PREFACE

Practical Immunopathology of the Skin begins with a discussion of the science behind immunopathology and an explanation of the immunoperoxidase technique and its most frequently used modifications. Issues of tissue preparation, antigen retrieval techniques, and pitfalls that occur in the laboratory will be addressed.

Following the introductory sections dealing with technique and laboratory issues, a working library of antibody probes is introduced. The antibodies are arbitrarily divided into categories based upon the types of cells they help to characterize. However, as is the case with any categorization system, there is some overlap, and antibodies might fit easily into more than one category. In these situations, I opted for the location that fits best into my strategy scheme when deciding upon an antibody profile. For instance, anti-cytokeratin 20 is an anti-cytokeratin antibody, but is used most commonly to identify Merkel cell carcinomas, neuroendocrine tumors. Thus, I have chosen to discuss this antibody in the chapter addressing markers of neuroendocrine cells. For each antibody discussed, I offer a small introductory paragraph that provides a general overview of the known information about the targeted antigen and its role in cellular function. I then progress to a discussion of the diagnostic utility of the probe, attempting to highlight the uses and potentially confounding features of each. When available, sensitivities and specificities for these markers in identifying various neoplasms are cited. More specific technical aspects of each antibody, including any personal experiences we have encountered with the antibodies in our laboratory, are mentioned. The discussion of each potential probe is summarized with a terse statement of its potential uses in a diagnostic dermatopathology laboratory.

The final section of Practical Immunopathology of the Skin is a series of vignettes taken from my practice. I have selected a range of real cases designed to exemplify a strategy for the employment of immunopathology. For each scenario, clinical history is presented along with the photomicrographs from the original, routinely stained microscopic sections. These sections are sometimes less than ideal and they have been chosen for this reason in order to fully demonstrate the benefits of immunopathology. A differential diagnosis is constructed based upon the available information and a strategy for solving the diagnostic dilemma is presented in tabular form. Results of the staining procedures are presented and there is a concluding statement explaining some specifics of the case.
It is my hope to keep the book on the level of a practical, “user’s manual” rather than that of an in-depth, scientific treatise on the subject. I believe that the theoretical aspects of immunopathology are well covered by other authors and I will make frequent reference to these works throughout the book.

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