, "That Plant is Your Cure" (1957) discussed how plants are consumed not only as food but also as remedies against illnesses. He traced the trail of studies and books written on the medicinal wonders of plants. He mentioned the Philippine Pharmacopoeia and the monographs on plants and suggestions on how to improve it. He encouraged more research to be done on Philippine plants and the great potentials found in them. He envisioned that a research center be devoted on this work so that results would be a on herbal plants with potential commercial use and be a ground for possible drug development and formulation.

The Reasearch Council and The Research Center

On March 7, 1948, Fr. Rodriguez founded the Pharmacy Research Council. His mission was to instill a strong spirit of research among the faculty members. He envisioned that the best teachers are those who teach and do research at the same time. A new laboratory was made available in the fourth floor and inaugurated on July 22, 1952. The first president of the Council was Dr. Joaquin Maranon (Rodriguez 1971). He believed that without research, the university would die a slow death, a state of stagnation would paralyze the progress and scientific anemia would creep in (Rodriguez 1965). Funding to conduct the researches came from the Benavides Foundation which was created for research grants at that time (*Varsitarian* 1967). This group eventually became the pioneer researchers of the Research Center.

Almost a century after the formal establishment of the first university museum and formal scientific laboratories, the idea to formally establish a research center in the university came from Fr. Rodriguez, O.P., When the celebration of the 350th foundation day was approaching, Fr. Rodriguez, O.P., told P. Rector, P. Labrador at the time, that it would be something very becoming to establish a center of Research in connection with those celebrations. Two plans were made: the plans called for the way research is to be done, that is, with extra load, or special hours to work, irrespective of the regular load of the researchers. It was presented to the Economic Council and Fr. Castanon was in favor but the rector died. Fr. Labrador took over on January 1961 and he was interested in the plan and told Fr. Rodriguez, O.P., to study it and present details. The final approval of the Research Center of the university was given on April 10, 1962, and Fr. Rodriguez, O.P., was appointed as the director on September 6, 1961. It was billed as “one of the highlights of the 350th Anniversary celebrations (Rodriguez 1965b).

The centers’ initial office was at Room 101 on the ground floor of the Main Building (Rodriguez 1971). It was considered too small to include laboratory facilities for experimental researches. As such, researchers did experiments in the teaching laboratories of their respective colleges. The demand for exclusive laboratories became more pressing as the years went by. In 1968, during Fr. Jacinto de Juan O.P., the second director, laboratories were constructed at the 4th floor of the Clinical Division of the UST Hospital exclusively for the Research Center. This floor in the hospital was the UST’s Research Center haven for the next 33 years (Papa, ed., 2013). The Research center was divided into two groups, one that included Cultural and Allied Sciences and the other, all technical studies. The former included researches on Ecclesiastical, Juridico-sociological, Humanities and Psychological sciences. The latter included Mathematico-physical, Chemical, Biological, Medical,

Pharmaceutical and Engineering and Architectural sciences (Rodriguez 1965b). In 1985, the Pharmacy Research Team was organized by dynamic researchers at the Faculty of Pharmacy. This was to foster a dynamic research consciousness among the faculty members. Studies on some medicinal uses of *Makahiya*, *Gumamela*, *Mayana* and *Rosal* were conducted by Dean Norma V. Lerma as project proponent. Funding was then provided by the Fr. Lorenzo Rodriguez OP Research Chair and Mercury Drug Professorial Chair (Fuentes, ed., 2011).

In 2001, Dr. Maribel Nonato overseered the eventual transfer of the Research Center of Naural Sciences (RCNS) to the brand new four-story building, the Thomas Aquinas Research Center (TARC). The building housed the RCNS laboratories, offices and facilities as well as other research centers, seminar workshop rooms, and guest rooms for visiting researches. Through the years, the research center established a reputation for quality researches. The researchers were able to get national and international grants, secure patents and receive several distinguished awards locally and overseas. They organized several symposia on natural products and forged several linkages with various research institutions and universities. They were able to present their papers as well as published most in reputable journals. The center celebrated its 50 years and a coffee table book was published bearing the innumerable milestones of the center and the distinguished researchers and their distinguished research outputs.

