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A tribute to François Gros, a founding father of molecular biology

# A tribute to François Gros, a founding father of molecular biology: Foreword

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François Gros died last year. He was among the pioneers of the nascent discipline of molecular biology, and worked for most of his scientific career at the Institut Pasteur where he was Director from 1976 to 1981. He took part in developing the concept of messenger RNA with Jacques Monod and François Jacob. During his stay in Jim Watson's lab at Harvard, using biochemical approaches he discovered a class of unstable RNA, published in a classic paper—Gros *et al.* in *Nature* (1961). This was critical for the confirmation of the messenger RNA theory to which he continued to contribute on his return to the Institut Pasteur.

Subsequently, in his own lab, he carried out research on mRNA transcription and translation in bacteria and also in eukaryotic systems, first at the Institut de Biologie Physico-Chimique (IBPC) and then at the Institut Pasteur from 1972. He became interested in changes in gene expression during cell differentiation, using muscle cells as a model and also neuronal cells in his second laboratory at the Collège de France. Those who worked with him greatly benefited from his scientific insight and his generous support.

He also made major contributions to the organisation of scientific research and scientific policy in France. He was director of the Institut Pasteur (1976–1981) and then chief scientific advisor to prime

ministers of the government (1981–1985) during the Mitterrand presidency. During his career, he participated in writing a number of important reports both for the government and later as permanent secretary of the Académie des Sciences (1991–2000) when he also strongly supported scientific co-operation with developing countries, particularly in Africa.

In April 2023, a meeting was held in his honour, with a morning session at the Institut Pasteur that focused on RNA, where speakers included the Nobel Prize winners Venki Ramakrishnan and Emmanuelle Charpentier, and an afternoon session at the Institut de France where his contributions to the Academy were recognised.

This volume of the *Comptes Rendus Biologies* also honours François Gros. It contains a biographical text written by C. Petit and P. Kourisky, professors at the Collège de France, followed by an article by J.-P. Changeux who has known him from the time when they were both working with Jacques Monod. Subsequent articles are by previous collaborators in his laboratories at the IBPC, Institut Pasteur and Collège de France. Two articles on RNA from speakers at the Pasteur meeting in his honour are followed by articles by colleagues that commemorate his actions at the Academy.

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