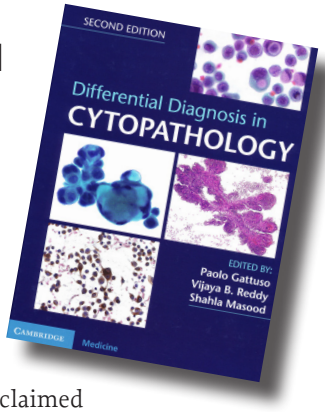
Differential Diagnosis in Cytopathology (2nd edition)



Paolo Gattuso, Vijaya B Reddy and Shahla Masood
Cambridge University Press, 2014, £187.25, 693 pp
ISBN 978 1 10704 029 8

The second edition of the multi-authored *Differential Diagnosis in Cytopathology* is brought to you by the same editors of the acclaimed *Surgical Pathology* textbook in the same series, with the latter having established itself as a staple in the library of most discerning residents. The cherished elements of the surgical pathology counterpart, in particular the 'Differential Diagnosis' and 'Pearls' sections, are just as well represented in this textbook, which aims to help the inexperienced resident navigate through an often complex and challenging field.

The textbook is organised according to organ systems and deals mainly with benign and malignant tumours, but also encompasses inflammatory and infective conditions frequently encountered in routine practice. The contents are typical in a textbook of this nature and include gynaecological cytology and cervical smears, exfoliative cytology and fine needle aspiration of various organ systems, to list but a few. Less common entities are also included, such as cerebrospinal fluid and intraocular cytology, and fine-needle aspiration of soft tissue and bone. The reader is constantly reminded of the importance of clinicopathological correlation (with history and radiological findings) and to recognise the inherent limitations of cytodiagnosis. In an age when cytological assessment is emerging as the preferred diagnostic modality in the first instance, this textbook is a vital training tool.

The layout is simple and remains fairly uniform throughout. Each chapter begins with the pertinent clinical aspects of the entity followed by the cytological features, special stains, immunocytochemistry and ancillary techniques where relevant, differential diagnoses and finally, the take-home messages or 'pearls'. The information is set in bulleted points and written in short sentences. The reader is directed to updated references should she or he wish to follow up on a particular point. The photomicrographs are printed in colour and are of high quality, thus achieving the aim of illustrating key nuclear features and fine details. A minor but noteworthy point is that the paper is of good quality. Altogether, these features make this textbook a pleasure to use as a quick-reference guide at the microscope.

Cambridge Books Online also offers supplementary online access for the tech-savvy reader. The online registration is easy to set up and the e-book is set out in the same format as the physical book. The images are just as clear and of appreciably good quality. However, some may notice that the e-book version offered by the publisher is not as user-friendly as other similar platforms, but this minor blip is quickly overcome with a bit of practice and good broadband. One useful feature of the e-book when searching for a specific reference within the text is the index section, which comes with a clickable link that directs the reader to the content of interest.

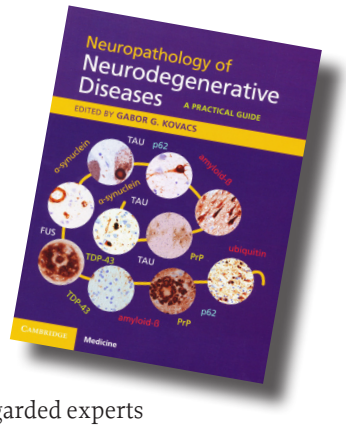
In the preface, the editors stress that a good cytopathologist must also be a good surgical pathologist. Where relevant, the histomorphological correlate is presented alongside the cytological features to illustrate key points and encourage the reader not to simply regard the histological and cytological elements in isolation.

The features that make this textbook an attractive and handy companion guide will invariably be a problem for some readers who seek a more comprehensive and detailed exposition; for this they should consider other equally well-regarded and established cytopathology titles available at everyone's friendly virtual bookshop.

All in all, this textbook is a valuable contribution to the field and will help residents and cytotechnologists achieve confidence and competence in general cytopathology – and in the process, hopefully kickstart and secure a healthy respect for the cells.

Dr Jasmin Lee
ST4 in Histopathology
Royal Marsden Hospital NHS Trust, London

Neuropathology of Neurodegenerative Diseases: A Practical Guide



Gabor G Kovacs (Editor)
Cambridge University Press, 2015, £90.95 with online access to all the text and images, 309 pp
ISBN 978 1 10744 242 9

This is an excellent book, produced by a group of highly regarded experts in the field and masterfully edited by Gabor Kovacs. The text is clear, authoritative, accurate and up to date. The way the book is set out allows it to be used as a 'bench guide' to classification and I recommend it highly to any neuropathologist involved in the laboratory diagnosis of neurodegenerative disease.

The text is based on the proteinopathy concept of neurodegenerative disease and this approach is introduced and developed in a clear and concise introductory chapter. This chapter also includes tables summarising the proteins relevant in the classification of neurodegenerative diseases, an evidence-based list of current concepts and details of the cellular distribution and localisation of the proteins involved. The text forms a bench guide to diagnosis integrating traditional histological, immunohistochemical and molecular methods.

