

a product of the process of natural selection which relies on elements of chance. The earliest model which dealt with recreating genealogical history, the Wright-Fisher model and the coalescent, which helps to estimate the genealogical time, are dealt with in considerable detail in chapter 1 of the book. Chapter 2 deals mainly with the effect of varying population size. One interesting problem discussed here in some detail is the analysis of the so-called control regions of human mitochondrial DNA by Cann, Stoneking and Wilson in 1987. More recent studies by Gyllensten and coworkers published a couple of years ago in *Nature* have confirmed this with more extensive data, but Durrett's analysis helps to understand the route by which the meagre data can be coaxed to give conclusions with a high level of statistical significance.

Chapters 3 and 4 are, respectively, on probabilistic analysis of natural selection and statistical tests to determine (as there must be) departures from neutral selection. The chapter on genome rearrangement, the final in the book presents material which is not easily found elsewhere. In the course of evolution, genomes have expanded by duplication (perhaps repeatedly), by inclusion, by large scale modifications. Inversions, where the entire ordering of genes in related organisms has been altered, are common: we may share the majority of our genes with our closest relatives, the bonobo, and the genes themselves may be nearly identical, but the details, the organization of the genes on the genome, is very different and that makes all the difference – so to speak. Cabbage and turnip, *Arabidopsis* and tomato, cytomegalovirus and the Epstein Barr virus, all provide instances of genomic inversions and translocations. Durrett describes the methods used to determine genomic distances and the derived phylogeny.

As Durrett says in his preface, he wrote the book in order to teach himself about genetics. This is both the book's strength and its chief weakness. Durrett writes for himself and for someone of comparable background. Although it does take a fair amount of effort for the non-expert, the advantage of the style of presentation is that many of the intervening steps are worked out. The fact that the author has been careful in the mathematics also results in a number of mistakes in

sources being pointed out. To my mind, though, not enough discrimination was shown in what is presented: sometimes one cannot see the woods for the trees. A large number of examples are worked out and a lot of primary source material is cited, but (again to my mind) the central issues are not very clearly dealt with, so that one can come away after plodding through a chapter or two, not entirely sure as to what one has learned.

This book would not be easy to use as a text and indeed is not meant to be one. As a supplementary text though, this would provide adequate additional material to anyone who wishes to undertake a serious quantitative analysis of genomic and genetic information.

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RSSDI Textbook of Diabetes Mellitus. M. M. S. Ahuja, B. B. Tripathy, Sam G. P. Moses, H. B. Chandalia, A. K. Das, P. V. Rao and S. V. Madhu (eds). Research Society for the Study of Diabetes in India, Nizam's Institute of Medical Sciences, Hyderabad 500 082. 2002. 880 pp. Price: Rs 1200.

Diabetology has emerged as a major speciality in the practice of both general medicine and endocrinology. Recently in India, several centres have adopted diabetes as a single disease speciality to provide total diabetes care and treatment starting from the prediabetes to micro and macrovascular diabetic complications. The idea of compiling a textbook on diabetes mellitus was the distant dream of late M. M. S. Ahuja and other Indian diabetologists, who have pioneered in setting up the Research Society for the Study of Diabetes in India (RSSDI), a unique national forum in India. Although there exist a number of exclusive books on diabetes in the global scene, there are few in India reflecting local problems pertaining to our country.

This publication was planned keeping this special objective in view. Based on four decades of national studies, it has been explicitly shown that problems associated with diabetes in India are in several respects distinct from those in the West. Although attempts to cover the special features of diabetes among diverse ethnic groups have been addressed in recent editions of *International Textbook of Diabetes Mellitus*, an indigenous comprehensive treatise was long overdue to cater to the needs of the burgeoning number of medical practitioners/researchers dealing with diabetes in this country and as well as other Third World countries.

While the contributions of India in the field of diabetes clinical and epidemiological studies have been tremendous, only a small number of these works are published or abstracted in the world literature and therefore much of it go unnoticed. The *RSSDI Textbook on Diabetes Mellitus* addresses this problem as several of its chapters deal with data generated in India. More scope has been provided in this book for exposition of areas where Indian investigators have contributed valuable original ideas such as importance of high carbohydrate diet, use of insulin and sulfonylurea in combination, application of yoga in the management of diabetes, MODY (Maturity Onset Diabetes in Young) and FCPD (Fibro-Calculous Pancreatic Diabetes), Malnutrition related diabetes, lean Type 2 diabetes as well as studies of the epidemiology of diabetes in various social classes. The book depicts an adventurous journey starting with the preface on landmarks in the history of diabetes to the final chapter describing the future directions in diabetes care and research. Introductory chapters on intermediary metabolism and insulin biosynthesis and secretion appear as backbones for the textbook. The book represents, in the judgement of its authors and editors, a compilation and assessment of the most valid, accurate and useful data on diabetes and its complications in India.

