

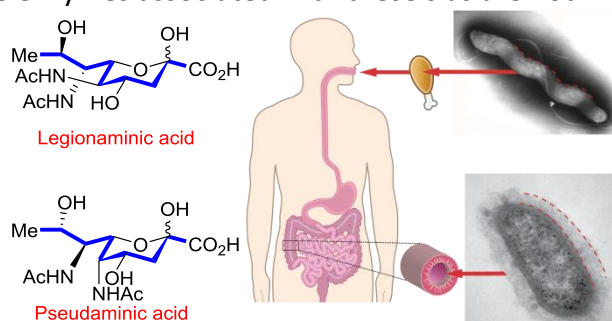
## Tjerk Sminia

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<b>Project</b>	Synthesis of Microbial Sialic Acids for the Study of Human Gut Glycobiology
<b>Fields of interest</b>	Synthetic Organic Chemistry & Chemical Biology
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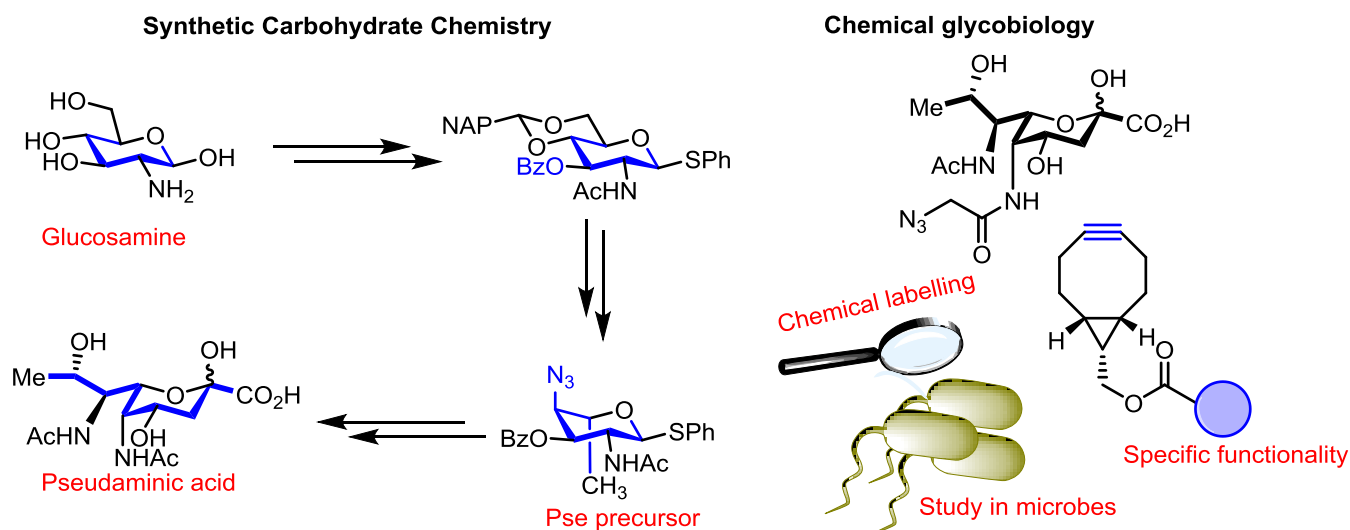
### Introduction

Sialic acids (sias) are nine-carbon  $\alpha$ -ketoacid sugars typically found on the surfaces of glycoconjugates in mammalian cells. The occurrence of sias on the surfaces suggest that sias play a major role in cell-cell interactions and communication, and cellular development. A subclass of sialic acids, microbial sialic acids (MSAs) are found in microbes that are in close contact with humans. The role of sias in microbial tissues (e.g. legionaminic acid (Leg) and pseudaminic acid (Pse)) is at this moment not understood. Moreover, the enzymes associated with these sias are not known.



### Goal

To develop a flexible synthetic route for MSAs pseudaminic acid and to understand the glycobiology of gut-associated MSAs.



### Acknowledgement

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