

RECENT MEDICAL ADVANCES IN ARGENTINA

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It is difficult, or, rather, impossible, to report in a few pages the most important scientific contributions of the last few years in Argentina. The brief review which follows must, of necessity, suffer from inevitable omissions and too much condensation. Since not all the meritorious achievements can be mentioned, only some of the best-known or most important will be cited, without this signifying any detraction from those which could not be included because of lack of space.

The role of the anterior pituitary in carbohydrate metabolism and in diabetes, was discovered in our Institute of Physiology. Until 1929 the known facts were that diabetes is common in acromegaly (32% of cases) and that the extract of the posterior lobe is hyperglycemic. In our Institute the following phenomena were observed illustrating the physiologic role of the anterior lobe:

(A) Hypophysectomy or ablation of the anterior lobe causes: (1) a strong sensitivity to the hypoglycemic or toxic action of insulin (Houssay and Magenta, 1924-1929), and to that of other hypoglycemic agents such as phloridzin or fasting (Houssay and Biasotti, 1930); (2) attenuation of the intensity of pancreatic and phloridzinic diabetes (Houssay and Biasotti, 1930); (3) rapid drop in glycemia and in glycogen during starvation (1924 and 1930) observed even in animals without pancreas. This condition may be prevented with a protein and carbohydrate diet, but not by a fatty diet.

(B) The anterior pituitary extract produces the following effects, which are observed even in the absence of the pituitary and of the pancreas: (1) increased resistance to insulin (Houssay and Potick, 1929; Di Benedetto, 1932) and to other hypoglycemic agents such as phloridzin (Houssay and Biasotti, 1933) impedes the drop in glycemia and glycogen in hypophysioprivous animals during fasting; (2) it aggravates pancreateoprivous diabetes and rapidly results in death following coma with acidosis and severe ketosis (Foglia & col., 1937); (3) it aggravates attenuated pancreatic or phloridzinic diabetes in pancreateoprivous animals lacking the pituitary, and also Sandmeyer's diabetes (Houssay, Biasotti, & Rietti, 1932); (4) it causes a typical diabetes in normal dogs (Houssay, Biasotti & Rietti, 1932), which at first is of extrapancreatic origin, but the islands of Langerhans are soon injured (Porto 1941) and the output of insulin is enormously reduced (Houssay & collaborators, 1936 and 1941); (5) at times the animal remains definitely diabetic after suspension of the anterior pituitary injections, because of the destruction of the islands of Langerhans, a phenomenon which was first demonstrated in dogs with a reduced pancreas (Houssay, Biasotti & Rietti, 1932) and later in dogs with a whole pancreas (Young, 1937). It is not unusual to see all of these facts quoted with errors of date and authorship in North American publications and in the Latin American ones which copy them.

Hypertension of renal origin has been intensively studied in our Institute from 1937 to date. A kidney in which ischemia has been produced discharges renin, which, by acting on the serum globulins (*in vitro* or *in vivo*) produces *hipertensin* (Braun Menéndez, Fasciolo, Leloir and Muñoz, 1939). Grafting the kidney, by vascular union, into a nephrectomized dog, it is observed that the blood pressure rises in 5 or 10 minutes; a phenomenon which is not seen following the graft-

ing of a normal kidney (Houssay & Taquini, 1937). The venous blood of the ischemized kidney contains abundant renin, which may be accurately measured, and which produces *hipertensin* in the circulating blood (Houssay and Taquini, 1938; Braun Menéndez and Fasciolo, 1939). *Hipertensin* was first isolated from this blood, and then prepared *in vitro* in 1939. These findings are often omitted from North American publications. A complete review of the work was published in 1940, and two papers on it have appeared in England and two in the United States. Cases of renin specificity are known, whereas *hipertensin* is equally active from toads to man. The pharmacology of *hipertensin* has been studied by Ludueña, Foglia, Braun Menéndez, and collaborators. Renin is destroyed by the kidney and by all the tissues; *hipertensin* by a *hipertensinase*. During shock (Dexter) and severe hypotension (Huidobro), a discharge of renin into the blood has been shown.

Fluorosis has been found in different parts of Argentina, causing mottled enamel (Damon, Muñoz, Erausquin, Mácola), and if the quantity of fluorine in drinking water is large, ostealgia or osteopetrosis (Capizzano & col., Pasqualini).

