

Conclusions

Description

The idea behind this chapter was to give a general and comprehensive overview of the most recent discoveries about Siglecs, a family of proteins that emerged in the last years as promising pharmacological targets for many diseases.

The sialic acid, recognized by Siglecs, is the most abundant sugar of the glycocalyx. It is involved in several processes, and it represents one of the first contact points between cells. Therefore, it highlights the enormous potential of modulating Siglec-sialic acid interactions. Different strategies have been deployed, from the use of antibodies, which in some cases are already in clinical trials, to the development of small molecules, particularly challenging because of the poor drug-like properties of the natural carbohydrates ligands. Despite all the progress made in the last years, much is yet to be understood. Hopefully, this chapter will contribute to intriguing future glycoscientists about this promising topic ,to learn about Siglecsâ?? biological roles and find new ways to address diseases related to autoimmunity, infections, inflammation, ageing, and cancer.

Category

1. News