

Book Review

The unbearable lightness of being p53 protocols

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Cell Death and Differentiation (2004) 11, 688. doi:10.1038/sj.cdd.4401394

p53 Protocols. Edited by Sumitra Deb and Swati Palit Deb. Humana Press Inc. Totowa, New Jersey, USA. Methods in Molecular Biology, Volume 234, 2003. \$99.50

How would you feel entering a supermarket to buy the ingredients to bake a tasty cake but forgot the list of the ingredients? Or alternatively, getting the required ingredients but you do not know in which order you should add them to the mix. The answer would be, feeling confused and lost or why should you bother! There are too many other tasty cakes and recipes you can choose instead.

Well, this is the kind of feeling I had reading through the pages of 'p53 Protocols', in particular since I imagine myself not an experienced p53 investigator but rather as a potential naïf user for such protocols to study questions involving p53 in my area of investigation.

The book is a volume in the series 'Methods in Molecular Biology' by Humana Press, has 18 chapters, each containing the protocol for a certain technique that, according to the book's editors, should be relevant to p53 world of research. Each chapter has an abstract and useful introduction background about wt p53 and its mutant variants and their implications in normal and cancer cells. In general, the protocols in every chapter are well organized, and have some tips to deal with trouble-shootings.

Unfortunately, only for the fact that p53 is the subject of study, there is no logical link or order between the chapters or within a chapter that could help to understand the biological questions behind the purpose or advantage to choose which technical approach to use. Besides, overall, there are not many given explanations within a chapter for the reason/s to justify a specialized protocol for p53. According to the editors, the book is aimed to familiarize the investigators with the associated problems (trouble-shooting) that could arise during the learning phase of adopting a new method (not necessarily specific to p53!). To my mind, the first seven protocols (chapters) in the book are not particularly specific to the study of p53 and therefore not

very interesting, since these applications could be found elsewhere and are not particularly different for p53, like for example protocols to generate and characterize p53 mutant mice or methods for plasmid transfections into cells (for p53 expression analysis). Moreover, no modern protocol list would be complete without a protocol on microarray technology for DNA-chip analysis. Having said that, there are some important chapters that follow that deal with the use of specific protocols required for the study of the specific properties and functions of the transcription factor p53, like its binding preferences to specific DNA binding sequences (e.g. to study transcriptional repressor functions of p53 by immunobinding assay of DNA and by chromatin immunoprecipitations) or specific phosphorylations of p53 (e.g. to study regulation of p53 activity by different phosphospecific reagents targeted to the diverse phosphorylation sites). Also, you could find intriguing and interesting the protocol for detection of p53 translocation in the mitochondria during p53-dependent apoptosis.

Unfortunately, despite the fact that the other members of the p53 family, p73 and p63, were first identified in 1997, the protocols are not adapted for the *extended* family, leaving the possibility for a fresh updated version.

With the late fashion in cooking books and television program, scientists should quickly adapt for more protocol books, special TV protocol programs and dedicated meetings. More seriously, this book could be valuable to those who know the question to ask about p53 and its family members and are willing to adopt a new protocol (already adapted for the p53 family) to do so. But, most probably, these people are already acquainted with p53 and its protocols. On the other hand, I am not fully convinced that this book could help someone who would like to start p53 research and find this book useful as guidance for the first steps in the field.