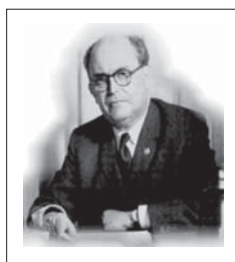


Professor Dr. Ignacio Chávez Sánchez (1897–1979): Pioneer of Latin American cardiology

Professor Dr. Ignacio Chávez Sánchez was born on 31 January, 1897 in Zirándaro de los Chávez in the state of Guerrero, México. His parents were Mr. Ignacio Chávez Villegas and Mrs. Socorro Sánchez. He had a very prolific scientific career and is today recognized as one of the most important pioneers of Latin American cardiology. However, not everybody is familiar with his contributions.

Who was Ignacio Chávez and why is he being recognized? He was a physician, cardiologist, educator, history professor, scientist and humanist. He was considered the most important physician in Mexico during the first half of the 20th century.

Mexican cardiology was a world leader in the study of patients with heart disease and the creation of the first institute on cardiovascular diseases, the Instituto Nacional de Cardiología founded by Dr. Ignacio Chávez Sánchez. His detailed description of the clinical findings of pulmonary hypertension, known as Complejo de la Pulmonar de Chávez (Chávez' pulmonary complex), is nothing less than remarkable (Fig. 1).



Mexican cardiology has made several important contributions to universal electrocardiography and vectorcardiography, to the point of being known as the Mexican School of Electrocardiography. Its worldwide dimension was sealed by the creation of the Archives of the Institute of Cardiology of Mexico (currently indexed in Pubmed).

Throughout his brilliant career, Dr. Ignacio Chávez set an academic example that was to be followed by many generations.

Some of the brilliant cardiologists that the Mexican school has trained are: Demetrio Sodi Palares, Enrique Cabrera, Fulvio Pileggi and João Tranchesi from Brazil, Paul Puech from France, Prof. Andrea Nava from Italy, and many others.

A quotation from Dr. Ignacio Chávez may clarify his understanding of the learning/teaching process: *“Learn as much as you can, teach everything you know, and do not forget that those who greedily save their science for themselves are under the risk of having their soul and their science rot together.”*

This perspective of the learning/teaching process has illuminated not only Mexican doctors but also several medical schools in the world that today pay tribute to his view by implementing this perspective of teaching. The North American axiom of *“see one, do one, teach one”* aligns perfectly well with Dr. Chávez's perspectives.

Dr. Chávez attended the San Nicolás de Hidalgo College, and later studied at the Morelia School of Medicine.

Dr. Chávez served as Professor of World History at San Nicolás de Hidalgo College from 1914 to 1916, and in 1914 he joined the School of Medicine. He completed the first two years there, and from 1916 to 1919 he studied Medicine at the National Autonomous University of Mexico. He received his bachelor's degree in medicine-surgery in 1920. Almost immediately, he was appointed as Dean of the San Nicolás de Hidalgo University in



Figure 1. Professor Chávez teaching auscultation in the Instituto Nacional de Cardiología.

Morelia. He accepted on the condition that he would hold the post for only one year (1920–1921).

He became Professor of Clinical Medicine and Clinical Propedeutics in 1921, and was Chief of Internal Medicine at the Faculty of Medicine of Mexico during 1922–1923. From 1924 to 1926 he was Professor of Medical Pathology.

He specialized in cardiology in Paris, where he trained with Charles Henri Laubry and Henri Vazquez, the most eminent experts of the day. Then, he studied at clinics in Berlin, Prague, Vienna, Rome, and Brussels [1].

In 1932, he received his doctoral degree in Biological Sciences at the National University of Mexico. He was Head of the National School of Medicine from 1933 to 1934, elected by acclamation. In 1933, he was also appointed Knight of the Order of the Legion of Honor in France. He founded the first cardiology area in the General Hospital of Mexico (1924–1944). In 1941, he led a cardiology course delivered by the American Heart Association.

In 1944, he founded the National Institute of Cardiology and was its Director until 1961. He was elected Dean of the National Autonomous University of Mexico (UNAM) from 1965 for a year. He was the director of the General Hospital of Mexico from 1936 to 1939. He was instrumental in fostering international co-operation in cardiology after WWII. He founded and chaired the Mexican Society of Cardiology in 1935.

