

Introduction to Liener Symposium, “Biological Processes and Their Control”

Added in Proof: On August 20, 2002, Dr. Irvin E. Liener was awarded the Sterling B. Hendricks Memorial Lectureship by Dr. Edward B. Knipping, Acting Administrator of the U.S. Department of Agriculture’s Agricultural Research Service. The Lectureship was established to recognize scientists who have made outstanding contributions to the chemical science of agriculture. Dr. Liener was recognized for his landmark research in soybean nutrition, which has had a major impact on the use of soybeans in the United States and around the world. Dr. Liener also served as Editor of the Journal of Agricultural and Food Chemistry from 1982 to 1999. (James N. Seiber, Editor)

Early in 1999 at an Executive Committee Meeting of the Division of Agricultural and Food Chemistry, it was noted that the Division should recognize the major research contributions of Dr. Irvin Liener as a long-time member (about 56 years; from about 1946 when he became a professor at the University of Minnesota), his role as Division Chair in 1981–1982, and the major modifications and contributions he made as Editor of the *Journal of Agricultural and Food Chemistry* (JAFC) from 1982 to 1999.

He succeeded Philip K. Bates, the previous distinguished Editor of JAFC from 1965 to 1982. In 1982, the number of accepted manuscripts per year was 325, with 1276 pages published. Over the next 17 years, under Dr. Liener’s leadership, the number of accepted manuscripts per year grew to more than 900 with about 5500 pages published. This represented about 4-fold growth. Another major accomplishment as Editor was his reduction in time from article submission to publication from more than 40 weeks to 29 weeks.

Perhaps even more importantly, the quality of the journal and its reputation as an international journal increased substantially under his direction. In 2001, the American Chemical Society Joint Board–Council Committee on Publications concluded, on the basis of independent analysis, that “the Journal received very high ratings from readers and authors, and results indicate that the Journal has a healthy and loyal readership and a strong relationship with authors.... The Journal received its highest ratings for overall scientific quality...”. According to the Institute for Scientific Information’s *ISI Journal Citation Reports 2000*, JAFC was *the most cited journal* in three ISI categories (Applied Chemistry, Multidisciplinary Agriculture, and Food Science and Technology). JAFC also ranked No. 1 in ISI “impact factor” in the Multidisciplinary Agriculture category (with an impact factor of 1.560).

Dr. Sara Risch, Dr. Marshall Phillips, and Dr. John Whitaker proposed that the Division recognize Dr. Liener with a symposium as recognition of his major contributions. When urged to do so, they accepted the challenge. The symposium,

“Biological Processes and Their Control”, was held on March 28 and 29, 2000, in San Francisco, CA, at the 219th National Meeting of the American Chemical Society. Half a day each was devoted to lectins and to enzyme inhibitors. It was highly successful both in the quality of the presenters and in the number of attendees.

Most of the papers presented are published in this issue of the *Journal of Agricultural and Food Chemistry*. In the first paper, Dr. Liener details his major contributions to the early investigations of lectins and enzyme inhibitors in his exciting article “A Trail of Research Revisited”. Dr. Liener’s contributions go far beyond these two areas. He has been a major leading researcher in the areas of nutrition and enzymology well beyond that described in his paper. His research also concentrated on fundamental investigations of proteases, especially trypsin, ficin, bromelain, elastase, chymotrypsin, and cathepsin B. He also investigated the naturally occurring α -amylase inhibitors from beans and their effects on the digestion of starch. Also, he investigated the effects of protease inhibitors of elastase in the lung as potential therapeutic agents for emphysema.

When his 193 journal articles and 41 book chapters are analyzed, it is clear that he has met the highest standards in nutrition (47 papers), enzyme inhibitors (67 papers), lectins (46 papers), and proteases (66 papers). When added together, the sum of the four areas mentioned is more than the total of his published works; however, on examination of the papers, he gave attention to all four areas in most of his research. Is he a nutritionist, a protein chemist, an enzymologist, or a toxicologist? We must conclude that he is a remarkable scientist in each and all of these areas.

Dr. Liener has been widely cited for his published articles in ISI. He has presented his research at nearly 40 meetings in 12 different countries. He is also noted for the high quality of the students he has mentored over some 50 years at the University of Minnesota.

We are proud to be counted among his colleagues and friends.

**Sara Risch
 Marshall Phillips
 John R. Whitaker**

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