Some of the most notable members of the research council were Dr. Jose Lugay, Jr. who, together with Dr. Lorma V. Lerma started the tradition of quality research on Philippine plants. They authored a study that dealt with the antibacterial activity of *Calonyction muricatum*, later known as *Ipomea muricata* Jacq. Dr. Rosalinda Solevilla, continued the study of the other biological activities of the herbal seed locally known as Tonkin and their clinical uses. Dr. Mafel Ysrael rationalized the reported medicinal uses of the plant that were carried out by the university (2003) as well as the isolation of antitubercular agents from the plant. Another notable researcher from the Faculty of Pharmacy is Dr. Aristeo V. Bayquen, who is an expert in organic synthesis is credited for her work on micropine and epimicropine alkaloids (Papa, ed., 2013).

In December 2006, the Department of Pharmacy of the UST Faculty of Pharmacy and RCNAS organized first Philippine Pharmaceutical Research Congress with the theme “Breakthroughs in Crude, Care and Cure.” This biennial international congress gathered Filipino and foreign pharmaceutical pharmacists from the industry, academe and government sectors to present their research outputs and the faculty had the opportunity to interact with experts (Fuentes, ed.,

2011). Three more international conferences had been conducted with more than 40 poster presentations and 20 oral presentations where 6 were plenary speakers from different pharmaceutical practices of different countries. This 2015, the Pharmacy Research Management Group (RMG) of the faculty convened to draft a multi-department operational research program that will be participated in by several faculty members and will be the focus of research for the next two years. The initial project will concentrate on the ethnopharmaceutical practices of the Aetas of Hermosa Bataan. They will identify the most preferred and culturally relevant herbal plants for dermatological use to recommend medicinal plant/s for further studies. A new breed of faculty researchers at the RCNAS are now undertaking a research program under DOST Tuklas Lunas, a study on three genus: *Uvaria*, *Voacanga* and *Mikania* species and their derivatives. They are studied for their anti-infective, anti-cytotoxic, anti-inflammatory anti-neurogenic properties. This is congruent to the vision of Fr. Lorenzo Ruiz that in the light of scientific development, an institution of higher learning would be incomplete without an organized group devoted to research (Rodriguez 1965b).

The Research Journal

The *ACTA MANILANA* is the official publication of the RCNS. The first publication came out on August 1965. The uncertainty was felt with the mixed emotion of the director, as he felt the cold reception of the maiden publication. In spite of the odd feeling, the publication was held in high esteem by overseas researchers. The framework of logistics was established by Fr. Rodriguez, the first director of the center who also acted as the editor and chair of the research journal. A sweep of changes happened as new directors took over the management of the journal. It is now a multi-disciplinary journal dedicated to cover research and development in all areas of the natural and applied sciences. It features research papers, short communications and review papers which are peer reviewed and recommended by an international panel of evaluators. In 1968, it published two series- Series A, which was devoted to the Natural and Applied Sciences and Series B, which covered the Socio-economic and historical sciences. In 1977, it featured research work in history, culture and economics conducted in the Research Center.

A change of orientation and focus on research in the field of science restricted *ACTA* to only include papers on those in the technical science. Initially, financial sponsorship was provided by the Benavides foundation which also provided funding to research projects in the Research Center. In the 1990s, several issues were subsidized by grants from the Philippine Council for Advance Science and Technology and Development (PCAS-TRD) of the Department of Science

and Technology. The journal is distributed to important academic libraries in the Philippines and overseas. It now makes use of digital technology to enhance its world-wide visibility and accessibility (Papa, ed., 2013).

In a memorandum issued by the Commission on Higher Education (CHED), through its Journal Accreditation services (JAS), the ACTA was given the prestigious Category 2-A last May 28, 2015. Category 2-A means the journal received a score within the range of 85-100, recognizing the journal as reputable of international calibre, as evaluated by CHED experts. (CHED, 2015).

Research Works

History of Pharmacy in the Philippines

The history of Pharmacy in the Philippines was the dissertation of Fr. Rodriguez, O.P., He saw the gap in the history of pharmacy and produced a paper and a book on it. The book was offered to pharmacy students and professionals with the dual purpose of providing a text in the history of Pharmacy since none was available and to give an entrée to the achievements of the pioneers of Pharmacy in the Philippines. The historical chronicle covered the period during the Spanish Era (Rodriguez 1958). It documented the laws, the political machineries that created conflicts from the five attempts in the establishment of a pharmaceutical academe and the key players that fought for the foundation of pharmacy education as well as the stability of its practice. This historical paper is a staple to most of his literary works, a springboard of his writings on the different activities of pharmacy in post-war and was used as introduction to most of his presentations on pharmaceutical history and practice (Rodriguez 1950, 1951c, 1952b, 1957c, 1960, 1961, 1971).