Plasma potassium, its role and regulation, have been studied a great deal by Marenzi, Gerschman, Houssay, and Moglia, and an important monograph by Gerschman was published in 1939. Cicardo has investigated the liberation of potassium from the striated or smooth muscle by acetylcholine, and the role of potassium in muscular activity. Zwemer (1941) has been working on the physiologic and pharmacologic action of potassium.

The normal and pathologic physiology of urobilin and bilirubin has been thoroughly studied by Royer and by López García and Castex, who have made known valuable methods of quantitative clinical examination of blood, bile and urine. Royer has investigated the vesical function through laparoscopy and intravesical injection of opaque substances. Operative cholangiography has been the subject of important research by Mirizzi. Bengoles and Velazo Suárez have methodically studied the physio-pathology of the bile ducts.

The anterior pituitary in thyroprival cases shows a decreased gonadotropic and thyrotropic activity (Reforzo). As the result of intense thyroid treatment the pituitary exerts a marked thyreo-depressive action (Reforzo).

Important studies of the sex hormones have been made in dogs (Arenas and Sammartino), toads (Inés L. C. de Allende), and weasels (Martínez Esteve). During continuous estrogen treatment a cyclic vaginal response is observed (Del Castillo and Di Paola). The interrelation of the ovary and the anterior pituitary have been studied by Peralta Ramos and Colombo, Fels, Del Castillo and Sammartino and others. Araya maintains that ovulation and menstruation are totally independent phenomena, but Sammartino's careful observations have always shown a typical correlation between the condition of the endometrium and that of the ovary.

The inter-action of the anterior pituitary of mammals and *batrachia* with the thyroid, suprarenal glands, gonads, parathyroids, spleen, thymus, etc., has been thoroughly studied at the Institute. The pituitary of the toad has been observed during its seasonal variations (Masselin, Novelli), in its action on mammals (Foglia) and on the suprarenals (Porto). Pasqualini demonstrated that insipid polyuria of the toad was observed in the absence of the thyroid or of the anterior lobe. Stoppani (1941) carried out a very complete investigation of the regulation of color in batrachians and of the pharmacology of various modifying agents.

The average hemoglobin in man is about 15.5 gm and in women, from 13.8 to 14.2, in various parts of the country (Orías, Parodi, Gargiulo, Meccheri). Quantitative studies on vitamin K and its deficiency in certain pathologic conditions have been made (Banfi, Tanturi, Bay and others).

The functions of the suprarenals have been studied in Rosario and in Buenos Aires. In the latter city, Pinto and Vaccarezza have worked on the relationship between the suprarenals and the sex hormones. The initial disturbances following suprarenal excision are due to a passing hypofunction of the cortex, which is prevented or remedied by *desoxicorticosterone* (Foglia and Gerschman). The corticoprarenal syndromes and their hormone or surgical treatment have been the subject of much study by del Castillo and his co-workers.

A great deal of interest has been shown in the thymus. It has been demonstrated that its extracts or ablation do not affect growth (Chiodi). The sex (Chiodi) or suprarenal (Houssay, Pinto and del Castillo) hormones moderate its development, whereas those of the thyroid increase it (Reforzo and Pinto). Involution of the thymus occurs at the same time and with a similar curve in normal and castrated animals (Chiodi).

The Institute of Nutrition, under the energetic direction of Professor Escudero, carries on a multiplicity of activities. The nutrition courses of the School of Medicine are given there; it has a School of Dietetics, a polyclinic, infirmaries, ordinary and research laboratories, and maintains lunchrooms. It is one of the institutions best endowed financially. Its research work has included human nutrition, child dietetics, milk, national foods, and vitamin C in various foods.

The avitaminoses are rare in Argentina. Only 8 cases of B₁ deficiency have been observed (Dassen, Cossio, Soldatti and Taquini), although the circulatory symptoms of this condition have been well studied experimentally, in dogs (Soldatti, 1940). Only six cases of pellagra have been reported to date (Castellanos, Repetto). Scurvy is very uncommon. Severe rickets is rare, but X-ray symptoms, usually transitory, have been found in 30% of cases (Garrahan). Systematic research on child nutrition has been carried out (Garrahan, Schweitzer, Escudero, Gaing). Extensive statistical surveys of the height and weight of tens of thousands of school-age children in Buenos Aires have been made (Olivieri and Perlina Winocur).

