

Calcium-Binding Proteins:

Structure and Function

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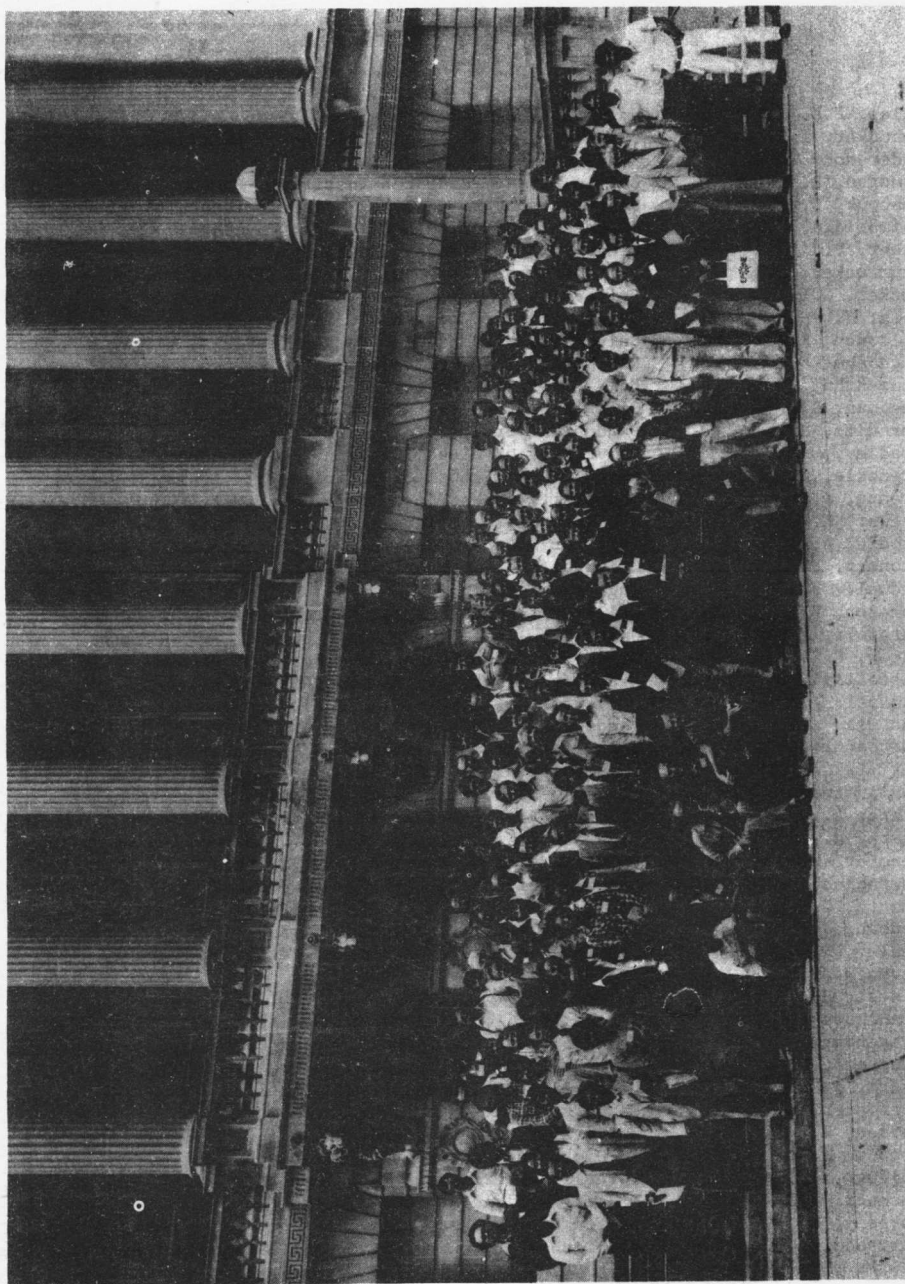
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Preface

The 1980 International Symposium on Calcium-Binding Proteins and Calcium Function in Health and Disease was held at the University of Wisconsin, Madison from June 8-12; two previous meetings in this series took place in Jablonna, Poland in 1974 and Cornell University, Ithaca, New York in 1977. The intent of the organizers of the first meeting was to bring together biochemists who were studying calcium-binding proteins of specialized tissues, so that they might share experiences and insights. The first meeting was organized around organ and organelle related topics, including proteins from nervous tissue, intestine and kidney, muscle, and mitochondria. The Cornell meeting retained a focus on proteins of muscle and nervous tissue, with added sessions on Vitamin D and Vitamin K-dependent proteins, intra- and extra-cellular proteins and underlying physical concepts. In the organization of this third symposium, we see mirrored the growing realization that the concept of specific calcium-binding proteins, each being restricted to one or two specialized tissues is oversimplified. Calmodulin, for example, while present at high levels in brain, is ubiquitously distributed throughout the plant and animal kingdoms. The Vitamin D-dependent calcium-binding protein, first isolated from intestinal mucosa has been found in brain and kidney, and carboxyglutamate-containing calcium-binding proteins are found in bone, as well as blood plasma. We have placed an increased emphasis on general principles, such as structural aspects of interactions between proteins and calcium and between calcium-binding proteins and subcellular structures. The evolutionary aspects of calcium-modulated proteins was a session which was added, in an effort to gain greater insight into the relationships between calcium-binding proteins and the evolution of structure and function from more primitive molecular ancestors.

The success of this symposium was due in large measure to the efforts of the other members of the organizing committee and to the session chairman. The organizing committee consisted of F.L. Siegel, E. Carafoli, R.H. Kretsinger, D.H. MacLennan and R.H. Wasserman. Sessions were chaired by members of the organizing committee and by R.J.P. Williams, J.D. Potter and J.W. Suttie. Special thanks are due to Sarah Aslakson of the Department of Continuing Medical Education, who is responsible for the efficient manner in which the

conference was run.

We are in the midst of an explosion of interest in the biochemistry of calcium and in the calcium-modulated proteins. The progress made in the three years since the previous calcium symposium has been impressive, and we look forward with anticipation to 1983 and the next meeting in this series.

F.L. Siegel

Madison, Wisconsin

June 12, 1980

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