This book is also designed to target the requirements of family physician, academicians, clinical researchers and diabetes-oriented professionals at large. Individual chapters are grouped into sections dealing with historical aspects, biochemical basis, pathogenesis, genet-

ics, epidemiology, clinical details, management, complications and prevention. Although the emphasis is on the clinical aspects of the speciality, basic science information has been elaborated in several chapters which will be a great help to many beginners in the field of diabetes research. The style of the textbook is truly international, with extensive illustrations, flow charts, numerous definition boxes and tables and artworks. The book which covers the spectrum of fundamen-

tal and clinical issues of diabetes, is an extensive compilation of Indian literature in 900 pages, 62 chapters and 11 sections contributed by 88 senior authors from within the country and abroad. Within each section, chapters progress from basic mechanisms to physiology to therapeutics. The *RSSDI Textbook of Diabetes Mellitus* can be viewed as a veritable bible on the diabetes scenario in India. This book is priced at a relatively low cost and ordering information is

available at: prachint@bom7.vsnl.net.in or rssdi@hd2.dot.net.in

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PERSONAL NEWS

B. V. Raghavendra Rao

B. V. Raghavendra Rao (BVR for short) was born on 1 October 1908 and lived up to 28 September 2002, a ripe old age of 94 years. His father B. V. Venkateshachar was a prominent experimental physicist and his work on spectroscopy along with Metkalf was well known even before the advent of the Bohr model.

Though BVR may be more familiarly known as a librarian at the Indian Institute of Science (IISc) during the period 1950–65, I would like to record that he was a fine experimental physicist working in the Physics Department at IISc under C. V. Raman. His experimental work related to the observation of Doppler-shifted hyper frequency, acoustic waves in various liquids and their dispersion was published by the Indian Academy of Sciences, and he was awarded a D Sc degree by the Madras University.

Earlier, he had taken his M Sc degree from the Calcutta University working under Raman in Calcutta. His work was well commented upon by three examiners and a special mention was made in *Nature*, some of which I reproduce below.

‘Dr Rao is an excellent experimentalist whose skill, chiefly in handling refined optical instruments, is just as high as his knowledge of modern theories. He has contributed a series of important investigations on different subjects, as Rayleigh scattering, Raman effect, ionization potentials, supersonic and ultrasonic waves, the nature of the liquid state. His investigation on the Doppler effect of

light scattered by supersonics, a phenomenon predicted by Brillouin but very difficult to observe, has made Rao’s name well-known and much quoted in periodicals and books....’ – Max Born.

‘When the British Delegation to the Indian Science Congress visited the Indian Institute of Science, they were impressed with the experimental skill in the arrangement of his apparatus and this has been referred to in the article “Scientific Research in India” in *Nature* of 5 February 1938, in the following terms: “At the Tata Institute at Bangalore the experiments in the Physics section on backward internal scattering of lights in liquids... show a combination of high experimental skill and first class apparatus”.’

H. Hiedemann of Kolm, Germany, an authority on this subject, wrote about the work of Rao as follows: ‘I think your work is so important and so suggestive that I will include in my book not only a report of your paper, but also photographs which you were so very kind as to send me. It may also interest you to know that I have shown lantern slides of your photographs at a lecture I gave at Dresden in January of this year’.

I came to know BVR since 1941 when I was a student in the then Intermediate College and I had done some experiments on vibration of twisted strings. My lecturer T. S. Subraya, seeing my interest in physics, took me to the library in the Physics Department, Central College. At that time BVR lent me a large collec-

tion of books and journals belonging to his father. I also remember making an electrical gadget to restart the mercury arc when power failed, particularly at night.

By about 1951, casteist politics in promotions disrupted the scientific atmosphere and the research tradition vanished. Hence BVR switched over to library science when an opportunity arose. As a librarian, BVR in Central College showed keen interest in developing and preserving a world-class scientific library. In addition, he was instrumental in acquiring through a special grant, a number of books dealing with Indian philosophy.

R. N. Mirza from the Mysore Civil Service was interested in physics and used to visit Central College quite often. The then Director of IISc Prof. M. S. Thacker, was looking for a professional librarian with a good science background. Mirza, who had good contacts with IISc persuaded BVR to apply for the post.

After being selected for the post, BVR went to Delhi for getting acquainted in library science under S. R. Ranganathan. He worked in IISc till his retirement and then served as consultant to various other educational institutions.

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