He was appointed an Honorary Member of the Society of Cardiology of Havana, Cuba, in 1938, and in 1942 a Member of the American Heart Association. He was elected in 1943 as a member of the Academy of Medical, Physical, and Natural Sciences of Havana. The same year, he was also appointed Honorary Member of the Ramón y Cajal Athenaeum. In 1944, he founded and became Director of the Archives of the *Institute of Cardiology of Mexico Journal* [2].

He founded the Interamerican Society of Cardiology in 1946, and in the same year, along with Paul Dudley White and Charles Laubry, he co-founded the International Society of Cardiology. He served as vice-chairman (1952–1962) and honorary life chairman (after 1962).

He was president of the 4th World Congress of Cardiology, held in Mexico City, in October 1962.

Dr. Chávez was a member of 33 national and international scientific societies, and President of the Academy of Medicine of Mexico. He received Honoris Causa degrees from 21 universities and 31 national and international decorations.

He was a member of the counseling committee of the World Health Organization (1955) and the Organization of American States (1958–1966). Dr. Chávez also participated in 18 different cardiology societies in America and Europe [3], and was a founding member of the National College (1943).

His name (and work) is remembered at the Institute of Cardiology (colloquially referred to as “the Chávez Institute”), and also with a Monument erected in his home town. A medal was coined when he received his Honoris Causa degree from the Sorbonne University and a postage stamp was issued on the first centenary of his birth by the Mexican Government.

He was awarded several times during his career [4]:

- Commander of the Order of Finlay, Cuba (1944)
- Honorary Member of the Medical Society Francisco Marín, Puebla, México (1944)
- Honorary Professor of the University of Guadalajara (1944)
- National Order of the Honor Legion (France, 1933, 1951, 1966)
- Manuel Ávila Camacho Science Award (1945)
- Mexico City Medal for Civic Merit (1945)
- Honorary President for Life of the Interamerican Society of Cardiology (1946)
- General Morelos Medal (Michoacán, 1954)
- Eduardo Liceaga Gold Medal (1960)
- National Science Award (1961)
- American College of Physicians Gold Medal (Atlantic City, 1963)
- Belisario Domínguez Medal awarded by the Senate of Mexico (1975).

Among other scientific contributions, he also wrote the following:

- La Digitalina a Pequeñas dosis en el Tratamiento de las Cardiopatías (thesis), Mexico (1920)
- Lecciones de clínica cardíológica, E. Gutierrez B., Ed. Mexico (‘Lessons on Clinical Cardiology’) (1931)
- Enfermedades del corazón, cirugía y embarazo (‘Heart diseases, surgery and pregnancy’) (1945)
- Diego Rivera, sus frescos en el Instituto Nacional de Cardiología (‘Diego Rivera, his murals in the National Institute of Cardiology’) (1946)
- México en la cultura médica (‘Mexico in medical culture’) (1947)
- “Grandeza y miseria de la especialización médica. Aspiración a un nuevo humanismo,” en *Cuadernos Americanos*. 102, Vol. 7, México (1959)
- Adiós a Alfonso Reyes. Magisterio, México (1959)

