

Obituary

José Moura Gonçalves (1914-1996)

Professor José Moura Gonçalves died at 82 on October 19, 1996, in São Paulo. Son of José Augusto Gonçalves and Argentina Moura Gonçalves, he was married to Laura Gouveia Moura Gonçalves, with whom he had three children: Elizabeth, José and Augusto José.

Professor Moura Gonçalves obtained his MD at the School that is today the Faculty of Medicine of the Federal University of Minas Gerais, where Professor Baeta Viana influenced a whole generation of biochemists. Approved in a competition for the "Livro Docente" position in Physiological Chemistry, the chair of Baeta Viana, he received the title of Doctor of Medicine from UFMG in 1940.

Invited by Professor Carlos Chagas Filho, he entered the Biophysics Institute of the University of Brazil (today Federal University of Rio de Janeiro). He was hired as an assistant to the chair of Biological Physics and he associated with the couple René and Sabine Filliti-Wurmser, war refugees and renowned French scientists in the area of Physical Chemistry. In 1945, he was accepted at the Physics-Chemistry Laboratory of the Department of Chemistry, University of Wisconsin, USA, as the recipient of a Rockefeller Foundation fellowship. As a research associate, he discovered a new specific neurotoxin of rattlesnakes from Southern Brazil and Northern Argentina. After characterizing the toxin chemically and physico-chemically, he named it crotamine. This discovery was a milestone, revealing the biodiversity of snake poisons, and had important implications for the preparation of antivenom sera.

Still as a Rockefeller Foundation Fellow in the U.S. he worked at the National Cancer Institute in the laboratory of Dr. Jesse P. Greenstein, a disciple of Max Bergman, where he participated in the study of a new class of proteases (dehydropeptidases) and synthesized specific substrates for their characterization. This study was published in the *Journal of Biological Chemistry* in 1947, with Moura Gonçalves as the first author.

Upon his return to the Biophysics Institute in 1948, Moura Gonçalves organized the section of Physics-Chemistry, where he set up new methods for protein isolation and characterization by free electrophoresis and chromatography, among others. He again started his work on the isolation and characterization of toxins and enzymes from the venom of Brazilian animals. He visited the University of Uppsala (Prof. Arne Tiselius), the University of Copenhagen (Prof. Linderstrom Lang) and, through the British Council, the English Universities of Sheffield, London, Oxford and Cambridge.

In 1952, upon the recommendation of Prof. Leal Prado, Moura Gonçalves was hired by Prof. Zeferino Vaz to direct the Department of Biochemistry of the newly founded Faculty of Medicine of Ribeirão Preto, USP, whose objective was to innovate medical education by providing solid scientific training to future doctors. For this reason, Prof. Vaz chose professors of high competence and proven experience both from Brazil and abroad. Moura Gonçalves turned his Department of Biochemistry into

a reference point for all others. With his profound knowledge of the physics-chemistry of biological systems, he never forgot his medical training, thus being able to effectively transmit basic knowledge integrated in the multidisciplinary of physiology and pathology.

He was elected and reelected Director of FMRP for seven consecutive years during the extremely difficult times of the military regime when, in addition to everything else, he showed courage by not permitting the Faculty to be controlled by civilian or military authoritarianism, doing everything he could to prevent the deterioration of the University environment.

He played an active and important role in the restructuring of the Brazilian Society of Biochemistry, of which he was first President during its new phase. Furthermore, he was admitted to the Great-Cross class of the National Order of Scientific Merit and was awarded the Lafi Prize.

After retiring from FMRP, Prof. Moura Gonçalves became Director of Radiobiology at the Energy and Nuclear Research Institute (IPEN). With the passing of Moura Gonçalves, the scientific community loses a pioneer of modern biochemistry in Brazil.

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