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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 domains4.3.11 - 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

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