

Raghavan, V.: **Molecular Embryology of Flowering Plants.** - Cambridge University Press, Cambridge 1997. 690 pp. GBP 95.00. ISBN 0-521-55246.

A primary objective of the book, as stated by author himself, is to explain the progress achieved toward an understanding of reproductive process in angiosperms on molecular level with particular emphasis on embryology. The book is divided into five sections: I. Gametogenesis, II. Pollination and fertilization, III. Zygotic embryogenesis, IV. Adventive embryogenesis, and V Applications. The last two sections are short, and emphasis is given to the topics summarized in the first three sections.

In the first section, development of anthers with pollen and carpels with ovules are described with attention paid to the differential gene expression and gametogenesis specific genes. In this section, also short chapter about apomixis is included. This is an important aspect from practical point of view, and more thorough review would be welcome. In the second section, interactions between pollen and style are treated with the emphasis on the molecular mechanisms of pollen incompatibility both in sporophytic and gametophytic system. The third section devoted to the zygotic embryogenesis form the core of the whole book and provides an excellent and deep review of the whole field including embryo mutant analysis and molecular aspects of regulation of embryogenesis. The fourth section continues with the description of somatic embryogenesis including induction of pollen embryogenesis and dihaploid plant production. The last section summarizes the use of *in vitro* embryo cultures for genetic transformation - method of choice in those plants where regeneration of transformants from tissue culture is not possible. References at the end of the book comprise 135 pages, providing invaluable source of almost complete information from the field.

In our times of multiauthor compendia, this book on molecular embryology of plants written by single author is an excellent contribution to the attempts to synthesize plethora of new data from single point of view. This book will surely belong to cardinal monographs for all scientists working in experimental plant biology.

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