

Contents

Physiological Regulation and Biological Function of Thyrotropin

I. Regulation of TSH

J. M. M. Rondeel, W. J. de Greef, T. J. Visser
Effect of Thyroid Status on Release of Hypothalamic Thyrotropin-Releasing Hormone1

E. Ridgway, D. F. Gordon, Marilee Kao, Virginia Sarapura, K. Ocran, Linda Alexander, W. M. Wood
Transcriptional Regulation of the Murine TSG Subunit Genes.....5

B. D. Weintraub, F. E. Wondisford, E. A. Farr, H. J. Steinfelder, S. Radovick, N. Gesundheit, P. W. Gyves, T. Taylor, G. S. De Cherney
Pre-Translational and Post-Translational Regulation of TSH: Relationship to Bioactivity9

G. Brabant, K. Prank, U. Ranft, P. Bergmann, Th. Schuermeyer, R. D. Hesch, A. von zur Mühlen
Circadian and Pulsatile TSH Secretion Under Physiological and Pathophysiological Conditions12

II. TSH Action on Iodination and Thyroid Hormone Secretion

J. Köhrle
Thyrotropin (TSH) Action on Thyroid Hormone Deiodination and Secretion: One Aspect of Thyrotropin Regulation of Thyroid Cell Biology....18

B. Rees Smith, J. Furmaniak
Structural Analysis of the TSH Receptor28

L. Nitsch, C. Garbi, Raffaele Gentile, Anna Mascia, Rosa Negri, C. Polistina, Gianna Vergani, Chiara Zurzolo
Morphological Changes Induced by prolonged TSH Stimulation or Starvation in the Rat Thyroid Cell Line FRTL.....32

C. M. Gérard, A. Lefort, D. Christophe, F. Libert, J. van Sande, J. E. Dumont, G. Vassart
Distinct Transcriptional Effects of cAMP on 2 Thyroid Specific Genes: Thyroperoxidase and Thyroglobulin38

L. M. Leer, F. A. Ossendorp, J. J. M. de Vijlder
TSH Action on Iodination in FRTL-5 Cells.....43

III. TSH and Thyroid Growth Regulation

R. D. Hesch
Thyroid Growth – An Example of Modulation of Cell Function.....47

C. Maenhaut, A. Lefort, F. Libert, M. Parmentier, E. Raspé, P. Roger, B. Corvilain, E. Laurent, S. Reuse, J. Mockel, F. Lamy, J. Van Sande, J. E. Dumont
Function, Proliferation and Differentiation of the Dog and Human Thyrocyte51

R. Gärtner, G. Bechtner, D. Stübner, W. Greil
Growth Regulation of Porcine Thyroid Follicles In-Vitro by Growth Factors.....61

M. C. Eggo, J. E. Errick, M. A. C. Pratt, G. N. Burrow
Human Thyroid Cells Transfected with SV 40 DNA Retain the TSH Receptor68

E. D. Williams
TSH and Thyroid Cancer.....72