

IN MEMORIAM

Holger Windekilde Jannasch, 1927–1998

On 8 September 1998, the extremophile community and microbiology as a whole suffered a grievous loss with the death of Holger Jannasch at his home in Woods Hole, Massachusetts, after a long battle with cancer. The impact of Holger's long career was not restricted to the discipline of microbiology – he was well known in the wider scientific community as an individual whose scientific work, communication skills, and inspirational qualities transcended subject boundaries.

After completing a doctoral degree in biology from the University of Göttingen in 1955, Holger held a postdoctoral position at the Scripps Institute of Oceanography with Claude Zobell, one of his early mentors. There he first met C.B. van Niel, whom he was later to call “the scientist of my life.” After a further postdoctoral position at the University of Wisconsin, Holger returned briefly to Göttingen as an assistant professor before moving to Woods Hole as a senior scientist in 1963. He was, however, to retain his connection with Göttingen as Privatdozent there until his death, and he regularly participated in the Marine Course of the Göttingen Institute, held at the historic Stazione Zoologica in Naples, a place he was very fond of.

His work at Woods Hole can be divided into three general areas, roughly corresponding to the last three decades. Early seminal work on microbial growth kinetics in seawater using chemostats is perhaps better known to the older amongst us, who as students, struggled to cope with the then new mathematical approaches. The loss and subsequent recovery of the submersible *Alvin* spawned a second phase of research into life under high pressures which defined the technologies for collecting, culturing, and sampling microbial populations from the abyssal depths of the oceans, essentially laying the foundations for the major research programs currently underway in the United States, France, and Japan.

The name of Holger Jannasch is, however, forever associated particularly with the remarkable biology and microbiology of deep-sea hydrothermal vents. Few of us who were privileged to be present will ever forget the wonderful video footage of the extraordinary assemblage of animals around the vents that Holger presented, most recently at



the International Congress on Extremophiles in Japan in January 1998. The realization that in these environments chemolithoautotrophic bacteria take over the role of green plants must surely rank as one of the great discoveries of the 20th century. His work on defining the hydrothermal vent systems and the bacteria that underpin the ecology is now to be found in every microbiology textbook. In 1996, Woods Hole established the Holger W. Jannasch Chair in recognition of his many discoveries.

Holger served on many editorial boards, including those of the *Journal of Marine Research*, *Limnology and Oceanography*, *Applied and Environmental Microbiology*, *Archives of Microbiology*, and *Marine Biotechnology* in addition to his association with *Extremophiles*. He was the recipient of many awards and honorary memberships over the years, most recently the Cody Award in Ocean Sciences from the Scripps Institute of Oceanography in 1992, the Fulbright Distinguished Scholar Award in 1992, the Fellow-

ship of the American Society for Microbiology in 1993, and the rare honor of being elected a Foreign Associate of the National Academy of Sciences in 1995.

Holger was in great demand as a speaker. He lectured extensively throughout the world and in January 1998 gave what was to be his last plenary lecture, opening the International Congress on Extremophiles in Yokohama, Japan, in January 1998.

Many graduate students, postdoctoral fellows, and visiting scholars have been mentored over the years. His enthusiasm for teaching was communicated in many ways, notably through serving from 1971–1980 as Director of the world-renowned Woods Hole Microbial Ecology Course, traditionally maintained and taught by disciples of the Delft school of Microbiology – Holger always maintained he was part of that heritage.

Holger's written works were also wonderfully accessible. His recent invited self-portrait, "Small is Powerful: Recollections of a Microbiologist and Oceanographer," reprinted from the *Annual Review of Microbiology* 1997, is an eloquent and engrossing testament to his influence as a

researcher and a teacher. Those of us who had the honor to know him over the years also never failed to be entranced by his skill as a raconteur, whether it was tales of his remarkable family and family antecedents, or tales of his field trips – being revered as a holy man in Tibet on his Lake Zabuye trip because he built small pyramids of stones to mark the route is one of the stories that one of us remembers!

Finally, when his illness returned, his friends and colleagues were saddened to be in receipt of a letter explaining his absence after a period of what seemed to be good health, but uplifted by the spirit in his written words. He will be remembered as one of the great microbiologists of the 20th century.

W.D. Grant and Koki Horikoshi

A detailed obituary, on which this is based, was published by the Woods Hole News Office on 10 September 1998.