

CHEMICAL HERITAGE FOUNDATION

MARINUS LOS

Transcript of an Interview
Conducted by

James J. Bohning and Bernadette R. McNulty

at

American Cyanamid Company

on

17 January 1995

(With Subsequent Corrections and Additions)

ACKNOWLEDGMENT

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LOS, MARINUS

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MARINUS LOS

1933 Born in Ridderkerk, The Netherlands, on 18 September

Education

1955 B.Sc., Chemistry, Edinburgh University
1957 Ph.D., Organic Chemistry, Edinburgh University

Professional Experience

1958-1960 National Research Council of Canada
Research Fellow

American Cyanamid Company

1960-1971 Senior Research Chemist
1971-1984 Group Leader, Organic Synthesis
1984-1986 Senior Group Leader, Herbicide Discovery
1986-1988 Manager, Crop Protection Chemical Discovery
1988-1992 Associate Director, Crop Sciences
1992-1996 Research Director, Crop Sciences Discovery
1996 Retired

Edinburgh University

1969-1970 Senior Research Fellow, Department of Pharmacology

Honors

1954 Boots Drummond Prize in Biochemistry, Edinburgh University
1955 Blandfield Prize in Chemistry, Edinburgh University
1981 Cyanamid Scientific Achievement Award, American Cyanamid Company
1984 Cyanamid President's Award for Excellence in Agriculture, American Cyanamid Company
1990 Distinguished Inventor, Intellectual Property Owners, Inc.
1991 Thomas Alva Edison Patent Award, New Jersey Research & Development Council
1993 National Medal of Technology
1994 Achievement Award, Industrial Research Institute
1994 Perkin Medal, Society of Chemical Industry (American Section)
1995 Award for Creative Invention, American Chemical Society

ABSTRACT

The interview begins with Dr. Marinus Los' description of his family's origins in The Netherlands. When he was two years old, his family moved to England, where he received his early education during World War II. Encouraged by his older brother, Los studied chemistry at Edinburgh University, where he first became interested in biochemistry. He conducted his Ph.D. research on heterocyclic analogs of azulene under W. H. Stafford. Stafford encouraged Los to study at the National Research Council in Canada, where he conducted research in the structural chemistry of alkaloids and plants under Leo E. Marion. In 1960, Los became a research chemist at Lederle Laboratories, now a division of the American Cyanamid Company. Under Milon E. Bullock, he conducted early research on insect control via an insect molting hormone discovered by Dr. Peter Karlson. Los also worked on a synthetic steroid project involving anabolic steroids and artificial insemination of cows. Next, Los returned to Edinburgh University's Department of Pharmacology to organize a research program in prostaglandins. On returning to American Cyanamid, led at the time by George J. Sella, Jr., Los switched to research on herbicides. In his research on plant growth regulators (PGRs), Los's work on imidazolinones led to the herbicide Avenge. His discovery of the cyclohexyl derivative of phthalimides resulted in the development of other more concentrated, selective, nontoxic herbicides: Assert, Arsenal, and Pursuit. This work won him the National Medal of Technology. Los ends the interview by discussing his later career as first Senior Group Leader and then Research Director, focusing on his approach to the encouragement of teamwork at American Cyanamid.

INTERVIEWERS

James J. Bohning is Professor of Chemistry Emeritus at Wilkes University, where he was a faculty member from 1959 to 1990. He served there as chemistry department chair from 1970 to 1986 and environmental science department chair from 1987 to 1990. He was chair of the American Chemical Society's Division of the History of Chemistry in 1986, received the Division's outstanding paper award in 1989, and presented more than twenty-five papers before the Division at national meetings of the Society. He has been on the advisory committee of the Society's National Historic Chemical Landmarks committee since its inception in 1992. He developed the oral history program of the Chemical Heritage Foundation beginning in 1985, and was the Foundation's Director of Oral History from 1990 to 1995. He currently writes for the American Chemical Society News Service.

Bernadette McNulty, Oral History Project Manager for the Chemical Heritage Foundation, holds a B.A. in communications and social work and an M.A. and Ph.D. in communications. She held several teaching and research-related appointments, including positions at Muhlenberg and Rowan Colleges and Temple University, before joining the Foundation's oral history program in 1994.

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