

Innate Immune Memory and its Role in Health and Disease

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For a long time, it was assumed that immunological memory was an exclusive hallmark of the adaptive immune response. Nevertheless, a growing body of work has presented evidence that innate immune cells, as well as tissue-resident stem cells, possess adaptive properties, thereby challenging this dogma. Moreover, the emerging concepts of innate immune memory challenge the conventional perception of the innate immune system as exclusively reactive. During the past decade, several studies have indicated the extensive advantages of innate immune memory in the context of host defence. However, these studies have also proposed potential adverse consequences in immune-mediated and chronic inflammatory disorders. This phenomenon presents promising opportunities for the advancement of novel therapeutic treatments that seek to use the potential of an ancient innate immune mechanism in the context of disease prevention and therapy. In this week's Life Science Seminars (SCISEM), we invite you to explore the captivating realm of innate immune memory and its profound capacity to influence the healthcare domain.