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*Book Review**

Gene Therapy for Diseases of the Lung. (Lung Biology in Health and Disease Series, Vol 104) Edited by Kenneth J. Brigham. New York: Marcel Dekker, Inc., 416 pp.

In a way this landmark contribution to the Lenfant series is a sober antidote to the optimistic expectations that have been raised about curing inherited and other lung diseases by gene therapy. Although, to date, there has been little therapeutic success, the hopes and expectations still exist, and when they are realized, they will be based on the ground work that has already been laid and that will provide the basis for future progress. This book, written by the leading experts in the field, presents what is known about this important subject and how future progress may be made.

The initial chapters are devoted to describing how genes may be delivered to the human lungs, principally by viral vectors, but also by synthetic systems, including liposomes, and they emphasize the complexity of the problem, including immunological complications and contaminations, and the difficulties faced by the many types of delivery systems. Discussions that deal with the next generation of approaches to gene therapy include intracellular trafficking of nucleic acids, how genes might be delivered through the pulmonary circulation, and how gene expression may be targeted to the lung, including modified viral vectors. Chapters on specific diseases recapitulate many of the basic concepts and problems and cover cystic fibrosis, alpha-1 antitrypsin deficiency, and chronic inflammatory diseases. There is an interesting discussion by the editor on potential application of gene therapy to acute inflammatory disease, which although not inherited has important genetic components which might be modified, and he concludes with an interesting discussion of DNA as a drug. Gene therapy for lung cancer includes a number of possibilities including the induction of immunity and cytotoxic therapy.

This volume is primarily directed at scientists actively engaged in this important area of research. It provides an extensive survey of the field, the techniques available, the problems that must be overcome, the knowledge about cell biology that has already accrued, and the exciting future that is in store. Time and again it illustrates how, although funding may be driven by the desire for a cure, facts and concepts derive from the scientist's search for understanding, and the ultimate therapeutic triumph will be a byproduct of that quest for knowledge.

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