

Sergio Mascarenhas one of ICTP most distinguished pioneers



Sergio Mascarenhas during the Symposium organized in 1998 at Alghero (Sardinia, Italy) on the occasion of his 70th birthday. Photograph printed by kind permission of Professor Roberto Cesareo.

Professor Sergio Mascarenhas passed away on 31 May 2021. He was a Brazilian experimental physicist and educator, who made fundamental contributions to establish life sciences at the Abdus Salam ICTP. In the early 1980s Professor Abdus Salam, who always believed the relevance of the life sciences in the context of Contemporary Physics¹, asked him for assistance to implement a programme on Physics of the Living State, which had been suggested in the 1983 Report of the *ad hoc* Consultative Committee presided by Paul T. Matthews. Earlier, a similar suggestion had been put forward in the Leon Van Hove 1974 Committee².

Salam contacted leading international scientists, in addition to physicists from the University of Trieste, who had already been supporting the Centre. Among the first contacts from the international community Salam chose Mascarenhas, who was competent in both Biophysics and Medical Physics. He was a most stimulating promoter and director of Colleges and Workshops in these two disciplines. He impressed those of us, who were fortunate enough to have collaborated with him, not only for his gifts as an educator, but especially for his outstanding competence as a scientist.

His long-lasting impact in our Centre encouraged the growth of biosciences. With the help of scientists in residence at ICTP, including the author in collaboration with leading scientists from other institutions, further activities emerged in subsequent years: the Antonio Borsellino Colleges in Neurophysics, as well as research in Astrobiology, including Abdus Salam himself³, who also promoted and participated in the first of a series of seven related conferences. Finally, there was a robust programme of Associate Members in the life sciences. In addition, from 2014 ICTP gained a permanent group of Quantitative Life Sciences. Since the 1980s Medical Physics has continued to grow steadily up to the present awards of a Master's degree.

With the absence of Mascarenhas, the Abdus Salam ICTP loses one of its most influential pioneers.

Professor Julian Chela-Flores.

1. Salam, Abdus and L. Fonda (1969). *Contemporary Physics: Trieste Symposium 1968*. IAEA, Vienna, Vol II, pp. 479-497. His choice of two speakers (Francis Crick and Sydney Brenner, who were awarded the Nobel Prize in Physiology or Medicine in 1962 and 2002, respectively), confirms Salam's point that the Life Sciences were relevant at the ICTP. Another two participants in this event were Leon Van Hove and Paul T. Matthews.
2. Chela-Flores, J. (1996). *Physics of the Living State at ICTP. In: From a Vision to a System. The International Centre for Theoretical Physics of Trieste (1964-1994). A tribute to Abdus Salam on the occasion of the thirtieth anniversary of the Centre*. Ed. A. M. Hamende. Fondazione Internazionale Trieste per il Progresso e la Libertà delle Scienze, Trieste, pp. 127-137. Retrievable from: <http://www.ictp.it/~chelaf/ss8.html> (search for "Physics of the Living State").
3. Fraser, Gordon (2008). *Cosmic Anger*. Oxford University Press, Chapter 13, pp. 244-245.