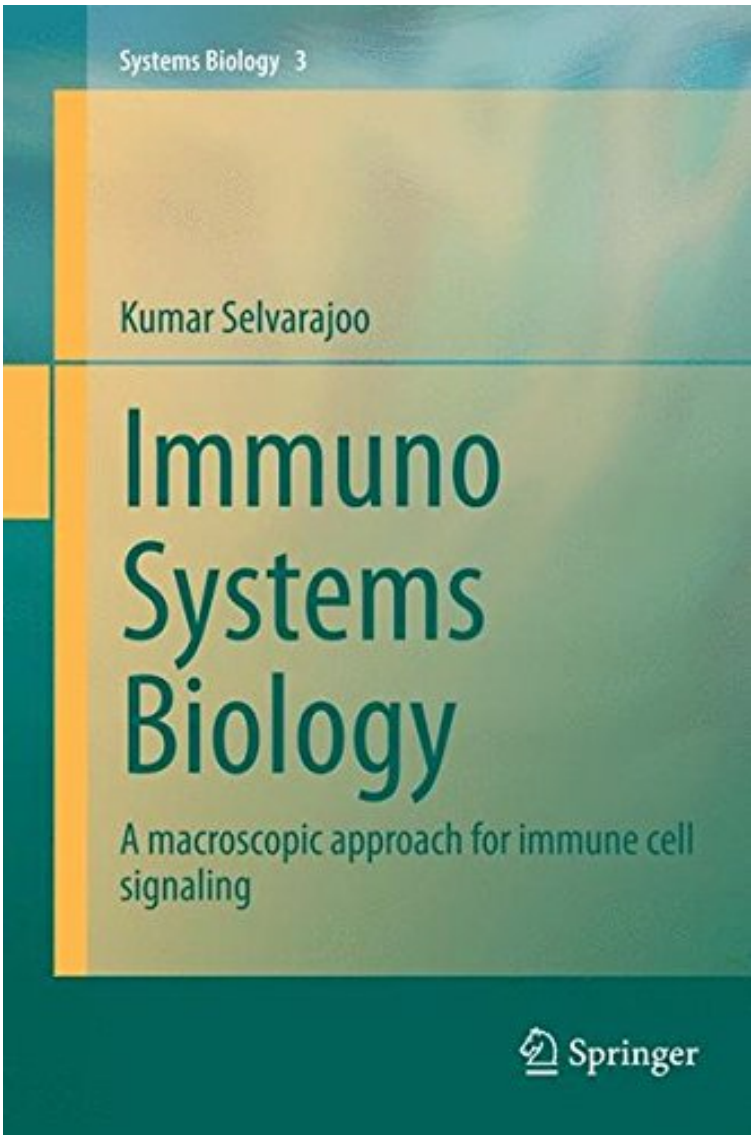
Immuno Systems Biology: A macroscopic approach for immune cell signaling

Kumar Selvarajoo
**Download PDF | ePub | DOC | audiobook | ebooks*



#9710494 in Books Ingramcontent 2016-08-23 2016-08-23Original language:EnglishPDF # 1 9.25 x .38 x 6.10l, .0 #File Name: 1493950908146 pagesImmuno Systems Biology A macroscopic approach for immune cell signaling | File size: 64.Mb

Kumar Selvarajoo : Immuno Systems Biology: A macroscopic approach for immune cell signaling before purchasing it in order to gage whether or not it would be worth my time, and all praised Immuno Systems Biology: A

macroscopic approach for immune cell signaling:

Immuno Systems Biology aims to study the immune system in the more integrated manner on how cells and molecules participate at different system levels to the immune function. Through this book Kumar Selvarajoo introduces to physicists, chemists, computer scientists, biologists and immunologists the idea of an integrated approach to the understanding of mammalian immune system. Geared towards a researcher with limited immunological and computational analytical experience, the book provides a broad overview to the subject and some instruction in basic computational, theoretical and experimental approaches. The book links complex immunological processes with computational analysis and emphasizes the importance of immunology to the mammalian system.

From the Back CoverTechnological advances of modern biology have generated high volumes of omics data. The natural precedence has been to put the complex information together, so that it will lead to spectacular scientific discoveries and medical breakthroughs. In this light, tremendous efforts worldwide are reshaping biological research by integrating with information science. Despite the systems biology efforts, for major illnesses, such as proinflammatory diseases and cancer, there is clear clinical evidence that even the most current therapies, at best, control transient response and subdue to the robust adaptability of the disease state. Hence, there is a need for system-levels understanding of bio-complexity.Kumar Selvarajoo brings attention to fundamental questions governing sophisticated behaviors of the mammalian immune system. To tackle some of the complex issues, the book introduces perturbation-response approach, using the law of physics (mass flow conservation), as a means to interpret the dynamic response of major proinflammatory pathways of the immune and cancer cells. Overall, the book provides an illustrated journey that explains biological cell signaling in simple terms.