Record Nr.	UNINA9910814333703321
Titolo	Amphioxus immunity : tracing the origins of human immunity / / edited by Anlong Xu
Pubbl/distr/stampa	Amsterdam, [Netherlands] : , : Elsevier, , 2016 ©2016
ISBN	0-12-809647-0
Descrizione fisica	1 online resource (355 p.)
Disciplina	592.177
Soggetti	Marine invertebrates Marine invertebrates - Physiology
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 and indexes.
Nota di contenuto	Cover; Title Page; Copyright Page; Dedication; Contents; List of contributors; About the Author; Foreword; Preface; Chapter 1 - Amphioxus as a Model for Understanding the Evolution of Vertebrates; 1.1 - Brief introduction of amphioxus; 1.2 - Biology of amphioxus; 1.2.1 - Reproduction and embryogenesis of amphioxus; 1.2.2 - Anatomy of amphioxus; 1.3 - The story of amphioxus and early research studies in China; References; Chapter 2 - Basic Knowledge of Immunology; 2.1 - Immune organs; 2.1.1 - Primary lymphoid organs; 2.1.1.1 - Bone marrow; 2.1.1.2 - Thymus; 2.1.2 - Secondary lymphoid organs
	<ul> <li>2.1.2.1 - Lymph nodes2.1.2.2 - Spleen; 2.1.2.3 - Mucosa-associated lymphoid tissue; 2.2 - Immune cells; 2.2.1 - Lymphoid cells; 2.2.1.1 - B cells; 2.2.1.2 - T cells; 2.2.1.3 - NK cells; 2.2.2 - Innate immunity-associated cells; 2.2.2.1 - Neutrophils; 2.2.2.2 - Macrophages; 2.2.2.3 - Dendritic cells; 2.3 - Innate immunity; 2.3.1 - Toll-like receptors involved in the signaling pathway; 2.3.2 - NOD-like receptors and their functions; 2.3.3 - RIG-like receptors; 2.3.4 - C-type lectins; 2.3.5 - The scavenger receptors; 2.3.6 - Inflammation; 2.4 - Adaptive immunity; 2.4.1 - Specificity</li> <li>2.4.2 - Diversity2.4.3 - Immunological memory; 2.4.4 - Self-nonself recognition; 2.5 - Complement system; 2.5.1 - Complement pathways; 2.5.1.3 -</li> </ul>

1.

Alternative pathway; 2.5.2 - Complement in host defense; References; Chapter 3 - Immune Organs and Cells of Amphioxus; 3.1 -Introduction; 3.2 - Organs of the amphioxus immune system; 3.2.1 -Amphioxus gill slits: the first immune defense line; 3.2.2 - Amphioxus intestine: not just a digestive organ but also an immune organ; 3.3 -Cells of the amphioxus immune system; 3.3.1 - Phagocytes 3.3.2 - Lymphocyte-like cellsReferences; Chapter 4 - Genomic and Transcriptomic View of Amphioxus Immunity; 4.1 - Introduction; 4.2 -Trace evidence of adaptive immunity; 4.2.1 - TCRs, Igs, VLRs, and the origins of RAG; 4.2.2 - MHC and genes involved in antigen presentation; 4.3 - Extraordinary gene expansion in amphioxus innate immunity; 4.3.1 - The TLR system; 4.3.2 - The NLR system; 4.3.3 -LRRIG proteins; 4.3.4 - Other LRR-containing genes; 4.3.5 - C-type lectins; 4.3.6 - Scavenger receptors; 4.3.7 - RIG-I-like helicases; 4.3.8 - Complement-related receptors; 4.3.9 - The TNF system 4.3.10 - Expansion and reshuffling of the death-fold domains 4.3.11 -Expansion of TIR adaptors, TRAFs, and initiator caspases; 4.3.12 -Cytokines, kinases, and transcription factors; 4.4 - Regulation of the amphioxus immune system; 4.4.1 - Differential regulatory patterns between expanded gene families; 4.4.2 - The regulation during bacterial infection: 4.4.3 - The regulation of the terminal signaling network; 4.4.4 - Differential expression patterns observed within TNF and IL-1R systems; 4.4.5 - Major pathways in a complex signaling network; 4.4.6 - A functional prototypic complement system 4.4.7 - The prototype of the oxidative burst-like system