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# A DNA Lesson, From the Expert's Pen

By **NICHOLAS WADE**

“Dear Michael, Jim Watson and I have probably made a most important discovery.”

So begins a letter written on March 19, 1953, by [Francis Crick](#) to his 12-year-old son, Michael.

The letter, to be auctioned at [Christie's](#) on April 10, with a value the auction house estimates at \$1 million to \$2 million, is an unusual combination of the historic and the quotidian.

Signed “Lots of love, Daddy,” it spells out each syllable of DNA’s full chemical name, “des-oxy-ribose-nucleic-acid,” with the admonition to “read it carefully.” At the same time, it contains the first written description of DNA as a code and of the mechanism of DNA replication — preceding the pivotal scientific articles about DNA’s structure and its genetic implications by more than a month. (A letter written five days earlier by Dr. Watson to the biologist Max Delbrück dwells mostly on the structure, with only a brief mention of how DNA might reproduce itself.)

The final piece in solving the puzzle of DNA was achieved on the morning of Feb. 28, 60 years ago this week, when Dr. Watson saw how the bases of DNA paired up. He and Crick then repaired to the Eagle pub in Cambridge, England, where Crick informed everyone within earshot, “We have discovered the secret of life,” as indeed they had.

Crick wrote the letter to his son, if not in the very heat of discovery, at least the day after the problems of authorship had been resolved with the group at King’s College London, where Rosalind Franklin had generated critical [X-ray](#) data on DNA. “He could now — March 19 — relax and write to Michael,” said Robert Olby, Crick’s biographer.

Dr. Olby said he had quoted the full text of the letter in his 2009 book “Francis Crick: Hunter of Life’s Secrets,” because it was “the best description of the model existing at the time, so well explained, and it is unique from the point of view of a discoverer writing to his son.” [Read a transcript of the letter.](#)

Michael Crick, now 72 and living in Seattle, said he remembered well receiving the letter at his boarding school in England.

“I was down with some sort of [flu](#) which they thought was infectious and shut in a room by myself and had lots of time to read the letter,” he said. “I remember reading it many times and reciting

des-oxy-ribose nucleic acid.” (The usual form of the name is now deoxyribose).

The younger Mr. Crick went on to a research career, but found himself drawn to the revolutionary new world of computing. He was part of the group that wrote the proposal for Arpanet, the precursor of the Internet. He has written several computer games and the first spell-checking program for Microsoft’s Word.

This month he and his wife, Barbara, donated a half interest in the letter to the [Salk Institute](#) for research on either molecular biology or the brain, his father’s two major interests. “The Salk allowed Francis to continue doing research for another 27 years after he had reached mandatory retirement age at the Medical Research Council in Cambridge, England,” Mr. Crick said.

With a half share in the letter, the Salk Institute now presumably has a lively interest in encouraging any wealthy collectors among its donors to bid vigorously at the auction.

Mr. Crick is also selling a pencil sketch of his father by Odile Crick, Francis Crick’s second wife. Separately, the Crick family is selling Crick’s Nobel medal through Heritage Auctions in Dallas.

[A long-lost cache of Crick’s scientific correspondence](#), assumed to have been destroyed by an errant secretary, was discovered recently among the papers of the scientist’s colleague Sydney Brenner and is now archived at the Cold Spring Harbor Laboratory on Long Island.

Francis Wahlgren, international head of books and manuscripts at Christie’s, said that in valuing the letter he had compared it with a letter by Albert Einstein warning President Franklin Delano Roosevelt of the danger of nuclear weapons. That letter, valued at \$800,000 to \$1.2 million, sold for \$2 million to an anonymous American buyer.

The discovery of DNA and of the power of the nucleus were two salient advances of the 20th century, Mr. Wahlgren said. “I have always felt that this was a \$1 million letter, but on a good day a \$1 million letter could be a \$2 million or \$3 million letter.”



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