Chemical biology studies on retaining exo-β-glucosidases

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Propositions

Accompanying the thesis

Chemical biology studies on retaining exo-β-glucosidases

1. Modification of the C8 chain in cyclophellitol-configured compounds impacts selectivity for GBA1 over GBA2.
   M. Artola et al. *J. Am. Chem. Soc.* 2019, 141, 4214−4218; this Thesis, Chapter 2.

2. Furanose-mimetic cyclophellitols selectively inhibit pyranose-processing glycoside hydrolases. This Thesis, Chapter 3.

3. In the design of selective GBA3 inhibitors one has to overcome the broad substrate specificity of GBA3. This Thesis, Chapter 4.

4. Where comparative genetics reports on sequence homologues, comparative ABPP reveals functional homologues. This Thesis, Chapters 5 and 6.

5. *C. elegans* represents a good model for human glycosphingolipid metabolism, even though the C17-iso glucosylceramide in this species is slightly different in the structure of human glucosylceramide.

6. Activity and potency of ABPs and inhibitors differ for some β-glucosidases from different species.

7. To see or not to see: the lottery moment of SDS-PA gel scanning makes life exciting.

8. A good balance between work and rest is important.

9. Preparing a detailed and accurate protocol is crucial for the success of the experiment.

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Leiden, November 6, 2024