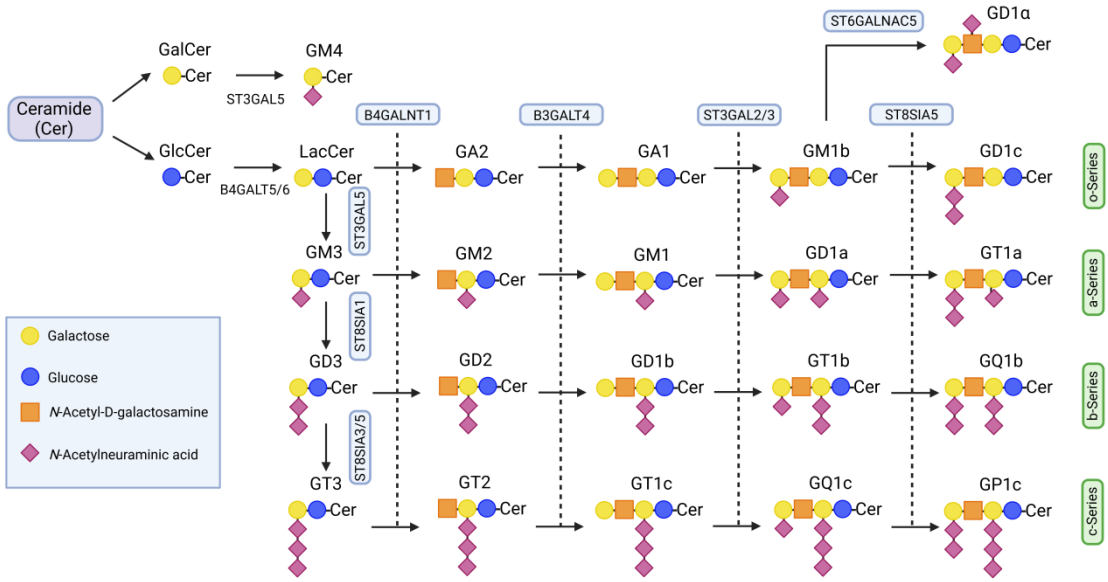

Supplementary Figure S1. Scheme of gangliosides structure and synthetic pathway. These molecules are synthesised from LacCer or GalCer precursors throught the addition of sialic acids catalyzed by different sialyltransferases (STs). Cer, ceramide; Gal, galactose; Glc, glucose; Lac, lactosyl; ST3GAL5, ST3 βgalactoside α-2,3-sialyltransferase 5; B4GAL5/6, β-1,4-Galactosyltransferase 5 and 6; ST8SIA1, ST8 α-N-acetyl-neuraminide α-2,8-sialyltransferase 1; ST8SIA3/5, ST8 α-N-acetyl-neuraminide α-2,8-sialyltransferase 3 and 5; B4GALNT1, β-1,4-N-acetylgalactosaminyltransferase 1; B3GALT4, β-1,3-galactosyltransferase 4; ST3GAL2/3, ST3 βgalactoside α-2,3-sialyltransferase 2 and 3; ST6GALNAC5, α-N-acetylgalactosaminide α-2,6-sialyltransferase 5.