



## Book Reviews

**A Colour Atlas of Burn Injuries.** By John A. Clarke. (London, Glasgow, Chapman and Hall Medical, 1992). ISBN 0-412-34840-3. Pp viii + 120, ill. Price £49.95.

John Clarke has designed a comprehensive introduction to the subject of burns management intended for nurses, doctors in training, psychologists, dieticians and other associated medical, paramedical and social disciplines. The atlas format lends itself to striking the right level for all these groups and of course the subject lends itself to pictorial representation.

Although the first chapter, on the Classification of Burns, lacks crispness and clarity and the text is rather opaque, the book thereafter improves. The sections on the early and late management of different types of burns are well organised and clearly informative. They present a particularly useful practical manual in the day-to-day management of burns.

The photographs in the book are plentiful and striking and well supported by the text. The book fulfills its purpose of introducing an enormous topic in a coherent and attractive presentation. The references are limited, but appropriate to the putative level of the readership. At £49.95 it represents good value for money.

R. W. SMITH

**Cell and Tissue Culture Models in Dermatological Research.** Edited by A. Bernd, J. Bereiter-Hahn, F. Hevert and H. Holzmann. (Berlin, Heidelberg, New York: Springer-Verlag, 1993). Pp xv + 363, ill. Price DM 168. ISBN 3-540 55972-8.

Everyone seems to be at it nowadays, including plastic surgeons: cultivating cells, analysing their make-up and seeing the effect on them of various poetic-sounding substances. Some of the techniques involved and their results are presented in this selection of cell and tissue culture models in dermatological research on skin culture, melanocyte function, wound healing, fibroblast function, collagen, skin ageing and pharmacology.

First among the topics relevant to plastic surgery is autoimmunity, now highlighted by the silicone implant debate. The opening paper describes how at least one nuclear protein shuttles between the nucleus, the cytoplasm and the cell surface, suggesting that antinuclear antibodies are not just markers but are directly involved in autoimmune disease.

For those trying to culture keratinocytes and to persuade them to adhere to wounds, there are several papers. For example, on the changes in the keratin profiles of cultured cells produced by retinoids (Vitamin A related compounds) and on how mechanical stress enhances human keratinocyte differentiation in culture.

High in the Top Ten Molecules of the Moment is Transforming Growth Factor  $\beta$  (TGF $\beta$ ). This multifunctional cytokine appears in several papers. Collagen type VII is the major component of the anchoring fibrils which are crucial for stability at the dermal-epidermal junction. It is produced *in vitro* by keratinocytes and fibroblasts, much more so if they are cultured together; adding TGF $\beta$  then stimulates further expression of type VII collagen. TGF $\beta$  also stimulates collagen synthesis by fibroblasts in monolayers and three-dimensional collagen gels. Granulation tissue fibroblasts (and so probably those in capsules around implants) more actively proliferate and synthesise collagen than skin fibroblasts and are also more sensitive to TGF $\beta$ . Collagen then in turn can influence epidermal cell migration.

Among all this contemporary research it is reassuring to learn that most of the ideas developed in the 1920's to 1940's about melanin synthesis are still valid, beginning with the tyrosinase-dependent oxidation of tyrosine to dopaquinone. Only now there

are two types of melanin to consider: old-style eumelanin and the more recently investigated pheomelanin.

While cardiac and peripheral vascular surgeons study the complex functions of macrovascular endothelial cells, plastic surgeons trying to understand skin flap microcirculation and its pharmacology may want to turn to the paper in this book on the culture of human dermal microvascular endothelial cells.

All this and more is to be found in this book based on a symposium held in Frankfurt/Main in Germany. With good editing, the presentations have been changed into well constructed papers and assembled into a wide ranging book which is produced to Springer-Verlag's usual high standards. It is expensive and is more for library and laboratory shelves than an individual's bookcase.

M. J. TIMMONS

**Atlas of Microvascular Surgery: Anatomy and Operative Approaches.** Edited by Berish Strauch, Han-Liang Yu, Zhong-Wei Chen and Ralph Liebling. (NY, Thieme, 1993). ISBN 0-86577-436-6. Pp x + 560, ill. Price \$195.

This substantial volume aims to show how to raise free flaps. It is divided into four sections—upper extremity, lower extremity, trunk, head and neck. It describes in detail the anatomy of 43 donor sites, 98 basic and varied techniques of flap design and 39 procedures for exposure of recipient vessels. The book does not discuss the clinical applications of any particular flap but compensates by listing most of the major references at the end of each chapter. Instructions are concise and direct and illustrated stepwise by approximately 570 simple surgical diagrams. Individually these pictures are larger than really necessary. The description of each flap begins with a resumé of the anatomy and its variation derived from the literature and the authors' own investigations. Then follows a "comments and insights" section offering practical information such as maximum recommended flap size and average pedicle length in adults and children; and finally the harvesting technique in detail.

The volume satisfies the need for a comprehensive and practical manual for the microsurgical trainee, and quick aide mémoire for experienced microsurgeons attempting the less familiar flaps and has much to recommend it at \$195.

R. SMITH

**An Atlas of Surgical Exposures of the Lower Extremity.** By Alain C. Masquelet, Christopher J. McCullough, Raoul Tubiana, Ian Fyfe, Leslie Klenerman and Emile Letournel. (London, Martin Dunitz, 1993). Pp x + 414, ill (470 drawings). ISBN 1-85317-003-8. Price £149.50.

This book is written by a group of Anglo-French authors and details all the major surgical exposures prevalent to orthopaedics on the pelvis and lower limb.

The exposures are detailed extremely well, mainly by line drawings in colour and anatomically correct. The text is brief and this is appropriate for an atlas, as most of the dissection can be well followed in the step-by-step illustrations. The format is constant throughout and includes indications, patient positioning, incision and completed exposure. There are no operative photographs and indeed the line drawings are almost certainly superior to photographs, which are often presented in similar works, but with less clarity.

There are two sections of the Atlas devoted to the surgical exposure of arteries, veins and peripheral nerves. The variety of