Anil Kumar Lala (1950–2004)

Anil Kumar Lala, Professor of Chemistry at the Indian Institute of Technology (IIT), Bombay died on 17 July 2004, following a stroke that he suffered three weeks earlier. Born on 13 January 1950, Lala did his B Sc from Delhi University and obtained his Ph D in 1974, working under the supervision of A. B. Kulkarni at Bombay University. His doctoral work was in the area of steroid chemistry, introducing him to the areas of NMR spectroscopy and mass spectrometry. Following a year at the Central Drug Research Institute in Lucknow, Lala moved to the State University of Ghent, Belgium, to work with Marc Anteunis. I first saw his name in a scientific publication, when the conformational analysis of methionine enkephalin, then recently discovered as the endogenous ligand for the opioid receptor, was described by the group of Bengt Samuelsson. Lala’s interest in this area may have been influenced by his years in Cambridge, Massachusetts, where he undoubtedly became aware of Frank Westheimer’s work on nitrene photolabelling agents (V. Chowdhry and F. H. Westheimer, *Ann. Rev. Biochem.*, 1979, 48, 293) and Har Gobind Khorana’s work on intermolecular crosslinking of acyl chains in phospholipids, using a photoactivatable carbene precursor (Gupta, C. M. et al., *Proc. Natl. Acad. Sci. USA*, 1979, 76, 2595). Lala was quick to recognize the opportunity to develop highly reactive carbene donors capable of rapid insertion into neighbouring chemical bonds, upon generation by photolysis. His work on diazafluorene as a ‘new fluorescent photochemical reagent’ provided an alternative to light activable radioisotopes (*FEBS Lett.*, 1982, 146, 165–167). Over the last twenty years, Lala and an extraordinarily dedicated band of graduate students developed photolabelling into an important and powerful tool for analysing the organization of proteins in membranes, using the human erythrocyte glucose transporter, *Staphylococcus aureus* α-toxin and diphtheria toxin as examples, where the utility of this method was clearly demonstrated (*J. Biol. Chem.*, 1998, 273, 16216; 2000, 275, 11771; *Pure Appl. Chem.*, 1990, 62, 1453). Lala sensed opportunities to exploit the techniques he developed to the characterization of protein folding intermediates (*Protein Science*, 1999, 8, 1099) and depth probing in phospholipid bilayers (*Chem. Phys. Lipids*, 2002, 116, 177). He had begun moving into new areas, the systematic characterization of scorpion neurotoxins (*FEBS Lett.*, 2003, 539, 7–13) and drug design over the last few years.

Anil Lala was an excellent organizer; his only fault (and in many surroundings, this can be an exploitable weakness) was his tendency to speak his mind. He was the main architect of the Biotechnology Masters program at IIT and the Biosciences and Engineering Group, set up in 1983. He also played a major role in the Regional Sophisticated Instrumentation Centre (RSIC) for many years. The protein sequencing facility at IIT operated as a national facility under his charge. Most recently, he was the driving force in setting up a mass spectrometry facility to strengthen the area of protein chemistry. He single-handedly championed the cause of setting up an Indian Protein Society, successfully bringing together an international gathering of protein chemists and structural biologists at a symposium in Mumbai in October 2002. Anil Lala was an enthusiastic teacher, his words and ideas sometimes flowing too fast for the slow listener. But, in teaching it is the passion for the discipline that makes the greatest impact on a beginning student. Anil possessed this passion in full measure, successfully inspiring many students to enter research careers. The IITs have often advanced undergraduates in engineering programs as the true measure of their ‘brand equity’. But faculty, like Anil Lala, who have on occasion drawn away bright engineering students to academic research must be highly valued and celebrated.

Anil Lala was an elected Fellow of the Indian Academy of Sciences and the Indian National Science Academy and served on the editorial board of *Protein Science*. I believe his best years were yet to come. He was a warm and generous friend and an enthusiast for science. He will be greatly missed by his family, wife Krishna and son Vishal, and a host of friends and colleagues.

P. Balaram

Molecular Biophysics Unit, Indian Institute of Science, Bangalore 560 012, India
e-mail: pb@mbu.iisc.ernet.in