

BOOK REVIEW

THYROID HORMONE RECEPTORS: METHODS AND PROTOCOLS

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The book has been written by hands-on experts in the field who, to my consideration, addressed important questions concerning the role of the nuclear thyroid hormone receptor signalling pathway in vertebrates. Thyroid hormone receptors – thyroid hormone inducible transcription factors are regulators of a variety of biological processes in animal and human physiology of crucial importance. The above book consists of eleven chapters, 223 pages, the content of them sounds clear, well written, and of a very high impact. The topics include the analysis of heart rate, amphibian morphogenesis, target gene analysis in brain and heart or liver, and transcriptional analysis by thyroid hormone receptors in cell-free systems as well as in living cells.

Methodology comprises a wide variety of modern and sophisticated methods of up-to-date research (cloning techniques, a model of null mutant mice for thyroid hormone receptor, molecular analysis of human resistance to thyroid hormone syndrome, in situ hybridisation methodology, RT-PCR and microarray

chip techniques, electrophoretic mobility and “super” shift assays, etc.). Each methodology protocol contains full explanatory notes as well as troubleshooting tips, and helpful comments on avoiding pitfalls. Thus, those sophisticated methods enable a variety of basic and applied researchers (endocrinologists, geneticists, biochemists, and physicians) to learn those modern technique in order to achieve in their laboratories novel and original data on specific gene expression mediated by thyroid hormone via nuclear receptors. Thus, the use of know-how described in details in each single chapter may generate new knowledge in the field of thyroid hormone signalling pathway.

From my point of view, use of up-to-date information together with methodology described in the above book may represent a marked “push forward” in signalling pathways via nuclear thyroid hormone receptors.

Julius Brtko