Book reviews

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ORAL BIOLOGY: MOLECULAR TECHNIQUES AND APPLICATIONS

G. J. Seymour, M. P. Cullinan,
N. C. K. Heng

UK: Humana Press

price £99.00; pp 418

ISBN 9781607618195

This text is a member of the critically acclaimed 'Methods in Molecular Biology' series, published by Springer Science over the last 20 years, which have widely been regarded to have set the standard for publishing biomedical science protocols and methodologies.

The publication focuses on the biological life sciences which underpin the practice of clinical dentistry, namely molecular biology and nanotechnology, demonstrating both the depth and breadth of ongoing research in this field. Such research is essential to the concept of evidence-based dentistry, providing justification for guidelines which establish 'best practise' techniques, through to undergraduate and postgraduate education, discovery of new treatments and for further research and development into our understanding of the complex and diverse oral environment within which we operate daily.

With new technologies come new research techniques, exponentially increasing in range and complexity. This book provides an update on those practices and procedures currently being employed at the cutting edge of oral molecular biology.

Divided into three sections, the text first considers recent developments in the study of saliva, the first line of defence to microbial pathogens and rich in biomolecules for study at a molecular

level, which the authors suggest may lead to the identification of individual susceptibility to particular diseases.

The second section concentrates on techniques employed in the study of oral microbiology, from microbial community profiling to adhesion of bacteria and yeasts to oral surfaces, and oral bacterial genome sequencing, to name but a few.

Section III identifies protocols in the study of the cells and tissues of the oral environment. This section includes some fascinating areas of current research, including techniques to isolate, purify and characterise human periodontal ligament stem cells, and furthermore, a technique to evaluate periodontal regeneration *in vivo*.

Each section is comprised of a collection of individual chapters, each concentrating on a particular technique or method used therein. The text as a whole acts to concentrate the diversity of molecular research techniques in oral biology, an area which may hold the answers to a number of unresolved questions within the field dentistry, and may well lead to the discovery of new treatments and standards. Such research is certain to have immense implications on current clinical practise, going forward.

This publication and its contents may not be of direct interest to the medical or dental clinician, but provides a fascinating insight into current research concepts and techniques which will shape our future practice. Dental academics may find this text useful, as well as those postgraduate students considering a PhD or other research programme within the field of genetics or molecular biology.

P. Kielty

MANUAL OF WIRE BENDING TECHNIQUES

E. Nakajima

UK: Quintessence

price £65.00; pp 96

ISBN 9780867154955

This manual aims to provide a skill-oriented approach to the techniques and uses of wire bending in current day orthodontics. It describes how modern advances in orthodontic materials, such as changes in wire and bracket properties, have altered the necessity of wire bending but also the clinical techniques needed.

The manual is divided into four chapters with each chapter describing a specific topic in clear, descriptive and easy to understand language. Chapters one and two give a brief overview of the fourth-order bend and trimming of casts respectively. The author's use of everyday practical examples which people can relate to allows him to convey his points in a concise and vivid manner. Chapter three gives a detailed account of the instruments used in wire bending and demonstrates their correct use. It then goes on to explain different wire bending procedures in a step by step fashion. The use of numerous high quality photographs and diagrams allows the author to describe the techniques with little need for long passages of text. The fourth and final chapter of the book explains corrective wire bending techniques through the treatment of specific clinical cases. Again the use of excellent photographs and diagrams in this chapter limits the need for long descriptive text. Such cases include the 'correction of a step between