mechanisms of immune suppression and presents studies which demonstrate that the autonomic nervous system may be ultimately responsible.

The book's major missed opportunity is a cohesive chapter which connects the disparate discussions of neurobiology and pathophysiology. Chapter 2, the closest stab at this goal, is clearly written, yet digresses into dozens of areas. Instead, a lucid summary of the basic science chapters which follow, demonstrating stress as an insult to the CNS and the endocrine system, which filters down to other organ systems, would have been highly valuable. Aside from suggestive studies, however, this chapter does not include sufficient evidence to support such a theory. Chapter 29 on "Stress Technology Medicine," another chapter which could demonstrate how various systems interact with one another, spends much of its force explaining the theory of autonomic rhythms and laterality (supported by a collection of one-subject experiments). It leaves the reader disappointed, stating that "the credibility of these sophisticated tools" (fascinating yogi relaxation techniques combining breathing and body position) "comes best through their application" without showing any studies demonstrating stress-reducing effects of these relaxation techniques.

In summary, this book is, for the most part, a well-organized contribution to the field of stress research in its cataloging of the latest findings in one accessible work. Unarguably, much of this information is not easily obtained in the standard medical and scientific texts. This volume can be especially helpful to investigators, working with one particular area of stress biology and physiology, who wish to obtain rapid knowledge of other related fields. It may also be of use to physicians and to health personnel who have a strong desire to grasp the complex science underlying stress and its influence on disease. In many ways, such a work may represent one praiseworthy attempt to gather together the current knowledge of mind's effects and relate it to disparate organ dysfunctions. Yet it is perhaps too much to ask this work to make durable connections between the different research areas and to allow the reader "a look beyond the trees." More to the point, that flaw may be a reflection on this still unmapped and intertwined field of neurobiology and pathophysiology, and further editions on the subject will no doubt strive to achieve just such a goal.

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CELL COMMUNICATION IN HEALTH AND DISEASE. READINGS FROM SCIENTIFIC AMERICAN MAGAZINE. Edited by Howard Rasmussen. New York, W.H. Freeman and Company, 1991. 185 pp. $13.95. Paperbound.

Experimental medicine has increasingly focused on questions defined at a molecular level. Successive descriptions of genetic defects correlated with disease promise to revolutionize both the diagnosis and therapy of a wide variety of debilitating illnesses. In the field of signal transduction, the application of molecular genetics provides unparalleled power in identifying new components of the transduction machinery and in understanding their structure/function relationships. The identification of oncogenes as mutated versions of G-proteins is only one dramatic example. With many investigators willing to work exclusively on the molecular aspects of a biological phenomenon, however, the pressing need arises for others willing to integrate these parts into a comprehensive, functional picture.
Cell Communication in Health and Disease surveys the field of signal transduction with this need in mind. It re-releases 13 articles, originally published in Scientific American, organized to illustrate three themes inherent to the molecular basis of intercellular signaling. An introduction to each section of the book highlights one of these themes, using examples drawn from the articles which follow. For example, the first section demonstrates the molecular diversity inherent in the structure of signaling molecules. Two articles then discuss hormones important for cardiovascular and gastrointestinal function, and a third describes the identification of blood-borne factors important for hematopoiesis. The five articles in the second section delineate the pathways by which cells translate these extracellular messages to their interior, with particular emphasis on the function of calcium and calcium-dependent kinases. This section also examines the physiologic role of interactions between the calcium messenger system and other systems, using cyclic AMP or cyclic GMP. In its last section, the book discusses human diseases either known or hypothesized to result from disordered intercellular signaling. Brown and Goldstein describe the role of LDL receptors in cholesterol metabolism and atherosclerosis. Other articles focus on diabetes, cholera, the role of glucose in aging, and potential roles for chronic viral infections in disease pathogenesis.

Both the major strength and weakness of this volume stem from the nature of the material chosen for inclusion. Traditionally, articles for Scientific American are written for the novice and are by no means detailed reviews of the scientific literature. Some of the articles included in this book were published as long as a decade ago, and a great deal of specific information has been learned since they were originally written. For this reason, Cell Communication in Health and Disease cannot serve as a comprehensive, up-to-date reference on the specific topics it surveys. This format allows its editor to emphasize points clearly, however, without losing the reader in a sea of detail. For this reason, it may serve best as a text for an undergraduate seminar or as a review for researchers hoping to understand the relationship of their own work to this complex and often confusing field.

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Plastic Surgery: Principles and Practice. Volumes I and II. By M.J. Jurkiewicz, Thomas J. Krizek, Stephen J. Mathes, and Stephan Ariyan. St. Louis, MO, Mosby-Year Book, Inc., 1990. 1,634 pages. $215.00.

Plastic Surgery: Principles and Practice is a new comprehensive textbook compiled by the leading innovators in the field today. The four main authors are or have been chairs at top departments across the country: Jurkiewicz at Emory, Krizek at the University of Chicago, Mathes at the University of California, San Francisco, and Ariyan at Yale. In addition, the authors called upon colleagues at their respective institutions and elsewhere to contribute. The result is a beautifully bound two-volume textbook, combining reviews, original laboratory data, and surgical technique in chapters that are consistently well written.

This text consists of 1,634 pages, divided into two roughly equal volumes. Its 11 main sections contain 58 individual chapters. The first section, titled "Foundations," consists of a conceptual overview by Dr. Jurkiewicz, followed by general reviews