- Reflexiones en torno a la educación médica y a la educación del nivel de nuestras escuelas de medicina. UNAM. Dirección General de Publicaciones, México (1963)
 - *Dicursos y conferencias*. El Colegio Nacional, México (1977)
 - *Ideario*. El Colegio Nacional, México (1977)
- Some of his scientific articles especially worthy of mention are:
- Las Grandes y las Pequeñas dosis de Digital, “Revista Médica”, Morelia. Tomo I (1921)
 - Cáncer Nodular Primitivo del Hígado, “Revista Médica” Morelia. Tomo I (1921)
 - Del Balance de la Cura Bismútica, “Revista de la Asociación Médica Mexicana”, México (1924)
 - La Obra del Doctor don José Terrés, “Revista de la Asociación Médica Mexicana”, México (1925)
 - Frecuencia y Formas Clínicas de la Aortitis Sífilítica, Ponencia del VI Congreso Médico Nacional, “Hospital General”, México (1928)
 - Sobre un caso de Enfermedad de Osler (en colaboración con el Doctor M. Martínez Báez), “Hospital General”, México (1928)
 - Incidence of Heart Disease in Mexico. *Am Heart J*, 1942; 24: 88–89
 - Historia de la Auscultación, La Obra de Laennec, en “Aspectos del Pensamiento Michoacano” Edición del Gobierno del Estado de Michoacán, pp: 101–118 (1943)
 - Chavez I, Sepúlveda B, A Ortega I. The functional value of the liver in heart disease, an experimental study. *J Am Med Assoc*, 1943; 121: 1276–1282
 - Embarazo y Cardiopatías, “Medicina y Ciencias Afines” año II, N° 24 (1944)
 - Contribución al Estudio del Síndrome de Wolff, Parkinson y White (in collaboration with Drs. José Brumlik and Demetrio Sodi). Presented at the I Reunión Cardiológica Interamericana (1944)
 - Sobre un caso extraordinario de Parálisis Auricular Permanente con Gegeneración del Nódulo de Keith y Flack (in collaboration with Drs. José Brumlik and Demetrio Sodi Pallares), “Archivos del Instituto de Cardiología de México” Tomo XVI (1946).

Despite this enormous number of contributions and his dedication to science, the question still remains: why should we remember Dr. Ignacio Chávez in 2011?

The answer is that for almost half a century, he led Mexican (and Latin American) cardiology to the forefront of science and research, and, in a parallel way, he set the fundamentals of including humanism as the major driver of medical actions. Clearly, Dr. Chávez was a man well ahead of his time and with a unique view of the importance of keeping the human aspect of science the priority. We would like to quote him again: “*Humanism is not a luxury, it means culture; understanding people in their aspirations and miseries; a valuation of what is good, what is beautiful, and what is fair in life; settling the rules that govern our interior world; an eagerness to better ourselves that leads us, as in the phrase of a philosopher, ‘to equal our thoughts with our life’.* This is the action of humanism, when we become cultured. Science is something different, it makes us strong, but not better. For this reason, a physician becomes wiser as he becomes more cultured.”

Chávez sought inspiration in the Renaissance humanists such as Leonardo Da Vinci, who showed what humans are capable of in their multiple aspects; Copernicus, who made our world descend from its geocentric throne and run modestly through its orbit; Vesalius, who started a revolution in medicine against the authority of the texts of his time; Michelangelo, who materialized another world in the Sistine Chapel, and who made marble talk: “*parla, e per che non parla?*”

Chávez has gained international scientific and social recognition as a humanist, cardiologist and scientist; but even above and beyond these, as a great leader. In Aristotelian terms, the good leader must have ethos, pathos and logos. Ethos is his moral character, the source of his ability to persuade. Pathos is his ability to touch feelings, to move people emotionally. Logos is the ability to give solid reasons for an action, to move people intellectually.

By this definition, Ignacio Chávez Sánchez was a great leader. He was also an innovator in higher education and modern culture.

The hallmark of the Ignacio Chavez Institute of Mexico is undoubtedly the innovative and imaginative approach to the electrocardiogram and the vectorcardiogram. His disciples have followed Dr. Chávez’s approach in the generous way of teaching and transmitting knowledge, enriching the universal world of electrocardiography.

One of his disciples, and co-author of this historical vignette, has described Dr. Chávez’s contributions and legacies thus:

“Dr Chávez taught us that great men are those who use their power to pursue ‘a common well-being’ and not to get rich or to win prestige”.

This group of Latin American cardiologists would like to pay their respects and tribute to one of the greatest builders of Mexican cardiology, sharing Dr. Chávez’s achievements with the rest of the international community.

Acknowledgements

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ERRATUM

To the article “Assessing QT prolongation and electrocardiography restitution using a beat-to-beat method” (authors: Anthony A. Fossa and Meijian Zhou), Cardiology Journal 2010; 17, 3: 230–243.

Page 242, Figure 9: In the upper right and lower left panels the QT/TQ ratio should read “**QT/TQ =** = **↑350%**” and “**QT/TQ =** = **↑271%**”, respectively, not 1350% and 1271%.

We apologize for the error and any confusion this may have caused.