

## IN MEMORY OF CARLO MARCHESI (1939-2016)

Carlo Marchesi, a passionate supporter of Computers in Cardiology and organiser of the 1981 conference in Florence, died on March 4, 2016.



Carlo was born on 25 October, 1939 in Este, Padova, Italy. He received the degree in electrical engineering from the University of Padova in 1967. After postgraduate research training at the University of Pisa, Italy, and at Duke University, Durham, in the USA, he joined the Istituto di Fisiologia Clinica (IFC) in Pisa as Head of the Medical Informatics Department. He served as Adjunct Professor at the University of Pavia and Padova. Since 1987, he was Associate Professor and later Full Professor of Bioengineering at the University of Florence, Italy. He collaborated with the University of Bologna, Italy, in the PhD program in bioengineering. He represented Italy in several European Union meetings to plan biomedical equipment research. In 1988, he was nominated Fellow of the European Society of Cardiology.

He was a member of the CinC Board of Directors for several years and gave much very positive support, stimulating new initiatives for our CinC community. He also introduced many young Italian researchers into the scientific community that every year meets at Computers in Cardiology (Computing in Cardiology today).

As among Carlo's first students we spent many years working with him, first during the Pisa period at the IFC and later as co-workers and friends when he was at the University of Florence. Under his guidance, these first years were passionate and exciting; it was the time of the explosion of computerized signal processing and of great hope and confidence in automatic extraction of features and knowledge from biological signals. His research was always oriented to practical problems that were close to the patient, such as Coronary Care Unit real time monitoring or ECG long term ambulatory monitoring, often through joint agreements with biomedical companies. Dating back to those years was the development of the European ST-T Database, which originated from the European Community's "Concerted Action on Ambulatory Monitoring" and supported by the European Society of Cardiology, and which is still a reference for assessing the quality of ambulatory ECG analysis systems (applied by more than 100 research institutes and companies worldwide). This came from Carlo's ideas, at the beginning of 1990, with the proposal for enhancing patient knowledge not only through signals but also from a complete medical history. It was the time of a large effort devoted to implementing new hospital information systems able to collect and integrate any kind of medical and administrative data, and at the same time able to cope with the challenging issue of the interoperability of medical devices. He started in-house development of an Electronic Medical Record for full management of health care (patient centred) in Cardiology departments of the IFC, setting the basis for a pioneering national project in the 1990s (SPERIGEST) and anticipating subsequent achievements of a fully integrated Hospital Information System, which today has been extended to other hospitals in Tuscany.

At the University of Florence he dedicated his knowledge and expertise to teaching and to sharing his curiosity and passion with his students and young researchers in many bioengineering fields. His last passion was Assistive Technology where he promoted a friendly partnership

between the University and Associations of disabled people in the Tuscan district. Once again it demonstrated his belief that technology has to be primarily in the service of the weak.

After his retirement, despite his progressive disease, he continued to actively participate in research projects, at this time oriented to elderly people with physical and/or neurological impairment. His contribution was always crucial, with his wide knowledge and expertise, and for his friendly and positive style of relating with others.

He was a very open and honest person; warm, keen and passionate. He was a brilliant and respected scientist in the field of bioengineering and he has been fundamental to the development of the discipline and formed the basis for many researchers who had the privilege of working and interacting with him or reading his books. He inspired many of us with the incredibly wide range of his knowledge, and with his enthusiasm for discussion of ideas - his own ideas, the ideas of the people he had read, and the ideas of his students.

Those of us who worked with Carlo cannot forget his dedication to scientific work but above all his outstanding charisma with which he was able to involve colleagues, continuously giving them opportunities for professional growth.

We can never forget his helpfulness and his personal and scientific generosity, which continue to serve as a reference of an outstanding scientist. Far beyond mere academic thinking, he was able to show his colleagues and students a path to the real core of things.

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