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Suárez, M.F., Bozhkov, P.V. (ed.): **Plant Embryogenesis** - Humana Press, Totowa 2008. 184 pp. USD 99.50. ISBN 978-1-58829-931-4, e-ISBN 978-1-59745-273-1

I wish to recommend a recent addition to the series "Methods in Molecular Biology" named "Plant Embryogenesis" edited by M.F. Suárez and P.V. Bozhkov. The study of plant embryology is fundamental for the understanding of the whole process of plant development. The methods in plant embryogenesis have undergone a rapid evolution recently. A comprehensive handbook has been missing for a long time. Now we can wholeheartedly express our thanks to all authors - leading experts in the field of plant embryology for very useful book. They focus on the common developmental process and compile the tools and methods important for studying of plant embryology.

The text is divided into 2 parts. Part I is devoted to the description of three plant embryonic models: *Arabidopsis*, maize and spruce. The authors describe the morphology of embryos in developmental stages during zygotic and somatic embryogenesis. Both molecular and genetic aspects are explained. The methods of study are recommended for these plant models. Part I is accompanied by a rich list of references.

Part II - "Cellular, Genetic and Molecular Mechanisms of Plant Embryogenesis" is composed of

detail protocols used in different laboratories for studying plant embryos. The topics of chapters are: "*In Vitro* Fertilization with Isolated Higher Plant Gametes"; "*In Vitro* Culture of *Arabidopsis* Embryos"; "Culture and Time-Lapse Tracking of Barley Microspore-Derived Embryos"; "Isolation of Embryo-Specific Mutants in *Arabidopsis*: Plant Transformation"; "Isolation of Embryo-Specific Mutants in *Arabidopsis*: Genetic and Phenotypic Analysis"; "Laser-Capture Microdissection to Study Global Transcriptional Changes During Plant Embryogenesis"; "Promoter Trapping System to Study Embryogenesis"; "Visualization of Auxin Gradients in Embryogenesis"; "Intercellular Trafficking of Macromolecules During Embryogenesis"; "Immunolocalization of Proteins in Somatic Embryos: Applications for Studies on the Cytoskeleton"; "Detection of Programmed Cell Death in Plant Embryos".

The authors aim this book primarily at researchers who are relatively new to the field of plant embryology. Nevertheless I am certain that this volume will be very useful text in all laboratories dealing with plant development and embryology. It can inspire students as well as full-fledged plant embryologists.

Z. VONDRÁKOVÁ (*Prague*)