In the centennial celebration of Pharmacy in the Philippines, Fr. Rodriguez, O.P., wrote a historical document entitled “A Century of Progress or The First One Hundred Years of the Faculty of Pharmacy of the University of Santo Tomas Dedicated to the Service of the Nation Through Pharmaceutical Education.” The book is divided into two parts: the Centennial celebration programme and all the preparations done for the activity. The second part was on the historical chronicle covered the period during the Spanish Era (1521-1899), during American occupation, the Commonwealth, and the Republic (1900-1958). It also discussed the Pharmacy law, the analysis of the curriculum changes and important statistics and historical facts about Pharmacy and the UST Faculty of Pharmacy’s academic milestones in the last 100 years. This documented the establishment of the two courses, the monumental task of supervising the re-establishment of the botanical garden and

the institute, the mission and the creation of the research center and councils, the list of faculty members, their researches and duties and the student graduates, their organization activities, lists of scholars and board topnotchers. The achievements of the luminaries who were dedicated to the Hall of Fame as well and activities that highlighted the sterling achievements of Father Rodriguez O.P. as likewise included (Rodriguez 1971). This 137-page typewritten book is the only copy and kept in the Archives of the UST Benavides Library, a rich treasure of historical facts that is integral in the continuation and improvement of the pharmacy academe. In 1972, the *ACTA MANILANA* featured research work in history, culture and economic conducted in the Research center. This entire history piece was published in its Series B publication which covered the Socio-economic and Historical sciences papers (Papa, ed., 2013).

Pharmacy Practice and Morals

In the different papers he published and presented in annual pharmaceutical conventions, Fr. Rodriguez, O.P., shared his views on Pharmacy's education reforms, questions on practice and admonition to morals in the profession.

The need to inject life into the profession was discussed by Fr. Rodriguez, O.P., to encourage revitalization of the practice of Pharmacy (Rodriguez 1950). Pharmacists, an integral part of the medical group, need a proactive action, a direct concern to the patients and clients. He asked who was managing and taking care of the profession, and he felt that there was need to instill the correct pride- that is the dignity and responsibility to the profession. He encouraged proper promotion of the pharmaceutical services. The influence of commercialization has put a burden to the integrity of service, and that pharmaceutical care is lost to the profits of the pharmaceutical establishments and services. He encouraged everybody to reflect on the ways to improve the perception of the public on pharmacy and its services. He also discussed the status of the profession in the eyes of the government, the taxation imposed and the compensation received by pharmacists. He called on the different pharmaceutical organizations to lead the promotion of the practice as well as to remind everybody to be vigilant of the problems existing and the services that can aid in the practice of the profession.

Fr. Rodriguez, O.P., also shared a passionate recourse through an oral presentation of his views on the problem of fidelity in the practice of the pharmacy profession. He stressed that the role of physicians and pharmacists has a hand in determining life, morally speaking. He implored that pharmacists should refuse to fill prescriptions or sell those deemed immoral, such as contraceptives or preparations

producing deleterious effects. He cited laws and regulations that prohibit dispensing of medicaments and the penalties imposed. He threw several questions challenging their conformance to practices, ideals and standards of morality that can keep fidelity to the profession. He called for the formation of an association of Catholic Physicians and Pharmacists with the purpose of carrying out carefully whatever is in accordance with the Christian principles of morality in their respective practices (Rodriguez 1951).

In his paper, “Pharmacy and Morals” Fr. Rodriguez, O.P. discussed pharmaceutical deontology as the “particular rules and moral norms to which the pharmacist must adjust his action in the exercise of his profession.” In another previous letter of His Holiness Pope Pius XII to the second International Congress of Catholic Pharmacist held in Rome September 1950, he said “Your responsibility goes still further than the technical aspect of the medicinal preparation and the actual effects of administration”. Fr. Rodriguez, O.P., stressed that Pharmacist cannot take part in any way in the criminal attempts against the propagation of human race, or the corporal or mental health of human. He divided the duties of pharmacists in three categories: (a) his duties to himself, (b) his duties to the public and the community where he dwells exclusively and (c) his duties to his colleagues, fellow physicians and pharmacists. Fr. Rodriguez, O.P., said that “the pharmacists are morally responsible for all their actions to God and to the community. They are also legally responsible to the state and they have to conform their acts to the human law. He was referring to the sale of contraceptives and medicaments that can have deleterious effects to human life, most especially to the unborn (Rodriguez 1957b).

