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B-CELL AND ANTIBODY RESPONSES IN BACTERIAL INFECTIONS: QUALITY OR QUANTITY?

B-cells play a crucial role in bacterial infections. These cells are not just antibody producers but are also necessary to engender Th1 protective immunity. This is achieved via a variety of mechanisms including cytokine production and antigen presentation and with the involvement of both innate signalling pathways and the B-cell receptor. The crosstalk between T-cells and B-cells in turn modulates the qualitative traits of the antibody response. The isotype profile of antibodies profoundly influences the function and efficacy of the humoral response against bacteria and affects FcR usage and complement activation. Future development of vaccines and delivery systems will therefore need to consider the qualitative aspects of B-cell immunity in relation to their function.

Biography

Pietro Mastroeni has received a degree in Medicine and Surgery from the University of Messina, Italy. He moved to the University of Cambridge, UK where he completed his PhD before becoming a Research Fellow at Imperial College, University of London UK. He is currently a Reader in infection and immunity at the University of Cambridge, UK. In 2017, he was awarded the Higher Degree of Doctor of Science (ScD) St Cambridge and he is a Fellow of the Royal Society of Biology. He has published more than 120 papers in reputed journals, edited two books and serves as an Editorial Board Member for several international journals.

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