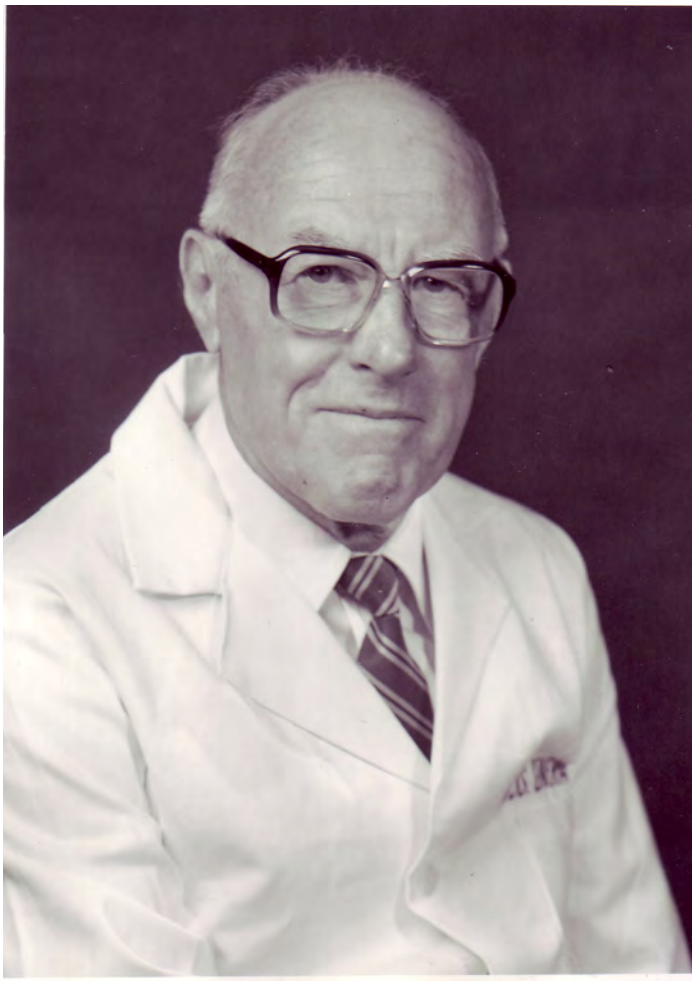
THE FACULTY OF MEDICINE
Harvard University

Robert W. Jeanloz



Roger William Jeanloz, Professor of Biological Chemistry and Molecular Pharmacology emeritus at Harvard Medical School, died shortly before his 90th birthday on September 28, 2007, in the south of France where he was on holiday with his wife, Dorothea.

Dr. Jeanloz was a leading, highly productive scientist in the field of chemistry and function of complex carbohydrates, a field more recently termed glycobiology. He was born in Switzerland and had his early education at the University of Geneva where he performed the work for his D. Sc. thesis with Professor Kurt Meyer, well-known for research on the chemistry of starch and cellulose, and later with the Nobel laureate Thadeus Reichstein, on the chemistry of deoxy sugars. Roger spent a year in Montreal followed by a stint in Dr. Claude Hudson's laboratory at the NIH and three years at the Worcester Foundation for Experimental Biology where the chemistry and biology of steroid hormones was a major focus. In 1951 Dr. Jeanloz was recruited to the MGH and HMS by Dr. Walter Bauer to carry out his research. Since the late 1920s Bauer had directed the clinical program as head of the "Arthritis Group" as well as research activities of the Robert. W. Lovett Memorial Group at the MGH and HMS. In 1951 when Dr. Bauer became Chief of the Medical Services at the MGH and Jackson Professor at HMS he nevertheless continued to direct the Lovett Group. He reasoned that understanding the chemistry and biology of the major macromolecules of connective tissues such as collagen, mucopolysaccharides (complex carbohydrates) and glycoproteins could provide the tools for understanding the pathobiology of rheumatic diseases. He followed up with a major effort to recruit young scientists to set up modern laboratories for this research; Roger Jeanloz was among Bauer's first recruits who later (1961) established his independent Laboratory for Carbohydrate Research within the Lovett Group.

In his early work, Jeanloz utilized chemical analysis of relatively large amounts of carbohydrates to determine the structures of complex carbohydrates such as hyaluronic acid from human umbilical cords

In tribute to their dedicated efforts to science and medicine, deceased members of the Harvard Faculty of Medicine (those at the rank of full or emeritus professor) receive a review of their life and contributions with a complete reflection, ***a Memorial Minute****.*

by methylation analysis. This procedure, developed by Jeanloz required large amounts of purified material and synthesis of the methylated products necessary for confirmation. More sensitive analytical procedures such as gas chromatography/mass spectroscopy frequently utilized in this century that require only micrograms of starting material were not yet developed when he initiated his research, nearly 60 years prior. Jeanloz was highly successful and extended his interests from normal human complex carbohydrates to the glycans in lysosomal storage diseases, the structure of glycoproteins and much more. As noted by a former colleague, Sen-itiro Hakomori, now a Professor at the University of Washington, "Structural determination and synthesis are the major themes in Roger's work. This trend is somewhat different from, or more authentic than, current fashion of 'glycobiology'- in which the functional significance of carbohydrates is much emphasized, and the exact structure involved is somewhat neglected." Indeed, Roger published an impressive number of important papers and several books and was the recipient of many awards. In view of his reputation in the field, he played a major role in organizing the International Symposia on Glycoconjugates. He was also a founder of the journal, Carbohydrate Research. Overall, we feel that no one contributed more than Roger Jeanloz to our understanding of the basic chemistry underlying glycobiology that was so necessary for what followed.

When he first was invited to join the Lovett Group at the MGH in 1951, Roger was the author or co-author of two dozen or so publications in European and American Journals, the latter including J Am Chem Soc, J Biol Chem, Science, Arch Biochem. Because his laboratory was at the MGH, the only appointment available for him at HMS at that time was Research Associate in Biological Chemistry since "fulltime" academic appointments were not given to scientists who worked at the Harvard hospitals. Following suite, in 1957, Roger was promoted to "Associate in Organic Chemistry in the Department of Medicine, Harvard Medical School". Then, in 1960 to Assistant Professor and in 1961 to Associate Professor of Biological Chemistry. In 1969 he was promoted to full Professor of Biological Chemistry. Roger worked with students throughout his years. Early in his career he was a freshman advisor at Harvard University and in 1961 he was appointed as Tutor in Biochemical Sciences in the Faculty of Arts and Sciences; he retired as a Tutor only a few months before his death.

If you encountered Roger in his laboratory, he appeared as a formidable figure, confident, enthusiastic about his work. But it was hard not to note the great smile. Many of his associates had spent long periods working with him and continued to collaborate with him after they left his laboratory. The congenial atmosphere in the Jeanloz laboratory was emphasized in the obituary written by the late Nathan Sharon with Mary Catherine (Suzy) Glick and Colin Hughes and published in the journal Glycobiology. Roger loved his life beyond science and teaching, which included skiing, mountain climbing, tennis and basketball. He was always on the move traveling all over the world. He had the great support from his loving wife, Dorothea, a chemist who worked with him in his laboratory, as well as his two sons and two daughters.

Respectfully submitted,

Stephen Krane, *Chair*
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