pure mathematics, convey the essence of the issues qualitatively to a non expert. That is why the book under review would benefit anyone interested in exploring the world of quantum probabilities.

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TGF-β and Related Cytokines in Inflammation. S. N. Breit and S. M. Wahl (eds). Birkhauser Verlag AG, P.O. Box 133, CH-4010, Basel, Switzerland. 2001. 201 pp. Price: sFr 168/DM 220.

The book under review is a collection of articles on the TGF-β cytokines in inflammation written by authors, well-known in the field. TGF-β-related molecules are grouped as a super-family of growth and differentiation factors. These molecules have limited sequence similarities but are structurally well-conserved and have been identified from many species across evolution, from nematodes to mammals. To date, around 40 different TGF-β super-family proteins have been described and the number is ever-expanding. Each of the members are sub-grouped into sub-families that include TGF-β, activins/inhibins, bone morphogenetic proteins, growth and differentiation factors, etc. The super-family is named after TGF-β since this was the first member to have been described. TGF-β molecules are very diverse in their functions, with little overlap in their actions. They all are secreted molecules made from a larger precursor protein and effect their actions through a complex signalling cascade, including simultaneous cooperation of two different sets of receptors called type I and type II. Given the spectrum of the activities of each of the members, they are all multifunctional factors, which influence several phenomena ranging from early development to several functions in the adult. The broad functional properties of many members can be grouped under three common themes, wound healing and repair; regulation of inflammation and immunity; cell growth and differentiation. Several reviews appeared in recent times on the various aspects of TGF-β family members.

A role for TGF-β in immune function has been proposed, shortly after the discovery of TGF-β. TGF-β1 was found to be a potent immunoregulatory agent, enhancing monocyte function and suppressing lymphocyte proliferation and function. In addition, the ability to inhibit proliferation of *T* and *B* cells at very low concentrations makes them significantly more active than the *T*-cell-specific immunosuppressant, cyclosporin. This was substantiated by the discovery that a very potent immune suppressor called 'gliobalstoma-derived immunosuppressing factor' turned out to be a close brother of TGF-β1 and was hence named as TGF-β2. Subsequently, the role of TGF-β isoforms in immune function has been documented by several studies and the most striking evidence has been the generation of the TGF-β1 gene knockout mice. TGF-β1 knockout mice show a phenotype suggestive of severe immune disregulation and die shortly after birth due to massive inflammatory response that involves all major organs. Hence, the role for TGF-β molecules in inflammation and immuneregulation is incontrovertible. TGF-β has been on the top of the agenda of many immunologists who were zealously pursuing autoimmune and other immune disorders. In addition, several other members of this super-family were also implicated during many physiological and pathological conditions that include wound and repair, inflammation and immunity and cell growth and differentiation. This book, hence is timely in putting together aspects on a theme perspective rather than a molecule. The major aspects of this area have been covered, including the description and role of a relatively new member of this super-family called 'macrophage inhibitory cytokine 1 (MIC-1)' that was discovered in 1997. In addition to the major focus on inflammation, would healing and repair, the chapter by Heldin *et al.*, describes in a very comprehensive manner, the highly complex TGF-β signal transduction pathway and the implications of different molecules involved for possible therapeutic targets in diseases that involve TGF-β super-family members. Many articles, in addition to reviewing the current status of the subject, also discuss the possible pathological conditions that may implicate TGF-β members, as is relevant. In particular, reviews on the TGF-β family and the endothelium' by Gamble *et al.* and 'TGF-β and the cardiovascular system' by Grainger and Mosedale, provide exhaustive coverage of the possible pathological conditions that may involve pathways of TGF-β super-family. The coverage on the wound-healing aspects related to TGF-β cytokines by Niesler and Ferguson brings out the essential roles played by TGF-β isoforms in this complex process. All the reviews in this book are good reference material to workers in the respective fields and also a general reading to both basic researchers and clinicians. One major drawback that this reviewer felt was the redundancy in most of the chapters on the description of TGF-β family and the signalling pathway. This could have been restricted to any one of the reviews and others could have been avoided with some understanding with the editors. Otherwise, this book gives a very good review of TGF-β family and the roles played by many members of this family in inflammation, wound healing and repair processes. I recommend this book as a reference material to all researchers in the field of immunology.

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Annual Review of Entomology, vol. 46. M. R. Berenbaum, R.T. Cardé and G. E. Robinson (eds). Annual Reviews, 4139 El Camino Way, P.O. Box 10139, Palo Alto, California 94303-0139, USA. 2001. 806 pp. Price not mentioned.

Annual Reviews Inc. and the editorial team is to be commended on this fine collection of review articles on a wide variety of subjects ranging from practical issues on how to mark insects for demography studies to the evolution of colour vision. Twenty-four articles are far too many to mention in this review of reviews,