**Annual Review of Medicine: Selected Topics in Clinical Sciences.** Coggins, Hancock and Levitt, eds. Annual Reviews Inc., 4139, El Caminoway, P.O. Box 10139, Palo Alto, California 94303–0139, USA. Vol. 47, 1996, 596 pp. Price: US $ 52. Elsewhere $ 57.

*The Annual Review of Medicine* is different from others such as the *Annual Review of Biochemistry* in that the subject matter is broad, covering every aspect of laboratory and clinical medicine. At least in this sense the *Annual Review of Clinical Medicine* is a misfit in the stable of superbly focused publications produced yearly by Annual Reviews Inc. This is not to detract from the quality of effort that has gone into assembling the contents. Indeed, with 44 articles crowding 566 pages this may be the most densely packed of the Annual Reviews, reflecting an attempt to be eclectic as well as comprehensive in the limited space available.

Given burgeoning research in human molecular biology, it is not surprising that molecular medicine is well represented in the contents. Many of these articles offer tantalizing glimpses into the future of medicine and it may be many years before these ideas are translated into practical applications. However, innovations in medicine are not always byproducts of molecular biology. Some important advances relate to better treatments, as well as better use of existing treatments. Lastly, it should be kept in mind that modern medicine is extremely expensive and the 'good old' remedies still have a place, provided their role is reassessed continuously, in view of the rapid flow of new information. The articles in this volume pay heed to all these themes and a few examples will serve to illustrate this.

While it is well recognized that the 'placebo effect' is a real and measurable response of patients to inert principles no effort has been made to systematically harness it for the benefit of patients. Indeed, physicians are trained during the evaluation of new medicines to devise ingenious means, such as masking, to discount the placebo component of a patient's response to medicines. The article on the Placebo Effect by Herbert Benson and Richard Friedman makes a case for 'harnessing' the power of the placebo to benefit patients in the practice of clinical medicine. Since the response to an active medicine will also have a placebo component it is difficult to understand what the authors mean when they exhort the reader to 'incorporate it into standard treatment'. However, the authors do make the valid point that the 'placebo' component of response can be maximized through closer and increased doctor–patient interactions. No doubt, proponents of alternative systems of medicine will take issue with the authors' suggestion that most alternative medicines are placebos. Some may also question the need to replace the elegant and well-understood term 'placebo effect' with the clumsy neologism 'remembered wellness'. Medicine is full of meaningless jargon without our having to add more.

Gene therapy finds place in this volume in the form of a review by Cynthia Dunbar of the NIH, USA, of the use of hematopoietic cells as vehicles for introduction of genes. Hematopoietic cells are conveniently accessible and the progeny derived from the original stem cell also carry the introduced gene, making available a clonal population of cells producing the gene product. This technique is advanced enough to have reached early clinical trials. The results from these studies and the development of new vectors for the transfer of genes will place gene therapy on a firm footing. Also falling within the domain of molecular medicine are excellent reviews on 'trinucleotide instability', X-linked severe combined immuno-deficiency', 'the p53 gene' and 'apolipoprotein E alleles in Alzheimer's disease'.

The article on the mechanism of action of lithium in the treatment of manic depression is a catalogue of results from experiments that aim to prove that the action of lithium in modulating brain function is a result of depletion of inositol. While the findings are provocative they are far from being conclusive and most clinicians would probably not find this contribution of any practical interest. There are several rather confusing findings that the authors gloss over. One glaring finding is that while lithium decreases brain inositol, inositol itself has antidepressant effects. The hand waving resorted to at the end of this chapter does not resolve this paradox in a satisfactory manner.

There are two articles that diabetologists may find interesting. One covers 'beta-cell function' and the other discusses the 'genetics of NIDDM'. Although insulin resistance is the current fashionable topic among diabetologists, the former article reminds us of the importance of beta-cell dysfunction in NIDDM characterized by an abnormal insulin response to a glucose load. No doubt, the controversy regarding which came first, insulin resistance or beta-cell dysfunction, will remain with us. The latter article on the 'genetics of NIDDM' is probably fascinating to researchers who have many potential targets to fish for but dissatisfying to clinicians who are not presented with the possibility of an integrated molecular approach to NIDDM. Research in this area is still in 'the more we understand the less we know realm'. In a similar vein articles on 'myocardial preconditioning for cardioprotection' and the 'role of antiinflammatory drugs in Alzheimer's diseases' offer a fascinating glimpse into what may become possible in the near future.

A few chapters seem a little out of place in this collection such as the one on the 'implantable cardioverter defibrillator', 'laparoscopic cholecystectomy', 'laxative abuse', 'fatal asthma' and 'Bartonellosis'. These contributions may be better suited for a textbook of medicine rather than the Annual Reviews. The editors should also possibly consider issuing a separate volume with the title 'Annual Reviews of Molecular Medicine' given the accelerating growth of new information in that area.

A set of up-to-date references accompany each contribution and makes this volume useful for those seeking the original contributions. The compact size of the book makes it suitable for bedside reading. A large number of line drawings and schemes have been included that makes the subject matter easily accessible. However, the labels associated with the figures are of poor quality. The small blurb that appears at the end of each chapter advertising ordering information for reprints is a little irritating and could probably have been made to appear once at the end of the book.

