

# Neuropeptide Y and Related Peptides

## Contributors

M. Alfalah, A. Beck-Sickinger, S. Bedoui, A. Brennauer,  
A. Buschauer, C. Carvajal, H.M. Cox, W.R. Crowley,  
O. Della-Zuana, S. Dove, Y. Dumont, J.-L. Fauchere,  
M. Feletou, J.P. Galizzi, M. Heilig, H. Herzog, S. von Hörsten,  
T. Hoffmann, N.P. Hyland, S.P. Kalra, P.S. Kalra, T. Karl,  
A. Kask, M. Lonchamp, N.R. Levens, M.C. Michel, K. Mörl,  
R. Pabst, J.P. Redrobe, R. Quirion, K. Tatemoto, T.E. Thiele,  
C.D. Wrann

## Editor

Martin C. Michel



Springer

---

## List of Contents

Neuropeptide Y: History and Overview . . . . .	1
<i>K. Tatemoto</i>	
PP, PYY and NPY: Synthesis, Storage, Release and Degradation . . . . .	23
<i>S. von Hörsten, T. Hoffmann, M. Alfalah, C.D. Wrann, T. Karl, R. Pabst, S. Bedoui</i>	
NPY Receptor Subtypes and Their Signal Transduction . . . . .	45
<i>N.D. Holliday, M.C. Michel, H.M. Cox</i>	
Phylogeny of NPY-Family Peptides and Their Receptors . . . . .	75
<i>D. Larhammar, R. Fredriksson, E. T. Larson, E. Salaneck</i>	
Neuropeptide Y and Its Receptor Subtypes in the Central Nervous System: Emphasis on Their Role in Animal Models of Psychiatric Disorders . . . . .	101
<i>J.P. Redrobe, C. Carvajal, A. Kask, Y. Dumont, R. Quirion</i>	
Prejunctional Effects of Neuropeptide Y and Its Role as a Cotransmitter. . .	137
<i>T.C. Westfall</i>	
Neuroendocrine Actions Of Neuropeptide Y . . . . .	185
<i>W.R. Crowley</i>	
NPY: A Novel On/Off Switch for Control of Appetite and Reproduction . . .	221
<i>S.P. Kalra, P.S. Kalra</i>	
Behavioral Effects of Neuropeptide Y . . . . .	251
<i>T.E. Thiele, M. Heilig</i>	

NPY Effects on Food Intake and Metabolism. . . . .	283
<i>N. R. Levens, M. Félétou, J.-P. Galizzi, J.-L. Fauchère, O. Della-Zuana, M. Lonchampt</i>	
Neuropeptide Y and Cardiovascular Function . . . . .	327
<i>M. J. Morris</i>	
Neuropeptide Y and the Kidney. . . . .	361
<i>M. C. Michel</i>	
NPY-Like Peptides, Y Receptors and Gastrointestinal Function . . . . .	389
<i>N. P. Hyland, H. M. Cox</i>	
NPY and Immune Functions: Implications for Health and Disease . . . . .	409
<i>S. Bedoui, R. Pabst, S. von Hörsten</i>	
Transgenic and Knockout Models in NPY Research . . . . .	447
<i>H. Herzog</i>	
Structure–Activity Relationship of Peptide-Derived Ligands at NPY Receptors . . . . .	479
<i>K. Mörl, A. G. Beck-Sickinger</i>	
Structure–Activity Relationships of Nonpeptide Neuropeptide Y Receptor Antagonists. . . . .	505
<i>A. Brennauer, S. Dove, A. Buschauer</i>	
<b>Subject Index . . . . .</b>	<b>547</b>