The Institute of Cancer (officially known as the Institute of Experimental Medicine) directed by Prof. A. H. Roffo, is well supplied with resources and equipment for the care and surgical and radiotherapeutic treatment of malignant tumors. Branches of the Institute have been established in the interior. Experimental investigations have been made of the cancerigenic action of various tars (coffee, tea, mate, tobacco), of derivatives of irradiated cholesterol, and of diets based on cooked fats, and of the production of cutaneous cancer in rats repeatedly subjected to the action of the sun or of ultra-violet rays. Dr. Roffo believes that cholesterol increases in the skin through the action of the sun, and accumulates strongly in pre-cancerous lesions, producing cancerigenic substances through actinic action. He has carried on an extensive campaign against the danger, as cancerigenic agents, of the use of tobacco, of excessive sun-bathing, and of the heavy pollution of the air by the unconsumed combustible products used in automobiles.

The Bacteriologic Institute of the National Department of Health, directed by Prof. Alfredo Sordelli, is the national public health laboratory. It prepares sera, vaccines, and hormones, and is the center for microbiologic diagnosis. To it is due the knowledge of the extension and importance of the following contagious diseases in Argentina: brucellosis; bacillary dysentery and enteric diseases; sylvatic plague; psittacosis; human trypanosomiasis (first Argentine case); uncinariasis; leptospira in rats; *Listerella*; influenza; and exanthematic typhus (frontier area). The Virus Laboratory (Dr. Taylor, of the Rockefeller Institute) is studying viruses, especially that of influenza. Among the vaccines are found *B. chauveaui* and *B. hemolyticus*. Of the principal original contribu-

tions and studies of the Institute, mention may be made of the following: (1) discovery of *Clostridium sordelli*; (2) study of the toxins and antitoxins of gangrene germs; (3) study of the chemical nature of the heterogenetic antigen; (4) rapid preparation of antitoxic sera of high value, which do not cause serum-sickness; (5) pharmacodynamics and immunology of the venom of snakes, spiders and scorpions; (6) isolation and properties of alkaloids of plants of native plants; (7) endemic goiter, its relation to iodine, and its prevention; (8) trypanosomiasis; (9) diagnosis and epidemiology of psittacosis; (10) rapid diagnosis and prophylaxis of diphtheria; (11) anthrax antigen and antitoxin; (12) medical entomology (mosquitoes, *triatoma*, *Ixodes*); (13) mycology, and so on. The Institute was chosen by the Pan American Sanitary Conference in Bogota (1938) to be the distributing center of international biologic standards for South America.

Outstanding pathological studies include those on syphilis of the lung (Elizalde), ovarian tumors (Sammartino, in the Service of Prof. Ahumada), feminine genital anaphylaxis (Murray), bone tumors (Brachetto Brian), hemopathies (Bianchi, Pavlovsky), hydatidosis (Itoiz), and the kidney (Montserrat). In neurology, we have the work of del Río Hortega on tumors of the nervous system, that of Balado on the external geniculate body, and the studies on structure and function of the nervous system (Acta Neurobiologica of Chr. Jakob), aphasia (Victoria, Dimitri), and encephalography (Odoriz, Caprile).

A number of discoveries have been made in the field of parasitology since the finding of the *coccidioides* by Posadas and Wernicke (1890) and of the *Rhinosporeidium* (Seeber, 1900; 5 cases found in the country). Hydatidosis has been the subject of fundamental research by Cranwell and Herrera Vegas (1901), and more recently, by Castex and Greenway; the diagnosis by complement-deviation has been studied by Imaz Apathie and Lorentz (1908). *Echinococcus alveolaris* is rare, and was investigated by Viñas and Llambías. A center for the study of Hydatidosis has been created under the direction of Dr. Ivanisevich, and the Argentine Medical Association has sought the passage of a law for prevention of the disease.

In cutaneous American leishmaniasis notable results have been obtained through intramuscular use of fuadin (Mazza), and with fuadin and yatren (3% intravenously) in the mucous forms; the treatment is shortened by using atebtrin intramuscularly or infiltrating it in the ulcerated area (Mazza). Visceral leishmaniasis, reported by Mazza (1926) and the existence of which was later doubted, has been found in various foci in the Chaco (Romaño and Chagas) or other areas (Mazza).

