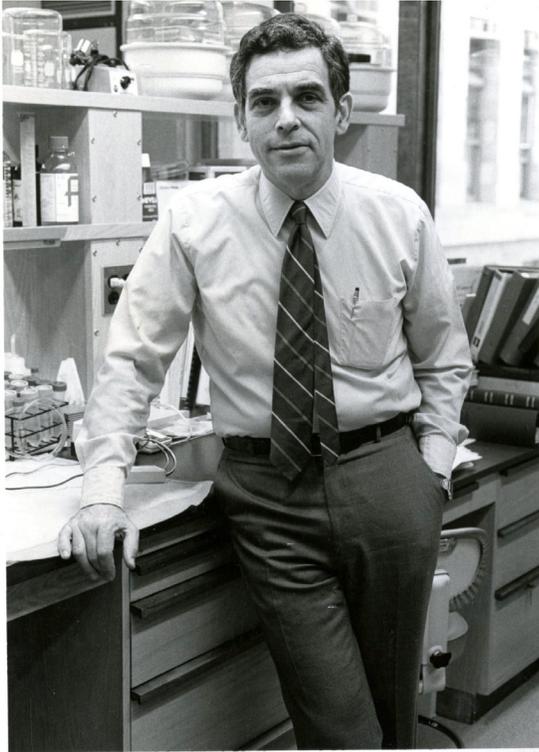




# Philip Leder



*Photograph courtesy of the Harvard Medical Library in the Francis Countway Library of Medicine*

Phil Leder was a great human being who was also a world-class scientist. He was immensely respected, generous of spirit, and admired. Brilliant, bold, very good-humored, and blessed with exceptional scientific insight and creativity, he built a career that repeatedly featured his ability to unravel deep, long-standing biological mysteries. For example, early on, during the 1960s, he showed the field how to synthesize mRNA triplets of predetermined sequence. He then combined individual trinucleotides, ribosomes, and a collection of defined aa- tRNAs to identify, in a very clever assay, the triplet codon responsible for the addition of a particular amino acid during protein synthesis. He undertook these, coding-related experiments together with Marshall Nirenberg at NIH. This body of work established the genetic code.

He also resolved other major mysteries that shrouded the mechanism of protein synthesis, elucidated and deciphered the functions of key substructures of various key mammalian genes and cloned and determined the sequence, for the first time, of an entire mammalian gene-mouse alpha globin. His laboratory was also a leader in

immunoglobulin gene structure and functional analysis.

In addition, he proved that, when spontaneously overexpressed, c-myc acts as a human cancer-causing oncogene, providing clarity to the mechanism that is responsible for certain well-known human lymphomas. He also shed bright light on multiple other complex biological mysteries, and it was generally believed that he was a veritable scientific icon.

Indeed, his science was widely viewed as powerful - powerful enough that he was awarded some of the world's most coveted scientific honors for his discoveries: e.g. the Lasker, Natl Medal of Science, the Harvey Prize, Heineken, NAS, NAM, Honorary Degree from the UniBasel etc.

Early on, it became readily apparent that a natural eloquence infused his oral and written scientific discourse and, when applied to a body of new scientific discovery, it brought a special energy to the

substance of his presentation. It also proved to be a major attractant for many future Leder scientific acolytes.

The same attractant effect was true of his remarkable powers of scientific insight. Numerous scientists concluded that their exposure to his utterly clear and creative thinking, when combined with the beautiful results of his students and post-doctoral fellows, inspired them to utilize approaches that Phil's group had earlier shown to be remarkably effective.

Phil was also a remarkable scientific mentor. His innate ability to mentor the young-individually and in groups-stimulated students and fellows to apply his matchless level of scientific rigor to their research and his enviable record of scientific achievement leavened by his deeply insightful, thoroughly honest, forthright, and respectful ways of evaluating one's ongoing research made him an invaluable and highly sought after scientific mentor.

Phil's remarkable scientific achievements, crystal clear thinking, ability to solve complex problems that gave many other people fits, and his innate decency and respect for others often led great institutions to seek him out for advice and, sometimes, to recruit him. Most importantly, in my view, he was invited in 1981 by HMS and its Dean, Daniel Tosteson, to create the first HMS Department of Genetics, and he graciously accepted. His establishment of the Department and key role in the recruiting of its faculty proved to be monumental accomplishments. For example, the individual and collective research of the new Department's young faculty soon came to represent an, if not the, international standard of excellence in genetics science. Indeed, it still does, many years later, under the superb leadership of Phil's successor, Cliff Tabin.

Finally, Phil's family played a very large and vital part of his life. Aya, his wife, was both deeply beloved, later became Phil's daily research partner, and represented his north star. Moreover, sometimes, when he would also find himself deviating from an unrelated conversation - typically a scientific one - he would spontaneously transform it into a proud description of a recent accomplishment by Aya, or one of his children: Miki, Tani, and/or Ben. His detailed descriptions of his parents and of how much he and the family enjoyed visiting with them in their house in Northern Virginia were also frequent.

One of his first research fellows recently wrote: 'I shall miss Phil forever. Indeed, only rarely, has a week passed when I haven't thought of him. If the past is any prologue, my abiding hope will be that, when faced with a particularly potent scientific challenge, some of his mentoring magic will spontaneously take hold and point me in one of those special, Phil Leder-like directions'.

Respectfully submitted,

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