

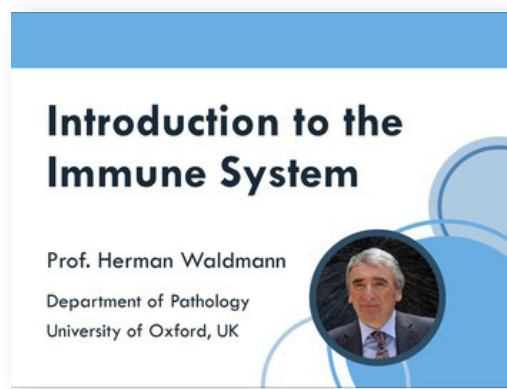


Basics of Immunology

Part 1

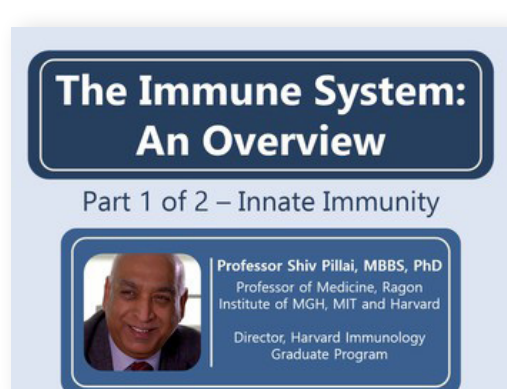
This learning journey is designed to introduce general features of the immune system, types of immunity, antigens, and antibodies/immunoglobulins. The pathways of complement system and their physiological functions are also discussed in this journey.

01 > How is the immune system organised? - the downside and the upside



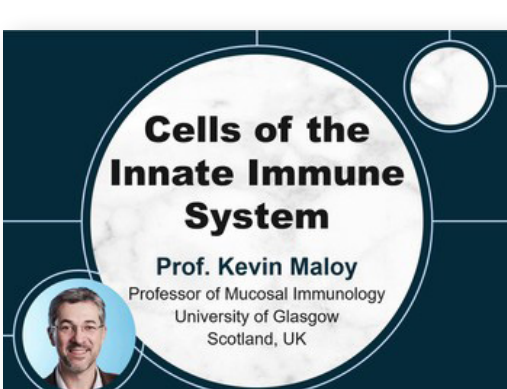
Extract from:
'Introduction to the immune system'
Prof. Herman Waldmann – University of Oxford, UK
5 mins

02 > Innate immunity vs. Adaptive immunity



Extract from:
'The immune system: an overview - innate immunity'
Prof. Shiv Pillai – Harvard Medical School, USA
6 mins

03 > Overview of innate immunity and leukocyte development



Extract from:
'Cells of the innate immune system'
Prof. Kevin Maloy – University of Glasgow, UK
3 mins

04 > Overview of adaptive immunity and antibody functions



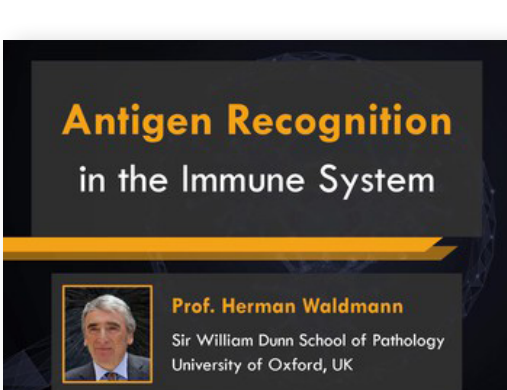
Extract from:
'The immune system: an overview - adaptive immunity'
Prof. Shiv Pillai – Harvard Medical School, UK
2 mins

05 > How do vaccines work?



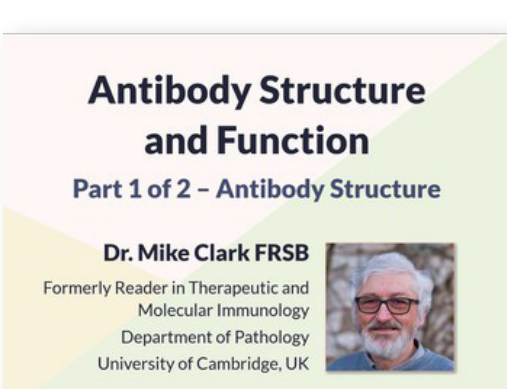
Extract from:
'Vaccination'
Dr. Anita Milicic – University of Oxford, UK
3 mins

06 > How the immune system recognises antigen?



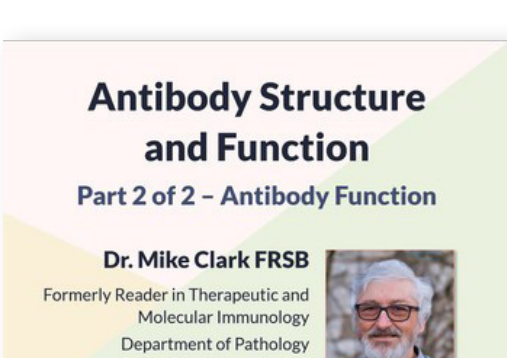
Extract from:
'Antigen recognition in the immune system'
Prof. Herman Waldmann – University of Oxford, UK
3 mins

07 > Immunoglobulin classes and subclasses



Extract from:
'Antibody structure and function: antibody structure'
Dr. Mike Clark – University of Cambridge, UK
3 mins

08 > Antibody as an adapter molecule



Extract from:
'Antibody structure and function: antibody function'
Dr. Mike Clark – University of Cambridge, UK
6 mins

09 > The complement system: classical, lectin and alternate pathways



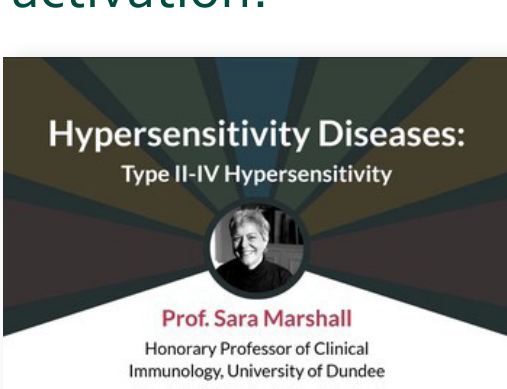
Extract from:
'The complement system - an introduction for undergraduates'
Prof. Michael Holers – University of Colorado School of Medicine, USA
Dr. Ashley Frazer-Abel – University of Colorado, USA
8 mins

10 > Physiological functions of the complement system



Extract from:
'The complement system in innate and adaptive immunity: normal functioning of the complement system'
Prof. Steven Sacks – King's College London, UK
2 mins

11 > What are the outcomes of complement activation?



Extract from:
'Hypersensitivity diseases: type II-IV hypersensitivity'
Prof. Sara Marshall – Wellcome Trust, UK
3 mins