The mosquitoes of Argentina were studied by Lynch Arribalzaga, Neiva, and Petrochi, and more recently, by Shannon and del Ponte. Hookworm disease has been the subject of much investigation; Fulleborn (1927) and Orias (1930) observed that the hemoglobin is normal in infected areas when nutrition is good, as is generally the case. Intestinal amebiasis has also been widely studied (Castex and Greenway, 1928 to 1934). The pharmacologic action of emetine was thoroughly worked out by Guglielmetti (1916 to 1919). Prof. Bacigalupo is the author of a series of papers on (1) *Hymenolepis nana*, *fraterna*, and *diminuta* and discovery of its development in various intermediary hosts (2) new intermediary host of *Gongylonema neoplasticum*; (3) discovery of *Limnaea viatrix* D'Orb. as the intermediary host in distomiasis due to *Fasciola hepatica*; (4) emetin treatment of *Giardia* infestation; (5) demonstration of *Bartonella muris ratti* in Argentina; (6) development of the microfilaria of the dog in *Taeniarhynchus titillans*, etc.

Now that the disease is known, more than 500 cases of human trypanosomiasis caused by *Schizotrypanum cruzi* have been discovered. The diagnosis is oriented by the unilateral ocular lesion which E. Díaz and E. Chagas call "Romaña's



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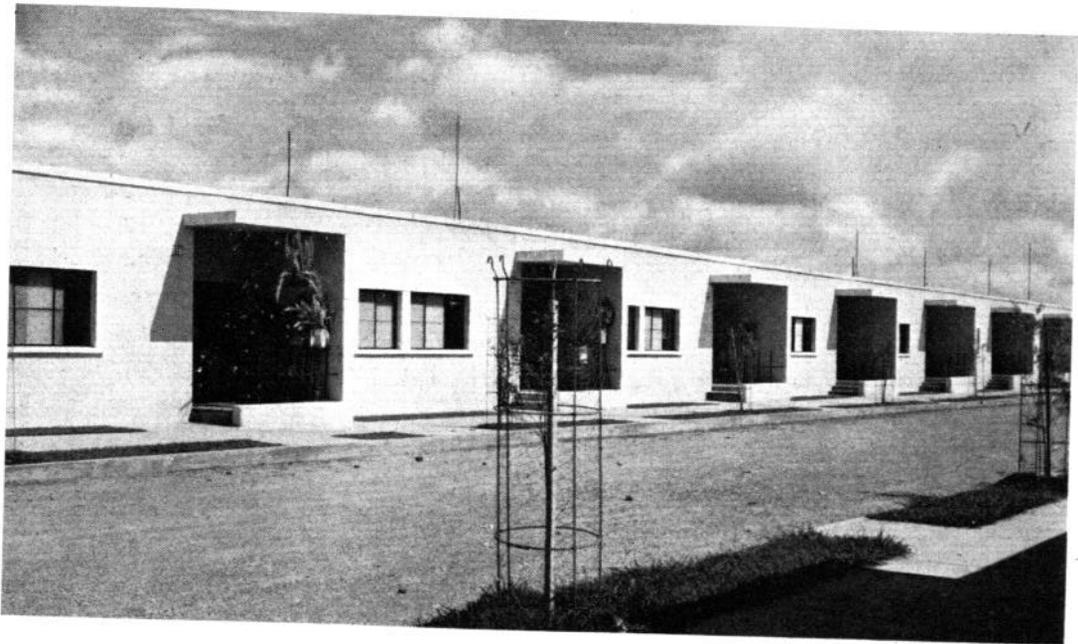
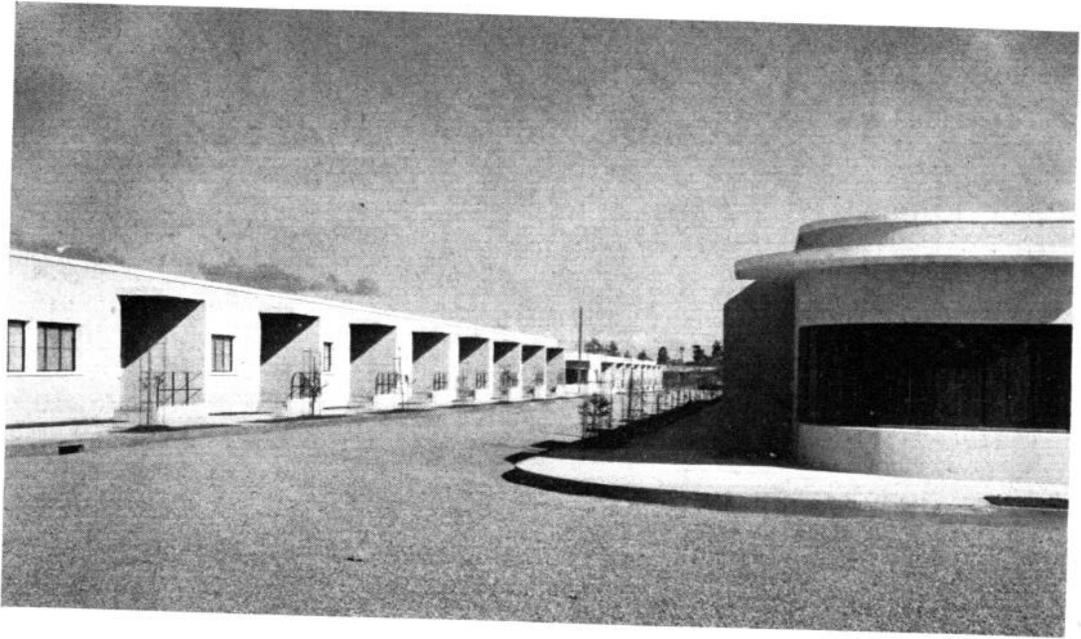
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sign," but which Mazza says has been known since Carlos Chagas. According to Mazza and his co-workers in the Mission of Regional Pathology Studies of the University of Buenos Aires, dacryo-adenitis (with parasites) is endogenous, and not on the site of primary inoculation (although Romaña produced it experimentally in monkeys). The local lesion at the site of inoculation they call "inocu-



