

# Brief History of Argentine Cardiology, Argentine Society of Cardiology and Training in the Specialty \*

## *Breve historia de la Cardiología argentina, de la Sociedad Argentina de Cardiología y de la formación en la especialidad*

AMANDA GALLI <sup>1</sup>.

### ABSTRACT

In Argentina, the development of cardiology started in the first decade of the 20th century with the publication of books by Professor Abel Ayerza and Professor Francisco Arrillaga. The first electrocardiograph arrived in 1912, at the initiative of Bernardo Houssay. In 1934, the Argentine Journal of Cardiology appeared. The Argentine Society of Cardiology (SAC) was founded in 1937. The scientific activities consisted in presenting papers and clinical cases. The first World Congress of Cardiology was held in Paris in 1950. The VII World Congress of Cardiology was held in Buenos Aires in 1974, jointly organized by the SAC and the Argentine Federation of Cardiology.

In 1946 the first residency in cardiology was created. In 1978, the SAC started the Cycles of Update Courses and Conferences on Advances in Cardiology, while the Biannual Course on Cardiology started in 1980. From 1992 to 2005, this course was part of the Cardiology Specialist Course of the University of Buenos Aires, UBA (subjects Cardiology I and II). In 2005 the UBA decided that all specialization courses be held in a hospital facility with a department of cardiology. Currently, the Biannual Course is a contribution to the theoretical training of residents. Seventy-nine residency programs nationwide participate in the course, which means, on average, about 300 residents as students per year. Since the enactment of the Higher Education Law (1995), only the universities are allowed to grant specialist degrees. The current trend is the integration between residency programs and university courses.

**Keywords:** Development of Argentine cardiology - Training of cardiologists

### RESUMEN

La Cardiología argentina comienza a desarrollarse en la primera década del siglo XX con la publicación de los libros de los profesores Abel Ayerza y Francisco Arrillaga. El primer electrocardiograma llega en 1912, por iniciativa de Bernardo Houssay. En 1934 aparece la Revista Argentina de Cardiología. En 1937 se funda la Sociedad Argentina de Cardiología (SAC). Las actividades científicas consistían en la presentación de trabajos y discusión de pacientes. El primer Congreso Mundial de Cardiología se celebra en París en 1950 y en 1974 el VII Congreso Mundial de Cardiología se realiza en Buenos Aires organizado en forma conjunta por la SAC y la Federación Argentina de Cardiología.

En 1946 se crea la primera residencia de Cardiología. En 1978 se inician en la SAC los Ciclos de Actualización y Jornadas de Avances en Cardiología; en 1980 se comienza a dictar el Curso Biannual de Cardiología. A partir de 1992 y hasta 2005 este curso forma parte de la Carrera de especialista en Cardiología de la Universidad de Buenos Aires, UBA (Cardiología I y II). En 2005 la UBA decide que todas las carreras de especialización deben tener sede en un servicio hospitalario. Actualmente el Curso Biannual es una contribución a la formación teórica de los residentes. Participan 79 residencias de todo el país lo que significa, en promedio, unos 300 residentes como alumnos por año. A partir de la Ley de Educación Superior (1995) sólo las Universidades pueden entregar títulos de médico especialista. La tendencia actual es la articulación entre Residencia y Carrera Universitaria.

**Palabras claves:** Desarrollo de la cardiología argentina - Formación de cardiólogos

Cardiology is a clinical specialty, branch of Internal Medicine, focused on the promotion of cardiovascular health and prevention, diagnosis, treatment and rehabilitation of disorders of the circulatory system at all stages of life. Although the literature on Cardiology dates back more than 370 years (Harvey, 1628), Car-

diology as a clinical specialty separate from internal medicine began to emerge in 1950. (1)

Various authors agree in establishing the birth of Argentine Cardiology with the description of “cardíacos negros” or black cardiac disease, a clinical presentation with cyanosis, bronchopulmonary signs and

REV ARGENT CARDIOL 2024;92:375-378. <http://dx.doi.org/10.7775/rac.v92.i5.20821>

Correspondence: E-mail: amandaelisagalli@gmail.com

\* Amanda Galli, based on: Demartini A. Historia de la Sociedad Argentina de Cardiología. Desde su fundación hasta 1969. SAC. Buenos Aires. 1987



<https://creativecommons.org/licenses/by-nc-sa/4.0/>

©Revista Argentina de Cardiología

<sup>1</sup> Argentine Society of Cardiology. Teaching Area.

symptoms, and heart failure, made in 1909 by Professor Abel Ayerza. His disciple, Francisco Arrillaga, published in 1912 what could be considered the first Argentine book on cardiology: *Secondary sclerosis of the pulmonary artery (black cardiac disease)* [*Esclerosis secundaria de la arteria pulmonar (cardíacos negros)*].

