

Astronomy's Great Promoter The Universe lost one of its best friends

Carl Sagan, 1934 - 1996

The Universe lost one of its best friends a few days before Christmas 1996.

Carl Edward Sagan died of pneumonia on December 20 at the Fred Hutchinson Cancer Research Center in Seattle, after a two-year battle with bone marrow disease. The death came as a shock to some who treasured his friendship, as only several weeks before he seemed to be improving and, in his words, "operating at about 80%." The disease that plagued him was myelodysplasia, a form of anemia. Sagan had undergone a bone marrow transplant to counteract the disease at the Hutchinson Center in April 1995.

Sagan will be remembered as a giant in astronomy for his long record of professional accomplishments, his superb writing, and his outstanding ability to communicate complex ideas in simple ways. Despite an extraordinarily busy schedule, he took time to do and say kind and helpful things. A letter of career advice from Sagan helped to spark a small publication called Deep Sky Monthly that I launched as a teenager in 1977. He inspired many young astronomers and most of the editors working on the staff of this magazine. Sagan was brilliant. At a conference on comets and the origins of life, he was likely to rattle off details of bonds in organic molecules or launch into a discussion of politics and NASA funding. He seemed actually to know it all -- and the details of it all. But he could tell you with an inclusive smile that made you feel like an insider.

Sagan was born in New York City on November 9, 1934. At the time of his death he was David Duncan Professor of Astronomy and Space Sciences and director of the Laboratory for Planetary Studies at Cornell University in Ithaca, New York, where he had been since 1968. He played a leading role in the American space program since its inception. Sagan was a consultant and adviser to NASA since the early 1950s, briefed the Apollo astronauts before their flights to the Moon, and was an experimenter on the Mariner, Viking, Voyager, and Galileo missions to the planets. He helped solve the mysteries of the high temperature of Venus (answer: a massive greenhouse effect), the seasonal changes on Mars (windblown dust), and the reddish haze of Titan (complex organic molecules).

For his work, Sagan received numerous awards, including the NASA Medals for Exceptional Scientific Achievement and (twice) for Distinguished Public Service, as well as the NASA Apollo Achievement Award and the Public Welfare Medal, the highest award of the National Academy of Sciences.

He was elected chairman of the Division of Planetary Sciences of the American Astronomical

Society, president of the Planetology Section of the American Geophysical Union, and chairman of the Astronomy Section of the American Association for the Advancement of Science. He served as editor-in-chief of *Icarus* for 12 years. He was a co-founder and president of the Planetary Society and a Distinguished Visiting Scientist at NASA's Jet Propulsion Laboratory.

A Pulitzer Prize winner, Sagan was the author of many bestsellers, including *Cosmos*, the top-selling science book ever published in English. The accompanying television series has been seen by 500 million people in 60 countries. He received 22 honorary degrees from American universities. Sagan's last book, *The Demon-Haunted World: Science as a Candle in the Dark*, was published by Random House in March 1996. He was co-producer and co-writer of the Warner Brothers movie *Contact*, based on his novel, scheduled for release in 1997.

The scientific community didn't always embrace Sagan's tireless efforts with science popularization. Yet he accomplished more to interest the public in astronomy and space exploration than anyone else of his time, and for that, all who admire science should be eternally grateful to Sagan.

All of us at ASTRONOMY will feel the loss especially deeply. Sagan had served as an advisor to us on occasion and had agreed to take a leading role on the magazine's new editorial board. The universe shines a little more dimly now. -- Dave Eicher