

Obituary



Photo courtesy of Assia Inda

Professor Arturo Leone (1953-2005)

On December 30, a pulmonary embolism took the life of Arturo Leone at the age of 52. This was a great shock to his family and to all his many friends and colleagues. Among the impressive number of projects that Arturo was working on, he particularly cared about the launch of *Genes and Nutrition* (he was member of the editorial board), therefore it is highly fitting to recall his achievements in this the first issue of the journal.

Arturo Leone was born to a family of scientists in Naples in 1953. His grandfather Gustavo was Professor of Pharmacology and his father Enzo was a well-known protein chemist and Professor of Biochemistry. Arturo enrolled in the School of Medicine of the University of Naples in 1972, and soon began to spend all his spare time working with the group of young molecular virologists led by Ranieri Cancedda at the Institute of Biochemistry. He was a brilliant student, and was given the opportunity of spending 6 months in Milton Schlessinger's lab at the Washington University in St. Louis in Missouri, before receiving his MD degree in 1977. He was interested in the expression of Sindbis virus glycoproteins and in the cloning and sequencing of the major viral mRNA. In subsequent years he worked with Aron Shatkin at the Roche Institute for Molecular Biology (Nutley, NJ) and with Riccardo Cortese at the European Molecular Biology Laboratory in Heidelberg. But the defining moment of his career was the postdoctoral period he spent at Dean Hamer's lab at the National Cancer Institute in Bethesda where he started to study the molecular and cellular basis of the metabolism of metals in mammals. In 1985 he reported the first example of a human hereditary disease (Menkes disease) in which a gene mutation has a strong effect in *trans* on the transcriptional activation of other promoters (metallothionein and heat shock promoters). This study was elegantly confirmed later on when the Menkes gene product was shown to code for a Cu-ATPase whose deficiency enhances the cell copper load. Back in Italy, he was appointed Associate Professor of Biochemistry at the Department of Biochemistry and Medical Biotechnology of the University of Naples where he focused on metallothionein gene regulation and metal-induced cell stress. In 1994 he moved to the newly formed School of Pharmacy at the University of Salerno as Full Professor. There, starting from scratch, he formed a productive group engaged in studying the biological function of BAG-3 protein, a regulator of Hsp70/Hsc70 molecular chaperones, whose expression is induced by cell stress. Recently, together with Caterina Turco he showed that this protein has intriguing anti-apoptotic functions.

His scientific interests were broad and his enthusiasm for new adventures was boundless, so it didn't surprise his friends and colleagues when, in 2002, he accepted the directorship of the National Research Council Nutritional Science Institute in Avellino, thereby adding to his already daunting workload. His first two years at the institute were devoted to reorganisation and switching to a molecular approach to nutrition research. The results of his efforts and planning are just now beginning to bear fruit.

Arturo Leone took pains to promote his field of research. In Italy, he organized many workshops for young and experienced scientists under the aegis of the Italian Association for Cell and Developmental Biology. In Europe, he was an active member the European Copper Research Group. And finally, together with Julian Mercer and Dennis Thiele (a former bench mate in Dean Hamer's lab) he founded the International Copper Research Group, which sponsored several very successful international "Copper Club" meetings.

Arturo had a strong work ethic and was intellectually honest. He was modest about his own achievements and was quick to recognise the achievements of others. He cared enormously about his younger collaborators, and was blessed by a warm outgoing personality and a sense of humour. His optimism was unshakeable. The first time he invited me to Salerno was few weeks after he moved, and the Faculty of Pharmacy was housed (or rather "camped") in an ancient former monastery. Having shared an office and lab (not to mention friendship) with him for ten years, I had to restrain myself from advising him to return to Naples. But his foresight was sound and things soon began to take the shape he had envisaged. Among these was the ambitious project sponsored by the University of Salerno to establish a School of Medicine. This would indeed be a historical event, since Salerno was home, in the 13th century, to the first School of Medicine of the western world. Arturo Leone was chosen to sit on the founding council to contribute with his enthusiasm and expertise to this fascinating task.

Arturo leaves his beloved wife Patrizia, the constant companion and compass of his life, and two wonderful daughters: Marina, a brilliant biotechnology student (the fourth generation of Leone scientists?), and Stefania, a delightful all-rounder in her high school as well as an enthusiast volleyball player.

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