



Sialic Acid-Siglec Interaction: A Potential Therapeutic Target in Human Disease?

Guest Editor:

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Message from the Guest Editor

Sialic acids are part of the monosaccharides family called sialoglycans that interact with the family of molecules called 'Siglecs'. Siglecs are receptors that display binding preferences for sialic acid modifications and are preferentially expressed on white blood cells of the immune system. Sialic acid–Siglec interactions play different roles in human physiology as they mediate cell adhesion, cell signaling, or uptake of sialylated pathogens. Abnormal sialic acid–Siglec interactions can contribute to the onset and development of diseases. Further sialoglycans are suggested to play important roles in pathological processes including infection, autoimmunity, and cancer, although many aspects remain unknown. Indeed pathogens and cancer cells, by expressing surface sialic acids, can interact with Siglecs expressed on immune cells to escape immune recognition. Thus the sialic acid–Siglec axis has attracted attention within the scientific community as a potential target for immune modulation in the prevention and treatment of several disorders.





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