Throughout, the book includes diagnostically helpful

clinical information and imaging correlations, including MRI and FDG-PET studies, to assist in formulating accurate diagnoses. The chapter on movement disorders is particularly informative. There are early chapters describing microscopic dissection and sampling of the brain that will be of use not only to practising neuropathologists, but also to pathologists in remote centres sampling the brain for subsequent referral. These dissection and sampling guides are complemented by a series of diagnostic algorithms that are particularly helpful, especially in this rapidly changing and evolving field, in ensuring that rare entities are not overlooked. The final introductory chapter covers molecular methods, post-mortem studies and brain banking.

The tables and diagrams are clear and the plates are beautifully produced with near-perfect colour balance. The references at the end of each chapter are comprehensive and include most of the historically important papers, in addition to more recently published contributions. The individual disease chapters are logically ordered, clear and current in their content. The book ends with a series of chapters covering related conditions not easily covered elsewhere, including chapters on amyloid angiopathies, hereditary ferritinopathies, diseases with brain iron accumulation and familial encephalopathy with neuroserpin inclusion bodies. The concluding chapters cover diagnostic dilemmas associated with mixed or concomitant pathologies.

This book is highly recommended as a guide to neuropathological assessment of neurodegenerative disease, including the latest genetic and prognostic data. The only slight reservation is that the book contains much advanced data in a relatively short volume and the text, of necessity, assumes a level of previous knowledge that may make it a difficult read for an inexperienced reader. Access to the searchable and indexed online version is a welcome addition with this book but it is not, as far as I am aware, available on Kindle.

I would certainly recommend this book to all neuropathologists, neuropathology registrars and neuroscience colleagues with an interest in neurodegenerative disease.

Dr Ian S Scott
Consultant Neuropathologist and Honorary Clinical Associate Professor
Queen's Medical Centre, Nottingham

BioArt: Altered realities

William Myers
Thames and Hudson Ltd, 2015,
£29.95, 256 pp
ISBN: 978 0 50023 932 2

This is a book of unexpected curiosities, ingenuity and interest. It showcases 300 pieces of art, each of which tells an independent story, as well as being part of a collection united by the intersection between art and science. This concept of 'BioArt' is described as an international movement founded on artists' responses to rapid scientific advances. The book is an exhibition of multimedia creations designed to communicate new discoveries, describe the evolution of our species and our planet, and explore the ways in which science is changing our lives.

Many of the themes explored by the artwork are thought-provoking and the text – provided as short introductory essays at the start of each chapter, biographical details of the artists and brief descriptions of each piece – encourages the reader to reflect on the messages contained within the art. The concept of 'altered realities' represented by the book's title is fitting: many pieces exploit the blurring between fact and fiction, or reality and surrealism, to create images that are challenging or provocative.

Despite being displayed in the form of a book, the art presented here is truly multimedia, ranging from intricate hand-drawn illustration to photography, pop art and film, live cell culture and growing plants, taxidermy, sculpture and interactive design. The text describes installations that include movement (animations are used to depict the life cycle of malaria), sound (such as that of the beating human heart) or smell (an exhibit that relies on the essence of peppermint).

The styles, themes and subtext of the art are hugely varied. Some artists manage to unite the light-hearted with a more serious message: 'rayfish footwear' is introduced by an enticing mock advert offering made-to-order shoes crafted from the skins of designer fish engineered to a chosen colour and pattern. As intended, release of this poster provoked an intense debate and moral outrage from a public incensed at the perceived ill-treatment of stingrays to make trainers – but the artists point out the grim paradox that our society appears content to accept the child labour that goes into manufacture of genuine designer footwear.

There are many images that are strikingly beautiful: a brightly coloured bird with a beak re-engineered for extra strength, the roots of a plant woven into delicate lace, detailed porcelain sculptures animal forms – interspersed with images of real biology ranging from electron micrographs of cells of the immortal *HeLa* lineage, to a whole tree grown as a suspended living animation within a glass tank.

Other pieces have a much darker or more shocking twist. The first image that confronts you within the front cover is a baby rabbit wearing a gas mask, while towards the end of the book there is a still image from a film exploring unforeseen consequences of advances in reproductive technology. This exemplifies the definite undercurrent in the book exploring how rapid scientific progress also needs to be carefully contained and curated, asking us to scrutinise the moral and ethical applications of new technology.

There is also a recurring theme of the modern era of the Anthropocene, our current geological epoch, in which the natural world has become largely defined by destructive human activity. This manifests as an apocalyptic slant to some of the pieces, pointing to a future world that is grotesque and chaotic.

For most people, this is not a book to read from cover to cover, but to dip in and out and find something different and interesting each time. The fusion of so many different styles and narratives is entertaining, engaging and thought-provoking, and it fulfills its brief perfectly in appealing to anyone who loves both art and science.

Dr Philippa Matthews
Oxford University Hospitals NHS Foundation Trust