The introduction of the first electrocardiographs in the country represented a significant impulse for the development of national Cardiology. The first electrocardiograph was imported in 1912 at the initiative of Professor Bernardo Houssay to be used in the Medical Physics Department of the School of Medicine of the University of Buenos Aires. In 1915, Dr. Francisco Arrillaga published his book *The clinical relevance of the electrocardiogram (La importancia clínica del electrocardiograma)*, which led to the regular use of the method. In 1924, Dr. Tiburcio Padilla published his book on electrocardiography and in 1933 Dr. Antonio Battro presented his book *Arrhythmias (Arritmias)*.

Experimental cardiology had a privileged place at the Institute of Physiology of the School of Medicine of the University of Buenos Aires, under the head of Professor Bernardo Houssay, while clinical Cardiology was developed in the Internal Medicine wards of public and university hospitals nationwide. At *Hospital de Clínicas de Buenos Aires*, education on Cardiology took place in the chairs of Professors Castex, Merlo and Padilla. This department quickly stood out for its contributions in the field of semiology and cardiovascular pathophysiology. In 1932, Dr. Pedro Cossio and Dr. Isaac Berconsky performed the first catheterization in America and the third in the world.

In the City of Buenos Aires, the XII ward at *Hospital José Ramos Mejía* directed by Dr. Rafael Bullrich had an outstanding performance. In 1934, Dr. Bullrich created the so-called Dispensaries for the Care of Cardiac Diseases which depended on the Public Health Care of the city of Buenos Aires. These dispensaries gave rise to the current departments of cardiology of the public hospitals in the city. Two physicians who worked with Dr. Rafael Bullrich played a pivotal role in the development of the specialty: Dr. Eduardo Braun Menéndez and Dr. Blas Moia. When Dr. Braun Menéndez finally dedicated himself to research with Professor Bernardo Houssay, Dr. Blas Moia became the head of the Cardiology area and in 1932 he became the director of *Archivos Médicos del Hospital Ramos Mejía*, the seed of what would become the Argentine Journal of Cardiology founded in 1934 on the initiative of Moia and Braun Menéndez. The journal was the seventh cardiology journal in the world and the first to publish abstracts in English, French and German.

The Argentine Society of Cardiology (SAC) was founded on April 9, 1937, at an assembly held at the Institute of Physiology of the School of Medicine of the University of Buenos Aires, the SAC. (2)

The first Board of Directors was made up of:

- Antonio Battro and Pedro Cossio, secretaries
- Eduardo Braun Menéndez, treasurer
- Blas Moia and Alberto Taquini, members of the board of directors
- Oscar Orías, delegate to the Argentine Journal of Cardiology

The Argentine Journal of Cardiology became the official organ of the SAC.

The scientific activities consisted of presenting papers and clinical cases.

The first World Congress of Cardiology was held in Paris in 1950, under the chairmanship of Professor Charles Laubry. During this congress the statutes of the International Society of Cardiology were approved, and only two years later, in 1952, the II International Congress of Cardiology was held in Buenos Aires, with Dr. Pedro Cossio as president.

Dr. Alberto Demartini provided a particularly interesting description of the organization of the First Argentine Congress of Cardiology. (3) In 1954 the Board of Directors of the SAC accepted Dr. Rodolfo Romero's proposal to organize a national congress. However, "*such a name was not allowed by the National Government at that time because, by a resolution of the National Executive Power, such a name could only be used by events promoted by the Government or by the official political party. Therefore, they had to be called "Conferences"*". The First Argentine Congress of Cardiology (called *Conferences*) was held in Mar del Plata in March 1955, under the chairmanship of Dr. Fernando Battle. It was attended by about 300 cardiologists, many of them from inland cities. In October 1957, the II Argentine Congress of Cardiology was held in the city of Mendoza.

In 1974, the VII World Congress of Cardiology was held in Buenos Aires, jointly organized by the SAC and the Argentine Federation of Cardiology (FAC), which had been founded in 1965 as a Society of Societies.

The event was attended by 10 000 cardiologists from around the world and 2400 scientific papers were presented. In commemoration of this milestone and as a tribute to this congress which has been held annually to the present day, we will celebrate the 50th anniversary of our congress.

