Biochemistry of Normal and Abnormal Epidermal Differentiation

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Biochemistry of Normal and Abnormal Epidermal Differentiation

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Epidermal keratinization is a fundamental biological process occurring in the skin and is one of the most important fields to be studied in dermatology. The molecular events in the differentiation of the mammalian epidermis are now being clarified with recent advances in tissue culture, biochemistry, and immunology. Such information provides insight into the causes of certain cutaneous pathologies involving abnormalities in epidermal differentiation including skin cancer.

The Japan-U.S. Seminar, "Biochemistry of Cutaneous Epidermal Differentiation," was held in 1976 in Sendai, Japan, under the joint sponsorship.
of the Japan Society for the Promotion of Science and the National Science Foundation of the United States. This symposium was motivated by the growing need for active investigation in the area of epidermal biochemistry to familiarize the participants with rapidly accumulating knowledge from many and varied disciplines. Interactions at the seminar not only led to clarification of concepts, reorientation of investigative directions, and surfacing of new ideas, but also produced new collaborative efforts among those present. The entire proceedings, including the discussions following the papers, were compiled as a monograph entitled "Biochemistry of Cutaneous Epidermal Differentiation," edited by M. Seiji and I. A. Bernstein and published by the University of Tokyo Press in 1977. This publication appears to have extended the impact of the meeting to scientists who were not in attendance.

In the past three years, considerable progress has been made on structural and functional aspects of mammalian epidermal differentiation, many of which were mentioned as problems to be solved or as subjects to be investigated in 1976. It was therefore necessary to hold another meeting similar to the previous seminar in order to provide those attending with answers to many of the questions raised in the previous seminar and with significant new information.

The U.S.-Japan Seminar, "Biochemistry of Normal and Abnormal Epidermal Differentiation," was held in the United States at the Boyne Mountain Lodge, Boyne Falls, Michigan, 29 July through 2 August 1979, under the joint sponsorship of the National Science Foundation of the United States and the Japan Society for the Promotion of Science. The editors sincerely hope that the publication of this book containing the papers and discussions of the Seminar will be another steppingstone toward our goal of promoting further interaction among scientists interested in this important subject: epidermal keratinization.

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