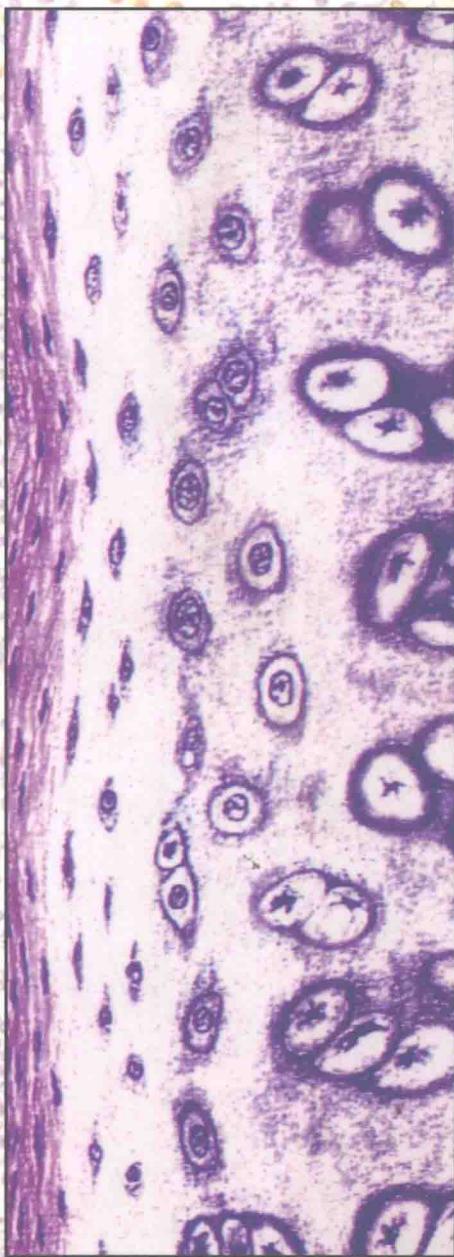
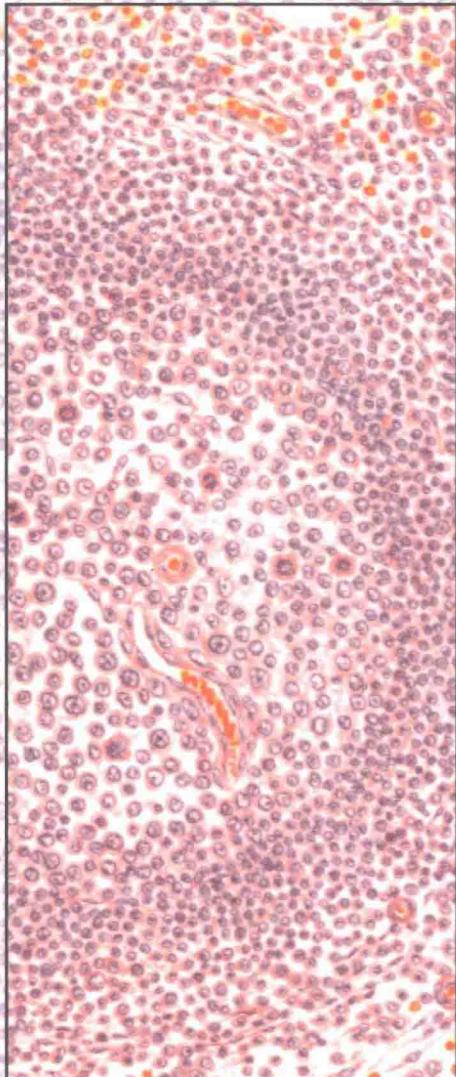


AN ATLAS OF HISTOLOGY



SHU-XIN ZHANG

A N A T L A S O F
HISTOLOGY

SHU-XIN ZHANG

With 309 Color Plates



Springer

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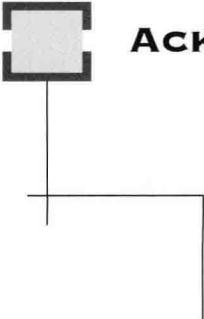
Milan

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Dedicated to
My wife, Fengfa,
My daughter, Wei, and
My son, Si (Jack)



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An Atlas of Histology contains over 300 hand-drawn illustrations, that represent a huge amount of work, including designing, drawing, modifying, labeling, computer editing, writing and typing, which took me almost all the weekends and holidays in the last six years. Fortunately, I received support and assistance from many people during the preparation of this book, and I am indebted to all these individuals.

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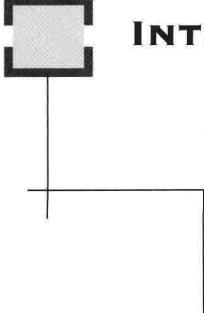
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Lexington, Kentucky

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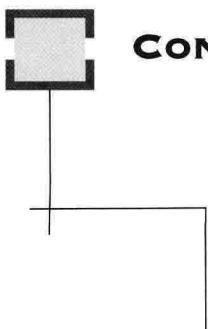
INTRODUCTION

The beginning student of histology is frequently confronted by a paradox: diagrams in many books that illustrate human microanatomy in a simplified, cartoon-like manner are easy to understand, but are difficult to relate to actual tissue specimens or photographs. In turn, photographs often fail to show some important features of a given tissue, because no individual specimen can show all of the tissue's salient features equally well. This atlas, filled with photo-realistic drawings, was prepared to help bridge the gap between the simplicity of diagrams and the more complex reality of microstructure.

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Instead of using abbreviations and symbols, each drawing has been clearly labeled to aid students in recognizing the relevant structures, and is accompanied by a legend to provide a concise summary of the structural, functional and physiological features of the tissue or organ depicted. Features that are labeled in figures are highlighted as bold terms when they appear in the legend. The stain used in preparing each specimen is indicated, as is an approximate magnification ("low"= 20 \times to 100 \times , "medium"=100 \times to 400 \times , "high"=400 \times to 1200 \times). In nearly all cases the organ from which the tissue specimen was derived is identified, as is the organism. Most figures are drawn from human tissues, but in a number of cases the features of certain tissues are best revealed in another mammal. The tissue sources used in this atlas are the same as those commonly used in histology laboratory courses.

This atlas will be useful to students of a wide range of biological and medical disciplines including human and veterinary medicine, dentistry, mammalian biology, pharmacology, and nursing. I have tried my best to assure the accuracy of the illustrations and text in this book, however if any errors or omissions are noted, I sincerely welcome any criticisms and suggestion to help improve future editions of this book.



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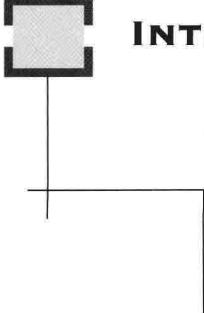
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INTRODUCTION

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