

## HEWITT G. FLETCHER, JR. 1917-1973

Hewitt G. Fletcher, Jr. died on October 19, 1973. This issue of *Carbohydrate Research* is dedicated to his memory and contains contributions from many of his former research collaborators and other colleagues.

From the time Hewitt Fletcher was awarded his Bachelor of Science degree at the Massachusetts Institute of Technology in 1939 until his death, his main scientific interest was in the chemistry of carbohydrates. He was awarded his Doctor of Philosophy degree in 1942 for studies, under the supervision of R. C. Hockett, on the oxidation of polyalcohols and a number of structural problems connected with hexitol anhydrides. Following a short spell at M.I.T. immediately following his doctoral training, Hewitt moved to join C. S. Hudson at the National Institute of Health, Bethesda, in 1944.

At N.I.H., his early work centred on anhydrohexitols and cyclitols. At first, the anhydrohexitols were prepared by desulphurisation of thioglycosides, but then Hewitt Fletcher (with Hudson and R. K. Ness) introduced the procedure whereby acetylated hexosyl halides are reduced with lithium aluminium hydride. All the work described by Hewitt Fletcher is characterised by its thoroughness and attention to detail, and the wide range of his interests in carbohydrate chemistry is clearly apparent from the many papers published throughout the 1950's, 1960's, and up to his death. For example, much work is described on the chemistry of ribose (initially with Hudson and R. W. Jeanloz) and on the relations between structure and optical rotations (with Hudson). In fact, although in later years Hewitt fully accepted and utilised n.m.r. procedures for establishing anomeric configurations, he sometimes gave the impression that he regretted the relegation of optical procedures in monosaccharide chemistry. Much work was described in association with his long-time colleague Bob Ness and with his able technician Harry W. Diehl on the use of protecting groups in carbohydrate chemistry. With Donald L. MacDonald, methods for the preparation of phosphoric esters of carbohydrates were investigated, and a programme was started, with Robert Barker, which investigated the use of benzyl ethers as non-participating protecting groups. A return to the area of cyclitol chemistry was associated with the use of liquid hydrogen fluoride for promoting configurational inversion. In the mid-1960's, Hewitt Fletcher became interested in the chemistry of amino sugars, and much work since that date relates to methods for the formation of 1,2-oxazoline intermediates and their potential use in the selective degradation of polysaccharides that contain amino sugars. Much of this work which was started at N.I.H. (with N. Pravdić and T. D. Inch) was continued in Yugoslavia by Nevenka Pravdić in continuing collaboration with Hewitt Fletcher.

This international collaboration was something which gave Hewitt Fletcher great pleasure. In fact, over the last 20 years or so of his research career, most of his research was carried out in collaboration with visiting postdoctoral Research Fellows,

many of whom were visitors not only to N.I.H. but also to the U.S.A. Hewitt enjoyed all aspects of his work with his visiting scientists. He enjoyed encouraging them to pursue their own ideas and was pleased to keep their work on an efficient course by passing on all that was relevant from his own experience. It is perhaps the highest testimony to his contribution to carbohydrate chemistry to say that most of the visiting scientists who worked with Hewitt Fletcher at N.I.H. have placed on record that their years at N.I.H. were their most formative ones, primarily because of the high personal and scientific example shown them by Hewitt Fletcher.

Even in a scientific journal, no obituary of Hewitt G. Fletcher, Jr., the scientist, would be complete without an appreciation of Hewitt G. Fletcher, Jr., the man. He was an energetic, honest, thoughtful, and dependable man whose actions always resulted from kindly motives and ideals. He was a family man who, with his wife Ann and his sons (and more recently their families), enjoyed mainly outdoor pursuits such as sailing, shooting, canoeing, and camping. He was a true friend of many who mourn his premature death.

Although it is not possible to list all his honours and scientific achievements, the following list gives some indication of his contributions to the administration of science.

He was a member of the American Chemical Society and The Chemical Society (London). He was on many National committees, including the Science Advisory, Post Office, National Research Council's Pioneering Research, the Chemical Literature, and the N.I.H. Library Committee. He received the C. S. Hudson Award of the Division of Carbohydrate Chemistry of the American Chemical Society in 1968. He was on the Board of Editors of the Journal of Organic Chemistry, as well as the Editorial Advisory Board of *Carbohydrate Research*. He was Chairman of the first Gordon Research Conference on the Chemistry of the Carbohydrates in 1964, and was an invited lecturer at many international meetings. Dr. Fletcher was author or co-author of more than 170 scientific papers.

T. D. INCH

#### APPENDIX

The following are the names of scientists who published with Dr. H. G. Fletcher, Jr.

R. Allerton, L. Anderson, J. B. Ames, R. Barker, A. K. Bhattacharya, B. Coxon, H. W. Diehl, M. T. Dienes, G. R. Findlay, I. Franjic, K. W. Freer, C. P. J. Glaudemans, R. M. Goepp, Jr., M. Haga, A. Hasegawa, R. Harrison, E. J. Hedgley, R. C. Hockett, A. G. Holstein, C. S. Hudson, T. D. Inch, T. Ishikawa, R. W. Jeanloz, R. L. Kaufman, D. Kiely, H. R. Kirshen, L. H. Koehler, H. Kuzuhara, D. L. MacDonald, R. Montgomery, R. K. Ness, C. Pedersen, T. D. Perrine, J. R. Plimmer, N. Pravdić, Y. Rabinsohn, H. E. Ramsden, N. K. Richtmyer, W. L. Salo, E. L. Sheffield, Jr., C. F. Snyder, S. Soltzberg, C. M. Sponable, J. D. Stevens, S. Tejima, E. Vis, H. B. Wood, Jr., R. C. Young, B. Zidovec, M. Zief, and E. Zissis.