Dr. Francisco J. Romano, president of the VII World Congress of Cardiology, stated that:

*"Most of those who register for a congress do so to learn about the most recent developments and to form their own opinions on controversial topics. They also learn about errors and shortcomings in methods, doctrines and therapeutics. The possibilities for the future are outlined. And all this educational task is no longer the exclusive domain of a single lecturer. Keynote lectures and paper sessions give way to symposia and round tables. In these sessions, each individual presents their own thoughts, rather than imposing them. Round tables almost always aim to reach a synthesis of the ideas presented by each member. The Congress offers a unique opportunity to grasp complex concepts in*

a short period, which would otherwise require extensive reading and reflection. Nor should it be forgotten that the educational action is widened and affirmed with the participation of the experiences and statistics of different countries". (4)

Regarding education on cardiology at Hospital de Clínicas, Alfredo Buzzi and Ricardo Gelpi (5) say:

"It is not by chance that during the period between the end of the 19th century and the beginning of the last century, Argentine medicine witnessed the emergence and brilliance of figures of high scientific level. This was made possible by a combination of favorable circumstances, primarily the remarkable advancement of European science and medicine during the latter half of the 19th century and the subsequent institutional order, prosperity and stability that emerged following the national organization in our country.

Abel Ayerza was one of the first Argentine physicians to take our medical practice beyond national borders".

The history of training cardiologists is parallel to the development of the specialty. The first institution with resident physicians was Ward IV of the former Hospital de Clínicas, headquarters of the *Instituto de Semiología*. In 1944, Dr. Tiburcio Padilla, who was its Associate Professor, created the positions of junior and senior resident physician for former hospital interns once they had graduated, following the suggestion of his disciple Pedro Cossio. What began as a trial period ultimately became a definitive program when the Board of Directors of the School of Medicine (UBA) enacted an ordinance in December 1952 that outlined the duties and responsibilities of the residents. This first residency program in Internal Medicine in Argentina was strongly associated with personalities linked to Cardiology.

Clinical training required the presence of the students in the hospitals, under the close supervision of their professors.

"...clinical training must be conducted on a rigorously individual basis. It is achieved by providing repeated and persistent care to patients, who must be thoroughly observed, with an accurate and safe technique, using all the resources with a rigorous review. This can only be done in the hospital." Houssay B, 1927. (6)

Dr. Houssay was very well informed about the international trends in medical education and the development of the profession. He noticed the emergence of a trend towards specialization: new professional profiles and new institutions (such as specialized centers), which had an impact on medical education. Training specialists within a hospital residency program after graduation was the model to follow.

In 1946, the *Pabellón Luis H. Inchauspe* was opened at Hospital Ramos Mejía in the city of Buenos Aires under the head of Dr Blas Moia and the first residency in cardiology was created. The model initially spread throughout the public hospitals of the

large cities of the country and in centers associated with university headquarters.

Following the formalization of the medical residency system in 1960, with the approval of Resolution No. 1778 by the Secretary of State for Public Health, there was a significant increase in the number of training centers in public institutions across the different jurisdictions, in prestigious private institutions, community hospitals and Armed Forces.

The medical residency was originally defined as "a system of professional education for medical school graduates, with in-service training, on a full-time, time-bound basis, to prepare them for the comprehensive, scientific, technical and social practice of a specialty." (7)

It was later redefined as "an educational system for recent graduates whose purpose is to complete their comprehensive formation by making them practice the responsible and effective performance of the corresponding discipline". (8)

Nowadays, there are approximately 200 residency programs in cardiology in our country.

In accordance with Article 40 of the Higher Education Law (LES) No. 24,521/95, "it is the exclusive responsibility of university institutions to grant bachelor degrees and equivalent professional degrees, as well as master and doctoral degrees". Specialist degree - which is not mentioned in the LES - is included in the Standards for the Accreditation of Medical, Biochemical, Pharmaceutical and Dental Specializations (9) and can only be granted by the universities after the specialty has been accredited by the National Commission for University Evaluation and Accreditation (CONEAU). Since the LES was enacted, the trend in training for medical specialists has been the integration of medical residency programs and university medical courses, which are periodically evaluated and accredited by the CONEAU. Only university specialist degrees are valid nationwide and are internationally recognized.

The Teaching Area of the SAC had an active participation in the elaboration of the standards for the accreditation of residency programs in cardiology by preparing a document that was submitted to the National Ministry of Health for the construction of the Frame of Reference. SAC's original position was published in the Argentine Journal of Cardiology. (10,11)

In August 1978, the SAC started the cycles of Update Courses and Conferences on Advances in Cardiology. The theoretical classes were given at the SAC Educational Area at 5 pm and hands-on training took place in cardiology centers in the city of Buenos Aires from 8 am to 4 pm.

In 1980, the Biannual Cardiology Course was launched with classes on Fridays from 5 to 11 p.m. and Saturdays from 8 a.m. to 2 p.m. All the classes were recorded on videotapes that were available for students who had missed a class or wished to review the material. From 1992 to 2005 this course was part

of the Cardiology Specialist Course of the UBA (subjects Cardiology I and II). In 2005, the UBA decided that all specialty courses be held at a hospital facility with a department of cardiology.

