

# TABLE OF CONTENTS

Preface

Acknowledgment

## **1 Cytologic Analysis of Cells 1**

1.1 Approach to Cytology Samples 1

1.2 Sample Quality and Background 1

1.3 Cell Types 4

1.4 Cell Shape, Distribution, and Features 17

1.5 Benign Versus Malignant 17

References 30

## **2 Infectious Agents 33**

2.1 Fungi 33

2.2 Oomycetes 40

2.3 Algae 40

2.4 Mesomycetozoea 42

2.5 Protozoa 43

2.6 Helminths 48

2.7 Bacteria 51

2.8 Ectoparasites 57

References 59

## **3 Integument 63**

3.1 Cutaneous and Subcutaneous Lesions 63

References 102

## **4 Hemolymphatic 107**

4.1 Lymph Nodes 107

4.2 Spleen 118

4.3 Thymus 131

4.4 Bone Marrow 133

References 151

## **5 Body Cavity Fluids 155**

5.1 General Classification 155

5.2 Specific Effusions 157

References 167

## **6 Musculoskeletal 169**

6.1 Bone 169

6.2 Joints 175

6.3 Muscle 183

References 186

## **7 Hepatobiliary 189**

7.1 Liver 189

7.2 Biliary Tract 202

References 205

## **8 Digestive System 207**

8.1 Salivary Glands 207

8.2 Stomach/Intestines 210

8.3 Feces 217

8.4 Pancreas 222

References 229

## **9 Urinary 233**

9.1 Kidney 233

9.2 Bladder 237

9.3 Urine 240

9.4 Urinary Crystals 245

9.5 Urinary Casts 248

References 253

## **10 Respiratory 255**

10.1 Nasal Cavity 255

10.2 Lung 259

10.3 Bronchoalveolar Lavage (BAL)/Transtracheal Wash (TTW) 263

References 270

## **11 Endocrine 273**

11.1 Thyroid 273

11.2 Parathyroid 276

11.3 Chemoreceptor Tumors 277

11.4 Adrenal Gland 279

11.5 Pituitary Gland 281

References 283

## **12 Reproductive 285**

Male 285

12.1 Testes 285

12.2 Semen Analysis 289

12.3 Prostate 290

12.4 Penis 298

Female 298

12.5 Ovary 298

12.6 Mammary Glands 301

12.7 Vaginal Cytology 304

References 313

**13 Neurologic 317**

13.1 Brain 317

13.2 Cerebrospinal Fluid (CSF) 325

13.3 Spinal Cord 337

References 338

**14 Ocular and Special Senses 341**

14.1 Eyes: Cornea 341

14.2 Eyes: Conjunctiva 344

14.3 Ears 346

References 350

Index 353.