

Preface

It has long been noted anecdotally that affect, psychological state and neurologic state have influences on inflammatory skin diseases. Disorders such as psoriasis, atopic dermatitis, acne and rosacea, among many others, are reported to become exacerbated by stress. Furthermore, it is widely believed that stress alters cutaneous immunity. However, mechanisms responsible for these effects have remained incompletely understood. Scientific evidence for an influence of the nervous system on immune and inflammatory processes in the skin has been developed only relatively recently. This area of research has now become intensely active and fruitful. Although neurocutaneous immunology is a young field, it is now accepted that the nervous system plays a major role in regulating immune and inflammatory events within the skin. Data has been obtained demonstrating the influences of neuroendocrine hormones as well as neuropeptides, neurotransmitters, nucleotides and other products of nerves on immune cells and immune processes. Much of the data obtained over the past few years suggests that neurologic influences have implications for immunity and inflammation, not just in the skin, but also in many other organ systems. These findings have

important implications for understanding pathology and pathophysiology. Most importantly, they suggest novel new approaches to prevention and treatment of many disorders.

As scientific activities in neurocutaneous immunology have expanded, the need for a comprehensive, up-to-date textbook summarizing the current state of the field became apparent. This book includes sections dealing with the major areas of research ongoing in neuroimmunology. These include basic neuroimmunology of the skin, stress effects in cutaneous immunity, neurobiology of skin appendages and the role of the nervous system in the pathophysiology of skin disorders.

We believe that this book will be useful to investigators studying the effects of the nervous system and psychologic state on the physiology and pathophysiology of the skin. Also, clinicians with an interest in inflammatory skin diseases will find this book to be quite useful.

In addition to finding this book to be a useful scientific and clinical resource, we hope that the reader finds it to be both fascinating and enjoyable.

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