The very reason that this compilation is unique may be why this book may lack punch. Within the covers of this book are reviews spanning such a vari-

ety of topics that only the generalist with plenty of time will be able to read more than a minor fraction of the articles. One gets the feeling that unlike subjects like biochemistry, the topics that fall under the rubric of clinical medicine are not amenable to coverage in one volume without a persistent undercurrent of tension resulting from the need to provide both breadth and depth of coverage. Nevertheless, for the rare (at least in India) breed of laboratory clinicians there is enough in this volume to make it a delightful companion.

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**Mineral Resources of Karnataka.** B. P. Radhakrishna, Geological Society of India, P. B. No. 1922, Bangalore 560 019. 471 pp. Price: Rs 200, $ 25.

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*Mineral Resources of Karnataka* by B. P. Radhakrishna (BPR, as he is fondly referred to within the earthscience fraternity) represents the handiwork of the right-man-on-the-right-job. None perhaps qualifies better for this specific job.

The 471-page volume, written with a view to 'disseminating available know ledge and educating the public on the mineral resource potential of the State', is divided into two major sections. The first part (though not explicitly labelled as such) comprising four chapters deals with history of two different kinds: the developmental *history of the mineral industry* in Karnataka since ancient times, set against the backdrop of the Indian mineral–industrial scenario; and the *tectonic-metallogenic evolutionary history* of the region in the context of global metallogenesis in space–time coordinates. BPR is eminently knowledgeable about and authoritatively competent in handling both kinds. The second part comprises 'commodity reports' on various types of mineral resources of the State.

The entire text, especially the preface and the introductory section, reflects the author's economic philosophy that has a Gandhian aura about it: self-sufficiency, self-reliance, small-scale labour-intensive mineral enterprises in rural areas; emphasis on development of low unit-value commodities (like sand or building stones) that are useful to virtually everyone; repeated plea for indigenous technology and for export of 'processed' goods rather than 'raw' ore materials, etc. A conviction, that the small-is-beautiful concept is *appropriate* and *applicable* in our context, pervades throughout. One may disagree and consider all this too simplistic in an era when giant multinational mining corporations rule the roost the world over, but the conviction unmistakably stems from his personal, and successful, experience, with the Hutti–Tintini–Chitradurga tie-up in which he had been a major influence.

A few statements are slightly disconcerting though. Like 'Non-ferrous metals . . . although not abundant, can still meet the limited *requirements of the State*' or '. . . mineral resources have not been exploited to the *best advantage of the State and its people*' (p. 2), or 'Mineral development and administration are *best left to the individual States* (p.v. – all italics mine). Surely no 'myopia' needs be casually diagnosed, no sub-nationalism needs be read here – not from BPR, a national figure in his prefession. But such emphasis may send wrong signals that the interest of the country and that of its constituent states are not compatible.

Since the targetted readership is 'the public' (presumably including legislators, planners, administrators and other decision-makers) as also the earth scientists, the balancing job has proved to be rather daunting. The reviewer, for one, was excited at the prospect of sharing the rich experience and wisdom of BPR but had to be content with summarized treatments of geology of the ore deposits – a treatment dictated by the choice of 'the public' as the primary target for whom simplification is often inescapable. Nevertheless the contention, that 'ocean floor . . . volcanic rocks spread out and become continents through successive collision and separation' (p. 30), is *unacceptably oversimplified*. Similarly, placing the stratiform complexes (with Cr, Ni, Ti, V mineralization) under 'Volcanogenic mineralization' (p. 44), or classifying arenite-hosted copper sulfide deposits as 'detrital or placer deposits' (p.161) would have few takers!

Some discrepancies in the hierarchy of sub-heading should better have been avoided; for instance, under the heading 'ARCHEAN' (p. 35–40), subheads like 'Gold in banded iron formation', 'Gold in Greywacke', 'Au–U bearing quartz pebble conglomerate', etc. enjoy the same hierarchical status – anomalously, to my mind – as those on the 'Eastern Schist Belt' and the 'Western Schist Belt' both of which deserve higher-order status in the scheme of organization.

The section on 'Commodity Reports' (p. 47–471), arguably the *raison d'etre* for the book, bears the unmistakable stamp of BPR's intimate knowledge of virtually every single deposit/occurrence in Karnataka. Geology of important deposits is discussed – briefly, simply and lucidly for the general readers, but alas somewhat inadequately for professional geologists. The section could perhaps have done with some standard formatization (like that in the Mineral Commodity Summaries published by the US Bureau of Mines). Was the inclusion of items like 'andalusite' warranted really?

The production is trim and attractive, virtually free from printing errors. Reproduction of geological maps and cross-sections is of high quality as also are the beautiful colour photographs of polished ornamental stones.

Overall, the book is a valuable addition to our rather meagre repository of texts on geology and economics of mineral deposits of the country or of a State. If the review sounds captious at any point, it is because expectation from BPR is always high. How much I wish the text were to discuss the geology of ore deposits in Karnataka in sufficient detail and present the compilation of mineral statistics and mine directory as an appendix!

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