Viviendas para obreros en Guatemala, Centro América
(Workers' housing in Guatemala)

lation *chagoma*' to distinguish it from the hematogenic *chagomas*. Eruptions have been observed, called schizotrypanids, morbillous, urticarious, or erythrematic in appearance. Bayer 9706 is considered a specific, and as life-saving (100 mg. Kg) in cases of meningo-encephalitis. The Sanarelli-Schwartzman phenomenon has been obtained in the dog, with *S. cruzi*. There is a histiocytic

lesion of the liver typical of the disease, permitting diagnosis by viscerotomy. The cardiac histology in cardiopathies has been studied, as have also a number of new insect vectors, and natural infection has been found in the dog (1926) and other canines, the cat (1926), and various armadillos, marsupials, weasels, bats, and squirrels.

Under the leadership of Prof. C. Fonso Gandolfo the Department of Infectious Diseases of the University has followed three main lines of activity: (1) teaching and research; (2) preparation of specialized physicians; (3) preventive medicine and public health. Every year students are taken on expeditions lasting several weeks, into the zones afflicted by the most endemic diseases, and which have the least medical attention.

The Schools of Medicine of Argentina have been gradually preparing for the training of specialists in various fields, awarding certificates of competence on completion of the course. Such advanced training is already available in legal medicine, hygiene, tuberculosis, contagious diseases, and anesthetics.

The National Academy of Medicine has an Institute of Physical Investigation Applied to Human Pathology, under the direction of Prof. M. R. Castex, whose work is mentioned below.

The Institute of Tuberculosis Research directed by Prof. Roque Izzo, is established in modern quarters, and carries on such multiple activities as teaching, polyclinic and hospital care, research, and anti-tuberculosis education. Research has been mainly directed to the biochemical studies in tuberculosis. The chemical and pathologic sections are well-equipped and under competent personnel (Irigoyen, Marenzi, Porto).

The Institute of Hygiene of the School of Medicine, under the direction of Prof. A. Zwanck, provides professional training for physicians and public health nurses; and has just recently started a post-graduate course in hygiene for physicians, which at present is given in the evening (6 to 8).

In anatomy, Prof. P. Belou has published sizeable volumes on the anatomic revision of the arterial system by means of stereoradiography, and has made frequent good-will trips to other American countries. Prof. J. J. Cirio has dealt with the classification of the extension and flexion movements. In Cordoba, Prof. Fracassi has devoted his attention preferably to the vascular system. Histology is still feeling the influence of the late Prof. P. Rojas: Varela and his disciples are concerned with hematology; de Roberits with the cytophysiology of the liver, thyroid, and parathyroid; Szepsenwol with the study of the differentiation factors of the neurons and ontogeny of the forms of contraction of the striated muscle; and Novinski with the chemistry of embryology.