The Biannual Cardiology Course has been offered since 1978 as a contribution to the theoretical training of residents. At present, more than 79 residency programs nationwide participate in the course, which means, on average, about 350 residents as students per year.

Briefly, as a timeline, these are some milestones in the development of cardiology in our country.

- 1912. Francisco Arrillaga published *Secondary sclerosis of the pulmonary artery (black cardiac disease)* which is considered the first book on cardiology in Argentina.
- 1912. The first electrocardiograph is imported for use in the Medical Physics Department of the School of Medicine of the University of Buenos Aires.
- 1934. The Dispensaries for the Care of Cardiac Diseases -Public Health Care of the City of Buenos Aires -was created.
- 1934. The Argentine Journal of Cardiology was launched.
- 1937. Foundation of the Argentine Society of Cardiology.
- 1946. Creation of the first residency in cardiology at *Hospital Ramos Mejía*.
- 1955. First Argentine Congress of Cardiology (*Conference*).
- 1957. Second Argentine Congress of Cardiology.
- 1965. Creation of the Argentine Federation of Cardiology (FAC).
- 1974. Seventh World Congress of Cardiology in Buenos Aires
- 1978. Beginning of the teaching activities at SAC: courses for residents and continuing education courses, in addition to the traditional scientific activities such as symposia, case conferences and clinical cases.

In 2022, the National Academy of Medicine published a book presenting 14 Argentine physicians who improved world medicine with their biography, scientific contributions and professional and teaching activity. (12) This group includes Bernardo Houssay, Eduardo Braun Menéndez, Mauricio Rosenbaum, René Favaloro, Juan Carlos Parodi and Julio César Palmaz, among others. Each of these doctors made significant

contributions to the field of cardiology, resulting in numerous lives being saved.

What will young Argentine cardiologists contribute to the world today? They are probably developing something in a research center or cardiology department. They are working hard under difficult conditions.

*"Innovation is like a candle flame in the wind. Disruptive ideas are often dismissed by our minds, which seek simple explanations for everything. That is why we must learn to question". (12)*

*"Given the number of variables to control and the precarious resources, it is easy to understand the initial failures. Difficulties that sometimes crush the weak, serve to strengthen the prepared spirits" (12)*

#### Conflicts of interest

None declared.

(See authors' conflict of interests forms on the web).

#### REFERENCES

1. Ministry of Health. Undersecretariat of Policies, Regulation and Auditing. Frame of Reference for Training in Medical Residency Programs in Cardiology Specialty. March 2015.
2. In December 2014, the Congress enacted National Law No. 27,052, which establishes the "Argentine Cardiology Day" on April 9 of each year.
3. Demartini A. History of the Argentine Society of Cardiology. From its foundation until 1969. Argentine Society of Cardiology Edition. Buenos Aires. 1987. Pag. 68 (Spanish). Buenos Aires. 1987. Pag 68.
4. The VII World Congress of Cardiology. Editorial. Available in: <http://www.old2.sac.org.ar/wp-content/uploads/2015/03/PDFs201503/1693.pdf>. (Spanish)
5. Buzzi A, Gelpi RJ. Historical Aspects of Teaching Clinical Cardiology in the Old Hospital Nacional de Clínicas (1901-1956) *Rev Argent Cardiol* 2011;79:442-6.
6. Houssay B. Problems and Orientations of Modern Medicine. Lecture given at the Ateneo del Centro de Estudiantes de Medicina de Buenos Aires on October 19, 1927. In: Barrios Medina A, Paladini A. Writings and Speeches of Dr. Bernardo A. Houssay. Buenos Aires: EUDEBA; 1989. p. 44-59.
7. State Secretariat of Public Health. Ministry Resolution No. 1778-61.
8. Ministry of Public Health. Resolution No. 389-89 repealed by Resolution 323/2002, which maintains exactly the same definition.
9. Ministry of Education, Resolution N° 2643/19
10. Roiter H, Alves de Lima A, Galli A, Migliore R, Guevara E, Grancelli H, y cols. Cardiologist training through the residency system: a Proposal of the teaching area of saC. *Rev Argent Cardiol* 2015;83:237-41. <http://dx.doi.org/10.7775/rac.v83.i3.5803>
11. Atamañuk A, Galli A, Ahuad Guerrero A, Roiter H, De Mollein D, Grancelli H. Do the Different Pathways to Become Specialist in Cardiology Have Similar Results? *Rev Argent. Cardiol* 2012;80:152-6.
12. de los Santos R, et al. Argentines who improved medicine world. National Academy of Medicine.. Buenos Aires. 2022. (Spanish)