Unlike other professions, the practice of pharmacy lacks the recognition and honor that other professions have enjoyed throughout the century. This was the introduction of Fr. Rodriguez, O.P.’s paper entitled “Filipinos in the Pharmacy World.” He detailed here the early beginnings and hardship of the profession, the presence of famous ‘*curanderos*’ and ‘*herbolarios*’ who were skilled in medical herbs, the missionaries who tended the needs of both the soul and the body and who studied plants and their therapeutic properties. He also cited the ‘*Boticas*’ that were found in the hospitals and as independent stores. The foundation of Pharmacy in UST was discussed and its difficulties and problems it encountered before its establishment. Seven outstanding Pharmacy graduates and the pioneering achievements of pharmacy practice in the Philippines who laid down various achievement in these profession were cited. All of these luminaries cited were dedicated in the Pharmacy Hall of Fame (Rodriguez 1957a).

A set of minimum standards for the professional values and conduct of practice in the different areas of pharmacy was commissioned by the Philippine Pharmacists Association, Inc. (PPhA) committee on policies and standards and Philippine Practice Standards for Pharmacists (PhilPSP) technical working group. A book was prepared that details the Philippine Standards for Pharmacists. This serves as a guide to pharmacy practitioners, as their specific knowledge, competencies, duties, responsibilities, accountabilities and expectations are enumerated. This document serves as a general statement to guide, advice and provide reference on how they perform their moral and professional duties to ensure optimum positive health outcomes in patient/client service. The PhilPSP covered five major areas of Pharmacy practice in the Philippines: a) pharmaceutical academe; B) Regulatory pharmacy; c) manufacturing pharmacy; d) community, hospital and institutional pharmacy; and e) public health pharmacy. For each area the following are listed: the Competency standards which is the professional qualification and specific function; the Element that lists the performances and processes that are expected; the Performance Criteria is the evaluative statements that specify the actions or tasks needed to be accomplished in order to carry out specific processes and; the Evidence that are outputs, outcomes, and/or examples relevant in achieving the competency (Salenga *et.al.*, 2015). The underlying philosophy is meant to facilitate self-regulation and encourage professional growth in the chosen area of practice and develop the practice of the standards in the present day Filipino pharmacists in their strategic action and involvement in the healthcare system.

Other Administrative Achievements

Fr. Lorenzo Rodriguez in his numerable papers, cited outstanding pharmacists and their professional achievements. On December 15, 1951, nineteen luminaries were dedicated to the Pharmacy Hall of Fame to give due credit and recognition to the famous men in Pharmacy. This hall is to remind the present students about the deeds and accomplishments of the great men and women of the UST Pharmacy illustrious history. The Rector then was present and other deans of other colleges of Pharmacy in Manila graciously attended the event (Rodriguez 1971).

Upon the investigation of Fr. Lorenzo Rodriguez O.P., there was no Patron saint of the college before he assumed deanship. He collated information with the help of other faculty members, and came upon the Patroness of Pharmacy, ever since the 14th century at the University of Larida, now the University of Barcelona, in Spain. It is the IMMACULATE CONCEPTION. The faculty adopted it as the Patroness, in a meeting, in November 9, 1948. The installation was set on December 7, 1948, that coincided with the inauguration of the Second Botanical Garden of UST. The statue

of the Immaculate Conception was installed in the Office of the Dean on February 26, 1949, after being blessed, it has since been there until now. As part of Pharmacy week celebration this December 2015, the Pax Romana organization of the Faculty of Pharmacy will have a re-dedication activity to the Patroness.