An interesting method of radiographic examination of the lung is Politzer's "digraphy," which gives a highly instructive impression of movement. The separate examination of lung function, made by Vaccarezza, Lanari, Bence and Labourt, has permitted them to study spirometry, respiratory interchange, and residual air. The curve of the composition of alveolar air in time function has been investigated by Marenzi and his co-workers. Important and well-documented monographs have appeared on spontaneous pneumothorax (Castex and Mazzei), pulmonary atelectasis (Castex, Palacio and Mazzei), and pulmonary cancer (Palacio and Mazzei, Loizaga, etc.). The surgical treatment of tuberculosis, and thoracoplasty have originated individual methods and technique (Finochietto, Aguilar, Brea, Taiana). Surgery of lung cancer is practiced mainly by Professors Ceballos and Arce. Prof. Arce, who has just been placed in charge of a course in thoracic surgery, with its own institute, praises the advantages of preoperative pneumothorax, the priority in authorship of which he has revindicated.

Cardiology is a clinical branch which has received a great deal of attention in Argentina, especially the use of modern methods of examination. Most of the original articles are published in the journal of the Argentine Cardiology Society, and among them should be mentioned: (1) numerous important studies of phonocardiography (Battro, Cossio, González Sabathié, Pereira, Caeiro) and the publication, in Spanish and English, of the book by Braun Menéndez and Orías, "Heart sounds in normal and pathologic conditions." Its excellent illustrations of the four heart sounds have been reproduced in physiology texts of various countries; (2) cantering rhythm (Battro, Braun Menéndez and Orías); (3) sounds of the mitral valve (Battro and Braun Menéndez, Cossio); (4) myocardiac infarct (Martínez, Cossio, Padilla, Bosco); (5) electrocardiography of blocks and pararrhythmia (Vedoya); (6) limitations of cardiac percussion (Cossio); (7) affections of the peripheral circulation (Di Cío) and surgical treatment (Diez, Introzzi); (8) role of the diencephalon and pituitary in the regulation of arterial pressure (Braun Menéndez, Orías); (9) exact diagnosis, by graphic methods, of the lesions causing asynchronisms through branch block (Braun Menéndez, Solari, Orías, Battro), or extrasystole (Battro, Castex and González Segura); (10) esophageal pulses and sounds (Taquini); (11) physiopathologic study of heart disease characterized by cyanosis (Ayerza, Berconsky and Solari, Capdehourat and Castex, Arrillaga); (12) electrocardiogram of men at high altitudes (Capdehourat); (13) *carbogen* in circulatory affections (Castex and Di Cío); (14) action of histamine on the cutaneous vessels in malignant hypertonia (Battro, Castex and González Segura); (15) clinical studies of hypertension (Moia, Cossio); (16) pharmacology of quinidine (Arrillaga, Guglielmetti and Waldorp); (17) action of acetylcholine by the arterial, humeral, or carotid route (Battro and Lanari), and many others, which cannot be included because of lack of space.

Dermatologists have given much attention to combating leprosy. The early efforts of Sommer and Aberastury, carried forward by Baliña, Fidanza, Puente, and Fernández, have brought about the opening of large modern leprosaria in various parts of the country (Posadas, Isla del Cerrito, Córdoba, Rodríguez, etc.). In the scientific realm, Baliña has been interested in the classification of clinical forms; Fernández in leprosy allergy, the leprolin test, diagnosis and treatment problems, and histopathology; and Pierini, in the histamine test. The dermatologists have also succeeded in having prostitution prohibited, and in securing the establishment of numerous venereal disease dispensaries, and a considerable reduction in the incidence of syphilis has been observed. Studies in the dermatological field have been stimulated by the teaching activities of Professors Baliña, Fidanza, and Fernández, and Buenos Aires has two active societies with branches in Rosario and Córdoba. Among the most original contributions may be mentioned: the demonstration by Aubrun (1931) that the so-called "experimental pelade" of Max Joseph is due to the scratching originated by pruritus from partial denervation; Negroni's curative vaccine for actinomycosis (1932-1936) and studies of cutaneous mycoses; Baliña's demonstration of the traumatic origin of liminal alopecia (1932-1937); Puente's observation of the frequency of glandular cheilitis among Celtic groups (1934-1936) and studies on Riehl's melanosis (1941), and Pierini's studies on the frequency of pigmentary dermatosis due to cosmetics (1941).

