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Book Review

Introduction to Radiation Biology, by P Uma Devi, A Nagarathnam & B S Satish Rao, published by B I Churchill Livingstone Pvt Ltd, New Delhi, Publication 2000, PP1-278, Price Rs.300; Hard bound

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Radiation biology has become a dwindling field in most European countries, and in the United States it has been subordinated to the needs of the radiation therapist. New text books in radiation biology are therefore, an absolute rarity. Recent publication from India (B.I. Churchill Livingstone, New Delhi, 2000) is not just a much welcomed local contribution to meet the needs of the Indian student, its state-of-the-art presentation of the subject makes it a standard work which meets the needs of any basic course on radiation biology on an international basis. This book should, therefore, be made available to students abroad too.

The book contains 17 chapters, which deal with the subject systematically. The amount of physics which has been incorporated for an understanding of the basic mechanism of radiation action is appropriate. Radiological units and dosimetric principles including weighing factors used for radiation protection purposes have been presented in a crisp manner in keeping with ICRP recommendations. The detriment of radiation insult to the mammalian organism has been adequately dealt with in the way classical radiation biology treats the subject. The texts have been supported with sufficiently well-thought out figures and tables which didactically improve understanding of the subject. The authors have also made efforts to cater for the needs of Scholars in Radiation Oncology. With respect to this, they have included a chapter on hyperthermia.

Inclusion of methodologies relevant to radiation research and medicine is not a common practice, but certainly underlines the goals of the authors, which is to provide students with a concise and yet comprehensive Text Book. It is to hope that this book will from time-to-time be re-edited and expanded to include chapters on non-ionising radiations (especially radio waves and extremely low frequencies), and chapters on the problem of low level radiation exposures with special reference to medical expositions and environmental radiation burdens arising from man-made radioactivities. The student should be exposed to current controversial issues faced in the field.

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