Several student organizations were founded during Fr. Lorenzo Rodriguez administration. He was very supportive of the students and he graciously and religiously attended their activities and social events like the ring ceremony of the seniors at the botany garden which he found very touching, the activities of the Rondalla group which he helped procure some musical instruments, the Holy Name Society, the Biochemical Society, Medical Technology Society, to name a few. He wrote an article about Galenos Club, which was then celebrating its silver anniversary and considered the oldest existing organization at the university at that time (Rodriguez 1949). Today there are 19 recognized student organizations, five of which were founded in Fr. Rodriguez, O.P.'s administration. Aside from the specific activities that each organization undertakes, these groups had been active in community services, some of which had won university awards, national and international recognitions.

He also saw the birth of the UST Faculty Club when several Pharmacy professors used to hold meetings for camaraderie and friendship. In March 7, 1948, the Pharmacy Faculty Club carried out plans, programs and other matters as a club. The Pharmacy Dean's Council was formed and chaired by Dean Rodriguez on August 17, 1965.

He was a member of different pharmaceutical associations, and would publish the program and events that took place on several annual pharmaceutical conventions (Rodriguez 1951a, 1952a). Notable was his membership to the Board of Directors of the Colegio Medico Farmaceutico de Filipinos and an honorary member at the Royal Academy of Pharmacy of Paris. He had occasions to speak before the Royal Academy of Pharmacy and the Academy of Sciences of Madrid on various Pharmaceutical topics.

Fr. Rodriguez, O.P., founded the Catholic Guild of the Philippines on December 15, 1951. The idea was brought about during the convention at Davao City on April 23, 1951. This guild is charged with advocating the morality in the practice of Pharmacy in any way. The officers took their oath of office on March 22, 1952. This guild is one of the mandated units of Catholic action in the Philippines (Rodriguez 1971, p. 75). He represented the Philippines in the International Federation of Catholic Pharmacists in Vienna Austria in 1967 where the convention was conducted (Anda 1967).

In 1967 he was appointed as Vice Rector of Academic Affairs of UST. His culminating activity was the helmship of the centennial celebration of pharmacy where he was appointed the honorary chairman of the steering Executive committee of the entire event. He chronicled the nitty gritty details of the preparation, celebration of the grandeur befitting of the 100 glorious years of Pharmacy (Rodriguez 1971). In this day long celebration, shared with the Faculty of Medicine that was established on the same date, there was wreath-laying activity at the monument of Dr. Jose Rizal at Luneta, Manila, the installation of centennial markers, a concelebrated mass, and the inauguration of the Hall of Fame. Rev. Fr. Leonardo Legaspi presented plaques in a program in the late afternoon that rounded the affair, one of which is for Fr. Rodriguez, O.P., for his meritorious services rendered to the Faculty of Pharmacy (Varsitarian 1971). He also received a decoration from the Spanish government as a member of the *Real Academia del Farmacia de Madrid* in October 12, 1950.

In 1968, Fr. Rodriguez, O.P., was diagnosed with cancer. He later retired as Dean of the Faculty of Pharmacy but was again elected as Rector of Colegio de San Juan de Letran from 1968 until 1969. Due to his worsening condition in 1974, upon his request, he retired and asked to be sent to Convento de Sto. Tomás de Avila, Spain. On January 28, 1976, in Avila Spain, Fr. Rodriguez, O.P., left this world to be with the great Teacher. He is gone but his legacy lives. A week after his death, the Faculty of Pharmacy installed a marker at the Botany garden where now stands a bust statue of Father Lorenzo Rodriguez (*Acta Manilana* 1976). The Fr. Lorenzo Rodriguez memorial lecture was also established and a biennial seminar is held every 28th of January. The seminars are mostly advances and innovations in Pharmacy practice. In mid 2000, a two-story building was constructed beside the Botany Garden. It was inaugurated as the Fr. Lorenzo Rodriguez building, in memory of the valuable contributions of Fr. Rodriguez, O.P. It has four laboratory rooms: a botany laboratory; a Physics laboratory; a serology hematology laboratory; and a Pharmacognosy/Pharmacology laboratory. The thesis room can be found in the second floor, a mini research and apparatus room for senior students who are finishing their undergraduate theses. A lecture room is also at the first floor.

Today the Faculty of Pharmacy is zealous about keeping the standards of excellence established during a long period of almost a hundred forty four years now. A marker will be installed as part of the countdown to the 150th year celebration of Pharmacy foundation come year 2021. A proud testament to look forward to is the grandness that the academe has become tracing back to what was once Fr. Rodriguez, O.P., trailblazed and will be continued as the enduring legacy of Thomasian pharmacists. ■

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