

## Description of Additional Supplementary files

Supplementary Data 1: All MALDI Data.

Description: Two word documents that contain MALDI spectra for characterization of glycoprotein constructs used in Fig. 5 and 6, and a folder that contains this raw MALDI data as 70 separate text files.

Supplementary Data 2: Raw data for Fig.5.

Description: Sixteen excel documents that contain raw and normalized counts for next generation sequencing data used to generate bar charts and heatmap in Fig. 5.

Supplementary Data 3: Raw data for Fig.6.

Description: Seven excel documents that contain raw and normalized counts for next generation sequencing data used to generate bar charts and heatmap in Fig. 6.

Supplementary Data 4: LiGA Dictionaries.

Description: Two excel files, which describe 1 to 1 correspondence between glycan, density and DNA barcodes used in Fig. 5 and 6.

Supplementary Data 5: List of all glycans used in this paper.

Description: Information of all glycans used in this work to build LiGA components.

Supplementary Data 6: Illumina Sequence of Primers.

Description: Sequence of all primers used in this work are provided in one excel file.

Supplementary Data 7: ASGPR (HepG2) Clonal for Supplementary Fig. 57.

Description: Plaque count used to generate data for Supplementary Fig. 57.