

Preface

Chronic obstructive pulmonary disease (COPD) is a multicomponent disease (including emphysema and chronic bronchitis which may or may not coexist in the same individual) leading to a disease state characterized by poorly reversible airflow limitation that is usually progressive and associated with an abnormal inflammatory response of the lung. This disease constitutes a major public health burden worldwide, and the World Health Organization estimates COPD to be the world's fifth most common disease and fourth leading cause of death. Very few effective therapies are available, and bronchodilator therapy, such as long-acting inhaled β_2 -agonists or inhaled anticholinergic agents, is the mainstay of the management of this disease. Onbrez Breezhaler is a newly approved once-daily inhaled β_2 -agonist for the treatment of COPD.

This book has been put together in order to provide the reader with a comprehensive review of the development of Onbrez Breezhaler from the chemical design of the molecule up to the clinical program that was performed for registration.

A review of current pharmacotherapy for COPD is covered by J. Donohue and colleagues. R Fairhurst et al. summarized the chemical design and the preclinical pharmacology of the molecule. The early clinical development of Onbrez is reviewed by J. Beier and K-M Beeh. D. Lawrence et al. described the INHANCE study that provides a successful example of the use of an adaptive design in the confirmatory setting. The phase III clinical efficacy is presented by R. Dahl and D. Mahler, while D Young et al. described the history and performance of the Breezhaler device. Finally, P. Barnes has put together a list of emerging targets that could well be the future treatments for COPD. I would like to express my gratitude to all the contributors and hope the reader will benefit from reading this special issue on COPD.

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Indacaterol

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