In Rosario there has been rapid progress in the quality of medical investigations. Constant improvement has been observed in the various medical branches, such as Medicine (Alvarez, Staffieri); Surgery (Cames, Tejerina); Gynecology (Araya, Borrás); Cardiology (González Sabathié); Dermatology (Fernández); Ophthalmology (Weskamp); Neurology (Fracassi); Psychiatry (Foz, Ciampi) and others. The work done in the Institute of Pathologic Anatomy (Cid, Picena, Ocaña) is very important.

The Institute of Physiology of the School of Medicine of Rosario has published 80 original articles in the last 10 years, in addition to didactic publications and journals. Among the most important have been those on: (1) the fact that enervation does not atrophy the suprarenal gland (Sgrosso) and reduces the secretion of adrenalin to infinitesimal quantities which may nevertheless be measured with adequate methods (Lewis and Prieto); (2) adrenalin-secretory substances (Lewis, Ludueña); (3) isolation (Reti) and pharmacology (Lewis, Ludueña) of the alkaloids of various kinds of cacti; (4) vitamin A and carotenes; (5) diabetes and the suprarenals (Lewis and Turcatti); (6) respiration of the tissues (De Meio); (7) factors modifying the action of the gonadotropins (Barman); (8) volume of the blood (Levin), etc.

The Institute of Pharmacology in Rosario is the only one permanently functioning in Argentina. Among the principal studies realized there have been those on: (1) treatment of hydrocyanide poisoning (Hug); (2) pharmacology of sympathomimetic amines on blood pressure and the penile retractor, sensitization by ephedrin, cocaine, or pyrogalol (Ludueña); (3) microdosage of mercury (Llacer); (4) treatment of mercury poisoning by *rongalita* (Hug); (5) studies of fibrinogen (Chiodin); (6) adrenalin-secretory action of potassium (Hug); and (7) erythrin alkaloids (Hug, Deulofeu, Cicardo).

Córdoba has an important research center: the Institute of Physiology directed by Prof. Oscar Orías, where studies have been carried out on: (1) heart sounds in adults, children, the fetus, and pregnant women; (2) sex endocrinology of the toad and *comadreja* (weasel); (3) pharmacology of *Fagara coco*, *Nierembergia hippomanica*, and *Lycopodium saururus*; (4) pharmacology of snake venom; (5) acetylcholine and vagal escape; (6) electrocardiography; (7) ventricular fibrillation; (8) blood groups; and (9) vital capacity. Among the collaborators are I. L. C. de Allende, A. Segura, S. Amuchástegui, I. Pereira, E. Moisset de Espanés, E. Soaje Echagüe, and others.

The Institute of Tuberculosis, directed by Prof. G. Sayago, provides a great deal of hospital care, and teaching, and has a full-time bacteriologist (F. Schwarz). The various Services of the School of Medicine are in constant progress, including those of Surgical Clinic (P. L. Mirizzi and J. M. Allende), Medical Clinic (T. Castellanos and J. M. Allende), Pediatrics (J. M. Valdés), Anatomy (H. Fracassi), Obstetrics (C. Lascano), Ophthalmology (Ureta Zavalía), Otorhinolaryngology (H. Walker), and others. Among the most important recent publications are the book by Prof. P. L. Mirizzi on "Physiopathology of the liver and bile ducts, operative cholangiography," 1939, and that of Prof. Ramón A. Brandán on "Climatology of Córdoba Province," 1940. Brandán has devoted more attention than any other worker to the medical climatology of Argentina.

It would be impossible to review the developments in Surgery, Obstetrics, Pediatrics, and the medical (Neurology, Psychiatry, Gastroenterology) and surgical (Urology, Ophthalmology, Otorhinolaryngology, Orthopedics) specialties, due to lack of time, of space, and of competence on the part of the narrator, since these branches would require an extensive exposition.

Original research in medicine in Argentina has been steadily developing in quantity and quality. It is most desirable that all the American countries should know the scientific work being done in each, in order to avoid tendencies toward provincial localism, or toward an imperious disregard of one's neighbors. Mutual knowledge, objective and serious criticism, moderation in the use of reciprocal praise, the exchange of teachings, and mutual assistance, should be rapidly and intensely increased, for the sake of the consolidation of the friendship and medical and public health progress of the Pan American countries.