

1. Record Nr.	UNINA9910797044003321
Titolo	Hormones and transport systems // edited by Gerald Litwack ; contributors, Yasaman Aghazadeh [and thirty-eight others]
Pubbl/distr/stampa	Amsterdam, [Netherlands] : , : Academic Press, , 2015 ©2015
ISBN	0-12-803008-9 0-12-803028-3
Edizione	[First edition.]
Descrizione fisica	1 online resource (584 p.)
Collana	Vitamins and Hormones, , 0083-6729 ; ; Volume ninety eight
Disciplina	612.4
Soggetti	Hormones
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Front Cover; Hormones and Transport Systems; Copyright; Former Editors; Contents; Contributors; Preface; Chapter One: Dietary I- Absorption: Expression and Regulation of the Na ⁺ /I ⁻ Symporter in the Intestine; 1. The Importance of Iodide in Human Health; 2. The Na ⁺ /I ⁻ Symporter; 2.1. Molecular identification of NIS; 2.2. NIS-mediated transport: Substrates and stoichiometry; 2.3. The role of physiological Na ⁺ concentrations in NIS affinity for I ⁻ ; 3. NIS Expression Beyond the Thyroid; 4. Targeting of NIS to the Plasma Membrane; 5. Hormonal Regulation of NIS Expression; 6. Dietary I- Absorption 7. Regulation of Intestinal NIS Expression 8. Conclusions and Future Directions; Acknowledgments; References; Chapter Two: Apical Iodide Efflux in Thyroid; 1. Introduction; 2. Iodide and Thyroid Hormone Synthesis; 2.1. Thyroid organization; 2.2. Thyroid hormone synthesis; 3. Vectorial Transport Processes in Epithelia and Thyroid I- Accumulation; 3.1. Brief overview of basic epithelial transport processes; 3.2. Basolateral iodide uptake; 3.3. Apical iodide release; 4. Chloride Transport Proteins and Luminal I- Translocation; 4.1. SLC26A4 (Pendrin); 4.1.1. SLC26A4, HCO ₃ ⁻ , luminal pH 4.2. Cystic fibrosis transmembrane conductance regulator 4.2.1. CFTR and SLC26A4 interplay; 4.3. SLC5A8, a sodium-monocarboxylate transporter (hAIT; SLC5A8; SMCT1); 4.4. TMEM16A (anoctamin 1); 5.

Conclusions; Acknowledgment; References; Chapter Three: The Sodium/Multivitamin Transporter: A Multipotent System with Therapeutic Implications; 1. Introduction; 2. "Active" Transport; 3. Identification of the Multivitamin Transporter; 4. The hSMVT Gene; 4.1. Expression of hSMVT in various tissues; 4.2. An additional high-affinity hSMVT-like uptake system?; 5. From Gene to Protein; 6. Family Ties 7. The Predicted Structure of hSMVT8. The (Co)Substrates of hSMVT; 9. The Characterization of the Cloned hSMVT; 9.1. Electrogenicity of hSMVT-mediated transport; 9.2. Mechanistic implications; 10. Medical Implications; 11. Conclusion and Future Directions; Acknowledgments; References; Chapter Four: Regulation of ENaC Transcription; 1. Introduction; 1.1. Aldosterone is a ligand for the mineralocorticoid receptor and glucocorticoid receptor; 1.2. Epithelial sodium channel (ENaC) is a major target of aldosterone action and a key ion channel in regulating Na⁺ balance

2. Dot1a-Af9 Complex Mediates Repression of ENaC2.1. Histone H3 K79 methyltransferase Dot1a; 2.1.1. Dot1 proteins are a unique class of histone methyltransferases; 2.1.2. Dot1 proteins and H3 K79 methylation have diverse functions; 2.1.3. Dot1a is the first aldosterone-regulated target with a known function in epigenetics; 2.1.4. Dot1a modulates targeted H3 K79 methylation at the ENaC promoter and represses ENaC in a methyltransferase-depen...; 2.1.5. Dot1a-mediated repression apparently requires its nuclear expression as well as its methyltransferase activity and...

2.1.6. Dot1a-mediated repression of ENaC raised new questions
